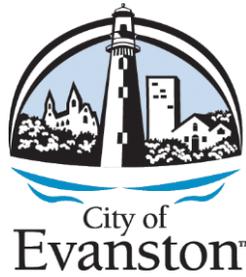


**CITY OF EVANSTON**  
**SPECIFICATIONS AND BID DOCUMENTS**  
**Construction Bid with Sub-Contractors**

**BID NUMBER: 26-06**

**For**

**Cartwright Park and Fitzsimons Park Renovations**  
**February 12, 2026**



**BID DUE DATE:** 2:00 P.M., Tuesday, March 03, 2026

**VIRTUAL BID OPENING:** 2:15 P.M., Tuesday, March 03, 2026  
Google Meet ID: [meet.google.com/erk-vjyw-pza](https://meet.google.com/erk-vjyw-pza)  
Phone Numbers: 617-675-4444  
PIN: 491 020 418 0044#

**BID BOND:** 5% of Contract Amount

**PERFORMANCE/MATERIAL  
& LABOR PAYMENT BOND:** 100% of Contract Amount

**CONTRACT PERIOD:** On-site construction start date: June 1, 2026  
Substantial Completion: October 02, 2026  
Final Completion: October 30, 2026

**ELECTRONIC BID SUBMITTAL:**

Bid responses will only be accepted electronically  
via E-bidding through DemandStar ([WWW.DEMANDSTAR.COM](http://WWW.DEMANDSTAR.COM))  
**It is highly recommended that new DemandStar users complete the account  
setup process prior to project due date/time.**

## TABLE OF CONTENTS

SPECIFICATION SECTION	PAGES NUMBERS
<b>DIVISION 0 – BIDDING REQUIREMENTS</b>	
Notice to Bidders .....	1
Instructions to Bidders/Requirements for Bidding .....	13
General Conditions .....	12
Insurance Requirements .....	1
<b>RETURN ALL EXHIBITS WITH THE BID</b>	
Exhibit A Bid Form.....	10
<b>*Exhibit B RBO Bid Notice and Compliance Certification .....</b>	<b>3</b>
<b>*Exhibit C Local Employment Program Compliance.....</b>	<b>2</b>
<b>*Exhibit D City of Evanston M/W/D/EBE Policy .....</b>	<b>1</b>
Exhibit E M/W/D/EBE Participation Compliance Form .....	2
Exhibit F M/W/D/EBE Participation Waiver Request .....	1
Exhibit G Construction Contractors’ Assistance Organizations .....	1
Exhibit H Certification of Bidder Regarding Equal Employment Opportunity .....	1
Exhibit I Disclosure of Ownership Interests .....	4
Exhibit J Additional Information Sheet.....	1
Exhibit K Certification of Compliance with Prevailing Wage Rate Act .....	1
Exhibit L Major Sub-Contractors Listing .....	1
Exhibit M Conflict of Interest.....	1
Exhibit N Signature Form .....	1
Exhibit O Contractor Services Agreement Acknowledgement .....	1
Exhibit O Contractor Services Agreement .....	23
Exhibit P BID Bond Submittal Label .....	1
<b>DIVISION 1 – General Requirements</b>	
Section 010000 Project Requirements .....	3 pages
Section 010100 Summary of Work .....	3 pages
Section 010270 Applications for Payment .....	3 pages
Section 010450 Cutting and Patching.....	3 pages
Section 010510 Grades Lines and Levels .....	3 pages
Section 010600 Regulatory Requirements .....	3 pages
Section 010950 Reference Standards and Definitions .....	9 pages
Section 011050 Existing Utility Procedures .....	3 pages
Section 012000 Project Meetings .....	3 pages
Section 012100 Allowances .....	2 pages
Section 013000 Submittals .....	9 pages
Section 013562 Erosion and Sedimentation Control .....	4 pages
Section 014000 Quality Control Services .....	5 pages
Section 015000 Temporary Facilities.....	4 pages
Section 015600 Temporary Environmental Controls .....	3 pages
Section 015639 Tree/Shrub Removal and Protection .....	4 pages

Section 015800	Project Construction Sign .....	2 pages
Section 016000	Materials and Equipment .....	4 pages
Section 016300	Substitutions and Product Options .....	3 pages
Section 017000	Project Closeout .....	4 pages
Section 017100	Cleaning .....	3 pages
Section 017200	Project Record Documents .....	2 pages
Section 017300	Operations and Maintenance Data .....	5 pages
Section 017400	Warrantees and Bonds .....	2 pages

**DIVISION 2 – DIVISION 33**

Section 020640	– Contaminated Soil.....	5 Pages
Section 09 9114	– Exterior Re-Painting.....	2 Pages
Section 116813	– Playground Equipment.....	1 Page
Section 129300	– Site Furniture.....	11 pages
Section 220600	– Water Distribution.....	2 pages
Section 260500	– Basic Electrical Requirements.....	17 Pages
Section 260505	– Electrical Demolition.....	2 Pages
Section 260513	– Wire and Cable .....	3 Pages
Section 260526	– Grounding and Bonding.....	4 Pages
Section 260527	– Supporting Devices.....	2 Pages
Section 260533	– Conduit and Boxes.....	10 Pages
Section 262000	– Service Entrance.....	2 Pages
Section 262416	– Panelboards.....	3 Pages
Section 264300	– Surge Protection Devices.....	5 Pages
Section 265119	– LED Lighting.....	4 Pages
Section 312000	– Earthwork.....	3 pages
Section 320117	– Asphalt Crack Repair.....	3 Pages
Section 321216	– Asphalt Paving.....	2 Pages
Section 32 1217	– Asphalt Paving – Sports Courts.....	5 Pages
Section 321313	– Concrete Paving.....	5 Pages
Section 321816	– Safety Surfaces – Engineered Wood Fiber.....	2 Pages
Section 323119	– Ornamental Metal Fences and Gates.....	2 pages
Section 329219	– Seeding.....	6 pages
Section 329300	– Landscaping.....	4 Pages
Section 334100	– Exterior Sewer Facilities.....	5 pages

**ATTACHMENTS**

Drawings .....	48
Geotechnical and Soils Reports .....	94

Ordinance 23-O-25, Responsible Bidder Ordinance.....	20
Prevailing Wages .....	10
DemandStar E-bidding Information .....	2

**\*NOTE: THE SELECTED BIDDER WILL BE SUBJECT TO THE REGULATIONS CONTAINED IN CITY OF EVANSTON ORDINANCE 60-O-14 AMENDMENTS TO THE LOCAL EMPLOYMENT PROGRAM (LEP) AND ORDINANCE 23-O-25 THE RESPONSIBLE BIDDER ORDINANCE**

**CITY OF EVANSTON  
NOTICE TO BIDDERS**

The City's Purchasing Office will receive bids until 2:00 P.M. local time Tuesday, March 03, 2026 and will be publicly read virtually via Google Meets at 2:15 P.M. Interested parties can use the following link: [meet.google.com/erk-vjyw-pza](https://meet.google.com/erk-vjyw-pza) or join by phone 617-675-4444 PIN: 491 020 418 0044# to access the virtual bid opening. Responses will only be accepted electronically via E-bidding through DemandStar ([www.demandstar.com](http://www.demandstar.com)). Although registration is required, vendors can download solicitations and upload responses for free. Bids shall cover the following:

**Cartwright Park and Fitzsimons Park Renovations**  
**Bid Number: 26-06**

Work on this project includes renovations to Cartwright and Fitzsimons Park in Evanston, Illinois. Improvement at Cartwright Park include a children's playground, pavements, drainage, plumbing, electrical, lighting, shade structures, sport courts, site amenities and landscaping. Improvements at Fitzsimons Park include a children's playground, pavements, plumbing, ComEd and Comcast service relocation, shade structures, site amenities and landscaping.

The above item shall conform to the Invitation for Bids on file in the Purchasing Office. Parties interested in submitting a bid should contact the Purchasing Office to receive a copy of the bid or see the City's website at: [www.cityofevanston.org/business/bids-proposals/](http://www.cityofevanston.org/business/bids-proposals/) or DemandStar at: [www.demandstar.com](http://www.demandstar.com).

The City of Evanston (the City) in accordance with the laws of the State of Illinois, hereby notifies all Bidders that it will affirmatively ensure that the contract(s) entered into pursuant to this Notice will be awarded to the successful Bidders without discrimination on the ground of race, color, religion, sex, age, sexual orientation, marital status, disability, familial status or national origin. The State of Illinois requires under Public Works contracts that the general prevailing rate of wages in this locality be paid for each craft or type of worker hereunder. This requirement is in accordance with The Prevailing Wage Act (820 ILCS 130) as amended. The City of Evanston reserves the right to reject any or all submittals or to accept the submittal(s) deemed most advantageous to the City.

The Evanston City Council also reserves the right to award the contract to an Evanston firm if that firm's bid is within 5% of the low bid.

Each Bidder shall be required to submit with their bid a disclosure of ownership interest statement form in accordance with the provisions of City Code Section 1-18-1 *et seq.* Failure to submit such information will result in the disqualification of such bid.

Linda Thomas  
Purchasing Specialist

## INSTRUCTIONS TO BIDDERS/REQUIREMENTS FOR BIDDING (CONTRACTS OVER \$25,000)

### 1. ON-LINE NOTIFICATION OF SOLICITATIONS

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The City is utilizing Demandstar.com ([www.demandstar.com](http://www.demandstar.com)) for on-line notification purposes only for sealed bids when it is anticipated that the amount of the resulting contract will be in excess of its formal bid limit of \$25,000, such as this requirement. Interested Bidders are required to submit a sealed bid to the City by the date/time indicated for this requirement on the forms provided by the City.

### 2. SUBMISSION OF BIDS

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- A. The City of Evanston no longer accepts hard copy paper submittals for any solicitation. Responses will only be accepted electronically via E-bidding through DemandStar ([WWW.DEMANDSTAR.COM](http://WWW.DEMANDSTAR.COM)). Although registration is required, vendors can download solicitations and upload bid responses for free. **Please refer to attached DemandStar E-bidding documents.**
- B. ANY BIDS RECEIVED AFTER THE TIME AND DATE SPECIFIED FOR THE RECEIPT OF BIDS WILL NOT BE ACCEPTED. It is the sole responsibility of the Bidder to ensure that his or her bid is delivered by the stated bid opening time. THE CITY IS NOT RESPONSIBLE FOR INCOMPLETE UPLOADED SUBMITTALS.
- C. Bids will be opened on the date and time stated.
- D. Any Bidder may withdraw his or her bid by letter or with proper identification by personally securing his or her bid at any time prior to the stated bid opening time. No telephone request for withdrawal of bids will be honored.

### 3. PREPARATION OF BIDS

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The Bidder must prepare the bid on the attached bid forms. Unless otherwise stated, all blank spaces on the bid form or pages must be filled in. Either a unit price, lump sum price, or a "no-bid", as the case may be, must be stated for each and every item and must be either typed in or written in ink.

### 4. SIGNING OF BIDS

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- A. Bids which are signed for a partnership should be signed in the firm's name by all partners or in the firm's name by Attorney-in-Fact. If signed by Attorney-in-Fact, there should be attached to the bid a Power of Attorney evidencing authority to sign the bid, dated the same date as the bid and executed by all partners of the firm.
- B. Bids which are signed for a corporation should have the correct corporate name thereon and signature of an authorized officer of the corporation manually written below the corporate name following words "By: \_\_\_\_\_" title of office held by the person signing for corporation, which shall appear below signature of an officer.

- C. Bids which are signed by an individual doing business under a fictitious name should be signed in the name of the individual "doing business as. \_\_\_\_\_."
- D. The name of each person signing the bid shall be typed or printed below his or her signature.

**5. CONSIDERATION OF BIDS**

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The Purchasing Specialist shall represent and act for the City in all matters pertaining to this bid and the contract in conjunction therewith.

**6. WITHDRAWAL OF BIDS**

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Bidders may withdraw or cancel their bids at any time prior to the advertised bid opening time. After the bid opening time, no bid shall be withdrawn or canceled for a period of sixty (60) calendar days. When contract approval is required by another agency, such as the Federal Government or the State of Illinois, no bid shall be withdrawn or canceled for a period of ninety (90) calendar days.

**7. ERRORS IN BIDS**

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Bidders are cautioned to verify their bids before submission. Negligence on the part of the respondent in preparing the bid confers no right for withdrawal or modification of the bid after it has been opened. In case of error in the extension of prices in the bid, unit prices will govern.

**8. ADDENDA**

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- A. Any and all changes to the specifications/plans are valid only if they are included by written addendum to all Bidders. Each Bidder must acknowledge receipt of any addenda by indicating on the Bid form. Each Bidder, by acknowledging receipt of any addenda, is responsible for the contents of the addenda and any changes to the bid therein. Failure to acknowledge any addenda may cause the bid to be rejected.
- B. Addenda information is available over the internet at: [City of Evanston Notices to Bidders](#) or [www.demandstar.com](http://www.demandstar.com), or by contacting the Purchasing Office.

**9. RESERVED RIGHTS**

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The City of Evanston reserves the right at any time and for any reason to cancel his or her solicitation, to accept or reject any or all bids or any portion thereof, or to accept an alternate response. The City reserves the right to waive any immaterial defect in any response. The City may seek clarification from any respondent at any time, and failure to respond within a reasonable time period, or as otherwise directed, will be cause for rejection.

**10. AWARD**

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It is the intent of the City to award a contract to the lowest responsible Bidder meeting specifications. The City reserves the right to determine the lowest responsible Bidder on the basis of an individual item, groups of items, or in any

way determined to be in the best interest of the City. Award will be based on the following factors (where applicable): (a) adherence to all conditions and requirements of the bid specifications; (b) price; (c) qualifications of the Bidder, including past performance, financial responsibility, general reputation, experience, service capabilities, and facilities; (d) delivery or completion date; (e) product appearance, workmanship, finish, taste, feel, overall quality, and results of product testing; (f) maintenance costs and warranty provisions; and (g) repurchase or residual value.

#### **11. INTERPRETATION OR CORRECTION OF BIDDING DOCUMENTS**

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Bidder's shall promptly notify the City of any ambiguity, inconsistency, or error that they discover upon examination of the bidding documents. Interpretations, corrections, and changes will be made by addendum. Each Bidder shall ascertain prior to submitting a bid that all addenda have been received and are acknowledged in the bid.

#### **12. INCONSISTENCIES AND OMISSIONS**

---

These specifications and the accompanying plans, if any, are intended to include all information necessary for the work contemplated. If, by inadvertence or otherwise, the plans or specifications omit some information necessary for that purpose, the contractor shall, nevertheless, be required to perform such work at no additional cost to the City so that the project may be completed according to the true intent and purpose of the plans and specifications.

#### **13. CONDITIONS**

---

Bidders are advised to become familiar with all conditions, instructions, and specifications governing his or her bid. Once the award has been made, failure to have read all the conditions, instructions and specifications of this contract shall not permit the Bidder to amend contract or to request additional compensation.

#### **14. VERIFICATIONS OF DATA**

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- A. It is understood and agreed that the unit quantities given in these specifications are approximate only, and the contractor shall verify these quantities before bidding as no claim shall be made against the City on, or account of, any excess or deficiency in the same.
- B. The contractor shall have visited the premises and determined for itself, by actual observation, boring, test holes, or other means, the nature of all soil and water conditions (both above and below ground in the line of work) that may be encountered in all construction work under this contract. The cost of all such inspection, borings, etc. shall be borne by the contractor, and no allowance will be made for the failure of the contractor to estimate correctly the difficulties attending the execution of the work.

#### **15. SPECIFICATIONS**

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Reference to brand names and numbers is meant to be descriptive, not restrictive, unless otherwise specified. Bids on equivalent items will be considered, provided

the Bidder clearly states exactly what is proposed to be furnished, including complete specifications. Unless the Bidder specifies otherwise, it is understood the Bidder is offering a referenced brand item as specified or is bidding as specified when no brand is referenced, and does not propose to furnish an "equal." The City reserves the right to determine whether a substitute offer is equivalent to, and meets the standard of quality indicated by the brand name and number.

#### **16. SAMPLES**

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When samples of items are called for by the specifications, samples must be furnished free of expense, and if not destroyed in the evaluation process will be returned at the Bidder's expense upon request. Request for the return of samples must accompany the sample and must include a UPS/Fed-Ex Pickup Slip, postage, or other acceptable mode of return. Individual samples must be labeled with Bidder's name, invitation number, item reference, manufacturer's brand name and number.

#### **17. REGULATORY COMPLIANCE**

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Each Bidder represents and warrants that the goods or services furnished hereunder (including all labels, packages and containers for said goods) comply with all applicable standards, rules and regulations in effect under the requirements of all Federal, State, and local laws, rules and regulations as applicable, including the Occupational Safety and Health Act as amended, with respect to design, construction, manufacture, or use for their intended purpose of said goods or services. Each Bidder must furnish a "Material Safety Data Sheet" in compliance with the Illinois Toxic Substances Disclosure to Employees Act when required.

#### **18. PRICING**

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The price quoted for each item is the full purchase price, including delivery to destination, and includes all transportation and handling charges, materials or service costs, patent royalties, and all other overhead charges of every kind and nature. Unless otherwise specified, prices shall remain firm for the contract period.

#### **19. DISCOUNTS**

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Prices quoted must be net after deducting all trade and quantity discounts. Where cash discounts for prompt payment are offered, the discount period shall begin with the date of receipt of a correct invoice or receipt or final acceptance of goods, whichever is later.

#### **20. INSPECTION**

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Materials or equipment purchased are subject to inspection and approval at the City's destination. The City reserves the right to reject and refuse acceptance of items which are not in accordance with the instructions, specifications, drawings or data of Seller's warranty (express or implied). Rejected materials or equipment shall be removed by, or at the expense of, the Seller promptly after rejection.

## **21. BIDS AND PLAN DEPOSITS**

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- A. When required on the cover sheet, all bids shall be accompanied by a bid deposit in the amount specified. Bid deposits shall be in the form of cash, a certified check, or cashier's check drawn on a responsible bank doing business in the United States and shall be made payable to the City of Evanston. Bid Bonds are also acceptable. All bids not accompanied by a bid deposit, when required, will be rejected.
- B. The City will return the bid deposits of all but the 3 lowest qualified Bidders, whose deposit will be held until contract award or at the expiration of the sixty-day or ninety-day period for bid award.
- C. The bid deposit of the successful Bidder will be retained until contract documents have been executed and the Contractor has submitted all the required information. Failure to comply with the terms of this specification may be cause for forfeiture of said deposit.
- D. When required, plan deposits will be refunded should the plans be returned in good condition within 10 days of the bid opening.

## **22. DISPUTES**

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Any dispute concerning a question of fact arising under this bid shall be decided by the Purchasing Specialist, who shall issue a written decision to the Bidder. The decision of the Purchasing Specialist shall be final and binding.

## **23. CATALOGS**

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Each Bidder shall submit, when requested by the Purchasing Specialist, catalogs, descriptive literature, and detailed drawings, fully detailing features, designs, construction, appointments, finishes and the like not covered in the specifications, necessary to fully describe the material or work proposed to be furnished.

## **24. TAXES**

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- A. Federal Excise Tax does not apply to materials purchased by the City of Evanston by virtue of Exemption Certificate No. A-208762, Illinois Retailers' Occupation Tax, Use Tax, and Municipal Retailers' Occupation Tax do not apply to materials or services purchased by the City of Evanston by virtue of Statute.
- B. The City of Evanston is exempt from Illinois Sales Tax by virtue of Exemption Identification number E9998-1750.
- C. The City's federal tax ID number is 36-6005870.

## **25. PERMITS & FEES**

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All Bidders awarded a contract must secure and pay for any licenses required by the City of Evanston. Necessary building permits will be required, but all permit fees will be waived and moneys for same must not be included in any bid.

## **26. ROYALTIES & PATENTS**

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Seller must pay all royalties and license fees. Seller must defend all suits or claims

for infringement of any patent, copyright or trademark rights, and must hold the City harmless from loss on account thereof.

## **27. LOCAL PREFERENCE POLICY**

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The Evanston City Council reserves the right to award the contract to an Evanston firm if the firm's bid is within five (5%) percent of the low bid of a non-Evanston firm.

## **28. RESPONSIBLE BIDDER POLICY**

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All contractors must follow the requirements of Ordinance 23-O-25, the City's Responsible Bidder Ordinance. Ordinance 23-O-25 is attached hereto for reference. The following items are required of all contractors:

- **Local Employment Program (LEP):** Contractors must ensure that at least 15% of total on-site work hours are performed by Evanston residents and that at least one Evanston resident is hired. These obligations apply across all tiers of subcontractors and must be documented.
- **Apprenticeship Training Program:** Bidders shall submit evidence of enrollment in a U.S. Department of Labor registered Apprenticeship Training Program for each construction craft performed. These programs must have graduated at least five apprentices in each of the last five years.
- **Minimum Performance Threshold:** Named bidder must directly perform at least 25% of project services. Affiliates or subsidiaries do not count toward this percentage.
- **Commercially Useful Function:** All contractors and subcontractors must actively manage and perform contract work. Excessive subcontracting or pass-through participation may result in disqualification.
- **Subcontractor Disclosure:** Submit the name, address, and documentation for all subcontractors with bid. Each subcontractor must comply with all requirements set forth in this template.

## **29. POWER OF ATTORNEY**

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An Attorney-In-Fact, who signs any and all of the bond or contract bonds submitted with this bid, must file with each bond a certified and effectively dated copy of their Power of Attorney. These dates should be the same or after the date of the contract.

## **30. WARRANTY**

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- A. The contractor warrants that all goods and services furnished to the City shall be in accordance with specifications and free from any defects of workmanship and materials: that goods furnished to the City shall be merchantable and fit for the City's described purposes, and that no governmental law, regulation, order, or rule has been violated in the manufacture or sale of such goods.

- B. The contractor warrants all equipment furnished to be in acceptable condition, and to operate satisfactorily for a period of one (1) year from delivery of, or the completion of installation, whichever is latest, unless stated otherwise in the specifications, and that if a defect in workmanship and/or quality of materials are evidenced in this period, the Seller shall remit full credit, replace, or repair at City's discretion immediately, such equipment and/or parts that are defective at no additional cost to the City.
- C. The contractor warrants to the City that each item furnished hereunder, and any component part thereof, will be new and in conformity with the specifications in all respects, unless otherwise specified, and is of the best quality of its respective kind, free from faulty workmanship, materials, or design, and installed sufficiently to fulfill any operating conditions specified by the City.
- D. The contractor shall repair or replace any item or component part thereof found not to be in conformity with this paragraph provided the City notified the Seller of such nonconformity within one (1) year after initial use or within eighteen (18) months after delivery, whichever occurs first. In the event Seller fails to proceed diligently to so replace or repair within a reasonable time after receipt of such notice, the City may undertake or complete such replacement or repair for Seller's account, and the seller will be responsible for any additional costs. Acceptance shall not relieve the seller of its responsibility.

**31. INCURRED COSTS**

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The City will not be liable for any costs incurred by Bidders in replying to this invitation for bids.

**32. VARIANCES**

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Each Bidder must state or list by reference any variations to specifications, terms and/or conditions set forth herein with its bid.

**33. INDEMNIFICATION**

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- A. The awarded Bidder/Contractor shall defend, indemnify and hold harmless the City and its officers, elected and appointed officials, agents, and employees from any and all liability, losses, or damages as a result of claims, demands, suits, actions, or proceedings of any kind or nature, including but not limited to costs, and fees, including attorney's fees, judgments or settlements, resulting from or arising out of any negligent or willful act or omission on the part of the Contractor or Contractor's sub-contractors, employees, agents or sub-contractors during the performance of this Agreement. Such indemnification shall not be limited by reason of the enumeration of any insurance coverage herein provided. This provision shall survive completion, expiration, or termination of this Agreement.
- B. Nothing contained herein shall be construed as prohibiting the City, or its officers, agents, or employees, from defending through the selection and use of their own agents, attorneys, and experts, any claims, actions or suits brought against them.

The Contractor shall be liable for the reasonable costs, fees, and expenses incurred in the defense of any such claims, actions, or suits. Nothing herein shall be construed as a limitation or waiver of defenses available to the City and employees and agents, including but not limited to the Illinois Local Governmental and Governmental Employees Tort Immunity Act, 745 ILCS 10/1-101 *et seq.*

- C. At the City Corporation Counsel's option, Contractor must defend all suits brought upon all such Losses and must pay all costs and expenses incidental to them, but the City has the right, at its option, to participate, at its own cost, in the defense of any suit, without relieving Contractor of any of its obligations under this Agreement. Any settlement of any claim or suit related to this Project by Contractor must be made only with the prior written consent of the City Corporation Counsel, if the settlement requires any action on the part of the City.
- D. To the extent permissible by law, Contractor waives any limits to the amount of its obligations to indemnify, defend, or contribute to any sums due under any Losses, including any claim by any employee of Contractor that may be subject to the Illinois Compensation Act, 820 ILCS 305/1 *et seq.* or any other related law or judicial decision, including but not limited to, *Kotecki v. Cyclops Welding Corporation*, 146 Ill. 2d 155 (1991). The City, however, does not waive any limitations it may have on its liability under the Illinois Workers Compensation Act, the Illinois Pension Code or any other statute.
- E. The Contractor shall be responsible for any losses and costs to repair or remedy work performed under this Agreement resulting from or arising out of any act or omission, neglect, or misconduct in the performance of its Work or its sub-contractors' work. Acceptance of the work by the City will not relieve the Contractor of the responsibility for subsequent correction of any such error, omissions and/or negligent acts or of its liability for loss or damage resulting therefrom.
- F. All provisions of this Section 32 shall survive completion, expiration, or termination of this Agreement.

#### **34. DEFAULT**

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Time is of the essence as to the awarded contract and, of delivery or acceptable items or rendering of services is not completed by the time promised, the City reserves the right, without liability, in addition to its other rights and remedies, to terminate the contract by notice effective when received by Seller, as to stated items not yet shipped or services not yet rendered and to purchase substitute items or services elsewhere and charge the Seller with all losses incurred. The City shall be entitled to recover its attorney's fees and expenses in any successful action by the City to enforce this contract.

#### **35. GOVERNING LAW**

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This contract shall be governed by and construed according to the laws of the

State of Illinois. In the event of litigation, the venue will be Cook County, Illinois.

**36. EQUAL EMPLOYMENT OPPORTUNITY**

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- A. In the event of the contractor's noncompliance with any provision of the Illinois Human Rights Act or Section 1-12-5 of the Evanston City Code, the contractor may be declared non-responsible and therefore ineligible for future contracts or sub-contracts with the City of Evanston, and the contract may be canceled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by Statute or regulation.
- B. During the performance of this contract, the contractor agrees as follows:
1. That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, national origin or ancestry, or age or physical or mental handicap that does not impair ability to work, and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization. Contractor shall comply with all requirements of City of Evanston Code Section 1-12-5.
  2. That, in all solicitations or advertisements for employees placed by it or on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, national origin or ancestry.
  3. That, if it hires additional employees in order to perform this contract, or any portion hereof, it will determine that availability (in accordance with the Fair Employment Commission's Rules and Regulations for Public Contracts) of minorities and women in the area(s) from which it may reasonably recruit and it will hire for each job classification for which employees are hired in such a way that minorities and women are not underutilized.
  4. That it will send to each labor organization or representative of workers with which it has or is bound by a collective bargaining or other agreement or understanding, a notice advising such labor organization or representative of the contractor's obligations under the Illinois Fair Employment Practices Act and the Fair Employment Practices Commission's Rules and Regulations for Public Contracts. If any such labor organization or representative fails or refuses to cooperate with the contractor in its efforts to comply with such Act and Rules and Regulations, the contractor will promptly so notify the Illinois Fair Employment Practices Commission and the contracting agency and will recruit employees from other sources when necessary to fulfill its obligations hereunder.
  5. That it will submit reports as required by the Illinois Fair Employment Practices Commission's Rules and Regulations for Public Contracts, furnish all relevant information as may from time to time be requested by the Fair Employment

Practices Commission or the contracting agency, and in all respects comply with the Illinois Fair Employment Practices Commission's Rules and regulations for Public Contracts.

6. That it will permit access to all relevant books, records, accounts and work sites by personnel of the contracting agency, the City Manager, the Commission and the Illinois Fair Employment Practices Commission for purposes of investigation to ascertain compliance with the Illinois Fair Employment Practices Act and the Fair Employment Practices Act and the Fair Employment Practices Commission's Rules and Regulations for Public Contract.
7. That it will include verbatim or by reference the provisions of subsections (A) through (G) of this clause in every performance sub-contract as defined in Section 2.10(b) of the Fair Employment Practices Commission's Rules and Regulations for Public Contracts so that such provisions will be binding upon every such sub-contractor; and that it will also include the provisions of subsections (A), (E), (F), and (G) in every supply sub-contract as defined in Section 2.10(a) of the Fair Employment Practices Commission's Rules and Regulations for Public Contracts so that such provisions will be binding upon every such sub-contractor. In the same manner as with other provisions of this contract, the contractor will be liable for compliance with applicable provisions of this clause by all its sub-contractors; and further it will promptly notify the contracting agency and the Illinois Fair Employment Practices Commission in the event any sub-contractor fails or refuses to comply therewith. In addition, no contractor will utilize any sub-contractor declared by the Fair Employment Practices Commission to be non-responsible and therefore ineligible for contracts or sub-contracts with the State of Illinois or any of its political subdivisions or municipal corporations.

### **37. M/W/D/EBE GOAL**

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The City of Evanston has a goal of awarding 25% of its contracts to Minority-Owned, Women-Owned, Disadvantaged Enterprise and Evanston-based businesses (M/W/D/EBEs). All Bidders must state the proposed involvement of M/W/D/EBEs in completing a portion of the services required by the City by completing the attached M/W/D/EBE forms. Any questions regarding M/W/D/EBE compliance should be submitted in writing to Tammi Nunez, Purchasing Manager at [tnunez@cityofevanston.org](mailto:tnunez@cityofevanston.org).

### **38. LOCAL EMPLOYMENT PROGRAM REQUIREMENTS**

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In an effort to increase hiring of economically disadvantaged Evanston residents on certain City construction projects, the contractor shall comply with the provisions of the City of Evanston's Local Employment Program Ordinance (LEP) set forth in Section 1-17-1 (C) of the Evanston City Code. The intent of the LEP is to have Evanston residents employed at the construction site as laborers, apprentices and journeymen in such trades as electrical, HVAC, carpenters, masonry, concrete finishers, truck drivers and other construction occupations

necessary for the project. Any questions regarding LEP compliance should be submitted in writing to Jessica Cooper, the Workforce Development Coordinator at [jcooper@cityofevanston.org](mailto:jcooper@cityofevanston.org) or Tammi Nunez Purchasing Manager at [tnunez@cityofevanston.org](mailto:tnunez@cityofevanston.org).

**NOTE: CITY OF EVANSTON ORDINANCE 60-O-14 AMENDMENT LOCAL EMPLOYMENT PROGRAM (LEP) available on the city website at: [Ordinance 60-O-14 Amendment LEP](#)**

**39. BIDDER SUBMITAL REQUIRMENTS FOR RESPONSIBLE BIDDER ORDINANCE**

<b>Documentation or Certification</b>	<b>Description</b>
OSHA Certification	10-hour or greater OSHA safety card copies for all employees on-site
Prevailing Wage Compliance	Statement confirming 5-year compliance with the Illinois Prevailing Wage Act
Substance Abuse Program	Copy of written program per 820 ILCS 265/1
Workers' Compensation Policy	Active policy and classification documentation
UI Act Registration	IDES current registration
Corporate Status	Illinois Secretary of State Business Services record
Tax and Legal Disclosures	List of liens, judgments, or violations from the last 5 years
Business Licenses	Copies of all relevant licenses with current status
Statement of Similar Projects	Last 5 years' public works projects with references
Performance History	Public body contracts completed in the last 3 years
Subcontractor Information	Full documentation for each subcontractor
Sam.gov ID Number	ID Number to be used on projects with State or Federal Funding

If applicable, compliance documentation under:

- Davis-Bacon and Related Acts
- Employee Certification Act
- 720 ILCS 5/33-11 Anti-Bid Rigging Certification

Additional contractor responsibilities include:

- Submission of certified payrolls within five (5) working days of each pay period end
- Identification of all employees by name, address, craft, status, and hire date
- Documentation that all employees are properly classified and licensed

- Notification within two (2) business days of any resident employee resignations or terminations
- Replacement of Evanston resident employees within five (5) business days to avoid penalties
- Provision of required documentation prior to any subcontractor commencing work

Failure to meet these requirements may result in penalties of up to 1% of the approved project price, and may jeopardize future eligibility for City contracts.

40. **PROJECT LABOR AGREEMENT NOTICE (if required)**

**A Project Labor Agreement (PLA) may be required. If so, all successful bidders must become signatories to the PLA for the duration of the project. There is no requirement to affiliate with a union, and non-union bidders are fully eligible.**

41. **QUESTIONS**

All questions related to this bid document should be submitted in writing to Linda Thomas, Purchasing Specialist at [lithomas@cityofevanston.org](mailto:lithomas@cityofevanston.org) with a copy to Stefanie Levine, Senior Project Manager, at [slevine@cityofevanston.org](mailto:slevine@cityofevanston.org). Only inquiries received a minimum of seven (7) working days prior to the date set for the opening of bids, will be given any consideration.

42. **COORDINATION OF EXISTING SITE WITH DRAWINGS**

- Before submitting a bid, bidders shall carefully examine the drawings and specifications, visit the site, and fully inform themselves as to all conditions and limitations.
- Should a bidder find discrepancies in, or omissions from the drawings or specifications, or should be in doubt as to their meaning, the bidder should at once notify the Purchasing Specialist, who will issue necessary instructions to all bidders in the form of an addendum.

43. **AFFIRMATIVE ACTION IN SUB-CONTRACTING (EXCERPT FROM RESOLUTION 59-R-73)**

“Contractor agrees that he shall actively solicit bids for the sub-contracting of goods or services from qualified minority businesses. At the request of the City, Contractor shall furnish evidence of his compliance with this requirement of minority solicitation.

Contractor further agrees to consider the grant of sub-contracts to said minority bidders on the basis of substantially equal bids in the light most favorable to said minority businesses. Contractor further affirms that in obtaining his performance and bid bonds, he will seek out and use companies who have records of, and/or who will make commitments to, the bonding of minority contractors on a rate basis comparable to their bonding of similar non-minority contractors. The contractor may be required to submit this evidence as part of the bid or subsequent to it.”

#### **44. COMPLIANCE WITH LAWS**

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- A. The bidder shall at all times observe and comply with all laws, ordinances and regulations of the Federal, State, Local and City Governments, which may in any manner affect the preparation of bids or the performance of the contract.

#### **45. QUALIFICATION OF BIDDERS**

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- A. All bidders must be qualified in accordance with the instructions, procedures and methods set forth in this specification.
  
- B. In awarding contract, City may take into consideration, skill, facilities, capacity, experience, ability, responsibility, previous work, financial standing of bidder, amount of work being carried on by bidder, quality and efficiency of construction equipment proposed to be furnished, period of time within which proposed equipment is furnished and delivered, necessity of prompt and efficient completion of work herein described. Inability of any bidder to meet requirements mentioned above may be cause for rejection of the bid. In addition, if the project covered by this contract is a minority set-aside project, the contractor's qualifications as a minority firm will determine the eligibility of the contractor to bid.

#### **46. COMPETENCY OF BIDDER**

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- A. No bid will be accepted from or contract awarded to any person, firm or corporation that is in arrears or is in default to the City of Evanston upon any debt or contract, or that is a defaulter, as surety or otherwise, upon any obligation to said City, or had failed to perform faithfully any previous contract with the City.
  
- B. The bidder, if requested, must present within forty eight (48) hours evidence satisfactory to the Purchasing Manager of performance ability and possession of necessary facilities, pecuniary resources and adequate insurance to comply with the terms of these specifications and contract documents.

#### **47. PREFERENCE TO CITIZENS**

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The Contractor shall abide by the Illinois Preference Act, 30 ILCS 570 et seq., which stipulates that whenever there is a period of excessive unemployment in Illinois, defined as any month immediately following two (2) consecutive months during which the level of unemployment in Illinois exceeds five percent (5%) as measured by the U.S. Bureau of Labor Statistics in its monthly publication of employment and unemployment figures, the Contractor shall employ only Illinois laborers unless otherwise exempted as so stated in the Act. ("Illinois laborer" means any person who has resided in Illinois for at least 30 days and intends to become or remain an Illinois resident) Other laborers may be used IF Illinois laborers are not available or are incapable of performing the particular type of work involved if so certified by the Contractor and approved by the project engineer.

## **GENERAL CONDITIONS**

### **1. BASIS OF AWARD**

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The City of Evanston reserves the right to award a contract to a responsive and responsible Bidder(s) who submits the lowest total bid, or to reject any or all bids and bidding, when in its opinion the best interest of the City will be served by such action. The City reserves the right to consider the specified alternates in its evaluation of the bids.

### **2. BIDS**

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#### **A. LUMP SUM BID**

1. The bidder is to submit a lump sum bid for each bid line on the Bid Form which includes all costs incidental to performing the specified work. It is understood and agreed that the unit quantities given in the supporting pages are approximate only and the bidder shall verify these quantities before bidding as no claim shall be made against the City on account of any excess or deficiency in the same.

2. Unit prices given in the supporting pages shall be used by the City and the Contractor for any subsequent changes in the contract.

### **3. QUANTITIES**

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Any quantities shown on the Bid Form are estimated only for bid canvassing purposes, the City has made a good faith effort to estimate the quantity requirements for the Contract term. The City reserves the right to increase or decrease quantities ordered under this contract.

### **4. CONTRACT TERM**

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Bidder must fully complete the work within the period specified herein after award of the contract by the City.

### **5. NOTICE TO PROCEED/ PURCHASE ORDER/ CONTRACT**

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A. The City issued Purchase Order serves as the City official Notice to Proceed. No work will be allowed prior to Contractor receipt of the City issued Purchase Order.

B. Upon approval of the required bonds and insurance documents, the City will issue a Purchase Order to the Contractor for the contract amount. All Applications for Payment must reference the Purchase Order number.

C. When it is necessary to issue a Change Order that increases/decreases the contract amount, a Change Order form will be issued and a modified Purchase Order will be issued reflecting the revised contract amount.

D. When it is necessary to issue a Change Order that only increases/decreases the contract period, only a Change Order form will be issued establishing the revised

contract period.

- E. Upon Award the contractor shall execute the Contractor Services Agreement.

## **6. PAYMENT**

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- A. Progress payments will be made in accordance with “Applications for Payment” and “Project Closeout” sections of the specifications, less a 10% retainage for each payment, which will be held until final acceptance of the work by the City. Certification of each Application for Payment will be made by the City’s representative.
- B. All payments will be made in accordance with *Illinois Local Government Prompt Payment Act*.

## **7. DECISIONS TO WITHHOLD CERTIFICATION FOR PAYMENT**

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- A. The City may not certify payment and may withhold payment in whole or in part, to the extent reasonably necessary to protect the City, if the quality of the work is not in accordance with the contract documents. If the City is unable to certify payment in the amount of the invoice, the City will promptly issue payment for the amount of the Work completed in accordance with the contract documents. The City may not certify payment due to any contractor negligence or contract non-compliance.
  - a. Defective work not remedied
  - b. Third party claims filed or reasonable evidence indicating probable filing of such claims
  - c. Failure of Contractor to make payments properly to Sub-contractors for labor, materials or equipment
  - d. Reasonable evidence that the work cannot be completed for the unpaid balance of the Contract Sum
  - e. Damage to the City or another contractor
  - f. Reasonable evidence that the work will not be completed within the Contract period and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay
  - g. Persistent failure to carry out work in accordance with the Contract Documents.

## **8. CHANGES IN WORK**

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- A. The City reserves the right to make changes in the plans and specifications by altering, adding to, or deducting from the work, without invalidating the contract. All such changes shall be executed under the conditions of the original contract, except that any claim for extension of time caused thereby shall be adjusted at the time of ordering such change.
- B. No change shall be made unless a written Change Order and/or modified Purchase Order is issued by the City stating that the City has authorized the change, and no claim for an addition to the contract shall be valid unless so ordered.
- C. If such changes diminish the quantity of work to be done they shall not constitute a

claim for damage or anticipated profits on the work, such increase shall be paid in one or more of the following ways:

1. by estimate and acceptance in lump sum
  2. by unit prices named in the contract's bid form or subsequently agreed upon
- D. Whenever the quantity of any pay item as given in the proposal shall be increased or decreased, payment shall be made on the basis of the actual quantity completed at the unit price for such pay item named in the proposal.

#### **9. DEDUCTION FOR UNCORRECTED WORK**

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If the City deems it expedient to correct work damaged or not done in accordance with the contract, the difference in value, together with a fair allowance for damage shall be deducted from the contract amount due. The value of such deduction shall be determined by the City.

#### **10. CITY'S RIGHT TO TERMINATE CONTRACT**

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The City reserves the right, in addition to other rights to termination, to terminate the contracts in accordance with all provisions of the executed contract.

#### **11. LIENS**

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- A. Neither the final payment nor any part of any retained percentages, shall become due until the contractor, if required, delivers to the City, a complete release of all liens arising out of this contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as it has knowledge or information the releases and receipts include all the labor and material for which a lien could be filed. If any lien remains unsatisfied after all payments are made the contractor shall refund to the City all moneys that the latter may be compelled to pay in discharging such a lien, including all costs and attorney's fees.

#### **12. SEPARATE CONTRACTS**

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- A. The City reserves the right to let other contracts in connection with this work. The contractor shall afford other contractors' reasonable opportunity for the introduction and storage of their materials and the execution of their work and shall properly connect and coordinate his or her work with theirs. If any part of the contractor's work depends on proper execution or results upon the work of any other contractor, the contractor shall inspect and promptly report to the City any defects in such work that render it unsuitable for such proper execution and results. His or her failure to so inspect and report shall constitute an acceptance of other contractor's work as fit and proper.
- B. To insure the proper execution of his or her subsequent work, the contractor shall measure work already in place and shall at once report to the City any discrepancy between the executed work and the drawings which will affect his or her work.

### **13. PROTECTION & SAFEGUARDS**

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- A. Unless otherwise specified, the contractor, as a part of this contract, shall provide, erect, and maintain temporary roads, fences, bracing, lights, warning signs, barricades, etc. necessary for the protection of the construction materials, adjacent property and the public.
- B. The contractor shall contact all utilities which will be affected by its operations and notify the owners of the utilities of its operations and their limits within forty-eight (48) hours prior to beginning construction. The contractor shall be responsible for damage to utilities and shall, at his or her own expense, restore such property to a condition equal to that which existed before its work, as may be directed by the owners.
- C. The contractor shall protect all work and unused materials of this contract from any and all damage and shall be solely responsible for the condition of such work and materials.

### **14. MATERIAL STORAGE**

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- A. On-site areas may be designated for material/equipment storage. The contractor will assume all risk and liability associated with the storage of material/equipment at on-site locations.

### **15. CLEANING UP**

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- A. The contractor shall at all time keep the premises free from accumulation of waste material or rubbish caused by its employees or work and at the completion of the work it shall remove all its rubbish, tools, and surplus materials from the premises, leaving the area in a neat and workmanlike condition. In case of dispute, the City may remove the rubbish and charge the cost to the contractor.
- B. Contractor recognizes that proper cleanup and removal of construction debris is an important safety consideration. The Contractor shall be solely responsible for daily construction site/area cleanup and removal of all construction debris in accordance with City-approved disposal practices. Contractor shall be solely responsible for identifying and removing at its expense all hazardous material and waste which it uses and generates.

### **16. RESTORATION OF SITE**

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- A. Prior to final payment, contractor shall fully restore all property disturbed or damaged during the course of this work. This includes, but is not limited to public property, (walks, curbs, roadways, trees, etc.) private property, and utilities. This shall also include removal of temporary facilities erected during the course of this contract and restoration of these areas.
- B. All restoration work shall be subject to the approval of the City and shall restore the property to a condition at least equal to that existing prior to the start of this contract.

- C. All restoration work of property damaged by contractor shall be accomplished at the sole expense of the contractor.

## **17. PREVAILING WAGE**

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- A. Prospective Bidders shall thoroughly familiarize themselves with the provisions of the above-mentioned Act and shall prepare any and all bids/bids in strict compliance therewith.

- B. **Effective September 1st - All work performed on new and existing projects must be submitted to Illinois Department of Labor through the certified transcript of payroll portal.** You may access the portal here:

[Certified Transcript of Payroll Portal](#)

All contractors and sub-contractors on public works projects ***must submit and upload certified payrolls*** on a monthly basis to the IDOL online portal, provide a pdf copy to the City's project manager and business work force development coordinator, 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 the contractor is aware that filing records her or she knows to be false is a Class B misdemeanor.

- C. The certified payroll record must include for every worker employed on the public works 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. These certified payroll records are considered public records and public bodies must make these records available to the public under the Freedom of Information Act, with the exception of the employee's address, telephone number and social security number. Any contractor who fails to submit a certified payroll or knowingly files a false certified payroll is guilty of a Class B misdemeanor.
- D. All certified payrolls shall be submitted in electronic format, preferably a PDF file.
- E. As a condition of receiving payment, Contractor must (i) be in compliance with the Agreement, (ii) pay its employees prevailing wages when required by law (Examples of prevailing wage categories include public works, printing, janitorial, window washing, building and grounds services, site technician services, natural resource services, security guard and food services). Contractor is responsible for contacting the Illinois Dept. of Labor 217-782-1710; <https://www2.illinois.gov/idol/Laws-Rules/CONMED/Pages/prevailing-wage-act.aspx> compliance with prevailing wage requirements), (iii) pay its suppliers and sub-contractors according to the terms of their respective contracts, and (iv) provide lien waivers to the City upon request.

## **18. CONTRACTOR REQUIREMENTS**

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- A. The Contractor shall abide by and comply with all local, State and federal laws and regulations relating to contracts involving public funds and the

development/construction of public works, buildings, or facilities. The scale of wages to be paid shall be obtained from Illinois Department of Labor and posted by the Contractor in a prominent and accessible place at the project work site.

- B. The Contractor certifies it has not been barred from being awarded a contract with a unit of State or local government as a result of bid rigging or bid rotating or any similar offense (720 ILCS 5/33 E-3, E-4).
- C. The Contractor certifies, pursuant to the Illinois Human Rights Act (775 ILCS 5/2-105), that it has a written sexual harassment policy that includes, at a minimum, the following information: (1) the illegality of sexual harassment, (2) the definition of sexual harassment under State law, (3) a description of sexual harassment utilizing examples, (4) the Contractor's internal complaint process including penalties, (5) legal recourse, investigation and complaint process available through the Illinois Department of Human Rights and the Human Rights Commission and directions on how to contact both; and (6) protection against retaliation as provided by Section 6-101 of the Illinois Human Rights Act.
- D. The Contractor shall abide by the "Illinois Preference Act" which stipulates that whenever there is a period of excessive unemployment in Illinois, defined as any month immediately following two (2) consecutive months during which the level of unemployment in Illinois exceeds five percent (5%) as measured by the U.S. Bureau of Labor Statistics in its monthly publication of employment and unemployment figures, the Contractor shall employ only Illinois laborers unless otherwise exempted as so stated in the Act. ("Illinois laborer" means any person who has resided in Illinois for at least 30 days and intends to become or remain an Illinois resident) Other laborers may be used IF Illinois laborers are not available or are incapable of performing the particular type of work involved if so certified by the Contractor and approved by the project engineer.

## **19. SUB-CONTRACTORS**

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- A. The term "sub-contract" means any agreement, arrangement or understanding, written or otherwise between a Contractor and any person (in which the parties do not stand in the relationship of an employer or an employee) for the furnishing of supplies or services or for the use of real or personal property, including lease arrangements, which, in whole or in part, is utilized in the performance of any one or more Contracts under which any portion of the Contractor's obligation under any one or more Contracts is performed, undertaken or assumed.
- B. The Bidder is specifically advised that any person, firm or party, to whom it is proposed to award a sub-contract under this contract must be acceptable to the City. Approval for the proposed sub-contract Award cannot be given by the City until the proposed Sub-contractor has submitted evidence showing that it has fully complied with any reporting requirements to which it is, or was, subject.
- C. The contractor, shall, within ten (10) days after award of the Contract, submit to the

City in writing, names and addresses and respective amounts of money for proposed contracts with Sub-contractors/major suppliers. The City will review and may direct the Contractor that they shall not employ any that are not acceptable as provided above.

- D. The sub-contractor shall abide by and comply with all local, State and federal laws and regulations relating to contracts involving public funds and the development/construction of public works, buildings, or facilities.

## **20. PAYMENTS TO SUB-CONTRACTORS**

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- A. Within seven days after the receipt of amounts paid by the City for work performed by a sub-contractor under this contract, the Contractor shall either:
  - 1. Pay the sub-contractor for the proportionate share of the total payment received from the City attributable to the work performed by the sub-contractor under this contract; or,
  - 2. Notify the City and sub-contractor, in writing, of his intention to withhold all or a part of the sub-contractor's payment and the reason for non-payment.
- B. The Contractor shall pay interest to the sub-contractor on all amounts owed that remain unpaid beyond the seven-day period except for amounts withheld as allowed in item 2 above.
- C. Unless otherwise provided under the terms of this contract, interest shall accrue at the rate of one percent per month.
- D. The Contractor shall include in each of its sub-contracts a provision requiring each Sub-contractor to include or otherwise be subject to the same payment and interest requirements as set forth above with respect to each lower-tier sub-contractor.
- E. The Contractor's obligation to pay an interest charge to a sub-contractor pursuant to this provision may not be construed to be an obligation of the City.

## **21. BOND – PERFORMANCE, MATERIAL, & LABOR**

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- A. When required by the specifications herein, the successful Bidder or Bidders shall, within ten (10) calendar days after acceptance of the Bidder's bid by the City, furnish a performance bond for 100% of the full amount of the contract from insurance companies having not less than A+ Policyholders Rating from the most recent Alfred M. Best and Co., Inc. listing available. Certification of the insurance company's rating shall be provided prior to contract implementation and quarterly thereafter until contract completion. Should such rating fall below the required A+ level during performance of the contract, it will be the contractor's responsibility to notify the City and provide a new bond from an insurance company whose rating meets the City's requirements.

- B. When required by the specifications herein, all Bidders shall submit with the bid a bid bond. A letter of credit may be furnished in lieu of a bid bond only if the following conditions are met: 1) An irrevocable letter of credit must be obtained from an accredited bank which shall include an agreement that the bank will honor a demand by the City for payment due to Plaintiff failure to complete the project. 2) An irrevocable letter of credit must be in writing and signed by an authorized representative of the bank. 3) The irrevocable letter of credit must expressly state that it is irrevocable until the bid has been awarded. 4) The letter of credit must be for the percentage specified in the bid documents.
- C. The City may reject the use of an irrevocable letter of credit if the financial soundness of the issuing bank is found to be unacceptable.
- D. In the event that the Bidder fails to furnish a performance bond in said period of ten (10) calendar days after acceptance of the Bidder's bid by the City, the City may withdraw its acceptance of the bid and retain the Bidder's deposit as liquidated damages and not as a penalty.
- E. If the contractor has more than one project for which there is a contract with the City of Evanston the contractor shall provide a separate Performance Bond for each project.

## **22. INDEMNITY**

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- A. The Contractor shall defend, indemnify and hold harmless the City and its officers, elected and appointed officials, agents, and employees from any and all liability, losses, or damages as a result of claims, demands, suits, actions, or proceedings of any kind or nature, including but not limited to costs, and fees, including attorney's fees, judgments or settlements, resulting from or arising out of any negligent or willful act or omission on the part of the Contractor or Contractor's sub-contractors, employees, agents or sub-contractors during the performance of this Agreement. Such indemnification shall not be limited by reason of the enumeration of any insurance coverage herein provided. This provision shall survive completion, expiration, or termination of this Agreement.
- B. Nothing contained herein shall be construed as prohibiting the City, or its officers, agents, or employees, from defending through the selection and use of their own agents, attorneys, and experts, any claims, actions or suits brought against them. The Contractor shall be liable for the reasonable costs, fees, and expenses incurred in the defense of any such claims, actions, or suits. Nothing herein shall be construed as a limitation or waiver of defenses available to the City and employees and agents, including but not limited to the Illinois Local Governmental and Governmental Employees Tort Immunity Act, 745 ILCS 10/1-101 *et seq.*
- C. At the City Corporation Counsel's option, Contractor must defend all suits brought upon all such Losses and must pay all costs and expenses incidental to them, but

the City has the right, at its option, to participate, at its own cost, in the defense of any suit, without relieving Contractor of any of its obligations under this Agreement. Any settlement of any claim or suit related to this Project by Contractor must be made only with the prior written consent of the City Corporation Counsel, if the settlement requires any action on the part of the City.

- D. To the extent permissible by law, Contractor waives any limits to the amount of its obligations to indemnify, defend, or contribute to any sums due under any Losses, including any claim by any employee of Contractor that may be subject to the Illinois Workers Compensation Act, 820 ILCS 305/1 et seq. or any other related law or judicial decision, including but not limited to, *Kotecki v. Cyclops Welding Corporation*, 146 Ill. 2d 155 (1991). The City, however, does not waive any limitations it may have on its liability under the Illinois Worker Compensation Act, the Illinois Pension Code or any other statute.
- E. The Contractor shall be responsible for any losses and costs to repair or remedy work performed under this Agreement resulting from or arising out of any act or omission, neglect, or misconduct in the performance of its Work or its sub-contractors' work. Acceptance of the work by the City will not relieve the Contractor of the responsibility for subsequent correction of any such error, omissions and/or negligent acts or of its liability for loss or damage resulting therefrom.

### **23. CONTRACTOR'S LIABILITY INSURANCE**

- A. THE CONTRACTOR SHALL NOT COMMENCE WORK UNDER THIS CONTRACT UNTIL THEY HAVE OBTAINED ALL INSURANCE REQUIRED HEREIN AND SUCH INSURANCE HAS BEEN APPROVED BY THE CITY. Nor shall the contractor allow any sub-contractor to commence work until all similar insurance required of the sub-contractor has been so obtained.
- B. The City of Evanston shall be named as an additional insured on the policy of the contractor for whatever the policy limits are for the contractor, but in no event shall the Comprehensive General Liability limits be less than \$3,000,000.00.
- C. If the contractor has more than one project for which he has a contract with the City of Evanston there shall be separate Certificates of Insurance naming the City as an additional insured on each separate policy.
- D. In the event of accidents, injuries, or unusual events, whether or not any injury occurred, the contractor shall promptly furnish the City with copies of all reports of such incidents.
- E. The contractor shall furnish one (1) copy of a certificate, with the City named as an additional insured, showing the following minimum coverage with insurance company acceptable to the City.

## **24. PRE-CONSTRUCTION MEETING**

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- A. A pre-construction meeting will be scheduled for the successful Contractor at a date immediately following awarding of the Contracts.

## **25. LIQUIDATED DAMAGES**

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- A. The Contractor shall, and agrees to pay, per calendar day, the amount listed in the Schedule of Deductions presented in Article 108.09 of the Standard Specifications (based upon the total Contract Price) as liquidated damages for failure to meet the completion deadlines identified below:

Substantial Completion Deadline: October 02, 2026

Final Completion Deadline: October 30, 2026

- B. Substantial Completion shall be defined as the stage in the progress of the work when the work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the City can occupy or utilize the work for its intended use. Substantial Completion will be certified by the issuance of a Certificate of Substantial Completion, to be issued by the City's representative, when the Contractor has satisfied the above statement.
- C. Final Completion shall be defined as the stage in the progress of the work when all work on site is fully complete, including punch list work, with the exception of restoration grass establishment.

## **26. EXTENSION OF TIME**

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- A. Delays due to causes beyond the control of the contractor other than such as reasonable would be expected to occur in connection with or during the performance of the work, may entitle the contractor to an extension of time for completing the work sufficient to compensate for such delay. No extension of time shall be granted, however, unless the contractor shall notify the City in writing thereof, within ten (10) days from the initiation of the delay and unless he shall, within ten (10) days after the expiration of the delay, notify the City in writing of the extension of time claimed on account thereof and then only to the extent, if any, allowed by the City.

## **27. DEFAULT**

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- A. The City may, subject to the provisions of this section, by written notice of default to Contractor, terminate the whole or any part of this contract in any one of the following circumstances:
  - 1. if the Contractor fails to perform the services within the time specified herein, or any extension thereof; or
  - 2. if the contractor fails to perform any of the other provisions of this contract, or so fails to make progress as to endanger performance of this contract in accordance with its terms, and in either of these two circumstances does not cure failure within a period of 10 days (or such other extended period as the

City may authorize in writing) after receipt of notice from the City specifying such failure

- B. In the event the City terminates this contract in whole or in part as provided in this section, the City may procure, upon such terms and in such manner as the City may deem appropriate, services similar to those so terminated, and the Contractor will be liable to the City for any excess costs for such similar services.
- C. The Contractor will not be liable for any excess of costs if acceptable evidence has been submitted to the City that the failure to perform the contract was due to causes beyond the control and without fault or negligence of the Contractor.
- D. Contractors who default may not be considered for awards of future City contracts.

## **28. USE OF PREMISES**

---

- A. The contractor shall confine his apparatus, the storage of materials and the operations of his workers, to limits indicated by law, ordinances, permits or directions of the City.

## **29. DISCLOSURES AND POTENTIAL CONFLICTS OF INTEREST (30 ILCS 500/50-35)**

---

- A. The City of Evanston's Code of Ethics prohibits public officials or employees from performing or participating in an official act or action with regard to a transaction in which he has or knows he will thereafter acquire an interest for profit, without full public disclosure of such interest. This disclosure requirement extends to the spouse, children and grandchildren, and their spouses, parents and the parents of a spouse, and brothers and sisters and their spouses.

To ensure full and fair consideration of all bids, the City of Evanston requires all Bidders including owners or employees to investigate whether a potential or actual conflict of interest exists between the Bidder and the City of Evanston, its officials, and/or employees. If the Bidder discovers a potential or actual conflict of interest, the Bidder must disclose the conflict of interest in its bid, identifying the name of the City of Evanston official or employee with whom the conflict may exist, the nature of the conflict of interest, and any other relevant information. The existence of a potential or actual conflict of interest does NOT, on its own, disqualify the disclosing Bidder from consideration. Information provided by Bidders in this regard will allow the City of Evanston to take appropriate measures to ensure the fairness of the bidding process.

The City of Evanston requires all bidders to submit a certification, enclosed with this bid packet, that the bidder has conducted the appropriate investigation and disclosed all potential or actual conflicts of interest.

By submitting a bid, all Bidders acknowledge and accept that if the City of Evanston discovers an undisclosed potential or actual conflict of interest, the City

of Evanston may disqualify the Bidder and/or refer the matter to the appropriate authorities for investigation and prosecution.

## INSURANCE REQUIREMENTS

<u>TYPE OF INSURANCE</u>	<u>MINIMUM INSURANCE COVERAGE</u>	
	Consequent Death	Bodily Injury and Property Damage
	Each Occurrence	Aggregate
Commercial General Liability including:	\$3,000,000	\$3,000,000
1. Comprehensive form		
2. Premises - Operations		
3. Explosion & Collapse Hazard		
4. Underground Hazard		
5. Products/Completed Operations Hazard		
6. Contractual Insurance – With an endorsement on the face of the certificate that it includes the "Indemnity" paragraph of the specifications.		<b><u>Insurance Certificate Must State: The City Of Evanston is Named as Additional Insured</u></b>
7. Broad Form Property Damage - construction projects only		
8. Independent contractors		
9. Personal Injury		
Automobile Liability Owned, Non-owned or Rented	\$ 1,000,000	\$1,000,000
Workmen's Compensation and Occupational Diseases As required by applicable laws. Employer's Liability		\$ 500,000

Thirty-day notice of cancellation required on all certificates.

**EXHIBIT A – BID FORM**  
**For**  
**Cartwright Park and Fitzsimons Park Renovations**  
**(BID #26-06)**

1.01 BID TO:

**THE CITY OF EVANSTON**  
909 Davis Street  
Evanston, Illinois 60201

Hereinafter called "OWNER".

1.02 BID FROM:

\_\_\_\_\_  
(Hereinafter call "BIDDER")

\_\_\_\_\_  
Address

\_\_\_\_\_  
Telephone Number

\_\_\_\_\_  
Fax Number

1.03 BID FOR: **Cartwright Park and Fitzsimons Park Renovations**

1.04 ACKNOWLEDGEMENT:

A. The Bidder, in compliance with the Invitation for Bids, having carefully examined the Drawings and Project Manual with related documents and having visited the site of the proposed Work, and being familiar with all of the existing conditions and limitations surrounding the construction of the proposed project, including the structure of the ground, subsurface conditions, the obstacles which may be encountered, local restrictions, and all other relevant matters concerning the Work to be performed, hereby PROPOSES to perform everything required to be performed, and to provide all labor, materials, necessary tools and equipment, expendable equipment, all applicable permits and taxes and fees, and provide all utility and transportation services necessary to perform and complete in a workmanlike

manner the Project in accordance with all the plans, specifications and related Contract Documents as prepared by the City of Evanston.

- B. The undersigned hereby acknowledges receipt of Invitation of Bids, Instruction to Bidder, the Project Manual, Drawings, and other Contract Documents and acknowledges receipt of the following Addenda:

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

Addendum No. \_\_\_\_\_ Dated \_\_\_\_\_

#### 1.05 GENERAL STATEMENTS

- A. The undersigned has checked all of the figures contained in this proposal and further understands that the Owner will not be responsible for any errors or omissions made therein by the undersigned.
- B. It is understood that the right is reserved by the Owner to reject any or all proposals, to waive all informality in connection therewith and to award a Contract for any part of the work or the Project as a whole.
- C. The undersigned declares that the person(s) signing this proposal is/are fully authorized to sign on behalf of the named firm and to fully bind the named firm to all the conditions and provisions thereof.
- D. It is agreed that no person(s) or company other than the firm listed below or as otherwise indicated hereinafter has any interest whatsoever in this proposal or the Contract that may be entered into as a result thereof, and that in all respects the proposal is legal and fair, submitted in good faith, without collusion or fraud.
- E. It is agreed that the undersigned has complied and/or will comply with all requirements concerning licensing and with all other local, state and national laws, and that no legal requirement has been or will be violated in making or accepting this proposal, in awarding the Contract to him, and/or in the prosecution of the Work required hereunder.
- F. To be considered a bona fide offer, this proposal must be completed in full and accompanied by a bid deposit or a bid bond when required by Contract Documents or Addenda.

#### 1.06 ALTERNATES

- A. When alternate proposals are required by Contract Documents or Addenda thereto, the undersigned proposes to perform alternates for herein stated additions to or deductions from hereinbefore stated Base Bid. Additions and deductions include all modifications of Work or additional Work that the undersigned may be required to perform by reason of the acceptance of alternates.

1.07 ALLOWANCE

- A. The allowance is intended to address items not able to be precisely determined prior to bidding including unforeseen conditions that are discovered during the course of construction. At the end of the project, unspent allowance shall be credited to owner via change order. See Section 01 21 00 – Allowances for additional information.

1.08 AGREEMENT

- A. In submitting this Bid, the undersigned agrees:
  - 1. To hold this Bid open for sixty (60) days from submittal date.
  - 2. To enter into and execute a Contract with the Owner within ten (10) days after receiving Notice of Award from the Owner.
  - 3. To accomplish the work in accordance with the Contract Documents.
  - 4. To complete the work by the time stipulated in the General Conditions
- B. The Owner reserves the right to reject any and all Bids and to waive any informalities in Bidding.

1.09 SCHEDULE

- A. See General Conditions for required schedule of completion dates.

1.10 PROPOSED PRICES

- A. The Bidder hereby proposes to furnish all labor, materials, equipment, transportation, construction plant and facilities necessary to complete, in a workmanlike manner and in accordance with the contract documents, the contract of work bid upon herein for compensation in accordance with the following prices:

<b>BASE BID AMOUNT CARTWRIGHT PARK:</b>	<b>\$ _____</b>
<b>BASE BID AMOUNT FITZSIMONS PARK:</b>	<b>\$ _____</b>
<b>ALLOWANCE #1 (CARTWRIGHT PARK):</b>	<b>\$ _____ + \$70,000.00</b>
<b>ALLOWANCE #2 (FITZSIMONS PARK):</b>	<b>\$ _____ + \$40,000.00</b>
<b>TOTAL BASE BID AMOUNT:</b>	<b>\$ _____</b>

**ALTERNATE 1 – CARTWRIGHT PARK, GAME ARE ADDITIONS**

This alternate shall include the addition of a bocce ball court, shade sail, and curved bench at Cartwright Park as depicted in the contract documents. The ADD/DEDUCT LUMP SUM PRICE, if awarded to the undersigned, shall be:

**ALTERNATE 1 AMOUNT:** \$ \_\_\_\_\_

**ALTERNATE 2 – CARTWRIGHT PARK, CONCRETE IN LIEU OF ASPHALT PAVING**

This alternate shall include the use of concrete pavements in lieu of asphalt pavements at Cartwright Park as depicted in the contract documents. The ADD/DEDUCT LUMP SUM PRICE, if awarded to the undersigned, shall be:

**ALTERNATE 2 AMOUNT:** \$ \_\_\_\_\_

**ALTERNATE 3 – FITZSIMONS PARK, SHADE SAILS**

This alternate shall include the addition of two shade sails at Fitzsimons Park as depicted in the contract documents. The ADD/DEDUCT LUMP SUM PRICE, if awarded to the undersigned, shall be:

**ALTERNATE 3 AMOUNT:** \$ \_\_\_\_\_

**ALTERNATE 4 – FITZSIMONS PARK, PAINTED GAMES**

This alternate shall include the addition of painted games at Fitzsimons Park as depicted in the contract documents. The ADD/DEDUCT LUMP SUM PRICE, if awarded to the undersigned, shall be:

**ALTERNATE 4 AMOUNT:** \$ \_\_\_\_\_

1.11 UNIT PRICING LIST

The undersigned submits the following UNIT PRICING LIST to be performed as shown on the Plans and/or described in the Specifications, and agrees that items of work not specifically mentioned in the Schedule which are necessary and required to complete the work intended shall be done incidental to and as part of the work for which a unit price is given, and understands that no additional payment will be made for such incidental work from the estimated quantities shown below. Unit prices for individual line items shall be used for the project’s schedule of values, pay applications and will also be used to determine the amount to ADD TO or DEDUCT FROM the contract LUMP SUM PRICE for properly authorized additional or deducted work. Bidders shall examine plans and determine actual work items and quantities for the work involved for bid analysis by the Owner. **Include the cost for the base bid quantity of each unit price item below in the Lump Sum Base Bid Amount above.**

Item	Description	Unit	Base Bid Quantity	Add Cost *	Deduct Cost **
1	Asphalt Base Repair	SF	1,000	\$	\$
2	Asphalt Crack Repair	LF	400	\$	\$

\* Add costs to be provided by Bidder  
 \*\* Deduct costs to be provided by Bidder

1.12 BID SECURITY

If required by the bid documents, a scanned copy of the bid bond must be included with the bid electronic submission. The City is currently not able to accept a certified check, bank cashier’s check or electronic bid bond at this time.

- A. The City of Evanston Civic Center is unable to receive in person drop-off and it is closed to the public. The original bid bond must be mailed within ten (10) days after the due date, to the City of Evanston Purchasing Department, 909 Davis Street, Evanston, Illinois 60201 Attention Purchasing Manager using the USPS (certified or priority), UPS or FedEx mail options in order to have a tracking number.
- B. Accompanying this electronic submittal is a scanned copy of a bank draft, bid bond, Cashier's check or Certified check as surety in the amount of not less than five percent (5%) of the Total Bid payable to the City of Evanston.

The amount of the check or draft is: \$ \_\_\_\_\_

If this bid is accepted and the undersigned shall fail to execute a contract and contract bond as required it is hereby agreed that the amount of the check or draft or bidder’s bond substituted in lieu thereof, shall become the property of the City and

shall be considered as payment of damages due to delay and other causes suffered by the City because of the failure to execute said contract and contract bond; otherwise said check or draft shall be returned to the undersigned.

In the event that one check or draft is intended to cover two or more bids, the amount must be equal to the sum of the project proposal guarantees of the individual sections covered.

If the check or draft is placed on another project proposal, state below where it may be found, as follows: The check or draft will be found in the project proposal for:

\_\_\_\_\_.

#### 1.13 PERFORMANCE/PAYMENT BOND

The undersigned bidder agrees to provide Performance Bond and Payment Bond executed in accordance with Contract Performance Bond form furnished by and acceptable to the Owner written with \_\_\_\_\_

\_\_\_\_\_ in the amount of 100% of the Contract Sum (Total Base Bid and all accepted alternatives and adjustments) the cost of which is included in the Bid.

Cost of bond for change order is \_\_\_\_\_ percent of change order cost.

#### 1.14 LIQUIDATED DAMAGES

The undersigned Bidder understands and agrees to the provisions stated under "LIQUIDATED DAMAGES" in the General Conditions and shall be assessed at the specified daily rate for each calendar day or partial calendar day until completion as defined herein.

1.15 MATERIAL SUBSTITUTION SHEET

The following is a schedule of substitute materials I propose to furnish on this job, with the difference in price being added to or deducted from the Base Bid. The Base Bid is understood to include only those items which are definitely specified by trade names or otherwise.

I understand that if no price difference is indicated, then the selection of materials is optional with the Owner, and approval or rejection of the substitution below will be indicated prior to signing of Contracts.

<u>PRODUCT NAME AND/OR MANUFACTURER</u>	<u>ADD</u>	<u>DEDUCT</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

1.16 PROPOSAL SIGNATURE (REQUIRED)

A. SOLE PROPRIETOR

Signature of Bidder: \_\_\_\_\_

SUBSCRIBED AND SWORN to before me this \_\_\_\_ day of \_\_\_\_, 20\_\_

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

Commission Expires: \_\_\_\_\_

B. PARTNERSHIP

Signature of All Partners: \_\_\_\_\_

\_\_\_\_\_  
Name (typed or printed)

\_\_\_\_\_  
Name (typed or printed)

SUBSCRIBED AND SWORN to before me this \_\_\_\_ day of \_\_\_\_, 20\_\_

\_\_\_\_\_  
Commission Expires: \_\_\_\_\_

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

C. CORPORATION

Signature of Authorized Official: \_\_\_\_\_

Title: \_\_\_\_\_

Name above (typed or printed): \_\_\_\_\_

(If other than the president, attach a certified copy of that section of corporate by-laws or other authorization by the Corporation which permits the person to execute the offer for the Corporation.)

(Corporate Seal)

Attest: \_\_\_\_\_

Secretary

SUBSCRIBED AND SWORN to before me this \_\_\_\_ day of \_\_\_\_, 20\_\_

\_\_\_\_\_  
Commission Expires: \_\_\_\_\_

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

1.17 DISCLOSURE

- A. The undersigned duly sworn deposes and says on oath that the bidder has withheld no disclosures of ownership interest and the information provided herein to the best of its knowledge is current and said undersigned has not entered into any agreement with any other bidder or prospective bidder or with any other person, firm or corporation relating to the price named in said proposal or any other proposal, nor any agreement or arrangement under which any person, firm or corporation is to refrain from bidding, nor any agreement or arrangement for any act or omission in restraint of free competition among bidders and has not disclosed to any person, firm or corporation the terms of this bid or the price named herein.

Bidder: \_\_\_\_\_

Business Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone Number: \_\_\_\_\_

1.18 CONTACTS

- A. In the event the Evanston City Council approves this bid response, list the name, address, telephone, and fax number of the person to be contacted:

Bidder: \_\_\_\_\_

Address: \_\_\_\_\_  
\_\_\_\_\_

Telephone Number: \_\_\_\_\_

Fax Number: \_\_\_\_\_

1.19 REFERENCES

A. Provide three (3) references for which your firm has completed work of a similar scope in the past.

1. Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: \_\_\_\_\_

Contract Value: \_\_\_\_\_

Contract Dates: \_\_\_\_\_

2. Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: \_\_\_\_\_

Contract Value: \_\_\_\_\_

Contract Dates: \_\_\_\_\_

3. Name: \_\_\_\_\_

Address: \_\_\_\_\_

Contact Person: \_\_\_\_\_

Phone: \_\_\_\_\_

Contract Value: \_\_\_\_\_

Contract Dates: \_\_\_\_\_

**EXHIBIT B**

**RBO COMPLIANCE CERTIFICATION**

[Company Letterhead]

**City of Evanston – Bid Compliance Certification**

We hereby certify that [Company Name] is in full compliance with the requirements set forth under Ordinance 23-O-25, attached hereto, including but not limited to all applicable provisions under Section 1-17-1 of the Evanston City Code.

Our company has reviewed and will adhere to:

- The Local Employment Program (LEP), including the hiring of Evanston residents and achieving 15% of project hours performed by said residents.
- The Apprenticeship Training Program requirement, with attached documentation of program participation and graduation rates.
- The prohibition on excessive pass-through subcontracting; we will perform a minimum of 25% of the contracted work directly.
- All certification and documentation obligations outlined in the ordinance.

Signed: \_\_\_\_\_

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

Title: \_\_\_\_\_

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

Project Title: \_\_\_\_\_

Project Number: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBIT B**

**RBO COMPLIANCE CERTIFICATION**

[Company Letterhead]

**City of Evanston – Legal & Regulatory Compliance Certification**

I, [Authorized Representative Name], hereby certify that [Company Name] complies with and has provided documentation for each of the following:

- Illinois Prevailing Wage Act (past 5 years; no violations)
- Substance Abuse Prevention on Public Works Project Act (written policy included)
- Workers' Compensation Act (policy attached, correct classification)
- Unemployment Insurance Act (IDES registration included)
- Employee Classification Act
- Davis-Bacon Act (if applicable)
- Registered in Sam.Gov (if applicable)
- Unique Entity Identifier (UEI) (if applicable)
- Corporate good standing with the Illinois Secretary of State
- Illinois Department of Revenue registration
- No federal, state, or local tax liens or delinquencies within the past 5 years
- Disclosure of any violations or determinations by federal or state authorities related to contracting, safety, tax, licensing, or labor laws.

Signed: \_\_\_\_\_

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

Title: \_\_\_\_\_

Project Title: \_\_\_\_\_

Project Number: \_\_\_\_\_

Date: \_\_\_\_\_

**EXHIBIT B**

**RBO COMPLIANCE CERTIFICATION**

[Subcontractor Letterhead]

City of Evanston – Subcontractor Compliance Certification

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

Prime Contractor: \_\_\_\_\_

Project Title: \_\_\_\_\_

Project Number: \_\_\_\_\_

I hereby certify that [Subcontractor Name] will comply with all City of Evanston ordinance requirements applicable to public works contracts, including Local Employment Program provisions, Apprenticeship Program participation, and regulatory compliance obligations listed under Ordinance 23-O-25.

All documentation and certifications have been submitted to the prime contractor and will be furnished to the City upon request.

Signed: \_\_\_\_\_

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

Title: \_\_\_\_\_

Date: \_\_\_\_\_

## EXHIBIT C

### **CITY OF EVANSTON LOCAL EMPLOYMENT PROGRAM (LEP) COMPLIANCE**

**Effective Date January 1, 2015**

#### **City of Evanston Ordinance 60-O-14, Local Employment Program (LEP) Penalties:**

**Ordinance 60-O-14**, Amendment to the MWDEBE/LEP revising the penalty section from a \$100/per day to a 1.0% of total project value penalty can be found at: Ordinance 60-O-14 Amendment MWEDBE LEP of the Evanston City Code Section 1-17-1 (C) can be found at Municode Library. The following are excerpts from Ordinance 60-O-14, Amending City Code Section 1-17-1(C) (11): Penalty.

**If the contractor or sub-contractor fails to comply:** The City may impose a fine up to one percent (1.0%) of the approved project price in total. Contractors or sub-contractors that are out of compliance due to a resident termination or resignation shall immediately notify the Business Workforce Compliance Coordinator of this occurrence within two (2) business days. Subsequently, the contractor or sub-contractor shall have five (5) additional business days to replace a terminated or resigned worker with another resident.

**If the contractor or sub-contractor fails to comply:** If the contractor or sub-contractor fails to make the replacement or to notify the Business Workforce Compliance Coordinator of this occurrence, the offending party will also be subject to a penalty up to one percent (1.0%) of the approved project price. If the noncompliant contractor makes a good faith effort to replace the resident, the fine may be waived.

**If the contractor or sub-contractor fails to comply:** At the sole discretion of the City, a contractor or sub-contractor that has violated the terms of the Local Employment Program within a three-year period may be determined a non-responsible bidder and excluded from bidding on future projects for a period of not less than one year.

**If the employee (LEP Evanston resident) fails to comply:** At the sole discretion of the City, an employee that has been hired through the LEP may be removed from the program for a period of not less than one year for failing to adhere to program guidelines or due to termination by the contractor for cause. Such termination process will be reviewed by the Workforce Development Coordinator.

**\*\*Detailed Local Employment Program Instructions “How to Comply” can be found at: [Local Employment Program Detailed Instructions](#)**

**Local Employment Program or Exhibit F Questions:** City staff is available for assistance to help with compliance. Submit questions in writing to Jessica Cooper, the Workforce Development Coordinator at [jcooper@cityofevanston.org](mailto:jcooper@cityofevanston.org) or Tammi Nunez, Purchasing Manager at [tnunez@cityofevanston.org](mailto:tnunez@cityofevanston.org).



## **EXHIBIT D**

### **City of Evanston M/W/D/EBE Policy**

A City of Evanston goal is to provide contracting and sub-contracting opportunities to Minority Business Enterprises, Women Business Enterprises, Disadvantaged and Evanston Business Enterprises. The goal of the Minority, Women, Disadvantaged and Evanston Business Enterprise Program (M/W/D/EBE) is to assist such businesses with opportunities to grow. To assist such growth, the City's goal is to have general contractors utilize M/W/D/EBEs to perform no less than 25% of the awarded contract.

Firms bidding on projects with the City must work to meet the 25% goal or request a waiver from participation. It is advised that bidders place advertisements requesting sub-contractors and that they email or contact individual firms that would be appropriate to partner in response to the project. For samples of possible advertisements, see the City of Evanston's Business Diversity Section <http://www.cityofevanston.org/business/business-diversity/> ([Sample Advertisement](#)).

If a bidder is unable to meet the required M/W/D/EBE goal, the Bidder must seek a waiver or modification of the goal on the attached forms. Bidder must include:

1. A narrative describing the Bidder's efforts to secure M/W/D/EBE participation prior to the bid opening.
2. Documentation of each of the assist agencies that were contacted, the date and individual who was contacted, and the result of the conversation (see form)
3. A letter attesting to instances where the bidder has not received inquiries/proposals from qualified M/W/D/EBEs
4. Names of owners, addresses, telephone numbers, date and time and method of contact of qualified M/W/D/EBE who submitted a proposal but was not found acceptable.
5. Names of owners, addresses, telephone numbers, date and time of contact of at least 15 qualified M/W/D/EBEs the bidder solicited for proposals for work directly related to the Bid prior to the bid opening (copies must be attached).

If a bidder is selected with a Sub-contractor listed to meet the M/W/D/EBE goal, a "monthly utilization report" will be due to the City prior to each payment being issued to the Contractor. This report will include documentation of the name of the firm hired, the type of work that firm performed, etc. Should the M/W/D/EBE not be paid according to the schedule proposed in this document, the City reserves the right to cancel the contract. Examples of this monthly form can be found on the City's website: <http://www.cityofevanston.org/business/business-diversity/> ([MWDEBE Monthly Utilization Report](#)).

**EXHIBIT E**

**M/W/D/EBE PARTICIPATION COMPLIANCE FORM**

I do hereby certify that,

\_\_\_\_\_ (Name of firm) intends to participate as a Subcontractor or General Contractor on the project referenced above.

This firm is a (check only one):

- \_\_\_\_\_ Minority Business Enterprise (MBE), a firm that is at least 51% managed and controlled by a minority, certified by a certifying agency within Illinois.
- \_\_\_\_\_ Women's Business Enterprise (WBE), a firm that is at least 51% managed and controlled by a woman, certified by a certifying agency within Illinois.
- \_\_\_\_\_ Disadvantaged Business Enterprise (DBE), a firm that is at least 51% managed and controlled by a disadvantaged, certified by a certifying agency within Illinois.
- \_\_\_\_\_ Evanston Based Enterprise (EBE), a firm located in Evanston for a minimum of one year and which performs a "commercially useful function".

Total proposed price of response \$ \_\_\_\_\_

Amount to be performed by a M/W/D/EBE \$ \_\_\_\_\_

Percentage of work to be performed by a M/W/D/EBE \_\_\_\_\_ %

Information on the M/W/D/EBE Utilized:

Name \_\_\_\_\_

Address \_\_\_\_\_

Phone Number \_\_\_\_\_

Signature of firm attesting to participation \_\_\_\_\_

Title and Date \_\_\_\_\_

Type of work to be performed \_\_\_\_\_

Please attach:

1. Proper certification documentation if applying as a M/W/D/EBE and check the appropriate box below. This M/W/D/EBE will be applying with documentation from:

- |  |  |
|--|--|
| <input type="checkbox"/> Cook County           | <input type="checkbox"/> State Certification                           |
| <input type="checkbox"/> Federal Certification | <input type="checkbox"/> Women's Business Enterprise National Council  |
| <input type="checkbox"/> City of Chicago       | <input type="checkbox"/> Chicago Minority Supplier Development Council |

2. Attach business license if applying as an EBE

**EXHIBIT E**

**M/W/D/EBE UTILIZATION SUMMARY REPORT**

The following Schedule accurately reflects the value of each MBE/WBE/DBE/EBE sub-agreement, the amounts of money paid to each to date, and this Pay Request. The total proposed price of response submitted is \_\_\_\_\_.

<b>MBE/WBE/DBE/EBE FIRM NAME</b>	<b>FIRM TYPE (MBE/WBE/ DBE/EBE)</b>	<b>SERVICES PERFORMED</b>	<b>AMOUNT OF SUB- CONTRACT</b>	<b>PERCENT OF TOTAL CONTRACT AMOUNT</b>
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
			\$	
<b>TOTAL</b>			\$	

**EXHIBIT F**

**M/W/D/EBE PARTICIPATION WAIVER REQUEST**

I am \_\_\_\_\_ of \_\_\_\_\_, and I have authority to  
(Title) (Name of Firm)

execute this certification on behalf of the firm. I \_\_\_\_\_ do  
(Name)

hereby certify that this firm seeks to waive all or part of this M/W/D/EBE participation goal for the following reason(s):

**(CHECK ALL THAT APPLY. SPECIFIC SUPPORTING DOCUMENTATION MUST BE ATTACHED.)**

\_\_\_\_\_ 1. No M/W/D/EBEs responded to our invitation to bid.

\_\_\_\_\_ 2. An insufficient number of firms responded to our invitation to bid.

**For #1 & 2, please provide a narrative describing the outreach efforts from your firm and proof of contacting at least 15 qualified M/W/D/EBEs prior to the bid opening. Also, please attach the accompanying form with notes regarding contacting the Assist Agencies.**

\_\_\_\_\_ 3. No sub-contracting opportunities exist.

**Please attach a written explanation of why sub-contracting is not feasible. Please provide details supporting your request.**

\_\_\_\_\_ 4. M/W/D/EBE participation is impracticable.

**Please attach a written explanation of why M/W/D/EBE participation is impracticable. Please provide details supporting your request.**

Therefore, we request to waive \_\_\_\_\_ of the 25% utilization goal for a revised goal of \_\_\_\_\_%.

Signature: \_\_\_\_\_  
(Signature)

Date: \_\_\_\_\_

## EXHIBIT G

### Construction Contractors' Assistance Organizations (“Assist Agencies”) Form

AGENCY	DATE CONTACTED	CONTACT PERSON	RESULT OF CONVERSATION
<b>Association of Asian Construction Enterprises (AACE)</b> 5500 Touhy Ave., Unit K Skokie, IL. 60077 Phone: 847-5259693 Perry Nakachii, President			
<b>Black Contractors United (BCU)</b> 400 W. 76th Street Chicago, IL 60620 Phone: 773-483-4000; Fax: 773-483-4150 Email: <a href="mailto:bcunewera@ameritech.net">bcunewera@ameritech.net</a>			
<b>Chicago Minority Business Development Council</b> 105 West Adams Street Chicago, Illinois 60603 Phone: 312-755-8880; Fax: 312-755-8890 Email: <a href="mailto:info@chicagomsdc.org">info@chicagomsdc.org</a> Shelia Hill, President			
<b>Evanston Minority Business Consortium, Inc.</b> P.O. Box 5683 Evanston, Illinois 60204 Phone: 847-492-0177 Email: <a href="mailto:embcinc@aol.com">embcinc@aol.com</a>			
<b>Federation of Women Contractors</b> 5650 S. Archer Avenue Chicago, Illinois 60638 Phone: 312-360-1122; Fax: 312-360-0239 Email: <a href="mailto:FWCChicago@aol.com">FWCChicago@aol.com</a> Contact Person: Beth Doria Maureen Jung, President			
<b>Hispanic American Construction Industry (HACIA)</b> 901 W. Jackson, Suite 205 Chicago, IL 60607 Phone: 312-666-5910; Fax: 312-666-5692 Email: <a href="mailto:info@haciaworks.org">info@haciaworks.org</a>			
<b>Women’s Business Development Ctr.</b> 8 S. Michigan Ave, Suite 400 Chicago, Illinois 60603 Phone: 312-853-3477 X220; Fax: 312-853-0145 Email: <a href="mailto:wdbc@wdbc.org">wdbc@wdbc.org</a> Carol Dougal, Director			

**PLEASE NOTE: Use of Construction Contractor’s Assistance Organization (Assist Agencies”) Form and agencies are for use as a resource only. The agencies and or vendors listed are not referrals or recommendations by the City of Evanston.**



**EXHIBIT I**

**DISCLOSURE OF OWNERSHIP INTERESTS**

City of Evanston Ordinance 15-0-78 requires all persons (APPLICANT) seeking to do business with the City to provide the following information with their bid. Every question must be answered. If the question is not applicable, answer with "NA".

APPLICANT NAME: \_\_\_\_\_

APPLICANT ADDRESS: \_\_\_\_\_

TELEPHONE NUMBER: \_\_\_\_\_

FAX NUMBER: \_\_\_\_\_

APPLICANT is (**Check One**)

1. Corporation ( ) 2. Partnership ( ) 3. Sole Owner ( ) 4. Association ( )

5. Other ( ) \_\_\_\_\_

Please answer the following questions on a separate attached sheet if necessary.

**SECTION I - CORPORATION**

1a. Names and addresses of all Officers and Directors of Corporation.

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

1b. (Answer only if corporation has 33 or more shareholders.) Names and addresses of all those shareholders owning shares equal to or in excess of 3% of the proportionate ownership interest and the percentage of shareholder interest. (Note: Corporations which submit S.E.C. form 10K may substitute that statement for the material required herein.)

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

1c. (Answer only if corporation has fewer than 33 shareholders.) Names and addresses of all shareholders and percentage of interest of each herein. (Note: Corporations which submit S.E.C. form 10K may substitute that statement for the material requested herein.)

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**SECTION 2 - PARTNERSHIP/ASSOCIATION/JOINT VENTURE**

2a. The name, address, and percentage of interest of each partner whose interests therein, whether limited or general is equal to or in excess of 3%.

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2b. Associations: The name and address of all officers, directors, and other members with 3% or greater interest.

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**SECTION 3 - TRUSTS**

3a. Trust number and institution.

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3b. Name and address of trustee or estate administrator.

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3c. Trust or estate beneficiaries: Name, address, and percentage of interest in total entity.

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**SECTION 4 - ALL APPLICANTS - ADDITIONAL DISCLOSURE**

4a. Specify which, if any, interests disclosed in Section 1, 2, or 3 are being held by an agent or nominee and give the name and address of principal.

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4b. If any interest named in Section 1, 2, or 3 is being held by a "holding" corporation or other "holding" entity not an individual, state the names and addresses of all parties holding more than a 3% interest in that "holding" corporation or entity as required in 1(a), 1(b), 1(c), 2(a), and 2(b).

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4c. If "constructive control" of any interest named in Sections 1, 2, 3, or 4 is held by another party, give name and address of party with constructive control. ("Constructive control" refers to control established through voting trusts, proxies, or special terms of venture of partnership agreements.)

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I have not withheld disclosure of any interest known to me. Information provided is accurate and current.

\_\_\_\_\_  
Date

\_\_\_\_\_  
Signature of Person Preparing Statement

\_\_\_\_\_  
Title

ATTEST: \_\_\_\_\_  
Notary Public

(Notary Seal)

Commission Expires: \_\_\_\_\_

**EXHIBIT J**

**ADDITIONAL INFORMATION SHEET**

Bid/Proposal Name: \_\_\_\_\_

Bid/Proposal Number #: \_\_\_\_\_

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

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

Address: \_\_\_\_\_

City, State, Zip: \_\_\_\_\_

Telephone/FAX: # \_\_\_\_\_

E-mail: \_\_\_\_\_

**Comments:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

**EXHIBIT K**

**CERTIFICATE OF COMPLIANCE  
WITH PREVAILING WAGE RATE ACT**

The undersigned, upon being first duly sworn, hereby certifies to the City of Evanston, Cook, County, Illinois, that all work under this contract shall comply with the Prevailing Wage Rate Act of the State of Illinois, 820 ILCS 130 *et seq*, and as amended by Public Acts 86-799 and 86-693 and our current city ordinance, with rates to be paid in effect at time work is performed. Contractors shall submit monthly certified payroll records to the city.

Name of Contractor: \_\_\_\_\_

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

By: State of \_\_\_\_\_, County of \_\_\_\_\_

Subscribed and sworn to before me this \_\_\_\_\_ day

of \_\_\_\_\_, \_\_\_\_\_.

Notary Public

**EXHIBIT L**

**MAJOR SUB-CONTRACTORS LISTING**

The following Tabulation of Major Sub-contractors shall be attached and made a condition of the Bid. The Bidder expressly understands and agrees to the following provisions:

- A. If awarded a Contract as a result of this Bid, the major sub-contractors used in the prosecution of the work will be those listed below.
- B. The following list includes all sub-contractors who will perform work representing 5% (five percent) or more of the total Base Bid.
- C. The sub-contractors listed below are financially responsible and are qualified to perform the work required.
- D. The sub-contractors listed below comply with the requirements of the Contract Documents.
- E. Any substitutions in the sub-contractors listed below shall be requested in writing by the Contractor and must be approved in writing by the Owner. All pertinent financial, performance, insurance and other applicable information shall be submitted with the request for substitutions(s). Owner shall respond to such requests within 14 calendar days following the submission of all necessary information to the full satisfaction of the Owner.

<b><u>Category</u></b>	<b><u>Name of Sub-contractor</u></b>	<b><u>Address and Telephone</u></b>

(Attach additional sheets as required)

**END OF SECTION**

**EXHIBIT M**

**CONFLICT OF INTEREST**

\_\_\_\_\_, hereby certifies that it has conducted an investigation into whether an actual or potential conflict of interest exists between the Bidder, its owners and employees and any official or employee of the City of Evanston.

Bidder further certifies that it has disclosed any such actual or potential conflict of interest and acknowledges if Bidder/proposer has not disclosed any actual or potential conflict of interest, the City of Evanston may disqualify the bid/proposal.

\_\_\_\_\_  
(Name of Bidder/proposer if the Bidder/proposer is an Individual)  
(Name of Partner if the Bidder/proposer is a Partnership)  
(Name of Officer if the Bidder/proposer is a Corporation)

The above statements must be subscribed and sworn to before a notary public.  
Subscribed and Sworn to this \_\_\_\_\_ day of \_\_\_\_\_, 20\_\_\_\_

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

(Notary Seal)

Commission Expires: \_\_\_\_\_

**EXHIBIT N**

**SIGNATURE FORM**  
**THE SECTION BELOW MUST BE COMPLETED IN FULL AND SIGNED**

The undersigned hereby certifies that they have read and understand the contents of this solicitation and attached service agreements and agree to furnish at the prices shown any or all of the items above, subject to all instructions, conditions, specifications and attachments hereto. Failure to have read all the provisions of this solicitation shall not be cause to alter any resulting contract or to accept any request for additional compensation. By signing this document, the proposer hereby certifies that they are not barred from bidding on this contract as a result bid rigging or bid rotating or any similar offense (720 ILCS 5/33 E-3, E-4).

Authorized Signature: \_\_\_\_\_

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

Typed/Printed Name: \_\_\_\_\_

Date: \_\_\_\_\_

Title: \_\_\_\_\_

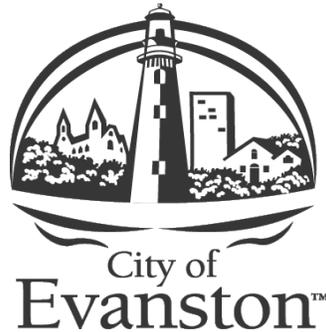
Telephone Number: \_\_\_\_\_

E-mail \_\_\_\_\_

Fax Number: \_\_\_\_\_



**EXHIBIT O**



**CONTRACTOR SERVICES AGREEMENT**

The parties referenced herein desire to enter into an agreement for professional services for

*Cartwright Park and Fitzsimons Park Renovations*

**(BID #26-06)**

THIS AGREEMENT (hereinafter referred to as the “Agreement”) is entered into between the City of Evanston, an Illinois municipal corporation with offices located at 909 Davis Street, Evanston Illinois 60201 (hereinafter referred to as the “City”), and *[Insert Contractor name here]*, with offices located at *[Insert Contractor address here]*, (hereinafter referred to as the “Contractor”). Compensation (the “Compensation”) for all basic services provided by the Contractor pursuant to the terms of this Agreement shall not exceed *[\$[Insert fee here]]*.

*Revision March 2020*

**TABLE OF CONTENTS**

1	Services and Duties of the Contractor .....	4
2	Standard Certifications.....	7
3	Additional Services/Change Orders.....	10
4	Bonds .....	12
5	Liquidated Damages in the Event Contractor Fails to Complete the Work .....	13
6	The City’s Responsibilities .....	13
7	Period of Service.....	13
8	Payment for Services and Reimbursements.....	13
9	Notice and Cure/Termination .....	15
10	Insurance .....	16
11	Indemnification .....	17
12	Drawings and Documents .....	18
13	Successors and Assigns.....	19
14	Force Majeure .....	19
15	Amendments and Modifications .....	19
16	Standard of Care & Warranty .....	20
17	Savings Clause .....	21
18	Non-Waiver of Rights.....	21
19	Entire Agreement .....	21
20	Governing Law .....	21
21	Ownership of Contract Documents.....	22
22	Notice .....	22
23	Severability .....	22
24	Execution of Agreement .....	22
25	Counterparts .....	22
26	Authorizations.....	22
27	Time of Essence .....	23

## RECITALS

WHEREAS, the City intends to retain the services of a qualified and experienced contractor for the following:

*Construct renovations to Cartwright Park and Fitzsimons Park as described in the attached bid documents.*

WHEREAS, this Agreement shall include the following documents which are attached hereto:

- a) City of Evanston Bid 26-06, attached as Exhibit A.
- b) Contractor's response to Bid 26-06, attached as Exhibit B.
- c) Any sub-contractor sub-contracts related to this Agreement, attached as Exhibit C.
- d) Project Fee Schedule and hourly rates, attached as Exhibit D *(if appropriate)*.

NOW, THEREFORE, in consideration of the mutual covenants hereinafter set forth, the parties agree as follows:

### 1 Services and Duties of the Contractor

1.1 The Contractor shall perform professional services and provide equipment (the "Work") in accordance with Exhibits A, B, C and D. The Contractor retains the right to control the manner of performance of the services provided for in this Agreement and is an independent contractor and not agent or an employee of the City. All employees and sub-contractors of the Contractor shall likewise not be considered to be employees of the City. Contractor is solely responsible for the means and methods of all work performed under the terms of this Agreement for this Project ("the Project"). Contractor is an independent Contractor and is solely responsible for all taxes, withholdings, and other statutory or contractual obligations of any sort, including but not limited to, Worker's Compensation Insurance. Nothing in this Agreement accords any third-party beneficiary rights whatsoever to any non-party to this Agreement that any non-party may seek to enforce. Contractor acknowledges and agrees that should Contractor or its sub-contractors provide false information, or fail to be or remain in compliance with this Agreement; the City may void this Agreement.

1.2 The Contractor warrants and states that it has read the Contract Documents, and agrees to be bound thereby, including all performance guarantees as respects Contractor's work and all indemnity and insurance requirements. Contractor further affirms that it has visited the Project site and has become familiar with all special conditions, if any, at the Project site. Contractor shall perform the Work and its obligations under this Agreement in accordance with and subject to the Contract Documents to the full extent that each such provision is applicable to the Work. Contractor shall take necessary precautions to properly protect the Work of others, if any, from damage caused by operations under this Agreement. In addition, Contractor shall protect the work during normal and adverse weather conditions until the Project is complete and accepted by the City, or until the Contractor has fully completed its work under this Agreement. Contractor's obligations include, but

are not limited to, placing and adequately maintaining at or about all locations of Project work, sufficient guards, barricades, lights, and enclosures to protect the Work.

1.3 The Contractor shall not have any public or private interest and shall not acquire directly or indirectly any such interest which conflicts in any manner with the performance of its services under this Agreement.

1.4 The Contractor shall designate, in writing, a person to act as its Project Manager for the work to be performed under this Agreement. Such person shall have complete authority to transmit instructions, receive information, interpret and define the Contractor's policies and decisions with respect to the work covered by this Agreement.

1.5 The Contractor shall employ only persons duly licensed by the State of Illinois to perform the professional services required under this Agreement for which applicable Illinois law requires a license, subject to prior approval of the City. The Contractor shall employ only well qualified persons to perform any of the remaining services required under this Agreement, also subject to prior approval of the City. The City reserves the right to require replacement of Contractor, sub-contractor, or supplier personnel for any reason. Contractor will replace the unacceptable personnel at no charge to the City. For all solicitations or advertisements placed by or on behalf of Contractor for employees for this Project it will state that the Contractor is an Equal Opportunity Employer.

1.6 Pursuant to the Illinois Freedom of Information Act, 5 ILCS 140/7(2), records in the possession of others whom the City has contracted with to perform a governmental function are covered by the Act and subject to disclosure within limited statutory timeframes (five (5) working days with a possible five (5) working day extension). Upon notification from the City that it has received a Freedom of Information Act request that calls for records within the Contractor's control, the Contractor shall promptly provide all requested records to the City so that the City may comply with the request within the required timeframe. The City and the Contractor shall cooperate to determine what records are subject to such a request and whether or not any exemption to the disclosure of such records, or part thereof, is applicable. Contractor shall indemnify and defend the City from and against all claims arising from the City's exceptions to disclosing certain records which Contractor may designate as proprietary or confidential. Compliance by the City with an opinion or a directive from the Illinois Public Access Counselor or the Attorney General under FOIA, or with a decision or order of Court with jurisdiction over the City, shall not be a violation of this Section.

1.7 The Contractor shall obtain prior approval from the City prior to sub-contracting with any entity or person to perform any of the work required under this Agreement. The Contractor may, upon request of the City, submit to the City a draft sub-contractor agreement for City review and approval prior to the execution of such an agreement. Any previously entered into sub-contractor agreement(s) are attached as Exhibit C. If the Contractor sub-contracts any of the services to be performed under this Agreement, the sub-contractor agreement shall provide that the services to be performed under any such agreement shall not be sublet, sold, transferred, assigned or otherwise disposed of to another entity or person without the City's prior written consent. The Contractor shall be responsible for the accuracy and quality of any sub-contractor's work.

1.8 The Contractor shall cooperate fully with the City, other City contractors, other municipalities and local government officials, public utility companies, and others, as may be directed by the City. This shall include attendance at meetings, discussions and hearings as requested by the City. This cooperation shall extend to any investigation, hearings or meetings convened or instituted by OSHA relative to this Project, as necessary. Contractor shall cooperate with the City in scheduling and performing its Work to avoid conflict, delay in or interference with the work of others, if any, at the Project.

1.9 The Contractor acknowledges that it shall enforce and comply with all applicable Occupational Safety and Health Administration standards (OSHA) for this Project in effect as of the date of the execution of this Agreement, or as otherwise promulgated by OSHA in the future taking effect during the pendency of this Project. Contractor shall enforce all such standards and ensure compliance thereto as to its own agents and employees, and as to the agents and employees of any sub-contractor throughout the course of this Project. Contractor is solely responsible for enforcing and complying with all applicable safety standards and requirements on this Project, and is solely responsible for correcting any practices or procedures which do not comply with the applicable safety standards and requirements for this Project. Any Project specific safety requirements applicable to this Project must be followed by Contractor and any sub-contractor(s) on the Project. Additionally, all such safety requirements shall be made a part of any sub-contractor agreement.

1.10 The Contractor shall submit to the City a progress report each month this Agreement is in effect. The report shall include the following items:

- a) A summary of the Contractor's project activities, and any sub-contractor project activities that have taken place during the invoice period;
- b) A summary of the Contractor's project activities and any sub-contractor project activities, that shall take place during the next invoice period;
- c) A list of outstanding items due to or from the City; and
- d) A status of the Project schedule.

1.11 The Contractor shall perform the work required under this Agreement pursuant to high quality industry standards expected by the City. The Contractor shall apply for and receive all appropriate permits before performing any work in the City. The Contractor shall also provide the appropriate permit drawings for Building Permits to be issued for the Project, if said permits are obligated by the Project. The City will assist the Contractor with obtaining the appropriate building and right-of-way permits.

1.12 The Contractor shall provide drawings of record, in the following 3 electronic formats for all locations where equipment has been installed and/or work has been performed. The electronic formats required by this Section 1.12 are Auto Cad Version 2007, ArcView and PDF.

1.13 Contractor recognizes that proper cleanup and removal of construction debris is an important safety consideration. The Contractor shall be solely responsible for daily construction site/area cleanup and removal of all construction debris in accordance with City-approved disposal

practices. Contractor shall be solely responsible for identifying and removing at its expense all hazardous material and waste which it uses and generates.

1.14 To the extent that there is any conflict between a provision specified in this Agreement, with a provision specified in any of the other Contract Documents, as defined in Section 1.15, this Agreement shall control. The City and the Contractor may amend this Section 1.14 as provided by Section 15 herein.

The Contractor acknowledges and agrees that the City has no retained control over any of the Work done pursuant to this Agreement, and that the City is expressly exempt from the retained control exception as defined in the Restatement of Torts, Second, Section 414. This provision shall survive completion, expiration, or termination of this Agreement.

1.15 The Contract Documents for this Project consist of:

- a) This Agreement;
- b) The City's RFP/RFQ, and the plans, specifications, general conditions, drawings addenda, and modifications thereto;
- c) The Contractor's response to the RFP/RFQ/Bid;
- d) Other exhibits and schedules, if any, listed in this Agreement;
- e) Amendments or Other Contract Documents, if any; and
- f) Amendments/Modifications to this Agreement issued after execution thereof.

1.16 As a condition of receiving payment, Contractor must (i) be in compliance with the Agreement, (ii) pay its employees prevailing wages when required by law (Examples of prevailing wage categories include public works, printing, janitorial, window washing, building and grounds services, site technician services, natural resource services, security guard and food services). Contractor is responsible for contacting the Illinois Dept. of Labor 217-782-6206; <http://www.illinois.gov/idol/Laws-Rules/CONMED/Pages/Rates.aspx> to ensure compliance with prevailing wage requirements), (iii) pay its suppliers and sub-contractors according to the terms of their respective contracts, and (iv) provide lien waivers to the City upon request.

## 2 Standard Certifications

Contractor acknowledges and agrees that compliance with this section and each subsection for the term of the Agreement is a material requirement and condition of this Agreement. By executing this Agreement, Contractor certifies compliance with this section and each subsection and is under a continuing obligation to remain in compliance and report any non-compliance.

This section, and each subsection, applies to sub-contractors used on this Agreement. Contractor shall include these Standard Certifications in any sub-contract used in the performance of the Agreement.

If this Agreement extends over multiple fiscal years, Contractor and its sub-contractors shall confirm compliance with this section in the manner and format determined by the City by the date specified by the City and in no event later than January 1 of each year that this Agreement remains in

effect.

If the City determines that any certification in this section is not applicable to this Agreement, it may be stricken, subject to sole approval by the City, without affecting the remaining subsections.

2.1 As part of each certification, Contractor acknowledges and agrees that should Contractor or its sub-contractors provide false information, or fail to be or remain in compliance with the Standard Certification requirements, one or more of the following sanctions will apply:

- the Agreement may be void by operation of law,
- the City may void the Agreement, and
- Contractor and its sub-contractors may be subject to one or more of the following: suspension, debarment, denial of payment, civil fine, or criminal penalty.

2.2 By signing this Agreement, the Contractor certifies that it has not been barred from being awarded a contract with a unit of State or local Government as a result of bid rigging or bid rotating or similar offense, nor has it made any admission of guilt of such conduct that is a matter of public record. (720 ILCS 5/33 E-3, E-4).

2.3 In the event of the Contractor's noncompliance with any provision of Section 1-12-5 of the Evanston City Code, the Illinois Human Rights Act or any other applicable law, the Consultant may be declared non-responsible and therefore ineligible for future contracts or sub-contracts with the City, and the contract may be cancelled or voided in whole or in part, and such other sanctions or penalties may be imposed or remedies invoked as provided by statute or regulation.

2.4 During the term of this Agreement, the Contractor agrees as follows:

- a) That it will not discriminate against any employee or applicant for employment because of race, color, religion, sex, sexual orientation, marital status, national origin or ancestry, or age or physical or mental disabilities that do not impair ability to work, and further that it will examine all job classifications to determine if minority persons or women are underutilized and will take appropriate affirmative action to rectify any such underutilization. Consultant shall comply with all requirements of City of Evanston Code Section 1-12-5.
- b) That, in all solicitations or advertisements for employees placed by it on its behalf, it will state that all applicants will be afforded equal opportunity without discrimination because of race, color, religion, sex, sexual orientation, marital status, national origin, ancestry, or disability.

2.5 The Contractor certifies pursuant to the Illinois Human Rights Act (775 ILCS 5/2105 *et. seq.*), that it has a written sexual harassment policy that includes, at a minimum, the following information:

- a) The illegality of sexual harassment;
- b) The definition of sexual harassment under State law;
- c) A description of sexual harassment utilizing examples;
- d) The Contractor's internal complaint process including penalties;
- e) Legal recourse, investigation and complaint process available through the Illinois Department of Human Rights and the Human Rights Commission, and directions on how to contact both; and
- f) Protection against retaliation as provided to the Department of Human Rights.

2.6 In accordance with the Steel Products Procurement Act (30 ILCS 565), Contractor certifies steel products used or supplied in the performance of a contract for public works shall be manufactured or produced in the U.S. unless the City grants an exemption.

2.7 Contractor certifies that it is properly formed and existing legal entity and as applicable has obtained an assumed name certificate from the appropriate authority, or has registered to conduct business in Illinois and is in good standing with the Illinois Secretary of State.

2.8 If Contractor, or any officer, director, partner, or other managerial agent of Contractor, has been convicted of a felony under the Sarbanes-Oxley Act of 2002, or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953, Contractor certifies at least five years have passed since the date of the conviction.

2.9 Contractor certifies that if more favorable terms are granted by Contractor to any similar governmental entity in any state in a contemporaneous agreement let under the same or similar financial terms and circumstances for comparable supplies or services, the more favorable terms will be applicable under this Agreement.

2.10 Contractor certifies that it is not delinquent in the payment of any fees, fines, damages, or debts to the City of Evanston.

2.11 The Contractor certifies that all Design Professionals performing the Work under this Agreement will ensure that the Project shall be designed in conformance with the Americans with Disabilities Act of 1990, 42 U.S.C. Section 12101, *et seq.*, and all regulations promulgated thereunder. Design Professional means any individual, sole proprietorship, firm, partnership, joint venture, corporation, professional corporation, or other entity that offers services under the Illinois Architecture Practice Act of 1989 (225 ILCS 305/), the Professional Engineering Practice Act of 1989 (225 ILCS 325/), the Structural Engineering Licensing Act of 1989 (225 ILCS 340/), or the Illinois Professional Land Surveyor Act of 1989 (225 ILCS 330/).

2.12 The Contractor shall comply with all federal, state and local laws, statutes, ordinances, rules, regulations, orders or other legal requirements now in force or which may be in force during the term of this Agreement. The Contractor shall comply with the Illinois Human Rights Act, 775 ILCS 5/1-101 *et seq.*, Title VII of the Civil Rights Act of 1964, and the Illinois Prevailing Wage Act, 820 ILCS 130/0.01 *et seq.*

### 3 Additional Services/Change Orders

3.1 If the representative of the City responsible for the Project verbally requests the Contractor to perform additional services, the Contractor shall confirm in writing that the services have been requested and that such services are additional services. Failure of the City to respond to the Contractor's confirmation of said services within thirty (30) calendar days of receipt of the notice shall be deemed a rejection of, and refusal to pay for the additional services. Contractor shall not perform any additional services until City has confirmed approval of said additional services in writing. If authorized in writing by the City, the Contractor shall furnish, or obtain from others, additional services of the following types, which shall be paid for by the City as set forth in Section 9 of this Agreement:

- a) Additional Services due to significant changes in scope of the Project or its design, including, but not limited to, changes in size, complexity or character of construction, or time delays for completion of work when such delays are beyond the control of the Contractor;
- b) Revisions of previously approved studies, reports, design documents, drawings or specifications;
- c) Preparation of detailed renderings, exhibits or scale models for the Project;
- d) Investigations involving detailed consideration of operations, maintenance and overhead expenses for the preparation of rate schedules, earnings and expense statements, feasibility studies, appraisals and valuations, detailed quantity surveys of material and labor, and material audits or inventories required for certification of force account construction performed by the City;
- e) Services not otherwise provided for in this Agreement.

3.2 The City may, upon written notice, and without invalidating this Agreement, require changes resulting in the revision or abandonment of work already performed by the Contractor, or require other elements of the work not originally contemplated and for which full compensation is not provided in any portion of this Agreement. Any additional services, abandonment of services which were authorized by the City, or changes in services directed by the City which result in the revision of the scope of services provided for in Exhibits A, B, C, and D that cause the total Compensation due Contractor under this Agreement to exceed \$25,000 or more, or increase or decrease the contract duration by more than 30 days are subject to approval by the Evanston City Council. These actions must be addressed either in a written Change Order or in a written amendment to this Agreement approved by both parties.

3.3 Contractor acknowledges and agrees that the Public Works Construction Change Order Act, 50 ILCS 525/1 et seq. shall apply to all Change Orders for the Project. It is expressly understood and agreed to by Contractor that it shall not be entitled to any damages or Compensation from the City on account of delay or suspension of all or any part of the Work. Contractor acknowledges that delays are inherent in construction projects and Contractor assessed that risk and fully included that risk assessment within its contract sum specified in its Response to the City Bid for this Project. The City shall not compensate Contractor for work that is more difficult than the contract sum specified in its Response would reflect. Delays to minor portions of the Work will not be eligible for extensions of time.

Delays to the Project caused by labor disputes or strikes involving trades not directly related to the Project, or involving trades not affecting the Project as a whole will not be eligible for an extension of time.

The City will not grant an extension of time for a delay by the Contractor's inability to obtain materials unless the Contractor first furnishes to the City documentary proof. The proof must be provided in a timely manner in accordance with the sequence of the Contractor's operations and accepted construction schedule.

In addition to any other changes requested by City (as described in Sections 3.1 and 3.2), the Company shall be entitled to request (and the City may grant) Change Orders with respect to:

- (a) The City-caused delays;
- (b) Change in Law;
- (c) Force Majeure Events.

The foregoing events shall entitle the Contractor to a change in the Compensation for this Project, if the Contractor demonstrates that it will unavoidably incur reasonable costs as a result thereof and the Contractor provides reasonable and detailed documentary support with respect to any such price impact.

The parties agree to reasonably confer regarding any such disputes with respect to the issuance of a Change Order.

Any payment for compensable delay will only be based upon actual costs excluding, without limitation, what damages, if any, the Contractor may have reasonably avoided. The Contractor understands that this is the sole basis for recovering delay damages and explicitly waives any right to calculate daily damages for office overhead, profit, or other purported loss.

All Contractor Change Orders authorized under this Section 3 shall be made in writing. In remitting a Change Order, the Contractor must first show in writing that:

- (a) The work was outside the scope of this Agreement,
- (b) The extra work was not made necessary due to any fault of Contractor;
- (c) The circumstances said to necessitate the change in performance were not reasonably foreseeable at the time the Agreement was signed;
- (d) The change is germane to the original Agreement; and
- (e) The Change Order is in the best interest of the City and authorized by law.

Any person who fails to first obtain the City's written authorization for a Change Order commits a Class 4 felony. The written determination and the written Change Order resulting from that determination shall be preserved in the contract's file which shall be open to the public for inspection.

**The City reserves all rights and causes of action, at law or equity, to seek redress against entities or persons who violate the requirements of this Section 3. By initialing below, Contractor hereby acknowledges that it is bound by this Section 3.**

**Contractor's Initials:** \_\_\_\_\_

3.4 The Contractor is required to include the City of Evanston as a reference whenever and wherever the Contractor provides references for similar projects for a period of one (1) year from the date of Final Acceptance by the City of the Work for this Project.

## 4 Bonds

4.1 Before the Scheduled Construction Commencement Date, the Contractor is required to furnish unconditional performance and payment bonds in the amount of 100% of the Compensation as security for the faithful performance and completion of all the Contractor's obligations under the Contract Documents and covering the payment of all materials used in the performance of this Agreement and for all labor and services performed under this Agreement. All Bonds shall be issued on a form acceptable to the City. The bonds must be for the entire term of the Agreement. Failure to provide these bonds shall constitute a breach of Contractor's obligations under this Agreement. Each surety providing the Bonds must have a Best's rating not less than A/X and be licensed in Illinois and shall be named in the current list of "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies" as published in Circular 570 as published in the Federal Register and available on the website of the U.S. Department of the Treasury, Financial Management Service, at [www.fms.treas.gov/c570/c570.html](http://www.fms.treas.gov/c570/c570.html). All Bonds signed by an agent must be accompanied by a certified copy of his or her authority to act. It shall be the duty of the Contractor to advise the surety or sureties of any Change Orders that result in an increase to the Compensation and to ensure that the amounts of the Bonds are updated to reflect and cover any such increases throughout the course of the Project. The cost of such Bonds shall be included within the Compensation.

4.2 If the surety behind any Bond furnished by the Contractor is declared bankrupt or becomes insolvent or its right to do business is terminated in the State or it ceases to meet any of the requirements of this Contract, the Contractor shall, within [5] five days thereafter, substitute another Bond of equivalent value and surety, both of which must be acceptable to the City. In addition, no further progress payments under the Agreement will be made by the City until the Contractor complies with the provisions of this Agreement. The Contractor shall furnish to the City proof of any required bonds and proof of required insurance as one of the conditions precedent to payment under the Agreement. Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment or performance of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or authorize a copy to be furnished. All surety Bonds provided for in this Section shall incorporate by reference this Agreement, and any language that may be in any such surety Bond which conflicts with the provisions of this Agreement that define the scope of the surety('s) duty(ies) shall be of no force and effect.

## 5 Liquidated Damages in the Event Contractor Fails to Complete the Work

5.1 The parties agree that failure of Contractor to timely complete the Work required by this Agreement constitutes a default. The parties agree that this default will result in damage and injury to City. The parties further agree, however, that actual damages incurred by City as result of such default is difficult if not impossible to ascertain with any degree of certainty or accuracy. Accordingly, the parties have negotiated and have agreed that for each calendar day after written notice is delivered to Contractor and Contractor fails to cure such default, that Contractor will pay City, as and for liquidated damages, and not as a penalty, a sum in the amount as specified in Section 108.09 of the IDOT Standard Specifications per calendar day. Contractor shall reimburse the City for all costs, expenses and fees (including, without limitation, attorneys' fees), if any, paid by the City in connection with such written demand by City. Contractor stipulates and agrees that the sums payable by Contractor under this Section are reasonable under the circumstances existing as of the execution of this Agreement. This Section 5.1 is not intended to limit any direct damages that may be recoverable by City related to the Contractor's failure to complete the Work in accordance with this Agreement. There shall be no early completion bonus if the Work is completed before the contract's deadlines. The City, at its option, may withhold liquidated damages from progress payments payable to Contractor before project completion.

## 6 The City's Responsibilities

6.1 The City may evaluate the Contractor's and any sub-contractor's performance (interim and final). Timeliness in meeting the Project schedule and the overall relationship with the Contractor are factors that will be considered in the Contractor's performance rating. An unfavorable performance rating may be a factor when future assignments are being considered.

6.2 The City makes no representation or warranty of any nature whatsoever as to the accuracy of information or documentation provided by the City to the Contractor which were generated or provided by third parties.

## 7 Period of Service

7.1 The Contractor shall commence work on the Project after supplying the City with the Contractor's performance and payment bonds and all required insurance documents before starting its Work on this Project. The City shall determine when the Contractor has completed the Work required pursuant to this Agreement, and shall determine the date of Final Acceptance. Contractor recognizes time is of the essence regarding its performance on this Project. Contractor shall continue to perform its obligations while any dispute concerning the Agreement is being resolved, unless otherwise directed by the City.

7.2 Each phase of the project shall be completed in accordance with the activities outlined in the City's Bid 26-06, Exhibit A.

## 8 Payment for Services and Reimbursements

8.1 Within the first five (5) business days of each month, the Contractor shall invoice the City for Work completed during the previous month. The Contractor shall provide a detailed invoice

that relates invoiced items to the Contractor's response to Bid 26-06 in both quantity and unit cost. Any discrepancies in the monthly invoice shall be promptly brought to the attention of the Contractor by the City Project Manager and efforts shall be made to promptly resolve said discrepancies between the City and Contractor. In the event the City and Contractor cannot resolve invoice discrepancies, items in dispute will be removed from the invoice and the City shall approve the remainder of the invoice. Payment will be made as soon as possible following the City Council meeting in which the item appeared on the bills list, and in accordance with all applicable laws and rules of the City of Evanston and the State of Illinois.

8.2 In the event of termination by the City of this Agreement pursuant to paragraph 9.1 after completion of any phase of the basic services, fees due the Contractor for services rendered through such phase shall constitute final payment for such services, and no further fees shall be due to the Contractor. In the event of such termination by the City during any phase of the basic services, the Contractor shall be paid for services rendered on the basis of the proportion of work completed on the phase to date of termination.

8.3 The City shall have the right to withhold payment to the Contractor due to the quality of a portion or all of the work performed hereunder which is not in accordance with the requirements of this Agreement, or which is unsatisfactory, or is due to the Contractor's failure or refusal to perform any of its obligations hereunder. Compensation in excess of the total contract amount specified in this Agreement will not be allowed unless justified in the City's sole judgment and authorized in advance as provided for in Section 3 of this Agreement. Compensation for improper performance by the Contractor is disallowed.

8.4 Upon completion of the Work performed by the Contractor, prior to the submission of a request for final payment, the City and Contractor shall perform a final acceptance test and review of the Work performed and/or equipment installed pursuant to the Agreement. A punch list of items outstanding will be jointly developed by the City and Contractor. In addition, the Contractor shall submit drawings of record for the Project for the City to approve. The Contractor shall promptly resolve all punch list items to the satisfaction of the City and shall transmit to the City in writing confirmation that all punch list items have been resolved. The City will review, and the Contractor shall modify, as necessary, any drawings of record to the satisfaction of the City. Punch list items and drawings of record must be approved by the City prior to the Contractor submitting its final invoice for payment.

8.5 The Contractor shall submit an Affidavit and a final waiver of its lien, and all final waivers of liens of any sub-contractors, suppliers, and sub-sub-contractors, if applicable, with its final invoice, stating that all obligations incurred in performance of the professional services have been paid in full. The Affidavit will also include a statement stating that the professional services were performed in compliance with the terms of the Agreement. The Affidavit and all final lien waivers shall be on a form acceptable to the City.

8.6 All Project invoices shall be sent to:

City of Evanston  
Public Works Agency

909 Davis Street  
Evanston, Illinois 60201

## 9 Notice and Cure/Termination

9.1 In furtherance of Contractor's Work on this Project, the City and the Contractor agree that the following Notice and Cure provision in this Section 9.1 shall apply during the duration of Contractor's work on this Project, in addition to the reserved rights of the City enumerated in this Agreement as follows:

- 5.1 Liquidated Damages;
- 8.3 City's right to withhold payment;
- 16.2 Contractor's duty to revise and correct errors; and
- 16.3 Contractor's duty to respond to City's notice of errors and omissions.

The City may notify Contractor of its intent to terminate this Agreement within (7) seven calendar days of issuance by the City of written notice to Contractor's Project Manager regarding defects in the Project or in Contractor's Work. The City shall specify any such nonconforming Work or defects in the Project in its notice to Contractor under this Section 9.1. Contractor will have the opportunity to cure the non-conforming Work within (7) seven calendar days after receipt of the written notice issued by the City. All such curative work done shall be performed and completed to the City's satisfaction. Nothing in this Section 9.1 shall otherwise affect the City's right to exercise its rights in Section 9.2.

9.2 The City shall have the right to terminate this Agreement upon fifteen (15) days written notice for any reason. Mailing of such notice shall be equivalent to personal notice and shall be deemed to have been given at the time of receipt.

Payments made by the City pursuant to this Agreement are subject to sufficient appropriations made by the City of Evanston City Council. In the event of termination resulting from non-appropriation or insufficient appropriation by the City Council, the City's obligations hereunder shall cease and there shall be no penalty or further payment required.

9.3 Within thirty (30) days of termination of this Agreement, the Contractor shall turn over to the City any documents, drafts, and materials, including but not limited to, outstanding work product, data, studies, test results, source documents, AutoCAD Version 2023, ArcView, PDF, Word, Excel spreadsheets, technical specifications and calculations, and any other such items specifically identified by the City related to the Work herein. Upon receipt of said items, the Contractor shall be paid for labor and expenses incurred to the date of termination as provided in Section 8.2. This Agreement is subject to termination by either party if either party is restrained by a state or federal court of competent jurisdiction from performing the provisions of this Agreement. Upon such termination, the liabilities of the parties to this Agreement shall cease, but they shall not be relieved of the duty to perform their obligations through the date of termination. No lien shall be filed by the Contractor in the event of a termination of this Agreement by the City.

9.4 If, because of death or any other occurrence, including, but not limited to, Contractor

becoming insolvent, it becomes impossible for any principal or principals of the Contractor to render the services set forth in this Agreement, neither the Contractor, nor its surviving principals shall be relieved of their obligations to complete the professional services. However, in the event of such an occurrence, the City at its own option may terminate this Agreement if it is not furnished evidence that competent professional services can still be furnished as scheduled.

9.5 In the event of an emergency or threat to the life, safety, or welfare of the citizens of the City, the City shall have the right to terminate this Agreement without prior written notice.

## 10 Insurance

10.1 The Contractor shall, at its own expense, secure and maintain in effect throughout the duration of this contract, insurance against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the Work hereunder by the Contractor, its agents, representatives, employees or sub-contractors. Contractor acknowledges and agrees that if it fails to comply with all requirements of this Section 10, the City may void the Agreement.

The Contractor must give to the City Certificates of Insurance identifying the City to be an Additional Insured for all Work done pursuant to this Agreement before City staff recommends award of the contract to City Council. Any limitations or modifications on the Certificate(s) of Insurance issued to the City in compliance with this Section that conflict with the provisions of this Section 10 shall have no force and effect.

After award of the Contract to Contractor (contracts over \$500,000 in value or if the project is deemed high risk) the Contractor **shall** give the City a certified copy (ies) of the insurance policy (ies) evidencing the amounts set forth in Section 10.2, and copies of the Additional Insured endorsement to such policy (ies) which name the City as an Additional Insured for all Work done pursuant to this Agreement before Contractor does any Work pursuant to this Agreement. Contractor's certificate of insurance shall contain a provision that the coverage afforded under the policy(s) will not be canceled or reduced without thirty (30) days prior written notice (hand delivered or registered mail) to the City. Contractor shall promptly forward new certificate(s) of insurance evidencing the coverage(s) required herein upon annual renewal of the subject policies.

The policies and the Additional Insured endorsement must be delivered to the City within two (2) weeks of the request. All insurance policies shall be written with insurance companies licensed or authorized to do business in the State of Illinois and having a rating of not less than A-VII according to the A.M. Best Company. Should any of the insurance policies be canceled before the expiration date, the issuing company will mail thirty (30) days written notice to the City. The Contractor shall require and verify that all sub-contractors maintain insurance meeting all of the requirements stated herein.

Any deductibles or self-insured retentions must be declared to and approved by the City. At the option of the City, either the insurer shall reduce or eliminate such deductibles or self-insured retentions as respects the City, its officers, officials, employees and volunteers; or the Contractor shall provide a financial guarantee satisfactory to the City guaranteeing payment of losses and

related investigations, claim administration and defense expenses.

10.2 Contractor shall carry and maintain at its own cost with such companies as are reasonably acceptable to City all necessary liability insurance (which shall include as a minimum the requirements set forth below) during the term of this Agreement, for damages caused or contributed to by Contractor, and insuring Contractor against claims which may arise out of or result from Contractor's performance or failure to perform the Services hereunder:

- a) Worker's compensation in statutory limits and employer's liability insurance in the amount of at least five hundred thousand dollars (\$500,000);
- b) Comprehensive general liability coverage which designates the City as an additional insured for not less than three million dollars (\$3,000,000) combined single limit for bodily injury, death and property damage, per occurrence;
- c) Comprehensive automobile liability insurance covering owned, non-owned, and leased vehicles for not less than one million dollars (\$1,000,000) combined single limit for bodily injury, death, or property damage, per occurrence; and

Contractor understands that the acceptance of Certificates of Insurance, policies, and any other documents by the City in no way releases the Contractor and its sub-contractors from the requirements set forth herein.

Contractor expressly agrees to waive its rights, benefits and entitlements under the "Other Insurance" clause of its commercial general liability insurance policy as respects the City. Contractor expressly agrees that its insurance coverage is required to be primary by this Agreement, that its insurance coverage shall be on a primary and non-contributory basis, and that it and its insurance carrier are estopped from denying such coverage is primary. In the event Contractor fails to purchase or procure insurance as required above, the parties expressly agree that Contractor shall be in default under this Agreement, and that the City may recover all losses, attorney's fees and costs expended in pursuing a remedy, or reimbursement, at law or in equity, against Contractor.

## 11 Indemnification

11.1 The Contractor shall defend, indemnify and hold harmless the City and its officers, elected and appointed officials, agents, and employees from any and all liability, losses, or damages as a result of claims, demands, suits, actions, or proceedings of any kind or nature, including but not limited to costs, and fees, including attorney's fees, judgments or settlements, resulting from or arising out of any negligent or willful act or omission on the part of the Contractor or Contractor's sub-contractors, employees, agents or sub-contractors during the performance of this Agreement. Such indemnification shall not be limited by reason of the enumeration of any insurance coverage herein provided. This provision shall survive completion, expiration, or termination of this Agreement.

11.2 Nothing contained herein shall be construed as prohibiting the City, or its officers, agents, or employees, from defending through the selection and use of their own agents, attorneys, and experts, any claims, actions or suits brought against them. The Contractor shall be liable for the

costs, fees, and expenses incurred in the defense of any such claims, actions, or suits. Nothing herein shall be construed as a limitation or waiver of defenses available to the City and employees and agents, including but not limited to the Illinois Local Governmental and Governmental Employees Tort Immunity Act, 745 ILCS 10/1-101 *et seq.*

At the City Corporation Counsel's option, Contractor must defend all suits brought upon all such Losses and must pay all costs and expenses incidental to them, but the City has the right, at its option, to participate, at its own cost, in the defense of any suit, without relieving Contractor of any of its obligations under this Agreement. Any settlement of any claim or suit related to this Project by Contractor must be made only with the prior written consent of the City Corporation Counsel, if the settlement requires any action on the part of the City.

To the extent permissible by law, Contractor waives any limits to the amount of its obligations to indemnify, defend, or contribute to any sums due under any Losses, including any claim by any employee of Contractor that may be subject to the Illinois Workers Compensation Act, 820 ILCS 305/1 *et seq.* or any other related law or judicial decision, including but not limited to, *Kotecki v. Cyclops Welding Corporation*, 146 Ill. 2d 155 (1991). The City, however, does not waive any limitations it may have on its liability under the Illinois Workers Compensation Act, the Illinois Pension Code or any other statute.

11.3 The Contractor shall be responsible for any losses and costs to repair or remedy work performed under this Agreement resulting from or arising out of any act or omission, neglect, or misconduct in the performance of its Work or its sub-contractors' work. Acceptance of the work by the City will not relieve the Contractor of the responsibility for subsequent correction of any such error, omissions and/or negligent acts or of its liability for loss or damage resulting therefrom.

11.4 All provisions of this Section 11 shall survive completion, expiration, or termination of this Agreement.

## 12 Drawings and Documents

12.1 Any drawings, survey data, reports, studies, specifications, estimates, maps, plans, computations, and other documents required to be prepared by the Contractor for the Project shall be considered Works for Hire and the sole property of the City.

12.2 The Contractor and its sub-contractor shall maintain for a minimum of three (3) years after the completion of this Agreement, or for three (3) years after the termination of this Agreement, whichever comes later, adequate books, records and supporting documents to verify the amounts, recipients and uses of all disbursements of funds passing in conjunction with the Agreement. The Agreement and all books, records and supporting documents related to the Agreement shall be available for review and audit by the City and the federal funding entity, if applicable, and the Contractor agrees to cooperate fully with any audit conducted by the City and to provide full access to all materials. Failure to maintain the books, records and supporting documents required by this Subsection shall establish a presumption in favor of the City for recovery of any funds paid by the City under the Agreement for which adequate books, records, and supporting documentation are not available to support their purported disbursement.

## 13 Successors and Assigns

13.1 The City and the Contractor each bind themselves and their partners, successors, executors, administrators, and assigns to the other party of the Agreement and to the partners, successors, executors, administrators, and assigns of such other party in respect to all covenants of this Agreement. Neither the City nor the Contractor shall assign, sublet, or transfer its interest in this Agreement without the written consent of the other. Nothing herein shall be construed as creating any personal liability on the part of any officer or agent of any public body, which may be a party hereto, nor shall it be construed as giving any right or benefits hereunder to anyone other than the City and the Contractor.

## 14 Force Majeure

14.1 Whenever a period of time is provided for in this Agreement for the Contractor or the City to do or perform any act or obligation, neither party shall be liable for any delays or inability to perform if such delay is due to a cause beyond its control and without its fault or negligence including, without limitation:

- a) Acts of nature;
- b) Acts or failure to act on the part of any governmental authority other than the City or Contractor, including, but not limited to, enactment of laws, rules, regulations, codes or ordinances subsequent to the date of this Agreement;
- c) Acts of war;
- d) Acts of civil or military authority;
- e) Embargoes;
- f) Work stoppages, strikes, lockouts, or labor disputes;
- g) Public disorders, civil violence, or disobedience;
- h) Riots, blockades, sabotage, insurrection, or rebellion;
- i) Epidemics or pandemics;
- j) Terrorist acts;
- k) Fires or explosions;
- l) Nuclear accidents;
- m) Earthquakes, floods, hurricanes, tornadoes, or other similar calamities;
- n) Major environmental disturbances; or
- o) Vandalism.

If a delay is caused by any of the *force majeure* circumstances set forth above, the time period shall be extended for only the actual amount of time said party is so delayed. Further, either party claiming a delay due to an event of *force majeure* shall give the other party written notice of such event within three (3) business days of its occurrence or it shall be deemed to be waived.

## 15 Amendments and Modifications

15.1 Except as otherwise provided herein, the nature and scope of Work specified in this Agreement may only be modified by a written Change Order, or a written amendment to this Agreement, approved by both parties. This Agreement may be modified or amended from time to

time provided, however, that no such amendment or modifications shall be effective unless reduced to writing and duly authorized and signed by the authorized representatives of the parties.

## 16 Standard of Care & Warranty

16.1 The Contractor shall perform all of the provisions of this Agreement to the satisfaction of the City. The City shall base its determination of the Contractor's fulfillment of the scope of the work in accordance with generally accepted professional standards applicable to the Work for this Project. The Contractor shall perform all of the provisions of this Agreement with that degree of care and skill ordinarily exercised by members of the same profession currently practicing under similar conditions.

16.2 The Contractor shall be responsible for the accuracy of its professional services under this Agreement and shall promptly make revisions or corrections resulting from its errors, omissions, or negligent acts without additional compensation. The City's acceptance of any of the Contractor's professional services shall not relieve the Contractor of its responsibility to subsequently correct any such errors or omissions. If a Contractor has provided the City with specifications for this Project which are determined to be incorrect or which require revision during the solicitation process (including but not limited to Requests for Proposals, Requests for Qualifications, or bids), the Contractor shall make such corrections or revisions to the specifications at no cost to the City. Further, upon receipt of an invoice from the City, the Contractor shall promptly reimburse the City for the reasonable costs associated with the preparation and dissemination of said corrections or revisions to appropriate parties, including but not limited to preparation of the corrected or revised documents, and printing and distribution costs.

16.3 During the pendency of its Work on this Project, the Contractor shall respond to the City's notice of any errors or omissions within twenty-four (24) hours. The Contractor shall be required to promptly visit the Project site(s) if directed to by the City.

16.4 The Contractor shall comply with all federal, state, and local statutes, regulations, rules, ordinances, judicial decisions, and administrative rulings applicable to its performance under this Agreement.

16.5 Contractor guarantees and warrants to the City that:

- a) All materials and equipment furnished under this Agreement shall be of good quality and new, unless otherwise required or permitted by the Contract Documents;
- b) The Work of this Agreement shall be free from defects which are not inherent in the quality required; and
- c) The Work shall comply with the requirements set forth in the Contract Documents.

This warranty and guarantee shall be for a period of one (1) year from the date of completion and Final Acceptance of the Work by the City, or as otherwise provided in the Contract Documents.

If, within the one year warranty period, after the Contractor has received a final payment

under this Agreement, any of the Work is found to be not be in accordance with the requirements of this Agreement, or where defects in materials or workmanship may appear, or be in need of repair, the Contractor shall correct non-conforming and/or defective work or materials promptly after receipt of written notice from the City. Contractor shall immediately at its own expense repair, replace, restore, or rebuild any such Work. This remedy is in addition to any other legal or equitable remedies the City may have under this Agreement or the law.

This guarantee and warranty shall not relieve Contractor of liability for latent defects, and shall be in addition to the City's rights under the law or other guarantees or warranties, express or implied.

16.6 The provisions of this Section 16 shall survive the completion, expiration or termination of this Agreement.

## 17 Savings Clause

17.1 If any provision of this Agreement, or the application of such provision, shall be rendered or declared invalid by a court of competent jurisdiction, or by reason of its requiring any steps, actions, or results, the remaining parts or portions of this Agreement shall remain in full force and effect.

## 18 Non-Waiver of Rights

18.1 No failure or delay by the City to exercise any power given to it hereunder or to insist upon strict compliance by Contractor with its obligations hereunder, nor any payment made by the City under this Agreement, shall constitute a waiver of the City's right to demand strict compliance with the terms hereof, unless such waiver is in writing and signed by the City.

## 19 Entire Agreement

19.1 This Agreement sets forth all the covenants, conditions and promises between the parties with regard to the subject matter set forth herein. There are no covenants, promises, agreements, conditions or understandings between the parties, either oral or written, other than those contained in this Agreement. This Agreement has been negotiated and entered into by each party with the opportunity to consult with its counsel regarding the terms therein. No portion of the Agreement shall be construed against a party due to the fact that one party drafted that particular portion as the rule of *contra proferentem* shall not apply.

## 20 Governing Law

20.1 This Agreement shall be construed in accordance with and subject to the laws and rules of the City of Evanston and the State of Illinois both as to interpretation and performance. Venue for any action arising out of or due to this Agreement shall be in Cook County, Illinois. The City shall not enter into binding arbitration to resolve any dispute related to this Agreement. The City does not waive tort immunity by entering into this Agreement.

## 21 Ownership of Contract Documents

21.1 Contractor is specifically prohibited from using in any form or medium, the name or logo of the City for public advertisement, unless expressly granted written permission by the City. Submission or distribution of documents to meet official regulatory requirements or for similar purposes in connection with this Project is not to be construed as publication in derogation of the City's reserved rights.

## 22 Notice

22.1 Any notice required to be given by this Agreement shall be deemed sufficient if made in writing and sent by certified mail, return receipt requested, or by personal service, to the persons and addresses indicated below or to such other addresses as either party hereto shall notify the other party of in writing pursuant to the provisions of this Subsection:

City of Evanston Project Manager, Bid 26-06  
909 Davis Street  
Evanston, Illinois 60201

if to the Contractor:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

22.2 Mailing of such notice as and when provided above shall be equivalent to personal notice and shall be deemed to have been given at the time of mailing.

## 23 Severability

23.1 Except as otherwise provided herein, the invalidity or unenforceability of any particular provision, or part thereof, of this Agreement shall not affect the other provisions, and this Agreement shall continue in all respects as if such invalid or unenforceable provision had not been contained herein.

## 24 Execution of Agreement

24.1 This Agreement shall be signed last by the City Manager.

## 25 Counterparts

25.1 For convenience, this Agreement may be executed in any number of counterparts, each of which shall be deemed to be an original.

## 26 Authorizations

26.1 The Contractor's authorized representatives who have executed this Agreement

warrant that they have been lawfully authorized by the Contractor's board of directors or its bylaws to execute this Agreement on its behalf. The City Manager affirms that he/she has been lawfully authorized to execute this Agreement. The Contractor and the City shall deliver upon request to each other copies of all articles of incorporation, bylaws, resolutions, ordinances, or other documents which evidence their legal authority to execute this Agreement on behalf of their respective parties.

## 27 Time of Essence

27.1 Time is of the essence with respect to each provision hereof in which time is a factor.

IN WITNESS WHEREOF, the parties hereto have caused this Agreement to be signed by their duly authorized representatives. The effective date of this Agreement will be the date this Agreement is signed by the City Manager.

**CONTRACTOR**

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

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

Its: \_\_\_\_\_

Date: \_\_\_\_\_

**CITY OF EVANSTON**

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

Luke Stowe

Its: City Manager

Date: \_\_\_\_\_

Approved as to form:

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

Alexandra B. Ruggie

Its: Corporation Counsel

Revision: April 2021

**EXHIBIT P**

**BID BOND SUBMITTAL LABEL**

**CUT AND ATTACH LABEL ON OUTSIDE OF SEALED BID BOND SUBMITTAL**



**BID SUBMITTAL NUMBER:** \_\_\_\_\_

**BID SUBMITTAL NAME:** \_\_\_\_\_

\_\_\_\_\_

**BID SUBMITTAL DUE DATE/TIME:** \_\_\_\_\_

**COMPANY NAME:** \_\_\_\_\_

**COMPANY ADDRESS:** \_\_\_\_\_

**COMPANY TELEPHONE #:** \_\_\_\_\_



If required by the bid documents, a scanned copy of the bid bond must be included with the bid electronic submission. The city is currently not able to accept a certified check, bank cashier's check or electronic bid bond at this time.

The original bid bond (in the amount of 5% of the original bid amount) must be mailed within ten (10) days after the bid due date, to the City of Evanston Purchasing Department, 909 Davis Street, Evanston, Illinois 60201 Attention Purchasing Manager using the USPS (certified or priority), UPS or FedEx mail options in order to have a tracking number; which sum shall be forfeited in case the successful bidder fails to enter into a binding contract and provide a properly executed contract and surety bond within 15 days after the date the contract is awarded by the City.

**SECTION 01 00 00**

**PROJECT REQUIREMENTS**

**PART 1 – GENERAL**

1.1 GENERAL NOTE

- A. The following requirements are a component part of all contract divisions and form a part of each specification section in so far as they may be in any way applicable thereto.

1.2 RELATED WORK

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this section.

1.3 SCHEDULE OF DRAWINGS

- A. The following drawings form a component part of all contract documents for this project.

Title of the Drawings:

<u>Sheet No.</u>	<u>Drawing Title</u>
1.0	Title Sheet
1.1	Sheet Index

Cartwright Park  
C 2.0 Soil & Sediment Control Plan  
C 2.1 Tree Preservation & Removals Plan  
C 2.2 Existing Conditions & Removals Plan  
C 3.0 Layout Plan  
C 3.1 Playground Enlargement  
C 4.0 Dimension Plan - Paving  
C 4.1 Dimension Plan - Equipment  
C 5.0 Grading Plan  
C 5.1 Utility Plan  
C 6.0 Landscape Plan  
C 6.1 Landscape Plan - Enlargements  
C 7.0 Construction Details  
C 7.1 Construction Details  
C 7.2 Construction Details  
C 7.3 Construction Details  
C 7.4 Construction Details  
C 7.5 Construction Details  
C E0.0 Electrical Coversheet  
C ED1.1 Electrical Site Demolition  
C E1.1 Electrical Site Plan  
C E1.2 Electrical Site Plan - Photometrics  
C E2.0 Electrical Details  
C E3.0 Electrical Diagrams  
C E4.0 Electrical Schedules  
C E5.0 Electrical Site Lighting - Cut Sheets  
C E5.1 Electrical Site Lighting - Cut Sheets

Fitzsimons Park  
F 2.0 Soil Erosion & Sediment Control Plan  
F 2.1 Tree Preservation & Removals Plan

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

- F 2.2 Existing Conditions & Removals Plan - Overall
- F 2.3 Existing Conditions & Removals Plan - West
- F 2.4 Existing Conditions & Removals Plan - East
- F 3.0 Layout Plan
- F 4.0 Dimension Plan - Paving
- F 4.1 Dimension Plan - Equipment
- F 5.0 Grading Plan
- F 5.1 Utility Plan
- F 6.0 Landscape Plan
- F 6.1 Landscape Plan - Enlargements
- F 7.0 Construction Details
- F 7.1 Construction Details
- F 7.2 Construction Details
- F 7.3 Construction Details
- F E0.0 Electrical Coversheet
- F ED1.1 Electrical Site Plan Demolition
- F E1.1 Electrical Site Plan
- F E2.0 Electrical Details

1.4 PROJECT SUMMARY

- A. Work on this project includes improvements to Cartwright Park and Fitzsimons Park. Improvements at Cartwright Park include a children's playground, pavements, drainage, plumbing, electrical, lighting, shade structures, sport courts, site amenities and landscaping. Improvements at Fitzsimons Park includes a children's playground, pavements, plumbing, ComEd and Comcast service relocation, shade structures, site amenities and landscaping.

1.5 SPECIAL PROCEDURES AND REQUIREMENTS

A. Fire Protection

1. Regulations: The Contractor shall comply with all federal, state and local fire regulations.
2. Fires: The Contractor shall prohibit the lighting of fires about the premises and use due diligence to see that such prohibition is enforced. Debris and waste materials shall not be burned at the construction site but shall be promptly removed to prevent the accumulation of combustibles on the site.
3. Smoking: Smoking shall be restricted to designated exterior locations. The Contractor shall furnish and post "NO SMOKING" signs at appropriate locations throughout the site where operations are conducted.
4. Flammables: Gasoline and other fuels shall be kept and handled from National Board of Fire underwriter's approved safety cans and shall be stored away from hazardous work areas.

B. Limit of Contractor's Operations

1. Work Areas: Work areas shall be confined to the limits of the construction site. The allotment of work areas within the site to Subcontractors shall be made by the Contractor. The general scheme of operations, work area assignments and use of the job site shall be subject to the Owner's approval.
2. Site Access: Uncontrolled or unrestricted site access will not be permitted for materials, debris or equipment. All access routes and methods shall be controlled by the Contractor so as to minimize the disruption of the Owner's operations and shall be subject to approval by the Owner. Walks, roads and other existing site

**CARTWRIGHT AND FITZSIMONS PARKS  
CITY OF EVANSTON  
ISSUED FOR BID**

features used in moving materials shall be properly protected to prevent damage thereto.

C. Hoists, Scaffolds and Ladders

1. Hoists: The Contractor shall furnish, erect, operate and maintain suitable hoisting equipment as may be necessary for constructing the work. Material hoists shall be constructed and maintained in accordance with all applicable federal, state and local laws, regulations and ordinances. Location of hoists shall be subject to approval by the Owner's representative.
2. Scaffolds and Ladders: The Contractor shall furnish, erect, maintain and move all scaffold and ladders required for his work. Scaffolds shall be constructed and maintained in accordance with all applicable federal, state and local laws, regulations and ordinances. Scaffolds and ladders shall be promptly removed after their purpose has been served.

D. Documentation of Existing Conditions

1. Before starting any work, the Contractor shall examine the site to be worked on and the grounds in the staging area and areas adjacent to the site that will be worked on for any existing damage. The Contractor should notify the City's representative of any damage found immediately. The City will photograph and note any existing damage that has been brought to his attention by the Contractor. After the Work has been completed the City will inspect the area used by the Contractor. If any damage is found that was not reported previously, this damage would be considered to have been done by the Contractor. The cost to repair said damage shall be solely borne by the Contractor.

1.6 TEMPORARY CONSTRUCTION FACILITIES

- A. The following temporary utilities and facilities on the construction site shall be provided by the party indicated below:

ITEM	PROVIDER
Telephone	General Contractor
Electricity	General Contractor
Water	General Contractor
Toilets	General Contractor
Parking spaces for Contractor vehicles	Within job site only
Parking spaces for workmen	Within job site at Cartwright Park. Street parking at Fitzsimons Park.
Storage areas & facilities	Limited unsecured space within job site
Temporary heat	General Contractor
Job-site trailers & offices	General Contractor

**PART 2 – PRODUCTS  
(NOT APPLICABLE)**

**PART 3 – EXECUTION  
(NOT APPLICABLE)**

**END OF SECTION 01 00 00**

**SECTION 01 01 00**

**SUMMARY OF WORK**

**PART 1 – GENERAL**

**1.1 WORK COVERED BY CONTRACT DOCUMENTS**

- A. The Project Manual and accompanying drawings are intended to cover the work necessary to construct the various headings of work as described in detail herein.
- B. The work to be performed under this contract shall consist of the furnishing of all materials, equipment, supplies, labor and transportation, and performing all work as required to strictly conform to the provisions of the specifications, schedules and drawings, all of which are made a part herein, together with such detail drawings as may be furnished by the Owner from time to time during the prosecution of the work in amplification of said drawings and specifications.

**1.2 RELATED WORK**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this section.

**1.3 CONTRACT ORGANIZATION**

- A. This Construction Project is organized under a single contract between the Owner and the Contractor. The Contractor is responsible for all plans and specification sections as presented in this project manual.

**1.4 WORK SEQUENCE**

- A. All work and sequence of operations shall be as scheduled in conjunction with all subcontractors, and the Owner in such a manner as not to hinder or delay any other contractors in the progress of their work, and to an end that will expedite the work to completion at the earliest possible date.
- B. Both Contractor and Subcontractor shall cooperate to execute their work as scheduled to minimize the delays to each other and to cause the least inconvenience to the Owner and the public.

**1.5 CONTRACTORS' USE OF PREMISES**

- A. The Contract shall limit his use of the premises for work and for storage to allow for:
  - 1. Work by other contractors
  - 2. Owner occupancy
  - 3. Public use
- B. Coordinate the use of the premises under direction of the Owner. Stage work so as to avoid disruption to Owner's operation.
- C. Assume full responsibility for the protection and safekeeping of products under this Contract, which are stored at the project site or on the Contractor's property.

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

- D. Move any stored products, under Contractor's control, which interfere with operation of the Owner or separate contractor.
- E. Obtain and pay for the use of additional storage or work areas needed for operations.

1.6 OWNER OCCUPANCY

- A. The City and the public will not occupy the park properties during execution of the work.
- B. Contractor shall not utilize or prevent access to any existing utility easement areas during the entire construction period.

1.7 LINES, LEVELS AND LAYOUT OF WORK

- A. The Contractor shall establish and guarantee all lines, levels, etc. called for on the drawings, including the lines, levels, etc. of all Subcontractors.

1.8 DESCRIPTION OF SITE

- A. Cartwright Park is a 2.25-acre neighborhood park located at the intersection of Grant Street and Prospect Avenue in Evanston, Illinois. The park consists of a children's playground, pathways, lighting, tennis courts, basketball court, site amenities and landscaping.
- B. Fitzsimons Park is a 0.126-acre neighborhood park located at the intersection of Lee Street and Elmwood Avenue. The park consists of a children's playground, pathways, tennis courts, site amenities and landscaping.

1.9 WORK HOURS

- A. Work hours are 7:00 am to 7:00 pm, Monday through Friday and 8:00 am to 5:00 pm on Saturday. No work is allowed on Sundays. Access to the site will not be allowed outside of normal work hours.

1.10 CONTRACTOR'S DUTIES

- A. Except as specifically noted, provide and pay for:
  - 1. Labor, materials and equipment.
  - 2. Tools, construction equipment and machinery
  - 3. Water, heat, and utilities required for construction or the Contractor's operations.
  - 4. Other facilities and services necessary for proper execution and completion of work, including traffic control and temporary work.
- B. Promptly submit written notice to the Architect of any observed variance of the Contract Documents from legal requirements. It is not the Contractor's responsibility to make certain that the Drawings and Specifications comply with codes and regulations.
  - 1. Appropriate modifications to the Contract Documents will adjust the necessary changes.

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

2. The Contractor shall assume responsibility for work known to be contrary to such requirements, and performed without such notice.
- C. Enforce strict discipline and good order among employees. Do not employ on work:
1. Unfit persons
  2. Persons not skilled in assigned task
- D. Existing Conditions
1. The Contractor shall be responsible for obtaining and verifying all dimensions. Any dimension give in the Drawings referring to existing construction were taken from the original construction documents and are provided for information only.
  2. Where conditions are uncovered that are not anticipated by the Drawings and Specifications, the Contractor shall notify the Engineer and Owner's Representative immediately, before any modification or other work is initiated.

**PART 2 – PRODUCTS**  
**(NOT APPLICABLE)**

**PART 3 – EXECUTION**  
**(NOT APPLICABLE)**

**END OF SECTION 01 01 00**

**SECTION 01 02 70**

**APPLICATIONS FOR PAYMENT**

**PART 1 – GENERAL**

**1.1 SUMMARY**

- A. Contractor shall comply with procedures described in this Section when applying for progress payments and final payment under the Contract.

**1.2 RELATED WORK**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.
- B. Payments upon Substantial Completion and Completion of the Work are described in Section 01 70 00 – PROJECT CLOSEOUT.
- C. The Owner's approval of applications for progress payment and final payment may be contingent upon the Owner's approval of status of Project Record Documents as described in Section 01 72 00 – PROJECT RECORD DOCUMENTS of these Specifications.

**1.3 QUALITY ASSURANCE**

- A. Prior to start of construction, secure the Owner's approval of the schedule of values required to be submitted as specified below.
- B. During progress of the Work, modify the schedule of values as approved by the Owner to reflect changes in the Contract Sum due to Change Orders or other modifications of the Contract.
- C. All requests for payment shall be based on the approved Schedule of Values for the project.
- D. All modifications to the contract shall be based on the approved Schedule of Values for the project.

**1.4 SCHEDULE OF VALUES**

- A. Coordinate preparation of the Schedule of Values with preparation of the Contractor's Construction Schedule.
  - 1. Correlate line items in the Schedule of Values with other required administrative schedules and forms, including:
    - a. Contractor's construction schedule.
    - b. Application for Payment forms.
    - c. List of subcontractors.
    - d. Schedule of alternates.
    - e. List of products.
    - f. List of principal suppliers and fabricators.



**CARTWRIGHT AND FITZSIMONS PARKS  
CITY OF EVANSTON  
ISSUED FOR BID**

**B. Formal submittal**

1. Make formal submittal of request for payment by filling in the agreed data, by typewriter or neat lettering in ink, on AIA Document G702, "Application and Certification for Payment," plus continuation sheet(s) of AIA Document G703.
2. Sign and notarize the Application and Certificate for Payment.
3. Reference Purchase Order number on Application for Payment
4. Secure and file with submittal progress waivers for all materials incorporated into and labor and equipment employed on the work before payment requests are processed.
  - a. Initial payment will be processed without progress waivers. Subsequent requests will require progress waivers for previous payment.
5. Submit the original of the Application and Certificate for Payment and the continuation sheet or sheets to the Architect and Owner for approval.
6. The Architect and Owner will compare the formal submittal with the approved informal submittal and, when approved, will sign the Application and Certificate for Payment, will make and distribute required copies. The Owner will disburse directly to the Contractor the amount certified less 10% retainage.
7. Approved formal submittals must be received by the Owner in accordance with the Owner's payment schedule.
8. Certified payroll records must be submitted along with the formal submittal as described in the General Conditions.

**PART 2 – PRODUCTS**

**(NOT APPLICABLE)**

**PART 3 – EXECUTION**

**(NOT APPLICABLE)**

**END OF SECTION 01 02 70**

**SECTION 01 04 50**  
**CUTTING AND PATCHING**

**PART 1 - GENERAL**

1.1 SUMMARY

- A. This Section establishes general requirements pertaining to cutting (including excavation), fitting and patching of the Work required.

1.2 RELATED WORK

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.
- B. Execute cutting (including excavation), filling or patching of work, required to:
  - 1. Make several parts fit properly.
  - 2. Uncover work to provide for installation of ill-timed work.
  - 3. Remove and replace defective work.
  - 4. Remove and replace work not conforming to the Contract requirements.
  - 5. Remove samples of installed work as specified for testing.
  - 6. Install specified work in existing construction.
- C. In addition to Contract requirements, upon written instruction of the Owner:
  - 1. Uncover work to provide for observation of covered work.
  - 2. Remove samples of installed materials for testing.
  - 3. Remove work to provide for alteration of existing work.
- D. Do not cut or alter work of another contractor without written consent of the Owner.

1.3 SUBMITTALS

- A. Prior to cutting which affects structural safety of Project, or work of another contractor, submit written notice to the Owner requesting consent to proceed with cutting.
- B. Include the following:
  - 1. Project identification.
  - 2. Description of affected work.
  - 3. Necessity for cutting.
  - 4. Effect on other work and on structural integrity of Project.
  - 5. Description of proposed work. Designate:
    - a. Scope of cutting and patching.
    - b. Contractor and trades to execute the work.
    - c. Products proposed to be used.
    - d. Extent of refinishing.
  - 6. Alternatives to cutting and patching.
  - 7. Designation of party responsible for cost of cutting and patching.

## **CARTWRIGHT AND FITZSIMONS PARKS**

### **CITY OF EVANSTON**

#### **ISSUED FOR BID**

- C. Prior to cutting and patching done by instruction of Owner, submit cost estimate.
- D. Should conditions of work or schedule indicate change of materials or methods, submit recommendations to the Owner, including:
  - 1. Conditions indicating change.
  - 2. Recommendation for alternative materials or methods.
  - 3. Submittals as required for substitutions.
- E. Submit written notice to the Owner, designating time the work will be uncovered to provide for observation.

#### **1.4 PAYMENT FOR COSTS**

- A. Costs caused by ill-timed or defective work, or work not conforming to Contract Documents: Party responsible for ill-timed, rejected or non-conforming work.
- B. Work done on instruction of the Owner (by Change Order), other than defective or non-conforming work shall be paid for by the Owner.

#### **1.5 QUALITY ASSURANCE**

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

## **PART 2 - PRODUCTS**

### **2.1 MATERIALS**

- A. For replacement of work removed, comply with Specifications for type of work to be performed.

## **PART 3 - EXECUTION**

### **3.1 INSPECTION**

- A. Inspect existing conditions of work, including elements subject to movement or damage during:
  - 1. Cutting and patching.
  - 2. Excavating and backfilling
- B. After uncovering work, inspect conditions affecting installation of new products.

### **3.2 PREPARATION**

- A. Prior to cutting:
  - 1. Provide shoring, bracing and support as required to maintain structural integrity of project.
  - 2. Provide protection for other portions of the project.
  - 3. Provide protection from the elements.

### **3.3 PERFORMANCE**

- A. Execute fitting and adjustment or provide finished installation to comply with specified tolerances and finishes.

**CARTWRIGHT AND FITZSIMONS PARKS**

CITY OF EVANSTON

ISSUED FOR BID

- B. Execute cutting and demolition by methods which will prevent damage to other work, and will provide proper surfaces to receive installation of repairs and new work.
  
- C. Execute excavating and backfilling by methods which will prevent damage to other work, and will prevent settlement.
  
- D. Restore work which has been cut or removed; install new products to provide complete work in accordance with contract requirements.
  
- E. Refinish entire surfaces as necessary to provide an even finish.
  - 1. Continuous surfaces: to nearest intersection (s).
  - 2. Assembly: entire refinishing.

**END OF SECTION**

**SECTION 01 05 10**

**GRADES, LINES AND LEVELS**

**PART 1 – GENERAL**

**1.1 SUMMARY**

- A. Provide such field engineering services as are required for proper completion of the Work including, but not necessarily limited to:
  - 1. Establishing and maintaining grades, lines and levels;
  - 2. Structural design of shores, forms and similar items provided by the Contractor as part of the means and methods of establishing and maintaining grades lines and levels.

**1.2 RELATED WORK**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.3 OWNER WILL FURNISH**

- A. A topographic map of the site as part of the Construction Documents, providing the following locations, dimensions and data:
  - 1. Grades, contours and lines of pavements and ground conditions.
  - 2. Above ground utility locations.
  - 3. Trees and vegetation.

**1.4 SUBMITTALS**

- A. Submit a record of Work performed and record survey data as required under provisions of Section 01 30 00 – SUBMITTALS and Section 01 72 00 – PROJECT RECORD DOCUMENTS.
- B. Comply with pertinent provisions of Section 01 30 00 – SUBMITTALS.
- C. Upon written request of the Owner, submit:
  - 1. Data demonstrating qualifications of persons proposed to be engaged for field engineering services.
  - 2. Documentation verifying accuracy of field engineering work.
  - 3. Certification, signed by the contractor's retained field engineer, certifying that elevations and locations of improvements are in conformance or nonconformance with requirements of the Contract Documents.

**1.5 CONSTRUCTION SURVEYS**

- A. The Contractor shall employ a land surveyor, registered in the state of Illinois and acceptable to the Owner for verification of existing conditions and for layout of its own work including all lines, elevations and measurements of all site improvements, utilities and other work executed by it under the Contract.

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

- B. The Contractor shall immediately upon entering the site for purpose of beginning work locate general reference points and take such action as is necessary to prevent their destruction. The Contractor must exercise proper precaution to verify figures on the drawings before laying out work and will be held responsible for any error resulting from its failure to exercise such precaution.
- C. The Contractor shall make provision to preserve property line stakes, benchmarks or datum points. If any are lost, displaced or disturbed through neglect of the Contractor, its agents, or employees, the Contractor shall pay the cost of restoration.

**PART 2 – PRODUCTS**

**(NOT APPLICABLE)**

**PART 3 – EXECUTION**

**3.1 EXAMINATION**

- A. Verify layout information shown on the Drawings, in relation to the plans before proceeding to layout the Work. Locate and protect existing benchmarks and control points. Preserve permanent reference points during construction.
- B. Do not change or relocate benchmarks or control points without prior written approval. Promptly report lost or destroyed reference points, or requirements to relocate reference points because of necessary changes in grades or locations.
  - 1. Promptly replace lost or destroyed project control points. Base replacements on original survey control points.
  - 2. Establish and maintain a minimum of two permanent benchmarks on the site or reference to data established by survey control points.
  - 3. Record benchmark locations with horizontal and vertical data on Project Record Documents.
- C. The existence and location of underground and other utilities and construction indicated as existing are not guaranteed. Before beginning site-work, investigate and verify the existence and location of underground utilities and other construction.
- D. Prior to construction, verify the location and invert elevation at points of connection of sanitary sewer, storm sewer, gas and water service piping.

**3.2 PERFORMANCE**

- A. Working from lines and levels established by the plans, establish benchmarks and markers to set lines and levels as needed to properly locate each element of the Project. Calculate and measure required dimensions within indicated or recognized tolerances. Do not scale Drawings to determine dimensions.
- B. Advise entities engaged in construction activities, of marked lines and levels provided for their use.
- C. As construction proceeds, check every major element for line, level and plumb.

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

- D. Maintain a surveyor's log of control and other survey work. Make this log available at the job site for reference.
- E. Record deviations from required lines and levels and advise the Owner when deviations that exceed indicated or recognized tolerances are detected. On Project Record Drawings, record deviations that are accepted and not corrected.
- F. On completion of any work requiring field engineering services, prepare a certified survey showing dimensions, locations, angles and elevations of construction and site-work. Deliver this certified survey to the Owner in hardcopy and electronic format (AutoCAD).
- G. Locate and layout site improvements, including pavements, stakes for grading, fill and topsoil placement, utility slopes and invert elevations by instrumentation and similar appropriate means.
- H. Furnish information necessary to adjust, move or relocate existing structures, utility poles, lines, services or other appurtenances located in or affected by construction. Coordinate with local authorities having jurisdiction.

**END OF SECTION 01 05 10**

**SECTION 01 06 00**

**REGULATORY REQUIREMENTS**

**PART 1 – GENERAL**

**1.1 SUMMARY**

- A. Contractors shall comply with all laws, rules and regulations governing the Work.
  - 1. When Contractor observes that Contract Documents are in variance with specified codes, notify the Owner in writing immediately. The Owner will issue all changes in accord with the General Conditions.
  - 2. When Contractor performs any Work knowing or having reason to know that the Work is contrary to such laws, rules and regulations and fails to so notify the Owner, the Contractor shall pay all costs arising therefrom. However, it will not be the Contractor's primary responsibility to make certain that the Contract Documents are in accord with such laws, rules and regulations.

**1.2 RELATED WORK**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.3 DEFINITIONS AND ABBREVIATIONS**

- A. Definitions
  - 1. "Codes" means rules, regulations or statutory requirements of government agencies.
  - 2. "Standards" means requirements set by authorities, custom or general consent and establish accepted criteria.
- B. Abbreviations
  - 1. ADA Americans with Disabilities Act
  - 2. AGCI Associated General Contractors in Illinois
  - 3. ANSI American National Standards Institute
  - 4. ASHRAE American Society of Heating, Refrigeration and Air Conditioning Engineers
  - 5. ASTM American Society of Testing and Materials
  - 7. COE City of Evanston
  - 8. CPSC Consumer Product Safety Commission (Federal)
  - 9. FM Factory Mutual Engineering Corp.

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

9.	IBC	International Building Code
10.	IDOL	Illinois Department of Labor
11.	IDOT	Illinois Department of Transportation
12.	IDPH	Illinois Department of Public Health
13.	IEPA	Illinois Environmental Protection Agency
14.	IECC	International Energy Conservation Code
14.	ISPE	Illinois Society of Professional Engineers
15.	NFPA	National Fire Protection Association
16.	SFM	Office of State Fire Marshall
17.	UL	Underwriters Laboratories, Inc.

**1.4 QUALITY ASSURANCE**

**A. Contractor shall:**

1. Ensure that copies of specified codes and standards are readily available to Contractor's personnel. Copies are available at Contractor's expense from source or publisher.
2. Ensure that Contractor's personnel are familiar with workmanship and installation requirements of specified codes and standards.

**1.5 REFERENCE SPECIFICATIONS**

**A. The Specifications referred to herein shall be interpreted to mean the following and shall include all addenda, changes to, etc. Reference to Engineer shall mean Owner.**

1. "Standard Specifications" – The Illinois Department of Transportation's (IDOT's) "Standard Specifications for Road and Bridge Construction", latest edition.
2. "Supplemental Specifications" – IDOT's "Supplemental Specifications and Recurring Special Provisions", latest edition.
3. "Traffic Specifications" – IDOT's "Standard Specifications for Traffic Control Items", latest edition.
4. "Standard Sewer Specifications" – The "Standard Specifications for Water and Sewer Main Construction in Illinois", latest edition.

**1.6 REGULATORY REQUIREMENTS**

**A. Source and requirements:**

1. EBA: "Environmental Barriers Act" Illinois Accessibility Code
2. ADA: Americans with Disabilities Act
3. ISPC: Illinois State Plumbing Code, current edition
4. IEPA: (current editions at date of bidding documents)

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

- a. Air Pollution Standards
  - b. Noise Pollution Standards
  - c. Water Pollution Standards
  - d. Public Water Supplies
  - e. Solid Waste Standards
  - f. Illinois Recommended Standards for Sewage Work
5. Illinois Purchasing Act, as amended (Illinois Compiled Statutes, 30 ILCS 505/1 et seq)
6. OSFM:
- a. Gasoline and Volatile Oils (Illinois Compiled Statutes, 430 ILCS 15/0.01 et seq)
  - b. Liquefied Petroleum Gases (Illinois Compiled Statutes, 430 ILCS 5/0.01 et seq)
  - c. Liquefied Petroleum Gas Containers (Illinois Compiled Statutes, 430 ILCS 10/0.01 et seq)
  - d. Boiler and Pressure Vessel Safety Act and Rules and Regulations (Illinois Compiled Statutes, 430 ILCS 75/1 et seq)
  - e. Illinois Rules and Regulations for Fire Prevention and Safety, as amended 24 December 1973.
7. CODES:
- a. City of Evanston "City Ordinances" and "Building Code", current editions.
  - b. Work not covered by above codes: Use NFPA National Fire Codes, current edition.
- B. The Owner may reference other codes or standards throughout the Project Manual when deemed appropriate for proper compliance with regulatory requirements.

**PART 2 – PRODUCTS**

**(NOT APPLICABLE)**

**PART 3 – EXECUTION**

**(NOT APPLICABLE)**

**END OF SECTION 01 06 00**

**SECTION 01 09 50**

**REFERENCE STANDARDS AND DEFINITIONS**

**PART 1 – GENERAL**

**1.1 RELATED WORK**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.2 DEFINITIONS**

- A. General: basic contract definitions are included in the General Conditions.
- B. Indicated: the term “indicated” refers to graphic representations, notes or schedules on the Drawings, other paragraphs or schedules in the Specifications, and similar requirements in the Contract Documents. Where terms such as “shown,” “noted,” “scheduled” and “specified” are used, it is to help the reader locate the reference; no limitation on location is intended.
- C. Directed: terms such as “directed,” “requested,” “authorized,” “selected,” “approved,” “required” and “permitted” mean “directed by the Owner,” “requested by the Owner” and similar phrases.
- D. Approve: the term “approved,” where used in conjunction with the Owner action on the Contractor’s submittals, applications and requests, is limited to the Owner’s duties and responsibilities as stated in the General Conditions.
- E. Regulation: the term “regulations” includes laws, ordinances, statutes and lawful orders issued by authorities having jurisdiction, as well as rules, conventions and agreements within the construction industry that control performance of the Work.
- F. Furnish: the term “furnish” is used to mean “supply and deliver to the Project site, ready for unloading, unpacking, assembly, installation and similar operations.”
- G. Install: the term “install” is used to describe operations at project site including the actual “unloading, unpacking, assembly, installation, erection, placing, anchoring, applying, working to dimension, finishing, curing, protecting, cleaning and similar operations.”
- H. Provide: the term “provide” means “to furnish and install, complete and ready for the intended use.
- I. Installer: an “installer” is the Contractor or an entity engaged by the Contractor, either as an employee, subcontractor or sub-subcontractor, for performance of a particular construction activity, including installation, erection, application and similar operations. Installers are required to be experienced in the operations they are engaged to perform.

**1.3 INDUSTRY STANDARDS**

- A. Applicability of Standards: except where the Contract Documents include more stringent requirements, applicable construction industry standards have the same force and effect

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

as if bound or copied directly into the Contract Documents. Such standards are made a part of the Contract Documents by reference.

- B. Publication Dates: where the date of issue of a referenced standard is not specified, comply with the standard in effect as of date of Contract Documents.
- C. Conflicting Requirements: where compliance with two or more standards is specified, and the standards establish different or conflicting requirements for minimum quantities or quality levels, refer requirements that are different, but apparently equal, and uncertainties to the Owner for a decision before proceeding.
  - 1. Minimum Quality or Quantity Levels: the quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. In complying with these requirements, indicated numeric values are minimum or maximum, as appropriate for the context of the requirements. Refer uncertainties to the Owner for a decision before proceeding.
- D. Copies of Standards: each entity engaged in construction on the Project is required to be familiar with industry standards applicable to that entity's construction activity. Copies of applicable standards are not bound with the Contract Documents.
  - 1. Where copies of standards are needed for performance of a required construction activity, the Contractor shall obtain copies directly from the publication source.
  - 2. Although copies of standards needed for enforcement of requirements may be included as part of required submittals, the Owner reserves the right to require the Contractor to submit additional copies as necessary for enforcement of requirements.
- E. Abbreviations and Names: trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the Specifications or other Contract Documents, they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction or other entity applicable to the context of the text provision. Refer to the "Encyclopedia of Associations," published by Gale Research Co., available in most libraries. The following acronyms or abbreviations as referenced in Contract Documents are defined to mean the associated names. Names and addresses are subject to change and are believed to be but are not assured to be accurate and up to date as of date of Contract Documents.

AA	Aluminum Assoc. 900 19 <sup>th</sup> St, NW, Suite 300 Washington, DC 20006 (202) 862-5100	AAMA	American Architectural Manufacturer's Assoc. 1540 E. Dundee Rd, Suite 310 Palatine, IL 60067 (708) 202-1350	AAN	American Assoc. of Nurserymen 1250 Eye St, NW, Suite 500 Washington, DC 20005 (202) 789-2900
AASH TO	American Assoc. of State Highway and Transportation Officials	ACI	American Concrete Institute PO Box 19150 Detroit, MI 48219-	ACIL	American Council of Independent Laboratories 1725 K St, NW

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

	444 N. Capitol St, Suite 225 Washington, DC 20001 (202) 624-5800		0150 (313) 532-2600		Washington, DC 20006 (202) 887-5872
ACPA	American Concrete Pipe Assoc. 8320 Old Courthouse Rd. Vienna, VA 22180 (703) 821-1990	AGA	American Gas Assoc. 1515 Wilson Blvd. Arlington, VA 22209 (703) 841-8400	AHA	American Hardboard Assoc. 520 N. Hicks Rd. Palatine, IL 60067- 3609 (708) 934-8800
AI	Asphalt Institute Research Park Drive PO Box 14052 Lexington, KY 40512- 4052 (606) 288-4960	AIA	American Institute of Architects 1735 New York Ave, NW Washington, DC 20006 (202) 626-7300	A.I.A.	American Insurance Assoc. 1130 Connecticut Ave, NW Washington, DC 20036 (202) 828-7100
AISC	American Institute of Steel Construction 1 E. Wacker Dr, Suite 3100 Chicago, IL 60601- 2001 (312) 670-2400	AISI	American Iron and Steel Institute 1101 17 <sup>th</sup> St. NW, Suite 1300 Washington, DC 20005-2701 (202) 452-7100	AITC	American Institute of Timber Construction 11818 SE Mill Plain Blvd, Ste.415 Vancouver, WA 98684-5092 (206) 254-9132
ALI	Associated Laboratories 641 S. Vermont St. Palatine, IL 60067 (708) 358-7400	ALSC	American Lumber Standards Committee PO Box 210 Germantown, MD 20874 (301) 972-1700	ANSI	American National Standards Institute 11 W. 42 <sup>nd</sup> Street New York, NY 10036 (212) 354-3300
AOSA	Assoc. of Official Seed Analysts C/o Jim Lair Illinois Dept. of Agriculture Seed Lab Box 19281 Springfield, IL 62794 (217) 782-7655	APA	American Plywood Assoc. PO Box 11700 Tacoma, WA 98411 (206) 565-6600	API	American Petroleum Institute 1220 L St, NW Washington, DC 20005 (202) 682-8000
ASC	Adhesive and Sealant Council 1627 K Street, NW, Suite 1000 Washington, DC 20006 (202) 452-1500	ASHRAE	American Society of Heating, Refrigerating and Air-conditioning Engineers, Inc. 1791 Tullie Circle, NE Atlanta GA 30329- 2305	ASME	American Society of Mechanical Engineers 345 East 47 <sup>th</sup> Street New York, NY 10017
ASPE	American Society of Plumbing Engineers 3617 Thousand Oaks Blvd, Suite 210 Westlake, CA 91362 (805) 495-7120	ASSE	American Society of Sanitary Engineers PO Box 40362 Bay Village, OH 44140	ASTM	American Society for Testing and Materials 1916 Race St Philadelphia, PA 19103 (215) 299-5400

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

			(216) 835-3040		
AWI	Architectural Woodwork Institute 2310 S. Walter Reed Dr. Arlington, VA 22206 (703) 671-9100	AWPA	American Wood Preservers Assoc. PO Box 286 Woodstock, MD 21163 (410) 465-3169	AWPB	American Wood Preservers Bureau PO Box 5283 Springfield, VA 22150 (703) 339-6660
AWS	American Welding Society PO Box 351040 550 LeJeune Road, NW Miami, FL 33135 (305) 443-9353	AWW A	American Water Works Assoc. 6666 W Quincy Ave Denver, CO 80235 (303) 794-7711	BANC	Brick Assoc. of North Carolina PO Box 13290 Greensboro, NC 27415 (919) 273-5566
BHMA	Builders Hardware Manufacturers Assoc. 355 Lexington Ave, 17 <sup>th</sup> Floor New York, NY 10017 (212) 661-4261	BIA	Brick Institute of America 11490 Commerce Park Dr. Suite 300 Reston, VA 22091 (703) 620-0010	CISPI	Cast Iron Soil Pipe Institute 5959 Shallowford Rd, Ste 419 Chattanooga, TN 37421 (615) 892-0137
CRSI	Concrete Reinforcing Steel Institute 933 Plumb Grove Rd. Schaumburg, IL 60195 (708) 517-1200	EJMA	Expansion Joint Manufacturers Assoc. 25 N. Broadway Tarrytown, NY 10591 (914) 332-0040	ETL	ETL Testing Laboratories Inc. PO Box 2040 Route 11, Industrial Park Cortland, NY 13045 (607) 753-6711
HMA	Hardwood Manufacturers Assoc. 2831 Airways Blvd., Ste 205, Bldg. B Memphis, TN 38132 (901) 346-2222	HPMA	Hardwood Plywood Manufacturers Assoc. 1825 Michael Farraday Dr PO Box 2789 Reston, VA 22090- 2789 (703) 435-2900	ICEA	Insulated Cable Engineers Assoc. Inc. PO Box 440 South Yarmouth, MA 02664 (617) 394-4424
IEEE	Institute of Electrical and Electronic Engineers 345 E. 47 <sup>th</sup> Street New York, NY 10017 (212) 705-7900	IESN A	Illuminating Engineering Society of North America 345 E 47 <sup>th</sup> Street New York, NY 10017 (212) 705-7926	ILI	Indiana Limestone Institute of America Stone City Bank Bldg, Ste 400 Bedford, IN 47421 (812) 275-4426
IMSA	International Municipal Signal Assoc. PO Box 539 1115 N. Main Street Newark, NY 14513 (315) 331-2182	IRI	Industrial Risk Insurers 85 Woodland St Hartford, CT 06102 (203) 520-7300	LPI	Lightning Protection Institute PO Box 1029 Woodstock, IL 60098 (815) 337-0277
MBMA	Metal Building Manufacturers Assoc. 1230 Keith Building	MCAA	Mechanical Contractors Assoc. of America	NAAM M	National Assoc. of Architectural Metal Manufacturers

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

	Cleveland, OH 44115-2180		5410 Grosvenor Lane, Ste 120 Bethesda, MD 20814 (301) 897-0770		600 S. Federal St, Ste 400 Chicago, IL 60605 (312) 922-6222
NAPA	National Asphalt Pavement Assoc. Calvert Building, Suite 620 6811 Kenilworth Ave. Riverdale, MD 20737 (301) 779-4880	NAPF	National Assoc. of Plastic Fabricators (Now DLPA)	NBGQ A	National Building Granite Quarries Assoc. PO Box 482 Barre, VT 05641 (802) 476-3115
NBHA	National Builders hardware Assoc. (Now DHI)	NCMA	National Concrete Masonry Assoc. 2302 Horse Pen Rd PO Box 781 Herndon, VA 22070-3406 (703) 435-4900	NEC	National Electric Code (Now NfiPA)
NECA	National Electrical Contractors Assoc. 7315 Wisconsin Ave Bethesda, MD 20814 (301) 657-3110	NEMA	National Electrical Manufacturers Assoc. 2101 L St, NW, Ste 300 Washington, DC 20037 (202) 457-8400	NFiPA	National Fire Protection Assoc. 1 Batterymarch Park Quincy, MA 02269 (617) 770-3000
NFoP A	National Forest Products Assoc. 1250 Connecticut Ave, NW, Suite 200 Washington DC 20036 (202) 463-2700	NHLA	National Hardwood Lumber Assoc. PO Box 34518 Memphis, TN 38184 (901) 377-1818	NLGA	National Lumber Grades Authority 1055 W Hastings St. Ste 260 Vancouver, British Columbia Canada V6E 2H1 (604) 687-2171
NPA	National Particleboard Assoc. 18928 Premiere Court Gaithersburg, MD 20879-1569 (301) 670-0604	NPCA	National Paint and Coatings Assoc. 1500 Rhode Island Ave, NW Washington, DC 20005 (202) 462-6272	NSF	National Sanitation Foundation PO Box 1468 3475 Plymouth Rd Ann Arbor, MI 48106 (313) 769-8010
NWM A	National Woodwork Manufacturers Assoc. (Now NWWDA)	PCA	Portland Cement Association 5420 Old Orchard Road Skokie, IL 60077- 4321 (847) 966-6200	PCI	Prestressed Concrete Institute 175 W Jackson Blvd Chicago, IL 60604- 9773 (312) 786-0300
PDI	Plumbing and Drainage Institute C/o Saul Baker 1106 W. 77 <sup>th</sup> Street, South Dr. Indianapolis, IN 4626	RIS	Redwood Inspection Service 405 Enfrente Dr, Suite 300 Novato, CA 94949 (415) 382-0662	RMA	Rubber Manufacturers Assoc. 1400 K St, NW Washington, DC 20005 (202) 682-4800

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

	(317) 251-6970				
SHLM A	Southern Hardwood Lumber Manufacturers Assoc. (Now HMA)	SJI	Steel Joist Institute Suite A 1205 48 <sup>th</sup> Ave North Myrtle Beach, SC 29577	SPIB	Southern Pine Inspection Bureau 4709 Scenic Highway Pensacola, FL 32504 (904) 434-2611
SSPC	Steel Structures Painting Council 4400 Fifth Ave. Pittsburgh, PA 15213 (412) 268-3327	SSPM A	Sump and Sewage Pump Manufacturers Assoc. 560 W Washington St, Ste 301 Chicago IL, 60606 (312) 332-4146	TPI	Truss Plate Institute 583 D'Onofrio Drive Suite 200 Madison, WI 53719
UL	Underwriters Laboratories 333 Pfingsten Rd. Northbrook, IL 60062 (847) 272-8800	WCLI B	West Coast Lumber Inspection Bureau PO Box 23145 Portland, OR 97223 (503) 639-0651	WIC	Woodwork Institute of California PO Box 11428 Fresno, CA 93773 (209) 233-9035
WRI	Wire Reinforcement Institute 1101 Connecticut Ave, NW Washington, DC 20036-4303 (703) 790-9790	WWP A	Western Wood Products Assoc. 522 SW 5 <sup>th</sup> Ave, Yeon Bldg. Portland, OR 97204-2122 (503) 224-3930	W.W.P. A.	Woven Wire Products Assoc. 2515 N. Nordica Ave. Chicago, IL 60635 (312) 637-1359

- F. Federal Government Agencies: names and titles of federal government standard or specification producing agencies are often abbreviated. The following acronyms or abbreviations referenced in the Contract Documents indicate names of standard or specification producing agencies of the federal government. Names and addresses are subject to change; they are believed to be but are not assured to be accurate and up to date as of the date of the Contract Documents.

CE	Corps of Engineers (US Dept of the Army) Chief of Engineers – Referral Washington, DC 20314 (202) 272-0660	CFR	Code of Federal Regulations Available from the Government Printing Office N. Capitol St between G and H St, NW Washington, DC 20402 (202) 783-3238 (Material is usually first published in the Federal Register)	CPSC	Consumer Product Safety Commission 5401 Westbard Ave, Room 700 Washington, DC 20816 (800) 638-2772
CS	Commercial Standard (US Dept of Commerce)	DOC	Department of Commerce 14 <sup>th</sup> St and	DOT	Department of Transportation 400 7 <sup>th</sup> St, SW

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

	Government Printing Office Washington, DC 20402 (202) 377-2000		Constitution Ave, NW Washington, DC 20230 (202) 377-2000		Washington, DC 20590 (202) 366-4000
EPA	Environmental Protection Agency 401 M St, SW Washington, DC 20460 (202) 382-2090	FAA	Federal Aviation Administration (US Dept of Transportation) 800 Independence Ave, SW Washington, DC 20590 (202) 366-4000	FCC	Federal Communications Commission 1919 M St, NW Washington, DC 20554 (202) 632-7000
FHA	Federal Housing Administration (US Dept of Housing and Urban Development) Director Manufactured Housing and Construction Standards Division 451 7 <sup>th</sup> St, SW, Room 9158 Washington, DC 20201 (202) 755-5210	FS	Federal Specification (from GSA) Supt. Of Documents, Government Printing Office 7 <sup>th</sup> and D St, SW Washington, DC 20234 (202) 472-2205 or 472-2140	GSA	General Services Administration F St and 18 <sup>th</sup> St, NW Washington, DC 20405 (202) 472-1082
MIL	Military Standardization Documents (US Dept of Defense) Naval Publications and Forms Center 5801 Tabor Ave Philadelphia, PA 19120	NIST	National Institute of Standards and Technology (US Dept of Commerce) Gaithersburg, MD 20899 (301) 975-2000	OSHA	Occupational Safety and Health Administration (US Dept of Labor) Government Printing Office Washington, DC 20402 (202) 523-6091
PS	Product Standard of NBS National Institute of Standards and (DOC) Technology Standards Management Program A 625 Administration Gaithersburg, MD 20899 (202) 783-3238	USDA	US Dept of Agriculture Independence Ave btwn. 12 <sup>th</sup> and 14 <sup>th</sup> St, SW Washington, DC 20250 (202) 447-8732	USPS	US Postal Service 475 L'Enfant Plaza, SW Washington, DC 20260 (202) 268-2000

1.4 GOVERNING REGULATIONS/AUTHORITIES

- A. The Owner has contacted authorities having jurisdiction where necessary to obtain information necessary for preparation of Contract Documents; that information may or

REFERENCE STANDARDS  
AND DEFINITIONS  
SECTION

**CARTWRIGHT AND FITZSIMONS PARKS  
CITY OF EVANSTON  
ISSUED FOR BID**

may not be of significance to the Contractor. Contact authorities having jurisdiction directly for information and decisions having a bearing on the Work.

- B. Copies of Regulations: Obtain copies of the applicable regulations and retain at the Project site, available for reference by parties who have a reasonable need for such reference.

**1.5 SUBMITTALS**

- A. Permits, Licenses and Certificates: for the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional, settlements, notices, receipts for fee payments, judgements and similar documents, correspondence, and records established in conjunction with compliance with standards and regulations bearing upon performance of the Work.

**PART 2 – PRODUCTS**

**(NOT APPLICABLE)**

**PART 3 – EXECUTION**

**(NOT APPLICABLE)**

**END OF SECTION 01 09 50**

**SECTION 01 10 50**

**EXISTING UTILITY PROCEDURES**

**PART 1 – GENERAL**

**1.1 SUMMARY**

- A. Perform the work associated with existing utilities, including removal, relocation, interruption and protection, meeting requirements of this section.

**1.2 RELATED WORK**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this section.

**1.3 GENERAL**

- A. Notification: before beginning any work, the Contractor shall notify all utility companies, public and private as applicable and any other party owning, operating or maintaining utility facilities on or in vicinity of project site in accordance with notification procedures of each utility company or any other party.
- B. Protection:
  - 1. Before beginning any work, the Contractor shall investigate and inform himself of locations and extent of all utilities on and in vicinity of project site which may be encountered in performing the work and shall take suitable care to protect and prevent damage and cessation of operation to such utilities from his operations.
  - 2. When performing adjacent to existing sewers, drains, water and gas lines; electric, telephone or telegraph conduit or cable; pole lines or poles, or other utility facilities, equipment or structures, which are to remain in operation, contractor shall maintain such utility facilities, equipment and structures in place and protect from damage and cessation of operation and shall cooperate with applicable utility company and any other party owning, operating or maintaining such utility facilities, equipment or structures.
  - 3. Methods of protection shall be subject to approval of utility company and any other party owning, operating or maintaining such utility, equipment or structure.
- C. Damages:
  - 1. Should existing utilities which are to remain in operation be damaged during construction operations, the Contractor shall immediately notify utility company, Owner and any other party owning, operating or maintaining such utility.
  - 2. The Contractor shall be responsible for and shall repair or replace at the Contractor's expense, as applicable, damages to any such utility facilities, equipment or structures caused by his acts, whether negligent or otherwise, or his omission to act, whether negligent or otherwise, and shall leave such utility facilities, equipment or structures in as good condition as existed prior to commencement of his operations as approved by utility company and any other party owning, operating or maintaining such utility. In addition, the Contractor shall be responsible for any damages or liability which the Owner may be held liable. Materials and methods of repair or replacement shall be subject to

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

approval of utility company and other party owning, operating or maintaining such utility.

3. However, any such utility equipment or structures damaged as a result of any act, or omission to act, of the Contractor, may, at option of applicable utility company and any other party owning, operating or maintaining such utility facilities, equipment or structures damaged, be repaired or replaced by such applicable utility company or other party. In such event cost of repairs or replacement shall be the responsibility of the Contractor at no addition to the Contract Sum.

**1.4 PROCEDURES**

**A. Locations:**

1. Request all utility companies and any other party owning, operating or maintaining utility facilities on or in vicinity of project site as applicable, to locate or stakeout locations, extent, alignment and elevation of such utility facilities.
2. Approximate locations and extent of known existing utility facilities, equipment and structures may be determined by examining documents of utility companies and any other party owning, operating or maintaining such utility facilities, and available information documents and Drawings for the work.
3. Should uncharted or incorrectly charted existing utility facilities, equipment and structures be encountered during performance of the Work, consult utility companies and other party owning, operating or maintaining such utility facilities for directions.
4. After such utilities have been uncovered and their actual locations and extent determined, the Owner will furnish additional Drawings, if relocation is required, subject to approval of utility companies and any other parties owning, operating or maintaining such utility facilities.
5. Submit record drawings showing locations and extent discrepancies of utilities those indicated in available reference documents or Drawings for the Work, regardless of cause of location or extent discrepancy, meeting, requirements of the general conditions.

**B. Scheduling:**

1. General: existing utilities shall not be disturbed until utility companies and any other party owning, operating or maintaining such utility facilities and users of such utilities have been notified in accordance with notification procedure of such utility companies or any other parties. Contractor shall conduct work so that utility may be removed, relocated or supported during construction operations and maintained in service until the work to be provided under Contract is completed.
2. Any existing utility should be relocated only as approved by utility companies and any other parties owning, operating or maintaining such utility facilities. Contractor shall cooperate with utility companies and any other parties in performance of this work.
3. Interruptions: when Contractor desires to take an existing utility service out of operation, notify Owner at least 72 hours in advance of such time and obtain written permission of utility company or other parties owning, operating or maintaining such utility facilities prior to interrupting service. Interruption of service shall be kept to an absolute minimum.
  - a. Utility company and any or other parties owning, operating or maintaining such utility facilities shall have right to require Contractor to perform work which requires such interruptions in stages and during non-standard

**CARTWRIGHT AND FITZSIMONS PARKS  
CITY OF EVANSTON  
ISSUED FOR BID**

working hours to reduce time of each interruption, at no addition to Contract Sum.

- b. When necessary, provide acceptable temporary utility services during such interruptions, before taking utility service out of operation, at no addition to Contract Sum.

**PART 2 – PRODUCTS**

**(NOT APPLICABLE)**

**PART 3 – EXECUTION**

**(NOT APPLICABLE)**

**END OF SECTION 011050**

**SECTION 01 20 00**

**PROJECT MEETINGS**

**PART 1 – GENERAL**

**1.1 SUMMARY**

- A. This section specifies administrative and procedural requirements for project meetings including but not limited to:
  - 1. Pre-construction Conference
  - 2. Pre-installation Conferences
  - 3. Coordination Meetings
  - 4. Progress Meetings
- B. Construction schedules are specified in Section 01 30 00 – SUBMITTALS.

**1.2 RELATED WORK**

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.3 PRE-CONSTRUCTION CONFERENCE**

- A. The Owner shall schedule a pre-construction conference and organizational meeting at the Project site or other convenient location no later than 15 days after execution of the Agreement and prior to commencement of construction activities. Conduct the meeting to review responsibilities and personnel assignments.
- B. Attendees: The Owner, the Contractor and its superintendent, major subcontractors, manufacturers, suppliers and other concerned parties shall each be represented at the conference by persons familiar with and authorized to conduct matters relating to the Work.
- C. Agenda: Discuss items of significance that could affect progress including such topics as:
  - 1. Tentative construction schedule
  - 2. Critical Work sequencing
  - 3. Designation of responsible personnel
  - 4. Procedures for processing field decisions and Change Orders
  - 5. Procedures for processing Applications for Payment
  - 6. Distribution of Contract Documents
  - 7. Submittal of Shop Drawings, Product Data and Samples
  - 8. Preparation of record documents
  - 9. Use of the premises
  - 10. Office, Work and storage areas
  - 11. Equipment deliveries and priorities
  - 12. Safety procedures
  - 13. First aid
  - 14. Security
  - 15. Housekeeping
  - 16. Construction activity policies and working hours

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

17. MBE/WBE/EBE and LEP requirements
18. Coordination with affected utilities and governing jurisdictions

**1.4 PRE-INSTALLATION CONFERENCE**

- A. Conduct a pre-installation conference at the site before each construction activity that requires coordination with other construction. The installer and representatives of manufacturers and fabricators involved in or affected by the installation, and its coordination or integration with other materials and installations that have preceded or will follow, shall attend the meeting. Advise the Owner of scheduled meeting dates.
- B. Review the progress of other construction activities and preparations for the particular activity under consideration at each pre-installation conference, including requirements for:
  1. Contract Documents
  2. Options
  3. Related Change Orders
  4. Purchases
  5. Deliveries
  6. Shop Drawings, Product Data and quality control samples
  7. Possible conflicts
  8. Compatibility problems
  9. Time schedules
  10. Weather limitations
  11. Manufacturer's recommendations
  12. Compatibility of materials
  13. Acceptability of substrates
  14. Temporary facilities
  15. Space and access limitations
  16. Governing regulations
  17. Safety
  18. Inspection and testing requirements
  19. Required performance results
  20. Recording requirements
  21. Protection
- C. Record significant discussions and agreements and disagreements of each conference, along with the approved schedule. Distribute the record of the meeting to everyone concerned, promptly, including the Owner.
- D. Do not proceed if the conference cannot be successfully concluded. Initiate whatever actions are necessary to resolve impediments to performance of Work and reconvene the conference at the earliest feasible date.

**1.5 PROGRESS MEETINGS**

- A. Conduct progress meetings at the Project site at regularly scheduled intervals. Notify the Owner of scheduled meeting dates. Coordinate dates of meetings with preparation of the payment requests.
- B. Attendees: in addition to the Owner, each subcontractor, supplier or other entity concerned with current progress or involved in planning, coordination or performance of future activities shall be represented at these meetings by persons familiar with the Project and authorized to conclude matters relating to progress.

**CARTWRIGHT AND FITZSIMONS PARKS  
CITY OF EVANSTON  
ISSUED FOR BID**

- C. Agenda: Review and correct or approve minutes of the previous progress meeting. Review other items of significance that could affect progress. Include topics for discussion as appropriate to the current status of the Project.
- D. Contractor's Construction Schedule: review progress since the last meeting. Determine where each activity is in relation to the Contractor's Construction Schedule, whether on time, ahead or behind schedule. Determine how construction behind schedule will be expedited; secure commitments from parties involved to do so. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the Contract Period.
- E. Review the present and future needs of each entity present, including such items as:
  - 1. Interface requirements
  - 2. Time
  - 3. Sequences
  - 4. Deliveries
  - 5. Off-site fabrication problems
  - 6. Access
  - 7. Site utilization
  - 8. Temporary facilities and services
  - 9. Hours of Work
  - 10. Hazards and risks
  - 11. Housekeeping
  - 12. Quality and Work standards
  - 13. Change Orders
  - 14. Documentation of information for payment requests.
- F. Reporting: no later than three (3) days after each progress meeting date, distribute copies of minutes of the meeting to each party present and to other parties who should have been present. Include a brief summary, in narrative form, of progress since the previous meeting and report.
- G. Schedule Updating: revise the construction schedule after each progress meeting where revisions to the schedule have been made or recognized. Issue the revised schedule concurrently with the report of each meeting.

**PART 2 – PRODUCTS**

**(NOT APPLICABLE)**

**PART 3 – EXECUTION**

**(NOT APPLICABLE)**

**END OF SECTION 01 20 00**

**SECTION 01 21 00**

**ALLOWANCES**

**PART 1 – GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.
- B. Other provisions concerning Allowances also may be stated in other Sections of these Specifications.

1.2 SUMMARY

- A. The allowance is general and is to be used to provide adequate budget and bonding to cover items not able to be precisely determined by the Owner prior to bidding including any unforeseen conditions that are discovered. Allow within the proposed Total Base Bid Amount the amounts described in this Section.
- B. Allowance work shall be pre-approved prior to the start of and during the Construction with Proposals documenting the work to be performed, with clearly stated not-to-exceed costs and step by step method of procedures for the proposed work stated. Proposals must be submitted and accepted by the Owner prior to starting any allowance work. After discovering an unforeseen condition, the contractor shall submit a Proposal that includes a report summarizing the found condition. The Consultant and Owner will view the unforeseen condition to determine if the work will be authorized. Allowance work shall only be authorized by written Allowance Authorization. Under no circumstances shall the Contractor move forward with the work in question nor shall the contractor expend allowance without an approved Allowance Authorization.

1.3 ALLOWANCE RESPONSIBILITIES

- A. Consultant Responsibilities:
  - 1. Consult with Contractor in consideration and selection of products, suppliers and installers.
  - 2. Select products or services in consultation with Owner.
  - 3. Review method of procedure and costs documented on Proposals submitted by the Contractor and transmit Owner's decision to Contractor. Owner approved Allowance Authorizations are required prior to proceeding with Allowance Work.
  - 4. Review, recommend and transmit Allowance Authorization to Owner for approval.
  - 5. Transmit Owner's decision to the Contractor.
- B. Contractor's Responsibilities:
  - 1. Assist Consultant in selection of products, suppliers and installers.
  - 2. Obtain proposals from suppliers and installers and offer recommendations and review of proposals submitted. Transmit to Consultant on Proposal forms, attaching all supporting documentation. Include any bond cost adjustments with the proposal. Include scheduling information and assessment of impact of other work.

**CARTWRIGHT AND FITZSIMONS PARKS**

CITY OF EVANSTON

ISSUED FOR BID

3. On notification of selection by Consultant, execute purchase agreement with designated supplier and installer.
4. Arrange for and process shop drawings, product data and samples. Arrange for delivery.
5. Promptly inspect products upon delivery for completeness, damage and defects. Submit claims for transportation damage.
6. Document thoroughly all costs related to the work.
7. Provide the Consultant with fully documented Proposals detailing all allowance work to be performed.

1.4 ALLOWANCE DOCUMENTATION

A. All work covered by Allowances must be thoroughly documented as follows:

1. Upon encountering any field conditions which is not as shown in Construction Documents, the Contractor shall immediately notify the Consultant and develop a written Proposal detailing any additional work required. Proposals shall include a report summarizing the found condition to the Consultant. Contractor work initiated without submitting a completed Proposal and obtaining the Owner's written approval by Allowance Authorization is performed entirely at Contractor's own risk and cost, regardless of any prior verbal approval.
2. The Consultant shall review the Proposal and provide the Owner with a written recommendation regarding the proposed work.
3. The Owner shall review the Contractor's Proposal and the Consultant's recommendation and, if appropriate, provide written approval via Allowance Authorization for use of the Allowance.

1.5 SCHEDULE OF ALLOWANCES

**Allowance Number 1, Cartwright Park: \$70,000.00**

**Allowance Number 2, Fitzsimons Park: \$40,000.00**

1.6 ALLOWANCE EXCLUSIONS

A. General

1. Additional costs related to improper scheduling, sequencing or coordination will not be covered within the Allowance, as determined solely by the Owner.

B. Existing Building Component Exclusions

1. All work required to protect existing building surfaces and components is included in the Base Bid and will not be covered within the Allowance.

**PART 2 – PRODUCTS**

**(Not Used)**

**PART 3 – EXECUTION**

**(Not Used)**

**END OF SECTION 01 21 00**

**SECTION 01 27 00 - UNIT PRICES**

**PART 1 - GENERAL**

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for unit prices.

1.3 DEFINITIONS

- A. Unit price is a price per unit of measurement for materials or services provided in the Contract. The unit prices shall be added to or deducted from the Contract Sum by appropriate modification, if estimated quantities of Work required by the Contract Documents are increased or decreased.

1.4 PROCEDURES

- A. Unit prices include all necessary material, plus cost for delivery, installation, insurance, bonding, overhead, and profit.
- B. Owner reserves the right to reject Contractor's measurement of work-in-place that involves use of established unit prices and to have this work measured, at Owner's expense, by an independent surveyor acceptable to Contractor.
- C. List of Unit Prices: A list of unit prices is included at the end of this Section. Specification Sections referenced in the schedule contain requirements for materials described under each unit price.

**PART 2 - PRODUCTS (Not Used)**

**PART 3 - EXECUTION**

3.1 LIST OF UNIT PRICES

Unit Price No. 1 – Asphalt Base Repair

Description: This item shall include all costs associated with removal and installation of aggregate base materials and 2 ½" HMA binder course (IL-19.0, N50) where required to repair deteriorated asphalt paving areas as directed by the Owner's Representative and as indicated in the Construction Documents and the Illinois Department of Transportation's Standard Specification (current edition).

Unit of Measurement: Square Foot

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CITY OF EVANSTON  
ISSUED FOR BID

Unit Price No. 2 – Asphalt Crack Repair

Description: This item shall include all costs associated with routing, cleaning, sealing, and installing a crack repair system over asphalt cracks as directed by the Owner's Representative and as indicated in the Construction Documents, Specifications Section 32 0117, and the Illinois Department of Transportation's Standard Specification, Sections 444 and 451 (current edition).

Unit of Measurement: Linear Foot

**END OF SECTION 01 27 00**

**SECTION 01 30 00**

**SUBMITTALS**

**PART 1 – GENERAL**

1.01 SUMMARY

- A. This section specifies administrative and procedural requirements for submittals required for performance of the Work, including:
  - 1. Contractor's construction schedule
  - 2. Submittal schedule
  - 3. Daily construction reports
  - 4. Shop Drawings
  - 5. Product Data
  - 6. Samples
- B. Administrative Submittals: refer to other Division 0 and 1 sections and other Contract Documents for requirements for administrative submittals. Such submittals include but are not limited to:
  - 1. Permits
  - 2. Applications for payment
  - 3. Performance and payment bonds
  - 4. Insurance certificates
  - 5. List of subcontractors
- C. The Schedule of Values submittal is included in Section 01 02 70 – APPLICATION FOR PAYMENT.

1.02 RELATED WORK

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

1.03 SUBMITTAL PROCEDURES

- A. Coordination: coordinate preparation and processing of submittals with performance of construction activities. Transmit each submittal sufficiently in advance of performance of related construction activities to avoid delay.
  - 1. Coordinate each submittal with fabrication, purchasing, testing, delivery, other submittals and related activities that require sequential activity.
  - 2. Coordinate transmittal of different types of submittals for related elements of the Work so processing will not be delayed by the need to review submittals concurrently for coordination.
    - a. The Owner reserves the right to withhold action on a submittal requiring coordination with other submittals until related submittals are received.

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**CITY OF EVANSTON**  
**ISSUED FOR BID**

3. Processing: allow sufficient review time so that installation will not be delayed as a result of the time required to process submittals, including time for re-submittals.
  - a. Allow two weeks for initial review. Allow additional time if processing must be delayed to permit coordination with subsequent submittals. The Owner will promptly advise the Contractor when a submittal being processed must be delayed for coordination.
  - b. If an intermediate submittal is necessary, process the same as the initial submittal.
  - c. Allow two weeks for re-processing each submittal.
  - d. No extension of Contract Time will be authorized because of failure to transmit submittals to the Owner sufficiently in advance of the Work to permit processing.
  
- B. Submittal Preparation: place a permanent label or title block on each submittal for identification. Indicate the name of the entity that prepared each submittal on the label or title block.
  1. Provide a space approximately 4" x 5" on the label or beside the title block on Shop Drawings to record the Contractor's review and approval markings and the action taken.
  2. Include the following information on the label for processing and recording action taken.
    - a. Project name
    - b. Date
    - c. Name and address of Owner
    - d. Name and address of Contractor
    - e. Name and address of subcontractor
    - f. Name and address of supplier
    - g. Name of manufacturer
    - h. Number and title of appropriate Specification Section
    - i. Drawing number and detail reference, as appropriate
  
- C. Submittal Transmittal: package each submittal appropriately for transmittal and handling. Transmit each submittal from Contractor to Owner using a transmittal form. Submittals received from sources other than the Contractor will be returned without action.
  1. On the transmittal record relevant information and requests for data. On the form, or separate sheet, record deviations from Contract Document requirements, including minor variations and limitations. Include Contractor's certification that information complies with Contract Document requirements.
  2. Transmittal Form: use AIA Document G 810.

**1.04 CONTRACTOR'S CONSTRUCTION SCHEDULE**

- A. Bar-Chart Schedule: prepare a fully developed, horizontal bar-chart type Contractor's construction schedule. Submit within 30 days of the date established for "Commencement of the Work".
  1. Provide a separate time bar for each significant construction activity. Provide a continuous vertical line to identify the first working day of each week. Use the same breakdown of units of the Work as indicated in the "Schedule of Values".

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**CITY OF EVANSTON**  
**ISSUED FOR BID**

2. Within each time bar indicate estimated completion percentage in 10 percent increments. As Work progresses, place a contrasting mark in each bar to indicate Actual Completion.
  3. Prepare a schedule on a sheet, or series of sheets, of stable transparency, or other reproducible media, of sufficient width to show data for the entire construction period.
  4. Secure time commitments for performing critical elements of the Work from parties involved. Coordinate each element on the schedule with other construction activities; include minor elements involved in the sequence of the Work. Show each activity in proper sequence. Indicate graphically sequences necessary for completion of related portions of the Work.
  5. Coordinate the Contractor's construction schedule with the schedule of values, list of subcontracts, submittal schedule, progress report, payment requests and other schedules.
  6. Indicate completion in advance of the date established for Substantial Completion. Indicate Substantial Completion on the schedule to allow time for Owner's procedures necessary for certification of Substantial Completion.
- B. Phasing: Provide notations on the schedule to show how the sequence of the Work is affected by requirements for phased completion to permit Work by separate Contractors and partial occupancy by the Owner prior to Substantial Completion.
- C. Work Stages: Indicate important stages of construction for each major portion of the Work, including testing and installation.
- D. Area Separations: Provide a separate time bar to identify each major construction area for each major portion of the Work. Indicate where each element in an area must be sequenced or integrated with other activities.
- E. Cost Correlation: At the head of the schedule, provide a two item cost correlation line, indicating "pre-calculated" and "actual" costs. On the line show dollar-volume of Work performed as of the dates used for preparation of payment requests.
1. Refer to Section 01 02 70 - APPLICATION FOR PAYMENT for cost reporting and payment procedures.
- F. Distribution: Following response to the initial submittal, print and distribute copies to the Owner, subcontractors, and other parties required to comply with scheduled dates. Post copies in the Project meeting room and temporary field office.
1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
- G. Schedule Updating: Revise the schedule after each meeting or activity, where revisions have been recognized or made. Issue the updated schedule concurrently with report of each meeting.

**1.05 SUBMITTAL SCHEDULE**

- A. After development and acceptance of the Contractor's construction schedule, prepare a complete schedule of submittals. Submit the schedule within 10 days of the date required for establishment of the Contractor's construction schedule.

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**CITY OF EVANSTON**  
**ISSUED FOR BID**

1. Coordinate submittal schedule with the list of subcontracts, schedule of values and the list of products as well as the Contractor's construction schedule.
2. Prepare the schedule in chronological order; include submittals required during the first 90 days of construction. Provide the following information:
  1. Scheduled date for the first submittal.
  2. Related Section number.
  3. Submittal category.
  4. Name of subcontractor.
  5. Description of the part of the Work covered.
  6. Scheduled date for resubmittal.
  7. Scheduled date of the Owner's final release or approval.
- B. Distribution: Following response to initial submittal, print and distribute copies to the Owner, subcontractors, and other parties required to comply with submittal dates indicated. Post copies in the Project meeting room and field office
  1. When revisions are made, distribute to the same parties and post in the same locations. Delete parties from distribution when they have completed their assigned portion of the Work and are no longer involved in construction activities.
- C. Schedule Updating: Revise the schedule after each meeting or activity, where revisions have been recognized or made. Issue the updated schedule concurrently with report of each meeting.

**1.06 DAILY CONSTRUCTION REPORTS**

- A. Prepare a daily construction report, recording the following information concerning events at the site; and submit duplicate copies to the Owner at weekly intervals:
  1. List of subcontractors at the site.
  2. Approximate count of personnel at the site.
  3. High and low temperatures, general weather conditions.
  4. Accidents and unusual events.
  5. Meetings and significant decisions.
  6. Stoppages, delays, shortages, losses.
  7. Meter readings and similar recordings.
  8. Emergency procedures.
  9. Orders and requests of governing authorities.
  10. Change Orders received, implemented.
  11. Services connected, disconnected.
  12. Equipment or system tests and start-ups.
  13. Partial Completions, occupancies.
  14. Substantial Completions authorized.

**1.07 SHOP DRAWINGS**

- A. Submit newly prepared information, drawn to accurate scale. Highlight, encircle, or otherwise indicate deviations from the Contract Documents. Do not reproduce Contract Documents or copy standard information as the basis of Shop Drawings. Standard information prepared without specific reference to the Project is not considered Shop Drawings.
- B. Shop Drawings include fabrication and installation drawings, setting diagrams, schedules, patterns, templates and similar drawings. Include the following information:

**CARTWRIGHT AND FITZSIMONS PARK**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

1. Dimensions.
  2. Identification of products and materials included.
  3. Compliance with specified standards.
  4. Notation of coordination requirements.
  5. Notation of dimensions established by field measurement.
  6. Sheet Size: Except for templates, patterns and similar full- size Drawings, submit Shop Drawings on sheets at least 8-1/2" x 11" but no larger than 36" x 48".
  7. Submit one correctable translucent reproducible print and three blue- or black-line print for the Owner's review; the reproducible print will be returned.
- C. One of the prints returned shall be marked-up and maintained as a "Record Document".
- D. Do not use Shop Drawings without an appropriate final stamp indicating action taken in connection with construction.
- E. Coordination drawings are a special type of Shop Drawing that show the relationship and integration of different construction elements that require careful coordination during fabrication or installation to fit in the space provided or function as intended.
1. Submit coordination Drawings for integration of different construction elements. Show sequences and relationships of separate components to avoid conflicts in use of space.

**1.08 PRODUCT DATA**

- A. Collect Product Data into a single submittal for each element of construction or system. Product Data includes printed information such as manufacturer's installation instructions, catalog cuts, standard color charts, roughing-in diagrams and templates, standard wiring diagrams and performance curves. Where Product Data must be specially prepared because standard printed data is not suitable for use, submit as "Shop Drawings."
1. Mark each copy to show applicable choices and options. Where printed Product Data includes information on several products, some of which are not required, mark copies to indicate the applicable information. Include the following information:
    - a. Manufacturer's printed recommendations.
    - b. Compliance with recognized trade association standards.
    - c. Compliance with recognized testing agency standards.
    - d. Application of testing agency labels and seals.
    - e. Notation of dimensions verified by field measurement.
    - f. Notation of coordination requirements.
  2. Do not submit Product Data until compliance with requirements of the Contract Documents has been confirmed.
  3. Preliminary Submittal: Submit a preliminary single-copy of Product Data where selection of options is required.
  4. Submittals: Submit 2 copies of each required submittal; submit 4 copies where required for maintenance manuals. The Owner will retain one, and will return the other marked with action taken and corrections or modifications required.
    - a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.

**CARTWRIGHT AND FITZSIMONS PARK**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

5. Distribution: Furnish copies of final submittal to installers, subcontractors, suppliers, manufacturers, fabricators, and others required for performance of construction activities. Show distribution on transmittal forms.
  - a. Do not proceed with installation until an applicable copy of Product Data applicable is in the installer's possession.
  - b. Do not permit use of unmarked copies of Product Data in connection with construction.

**1.09 SAMPLES**

- A. Submit full-size, fully fabricated Samples cured and finished as specified and physically identical with the material or product proposed. Samples include partial sections of manufactured or fabricated components, cuts or containers of materials, color range sets, and swatches showing color, texture and pattern.
  1. Mount, display, or package Samples in the manner specified to facilitate review of qualities indicated. Prepare Samples to match the Owner's Sample. Include the following:
    - a. Generic description of the Sample.
    - b. Sample source.
    - c. Product name or name of manufacturer.
    - d. Compliance with recognized standards.
    - e. Availability and delivery time.
  2. Submit Samples for review of kind, color, pattern, and texture, for a final check of these characteristics with other elements, and for a comparison of these characteristics between the final submittal and the actual component as delivered and installed.
    - a. Where variation in color, pattern, texture or other characteristics are inherent in the material or product represented, submit multiple units (not less than 3), that show approximate limits of the variations.
    - b. Refer to other Specification Sections for requirements for Samples that illustrate workmanship, fabrication techniques, details of assembly, connections, operation and similar construction characteristics.
    - c. Refer to other Sections for Samples to be returned to the Contractor for incorporation in the Work. Such Samples must be undamaged at time of use. On the transmittal, indicate special requests regarding disposition of Sample submittals.
  3. Preliminary submittals: Where Samples are for selection of color, pattern, texture or similar characteristics from a range of standard choices, submit a full set of choices for the material or product.
    - a. Preliminary submittals will be reviewed and returned with the Owner's mark indicating selection and other action.
  4. Submittals: Except for Samples illustrating assembly details, workmanship, fabrication techniques, connections, operation and similar characteristics, submit 3 sets; one will be returned marked with the action taken.
  5. Maintain sets of Samples, as returned, at the Project site, for quality comparisons throughout the course of construction.

**CARTWRIGHT AND FITZSIMONS PARK**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

- a. Unless noncompliance with Contract Document provisions is observed, the submittal may serve as the final submittal.
  - b. Sample sets may be used to obtain final acceptance of the construction associated with each set.
- B. Distribution of Samples: Prepare and distribute additional sets to subcontractors, manufacturers, fabricators, suppliers, installers, and others as required for performance of the Work. Show distribution on transmittal forms.
- C. Mock ups specified in individual Sections are special types of Samples. Mock ups are full-size examples erected on site to illustrate finishes, coatings, or finish materials and to establish the standard by which the Work will be judged.
- D. Comply with submittal requirements to the fullest extent possible. Process transmittal forms to provide a record of activity.

**1.10 CONTRACTOR'S RESPONSIBILITIES**

- A. Review shop drawings, product data and samples prior to submission.
- B. Verify:
- 1. Field dimensions
  - 2. Field construction criteria
  - 3. Catalog numbers and similar data
- C. Coordinate each submittal with requirements of Work and of Contract Documents.
- D. Contractor's responsibility for errors and omissions in submittals is not relieved by Owner's review of submittals.
- E. Contractor's responsibility for deviations in submittals from Contract Document requirements is not relieved by Owner's review of submittals.
- F. Notify Owner in writing at time of submission, of deviations in submittals from contract requirements.
- G. Do not begin any work which requires submittals without having Owner's stamp and initials or signature indicating review.
- H. After Owner's review, make response required by Owner, stamp and distribute copies.

**1.11 SUBMISSION REQUIREMENTS**

- A. Make all submissions within 35 business days after date of Notice to Proceed.
- B. Submit number of copies of shop drawings, project data and samples which Contractor requires for distribution plus 3 copies which will be retained by the Owner.
- C. Submit number of samples specified in each of specification sections.
- D. Accompany submittals with transmittal letter, in duplicate, containing:
- 1. Date
  - 2. Project title and number

**CARTWRIGHT AND FITZSIMONS PARK**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

3. Contractor's name and address
4. The number of each shop drawing, product datum and sample submitted
5. Notification of deviations from contract
6. Other pertinent data

E. Submittals shall include:

1. Date and revision dates
2. Project title and number
3. Names of:
  - a. Contractor
  - b. Subcontractor
  - c. Supplier
  - d. Manufacturer
  - e. Separate detailer when pertinent
4. Identification of product or material
5. Relation to adjacent structure or material
6. Field dimensions, clearly identified as such
7. Specification Section and page number
8. Applicable standards, such as ASTM number or federal specification
9. Identification of deviation(s) from Contract Documents
10. Contractor's stamp, initialed or signed, certifying to review of submittal, verification of field measurements, and compliance with Contract.

1.12 RESUBMISSION REQUIREMENTS

A. Shop drawings:

Revise initial drawings as required and resubmit as specified for initial submittal. Indicate on drawings all changes which have been made other than those requested by Owner.

B. Product Data and Samples:

Submit new datum and samples as required for initial submittal.

C. Make all resubmittals within 10 business days after date on Owner's stamp.

1.13 DISTRIBUTION OF SUBMITTALS AFTER REVIEW

A. Distribute copies of shop drawings and project datum which carry Owner's stamp:

1. Contractor's file
2. Job site file
3. Record documents file
4. Subcontractors
5. Supplier
6. Fabricator

B. Distribute samples as directed.

1.14 OWNER'S ACTION

**CARTWRIGHT AND FITZSIMONS PARK  
CITY OF EVANSTON  
ISSUED FOR BID**

- A. Except for submittals for record, information or similar purposes, where action and return is required or requested, the Owner will review each submittal, mark to indicate action taken, and return promptly.
  - 1. Compliance with specified characteristics is the Contractor's responsibility.
  
- B. Action Stamp: The Owner will stamp each submittal with a uniform, self-explanatory action stamp. The stamp will be appropriately marked, as follows, to indicate the action taken:
  - 1. Final Unrestricted Release: Where submittals are marked "Furnish as Submitted," that part of the Work covered by the submittal may proceed provided it complies with requirements of the Contract Documents; final acceptance will depend upon that compliance.
  - 2. Final-But-Restricted Release: When submittals are marked "Furnish as Corrected," that part of the Work covered by the submittal may proceed provided it complies with notations or corrections on the submittal and requirements of the Contract Documents; final acceptance will depend on that compliance.
  - 3. Returned for Resubmittal: When submittal is marked "Revise and Resubmit", do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication, delivery, or other activity. Revise or prepare a new submittal in accordance with the notations; resubmit without delay. Repeat if necessary to obtain a different action mark.
  - 4. Returned, Improper Submittal: When submittal is marked "Rejected" do not proceed with that part of the Work covered by the submittal, including purchasing, fabrication delivery or other activity. The submittal does not conform with project requirements. Prepare a new submittal without delay.
  - 5. Do not permit submittals marked "Rejected, Revise and Resubmit" to be used at the Project site, or elsewhere where Work is in progress.
  - 6. Other Action: Where a submittal is primarily for information or record purposes, special processing or other activity, the submittal will be returned, marked "Action Not Required".

**PART 2 – PRODUCTS**

**(NOT APPLICABLE)**

**PART 3 – EXECUTION**

**(NOT APPLICABLE)**

**END OF SECTION 01 30 00**

**SECTION 01 35 62**

**EROSION AND SEDIMENTATION CONTROL**

**PART 1 - GENERAL**

1.1 SUMMARY

- A. Section Includes: Erosion and Sedimentation Control Program for the Project.

1.2 SUBMITTALS

- A. Erosion and Sediment Control Plan

1. Submit erosion and sediment control drawings specific to the site within ten (10) days of Notice To Proceed (NTP). Show locations, types and details of erosion and sediment control features and construction.
2. Show the schedule of implementation coordinated with the construction schedule.
3. Include a narrative describing the program and maintenance.

- B. Product Data

1. Silt Fence Geotextile Filter Fabric
2. Filter Baskets

- C. Documentation Log

1. Provide weekly inspection logs of inspection and maintenance of all erosion control procedures.
  - a. Include additional inspections for rainfalls over ½".
2. Provide photographs during construction illustrating implementation of erosion control measures and on-going repairs/maintenance to these measures. At minimum photographs should be documented for:
  - a. Before Construction
  - b. During Construction
  - c. After Construction

1.3 QUALITY ASSURANCE

- A. Requirements: Create and implement an Erosion and Sedimentation Control plan, specific to the site, which conforms to the erosion and sedimentation requirements of the 2003 United States Environmental Protection Agency (EPA) Construction General Permit, OR local erosion and sedimentation control standards and codes, whichever is more stringent. The Construction General Permit outlines the provisions necessary to comply with Phase I and Phase II Of the National Pollution Discharge Elimination (NPDES) program.
- B. Objectives:

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**CITY OF EVANSTON**  
**ISSUE FOR BID**

1. Prevent loss of soil during construction by storm water runoff and/or wind erosion, including protecting stock pits for reuse.
2. Prevent sedimentation of storm sewer or receiving streams.
3. Prevent polluting the air with dust and particulate matter.

**PART 2 - PRODUCTS**

2.1 Silt Fence:

- A. Geotextile Filter Fabric: A nonwoven fabric consisting of previous sheets of propylene, nylon, polyester, or ethylene yarn. Certify material by manufacturer to meet the following requirements. Pre-assembled silt fencing may be substituted if it meets the above requirements.

<u>Property</u>	<u>Test Method</u>	<u>Requirements</u>
Minimum Tensile Strength	ASTM D4632	90 lb
Maximum Elongation at 45 lb	ASTM D4632	50% Max
Apparent Opening Size	ASTM D4751	AOS<60 mm
Minimum Permittivity	ASTM D4491	1x10 <sup>-2</sup> SEC <sup>-1</sup>
Ultraviolet Exposure Strength Retention	ASTM D4355	70% @ 500h

- B. Posts: Wood or steel and a minimum 5 ft long. Wood posts shall be at least 4 in. dia. Or nominal 2 x 2 in. Steel posts shall be round, or “U”, “T”, or “C” shaped with a minimum weight of 1.33 lb/ft and projections for fastening wire to fence. Wire Staples: 9 gage and minimum 1 in. long.

2.2 INLET FILTER

A. FILTER BASKETS

1. CATCH –ALL (or equal)  
 As manufactured by:  
 METRO DETROIT  
 Price and Company, Inc.  
 29165 Wall Street  
 Wixom, MI 48393-3525  
 Toll Free: 866.960.4300  
 Local T: 248.596.4300  
 F: 248.596.4301  
 E: [geopro@priceandcompany.com](mailto:geopro@priceandcompany.com)

2.3 CONSTRUCTION ENTRANCE

- A. Aggregate size: CA-1 or CA-4

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**CITY OF EVANSTON**  
**ISSUE FOR BID**

- B. Geotextile fabric: shall meet the requirements of specification 592 Geotextile table 1 or 2, class I, II or IV of the Illinois Urban Manual.

2.4 TEMPORARY SEEDING PLANTS

- A. Shall be selected from the following:

TEMPORARY SEEDING SPECIES, RATES AND DATES

Species	Lbs/Acre	Lbs/1000 sf	Seeding dates
Oats	90	2	Early spring-July 1
Cereal Rye	90	2	Early spring-Sept. 30
Wheat	90	2	Early spring-Sept. 30
Perennial Ryegrass	25	0.6	Early spring-Sept. 30

**PART 3 - EXECUTION**

3.1 GENERAL

- A. Do not start operations until the erosion and sediment control plan has been submitted and features are in place.
- B. Comply with "Quality Assurance" provisions of these specifications and the erosion and sediment control plan.
- C. Schedule the Work in start to finish phases to minimize exposing the site to erosion.
- D. Install erosion and sediment control features before site disturbance begins and immediately after new inlets are installed.
- E. Do not allow storm water to flow into excavations and disturbed areas.
- F. Do not discharge water into sanitary sewers, watercourses or offsite.
- G. Do not discharge water-containing sediment in accordance with "Quality Assurance" requirements and as presented in the erosion and sediment control plan submittal or a maximum retained as 30 milligrams of sediment per liter of water. Conduct continuous monitoring of sediment.
- H. Maintain sediment control features. Inspect weekly and after every rain. Repair damaged bales, end runs and undercutting beneath bales. Repair breaks in diversion dams and damage down streams of the break. Replace damaged and deteriorated filter fabric and fences. Remove sediment which deposits fill 1/3 of the fabric surface area.
- I. Do not allow sediment to flow into vegetated areas.
- J. Retain all sediment on the site. Provide temporary stone roadways at exits from the site to ensure mud run-off of tires before exiting.

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUE FOR BID**

- K. Utilize the sizes of equipment appropriate to the task to minimize exhaust, noise and vibration.
- L. Mist or provide other means to keep dust from being scattered to the air.
- M. All sediment that gets onto public right-of-way must be removed immediately.
- N. During dewatering operations, water will be pumped into sediment basins or silt traps. Dewatering directly to field tiles or storm sewer is prohibited.
- O. Stockpile must be kept covered and watered for dust control.

**INSTALLATION/APPLICATION/ERECTION**

- P. General: Control surface water runoff on-site and provide temporary soil stabilization measures as required to prevent erosion of soil by action of water. Protect storm sewers adjacent to work site from sedimentation by installation of erosion and sediment control measures. Provide, as a first step in construction operations, barriers, and other measures intended to deter erosion and transport of sediment associated with construction activities before construction starts or as it progresses.
- Q. Silt Fences: Space posts 6 ft maximum for non-reinforced or 10 ft maximum for reinforced and securely install with at least 2 feet of post in the ground. Excavate trench approximately 4 in. wide and 4 in. deep along line of posts and upslope side of posts using wire staples, tie wires, or hog rings. Extend wire and fence into trench a minimum of 4 in. Attach geo-textile filter fabric directly to posts and wire reinforcement fence as required by wire, staples, or other means. Install filter fabric in a manner such that fabric height above grade is 2 to 3 ft. Do not staple fabric to trees. Do not use fabric with defects or other damage. For manholes, the filter fabric can be placed around the lid and secured by the lid weight.
- R. Construction Entrance: Construct with minimum dimensions of 14' wide, 70' length and 6" thickness of CA-1 or CA-4. Filter fabric shall be used under the aggregate to minimize the migration of stone into the underlying soil by heavy vehicle loads. See plans for location.
- S. Temporary Seeding: Remove large rocks or other debris that may interfere with seedbed preparation or seeding operations. Prepare seedbed of 3 to 4 inches loose soil. If rainfall has caused the surface to become sealed or crusted, loosen, by suitable method, it just prior to seeding. Where pH is below 5.5 and seeding will not take place within 30 days, apply one and one half to two tons per acre of finely ground agricultural limestone. Seeding shall be evenly applied with a cyclone seeder, drill, culti-packer seeder or hydroseeder. Small grains shall be planted no more than one inch deep. Grasses shall be planted no more than one half inch deep.

**END OF SECTION**

**SECTION 01 40 00**

**QUALITY CONTROL SERVICES**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. This Section specifies administrative and procedural requirements for quality control services.
- B. Quality control services include inspections and tests and related actions including reports, performed by independent agencies, governing authorities, and the Contractor. They do not include Contract enforcement activities performed by the Owner.
- C. Inspection and testing services are required to verify compliance with requirements specified or indicated. These services do not relieve the Contractor of responsibility for compliance with Contract Document requirements.
- D. Requirements of this Section relate to customized fabrication and installation procedures, not production of standard products.
  - 1. Specific quality control requirements for individual construction activities are specified in the Sections that specify those activities. Those requirements, including inspections and tests, cover production of standard products as well as customized fabrication and installation procedures.
  - 2. Inspections, test and related actions specified are not intended to limit the Contractor's quality control procedures that facilitate compliance with Contract Document requirements.
  - 3. Requirements for the Contractor to provide quality control services required by the Owner, or authorities having jurisdiction are not limited by provisions of this Section.

**1.2 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.3 RESPONSIBILITIES**

- A. The Contractor shall provide inspections, tests and similar quality control services, specified in individual Specification Sections and required by governing authorities, except where they are specifically indicated to be the Owner's responsibility, or are provided by another identified entity; these services include those specified to be performed by an independent agency and not by the Contractor. Costs for these services shall be included in the Contract Sum.
  - 1. The Owner will select and the Contractor shall employ and pay an independent agency, to perform specified quality control services.
    - a. Where the Owner has engaged a testing agency or other entity for testing and inspection of a part of the Work, and the Contractor is also required to engage an entity for the same or related element, the

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

Contractor shall not employ the entity engaged by the Owner, unless otherwise agreed in writing with the Owner.

2. Re-testing: The Contractor is responsible for re-testing where results of required inspections, tests or similar services prove unsatisfactory and do not indicate compliance with Contract Document requirements, regardless of whether the original test was the Contractor's responsibility.
  - a. Cost of re-testing construction revised or replaced by the Contractor is the Contractor's responsibility, where required tests were performed on original construction.
3. Associated Services: The Contractor shall cooperate with agencies performing required inspections, tests and similar services and provide reasonable auxiliary services as requested. Notify the agency sufficiently in advance of operations to permit assignment of personnel. Auxiliary services required include but are not limited to:
  - a. Providing access to the Work and furnishing incidental labor and facilities necessary to facilitate inspections and tests.
  - b. Taking adequate quantities of representative samples of materials that require testing or assisting the agency in taking samples.
  - c. Providing facilities for storage and curing of test samples, and delivery of samples to testing laboratories.
  - d. Providing the agency with a preliminary design mix proposed for use for materials mixes that require control by the testing agency.
  - e. Security and protection of samples and test equipment at the Project site.

B. Duties of the Testing Agency: The independent testing agency engaged to perform inspections, sampling and testing of materials and construction specified in individual Specification Sections shall cooperate with the Owner and Contractor in performance of its duties, and shall provide qualified personnel to perform required inspections and tests.

1. The agency shall notify the Owner and Contractor promptly of irregularities or deficiencies observed in the Work during performance of its services.
2. The agency is not authorized to release, revoke, alter or enlarge requirements of the Contract Documents, or approve or accept any portion of the Work.
3. The agency shall not perform any duties of the Contractor.

C. Coordination: The Contractor and each agency engaged to perform inspections, tests and similar services shall coordinate the sequence of activities to accommodate required services with a minimum of delay. In addition the Contractor and each agency shall coordinate activities to avoid the necessity of removing and replacing construction to accommodate inspections and tests.

1. The Contractor is responsible for scheduling times for inspections, tests, taking samples and similar activities.

#### 1.4 SUBMITTALS

A. The independent testing agency shall submit a certified written report of each inspection, test or similar service, to the Owner, in duplicate, and a copy to the Contractor.

1. Submit additional copies of each written report directly to the governing authority, when the authority so directs.

## CARTWRIGHT AND FITZSIMONS PARKS

CITY OF EVANSTON

ISSUED FOR BID

2. Report Data: Written reports of each inspection, test or similar service shall include, but not be limited to:
  - a. Date of issue.
  - b. Project title and number.
  - c. Name, address and telephone number of testing agency.
  - d. Dates and locations of samples and tests or inspections.
  - e. Names of individuals making the inspection or test.
  - f. Designation of the Work and test method.
  - g. Identification of product and Specification Section.
  - h. Complete inspection or test data.
  - i. Test results and an interpretations of test results.
  - j. Ambient conditions at the time of sample-taking and testing.
  - k. Comments or professional opinion as to whether inspected or tested Work complies with Contract Document requirements.
  - l. Name and signature of laboratory inspector.
  - m. Recommendations on re-testing.

### 1.5 QUALITY ASSURANCE

- A. Qualification for Service Agencies: Engage inspection and testing service agencies, including independent testing laboratories, which are prequalified as complying with "Recommended Requirements for Independent Laboratory Qualification" by the American Council of Independent Laboratories, and which specialize in the types of inspections and tests to be performed.
  1. Each independent inspection and testing agency engaged on the Project shall be authorized by authorities having jurisdiction to operate in the State of Illinois.
- B. Meet basic requirements of ASTM E329 Standard of Recommended Practice for Inspection and Testing Agencies for Concrete and Steel Used in Construction."
- C. Submit copy of report of inspection of facilities made by Materials Reference Laboratory of National Bureau of Standards during most recent tour of inspection; with memorandum of remedies of all deficiencies reported by inspection.
- D. Testing Equipment:
  1. Calibrated at maximum 12-month intervals by devices of accuracy traceable to either:
    - a. National Bureau of Standards
    - b. Accepted values of natural physical constants.
  2. Submit copy of certificate of calibration, made by accredited calibration agency.

### 1.6 LABORATORY DUTIES: LIMITS OF AUTHORITY

- A. Cooperate with Owner and Contractor; provide qualified personnel promptly on notice.
- B. Perform specified inspections, sampling and testing of materials and construction methods.
  1. Comply with specified Standards: ASTM, other recognized authorities, and as specified.

## **CARTWRIGHT AND FITZSIMONS PARKS**

CITY OF EVANSTON

ISSUED FOR BID

2. Ascertain compliance with Contract requirements.
- C. Promptly notify Owner and Contractor of irregularities or deficiencies of work which are observed during performance of services.
- D. Promptly submit 5 copies of reports of inspections and tests to Owner including:
1. Date issued
  2. Project title and number
  3. Testing Laboratory name and address
  4. Name and signature of Inspector
  5. Date of inspection and sampling
  6. Record of temperature and weather
  7. Date of test
  8. Identification of product and Specification Section
  9. Location in project
  10. Type of inspection or test
  11. Observations regarding compliance with Contract Documents
- E. Perform additional services as required by Owner.
- F. Laboratory is not authorized to:
1. Release, revoke, alter or enlarge on, Contract requirements.
  2. Approve or accept any portion of work.
  3. Perform any duties of the Contractor.

### **1.7 CONTRACTOR'S RESPONSIBILITIES**

- A. Cooperate with Laboratory personnel, provide access to work, to manufacturer's operations.
- B. Provide Laboratory, preliminary representative samples of materials for testing, in required quantities.
- C. Furnish copies of mill test reports.
- D. Furnish casual labor and facilities:
1. To provide access to work to be tested.
  2. To obtain and handle samples at site.
  3. To facilitate inspections and tests.
  4. For Laboratory's exclusive use for storage and curing of test samples.
- E. Notify Laboratory sufficiently in advance of operations to allow for personnel assignment of test scheduling.
- F. Employ, and pay for, services of a separate, equally qualified, Independent Testing Laboratory to perform additional inspections, sampling and testing required.
1. For Contractor's convenience.
  2. When initial tests indicate work does not comply with Contract.

## **PART 2 - PRODUCTS**

QUALITY CONTROL SERVICES  
SECTION

01 40 00 - 4

**CARTWRIGHT AND FITZSIMONS PARKS  
CITY OF EVANSTON  
ISSUED FOR BID  
(Not Applicable)**

**PART 3 - EXECUTION**

**3.1 REPAIR AND PROTECTION**

- A. General: Upon completion of inspection, testing, sample-taking and similar services, repair damaged construction and restore substrates and finishes to eliminate deficiencies, including deficiencies in visual qualities of exposed finishes. Comply with Contract Document requirements for "Cutting and Patching."
- B. Protect construction exposed by or for quality control services, and protect repaired construction.
- C. Repair and protection is the Contractor's responsibility, regardless of the assignment of responsibility for inspection, testing or similar services.

**END OF SECTION 01 40 00**

**SECTION 01 50 00**

**TEMPORARY FACILITIES**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. This section specifies administrative and procedural requirements for temporary services and facilities, including utilities, construction and support facilities, and security and protection.
  - 1. Contractor shall be solely responsible for adequacy of temporary facilities, including design and engineering thereof.
- B. Construction and support facilities required include but are not limited to:
  - 1. Temporary roadway paving and/or steel plates.
  - 2. Field offices and/or storage sheds.
  - 3. Sanitary facilities, including toilets and drinking water.
  - 4. Dewatering facilities and drains.
  - 5. Temporary enclosures.
  - 6. Waste disposal services.
  - 7. Rodent and pest control.
  - 8. Construction aids and miscellaneous general services and facilities.
- C. Security and protection facilities and services required include but are not limited to:
  - 1. Barricades, warning signs and lights.
  - 2. Enclosure fences.
  - 3. Environmental protection.

**1.2 RELATED WORK**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.3 QUALITY ASSURANCE**

- A. Regulations: comply with local codes and ordinances of governing authorities having jurisdiction.
- B. Standards: contractor determines and complies with applicable standards for temporary and construction facilities.
- C. Inspections: arrange for authorities having jurisdiction to inspect and test each utility before use. Obtain required certification and permits.

**1.4 PROJECT CONDITIONS**

- A. Conditions of use: keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Do not overload temporary services or facilities, or permit them to interfere with construction progress. Do not allow hazardous, dangerous or unsanitary conditions or public nuisances to develop or persist on the site.

## **CARTWRIGHT AND FITZSIMONS PARKS**

CITY OF EVANSTON

ISSUED FOR BID

- B. Easements: obtain necessary easements for temporary facilities when required.

### **PART 2 - PRODUCTS**

#### **2.1 MATERIALS AND EQUIPMENT**

- A. General: provide new materials and equipment or undamaged previously used materials and equipment in serviceable condition. Provide materials and equipment suitable for the use intended.
- B. Water: provide potable water approved by local health authorities.
- C. First aid supplies: comply with governing regulations.
- D. Fire extinguishers: provide hand-carried, portable UL-rated, class "A" fire extinguishers for temporary offices and similar spaces. In other locations, provide hand-carried, portable UL-rated, class "ABC" dry chemical extinguishers, or a combination of extinguishers of NFPA recommended classes for the exposures.
  - 1. Comply with NFPA 10 and 241 for classification, extinguishing agent and size required by location and class of fire exposure.
- E. Work zone traffic control: comply with IDOT 701 and 702.

### **PART 3 - EXECUTION**

#### **3.1 INSTALLATION**

- A. Locate facilities where they will best serve the Project and result in minimum interference with performance of the Work. Relocate and modify facilities as required.
- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by authorized use of completed permanent facilities.

#### **3.2 TEMPORARY INSTALLATION**

- A. Provide earthen embankments and similar barriers in and around excavations and subgrade construction, sufficient to prevent flooding by runoff of storm water from heavy rains.

#### **3.3 TEMPORARY CONSTRUCTION AND SUPPORT FACILITY INSTALLATION**

- A. Storage and fabrication sheds (optional): install storage and fabrication sheds, sized, furnished and equipped to accommodate materials and equipment involved, including temporary utility service. Sheds may be open shelters or fully enclosed spaces on the site.
- B. Sanitary facilities: comply with regulations and health codes for the type, number, location, operation and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs.

## **CARTWRIGHT AND FITZSIMONS PARKS**

### **CITY OF EVANSTON**

#### **ISSUED FOR BID**

1. Provide self-contained, single-occupant toilet units of the chemical, aerated recirculation or combustion type, properly vented and fully enclosed with a glass fiber reinforced polyester shell or similar nonabsorbent material.
  2. Provide toilet tissue, paper towels, paper cups and similar disposable materials for each facility. Provide covered waste containers for used material.
- C. Temporary enclosures: provide temporary enclosure for protection of construction in progress and completed from exposure, foul weather, other construction operations and similar activities.
1. Where heat is needed, provide temporary enclosures where there is no other provision for containment of heat. Coordinate enclosure with ventilating and materials drying or curing requirements to avoid dangerous conditions and effects.
- D. Temporary signs: prepare and install signs to inform the public and persons seeking entrance to the Project. Support on the posts or framing of preservative treated wood or steel. Do not permit installation of unauthorized signs.
- E. Collection of disposal of waste: collect waste from project site daily. Comply with requirements of NFPA 241 for removal of combustible waste materials and debris. Enforce requirements strictly. Do not hold materials more than seven days during normal weather and three days when the temperature is expected to rise above 80 degrees Fahrenheit. Handle hazardous, dangerous or unsanitary waste materials separately from other waste by containerizing properly. Dispose of material in a lawful manner.
- 3.4 SHORING, BRACING AND UNDERPINNING (as required)
- A. Provide shoring and bracing necessary to protect existing buildings, streets, walkways, utilities and other improvements and excavation against loss of ground or caving embankments. Maintain shoring and bracing. Remove temporary shoring and bracing when no longer required.
  - B. Whenever shoring is required, locate the system to clear permanent construction and to permit forming and finishing of concrete surfaces. Provide shoring system, adequately anchored and braced to resist earth and hydrostatic pressures.
  - C. Shoring systems retaining earth on which the support or stability of existing structure is dependent must be left in place at completion of work.
  - D. Maintain bracing until structural elements are rebraced by other bracing or until permanent construction is able to withstand lateral earth and hydrostatic pressures.
  - E. Remove sheeting, shoring and bracing in stages to avoid disturbance to underlying soils and damage to structures, pavements, facilities and utilities.
  - F. Repair or replace as acceptable by Owner, adjacent work damaged or displaced through the installation or removal of shoring and bracing work.
- 3.5 SECURITY AND PROTECTION FACILITIES
- A. Barricades, warning signs and lights: Comply with IDOT 701,702 and local code requirements. Paint with appropriate colors, graphics and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and needed, provide lighting, including flashing red or amber lights.

**CARTWRIGHT AND FITZSIMONS PARKS**

CITY OF EVANSTON

ISSUED FOR BID

- B. Environmental protection: provide environmental protection as outlined in Section 01 56 00 – TEMPORARY ENVIRONMENTAL CONTROLS.
- C. Site security to be provided by the Contractor as required.

3.6 OPERATION, TERMINATION AND REMOVAL

- A. Supervision: enforce strict discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
- B. Maintenance: maintain facilities in good operating condition until removal.
  - 1. Maintain operation of temporary enclosures, heating, cooling, humidity control, ventilation and similar facilities on a 24-hour a day basis where required to achieve indicated results and to avoid the possibility of damage.
- C. Termination and removal: remove each temporary facility when the need has ended, or when replaced by authorized use of a permanent facility, or no later than Substantial Completion. Complete or, if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged Work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.
- D. Materials and facilities that constitute temporary facilities are the property of the Contractor.

**END OF SECTION 01 50 00**

**SECTION 01 56 00**

**TEMPORARY ENVIRONMENTAL CONTROLS**

**PART 1 - GENERAL**

1.1 WORK INCLUDES

- A. Contractors shall:
  - 1. Provide controls over environmental conditions at the construction site and related areas under the Contractor's control.
  - 2. Remove physical evidence of temporary controls at completion of work or as directed.

1.2 RELATED WORK

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

1.3 QUALITY CONTROL

- A. Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Control - "Green Book"

1.4 DUST CONTROL

- A. Provide dust control materials to minimize dust from construction operations. Prevent air-borne dust from dispersing into the atmosphere.
- B. Dust- and HVAC-Control Plan: Submit coordination drawing and narrative that indicates the dust- and HVAC-control measures proposed for use, proposed locations, and proposed time frame for their operation. Include the following:
  - 1. Locations of dust-control partitions at each phase of work.
  - 2. HVAC system isolation schematic drawing.
  - 3. Location of proposed air-filtration system discharge.
  - 4. Waste-handling procedures.
  - 5. Other dust-control measures.

1.5 WATER CONTROL

- A. Control surface water to prevent damage to the project, the site or adjoining properties.
  - 1. Control fill, grading and ditching to direct surface drainage away from excavations, pits, tunnels, and other construction areas; direct drainage to proper runoff.
- B. Provide, operate and maintain hydraulic equipment of adequate capacity to control surface water.
- C. Dispose of drainage water in a manner to prevent flooding, erosion sitting or runoff of silt or sediment or other damage to all portions of the site or to adjoining areas.

**CARTWRIGHT AND FITZSIMONS PARKS**

CITY OF EVANSTON

ISSUED FOR BID

1.6 RODENT CONTROL

- A. Provide rodent control to prevent infestation of construction or storage areas.
  - 1. Use methods and materials, which will not adversely affect conditions at the site or on adjoining properties.
  - 2. Maintain site in clean condition.
    - a. Dispose of garbage and debris.
    - b. Do not keep items on site which attract rodents.
  - 3. When the use of rodenticides is deemed necessary, submit a copy of proposed program to the Owner. Clearly indicate:
    - a. Areas to be treated.
    - b. Rodenticides to be used, with copy of manufacturer's current printed instructions.
    - c. Pollution preventative measures to be employed.
    - d. Illinois licensed pesticides applicator.

1.7 DEBRIS CONTROL

- A. Maintain all areas under Contractor's control free of extraneous debris.
- B. Initiate and maintain a specific program to prevent accumulation of debris at construction site, storage and parking areas or along access roads and haul routes.
  - 1. Provide containers specified in SECTION 01 71 00 - CLEANING for deposit of debris.
  - 2. Prohibit overloading of trucks to prevent spillages on access and haul routes.
    - a. Provide daily inspection of traffic areas to enforce requirements.
- C. Schedule collection and disposal of debris is specified in SECTION 01 71 00 - CLEANING.
  - 1. Provide additional collections and disposals of debris whenever regular schedule is inadequate to prevent accumulation.

1.8 POLLUTION CONTROL

- A. Prevent contamination of soil, water or atmosphere by the discharge of noxious substances from construction operations.
- B. Provide equipment and personnel, perform emergency measures to contain all spillages, and to remove contaminated soils or liquids. Excavate and dispose of all contaminated earth off-site. Replace with suitable compacted fill and topsoil.
- C. Take special measures to prevent harmful substances from entering public waters or spilling onto the ground. Prevent disposal of wastes, effluents, chemicals or other such substances adjacent to streams, or in sanitary or storm sewers, including waste from portable toilets.
- D. Provide systems for control of atmospheric pollutants.
  - 1. Prevent toxic concentrations of chemicals.

**CARTWRIGHT AND FITZSIMONS PARKS**

CITY OF EVANSTON

ISSUED FOR BID

2. Prevent harmful dispersal of pollutants into the atmosphere.

1.9 EROSION CONTROL

- A. Plan and execute construction and earthwork in a manner to control surface drainage from cuts and fills, and from borrow and waste disposal areas, to prevent erosion and sedimentation.
  1. Minimize the areas of bare soil exposed at one time.
  2. Provide temporary control measures such as berms, dikes and drains.
  3. Provide temporary control measures to prevent silting or runoff of silt or sediment from site.
- B. Construct fills and waste areas by selective placement to eliminate surface silts or clays which will erode.
- C. Periodically inspect earthwork to detect evidence of the start of erosion. Apply corrective measures to control erosion.

**PART 2 - PRODUCTS**

**(NOT APPLICABLE)**

**PART 3 - EXECUTION**

**(NOT APPLICABLE)**

**END OF SECTION 01 56 00**

**SECTION 015639**

**TREE/SHRUB REMOVAL AND PROTECTION**

**Tree and Shrub Removal and Damage**

Trees and shrubs identified for removal are designated on the Drawings. It is not anticipated that any other trees or shrubs will need to be removed for performance of the Work. Should the Contractor recommend removing additional trees or shrubs, the Contractor shall notify the Owner for approval prior to removing any trees or shrubs. To receive permission for removal of trees or shrubs, the Contractor must demonstrate that there is no other practicable way to complete the Work, including auguring or hand-excavation. Contractor shall work with the Engineer to seek a tree preservation permit or review for any excavation that will occur within 25 feet of any public or private tree. Permit fees are waived.

Owner recognizes that some tree branches will need to be pruned to provide clearance for construction equipment. However, the Contractor shall secure the express permission of the City Arborist to trim specific overhanging branches of trees. All tree trimming, pruning, and repair of wound surfaces shall be performed by a licensed arborist approved by the Owner and will be within standards generally recognized as best practice by industry professionals. The Owner will provide appropriate staff to observe tree trimming operations. The Contractor shall provide at least 72-hour notice to the Owner of trimming operations. No trimming shall be done unless Owner's staff is available to observe trimming. Trimming shall be performed to the satisfaction of Owner's staff. The Contractor shall provide proper tree guards to protect trees from damage due to construction equipment and operations.

Trees and shrubs damaged due to construction operations or removed without approval shall be replaced, at Contractor's expense, with trees or shrubs of like species and size, to a maximum trunk size of 2-inches diameter as directed by the City Arborist. If trees larger than 6-inches in diameter are irreparably damaged or destroyed, the Contractor shall replace these trees with trees 2-inches in diameter per City's mitigation formula, and with a species chosen by the City Arborist. In addition to these replacements, the Contractor shall be subject to fees, penalties, and fines for tree damage as indicated in the City's [Tree Canopy Preservation Policy](#). Tree trimming, pruning, repair of wound surfaces, removal of trees and shrubs requested by Contractor, replacement of trees and shrubs irreparably damaged, and mitigation costs and/or penalties for damage, shall be incidental to the items of work to which they pertain.

**Tree Protection**

Contractors are advised that it is the express intent of the City of Evanston to minimize trimming of and other impacts to trees in the work areas and to vigorously protect the health and quality of the urban forest on both public and private property. The equipment and methods used to perform any and all portions of the work must be the size and nature that results in the least disruption to the existing environment. The City of Evanston reserves the right to limit the size of the equipment used on the project.

The Contractor shall at all times demonstrate to the satisfaction of the City of Evanston that suitable precautions and due diligence are being observed to protect the natural and improved features of the area. Special and continuing attention will be paid to the maintenance of tree protection fencing and the appropriate observance of tree protection areas as delineated by the fencing.

**CARTWRIGHT AND FITZSIMONS PARKS**  
CITY OF EVANSTON  
ISSUED FOR BID

To ensure compliance with the City of Evanston's intent to minimize area disturbances, the following procedures and actions will be followed: When the City arborist determines that a tree is improperly protected, the Contractor shall be notified. If the contractor fails to rectify the deficiency immediately, the Engineer will impose a daily monetary deduction for each 24-hour period (or portion thereof) the deficiency exists. This time period will begin with the time of notification to the Contractor and end with the Engineer's acceptance of the corrections. The cost of the daily deduction will be \$250 per occurrence per calendar day. In addition, the Contractor will be liable and responsible for any and all corrective and remedial actions required to restore the area or item to comparable pre-project conditions as well as any additional fines and fees as stated in these specifications, including a potential penalty of \$500 per occurrence per calendar day for failure to provide restoration that meet's the City Arborist's approval.

**Care of Existing Plant Material**

If construction is planned within the critical root zone of existing plant material, root pruning and plant care will be required, as hereinafter specified. All pruning shall be performed by a certified arborist approved by the City and with appropriate qualifications.

The Contractor shall be responsible for taking measures to minimize damage to any part of public and private trees, including limbs, trunks, and roots at each work site. All such measures shall be included in the base bid contract price.

**A. Earth Saw Cut of Tree Roots (Tree Root Pruning)**

1. Whenever the proposed excavation falls within the drip-line of a tree, the contractor shall:
  - a. Root prune 6-inches behind and parallel to the proposed edge of excavation a neat, clean vertical cut to a depth of 24 inches through all the affected tree roots. Any roots encountered at a greater depth shall be neatly sawcut at no additional cost.
  - b. Root prune to a maximum width of 4 inches using a "Vermeer" wheel matching the following criteria. The root pruner wheel shall be 60" diameter (188" circumference) carrying 28 pair (56 total) stump cutter teeth with tooth spacing at 6.7" on center. The cutting depth shall be 24" and shall utilize a 65hp tractor. Trenching machines will not be permitted.
  - c. Exercise care not to cut any existing utilities.
  - d. The Engineer or City Arborist will mark locations where earth saw cutting of tree roots is required in the field.
2. All root pruning cuts shall be immediately backfilled with material side cast from the earth- sawing procedure, so that the ground surface is even and no tripping potential exists.
3. All root pruning work is to be performed through the services of a certified arborist approved by the City Arborist.

**B. Temporary Fence**

1. The Contractor shall erect a temporary fence around all trees within the construction area to establish a "tree protection zone", as established by City Arborist, before any work begins or any material is delivered to the jobsite. No work is to be performed (other than root pruning), materials stored, or vehicles driven or parked within the "tree protection zone" at any time during construction.

**CARTWRIGHT AND FITZSIMONS PARKS**  
CITY OF EVANSTON  
ISSUED FOR BID

2. The exact location and establishment of the "tree protection zone" fence shall be approved by the City Arborist prior to setting the fence. The fence shall be 48 inches high, plastic poly-type or any other type of highly visible barrier in an open-weave type pattern with large openings. The type, color and pattern of the fence shall be approved by the Engineer prior to erection. This fence shall be properly maintained in an upright manner and shall remain up until final restoration, unless the Engineer directs removal otherwise. Tree fence shall be supported using T-Post style fence posts at a maximum of 8' spacing. T- posts must be at least six feet in length, two feet of which must be set in the ground. The fence shall be attached to posts and secured with a minimum of three nylon locking ties per post. Utilizing rebar as a fence post will not be permitted.
3. Fence shall be installed at the tree protection zone of the tree or at a minimum of 8 feet from the center of the tree.
4. Parking or maneuvering of machinery, stockpiling of materials or any other use will not be allowed upon unpaved areas within 10 feet of the trunk of trees designated to be protected.
5. Construction area is defined as all areas within 10 feet of any excavation.
6. All work within the "tree protection zone" shall have prior approval of the City Arborist. All slopes and other areas not re-graded should be avoided so that unnecessary damage is not done to the existing turf, tree root system, or ground cover.
7. The grade within the "tree protection zone" shall not be changed unless approved by the Engineer prior to making said changes or performing the work.
8. U-shaped, non-uniform, or other fencing around multiple trees is permitted and encouraged as approved by the City arborist or Engineer.
9. If excavation is within 5 feet of the trunk of the tree such that protection fencing is not possible, Contractor shall protect the trunk using boards, as detailed below.
10. Tree protective fencing to remain in place for entirety of construction. Any temporary removal for any reason, will alert City's arborist.

**C. Tree Trunk Protection**

When temporary fencing cannot be installed as noted above, the Contractor shall provide 2 in. by 8 in. by 8 ft. boards banded continuously around each trunk to prevent scarring of trees shown on the plans or designated by the Engineer. For multi-stem trees, saplings, and shrubs to be protected within the area of construction, temporary fencing may be used for trunk protection

**D. Tree Pruning**

Tree pruning shall consist of pruning branches to protect the health of the tree, protect the canopy from damage, maintain the structural integrity of the tree, to ensure public safety, and to preserve the aesthetic qualities of the urban forest, or as directed by the City Arborist or Engineer. All pruning shall be done according to the current ANSI A300 (part 1) pruning standard. Trees selected for pruning will be cleaned of dead, diseased, or broken branches, thinned appropriately to reduce density of branches, raised to provide vertical clearance for pedestrian and vehicular traffic, and if warranted by species tolerance and specimen needs limbs will be reduced to promote a central leader and good structure. Pruning to provide clearance will be allowed up to 14 feet above pavement or park features. If additional clearance is needed a request in writing shall be submitted to the City Arborist. All branch pruning to American elm and oak trees

**CARTWRIGHT AND FITZSIMONS PARKS**  
CITY OF EVANSTON  
ISSUED FOR BID

will be done between when the trees are dormant. Dormancy is generally between November and March but will vary by year and will be defined the City Arborist.

END OF SECTION 01 56 39

**SECTION 01580**

**PROJECT CONSTRUCTION SIGN**

**PART 1 - GENERAL**

1.1 WORK INCLUDES

A. Contractor shall:

1. Fabricate, install and remove two (2) project construction signs (one at each park site) as described herein.

1.2 RELATED WORK

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

1.3 PROJECT CONSTRUCTION SIGN CONTENT

A. Sign shall have the following information included on it:

1. Name of project
2. City of Evanston name and logo
3. Rendered plan view of the project
5. Elected officials (Mayor and Ward Councilmember)
6. Description of scope of work
7. Estimated completion date
8. Contract amount
9. Funding sources
10. General contractor's name
11. Contact information for questions

1.4 LOCATION

- A. The contractor shall submit a plan of the proposed project construction sign location to the Owner for approval.

**PART 2 - PRODUCTS**

2.1 SIGN MATERIALS

- A. Owner will supply layout example, data and information to be included on sign. Contractor shall submit draft layout of sign for approval by the Owner prior to sign fabrication. Sign layout shall be submitted prior to pre-construction meeting. Sign shall be installed as soon as possible following pre-construction meeting and prior to commencement of the work.
- B. Size: 4 feet x 8 feet x 3/4 inch A/C plywood or equal. Good side of plywood shall be used for sign.
- C. Mounting: Signs shall be securely mounted on two or three 4" x 4" pressure treated wood posts so that bottom of sign is 4 feet above grade. Contractor shall be responsible for embedment and mounting details to securely install posts and mount signs to posts. Contractor shall provide bracing as necessary to secure posts.

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**CITY OF EVANSTON**  
**ISSUED FOR BID**

- D. If sign board is not flat, Contractor shall provide back framing to bring sign board into flat condition. Back framing shall be securely attached to posts and shall be painted to match posts.
- E. Posts and back of signs shall be painted white.
- F. Sign faces shall be professionally prepared, either computer generated on weather resistant materials and applied to plywood signboard or painted directly on signboard surface using weather resistant signage paint materials.
- G. Lettering style shall be block letters or other lettering approved by the Owner.

**PART 3 - EXECUTION**

**3.1 INSTALLATION OF SUPPORTS**

- A. Set pole-type supports into excavations:
  - 1. Depth: Minimum 4 ft.
  - 2. Plumb poles, backfill, tamp earth around poles.
- B. Braced-framing:
  - 1. Drive stakes, size determined by loading, minimum depth: 2'-6".
  - 2. Secure framing members to stakes, cut tops of stakes to even line, flush with framing members

**3.2 MAINTENANCE**

- A. Repair damages to structure, framing or sign.
- B. Repaint surfaces, lettering, and logotypes that show severe weathering.
- C. Maintain signs and supports in neat, clean condition.

**3.3 REMOVAL**

- A. At conclusion of project, sign and posts shall be removed by Contractor and legally disposed.
- B. Return grounds to condition as found prior to installation of sign. Resulting voids created by sign removal shall be completely backfilled with compacted earth, 9" of topsoil and sod to match finished grade.

**END OF SECTION 01580**

**SECTION 01 60 00**

**MATERIALS AND EQUIPMENT**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. This Section specifies administrative and procedural requirements governing the Contractor's selection of products for use in the Project.
- B. The Contractor's Construction Schedule and the Schedule of Submittals are included under Section 01 30 00 - SUBMITTALS.

**1.2 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.3 DEFINITIONS**

- A. Definitions used in this Article are not intended to change the meaning of other terms used in the Contract Documents, such as "specialties," "systems," "structure," "finishes," "accessories," and similar terms. Such terms such are self-explanatory and have well recognized meanings in the construction industry.
  - 1. "Products" are items purchased for incorporation in the Work, whether purchased for the Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
  - 2. "Named Products" are items identified by manufacturer's product name, including make or model designation, indicated in the manufacturer's published product literature, that is current as of the date of the Contract Documents.

**1.4 QUALITY ASSURANCE**

- A. Source Limitations: To the fullest extent possible, provide products of the same kind, from a single source.
  - 1. When specified products are available only from sources that do not or cannot produce a quantity adequate to complete project requirements in a timely manner, consult with the Owner for a determination of the most important product qualities before proceeding. Qualities may include attributes relating to visual appearance, strength, durability, or compatibility. When a determination has been made, select products from sources that produce products that possess these qualities, to the fullest extent possible.
- B. Compatibility of Options: When the Contractor is given the option of selecting between two or more products for use on the Project, the product selected shall be compatible with products previously selected, even if previously selected products were also options.
  - 1. The Contractor is responsible for providing products and construction methods that are compatible with products and construction methods of subcontractors.
  - 2. If a dispute arises between the general Contractor and subcontractors over concurrently selectable, but incompatible products, the Owner will determine

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**CITY OF EVANSTON**  
**ISSUED FOR BID**

which products shall be retained and which are incompatible and must be replaced.

- C. Nameplates: Except for required labels and operating data, do not attach or imprint manufacturer's or producer's nameplates or trademarks on exposed surfaces of products which will be exposed to view.
  - 1. Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface that is not conspicuous.
- D. Manufacturer's Instructions
  - 1. When contract documents specify that installation shall comply with manufacturer's printed instructions, obtain and distribute copies of such instructions to all parties involved in the installation, including the Owner.
  - 2. Maintain one set of complete instructions with the Project Record Documents at the job site during installation and until completion.

**1.5 PRODUCT DELIVERY, STORAGE, AND HANDLING**

- A. Deliver, store and handle products in accordance with the manufacturer's recommendations, using means and methods that will prevent damage, deterioration and loss, including theft.
  - 1. Schedule delivery to minimize long-term storage at the site and to prevent overcrowding of construction spaces.
  - 2. Coordinate delivery with installation time to ensure minimum holding time for items that are flammable, hazardous, easily damaged, or sensitive to deterioration, or theft.
  - 3. Deliver products to the site in the manufacturer's original sealed container or other packaging system, complete with labels and instructions for handling, storing, unpacking, protecting and installing.
  - 4. Inspect products upon delivery to ensure compliance with the Contract Documents, and to ensure that products are undamaged and properly protected.
  - 5. Store products at the site in a manner that will facilitate inspection and measurement of quantity or counting of units.
  - 6. Store heavy materials away from the Project structure in a manner that will not endanger the supporting construction.
  - 7. Store products subject to damage by the elements above ground, under cover in a weathertight enclosure, with ventilation adequate to prevent condensation. Maintain temperature and humidity within range required by manufacturer's instructions.
- B. Arrange for transportation and deliveries of materials and equipment in accord with approved current construction schedules and in ample time to facilitate inspection prior to installation.
- C. Coordinate deliveries to avoid conflict with work and conditions at site:
  - 1. Work of other contractors or Owner, or their use of premises.
  - 2. Limitations of storage space.
  - 3. Availability of equipment and personnel for handling products.

**PART 2 - PRODUCTS**

**2.1 PRODUCT SELECTION**

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, unused at the time of installation.
1. Provide products complete with all accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
  2. Standard Products: Where available, provide standard products of types that have been produced and used successfully in similar situations on other projects.
  3. Comply with size, make, type and quality specified.
  4. Manufactured and fabricated products:
    - a. Design, fabricate and assemble in accord with best engineering and shop practices.
    - b. Manufacture like parts of duplicate units to standard interchangeable sizes.
    - c. Two or more items of the same kind shall be identical from the same manufacturer.
    - d. All system parts shall be from the same manufacturer to the greatest extent practical.
    - e. Adhere to equipment capacities, sizes and dimensions shown or specified unless variations are specifically approved by Change Order.
- B. Product Selection Procedures: Product selection is governed by the Contract Documents and governing regulations, not by previous Project experience. Procedures governing product selection include the following:
1. Proprietary Specification Requirements: Where only a single product or manufacturer is named, provide the product indicated. No substitutions will be permitted.
  2. Semi-proprietary Specification Requirements: Where two or more products or manufacturers are named, provide one of the products indicated. No substitutions will be permitted.
    - a. Where products or manufacturers are specified by name, accompanied by the term "or equal," or "or approved equal" comply with the Contract's provisions concerning "substitutions" to obtain approval for use of an unnamed product.
  3. Non-Proprietary Specifications: When the Specifications list products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Contractor to use of these products only, the Contractor may propose any available product that complies with Contract requirements. Comply with Contract Document provisions concerning "substitutions" to obtain approval for use of an unnamed product.
  4. Descriptive Specification Requirements: Where Specifications describe a product or assembly, listing exact characteristics required, with or without use of a brand or trade name, provide a product or assembly that provides the characteristics and otherwise complies with Contract requirements.
  5. Performance Specification Requirements: Where Specifications require compliance with performance requirements, provide products that comply with these requirements, and are recommended by the manufacturer for the application indicated. General overall performance of a product is implied where the product is specified for a specific application.
    - a. Manufacturer's recommendations may be contained in published product literature, or by the manufacturer's certification of performance.

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

6. Compliance with Standards, Codes and Regulations: Where the Specifications only require compliance with an imposed code, standard or regulation, select a product that complies with the standards, codes or regulations specified.
  7. Visual Matching: Where Specifications require matching an established Sample, the Owner's decision will be final on whether a proposed product matches satisfactorily.
    - a. Where no product available within the specified category matches satisfactorily and also complies with other specified requirements, comply with provisions of the Contract Documents concerning "substitutions" for selection of a matching product in another product category, or for noncompliance with specified requirements.
  8. Visual Selection: Where specified product requirements include the phrase "...as selected from manufacturer's standard colors, patterns, textures..." or a similar phrase, select a product and manufacturer that complies with other specified requirements. The Owner will select the color, pattern and texture from the product line selected.
- C. Deliver products in undamaged condition in original containers or packaging, with identifying labels intact and legible.
- D. Clearly mark partial deliveries of component parts or assemblies or equipment to permit easy identification of parts and to facilitate assembly.
- E. Immediately on delivery, inspect shipment to assure:
1. Product complies with contract documents and Owner
  2. Quantities are correct.
  3. Containers and packages are intact and labels are legible.
  4. Products are properly protected and undamaged.

**PART 3 - EXECUTION**

3.1 INSTALLATION OF PRODUCTS:

- A. Comply with manufacturer's instructions and recommendations for installation of products in the applications indicated. Anchor each product securely in place, accurately located and aligned with other Work.
1. Clean exposed surfaces and protect as necessary to ensure freedom from damage and deterioration at time of Substantial Completion.
- B. Provide equipment and personnel to handle products and equipment, including those furnished by the Owner. Prevent damage to products or packaging.
- C. Provide additional protection during handling to prevent scraping, marring or otherwise damaging products, equipment or surrounding surfaces.
- D. Handle products and equipment in manner to prevent bending or overstressing.
- E. Lift packages, equipment or components only at designated lift points.

**END OF SECTION 01 60 00**

**SECTION 01 63 00**

**SUBSTITUTIONS AND PRODUCT OPTIONS**

**PART 1 - GENERAL**

1.1 WORK INCLUDES

- A. Base all bids on providing all products exactly as specified.
- B. For products specified only by reference or performance standards, select any product which meets or exceeds standards, by any manufacturer, subject to the Owner's approval.
- C. For products specified by naming several products or manufacturers, select any product and manufacturer named.

1.2 RELATED WORK

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions, Special Provisions and all other Divisions of the Project Manual, apply to this Section.

1.3 SUBSTITUTIONS, BIDDER/CONTRACTOR OPTIONS

- A. Prior to Bid Opening: The Owner will consider written requests to amend the bidding documents to add products not specified provided such requests are received at least 10 calendar days prior to bid opening date. Requests received after that time will not be considered. When a request is approved, the Owner will issue an appropriate addendum not less than three (3) calendar days prior to bid opening date.
- B. With Bid: A bidder may propose substitutions with his bid by completing the Product Substitution List in the Bid Form, subject to the provisions stated thereon. The Owner will review Proposed Product Substitution List of low bidder and recommend approval or rejection by the Owner prior to award of contract.
- C. After Award of Contract: No substitutions will be considered after Notice of Award except under one or more of the following conditions:
  - 1. Substitution required for compliance with final interpretations of code requirement or insurance regulations.
  - 2. Unavailability of specified products, through no fault of the Contractor.
  - 3. Subsequent information discloses inability of specified product to perform properly or to fit in designated space.
  - 4. Manufacturer/fabricator refusal to certify or guarantee performance of specified product as specified.
  - 5. When a substitution would be substantially to Owner's best interest.

1.4 SUBSTITUTION REQUIREMENTS

- A. Submit three (3) copies of each request for substitution. Include in request:
  - 1. Complete data substantiating compliance of proposed substitution with contract documents.

**CARTWRIGHT AND FITZSIMONS PARKS  
CITY OF EVANSTON  
ISSUED FOR BID**

2. For products:
    - a. Product identification, including manufacturer's name and address.
    - b. Manufacturer's literature:
      - 1) Product description
      - 2) Performance and test data
      - 3) Reference standards
    - c. Samples
    - d. Name and address of similar projects on which product was used and dates of installation.
  3. For construction methods:
    - a. Detailed description of proposed method.
    - b. Drawings illustrating methods.
  4. Itemized comparison of proposed substitution with product or method specified.
  5. Data relating to changes in construction schedule.
  6. Identify:
    - a. Changes or coordination required.
    - b. Other contracts affected.
  7. Accurate cost data on proposed substitution in comparison with product or method specified.
- B. In making request for substitution, bidder/contractor represents:
1. He has personally investigated proposed product or method and determined that it is equal or superior in all respects to that specified.
  2. He will provide the same guarantee for substitution as for product or method specified.
  3. He will coordinate installation of accepted substitutions into the work, making all changes for work to be complete in all respects.
  4. Cost data is complete and includes all related costs under his contract, but excludes:
    - a. Owner's redesign.
    - b. Administrative costs of Owner.
    - c. Costs under separate contracts.
  5. He will pay all additional costs and expenses for Owner and other contractors.
- C. Substitutions will not be considered when:
1. They are indicated or implied on shop drawings or product data submittals without formal request submitted in accordance with this Section.
  2. Acceptance will require substantial revision of contract documents.

**PART 2 – PRODUCTS**

**(NOT APPLICABLE)**

**CARTWRIGHT AND FITZSIMONS PARKS  
CITY OF EVANSTON  
ISSUED FOR BID**

**PART 3 – EXECUTION**

**(NOT APPLICABLE)**

**END OF SECTION 01 63 00**

**SECTION 01 70 00**

**PROJECT CLOSEOUT**

**PART 1 - GENERAL**

**1.1 WORK INCLUDES**

- A. Substantial completion, final completion, closeout submittals, and application for final payment.
- B. This Section specifies administrative and procedural requirements for project closeout, including but not limited to:
  - 1. Inspection procedures.
  - 2. Project record document submittal.
  - 3. Operating and maintenance manual submittal.
  - 4. Submittal of warranties.
  - 5. Final cleaning.
  - 6. Final payment.

**1.2 RELATED WORK**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.3 SUBSTANTIAL COMPLETION**

- A. When the Contractor considers the work substantially complete, Contractor shall submit written declaration to the Owner that the work, or designated portion thereof, is substantially complete. Include list of items to be completed or corrected.
- B. Owner and Contractor will make an inspection within seven days after receipt of certification.
- C. Should the Owner consider that the work is substantially complete:
  - 1. The Owner will prepare and issue a Certificate of Substantial Completion, containing:
    - a. Date of Substantial Completion.
    - b. Punch list of items to be completed or corrected.
    - c. The time within which Contractor shall complete or correct work of listed items. All punch list items must be completed within 30 days of substantial completion.
    - d. Date and time Owner will assume possession of work or designated portion thereof.
    - e. Responsibilities of Owner and Contractor for:
      - (1.) Insurance
      - (2.) Utilities
      - (3.) Operation of mechanical, electrical and other systems.
      - (4.) Maintenance and cleaning.
      - (5.) Security

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

f. Signatures of Owner and Contractor

- D. Should the Owner consider that work is not substantially completed:
1. The Owner shall immediately notify Contractor, in writing, stating reasons.
  2. The Contractor shall complete work and send a second written notice to Owner, certifying that project, or designated portion of project, is substantially complete.
  3. The Owner will re-inspect work.

1.4 FINAL INSPECTION

- A. When the Contractor considers the work complete, the Contractor shall submit written declaration to the Owner that the work is complete. Contractor shall submit written certification that:
1. Contract documents have been reviewed.
  2. Project has been inspected for compliance with contract.
  3. Work has been completed in accord with contract.
  4. Equipment and systems have been tested in the Owner's presence and are operational.
  5. Project is completed, ready for final inspection.
- B. The Owner will make final inspection within seven days after receipt of certification.
- C. Should the Owner consider that work is finally complete in accord with Contract Document requirements, he shall request contractor to make project closeout submittals.
- D. Should the Owner consider that work is not finally complete:
1. The Owner shall notify the Contractor, in writing, stating reasons.
  2. The Contractor shall take immediate steps to remedy the stated deficiencies, and send second written notice to the Owner certifying that the work is complete.
  3. The Owner will re-inspect work.

1.6 CLOSEOUT SUBMITTALS

- A. Project Record Documents: In accordance with requirements of SECTION 01 72 00 - PROJECT RECORD DOCUMENTS.
- B. Deliver evidence of compliance with requirements of governing authorities.
- C. Deliver Certificate of Insurance for products and completed operations. Certificate shall include a evidence that insurance required by the Contract Documents to remain in force after final payment is currently in effect and will not be canceled or allowed to expire until at least 30 days prior notice has been given to the Contractor. Contractor shall include a written statement that Contractor knows of no substantial reason that the insurance will not be renewable to cover the period required by the Contract Documents.
- D. Evidence of payments, release of liens
1. Consent of Surety to Final Payment.
  2. Other data establishing payment or satisfaction of obligations including receipts, Contractor's releases and waivers of liens, claims, security interests or encumbrances arising out of the Contract, to the extent and form as required by the City.

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

3. Separate releases of waivers of liens for subcontractors, suppliers and others with lien rights against property of Owner together with list of those parties.
4. Paid utility bills, if any.
5. An affidavit that payrolls, bills for materials and equipment and other indebtedness connected to the work for which the City or the City's property might be responsible or encumbered (less any amounts withheld by City) have been paid or otherwise satisfied.

**1.7 INSTRUCTION**

- A. Instruct Owner's personnel in operation of all systems, mechanical, electrical and other equipment.

**1.8 FINAL ADJUSTMENT OF ACCOUNTS**

- A. Submit final statement of accounting to Owner.
- B. Statement shall reflect all adjustments.
  1. Original contract sum.
  2. Additions and deductions resulting from:
    - a. Previous change orders.
    - b. Cash allowances.
    - c. Unit prices.
    - d. Other adjustments.
    - e. Deductions for uncorrected work.
    - f. Deductions for re-inspection payments.
  3. Total contract sum, as adjusted.
  4. Previous payments.
  5. Sum remaining due.
- C. The Owner will prepare final change order, reflecting approved adjustments to contract sum not previously made by change orders.

**1.9 FINAL APPLICATION FOR PAYMENT**

- A. Contractor shall submit final application in accord with requirements of Conditions of Contract.

**1.10 FINAL CERTIFICATE FOR PAYMENT**

- A. The Owner will issue final certificate in accord with provisions of Conditions of contract.
- B. Should final completion be materially delayed through no fault of the Contractor, the Owner may issue a Semi-Final Certificate of Payment, in accord with provisions of Conditions of Contract.

**PART 2 – PRODUCTS**

**(NOT APPLICABLE)**

**PART 3 – EXECUTION**

**(NOT APPLICABLE)**

**CARTWRIGHT AND FITZSIMONS PARKS  
CITY OF EVANSTON  
ISSUED FOR BID**

**END OF SECTION 01 70 00**

**SECTION 01 71 00**

**CLEANING**

**PART 1 - GENERAL**

1.1 WORK INCLUDES

- A. Contractor shall maintain premises and public properties free from accumulations of waste, debris, and rubbish, caused by construction operations.
- B. At completion of work, Contractor shall remove waste materials, rubbish, tools, equipment, machinery and surplus materials, clean all sight-exposed surfaces and leave project clean and ready for occupancy.

1.2 RELATED WORK

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

1.3 SAFETY REQUIREMENTS

- A. Standards: Maintain project in accord with following safety and insurance standards.
  - 1. Occupational Safety and Health Administration (OSHA).
- B. Hazards Control:
  - 1. Store volatile wastes in covered metal containers and remove from premises daily.
  - 2. Prevent accumulation of wastes which create hazardous conditions.
  - 3. Provide adequate ventilation during use of volatile or noxious substances.
- C. Conduct cleaning and disposal operations to comply with Federal, State and local ordinances and anti-pollution laws.
  - 1. Do not burn or bury debris, rubbish or other waste materials on project site.
  - 2. Do not dispose of volatile wastes such as mineral spirits, oil or paint thinner in storm or sanitary drains.
  - 3. Do not dispose of wastes into streams or waterways.

**PART 2 - PRODUCTS**

2.1 MATERIALS

- A. Select and use all cleaning materials and equipment with care to avoid scratching, marring, defacing, staining or discoloring surfaces cleaned.
- B. Use only cleaning materials recommended by manufacturer of surface to be cleaned.
- C. Use cleaning materials only on surfaces recommended by cleaning material manufacturer.

**PART 3 - EXECUTION**

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

**3.1 DURING CONSTRUCTION**

- A. Execute cleaning to ensure that grounds and public properties are maintained free from accumulations of waste materials and rubbish. Public right-of-way shall be kept free of dirt and debris at all times.
- B. Wet down materials and rubbish to lay dust and to prevent blowing dust.
- C. At reasonable intervals during progress of work, clean site and public properties, and dispose of waste materials, debris and rubbish.
- D. Provide on-site metal containers for collection of waste materials, debris and rubbish.
- E. Remove waste materials, debris and rubbish from site and legally dispose of at public or private dumping areas off Owner's property.
- F. Handle waste materials in a controlled manner with as few handlings as possible; do not drop or throw materials from heights.
- G. Schedule cleaning operations so that dust and other contaminants resulting from cleaning process will not fall on wet, newly painted surfaces.

**3.2 FINAL CLEANING**

- A. General: Provide final cleaning operations when indicated. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit of Work to the condition expected from a commercial building cleaning and maintenance program. Comply with manufacturer's instructions.
- B. In preparation for substantial completion or occupancy, conduct final inspection of sight-exposed interior and exterior surfaces, and of concealed spaces.
- C. Clean the Project site, yard and grounds, in areas disturbed by construction activities, including landscape development areas, of rubbish, waste materials, litter and foreign substances. Sweep paved areas broom clean. Remove petro-chemical spills, stains and other foreign deposits. Rake grounds that are neither planted nor paved, to a smooth even-textured surface.
  - 1. Remove tools, construction equipment, machinery and surplus material from the site.
  - 2. Clean exposed exterior hard-surfaced finishes to a dirt-free condition, free of stains, films and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
  - 3. Remove debris and surface dust from limited access spaces.
  - 4. Remove labels that are not permanent labels.
  - 5. Touch-up and otherwise repair and restore marred exposed finishes and surfaces. Replace finishes and surfaces that can not be satisfactorily repaired or restored, or that show evidence of repair or restoration. Do not paint over "UL" and similar labels, including mechanical and electrical name plates.
  - 6. Clean plumbing fixtures to a sanitary condition, free of stains, including stains resulting from water exposure.
  - 7. Leave the Project clean and ready for occupancy.
- E. Repair, patch and touch up marred surfaces to specified finish, to match adjacent surfaces.

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

- F. Broom clean paved surfaces; rake clean other surfaces on grounds.
- G. Maintain cleaning until project, or designated portion thereof, is occupied by Owner.

**END OF SECTION 01 71 00**

**SECTION 01 72 00**

**PROJECT RECORD DOCUMENTS**

**PART 1 - GENERAL**

**1.1 WORK INCLUDES**

A. Maintenance of Documents

B. Contractor shall:

1. At project site, maintain one (1) copy of:

- (a.) Contract drawings.
- (b.) Project Manual.
- (c.) Interpretations and supplemental instructions.
- (d.) Addenda.
- (e.) Reviewed, approved shop drawings and product data.
- (f.) Other modifications to contract.
- (g.) Field test records.
- (h.) All schedules.
- (i.) Correspondence file.
- (j.) Change Orders

2. Provide files and racks for document storage.

3. File documents in format in accord with Project Manual Table of Contents.

4. Maintain documents in clean, dry, legible condition.

5. Do not use record documents for field construction purposes.

6. Make documents available at all times for inspection by Owner.

7. Furnish one (1) additional as-built record set of contract documents at the completion of the project. This set is not to be the set kept and updated periodically at the job site, but a clean set free of extraneous markings, notations, and erasures showing on a record of final conditions. Provide as-built record set in both PDF and AutoCAD formats.

**1.2 RELATED REQUIREMENTS**

A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.3 MARKING DEVICES**

A. Provide ballpoint pens, red color.

**1.4 RECORDING**

A. Label each document "PROJECT RECORD DOCUMENTS" in 2" high printed letters.

B. Keep record documents current, updated not less often than monthly.

C. Do not permanently conceal any work until specified information has been recorded.

D. Contract drawings: Legibly mark to record actual construction:

**CARTWRIGHT AND FITZSIMONS PARKS  
CITY OF EVANSTON  
ISSUED FOR BID**

1. Depths of various elements of foundation in relation to adjacent ground elevations.
  2. Horizontal and vertical location of underground utilities and appurtenances referenced to permanent surface improvements.
  3. Location of internal utilities and appurtenances concealed in construction referenced to visible and accessible features of structure.
  4. Field changes of dimension and detail.
  5. Changes made by change order.
  6. Details not on original contract drawings.
- E. Specifications and addenda: Legibly mark-up each section to record:
1. Manufacturer, trade name, catalog number, and supplier of each product and item of equipment actually installed.
  2. Changes made by change order or field order.
  3. Other matters not originally specified.
- F. Shop drawings: Maintain as record documents; legibly annotate drawings to record changes made after review.
- 1.5 SUBMITTAL
- A. At completion of project, deliver record documents to Owner.
- B. Accompany submittal with transmittal letter, in duplicate, containing:
1. Date.
  2. Project title and number.
  3. Contractor's name and address.
  4. Title and number of each record document.
  5. Certification that each document submitted is complete and accurate.
  6. Signature of contractor, or his authorized representative.

**PART 2 - PRODUCTS**

**(NOT APPLICABLE)**

**PART 3 - EXECUTION**

**(NOT APPLICABLE)**

**END OF SECTION 01 72 00**

**SECTION 01 73 00**

**OPERATING AND MAINTENANCE DATA**

**PART 1 - GENERAL**

**1.1 WORK INCLUDES**

**A. Contractor shall:**

1. Compile product data and related information appropriate for Owner's maintenance and operation of products and equipment provided under the Contract.
2. Instruct Owner's personnel in operation and maintenance of products, equipment and systems.

**1.2 RELATED REQUIREMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.**

**1.3 QUALITY ASSURANCE**

- A. Maintenance Manual Preparation:** In preparation of Maintenance Manuals, use personnel thoroughly trained and experienced in operation and maintenance of the equipment or system involved.

1. Where written instructions are required, use personnel skilled in technical writing to the extent necessary for communication of essential data.
2. Where Drawings or diagrams are required, use draftsmen capable of preparing Drawings clearly in an understandable format.

- B. Instructions for the Owner's Personnel:** For instruction of the Owner's operating and maintenance personnel, use experienced instructors thoroughly trained and experienced in the operation and maintenance of the equipment or system involved.

**1.4 SUBMITTALS**

- A. Form:** Manufacturer's standard product or equipment data of same type and form furnished to manufacturer's maintenance personnel.

- B. Provide sturdy manila or kraft envelope, properly labelled, of sufficient size to contain all submittals.**

- C. Submit one copy of data in final form at least fifteen days before final inspection. This copy will be returned within fifteen days after final inspection, with comments.**

1. After final inspection make corrections or modifications to comply with the Owner's comments. Submit the specified number of copies of each approved manual to the Owner within fifteen days of receipt of the Owner's comments.

- D. Form of Submittal:** Prepare operating and maintenance manuals in the form of an instructional manual for use by the Owner's operating personnel. Organize into suitable

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**CITY OF EVANSTON**  
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sets of manageable size. Where possible, assemble instructions for similar equipment into a single binder.

- E. Binders: For each manual, provide heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, in thickness necessary to accommodate contents, sized to receive 8-1/2" by 11" paper. Provide a clear plastic sleeve on the spine, to hold labels describing the contents. Provide pockets in the covers to receive folded sheets.
- F. Text Material: Where written material is required as part of the manual use the manufacturer's standard printed material, or if it is not available, specially prepared data, neatly typewritten, on 8-1/2" by 11", 20 pound white bond paper.
- G. Drawings: Where drawings or diagrams are required as part of the manual, provide reinforced punched binder tabs on the drawings and bind in with the text.

1.5 MANUAL CONTENT

- A. Neatly typewritten table of contents for each volume, arranged in systematic order. Follow Project Manual format.
- B. In each manual include information specified in the individual Specification Section, and the following information for each major component of equipment and its controls:
  - 1. General system or equipment description.
  - 2. Design factors and assumptions.
  - 3. Copies of applicable Shop Drawings and Product Data.
  - 4. System or equipment identification, including:
    - a. Name of manufacturer.
    - b. Model number.
    - c. Serial number of each component.
  - 5. Operating instructions.
  - 6. Emergency instructions.
  - 7. Wiring diagrams.
  - 8. Inspection and test procedures.
  - 9. Maintenance procedures and schedules.
  - 10. Precautions against improper use and maintenance.
  - 11. Copies of warranties.
  - 12. Repair instructions including spare parts listing.
  - 13. Sources of required maintenance materials and related services.
  - 14. Manual Index.
  - 15. Contractor, name of responsible principal, address and telephone number
  - 16. List with each product, the name, address and telephone number of:
    - a. Subcontractor
    - b. Maintenance contractor, as appropriate.
    - c. Identify area of responsibility of each
    - d. Local supply source for parts and replacement.
- C. Organize each manual into separate Sections for each piece of related equipment. As a minimum each manual shall contain a title page, a table of contents, copies of Product Data, supplemented by drawings and written text, and copies of each warranty, bond and service Contract issued.
- D. General Information: Provide a general information Section immediately following the Table of Contents, listing each product included in the manual, identified by product

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**CITY OF EVANSTON**  
**ISSUED FOR BID**

name. Under each product, list the name, address, and telephone number of the Subcontractor or installer, and the maintenance contractor. Clearly delineate the extent of responsibility of each of these entities. In addition, list a local source for replacement parts and equipment.

- E. Product Data: Where manufacturer's standard printed data is included in the manuals, include only sheets that are pertinent to the part or product installed. Mark each sheet to identify each part or product included in the installation. Where more than one item in a tabular format is included, identify each item, using appropriate references from the Contract Documents. Identify data that is applicable to the installation and delete references to information that is not applicable.
- F. Written Text: Where manufacturer's standard printed data is not available, and information is necessary for proper operation and maintenance of equipment or systems, or it is necessary to provide additional information to supplement data included in the manual, prepare written text to provide necessary information. Organize the text in a consistent format under separate headings for different procedures. Where necessary, provide a logical sequence of instruction for each operating or maintenance procedure.
- G. Drawings: Provide specially prepared drawings where necessary to supplement manufacturer's printed data to illustrate the relationship of component parts of equipment or systems, or to provide control or flow diagrams. Coordinate these drawings with information contained in Project Record Drawings to assure correct illustration of the completed installation.
- H. Do not use original Project Record Documents as part of the Operating and Maintenance Manuals.
- I. Warranties, Bonds and Service Contracts: Provide a copy of each warranty, bond or service contract in the appropriate manual for the information of the Owner's operating personnel. Provide written data outlining procedures to be followed in the event of product failure. List circumstances and conditions that would affect validity of the warranty or bond.
  - 1. Contractor, name of responsible principal, address and telephone number.
  - 2. List of each product specified to be included, indexed to volume content.
  - 3. List with each product, the name, address and telephone number of:
    - a. Subcontractor.
    - b. Maintenance contractor, as appropriate.
    - c. Identify area of responsibility of each.
    - d. Local supply source for parts and replacement.
- J. Product Data:
  - 1. Include only sheets pertinent to specific product.
  - 2. Annotate each sheet to:
    - a. Clearly identify specific product or part installed.
    - b. Clearly identify data applicable to installation.
    - c. Delete references to inapplicable installation.
- K. Drawings:
  - 1. Supplement product data with drawings to clearly illustrate relationship of component parts of equipment and systems and control and flow diagrams.

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**CITY OF EVANSTON**  
**ISSUED FOR BID**

2. Coordinate drawings with information in Product Record Documents to assure correct illustration of completed installation.
  3. Do not use Project Record Documents as maintenance drawings.
- L. Written text to supplement product data for particular installation:
1. Organize in consistent format under separate headings for different procedures.
  2. Provide logical sequence of instructions for each procedure.
- M. Copy of each warranty, bond and service contract issued.
1. Provide information sheet for Owner personnel. Give:
    - a. Proper procedures in event of failure.
    - b. Instances which might affect validity of warranties or bonds.

**1.6 MANUAL FOR MATERIALS AND FINISHES**

- A. Submit two (2) copies of complete manual in final form.
- B. Refer to individual Specification Sections for additional requirements on care and maintenance of materials and finishes.
- C. Content for products, applied materials and finishes:
1. Manufacturer's data, giving full information on products.
    - a. Catalog number, size, composition.
    - b. Color and texture designations.
    - c. Information for re-ordering special-manufactured products.
  2. Instructions for care and maintenance.
    - a. Manufacturer's recommendations for types of cleaning agents and methods.
    - b. Cautions against cleaning agents and methods detrimental to product.
    - c. Recommended cleaning and maintenance schedule.
- D. Moisture-Protection and Weather-Exposed Products: Provide complete manufacturer's data with instructions on inspection, maintenance and repair of products exposed to the weather or designed for moisture-protection purposes.
- E. Manufacturer's Data: Provide manufacturer's data giving detailed information, including the following, as applicable:
1. Applicable standards.
  2. Chemical composition.
  3. Installation details.
  4. Inspection procedures.
  5. Maintenance information.
  6. Repair procedures.

**PART 2 - PRODUCTS**

**(NOT APPLICABLE)**

**CARTWRIGHT AND FITZSIMONS PARKS  
CITY OF EVANSTON  
ISSUED FOR BID**

**PART 3 - EXECUTION**

**(NOT APPLICABLE)**

**END OF SECTION 01 73 00**

**SECTION 01 74 00**

**WARRANTIES AND BONDS**

**PART 1 - GENERAL**

**1.1 SUMMARY**

- A. This Section specifies general administrative and procedural requirements for warranties and bonds required by the Contract Documents, including manufacturer's standard warranties on products and special warranties.
  - 1. Warranties for the Work and products and installations of each Contractor shall be one (1) year unless specified otherwise on the Drawings or in the individual Sections of Divisions 2 through 16.
- B. Disclaimers and Limitations: Manufacturer's disclaimers and limitations on product warranties do not relieve the Contractor of the warranty on the Work that incorporates the products, nor does it relieve suppliers, manufacturers, and Contractors required to countersign special warranties with the Contractor.

**1.2 RELATED DOCUMENTS**

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and all other Divisions of the Project Manual, apply to this Section.

**1.3 WARRANTY REQUIREMENTS**

- A. Related Damages and Losses: When correcting warranted Work that has failed, remove and replace other Work that has been damaged as a result of such failure or that must be removed and replaced to provide access for correction of warranted Work.
- B. Reinstatement of Warranty: When Work covered by a warranty has failed and been corrected by replacement or rebuilding, reinstate the warranty by written endorsement. The reinstated warranty shall be equal to the original warranty with an equitable adjustment for depreciation.
- C. Replacement cost: Upon determination that Work covered by a warranty has failed, replace or rebuild the Work to an acceptable condition complying with requires of the Contract Documents. The Contractor is responsible for the cost of replacing or rebuilding defective Work regardless of whether the Owner has benefited from use of the Work through a portion of its anticipated useful service life.
- D. Owner's Recourse: Written warranties made to the Owner are in addition to implied warranties, and shall limit the duties, obligations, rights and remedies otherwise available under the law, nor shall warranty periods be interpreted as limitations on time in which the Owner can enforce such other duties, obligations, rights or remedies.
  - 1. Rejection of Warranties: The Owner reserves the rights to reject warranties and to limit selections to products with warranties not in conflict with requirements of the Contract Documents.
- E. The Owner reserves the right to refuse to accept Work for the Project where a special warranty, certification, or similar commitment is required on such Work or part of the

**CARTWRIGHT AND FITZSIMONS PARKS  
CITY OF EVANSTON  
ISSUED FOR BID**

Work, until evidence is presented that entities required to countersign such commitments are willing to do so.

- F. For specific warranty requirements related to landscape materials, refer to the applicable Section.

**1.4 SUBMITTALS**

- A. Submit written warranties to the Owner prior to the date certified for Substantial Completion. If the Owner's Certificate of Substantial Completion designates a commencement date for warranties other than the date of Substantial Completion for the Work, or a designated portion of the Work, submit written warranties upon request of the Owner.
  - 1. When a designated portion of the Work is completed and occupied or used by the Owner, by separate agreement with the Contractor during the construction period, submit properly executed warranties to the Owner within fifteen days of completion of that designated portion of the Work.
- B. Form of Submittal: At Final Completion, compile two copies of each required warranty and bond properly executed by the Contractor, or by the Contractor, Subcontractor, supplier, or manufacturer. Organize the warranty documents into an orderly sequence based on the table of contents of the Project Manual.
- C. Bind warranties and bonds in heavy-duty, commercial quality, durable 3-ring vinyl covered loose-leaf binders, thickness as necessary to accommodate contents, and sized to receive 8-1/2" by 11" paper.
  - 1. Provide heavy paper dividers with celluloid covered tabs for each separate warranty. Mark the tab to identify the product or installation. Provide a typed description of the product or installation, including the name of the product, and the name, address and telephone number of the installer.
  - 2. Identify each binder on the front and the spine with the typed or printed title "WARRANTIES AND BONDS", the project title or name, and the name of the Contractor.
  - 3. When operating and maintenance manuals are required for warranted construction, provide additional copies of each required warranty, as necessary, for inclusion in each required manual.

**PART 2 - PRODUCTS**

**(NOT APPLICABLE)**

**PART 3 - EXECUTION**

**(NOT APPLICABLE)**

**END OF SECTION 01 74 00**

**SECTION 02 06 40**

**CONTAMINATED SOIL REMOVAL AND DISPOSAL**

**PART 1 - GENERAL**

1.01 SUMMARY

- A. Related Documents: all terms and conditions of the Contract apply to this section.
- B. Work included: this specification is for the permitting, excavation, loading, hauling and manifesting of any contaminated soil present on site. The Contractor shall perform the work under this section in accordance with all local, county, City of Evanston, IEPA, USEPA, OSFM and OSHA regulations and shall perform the following:
  - 1. Obtain a waste stream authorization for the special waste disposal at an approved landfill and/or treatment facility.
  - 2. Prepare manifest forms prior to starting any excavation activities.
  - 3. Excavate special waste to the extent outlined in the specifications and contract documents.
  - 4. Stockpile contaminated soil on site prior to disposal as required by applicable regulations.
  - 5. Load contaminated soil into licensed special waste trucks and dispose of at the approved landfill/treatment facility.
  - 6. Perform ambient air monitoring for the above activities as required by applicable regulations.
- C. All existing soils at Cartwright Park and Fitzsimons Park shall be classified as special non-hazardous waste and will need to be disposed of at a Subtitle D Landfill. Contractors shall include pricing for any and all soils that must be removed from this site during the course of construction in accordance with this specification, IDOT Standard Specification Section 669 and applicable law.

1.02 DEFINITIONS

- A. IDOT: Illinois Department of Transportation
- B. IEPA: Illinois Environmental Protection Agency
- C. Hazardous Waste: means any waste that poses a substantial danger immediately or over a period of time to humans, plants or animals. A waste is classified as hazardous if it exhibits any of the following characteristics: 1) ignitability, 2) corrosivity, 3) reactivity, or 4) toxicity and as defined in Section 721.103 of Title 35 of the Illinois Administrative Code.
- D. Manifest: means the form provided or prescribed by the IEPA and used for identifying name, quality, routing and destination of special waste during its transportation from point of generation to the point of disposal, treatment or storage.
- E. MSDS: means Material Safety Data Sheet, required by OSHA for any substances which are toxic, caustic or otherwise hazardous to workers.
- F. Remediation Area: means any area on site where contaminated soil is present.
- G. Special Waste: means any industrial process waste or pollution control waste, except as may be determined pursuant to Section 22.9 of the Illinois Environmental Protection Act.

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

1.03 SUBMITTALS

- A. The Contractor shall provide the Owner with copies of the following submittals:
1. Contractor's Site Health and Safety Plan, IDOT Section 669
  2. Contractor's Site Contamination Operation Plan, IDOT Section 669
  3. Contractor's Erosion Control Plan, IDOT Section 669
  4. Proof of OSHA training in compliance with the Hazardous Waste Operations and Emergency Response Standard (29 CFR 1910.120) for applicable workers.
  5. Operating licenses and permits for each proposed transporter. Details of haul routes from site to the disposal facilities.
  6. Copies of all daily reports, State certified transport manifests and weight tickets must be submitted to the Owner with ten (10) working days of off-site disposal.
  7. Air sampling data collected during the course of the Work, including OSHA compliance monitoring.
- B. Submittal Review: review of submittals or any comments made do not relieve the Contractor from compliance with the requirements of the drawings and specifications. The purpose of this check is to review for general conformance with the design concept of the project and general compliance with the information given in the contract documents. The Contractor is responsible for confirming and correlating all quantities and dimensions, electing techniques of construction, coordinating the Work and performing the Work in a safe and satisfactory manner.

1.04 NOTIFICATIONS

- A. The Contractor shall notify the Owner no less than forty-eight (48) business hours prior to excavating, loading and transporting contaminated soils.

1.05 RECORD KEEPING

- A. The Contractor shall provide the Owner with documentation of labor, equipment, materials and laboratory analysis used for the removal and disposal of contaminated soils.

**PART 2 - PRODUCTS**

2.01 REMOVAL AND DISPOSAL OF CONTAMINATED SOILS

- A. The Contractor shall furnish all necessary means, products, tools and equipment required to fulfill the scope of work described in the Specifications and Drawings for this Project.

**PART 3 - EXECUTION**

3.01 PERMITTING

- A. The Contractor shall obtain a waste stream authorization from a licensed landfill/disposal facility. Contractor shall submit copies of the landfill/treatment facility waste stream authorization form to the Owner for review and approval and securing Owner signature.
- B. Haulers for transportation of non-hazardous special waste shall hold a current valid hauling permit pursuant to Title 35 of the Illinois Administrative Code (IAC) Parts 723 and 809, respectively.

3.02 MATERIAL SAMPLING AND MONITORING

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

- A. The Contractor shall collect sufficient amounts of representative soil from the Remediation Area for analysis by an independent laboratory to obtain a waste stream authorization from the landfill/treatment facility. The Contractor is responsible for acquisition of the required disposal permits and payment of all landfill fees.
- B. The Contractor shall submit the soil samples to the laboratory and pay for the cost of analyzing the constituents required by the disposal facility.
- C. The Contractor shall immediately notify the Owner if contaminated materials are encountered on-site.
- D. The Contractor shall perform and pay for ambient air monitoring as required by IDOT and to evaluate the appropriate level of worker personal protective equipment. Air monitoring shall be performed as often as required to ensure the safety of both workers and the public.
- E. All material sampling and monitoring activities shall be performed by an environmental engineer licensed in the State of Illinois and shall meet or exceed all regulatory standards and/or requirements. The contractor shall include all costs for these services in their base bid price.

**3.03 EXCAVATION**

- A. If contaminated soil is identified on-site, the Contractor shall perform the following:
  - 1. In mass grading and/or paved areas, the Contractor shall excavate contaminated soil to the depth required for the construction of final grades, paved surfaces and foundations.
  - 2. In the proposed new underground utility areas, the Contractor shall excavate contaminated soil to the extent required to install the new underground utility.
- B. Excavation shall be performed in accordance with OSHA requirements and guidelines.
- C. All workers in the vicinity of the contaminated soil area must have completed 40-hours Hazardous Waste Site Workers OSHA Training in accordance with 29 CFR 1910.120.

**3.04 DECONTAMINATION**

- A. The Contractor shall remove soil, dust, rocks, etc from the exterior of trucks, trailers or other heavy equipment leaving the site.
- B. The Contractor shall clean the tractor-trailers or trucks which are loaded with materials for disposal by removing clinging soil and rocks from the exterior of the tractor-trailers or trucks.
- C. The Contractor shall not allow equipment or trucks to leave the site with water leaking or mud dripping or caked to the equipment or trucks.
- D. The Contractor shall clean excavation equipment (tools, shovels, backhoes, etc) with a jet washer or steam cleaner after completing excavation work in the contaminated soil areas and prior to start working in the clean soil areas.

**3.05 STOCKPILING**

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

- A. The Contractor may stockpile contaminated soil on site for a maximum of five (5) working days. The Contractor shall be responsible for keeping the contaminated soil separated from the clean soil. If the contaminated soil comes in contact with the clean soil, the Contractor shall dispose of the clean soil as contaminated soil at his own expense.
- B. Stockpile contaminated soil on 6-mil polyethylene visqueen. The location of the stockpile area shall be coordinated with the Owner. The Contractor shall keep contaminated soils covered with 6-mil polyethylene visqueen until subsequent loading, transportation and disposal. Provide a 12" to 18" berm around the stockpile(s).

**3.06 LOADING**

- A. The contractor shall load contaminated soils directly from the Remediation Area or from temporary stockpiles into hauling trucks for subsequent transportation and disposal.

**3.07 TRANSPORTATION**

- A. Contaminated soil shall be transported by a licensed special waste hauler in the State of Illinois.
- B. The Contractor shall provide, complete and sign manifests required for transportation and disposal of the contaminated soils.

**3.08 DISPOSAL**

- A. The Contractor shall provide copies of weight tickets from the landfill to the Owner.
- B. The Contractor shall provide copies of completed manifests executed by the transporter and the landfill to the Owner.

**3.09 BACKFILL**

- A. Topsoil and Fill Material Data
  - 1. The Contractor shall provide to the Owner the location(s) and name(s) of topsoil and clean fill sources from which backfill materials are to be obtained for the project, approximate quantities obtained at each site, depth at which soil was taken and indicate whether crops had grown on site(s).
- B. Soil Testing
  - 1. The Contractor shall submit the following information to the Owner for every source of backfill material:
    - a. A report defining the current and historic uses of the clean soil source material to determine if the potential for any source contamination is present.
    - b. Laboratory analysis of in-situ soil to be used on site to determine that all constituents meet the applicable objectives. The source location should be surveyed and sampled at a frequency of one (1) sample per 1,000 cubic yards if there is a known or suspected source of contamination. The analyses shall be performed to the acceptable method detection limits for each chemical. At a minimum, the source soil should be sampled for the Target Compound List, found in Title 35 Illinois Administrative Code 740, Appendix A, using the applicable EPA SW 846

**CARTWRIGHT AND FITZSIMONS PARKS**  
**CITY OF EVANSTON**  
**ISSUED FOR BID**

methods. If historical records indicated that potential sources of contamination do not exist, one (1) sample will be collected and analyzed to characterize the clean soil source material.

- c. A summary of the sample collection and data analysis. The report should include a tabulation of sampling results compared to applicable Tier 1 remediation objectives for residential properties.

- C. The Contractor shall not backfill excavation areas without approval of the Owner. If the Contractor backfills the excavation area without obtaining approval from the Owner, the backfill materials shall be excavated, if required, at the Contractor's expense.

**3.10 DUST CONTROL**

- A. The Contractor shall control dust by all necessary means, including but not limited to covering trucks, stockpiles and open materials, watering haul roads, sweeping paved roads and limiting the speed of all on-site vehicles.

**3.11 QUALITY CONTROL**

- A. Visual inspection and damage repairs shall be made daily by the Contractor and/or as directed by the Owner or designated representative to assure that erosion, drainage and containment control measures are functioning properly.

**END OF SECTION 02 06 40**

**SECTION 09 9114**  
**EXTERIOR RE-PAINTING**

1.0 GENERAL

1.1 Description

- A. This work shall consist of all labor, equipment and materials necessary for completion of existing fence re-painting.

1.2 Submittals

- A. Color: Submit colors and finishes for approval. The design intent is to closely match the existing color and finish.

B. Sub-Contractor Certification Status

1. The painting Contractor shall possess current SSPC-QP1 certification for lead-free paint. The Contractor shall maintain certified status throughout the duration of the painting work under the contract. The Owner reserves the right to accept Contractors documented to be currently enrolled in the SSPC-QP7, Painting Contractor Introductory Program, Category 2, in lieu of the QP certifications noted above. The Owner at their sole discretion may accept proof of other commercial painting training and experience as qualification for performing work at the project site.

1.3 Related Documents

- A. All terms and conditions of the Contract apply to this Section.  
B. AMPP (NACE/SSPC) Joint Surface Preparation Standards, NACE International

2.0 MATERIALS

- Sherwin Williams Extreme Bond Primer  
Sherwin Williams Duration Exterior Acrylic Latex Coating

3.0 EXECUTION

3.1 Surface Preparation

- A. Per topcoat manufacturer's recommendation: Surface must be clean, dry, and in sound condition. Remove all oil, dust, grease, dirt, loose rust, and other foreign material to ensure adequate adhesion. Do not use hydrocarbon solvents for cleaning. Minimum surface preparation is Hand Tool Clean per SSPC-SP2.  
B. SSPC-SP3 Power Tool Cleaning is also acceptable.  
C. Paint chips and debris from cleaning are to be collected and properly disposed of. Paint chips are to be intercepted prior to making contact with soil or vegetation.  
D. Removable covers and fixtures are to be removed for surface preparation procedures.

3.2 Application

- A. Contractor to detach fence fabric and remove all ties before paint application. Fence fabric to be rolled and saved for reinstallation. Fence fabric to be reinstalled after paint has dried to manufacturer's recommendations. Fence fabric to be restretched and reinstalled with new ties.  
B. Primer: Spot Prime rusted areas following surface preparation  
C. Paint: Apply coats as necessary to uniformly and completely cover all surfaces. Sagging or runs in the paint surface are cause for rejection of the work.  
D. Prime and paint as recommended by paint manufacturer.

E. Adjacent paving and surfaces not designated for new paint (i.e. site furniture, roofing) is to be protected from drips, spills and overspray.

END OF SPECIFICATION

**SECTION 11 6813**  
**PLAYGROUND EQUIPMENT – Contractor purchase equipment**

1.0 GENERAL

1.1 Description

- A. As part of this work the Contractor shall be responsible for the purchase of all play equipment as described on the plans.
- B. Playground equipment installation shall consist of all labor, equipment and materials necessary for complete installation of play equipment specified.
- C. As part of this work, the Contractor shall coordinate with manufacturer delivery and secure storage of all play equipment. Contract bid includes the coordination and labor necessary to install a complete playground system. This shall also include checking freight tickets, providing a copy to the Owner's Representative and inspection of items shipped.

1.2 Specifications and Standards

- A. Play equipment installation shall conform to the most current standard:
  - 1. ASTM 1487-Specification for Playground Equipment for Public Use
  - 2. ASTM F1292-Specification for Attenuation of Surface Systems Under and Around Playground Equipment
  - 3. United States Consumer Product Safety Commission Handbook for Public Playground Safety, latest publication
  - 4. American with Disabilities Act (ADA) Accessibility Guidelines for Buildings and Facilities: Play Areas: Final Rule

1.3 Submittals

- A. Provide copy of freight ticket for equipment to Owner/Owner's rep

2.0 MATERIALS

2.1 Play Equipment

- A. All equipment shall be as designated on the plans or approved equal. The Contractor shall not modify equipment.

3.0 EXECUTION

3.1 Installation

- A. All equipment detailed on the drawings and specified herein shall be installed per manufacturer's specifications and recommendations, unless otherwise described specifically herein, or on the plans.
- B. Contractor shall obtain instructions for proper installation from the specific manufacturer. If any manufacturer does not provide installation specifications after request by the Contractor, the Owner's representative shall be notified before installation occurs.
- C. Contractor shall uncrate, inspect, clean and assemble all playground equipment and site furniture as necessary to install complete and usable items. If there are discrepancies with the items shipped, the Contractor is responsible for coordination of obtaining the correct materials at no cost to the Owner.
- D. Concrete footings shall be installed at all play equipment. Concrete shall conform to concrete specification. Footings shall be dimensioned as per the manufacturer's specification and/or the plans and details, which ever specifies the larger dimensions.
- E. Contractor shall be responsible for trimming all bolts and other similar fastener items to meet specifications noted herein. Contractor shall ensure all tags, staples and stickers are removed from play equipment except for those required by incorporated specifications and standards.

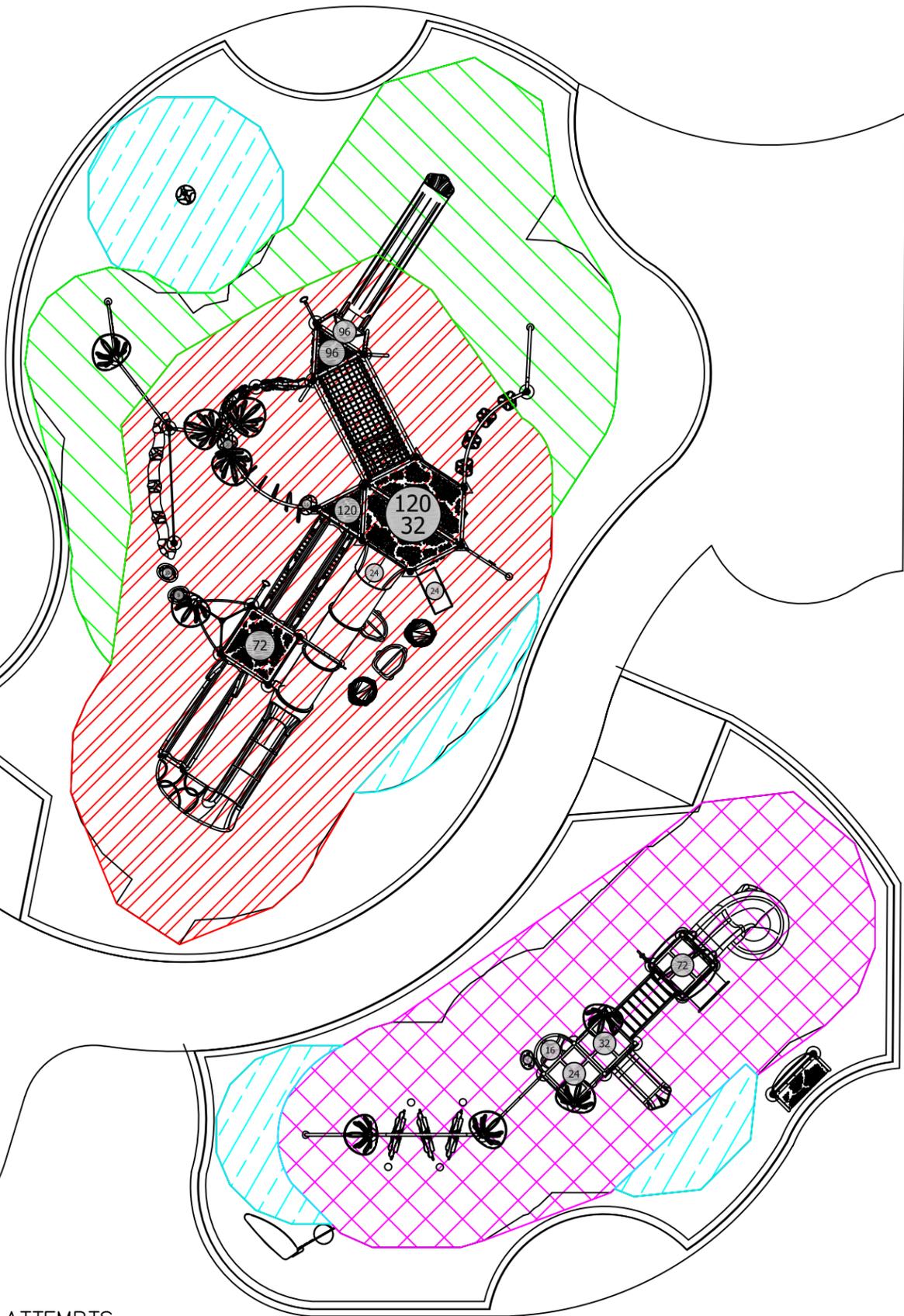
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City of Evanston

11 6813– PLAYGROUND EQUIPMENT  
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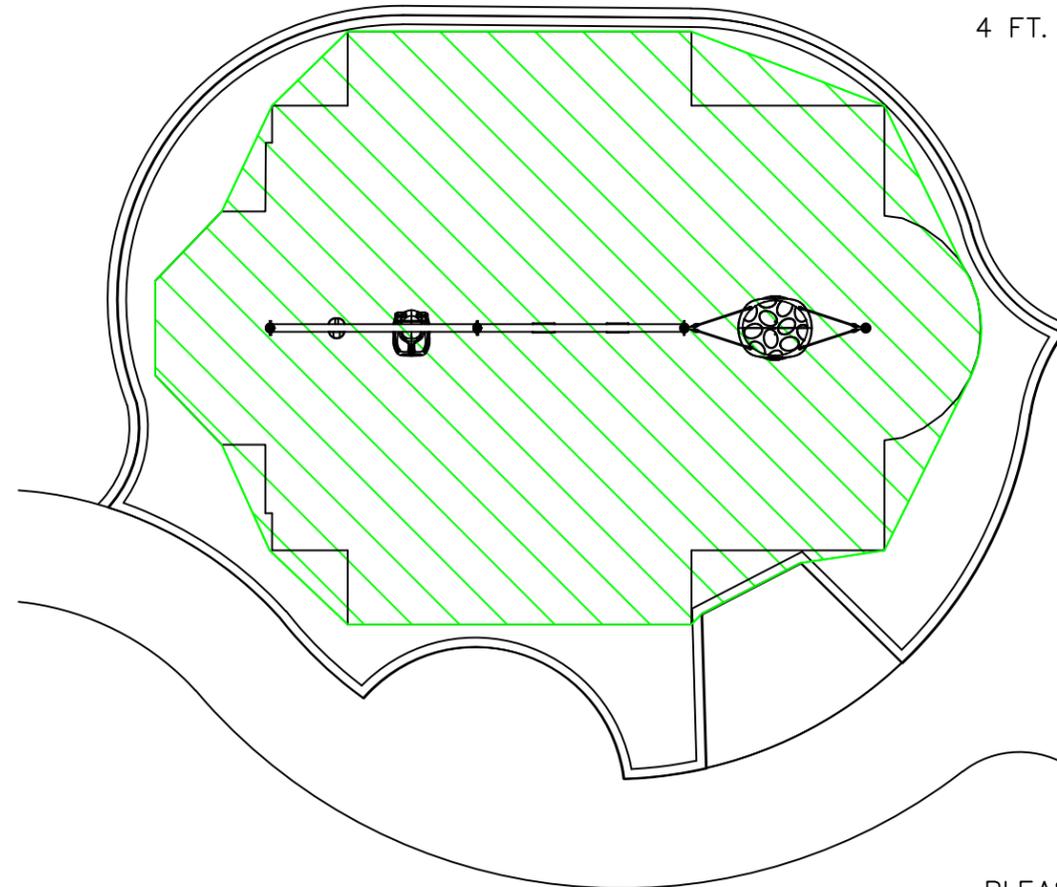
Page 1 of 1

AREA: 2320 SQUARE FEET  
 PERIMETER: 213 LINEAR FEET



- 10 FT.  = 1030 S.F.
- 8 FT.  = 1680 S.F.
- 6 FT.  = 725 S.F.
- 4 FT.  = 280 S.F.

SWING AREA: 1495 SQUARE FEET  
 PERIMETER: 163 LINEAR FEET



2-5 AREA: 1150 SQUARE FEET  
 PERIMETER: 149 LINEAR FEET

PLEASE NOTE: ALTHOUGH ALL ATTEMPTS HAVE BEEN MADE TO PROVIDE AN ACCURATE SITE IT MAY NOT TRULY REPRESENT THE AREA WHERE THIS PLAYGROUND LAYOUT IS TO BE PLACED. UNLESS OTHERWISE NOTED THE PLAY AREA IS ASSUMED TO BE LEVEL.

# Installation Instructions

## Dig Bones

Part # AP003



### Specifications: Dig Bones

- Material: GFRC Concrete
- Approximate Size: sizes vary, all dig bones are less than 2'-6"x3"x6"
- Approximate Weight: 30 - 90 Lbs
- Maximum fall height: 0"
- Age group: 2-12 years old

### Required Parts (included):

- Dig Bones GFRC Sculpture(s)
- 3/8" x 3-1/4" J bolt: 2ct per dig bone
- "Dig Bones" drawing set

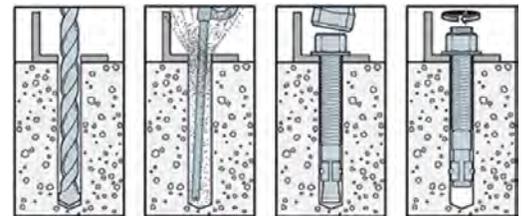
### Recommended Equipment (not included):

- shovel or digging equipment
- 80lbs bag of concrete: 4.38ct per dig bone
- Concrete mixer, or shovel and wheelbarrow
- Form building material (2x4's, saw, nails...ect)
- Vise grips

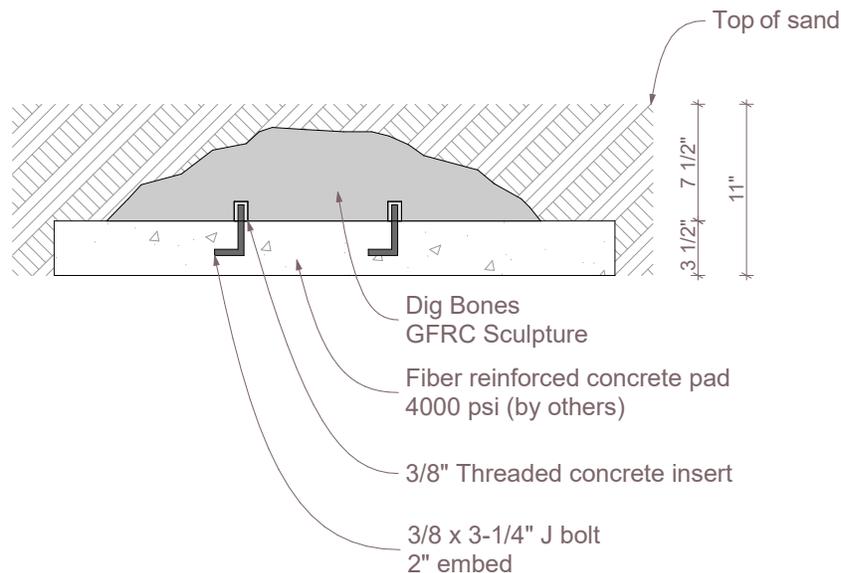


### Important Notes:

- *Warning: Installation over a hard surface such as asphalt, or packed earth may result in serious injury or death from falls.*
- *It is the responsibility of the installer to ensure all components are installed in compliance with ASTM F-1487.*
- *All site built footings should be allowed to cure for a minimum of 48 hours prior to installation.*



Typical Wedge Anchor Installation



Section

# Installation Instructions

## Dig Bones

Part # AP003

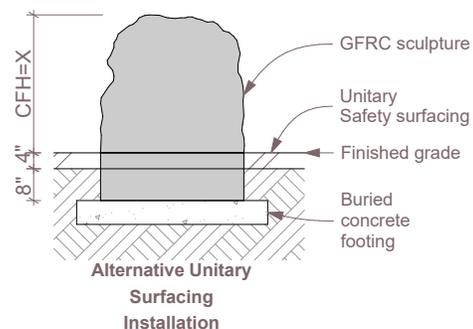
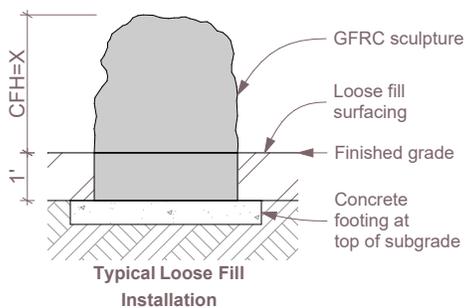


591 South Boulevard Street  
Gunnison, Colorado 81230  
info@idsculpture.com  
970-641-1747

### PRE-INSTALL CHECKLIST

Please review prior to ordering and installing ID Sculpture products.

- 1. Verify that you have the recommended lifting equipment to unload and install your component, as specified by the installation instructions. Please check the installation instructions for the weight of each component and shipping dimensions.
- 2. Develop a proper plan to access the site and control access prior to opening.
- 3. Call your local utilities to locate any potential existing below grade equipment?
- 4. FOR ALL SCULPTURES: Verify you have accounted for adjustments to the footing depth based on your choice of safety surfacing material. Footing depth must be adjusted to compensate for the depth/thickness requirements of the selected safety surfacing (see diagrams below). Layout drawings show the uninstalled dimensions of the component. If you require a modification to a standard component, please notify ID Sculpture when placing your order. *Additional charges may apply.*



\*Critical Fall Height (CFH)

- 5. Verify that you have installed any required footings prior to the arrival of your sculptures. Please note, footings should be allowed to cure for a minimum of 7 days.

#### Important Safety Note:

Please install and maintain adequate protective surfacing under and around your equipment. Never let children play on the equipment before protective surfacing is installed. Please consult ASTM F1487 for more information.

# Installation Instructions

## Dig Bones

Part # AP003



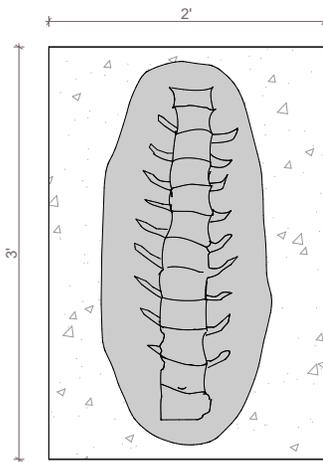
**ID SCULPTURE**

PLAY. CLIMB. EXPLORE.

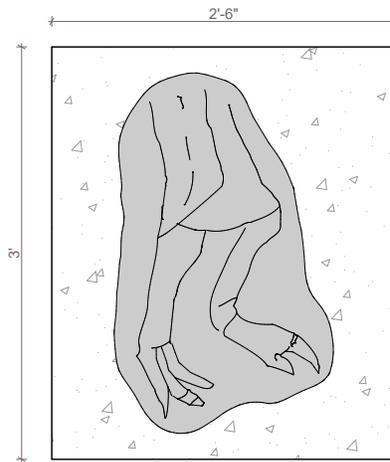
591 South Boulevard Street  
Gunnison, Colorado 81230  
info@idsculpture.com  
970-641-1747

### Sculpture Installation:

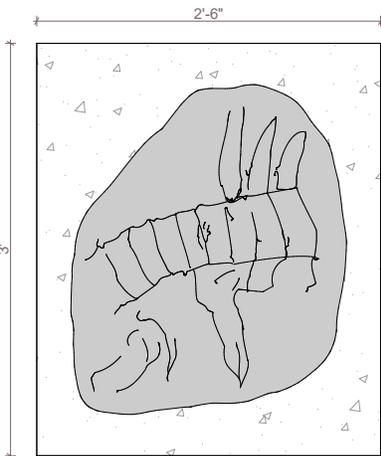
1. Locate the center points of the desired installation location.
2. Excavate a flat 4'x4' area to an 11" depth (11 inches below finish grade of sand).
3. Build a concrete form in the desired installation location.
4. Fill form with wet concrete.
5. Insert the 3/8" x 3-1/4" J bolts into the back of the dig bone, tighten with vise grips.
6. Carefully place the dig bone into the wet concrete until the anchor bolts are submerged and its base edge is in contact with wet concrete .
7. Allow to cure overnight before stripping the formwork and back filling with sand
8. Note: it is the responsibility of the installer to verify compliance of use zones as required by ASTM 1487.



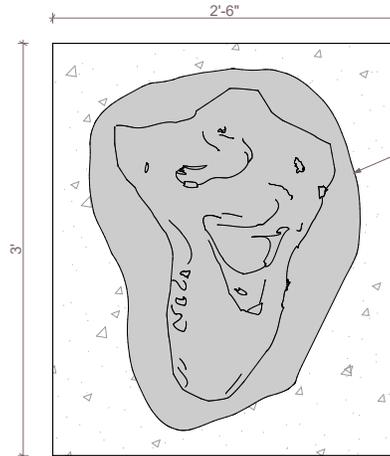
AP003-1



AP003-2



AP003-3



AP003-4

Plans



**IDS SCULPTURE**

PLAY. CLIMB. EXPLORE.

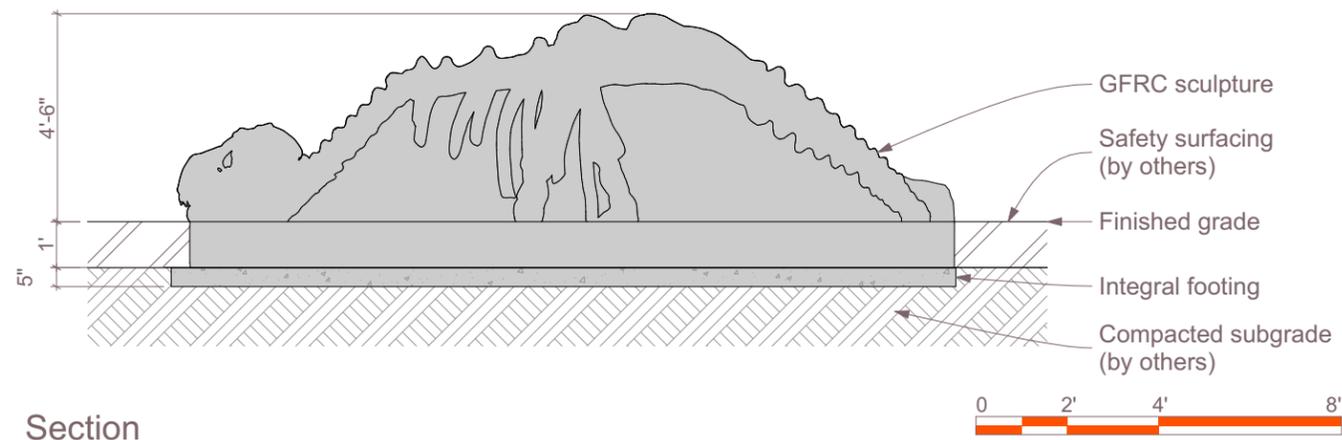
# T-Rex

SC004

Age Group: 2-5

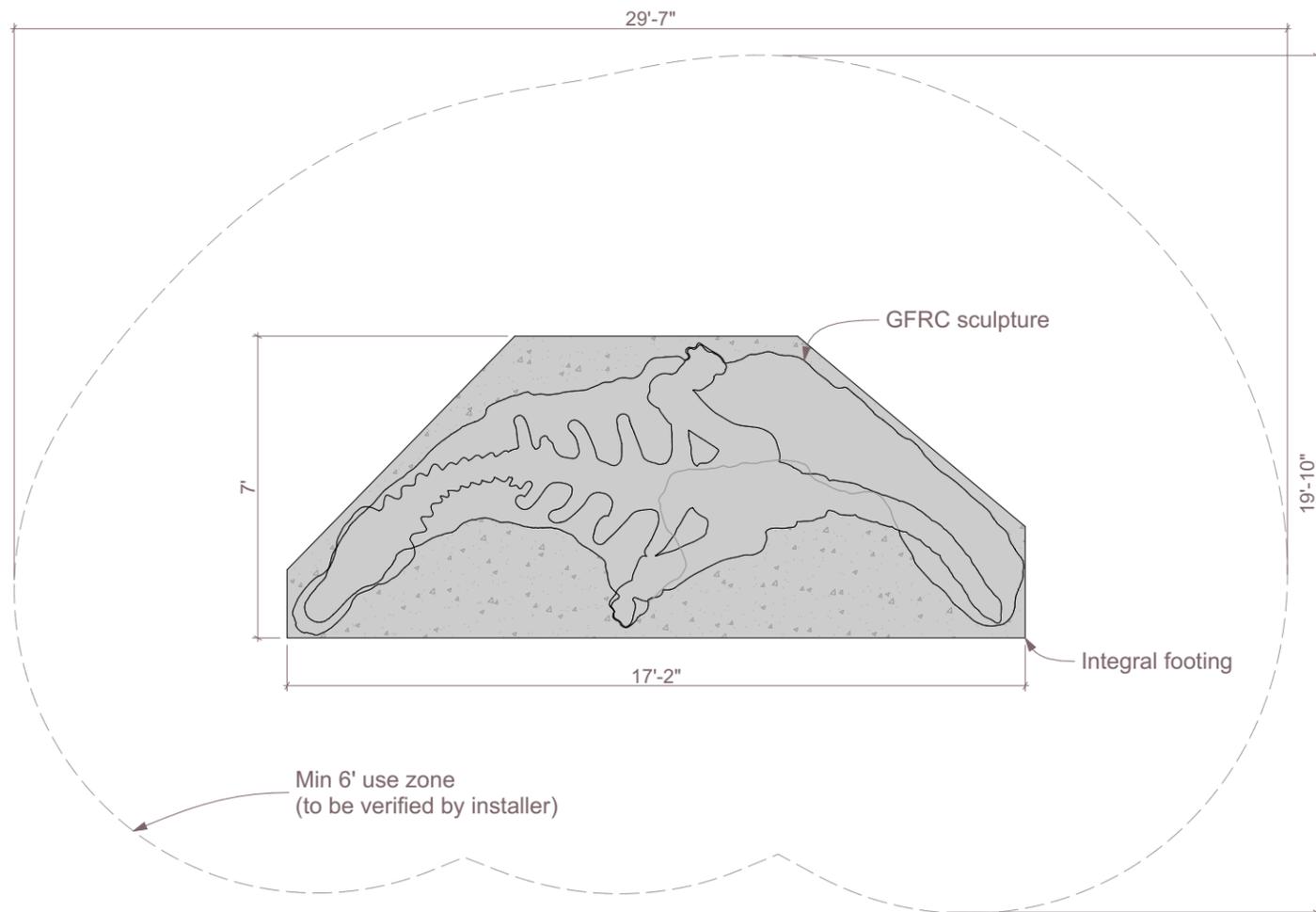
SCHEMATIC DESIGN

NOT FOR CONSTRUCTION



1

Section  
SCALE: 1/4" = 1'-0"



2

Layout  
SCALE: 1/4" = 1'-0"



3

T-Rex\_SC004



4

T-Rex\_SC004

All IDS projects are designed to meet or exceed ASTM 1487. Please consult ASTM 1487 for required hazard warning and signage specifications. Not all equipment may be appropriate for all children. Supervision is required. ASTM compliant safety surfacing is required under and around all play equipment. The Americans with Disabilities Act (ADA) may require your play area to be accessible, please consult with an ADA professional to ensure compliance.

Date **8/28/2025**

Sheet # **A.01.1**

Drawing Title  
**Layout**

Approved By / Date:





**SECTION 12 9300**  
**SITE FURNITURE – Contractor purchase site furniture**

1.0 GENERAL

1.1 Description

**Note** – The Contractor **SHALL BE** responsible for the purchase of all site furniture as described on the plans.

- A. This work shall consist of all labor, equipment and materials necessary for complete installation of all specified site furniture. Site furniture that is specified in and around play areas shall also conform to SECTION 11 6813, Playground Equipment.
- B. As part of this work, the Contractor shall coordinate with Owner for delivery, and storage of site furniture. Contract bid includes the coordination and labor necessary to install site furniture completely. This shall also include checking freight ticket, providing a copy to the Owner's representative, and inspection of items shipped. Contractor to provide secure storage of equipment prior to installation. In the event of damaged or missing parts, the Contractor shall immediately notify the distributor/vendor and the Owner.

1.2 Submittals

- A. Provide copy of freight ticket to Owner/owner's representative

2.0 MATERIALS

2.1 Site Furniture

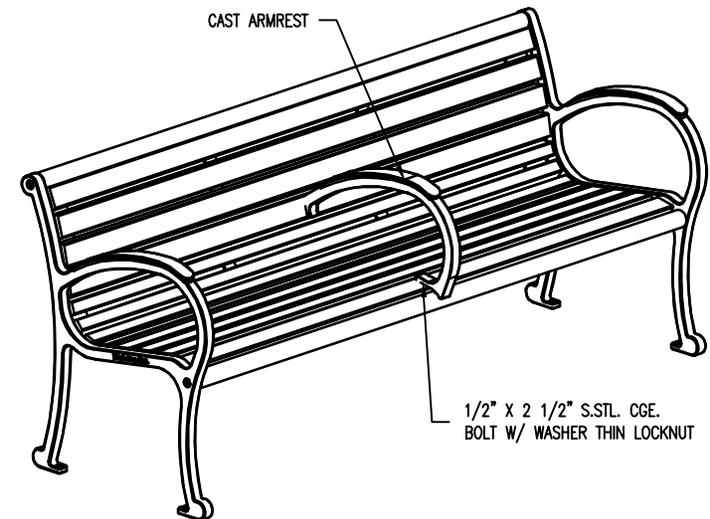
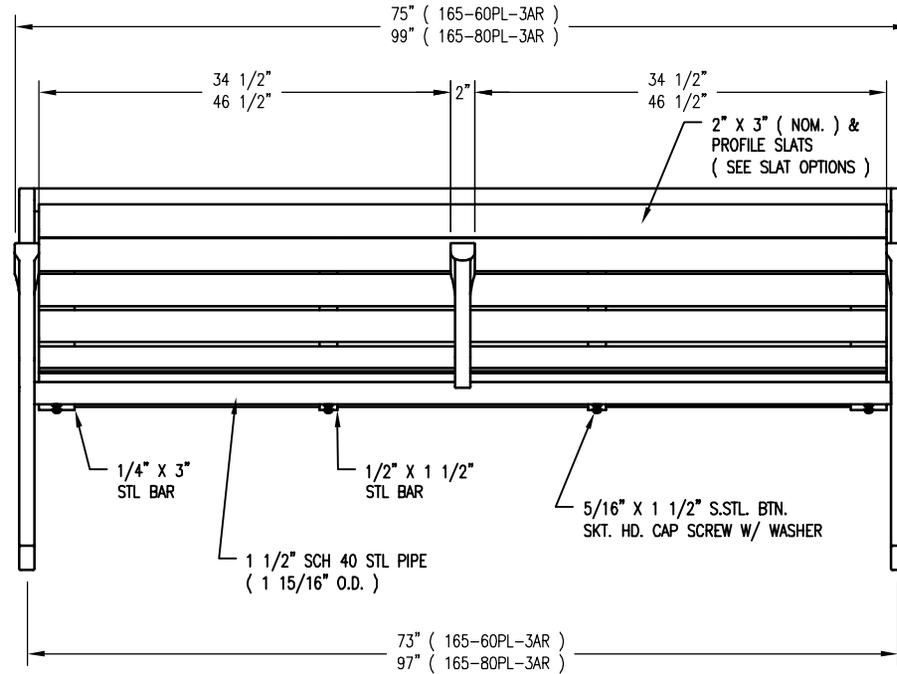
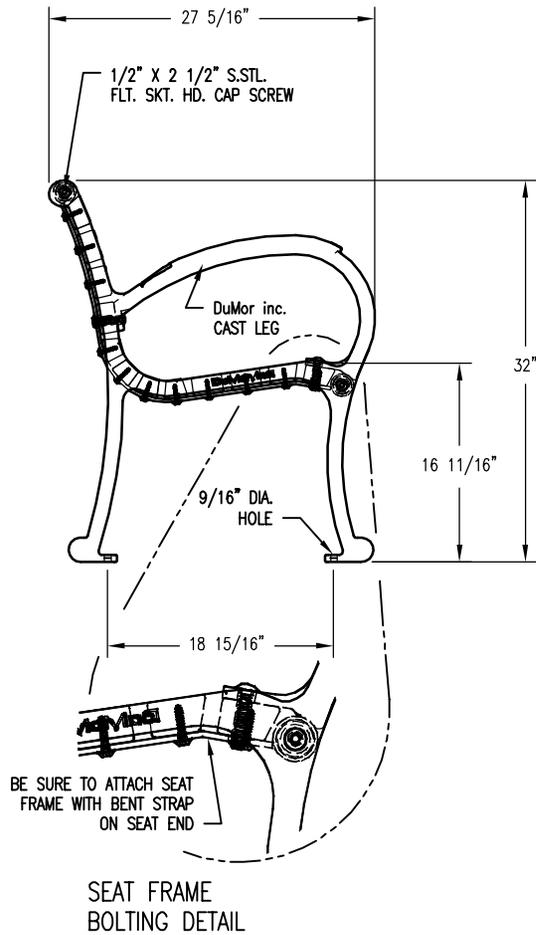
- A. All site furniture shall be as designated on the plans or approved equals as per the Specifications. The Contractor shall not modify site furniture.

3.0 EXECUTION

3.1 Installation

- A. All site furniture shall be installed as per manufacturer's specifications and recommendations and shall follow all plans and details. Wherever the details and manufacturer's specifications do not agree on footing size, the larger footing shall prevail. Wherever the details and manufacturer's specifications do not agree on any other item, the Owner shall be notified and a decision rendered.
- B. Contractor shall be responsible for trimming all bolts and other similar fastener items to within one-quarter inch (1/4") of the nuts/fasteners. All fasteners shall be secured in a manner that will prevent removal: such as peening, tack welding, or tamper proof fasteners.

END OF SECTION



LENGTH OPTIONS

- 6' BENCH
- 8' BENCH

NOTES

- 1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
- 2.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.

SLAT OPTIONS

- "CEDAR" RECYCLED PLASTIC
- "GREY" RECYCLED PLASTIC
- "REDWOOD" RECYCLED PLASTIC
- "WALNUT" RECYCLED PLASTIC
- OTHER \_\_\_\_\_



165 SERPL-3AR

DATE DRAWN : 05/07/07  
 DRAWN BY : AWH  
 DATE REV. : 00/00/00  
 REV. BY : XXX

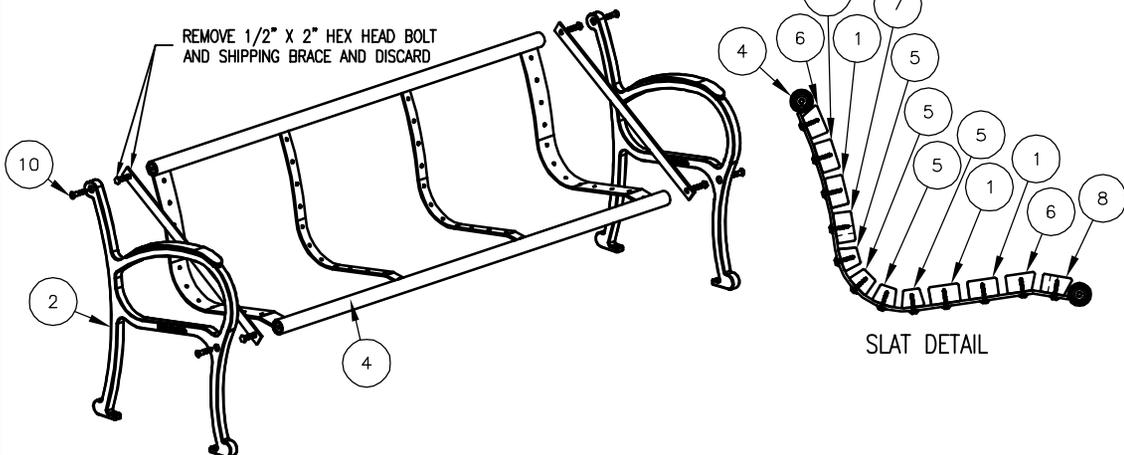
REV.  
A

DRAWING  
NUMBER

165 SERPL-3AR

SHEET  
1 OF 2

**1** ATTACH SEAT FRAME TO SUPPORTS.



**PARTS LIST**

ITEM	QTY	PART NO	DESCRIPTION
1	4	0-143-60PL-01	2" X 3" X 71" INT'R SLAT, PLASTIC
2	2	0-160-00-01	CAST IRON BENCH SUPPORT FOR BACKREST
3	1	0-160-00-03	CAST IRON ARM REST
4	1	0-165-60-01	6' SEAT FRAME
5	4	0-165-60PL-03	71" TRAP SLAT, PLASTIC
6	2	0-165-60PL-04	71" BVLD SLAT, PLASTIC
7	1	0-165-60PL-32	2" X 3" X 71" SLAT, FOR CENTER ARM, PLASTIC
8	1	0-165-60PL-34	71" BVLD SLAT, FOR CENTER ARM, PLASTIC
9	2	1-11-045	1/2" X 2 1/2" SS CGE BOLT
10	4	1-12-065	1/2" X 2 1/2" FLT SKT HD CAP SCR
11	48	1-13-023	5/16" X 1 1/2" SS BTN SKT HD LAG
12	2	1-20-018	1/2" SS THIN NYLON LOCKNUT
13	2	1-22-015	1/2" SS FLAT WASHER
14	48	1-22-017	5/16" SS FLAT WASHER



PLACE SEAT ASSEMBLY ON WORK SURFACE ALLOWING ACCESS TO ENDS. PLACE RATCHET STRAP AROUND SEAT ASSEMBLY AS SHOWN ABOVE.



TIGHTEN STRAP UNTIL SHIPPING BRACKET BECOMES LOOSE. THEN REMOVE AND DISCARD BOLTS & SHIPPING BRACKET.

**KITS PROVIDED**

ITEM	QTY	PART NO	DESCRIPTION
15	1	K-ANCO860-4	1/2" X 3 3/4" SS ANCHOR KIT (4PC)
16	2	K-BLO524-24	5/16" LAG HARDWARE KIT (24PC)
17	1	K-CG0840-2TL	1/2" CGE BOLT HARDWARE KIT (2PC)
18	1	K-FC0840-4	1/2" CAP HARDWARE KIT (4 PCS)

**NOTES:**

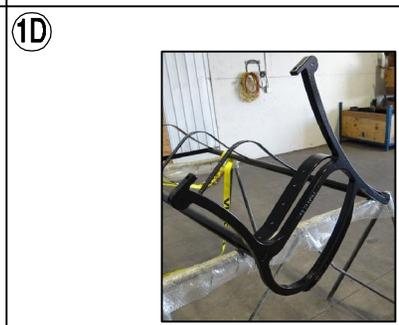
- 1.) DURING ASSEMBLY PROCEDURE; DO NOT COMPLETELY TIGHTEN HARDWARE.
- 2.) THE ACTUAL PARTS WILL NOT BE NUMBERED. NUMBERS ONLY APPLY TO DRAWING.
- 3.) UPON COMPLETION OF ASSEMBLY SQUARE ALL COMPONENTS THEN TIGHTEN ALL HARDWARE.
- 4.) MOUNT AND ANCHOR AS SPECIFIED.

**TOOLS REQ'D**

- 3/4" WRENCH
- 5/16" ALLEN WRENCH
- 1/4" ALLEN WRENCH
- 1/2" MASONRY DRILL BIT
- DRILL
- RATCHET STRAP (PROVIDED)

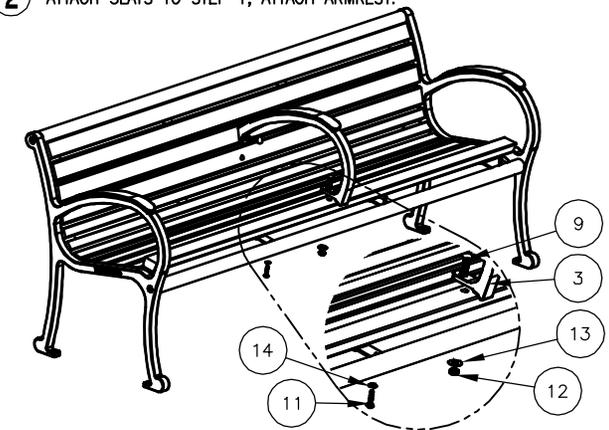


ATTACH CAST SUPPORT TO SEAT ASSEMBLY. IF HOLES IN CASTING DO NOT ALIGN WITH THE SEAT ASSEMBLY, ADJUST BY USING THE RATCHET STRAP.



TIGHTEN HARDWARE THEN REMOVE RATCHET STRAP AND REPEAT THIS PROCEDURE ON THE OTHER END OF BENCH.

**2** ATTACH SLATS TO STEP 1, ATTACH ARMREST.



**ASSEMBLY INSTRUCTIONS**

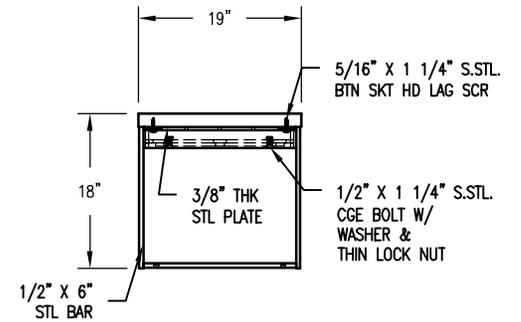
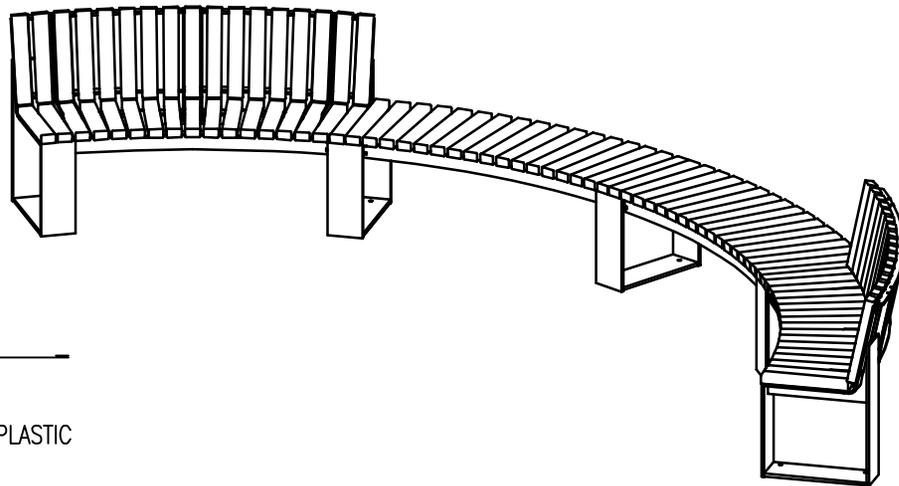
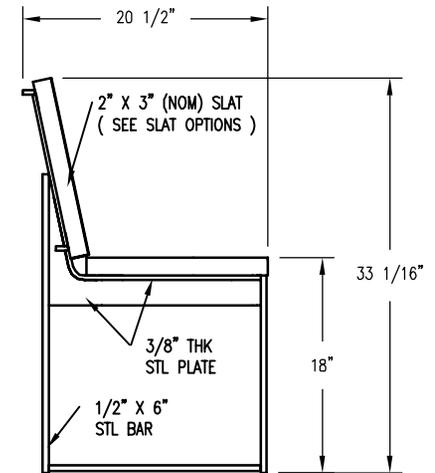
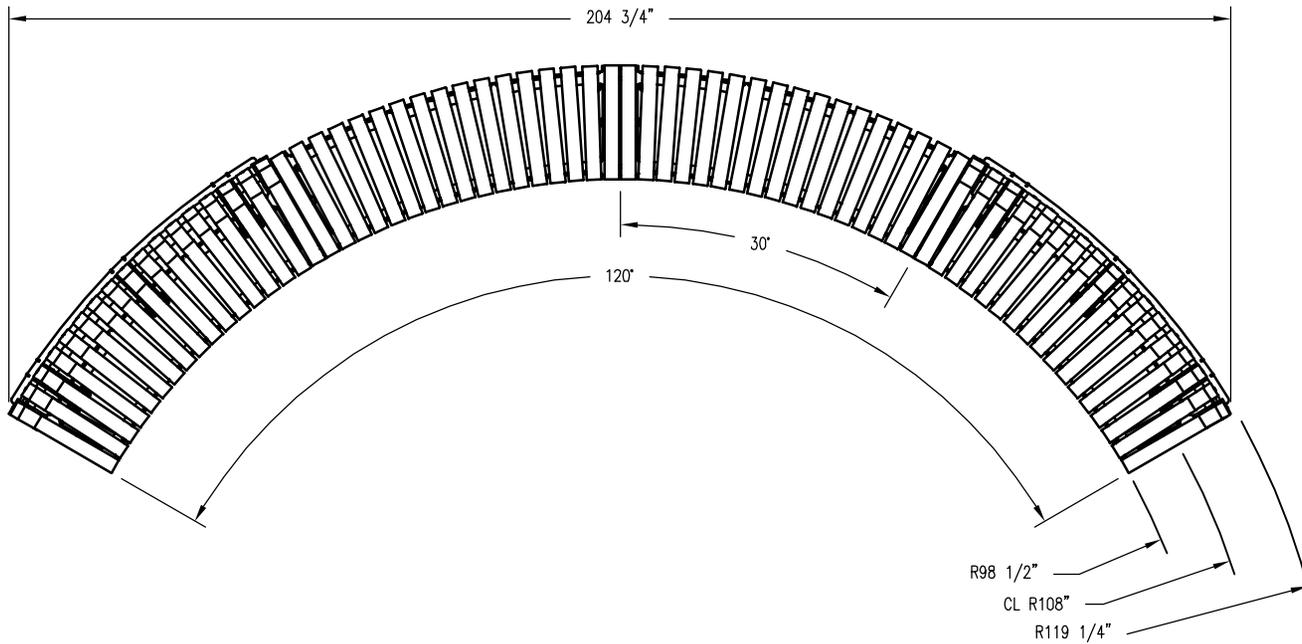
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 DRAWN BY : ESS  
 DATE REV. : 00/00/00  
 REV. BY : XXX

REV. A

DRAWING NUMBER

165 SERPL-3AR

SHEET 2 OF 2



SLAT OPTIONS

- WOOD
- RECYCLED PLASTIC
- WOOD GRAIN RECYCLED PLASTIC

NOTES:

- 1.) ALL STL. MEMBERS COATED W/ ZINC RICH EPOXY THEN FINISHED W/ POLYESTER POWDER COATING.
- 2.) 1/2" X 3 3/4" EXPANSION ANCHOR BOLTS PROVIDED.



BENCH

DATE DRAWN : 11/19/25  
 DRAWN BY : HMD  
 DATE REV. :  
 REV. BY :

REV.  
 A

DRAWING  
 NUMBER

529-00276

SHEET  
 1 OF 1



*Model WXT/G-6DU 6 Ft. Portable, Universal Rectangular Accessible Table with hot dip galvanized frames and blue D-Type thermo-plastic coated expanded steel top and seats*

- **Nontip, nontrip, walk-through design with wheelchair accessibility at each end**
- **Full capacity seating when wheelchairs are not in place**
- **All welded end frames are fabricated from 2-3/8" diameter steel pipe**
- **Diagonal braces align and strengthen entire table**
- **Frames are hot dip galvanized after fabrication for superior corrosion resistance**
- **Thermo-plastic Coating heat fused to Expanded Steel Top and Seats for durability**
- **Thermo-plastic Coating formulated with U.V. stabilizers for ultraviolet protection**
- **Limited Lifetime Warranty on frames**

#### **AVAILABLE OPTIONS**

**6' or 8' lengths**

**Powder Coat Finish in choice of colors on steel frame components**

**Choice of colors of Thermo-plastic Coating**

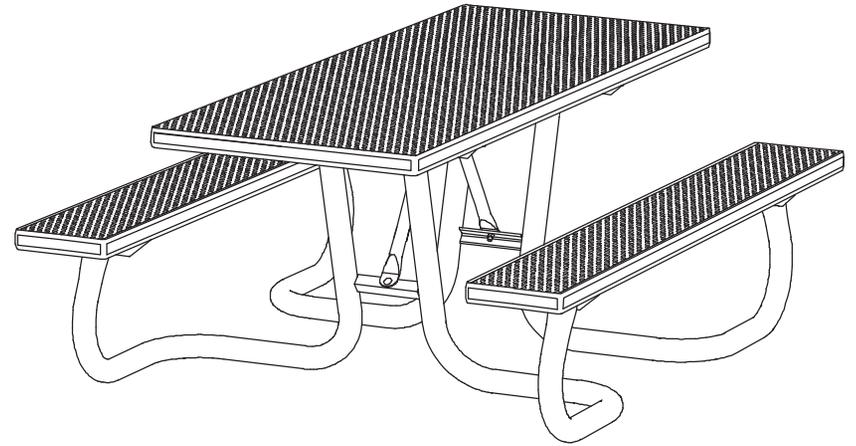
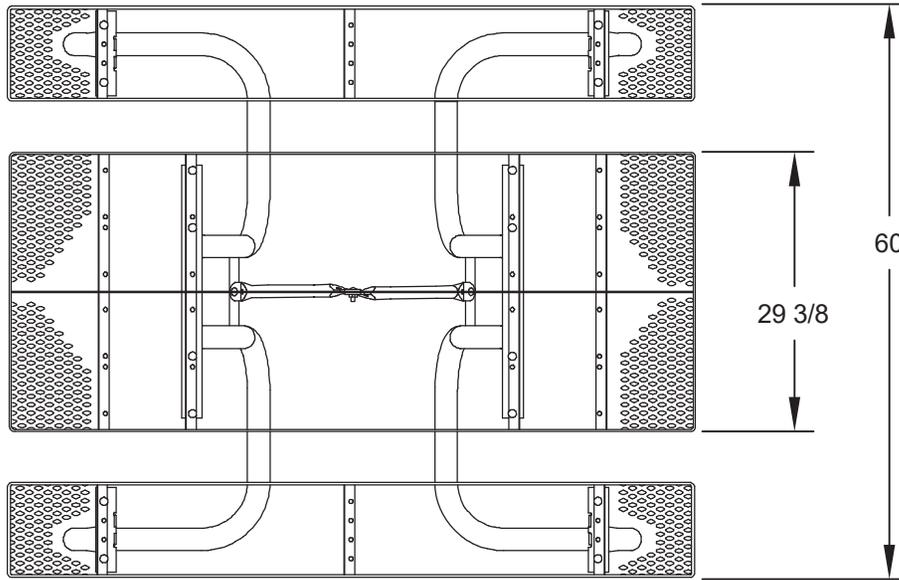
#### **SPECIFICATIONS:**

- **WXT Series** end frames are one-piece welded construction, fabricated from 2.375" (2-3/8") O.D. x 10 ga. wall steel pipe to meet 2" nominal steel pipe size specifications with 2" x 2" x 1/8" die-formed steel angle for attaching the seats and top. Bends are tightly formed to prevent tipping when weight is on one side.
- The frame design provides the ADA recommended wheelchair clearances under the table top of: 30" wide, 27" high and 24" total knee and toe clearance (19" knee + 5" toe) at each end of the table while maintaining the full seating capacity of the table for common use.
- Table frame design incorporates nontip, nontrip, walk-through design features.
- **Model WXT/G-6** has a nom. 6 ft. length.
- **Model WXT/G-8** has a nom. 8 ft. length.
- Nominal table height is 30". Frame design provides a nominal 28" of clearance from ground level to the underside of table. Nominal seat height is 18".
- Frames are supported by diagonal braces of 1-5/16" O.D. x 14 ga. wall steel pipe that connect to the table top.
- All fasteners are provided for assembly.
- **Standard:** All steel frame components are hot-dip galvanized after fabrication to ASTM-A123 to maintain an average zinc coating of 2.0 oz. per sq. ft. of surface area (indicated by "/G" in model no., e.g. WXT/G-6DW).
- **D-Type** table top and seats are each a one-piece welded construction, fabricated from a 3/4"-#9 expanded steel surface with 2" roll-formed 14 ga. steel vertical edges on all sides and reinforced by a strap and die-formed angle substructure.
- **Standard:** All steel surfaces of the top and seats are covered with a thermo-plastic coating in a Brown color (indicated by "DW" in model no., e.g. WXT/G-6DW). The UV-stabilized thermo-plastic coating is applied in a multi step process of material preparation and finish application designed to permanently heat fuse and bond the finish to the steel. The thermo-plastic polyethylene finish is impact resistant, does not support mold or mildew, and the textured matte surface is less susceptible to marring and scuffing.
- **Optional:** Color choices of powder coated steel frame components. See Specification Bulletin #SPC-CO-001.
- **Optional:** Color choices of Thermo-plastic coated steel components. For optional colors choices see Specification Bulletin #SPC-CO-001.
- **U.S. Patent Nos. D489,539; D490,992; D493,291; D496,799; D497,262; 6,918,630**

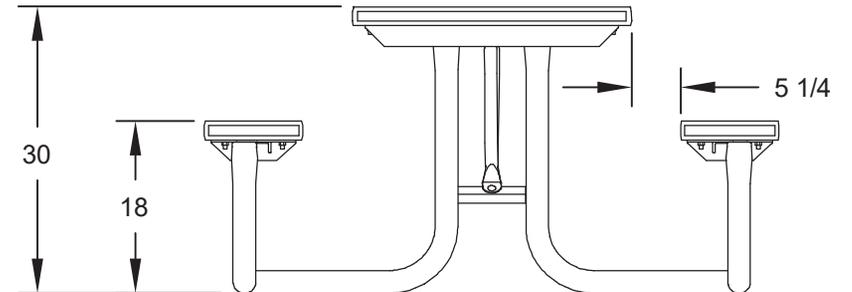
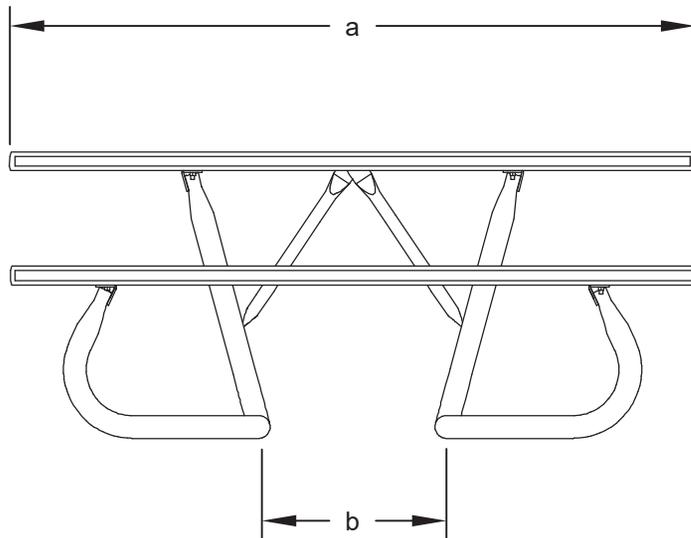
**RJ Thomas Mfg. Co., Inc.**

PO Box 946 • Cherokee, IA 51012-0946 • PH: 712-225-5115 • 800-762-5002 • FAX: 712-225-5796  
E-mail: pilotrock@rjthomas.com • Web Site: <http://www.pilotrock.com>

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MODEL NUMBER	DIMENSION	
	a	b
WXT-6	72	19-5/8
WXT-8	96	37 7/8



ALL DIMENSIONS IN INCHES

**RJThomas Mfg. Co., Inc.**  
P.O. Box 946 • Cherokee, IA 51012-0946

DRAWN BY  
**WWM**

TITLE **WXT SERIES 6 AND 8 FOOT UNIVERSAL ACCESS TABLES  
WITH D-TYPE THERMO-PLASTIC COATED EXPANDED STEEL TOP AND SEATS**

DATE **3-17-10**

DWG. NO. **AI-1672**

NOTES:

**GENERAL NOTES**

- 1- THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
- 2- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
- 3- THE SHADE SYSTEMS, INC.™ STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE (IBC) INTERNATIONAL BUILDING CODE
- 4- DO NOT SCALE DRAWING.
- 5- ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
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**Model Name:**  
 CUSTOM OFFSET T-CANTILEVER SHADE SYSTEMS STRUCTURE

**Model Number:**  
 COTC1020--

**8'-0" EAVE HEIGHT**  
 COLUMN SIZE = 5" DIA.

STANDARD FOOTER				SPREAD FOOTER										
INGROUND		PIER MOUNT		INGROUND		PIER MOUNT								
X	Y	Z	NO. OF VERTICAL BARS	X	Y	ANCHOR BOLT SIZE/ LENGTH	NO. OF VERTICAL BARS	SQ.	DEPTH	NUMBER OF HORIZONTAL REBARS EACH WAY	SQ.	DEPTH	ANCHOR BOLT SIZE/ LENGTH	NUMBER OF HORIZONTAL REBARS EACH WAY
30"	54"	36"	8	30"	54"	Ø3/4" 36"	8	38" X 38"	42"	4	38" X 38"	42"	Ø3/4" 24"	4

**10'-0" EAVE HEIGHT**  
 COLUMN SIZE = 5" DIA.

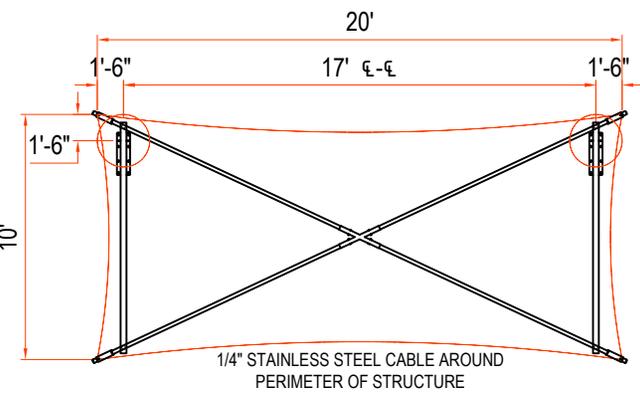
STANDARD FOOTER				SPREAD FOOTER										
INGROUND		PIER MOUNT		INGROUND		PIER MOUNT								
X	Y	Z	NO. OF VERTICAL BARS	X	Y	ANCHOR BOLT SIZE/ LENGTH	NO. OF VERTICAL BARS	SQ.	DEPTH	NUMBER OF HORIZONTAL REBARS EACH WAY	SQ.	DEPTH	ANCHOR BOLT SIZE/ LENGTH	NUMBER OF HORIZONTAL REBARS EACH WAY
30"	60"	40"	8	30"	60"	Ø3/4" 36"	8	40" X 40"	42"	4	40" X 40"	42"	Ø3/4" 24"	4

**12'-0" EAVE HEIGHT**  
 COLUMN SIZE = 6" DIA.

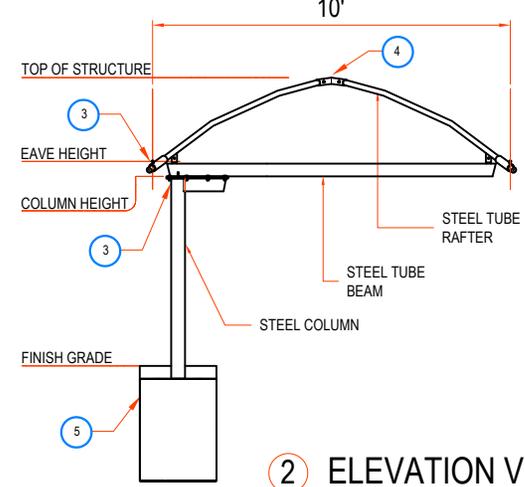
STANDARD FOOTER				SPREAD FOOTER										
INGROUND		PIER MOUNT		INGROUND		PIER MOUNT								
X	Y	Z	NO. OF VERTICAL BARS	X	Y	ANCHOR BOLT SIZE/ LENGTH	NO. OF VERTICAL BARS	SQ.	DEPTH	NUMBER OF HORIZONTAL REBARS EACH WAY	SQ.	DEPTH	ANCHOR BOLT SIZE/ LENGTH	NUMBER OF HORIZONTAL REBARS EACH WAY
30"	66"	44"	8	30"	66"	Ø3/4" 42"	8	42" X 42"	42"	4	42" X 42"	42"	Ø3/4" 24"	4

**14'-0" EAVE HEIGHT**  
 COLUMN SIZE = 8" DIA.

STANDARD FOOTER				SPREAD FOOTER										
INGROUND		PIER MOUNT		INGROUND		PIER MOUNT								
X	Y	Z	NO. OF VERTICAL BARS	X	Y	ANCHOR BOLT SIZE/ LENGTH	NO. OF VERTICAL BARS	SQ.	DEPTH	NUMBER OF HORIZONTAL REBARS EACH WAY	SQ.	DEPTH	ANCHOR BOLT SIZE/ LENGTH	NUMBER OF HORIZONTAL REBARS EACH WAY
30"	72"	48"	8	30"	72"	Ø3/4" 36"	8	44" X 44"	42"	4	44" X 44"	42"	Ø3/4" 24"	4



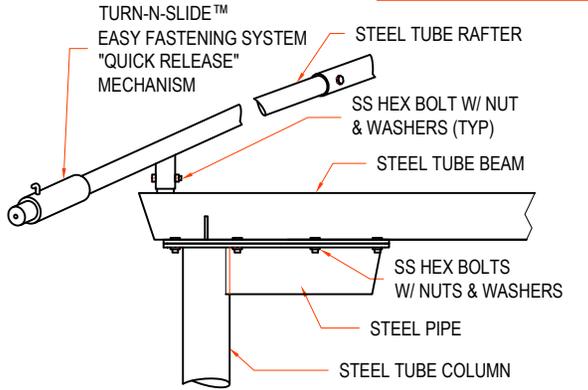
**1 PLAN VIEW**



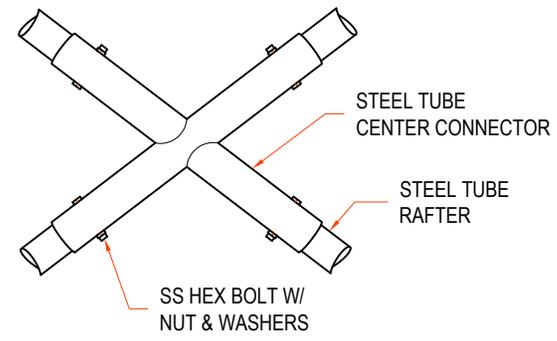
**2 ELEVATION VIEW**

ALL WELDS TO BE 3/16" FULL PERIMETER FILLET UNLESS NOTED OTHERWISE

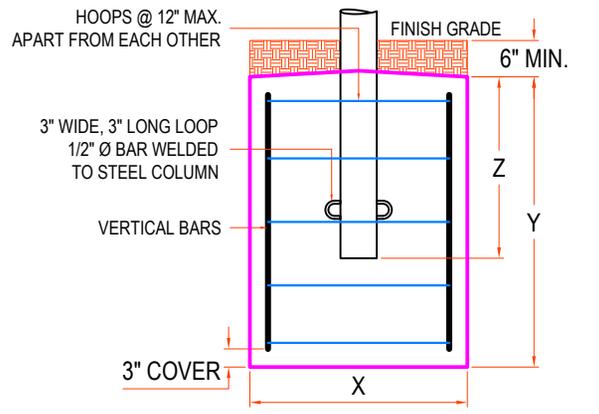
ALL CONNECTION COMPONENTS ARE FACTORY WELDED



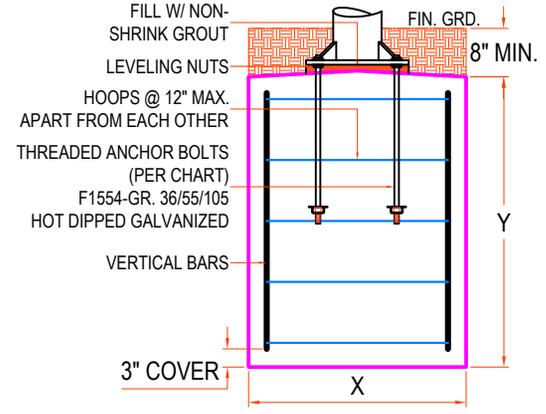
**3 RAFTER-BEAM AND BEAM-COLUMN CONNECTION DETAIL**



**4 CENTER CONNECTOR DETAIL**



**5 STANDARD FOOTING DETAIL IN-GROUND BURY**  
 NOTE: HOOPS & REBARS NOT SUPPLIED BY FACTORY



**6 ALTERNATIVE FOOTING DETAIL PIER MOUNT**  
 NOTE: GROUT, HOOPS, REBARS & ANCHOR BOLTS NOT SUPPLIED BY FACTORY

SYSTEM SPECIFICATIONS

These popular round posts provide classic good looks and durability for either indoor or outdoor court applications.

### DIMENSIONS

60" in length and sit 42" above court surface

### POST

The 3" OD round tennis post is constructed from heavy-duty 11-gauge steel. Systems are finished with a black or forest green baked-on polyester powder coat to resist rust and increase durability. Integrated welded steel lacing rods are included for a professional net installation.

### HARDWARE

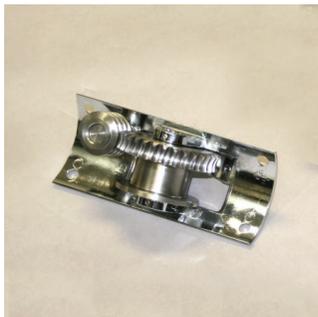
Internally wound featuring a self-locking gear mechanism. Gears are constructed of plated steel and the small gear is case hardened. Gear housings and caps are made of cast aluminum alloy. Gear function is 30:1 to ensure a smooth, easy operation. Flush mounted gear plate cover and removable handle are chrome plated.

### WARRANTY

5 Year Limited

CORRESPONDING GROUND SLEEVES

(GS-24)  
(ITEM # 63424)  
Round Steel, 24" long,  
for all 3" OD round posts.



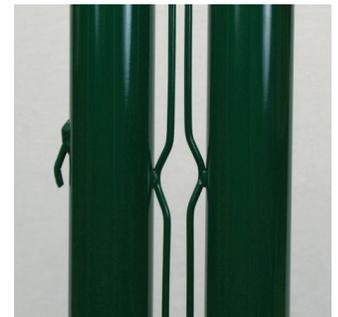
Plated Steel Self Locking Gears



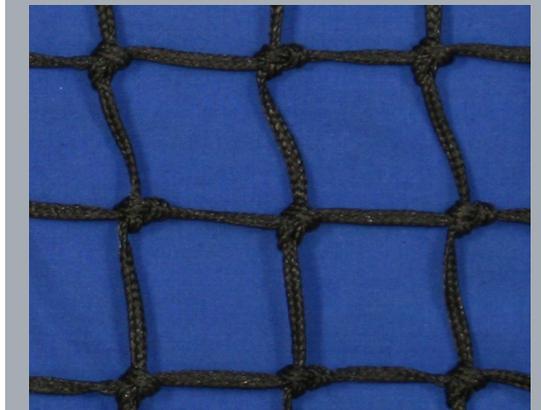
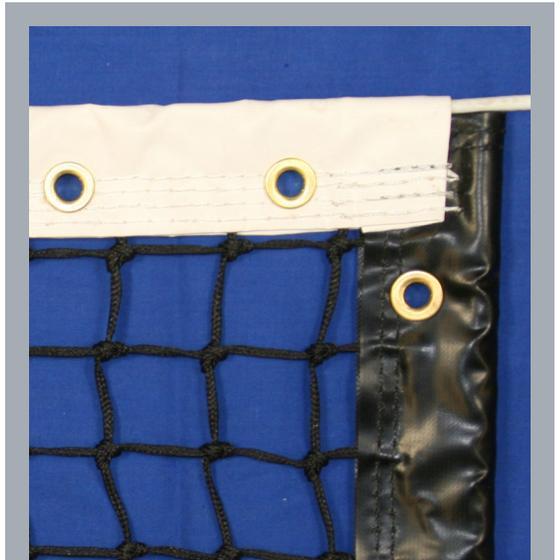
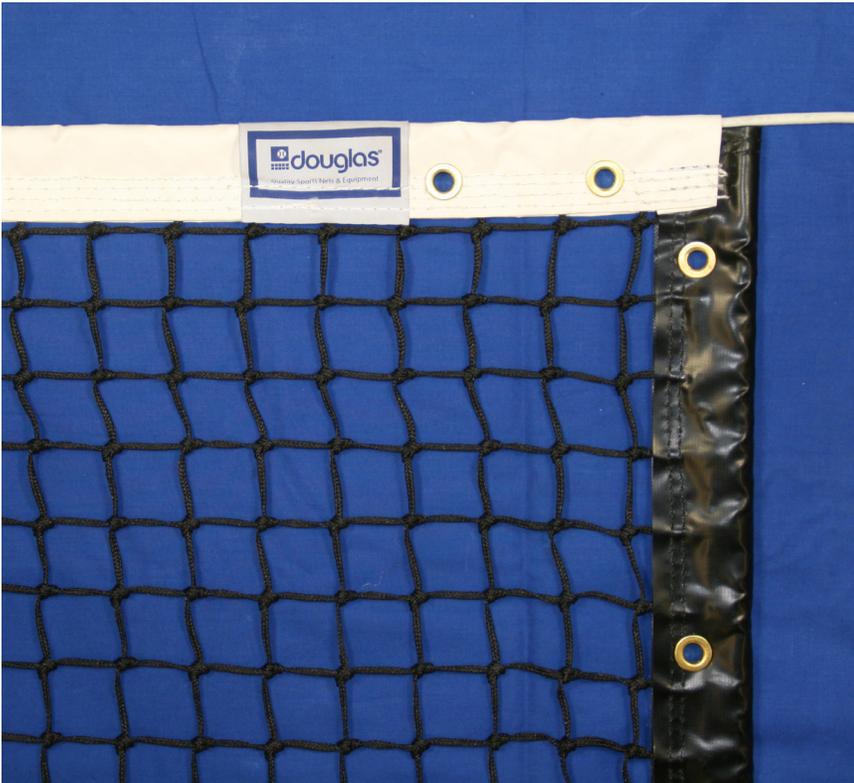
Cast Aluminum Alloy Caps



Plated Steel Hardware



Integrated Welded Lacing Rods



**SPECIFICATIONS**

**SIZE**

Official size, 42' x 3'6" meeting USTA requirements.

**HEADBAND**

32 oz single-ply vinyl coated polyester headband. Headband is lock-sewn with four rows of #32 white polyester thread.

**NETTING**

Netting is 1-3/4" square mesh braided solid core polyethylene, unsurpassed for durability and weather resistance. 3.0 mm netting with 285 lb break strength.

**SIDE & BOTTOM TAPE**

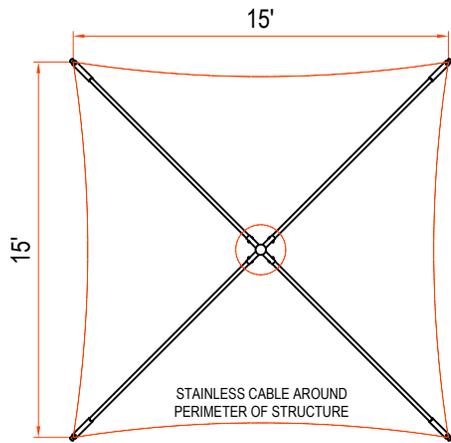
Vinyl bottom tape and side pockets of headbands are polyester based and won't shrink, mildew or rot when exposed to the elements. Tapes are double lock-stitched with black polyester thread.

**INCLUDES**

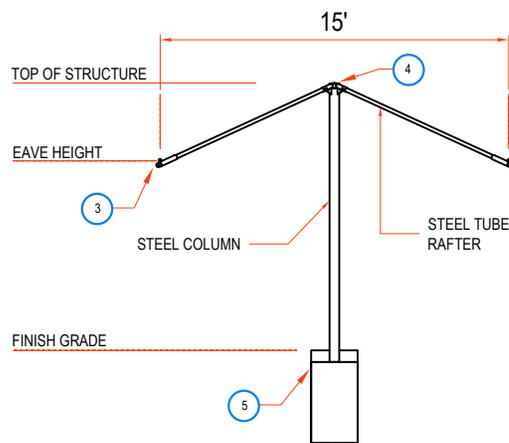
1/2" fiberglass side dowels

**WARRANTY**

4 Year Limited



1 PLAN VIEW



2 ELEVATION VIEW

**Shade systems™**  
INC.  
4150 S.W. 19 Street  
Ocala, FL 34474  
Tel.: 1-800-609-6066  
EMAIL: info@shadesystemsinc.com

GENERAL NOTES

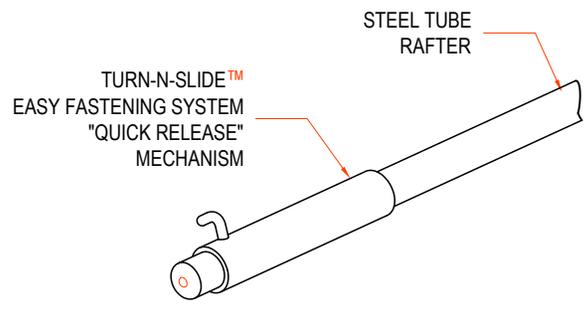
- 1- THIS DRAWING IS INTENDED FOR USE BY ARCHITECTS, ENGINEERS, CONTRACTORS, CONSULTANTS AND DESIGN PROFESSIONALS FOR PLANNING PURPOSES ONLY. THIS DRAWING MAY NOT BE USED FOR CONSTRUCTION.
- 2- INSTALLATION TO BE COMPLETED IN ACCORDANCE WITH MANUFACTURERS SPECIFICATIONS.
- 3- THE SHADE SYSTEMS, INC.™ STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE (IBC) INTERNATIONAL BUILDING CODE
- 4- DO NOT SCALE DRAWING.
- 5- ALL INFORMATION CONTAINED HEREIN WAS CURRENT AT THE TIME OF DEVELOPMENT BUT MUST BE REVIEWED AND APPROVED BY THE PRODUCT MANUFACTURER TO BE CONSIDERED ACCURATE.
- 6- SHADE SYSTEMS, INC. MANUFACTURERS CUSTOM FABRIC TENSIONED SHADE STRUCTURES OF ALL MAKES, MODELS, AND SIZES. IF YOU NEED ASSISTANCE WITH CUSTOM PRODUCT PLEASE REACH JEREMY PURKIS AT 800-609-6066, OR EMAIL: JEREMY@SHADESYSTEMSINC.COM

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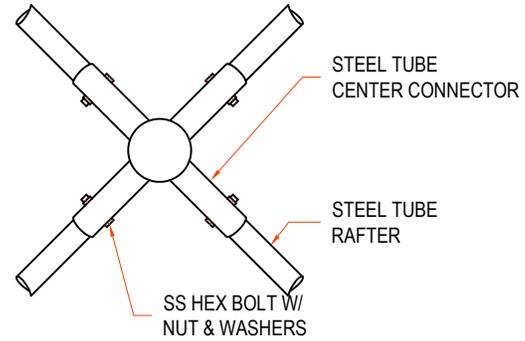
© 2024 SHADE SYSTEMS, INC.

ALL WELDS TO BE 3/16" FULL PERIMETER FILLET UNLESS NOTED OTHERWISE

ALL CONNECTION COMPONENTS ARE FACTORY WELDED



3 RAFTER-COLUMN DETAIL



4 CENTER CONNECTOR DETAIL

Model Name:  
SINGLE POST PYRAMID SHADE SYSTEMS STRUCTURE

Model Number:  
SP1515--

8'-0" EAVE HEIGHT

COLUMN SIZE = 5" DIA.

STANDARD FOOTER						SPREAD FOOTER								
INGROUND			PIER MOUNT			INGROUND			PIER MOUNT					
X	Y	Z	NO. OF VERTICAL BARS	X	Y	ANCHOR BOLT SIZE/ LENGTH	NO. OF VERTICAL BARS	SQ.	DEPTH	NUMBER OF HORIZONTAL REBARS EACH WAY	SQ.	DEPTH	ANCHOR BOLT SIZE/ LENGTH	NUMBER OF HORIZONTAL REBARS EACH WAY
24"	42"	28"	6	24"	42"	Ø3/4" 24"	6	N/A	N/A	N/A	N/A	N/A	N/A	N/A

10'-0" EAVE HEIGHT

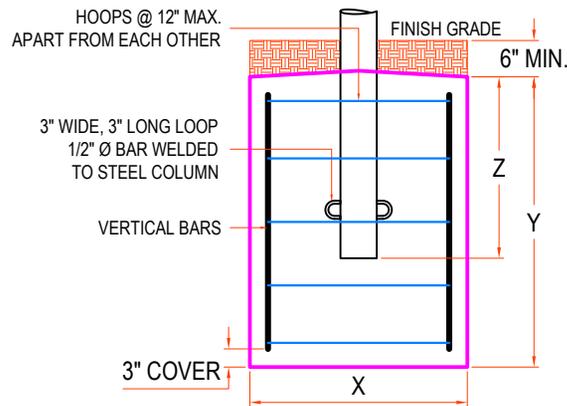
COLUMN SIZE = 6" DIA.

STANDARD FOOTER						SPREAD FOOTER								
INGROUND			PIER MOUNT			INGROUND			PIER MOUNT					
X	Y	Z	NO. OF VERTICAL BARS	X	Y	ANCHOR BOLT SIZE/ LENGTH	NO. OF VERTICAL BARS	SQ.	DEPTH	NUMBER OF HORIZONTAL REBARS EACH WAY	SQ.	DEPTH	ANCHOR BOLT SIZE/ LENGTH	NUMBER OF HORIZONTAL REBARS EACH WAY
24"	48"	32"	6	24"	48"	Ø3/4" 24"	6	28" X 28"	42"	3	28" X 28"	42"	Ø3/4" 24"	3

12'-0" EAVE HEIGHT

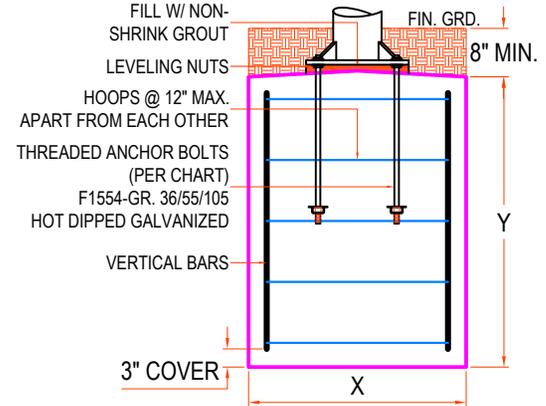
COLUMN SIZE = 6" DIA.

STANDARD FOOTER						SPREAD FOOTER								
INGROUND			PIER MOUNT			INGROUND			PIER MOUNT					
X	Y	Z	NO. OF VERTICAL BARS	X	Y	ANCHOR BOLT SIZE/ LENGTH	NO. OF VERTICAL BARS	SQ.	DEPTH	NUMBER OF HORIZONTAL REBARS EACH WAY	SQ.	DEPTH	ANCHOR BOLT SIZE/ LENGTH	NUMBER OF HORIZONTAL REBARS EACH WAY
24"	54"	36"	6	24"	54"	Ø3/4" 36"	6	30" X 30"	42"	3	30" X 30"	42"	Ø3/4" 36"	3



5 STANDARD FOOTING DETAIL

IN-GROUND BURY NOTE: HOOPS & REBARS NOT SUPPLIED BY FACTORY



6 ALTERNATIVE FOOTING DETAIL

PIER MOUNT NOTE: GROUT, HOOPS, REBARS & ANCHOR BOLTS NOT SUPPLIED BY FACTORY



DATE: \_\_\_\_\_

SIGNATURE: \_\_\_\_\_



**Customization:**

- Large poster on door

\*NOTE: Unit colours may vary from render and printing depending on real world lighting conditions\*

**Product Name:**

PD35-1  
City of Evanston  
Version 1  
Revision A

**Opening Shapes:**

Black Arched Rectangle 12 1/2" x 5 1/2"



**Mobility Option:** None

**Bin Dimensions:** 22" (W) x 19" (D) x 47 1/4" (H)

visit [cleanriver.com](http://cleanriver.com)

**Most  
Dependable  
Fountains, Inc.**

---

**OPERATIONS MANUAL**

**MODEL:**

**10145 SMFA &**

**10145 SMSSFA ~~with~~  
~~optional Pet Fountain located on back side~~**

Most Dependable Fountains, Inc™  
5705 Commander Drive  
Arlington, TN 38002  
901-867-0039  
[www.mostdependable.com](http://www.mostdependable.com)





# PEDESTAL BOTTLE FILLER SPECIFICATIONS

## WATER QUALITY (LEAD FREE)

Section 9, California Proposition 6 and the Federal Safe Drinking Water Act. One piece weld construction with MDF standard 3/16" wall thickness.

## ■ STANDARD PEDESTAL

OR

## ■ STAINLESS STEEL PEDESTAL

One piece weld construction with MDF standard 304 schedule 10 stainless steel.

## RECEPTOR BOWL

18 gauge electro-polished stainless steel bowl. Bowl overlaps pedestal, preventing buildup of residue in visual drinking area. Optional stainless steel Bowl Strainer recommended for areas with sand. Not applicable on all Models.

## BOTTLE FILLER SPOUT

Sanitary recessed nozzle.

## BUBBLER HEAD

Stainless steel anti-squirt head (weighing a pound and a half) mounted with a lock nut and washer to prevent tampering. Lock nut pin holds bubbler in locked position to prevent twisting or turning. The MDF bubbler head has a unique design that features a steady stream trajectory and a built in natural shield from contamination.

## PUSH BAR

304 stainless steel with circumference exceeding 8.6". Mushroom style push bar overlaps and prevents sand and other objects from sticking push bar in the ON position. Stainless steel bubbler housing standard.

## CONTROL VALVE

Requires less than 5 lbs to operate. Non-cartridge O-ring valve delivers steady stream of water through an adjustable valve. This valve design is to operate and function at 30 to 80 PSI. Ideal operating pressure is 60 PSI.

## WATER SUPPLY (LEAD FREE)

Maintenance free reinforced nylobraid tubing - **this tubing is not plastic**. It is supplied with a 1/2" MIP threaded inlet with stainless steel strainer. Union fittings at every connection. Supply line stops above grade. Water Filter is standard on this model.

## DRAIN

1 1/2" schedule 40 PVC pipe. Drain line stops above grade.

## FINISH

Oven baked powder coat. Choice of colors are:  green,  blue,  black,  red,  yellow,  orange,  brown and  white. Textured color choices:  emerald,  sapphire,  pyrite,  text-black,  burgundy,  gold vein,  copper and  sandstone. Stainless steel models are powder coated for added protection. The color  chrome is an available option for stainless steel models only.

## INSTALLATION

**Surface Mount** installation, is designed to be anchored on top of a new or existing surface (concrete, etc.) For a new surface, a surface mount carrier is recommended. For an existing surface, anchor bolts are to be used through the attached mounting plate. Surface Mount Fountains come standard with an access door with vandal resistant stainless steel screws.

## WINTERIZATION

Shut off water and drain down. Remove water filter.

## WARRANTY

One year warranty, labor not included.

## SHIPPING WEIGHT

Model 10125 SM..... 110 lbs	Model 10125 SMSS..... 100 lbs	Model 10890 SM..... 150 lbs
Model 10135 SM..... 150 lbs*	Model 10135 SMSS..... 150 lbs*	Model 10890 SMSS... 140 lbs
Model 10145 SM.... 245 lbs*	Model 10145 SMSS..... 235 lbs*	Model 10895 SM..... 200 lbs
Model 10150 SM.... 245 lbs*	Model 10150 SMSS..... 235 lbs*	Model 10895 SMSS... 190 lbs
Model 10155 SM.... 195 lbs*	Model 10155 SMSS..... 185 lbs*	Model 10100 SM..... 55 lbs
* Available as Front Approach (FA)		Model 10100 SMSS..... 45 lbs

**MOST DEPENDABLE FOUNTAINS, INC.™**  
 5705 COMMANDER DR. • ARLINGTON, TN 38002-0587  
 www.mostdependable.com  
 (901) 867-0039



# INSTALLATION INSTRUCTIONS

Most Dependable Fountains, Inc.™

All **SM (surface mount)** products are designed to be installed on the surface of a new or existing concrete slab. Your contractor needs to provide a 1 ½” PVC drain line (**when applicable**) and water line thru finish grade. Connections are made to our SM products thru our access door, as shown on detail drawings. The water tubing is provided with a ½” male iron pipe connection. This is an excellent location for a cutoff valve. Surface Mount units are anchored to the existing concrete by means of ½” concrete shields with bolts or we recommend ½” quick bolts.

**Note:** We offer an optional template which is designed to be poured in the concrete slab. It comes with the necessary vandal resistant stainless steel bolts and washers needed to anchor.

---

All **DB (direct bury)** products are designed to be installed to a depth of 14” below grade. MDF provides 1 ½” PVC drain line inside the pedestal (**when applicable**) to point of connection by others. MDF also provides reinforced nylobraid flexible tubing with a ½” male iron pipe thread for connection to water supply by others. MDF recommends an optional valve box using a PVC conduit to the pedestal. By using this option you have complete control of your product.

**Individual detail drawings available online or by request.**



For more information:

Most Dependable Fountains, Inc.™

[www.mostdependable.com](http://www.mostdependable.com)

[Info@mostdependable.com](mailto:Info@mostdependable.com)

901-867-0039

# LIMITED PRODUCT WARRANTY

Most Dependable Fountains, Inc.™

Most Dependable Fountains, Inc.™ warrants that all of its products are guaranteed against defective material or poor workmanship for a period of **one year from date of shipment**. Most Dependable Fountains, Inc.™ liability under this warranty shall be discharged by furnishing without charge any goods, or part thereof, which shall appear to the Company upon inspection to be of defective material or not of first class workmanship. Most Dependable Fountains, Inc.™ will not be liable for the cost of repairs, alterations or replacements, or for any expense connected therewith made by the owner or his agents. Most Dependable Fountains, Inc.™ will not be liable for any damages caused by defective materials or poor workmanship, except for replacements, as provided above. Buyer agrees that Most Dependable Fountains, Inc.™ has made no other warranties either expressed or implied in addition to those above stated. The products manufactured by Most Dependable Fountains, Inc.™ is warranted to function if installation and maintenance instructions provided are adhered to. The units also must be used for the purpose for which they were intended.





**IDS SCULPTURE**

PLAY. CLIMB. EXPLORE.

# Stump Table

SF005

Age Group: N/A

100% CONSTRUCTION DRAWINGS

All IDS projects are designed to meet or exceed ASTM 1487. Please consult ASTM 1487 for required hazard warning and signage specifications. Not all equipment may be appropriate for all children. Supervision is required. ASTM compliant safety surfacing is required under and around all play equipment. The Americans with Disabilities Act (ADA) may require your play area to be accessible, please consult with an ADA professional to ensure compliance.

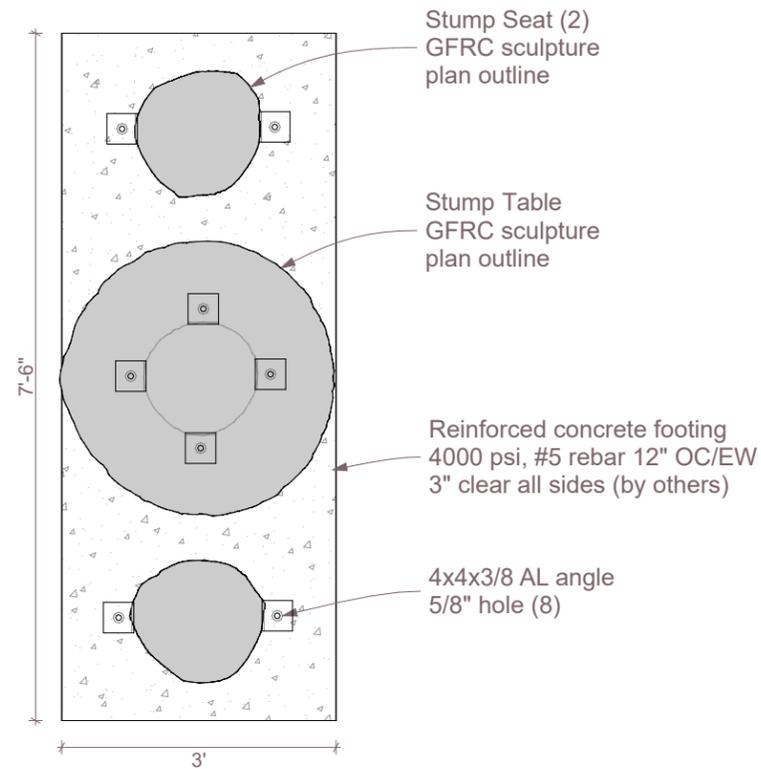
Date **1/28/2025**

Sheet # **A.01.1**

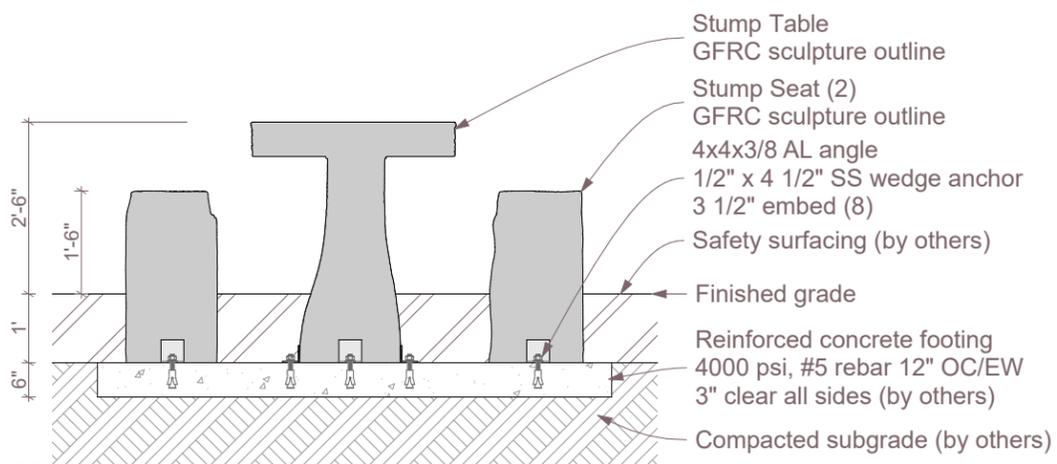
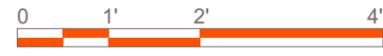
Drawing Title **Layout**

Approved By / Date:

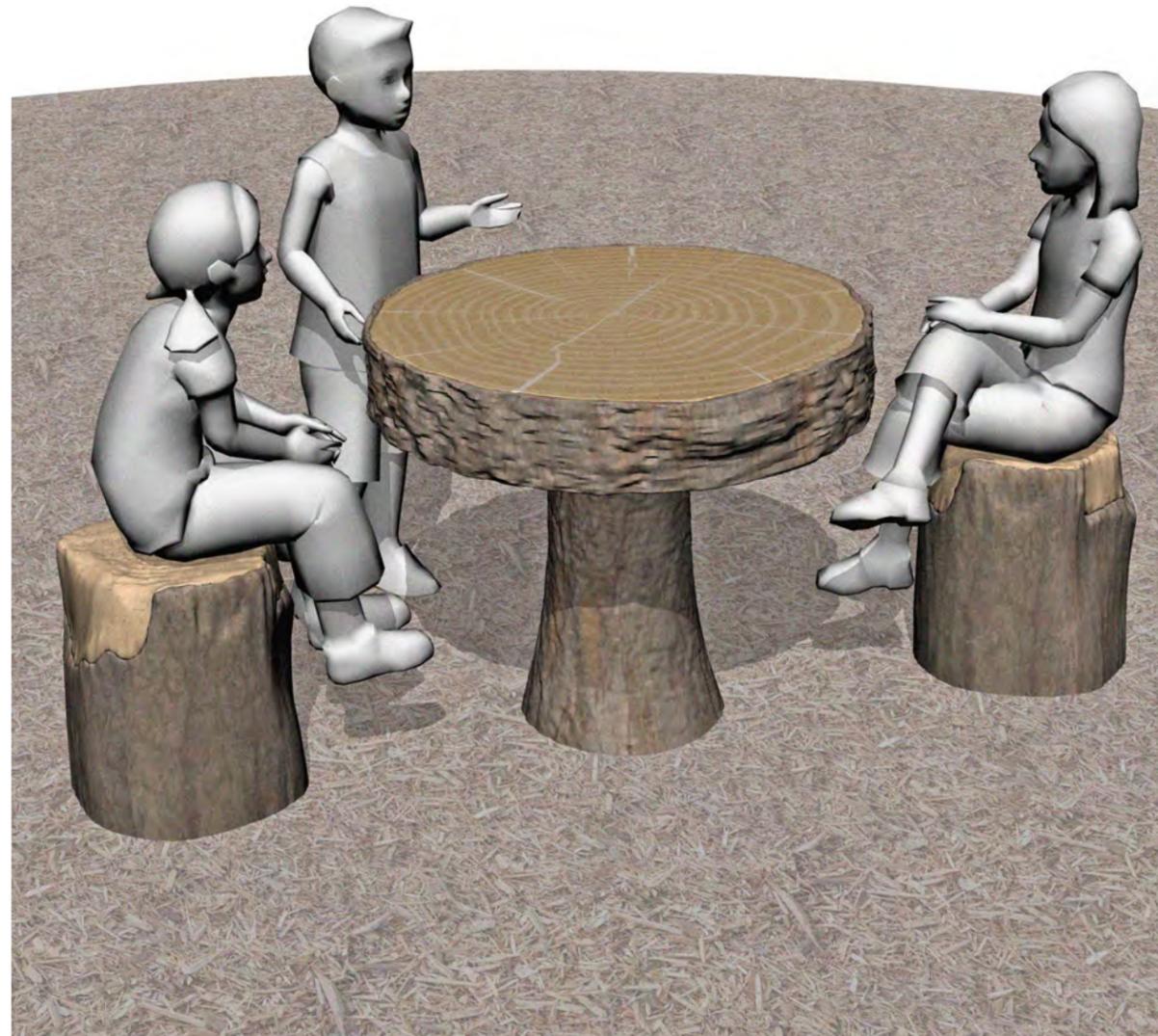
591 South Boulevard Street  
Gunnison, Colorado 81230  
IDS info@idsculpture.com



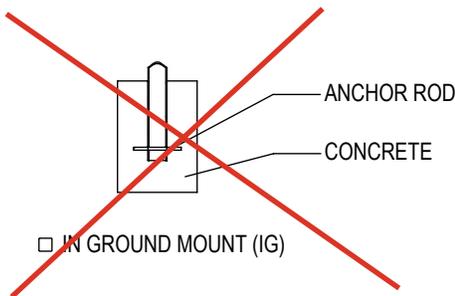
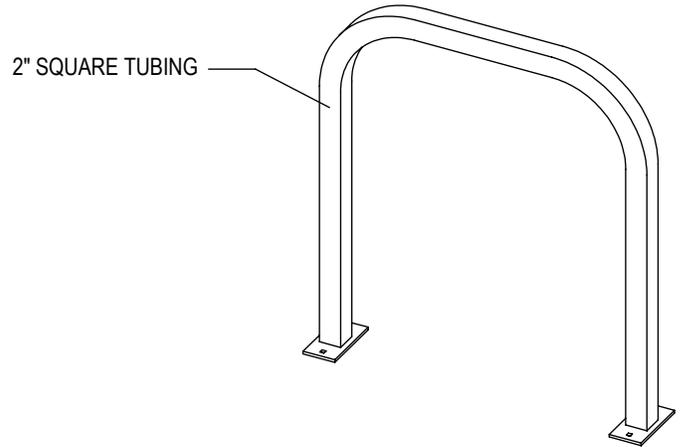
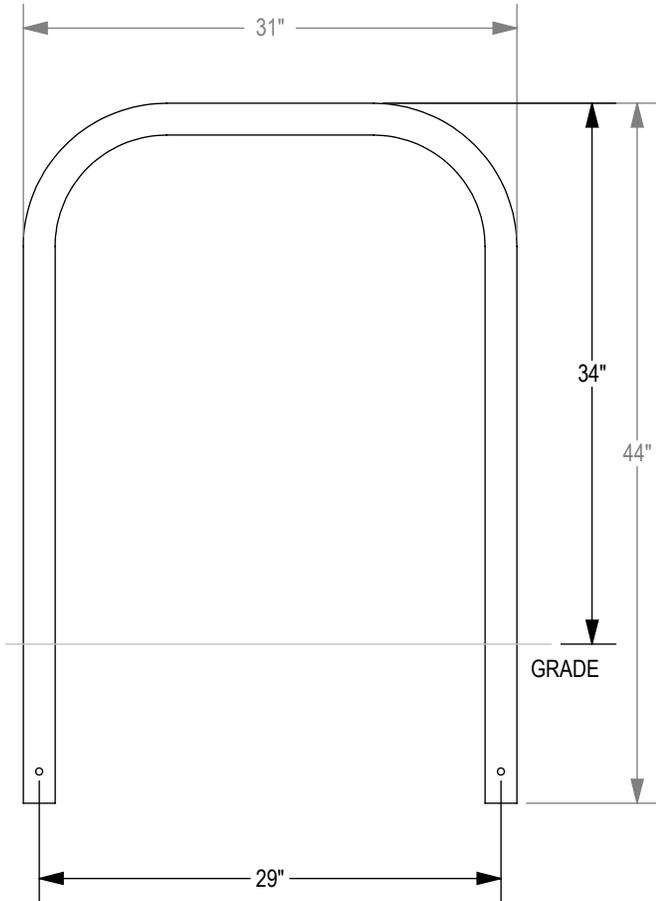
1 Plan  
SCALE: 1/2" = 1'-0"



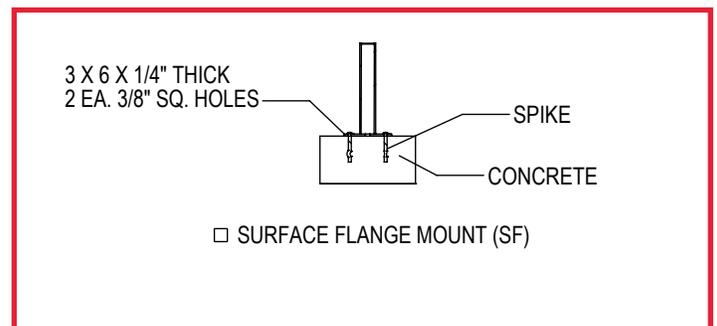
2 Section  
SCALE: 3/8" = 1'-0"



3 Stump Table and Seats\_SF005



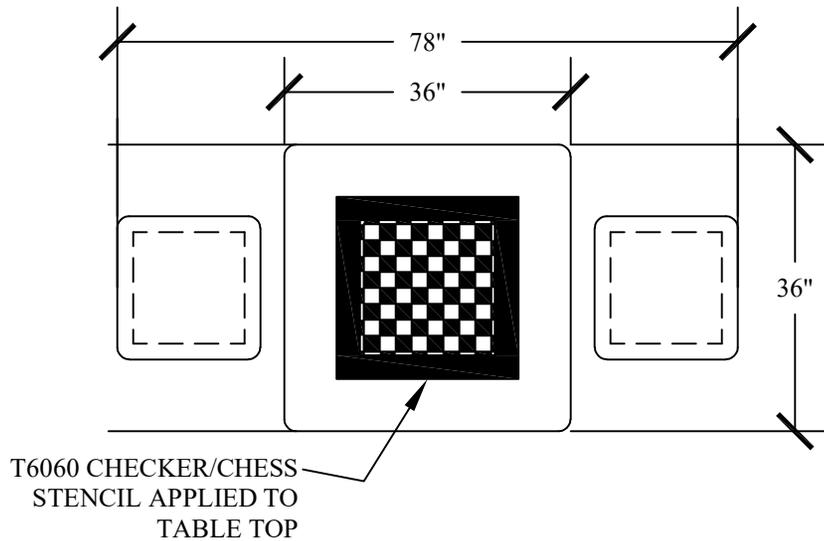
CHECK DESIRED MOUNT



PRODUCT: UX200-IG(SF)  
 DESCRIPTION: 'U' BIKE RACK  
 2 BIKE, SURFACE OR IN GROUND MOUNT  
 DATE: 10-22-18  
 ENG: SMC

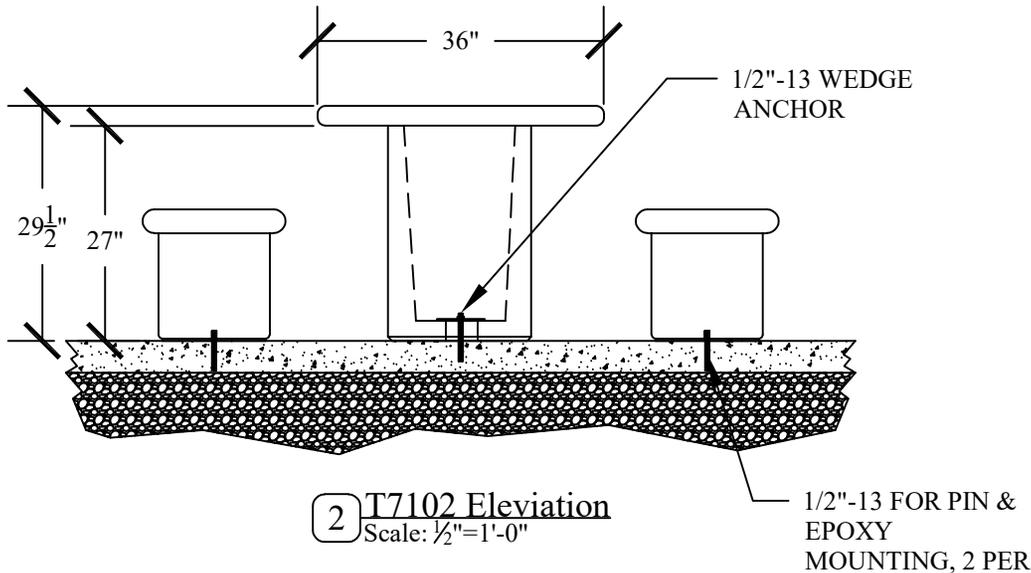
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NOTES:  
 1. INSTALL BIKE RACKS ACCORDING TO MANUFACTURER'S SPECIFICATIONS.  
 2. CONSULTANT TO SELECT COLOR (FINISH), SEE MANUFACTURER'S SPECIFICATIONS.  
 3. SEE SITE PLAN FOR LOCATION OR CONSULT OWNER.



T6060 CHECKER/CHESS  
STENCIL APPLIED TO  
TABLE TOP

1 T7102 Plan View  
Scale: 1/2" = 1'-0"



2 T7102 Elevation  
Scale: 1/2" = 1'-0"

## Specifications

### Overall Dimensions:

Size: Approximately 78" X 36" footprint.  
May vary depending on stool spacing and  
number of stools

Approximate Weight: 1,234 lbs.

### Materials:

**Sand:** Washed Torpedo Sand

**Stone:** 3/8" Washed Gravel

**Cement:** Gray Cement 7 to 7.5 bags per cubic  
yard.

**Admixtures:** Water reducers used to increase  
strength & durability. Chemically entrained air  
(6-8%) causes concrete to be salt and chloride  
resistant. Average strength @ 28 days, 5,000  
psi.

### Curing:

Concrete moist cured indoors before exposure  
to outside elements to improve strength &  
durability.

### Reinforcing:

Rebar placed as required with no less than 1"  
of coverage.

### Finishes:

Standard Finishes, all sandblast (SB). See  
color brochure or visit [www.dotyconcrete.com](http://www.dotyconcrete.com)  
for more information. Special finishes  
available upon request.

### Optional Sealer:

Optional two coats of Acrylic Sealer is used to  
enhance and deepen the color of the finish and  
provides protection against the elements. It  
resists salt & chloride, and makes graffiti  
cleanup easier. Your choice of Gloss Acrylic  
Sealer (ACR1), Non-Gloss Sealer (ACR2), or  
Semi-Gloss Acrylic Sealer (ACR3). There is  
an additional charge for sealer. See Doty &  
Sons brochure for more information.

ALL MATERIALS USED IN THIS  
PRODUCT CONFORM TO APPLICABLE  
ASTM STANDARDS.

**Doty & Sons**  
Concrete Products, Inc.

Quality Products Since 1948

1275 East State Street Sycamore, IL 60178

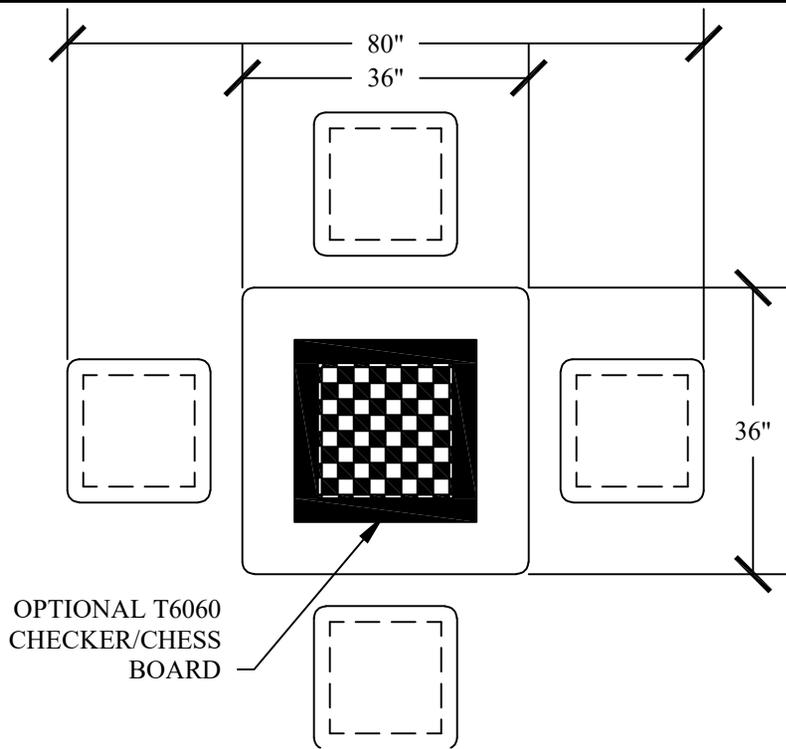
Ph: 800-233-3907 Fx: 815-895-8035

T7102 Table

Specification Sheet

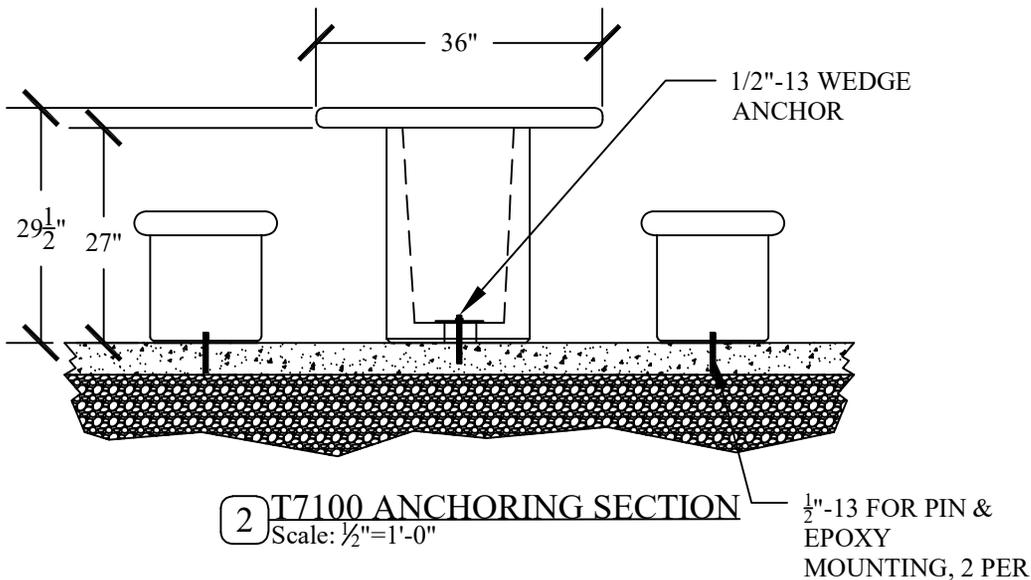
REV.	DATE
Rev. 0	2-11-15

Notes:



OPTIONAL T6060  
CHECKER/CHES  
BOARD

1 T7100 Plan View  
Scale: 1/2"=1'-0"



2 T7100 ANCHORING SECTION  
Scale: 1/2"=1'-0"

**Specifications**

**Overall Dimensions:**

Size: Approximately 78" X 78" footprint.  
May vary depending on stool spacing and number of stools

Approximate Weight: 1,864 lbs.

**Materials:**

**Sand:** Washed Torpedo Sand

**Stone:** 3/8" Washed Gravel

**Cement:** Gray Cement 7 to 7.5 bags per cubic yard.

**Admixtures:** Water reducers used to increase strength & durability. Chemically entrained air (6-8%) causes concrete to be salt and chloride resistant. Average strength @ 28 days, 5,000 psi.

**Curing:**

Concrete moist cured indoors before exposure to outside elements to improve strength & durability.

**Reinforcing:**

Rebar placed as required with no less than 1" of coverage.

**Finishes:**

Standard Finishes, all sandblast (SB). See color brochure or visit [www.dotyconcrete.com](http://www.dotyconcrete.com) for more information. Special finishes available upon request.

**Optional Sealer:**

Optional two coats of Acrylic Sealer is used to enhance and deepen the color of the finish and provides protection against the elements. It resists salt & chloride, and makes graffiti cleanup easier. Your choice of Gloss Acrylic Sealer (ACR1), Non-Gloss Sealer (ACR2), or Semi-Gloss Acrylic Sealer (ACR3). There is an additional charge for sealer. See Doty & Sons brochure for more information.

ALL MATERIALS USED IN THIS PRODUCT CONFORM TO APPLICABLE ASTM STANDARDS.

**Doty & Sons**  
Concrete Products, Inc.

Quality Products Since 1948

1275 East State Street Sycamore, IL 60178

Ph: 800-233-3907 Fx: 815-895-8035

T7100 Table

Specification Sheet

REV.	DATE
Rev. 0	1-26-17

Notes:

**SECTION 12 9353**  
**PICNIC SHELTER - Metal Construction**

1.0 GENERAL

1.1 Description

- A. The work consists of all labor, equipment and materials necessary for purchasing and complete installation of a metal construction picnic shelter as called for in the plans and proposal for installation of complete picnic shelter

1.2 Submittals

- A. Three original sets of Shop Drawings for permit submittal  
B. Structural calculations for permit submittal  
C. Drawings/Calculations to meet the version of IBC that is current in the jurisdiction that will be providing the building permit. It is the manufacturer's responsibility to determine which codes/code version that the building is to be design to meet. The code version is to be indicated on the submittals.  
D. Drawings and calculations are to be sealed by architect/structural engineer licensed in the state of Illinois.

1.3 Shelter System Description

1.2.1 Poligon Metal Hexagon Double Tier Shelter #GXO2-25

- 1.2.2 The pre-engineered package shall be shipped as a pre-fabricated package that shall include the structural frame members, roof material, fasteners, trim and installation instructions. The structure shall be shipped in knocked down bundles. No on-site welding will be required.

1.3 Delivery and Storage

- 1.3.1 Contractor shall order and be responsible for delivery, storage and security of the parts and materials until final acceptance. Unload materials with necessary equipment, store covered out of weather. Inspect parts, compare with manufacturer's bill of material, and report any missing or non-conforming parts to the manufacturer.

1.4 Related Sections

- 1.4.1 Section 32 1313 – Concrete paving

2.0 PRODUCTS

- 2.0.1 Substitutions – **NOTE** – All products listed from the basis of design. Alternate products may be listed in the "material substitution" section of the bid form.

A. When submitting a request for a substitution, provide complete product data for each product as listed in the Submittals Section.

- 2.0.2 The Shelter is to be manufactured by Poligon, 4240 136<sup>th</sup> Ave. Holland, Michigan 49424, (616) 888-3500. Shelter is powder-coated at factory. See drawings attached for general shelter information. These drawings are NOT FOR CONSTRUCTION.

2.04 Equipment

A. All proprietary items shall be considered specified as "or equal". All equivalent substitutions must be approved by Owner's Representative. All fixtures shall be supplied with the complimentary accessories and parts required for proper installation and operation.

B. The Contractor shall supply and install the shelter wholly and completely with all hardware, fixtures, utilities, components and coatings necessary to provide a finished product.

- A. The shelter shall be a Poligon shelter as depicted in the plans or approved equal. The structure shall be attached to the top of the concrete by use of anchor

- bolt(s) furnished by the manufacturer. Anchor bolts shall be inside the column.
- B. The Schedule of Electrical Fixtures is on the plans.
- C. The Schedule of Paint and Coatings is on the plans.
- D. Roofing will be as specified on the plans and related specifications.
- E. All steel parts shall be factory powder coated in the Owner approved color.

### 3.0 EXECUTION

#### 3.1 Installation

- A. Verify that all components and parts have been delivered. If not, contact manufacturer to obtain the correct parts.
- B. The contractor shall not modify equipment
- C. All equipment detailed on the drawings shall be provided and installed per Manufacturers plans and specifications.
- D. The Contractor shall un-crate, clean and assemble all parts as necessary to install complete a usable item.
- E. Contractor shall set the shelter on prepared footings and foundation. Footings and foundations shall be as per details. Foundation will be constructed to local codes, and good construction practices for the specific site conditions. Foundation footings shall be plumb and level with each other.
- F. Remove all stickers, staples, tags and packing materials from the equipment except for those required by law.

#### 3.2 Painting

- A. All coatings shall be applied strictly according to manufacturer's instructions including surface preparation, application method, and timing, use of tack coats, re-coating and curing.
- B. Store paint materials according to manufacturer's instructions.

#### 3.3 Cleaning

- A. Clean and polish exposed surfaces, using materials and methods recommended by manufacturer.

#### 3.4 Protection

- A. Protect accessories against damage during remainder of construction period, complying with manufacturer's directions.
- B. At direction of Owner, repair or replace any damaged fixtures and accessories.

END OF SECTION



REVISIONS			
REV.	DESCRIPTION	BY	DATE
A	INCREASE BUILDING SIZE TO 25'-0"	ML	12/20/2025

PROJECT: CARTWRIGHT PARK

LOCATION: EVANSTON, IL

BUILDING TYPE: GXO2 25 ▲

ROOF TYPE: MULTI-RIB OVER STAINED T & G

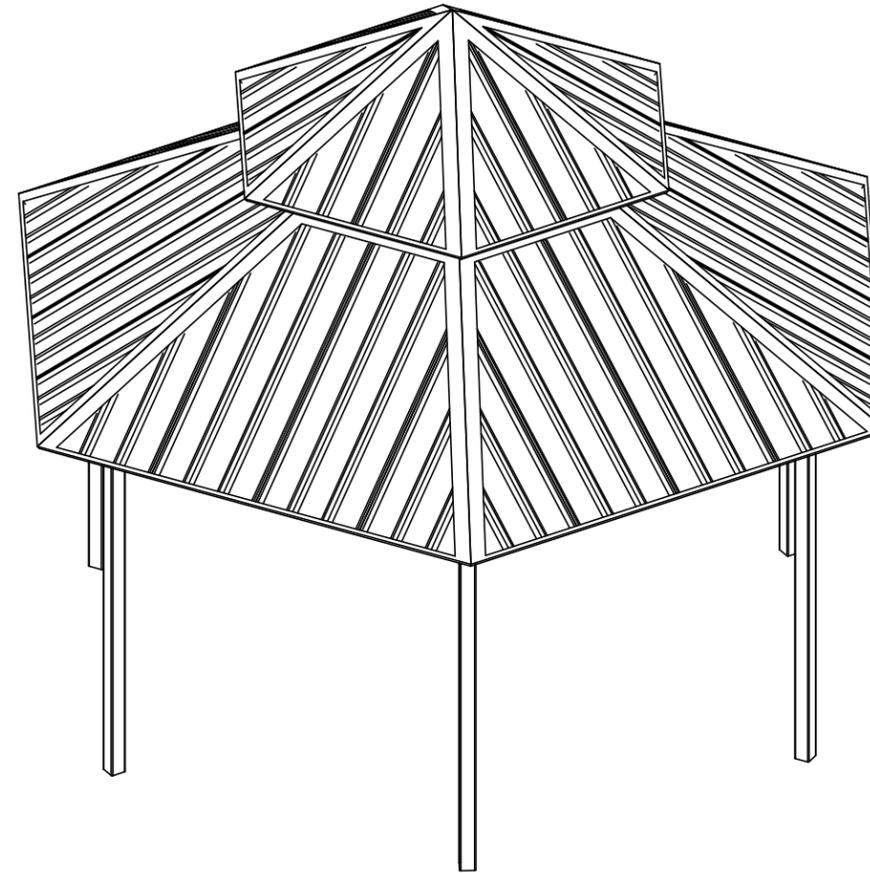
BUILDING NUMBER: P22924

ORDER NUMBER: 84404

QUOTE NUMBER: 26365R1

**DRAWING LIST:**

SHEET NUMBER	DRAWING DESCRIPTION
CS	COVER SHEET
1	ARCHITECTURAL ELEVATIONS
2	STRUCTURAL FRAMING PLAN
3	COLUMN LAYOUT



**CERTIFICATES:**  
 MIAMI-DADE COUNTY CERTIFICATE OF COMPETENCY NO. 24-0903.04  
 PCI (POWDER COATING INSTITUTE) 4000 CERTIFIED

**FABRICATOR APPROVALS:**  
 CITY OF PHOENIX, AZ APPROVED FABRICATOR #C08-2010  
 CITY OF LOS ANGELES, CA APPROVED FABRICATOR #FB01596  
 CITY OF RIVERSIDE, CA APPROVED FABRICATOR #SF\_000042  
 CITY OF HOUSTON, TX APPROVED FABRICATOR #470  
 CLARK COUNTY, NV APPROVED FABRICATOR #264  
 STATE OF UTAH APPROVED FABRICATOR 02008-14  
 AISC APPROVED FABRICATOR C-00026910  
 AWS CERTIFIED WELDING FABRICATOR #240707F

MATERIALS:	DESCRIPTION	ASTM DESIGNATION
	TUBE STEEL	A500 (GRADE B)
	SCHEDULE PIPE	A53 (GRADE B)
	RMT PIPE	A519
	LIGHT GAGE COLD FORMED	A1003 (GRADE 50)
	STRUCTURAL STEEL PLATE	A36
	ROOF PANELS (STEEL)	A653



**GENERAL NOTES:**  
 UNLESS NOTED OTHERWISE, THIS STRUCTURE WAS DESIGNED TO ONLY SUPPORT WHAT IS SHOWN ON THESE DRAWINGS. THE MANUFACTURER MUST BE CONTACTED IF ANYTHING ELSE IS TO BE ATTACHED TO THIS STRUCTURE (WALLS, COLUMN WRAPS, RAILINGS, ETC.) SO THE DESIGN OF THIS STRUCTURE CAN BE REVIEWED AND POSSIBLY REVISED.

UNLESS NOTED OTHERWISE, THIS STRUCTURE WAS DESIGNED ASSUMING A 20' SEPARATION BETWEEN ANY ADJACENT STRUCTURE WITH AN EAVE HEIGHT EQUAL TO OR GREATER THAN THE EAVE HEIGHT OF THIS STRUCTURE. IF THAT SEPARATION DOES NOT EXIST, THE MANUFACTURER MUST BE CONTACTED SO THE DESIGN OF THIS STRUCTURE CAN BE REVIEWED AND POSSIBLY REVISED.

STRUCTURAL STEEL SHALL BE DETAILED, FABRICATED, AND ERECTED IN ACCORDANCE WITH THE LATEST EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) SPECIFICATION MANUAL.

ALL WELDING IS PERFORMED BY AMERICAN WELDING SOCIETY (AWS) CERTIFIED WELDERS AND CONFORMS TO THE LATEST EDITION OF AWS D1.1 OR D1.3 AS REQUIRED.

PARTS SHOWN MAY BE UPGRADED DUE TO STANDARDIZED FABRICATION. REFER TO THE SHIPPING BILL OF MATERIALS FOR POSSIBLE SUBSTITUTIONS.

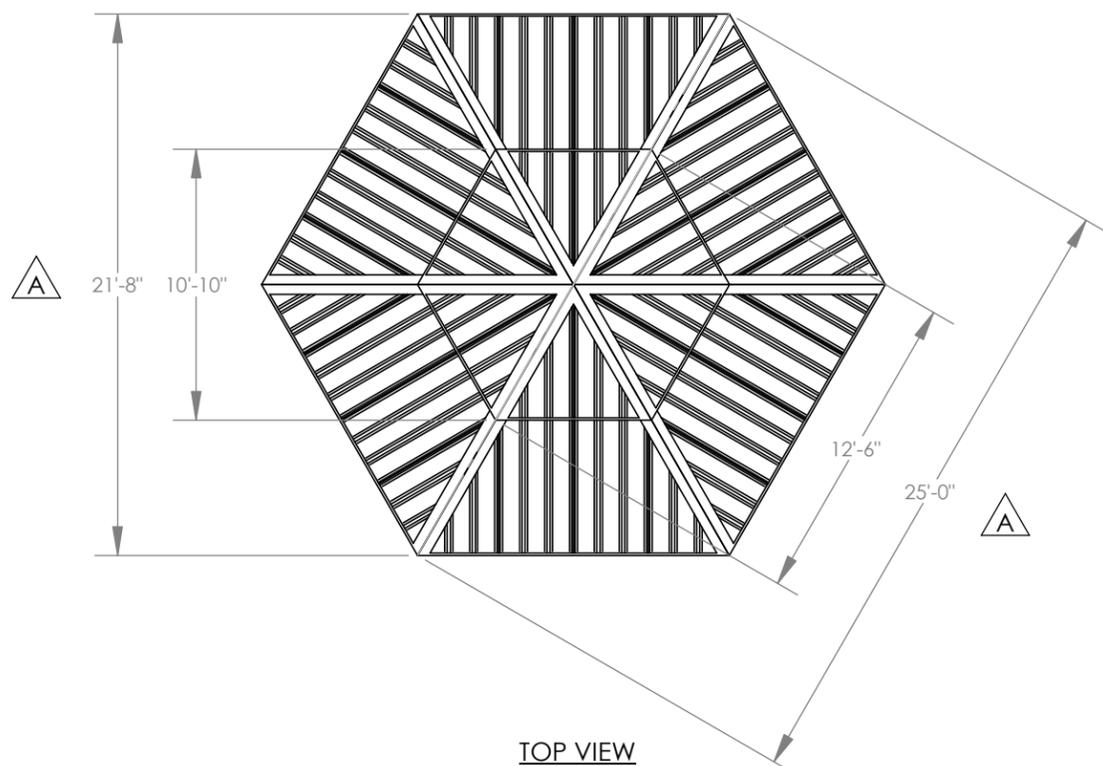
FOR PROPER FIELD INSTALLATION OF THE BUILDING IT IS RECOMMENDED THAT THE PRIMARY FRAME INSTALLER AND THE ROOF INSTALLER HAVE A MINIMUM FIVE (5) YEARS DOCUMENTED EXPERIENCE INSTALLING THIS TYPE OF PRODUCT.

FOR PROPER FIELD INSTALLATION OF THE BUILDING IT IS RECOMMENDED THAT ELECTRIC WIRING, IF REQUIRED, BE RUN THROUGH THE STRUCTURAL MEMBERS BEFORE THE BUILDING IS ERECTED.

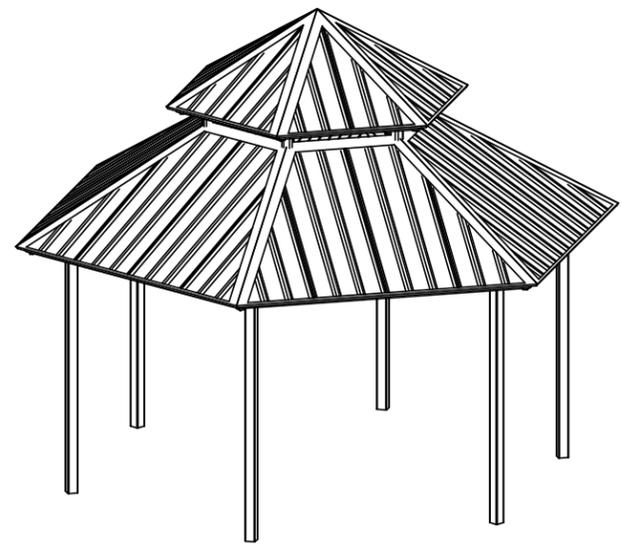
**STOP!!**  
**NOT FOR CONSTRUCTION**  
 USE FOR PRELIMINARY  
 PLANNING AND ESTIMATING  
 ONLY

**poligon**  
 by PORTER CORP  
 WWW.POLIGON.COM  
 MAIN: (616) 888-3500  
 FIELD SUPPORT: (616) 888-3504

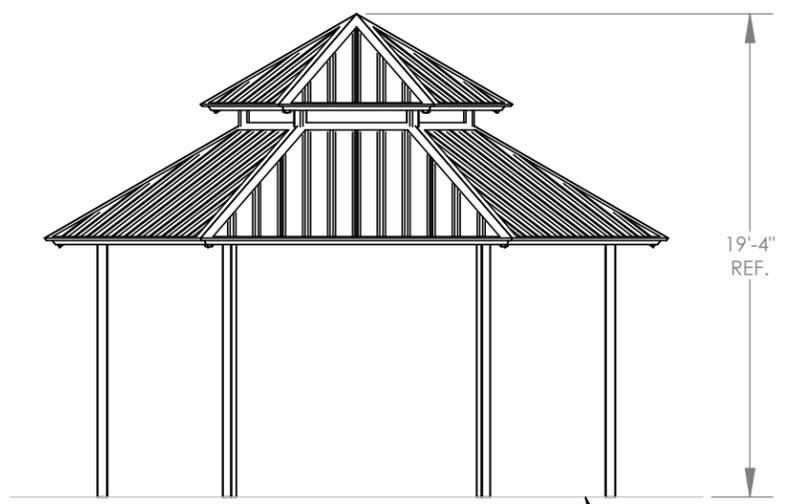
REV LEVEL:	A	SCALE:	1:56
DRAWN BY:	michael.leitch	PRINT DATE:	12/22/2025
		JOB NO.:	P22924
		CAD MODEL:	P22924-E1
PROJECT:	CARTWRIGHT PARK		
PROJECT LOCATION:	EVANSTON, IL		
DRAWING:	COVER SHEET		
SHEET	CS		



TOP VIEW

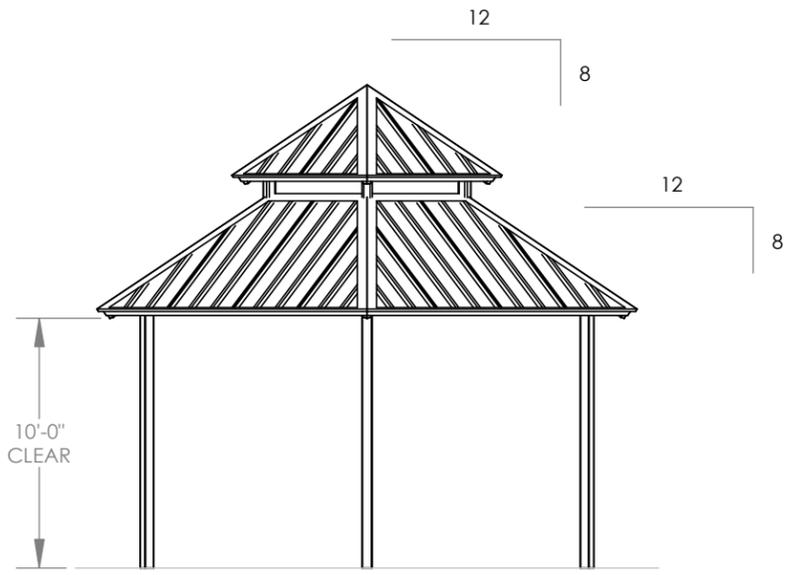


ISOMETRIC VIEW



FRONT VIEW

FINISH GRADE  
(ASSUMED AT CONSTANT  
ELEVATION UNLESS  
OTHERWISE NOTED)



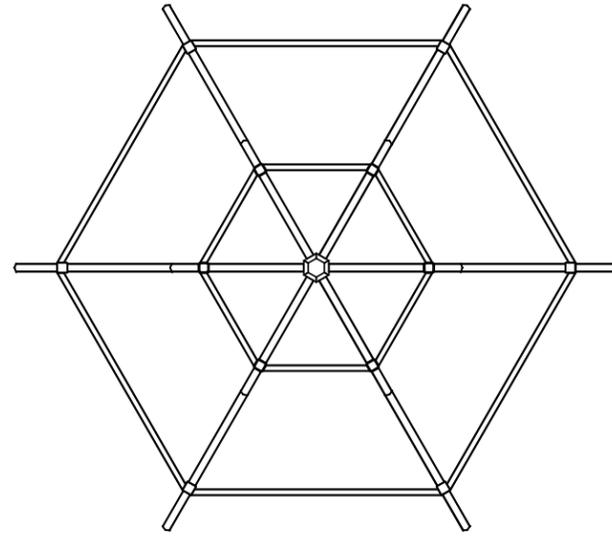
SIDE VIEW

**GENERAL ROOF NOTES:**

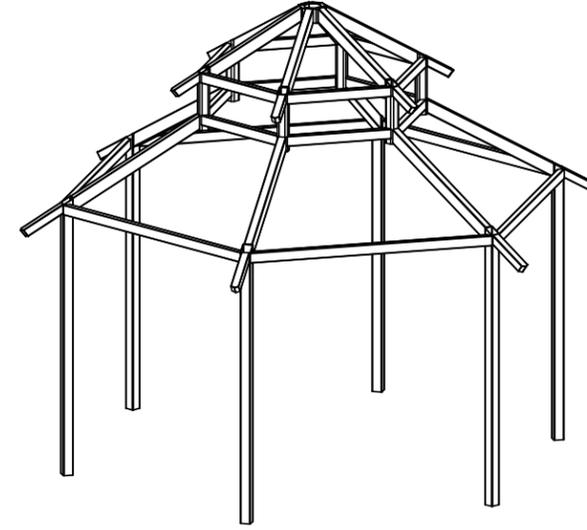
1. METAL ROOFING:
  - 24 GAUGE
  - GALVALUME COATED
  - KYNAR 500 PAINTED
2. TRIM COLOR MATCHES ROOF
3. SEE [POLIGON.COM](http://POLIGON.COM) FOR COLOR OPTIONS

**STOP!!**  
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PLANNING AND ESTIMATING  
ONLY

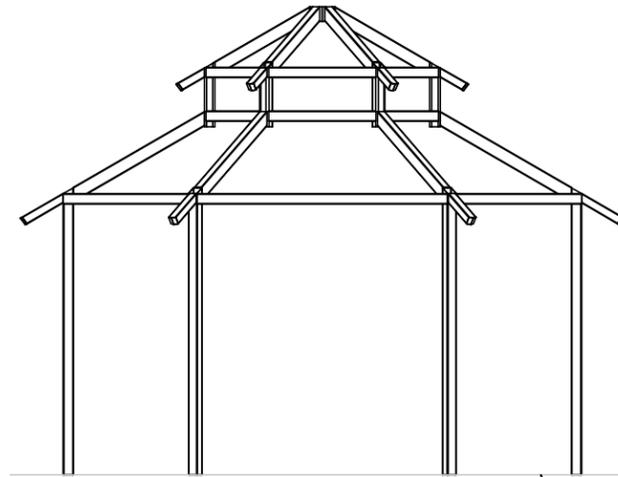
 by PORTER CORP <a href="http://WWW.POLIGON.COM">WWW.POLIGON.COM</a> MAIN: (616) 888-3500 FIELD SUPPORT: (616) 888-3504	REV LEVEL:	A	
	DRAWN BY:	michael.leitch	
PRINT DATE:	12/22/2025	SCALE:	1:88
JOB NO.:	P22924	CAD MODEL:	P22924-E1
PROJECT:	CARTWRIGHT PARK	DRAWING:	ARCHITECTURAL ELEVATIONS
PROJECT LOCATION:	EVANSTON, IL	SHEET	<b>1</b>



TOP VIEW

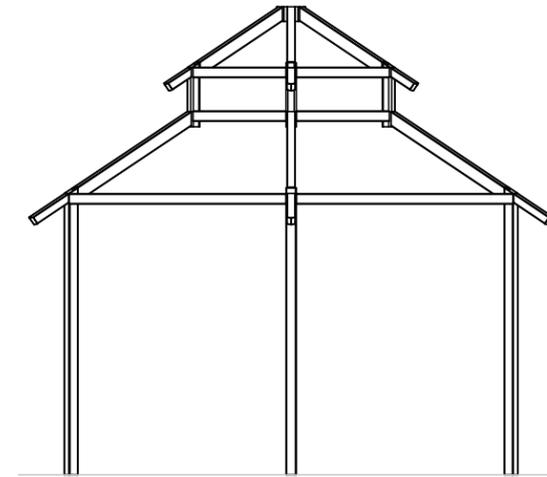


ISOMETRIC VIEW



FRONT VIEW

FINISH GRADE  
(ASSUMED AT CONSTANT  
ELEVATION UNLESS  
OTHERWISE NOTED)

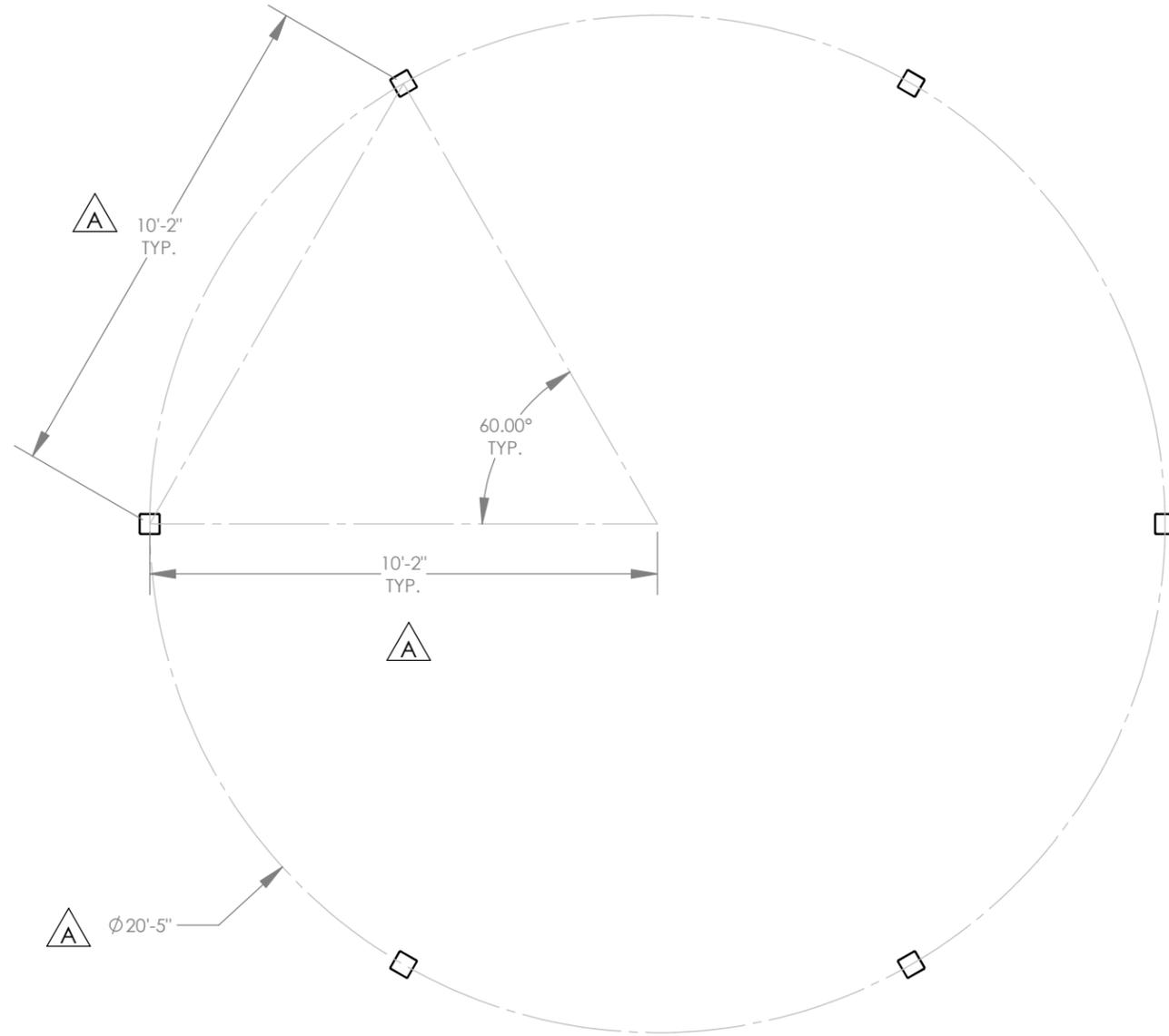


SIDE VIEW

**STOP!!**  
NOT FOR CONSTRUCTION  
USE FOR PRELIMINARY  
PLANNING AND ESTIMATING  
ONLY

REV LEVEL:	A
SCALE:	1:88
DRAWN BY:	michael.leitch
PRINT DATE:	12/22/2025
JOB NO.:	P22924
CAD MODEL:	P22924-E1

PROJECT:	CARTWRIGHT PARK
PROJECT LOCATION:	EVANSTON, IL
DRAWING:	STRUCTURAL FRAMING PLAN



**ANCHOR BOLT LAYOUT NOTES:**

1. ENGINEERING WILL DETERMINE REQUIRED ANCHOR BOLT LAYOUT AFTER ENGINEERING PACKAGE IS ORDERED.
2. CUSTOMER MAY SUGGEST PREFERRED ANCHOR BOLT LAYOUT.

**STOP!!**  
NOT FOR CONSTRUCTION

USE FOR PRELIMINARY  
PLANNING AND ESTIMATING  
ONLY

PROJECT:	CARTWRIGHT PARK	PRINT DATE:	12/22/2025	DRAWN BY:	michael.leitch	REV LEVEL:	A
PROJECT LOCATION:	EVANSTON, IL	JOB NO.:	P22924			SCALE:	1:40
DRAWING:	COLUMN LAYOUT	CAD MODEL:	P22924-E1				

SHEET

**3**

**poligon**<sup>®</sup>



FRAME COLOR: **ALMOND**  
ROOF COLOR: **TUDOR BROWN**  
COLORS MAY VARY SLIGHTLY FROM RENDERED IMAGE

CARTWRIGHT PARK  
EVANSTON, IL  
GXO2 25

**poligon**<sup>®</sup>



FRAME COLOR: **ALMOND**  
ROOF COLOR: **TUDOR BROWN**  
COLORS MAY VARY SLIGHTLY FROM RENDERED IMAGE

CARTWRIGHT PARK  
EVANSTON, IL  
GXO2 25

**SECTION 22 0601**  
**WATER DISTRIBUTION – Drinking Fountains**

1.0 GENERAL

1.1 Description

A. This work consists of equipment, labor and materials required for the complete installation of drinking fountain, buffalo box, hose bib, lock box, and dry well as specified in the plans. All installations shall include all necessary pipes and fittings to complete the systems in proper working order.

1.2 Code and Regulations

A. All work shall be in complete conformance to all local, state and federal codes, ordinances and regulations. **The Contractor is responsible for obtaining all Permits and for scheduling necessary inspections with the appropriate municipality.**

B. During installation, proper signs and barricades shall be used to warn and protect the public against hazards. No trenches or pits shall be left open overnight.

1.3 Submittals

A. Contractor shall submit two copies of specification sheets for drinking fountain, fountain colors, water meter, enclosure, and drywell to Owner/Owner's representative.

B. Contractor is responsible to submit any and all test reports and/or letters of approval or rejection from the appropriate municipality to the Owner/Owner's representative.

C. Submit letter of approval for the final testing of the drinking water following inspection by the appropriate municipality.

2.0 MATERIALS -

2.1 Pipes and Fittings

2.1.1 The Contractor shall use one inch (1") or ¾" Type K, soft temper copper water tubing from the end of the existing water supply line to the drinking fountain. Tubing shall match existing size.

2.1.2 The drinking fountain shall be connected with 1-1/2" PVC drainpipe to proposed dry well.

2.2 Buffalo Box

2.2.1 Gate Valves: Provide as indicated, gate valves, AWWA C500, 175 psi working pressure. Provide threaded, flanged, hub, or other end configurations to suit size of valve and piping connection. Provide inside screw type for use with curb valve box, iron body, bronze-mounted, double disc, parallel seat, non-rising stem. Manufacturer's Clow, Dresser, Fairbanks, Kennedy Valve, Stockham Valves and Waterous. Install as indicated with stems pointed up. Provide valve box to cover underground valves.

2.3 Drinking Fountain

2.3.1 Drinking fountain shall be Most Dependable Fountain #10145SMSSFA Accessible Fountain, or approved equal, with a surface mount base, hose bib, lock box and ADA apron on high bowl, pet fountain and sand strainers.

All fittings and connections necessary for installation shall be supplied by the Contractor.

#### 2.4 Dry Well

- 2.4.1 Dry well shall be a Reinforced Concrete Pipe set on end, 24" diameter, 4' deep with a cast iron frame and lid. Lid to be solid with no grate, #Neenah type R1712 or approved equal. Submit lid cut sheet or shop drawing for approval prior to purchase.

#### 2.5 Water Meter

- 2.5.1 The Contractor shall obtain a water meter from the city. Meter fees (if any) will be paid directly by the Owner. With the Owner's assistance, the Contractor is responsible for processing water service and meter agreements (if any).

#### 2.6 Enclosure

- 2.6.1 Enclosure shall be strong box RPZ enclosure #SBBC-30CR with green powder coated finish. Submit lid cut sheet or shop drawing for approval prior to purchase.

### 3 EXECUTION

#### 3.1 Directional Boring

- 3.1.1 Boring shall be kept away from the base of existing trees a minimum of ten feet (10'), unless otherwise approved by the Owner's Representative.

#### 3.2 Drinking Fountain Installation

- 3.2.1 All pipe shall be laid to a minimum depth of five feet (5') measured from the existing ground surface or established grade to the top of the barrel of the pipe. No pipe shall pass through or come into contact with any other pipe or utility.
- 3.2.2 The drinking fountain installation shall be according to the manufacturer's specifications and shall include all fixtures.

#### 3.3 Buffalo Box Installation

- 3.3.1 Installation of the buffalo box shall be as indicated on the drawings. Only brass adapters will be acceptable for the connection between box and the supply line.

#### 3.4 Water Meter

- 3.4.1 Water meter shall be installed above ground on a 6" concrete pad. Meter shall be installed at a min. height of 18" with brass Tee and Plugs.

#### 3.5 Meter Enclosure

- 3.5.1 Installation of meter enclosure shall be per manufacturer instructions.

#### 3.6 Wastewater Piping

- 3.6.1 The drinking fountain drain to the dry well shall be connected with a drainpipe to the dry well. The drainpipe shall be pitched to provide proper drainage from the fountain without clogging and so that wastewater does not back-up from the dry well.

#### 3.7 Dry Well

- 3.7.1 Install dry well in lawn area. Top of lid to be flush with finished grade of lawn. Bottom to be 4' minimum. Fill 30" of pipe with 2" river rock. Top 18" of pipe to be open.

#### 3.8 Water System Approval

- 3.8.1 When water system is in working order but before it is open to normal use, the lines shall be well flushed, and the system shall be inspected by the City and Owner's Representative. The water shall be tested by an approved

testing service prior to being available for public use. Test results shall be provided to the Owner and Owner' Representative.

END OF SECTION

## **SECTION 26 0500 - BASIC ELECTRICAL REQUIREMENTS**

### **PART 1 - GENERAL**

#### **1.1 SECTION INCLUDES**

- A. Requirements applicable to all Division 26 Sections. Also refer to Division 1 - General Requirements.
- B. All materials and installation methods shall conform to the applicable standards, guidelines and codes referenced herein and within each specification section.

#### **1.2 REFERENCES**

- A. NFPA 70 - National Electrical Code (NEC)

#### **1.3 SCOPE OF WORK**

- A. This Specification and the associated drawings govern furnishing, installing, testing and placing into satisfactory operation the Electrical Systems.
- B. The Contractor shall furnish and install all new materials as indicated on the drawings, and/or in these specifications, and all items required to make his portion of the Electrical Work a finished and working system.

#### **1.4 QUALITY ASSURANCE**

- A. Contractor's Responsibility Prior to Submitting Pricing/Bid Data:
  - 1. The Contractor is responsible for constructing complete and operating systems. The Contractor acknowledges and understands that the Contract Documents are a two-dimensional representation of a three-dimensional object, subject to human interpretation. This representation may include imperfect data, interpreted codes, utility guides, three-dimensional conflicts, and required field coordination items. Such deficiencies can be corrected when identified prior to ordering material and starting installation. The Contractor agrees to carefully study and compare the individual Contract Documents and report at once in writing to the Architect/Engineer any deficiencies the Contractor may discover. The Contractor further agrees to require each subcontractor to likewise study the documents and report at once any deficiencies discovered.

2. The Contractor shall resolve all reported deficiencies with the Architect/Engineer prior to awarding any subcontracts, ordering material, or starting any work with the Contractor's own employees. Any work performed prior to receipt of instructions from the Architect/Engineer will be done at the Contractor's risk.

B. Qualifications:

1. Only products of reputable manufacturers as determined by the Architect/Engineer are acceptable.
2. All Contractors and subcontractors shall employ only workmen who are skilled in their trades.

C. Compliance with Codes, Laws, Ordinances:

1. Conform to all requirements of Evanston, IL Codes, Laws, Ordinances and other regulations having jurisdiction.
2. Conform to all state codes.
3. If there is a discrepancy between the codes and regulations and these specifications, the Architect/Engineer shall determine the method or equipment used.
4. If the Contractor notes, at the time of bidding, any parts of the drawings or specifications that do not comply with the codes or regulations, he shall inform the Architect/Engineer in writing, requesting a clarification. If there is insufficient time for this procedure, he shall submit with his proposal a separate price to make the system comply with the codes and regulations.
5. All changes to the system made after the letting of the contract to comply with codes or the requirements of the Inspector, shall be made by the Contractor without cost to the Owner.
6. If there is a discrepancy between manufacturer's recommendations and these specifications, the manufacturer's recommendations shall govern.

D. Permits, Fees, Taxes, Inspections:

1. Procure all applicable permits and licenses.
2. Abide by all laws, regulations, ordinances, and other rules of the State or Political Subdivision where the work is done, or as required by any duly constituted public authority.
3. Pay all charges for licenses.
4. Pay all fees imposed by State, Municipal, and other regulatory bodies.
5. Pay all charges arising out of required inspections by an authorized body.
6. Pay all charges arising out of required contract document reviews associated with the project and as initiated by the Owner or authorized agency/consultant.

7. Where applicable, all fixtures, equipment and materials shall be listed by Underwriter's Laboratories, Inc. or a nationally recognized testing organization.

E. Examination of Drawings:

1. The drawings for the electrical work are completely diagrammatic, intended to convey the scope of the work and to indicate the general arrangements and locations of equipment, outlets, etc., and the approximate sizes of equipment.
2. Contractor shall determine the exact locations of equipment and rough-ins, and the exact routing of raceways to best fit the layout of the job.
3. Scaling of the drawings will not be sufficient or accurate for determining these locations.
4. Where job conditions require reasonable changes in arrangements and locations, such changes shall be made by the Contractor at no additional cost to the Owner.
5. Because of the scale of the drawings, certain basic items, such as junction boxes, pull boxes, conduit fittings, etc., may not be shown, but where required by other sections of the specifications or required for proper installation of the work, such items shall be furnished and installed.
6. If an item is either shown on the drawings or called for in the specifications, it shall be included in this contract.
7. The Contractor shall determine quantities and quality of material and equipment required from the documents. Where discrepancies arise between drawings, schedules and/or specifications, the greater and better-quality number shall govern.

F. Electronic Media/Files:

1. Construction drawings for this project have been prepared utilizing Revit.
2. Contractors and Subcontractors may request electronic media files of the contract drawings and/or copies of the specifications. Specifications will be provided in PDF format.
3. Upon request for electronic media, the Contractor shall complete and return a signed "Electronic File Transmittal" form provided by IMEG.
4. If the information requested includes plans prepared by others, the Contractor will be responsible for obtaining approval from the appropriate Design Professional for use of that part of the document.
5. The electronic contract documents can be used for preparation of shop drawings and as-built drawings only. The information may not be used in whole or in part for any other project.

6. The information is provided to expedite the project and assist the Contractor with no guarantee by IMEG as to the accuracy or correctness of the information provided. IMEG accepts no responsibility or liability for the Contractor's use of these documents.

G. Field Measurements:

1. Verify all pertinent dimensions at the job site before ordering any conduit, conductors, wireways, fittings, etc.

## 1.5 SUBMITTALS

- A. Submittals shall be required for the items where required in the specifications or on the drawings.

- B. General Submittal Procedures: In addition to the provisions of Division 1, the following are required:

1. Transmittal: Each transmittal shall include the following:

- a. Date
- b. Project title and number
- c. Contractor's name and address
- d. Description of items submitted and relevant specification number
- e. Notations of deviations from the contract documents
- f. Other pertinent data

2. Submittal Cover Sheet: Each submittal shall include a cover sheet containing:

- a. Date
- b. Project title and number
- c. Architect/Engineer
- d. Contractor and subcontractors' names and addresses
- e. Supplier and manufacturer's names and addresses
- f. Description of item submitted (using project nomenclature) and relevant specification number
- g. Notations of deviations from the contract documents
- h. Other pertinent data
- i. Provide space for Contractor's review stamps

3. Composition:

- a. Submittals shall be submitted using specification sections and the project nomenclature for each item.

- b. Individual submittal packages shall be prepared for items in each specification section. All items within a single specification section shall be packaged together where possible. An individual submittal may contain items from multiple specifications sections if the items are intimately linked.
    - c. All sets shall contain an index of the items enclosed with a general topic description on the cover.
  - 4. Content: Submittals shall include all fabrication, erection, layout, and setting drawings; manufacturers' standard drawings; schedules; descriptive literature, catalogs and brochures; performance and test data; wiring and control diagrams; dimensions; shipping and operating weights; shipping splits; service clearances; and all other drawings and descriptive data of materials of construction as may be required to show that the materials, equipment or systems and the location thereof conform to the requirements of the contract documents.
  - 5. Contractor's Approval Stamp:
    - a. The Contractor shall thoroughly review and approve all shop drawings before submitting them to the Architect/Engineer. The Contractor shall stamp, date and sign each submittal certifying it has been reviewed.
    - b. Unstamped submittals will be rejected.
    - c. The Contractor's review shall include, but not be limited to, verification of the following:
      - 1) Only approved manufacturers are used.
      - 2) Addenda items have been incorporated.
      - 3) Catalog numbers and options match those specified.
      - 4) Performance data matches that specified.
      - 5) Electrical characteristics and loads match those specified.
      - 6) Dimensions and service clearances are suitable for the intended location.
      - 7) Constructability issues are resolved (e.g., weights and dimensions are suitable for getting the item into the building and into place, sinks fit into countertops, etc.).
    - d. The Contractor shall review, stamp and approve all subcontractors' submittals as described above.

- e. The Contractor's approval stamp is required on all submittals. Approval will indicate the Contractor's review of all material and a complete understanding of exactly what is to be furnished. Contractor shall clearly mark all deviations from the contract documents on all submittals. If deviations are not marked by the Contractor, then the item shall be required to meet all drawing and specification requirements.
6. Submittal Identification and Markings:
- a. The Contractor shall clearly mark each item with the same nomenclature applied on the drawings or in the specifications.
  - b. The Contractor shall clearly indicate the size, finish, material, etc.
  - c. Where more than one model is shown on a manufacturer's sheet, the Contractor shall clearly indicate exactly which item and which data is intended.
  - d. All marks and identifications on the submittals shall be unambiguous.
7. Schedule submittals to expedite the project. Coordinate submission of related items.
8. Identify variations from the contract documents and product or system limitations that may be detrimental to the successful performance of the completed work.
9. Reproduction of contract documents alone is not acceptable for submittals.
10. Incomplete submittals will be rejected without review. Partial submittals will only be reviewed with prior approval from the Architect/Engineer.
11. Submittals not required by the contract documents may be returned without review.
12. The Architect/Engineer's responsibility shall be to review one set of shop drawing submittals for each product. If the first submittal is incomplete or does not comply with the drawings and/or specifications, the Contractor shall be responsible to bear the cost for the Architect/Engineer to recheck and handle the additional shop drawing submittals.
13. Submittals shall be reviewed and approved by the Architect/Engineer **before** releasing any equipment for manufacture or shipment.
14. Contractor's responsibility for errors, omissions or deviation from the contract documents in submittals is not relieved by the Architect/Engineer's approval.

C. Electronic Submittal Procedures:

- 1. Distribution: Email submittals as attachments to all parties designated by the Architect/Engineer, unless a web-based submittal program is used.

2. Transmittals: Each submittal shall include an individual electronic letter of transmittal.
3. Format: Electronic submittals shall be in PDF format only. Scanned copies, in PDF format, of paper originals are acceptable. Submittals that are not legible will be rejected. Do not set any permission restrictions on files; protected, locked, or secured documents will be rejected.
4. File Names: Electronic submittal file names shall include the relevant specification section number followed by a description of the item submitted, as follows. Where possible, include the transmittal as the first page of the PDF instead of using multiple electronic files.
  - a. Submittal file name: 26 XX XX.description.YYYYMMDD
  - b. Transmittal file name: 26 XX XX.description.YYYYMMDD
5. File Size: Files shall be transmitted via a pre-approved method. Larger files may require an alternative transfer method, which shall also be pre-approved.

#### 1.6 CHANGE ORDERS

- A. A detailed material and labor takeoff shall be prepared for each change order, along with labor rates and markup percentages. Change orders with inadequate breakdown will be rejected.
- B. Change order work shall not proceed until authorized.

#### 1.7 PRODUCT DELIVERY, STORAGE, HANDLING AND MAINTENANCE

- A. Exercise care in transporting and handling to avoid damage to materials. Store materials on the site to prevent damage.
- B. Keep all materials clean, dry and free from damaging environments.
- C. Coordinate the installation of heavy and large equipment with the Owner. If the Contractor does not have prior documented experience in rigging and lifting similar equipment, he/she shall contract with a qualified lifting and rigging service that has similar documented experience. Follow all equipment lifting and support guidelines for handling and moving.
- D. Contractor is responsible for moving equipment into the site. Contractor shall review site prior to bid for path locations and any required modifications to allow movement of equipment.

## 1.8 WARRANTY

- A. Provide one-year warranty for all fixtures, equipment, materials, and workmanship.
- B. The warranty period for all work in this specification Division shall commence on the date of Substantial Completion or successful system performance whichever occurs later. The warranty may also commence if a whole or partial system or any separate piece of equipment or component is put into use for the benefit of any party other than the installing contractor with prior written authorization of the Owner. In this instance, the warranty period shall commence on the date when such whole system, partial system or separate piece of equipment or component is placed in operation and accepted in writing by the Owner.
- C. Warranty requirements extend to correction, without cost to the Owner, of all work found to be defective or nonconforming to the contract documents. The Contractor shall bear the cost of correcting all damage due to defects or nonconformance with contract documents excluding repairs required as a result of improper maintenance or operation, or of normal wear as determined by the Architect/Engineer.

## 1.9 MATERIAL SUBSTITUTION

- A. Where several manufacturers' names are given, the manufacturer for which a catalog number is given is the basis of design and establishes the quality required.
- B. Equivalent equipment manufactured by the other named manufacturers may be used. Contractor shall ensure that all items submitted by these other manufacturers meet all requirements of the drawings and specifications, and fit in the allocated space. The Architect/Engineer shall make the final determination of whether a product is equivalent.
- C. Any material, article or equipment of other unnamed manufacturers which will adequately perform the services and duties imposed by the design and is of a quality equal to or better than the material, article or equipment identified by the drawings and specifications may be used if approval is secured in writing from the Architect/Engineer via addendum. The Contractor assumes all costs incurred as a result of using the offered material, article or equipment, on his part or on the part of other Contractors whose work is affected.
- D. All material substitutions requested after the final addendum must be listed as voluntary changes on the bid form.

## PART 2 - PRODUCTS

### 2.1 GENERAL

- A. All items of material having a similar function shall be of the same manufacturer unless specifically stated otherwise on drawings or elsewhere in specifications.

## PART 3 - EXECUTION

### 3.1 JOBSITE SAFETY

- A. Neither the professional activities of the Architect/Engineer, nor the presence of the Architect/Engineer or his or her employees and subconsultants at a construction site, shall relieve the Contractor and any other entity of their obligations, duties and responsibilities including, but not limited to, construction means, methods, sequence, techniques or procedures necessary for performing, superintending or coordinating all portions of the work of construction in accordance with the contract documents and any health or safety precautions required by any regulatory agencies. The Architect/Engineer and his or her personnel have no authority to exercise any control over any construction contractor or other entity or their employees in connection with their work or any health or safety precautions. The Contractor is solely responsible for jobsite safety. The Architect/Engineer and the Architect/Engineer's consultants shall be indemnified and shall be made additional insureds under the Contractor's general liability insurance policy.

### 3.2 EXCAVATION, FILL, BACKFILL, COMPACTION

- A. General:

- 1. Prior to the commencement of any excavation or digging, the Contractor shall verify all underground utilities with the regional utility locator. Provide prior notice to the locator before excavations. Contact information for most regional utility locaters can be found by calling 811.
- 2. The Contractor shall do all excavating, filling, backfilling, compacting, and restoration in connection with his work.

- B. Excavation:

- 1. Make all excavations to accurate, solid, undisturbed earth, and to proper dimensions.
- 2. If excavations are carried in error below indicated levels, concrete of same strength as specified for the foundations or thoroughly compacted sand-gravel fill, as determined by the Architect/Engineer shall be placed in

such excess excavations under the foundation. Place thoroughly compacted, clean, stable fill in excess excavations under slabs on grade, at the Contractor's expense.

3. Trim bottom and sides of excavations to grades required for foundations.
4. Protect excavations against frost and freezing.
5. Take care in excavating not to damage surrounding structures, equipment or buried pipe. Do not undermine footing or foundation.
6. Perform all trenching in a manner to prevent cave-ins and risk to workmen.
7. Where original surface is pavement or concrete, the surface shall be saw cut to provide clean edges and assist in the surface restoration.
8. If satisfactory bearing soil is not found at the indicated levels, immediately notify the Architect/Engineer or their representative, and do no further work until the Architect/Engineer or their representative gives further instructions.
9. Excavation shall be performed in all ground conditions, including rock, if encountered. Bidders shall visit the premises and determine the soil conditions by actual observations, borings, or other means. The cost of all such inspections, borings, etc., shall be borne by the bidder.
10. If a trench is excavated in rock, a compacted bed with a depth of 3" (minimum) of sand and gravel shall be used to support the conduit unless masonry cradles or encasements are used.
11. Mechanical excavation of the trench to line and grade of the conduit or to the bottom level of masonry cradles or encasements is permitted, unless otherwise indicated on the electrical drawings.
12. Mechanical excavation of the trench to line and grade where direct burial cables are to be installed is permitted provided the excavation is made to a depth to permit installation of the cable on a fine sand bed at least 3 inches deep.

C. Dewatering:

1. Furnish, install, operate and remove all dewatering pumps and pipes needed to keep trenches and pits free of water.

D. Underground Obstructions:

1. If objects not shown on the drawings are encountered, remove, relocate, or perform extra work as directed by the Architect/Engineer.

E. Fill and Backfilling:

1. No rubbish or waste material is permitted for fill or backfill.
2. Furnish all necessary sand for backfilling.
3. Dispose of the excess excavated earth as directed.

4. Backfill materials shall be suitable for required compaction, clean and free of perishable materials, frozen earth, debris, earth with a high void content, and stones greater than 4 inches in diameter. Water is not permitted to rise in unbackfilled trenches.
5. Backfill all trenches and excavations immediately after installing of conduit, or removing forms, unless other protection is directed.
6. Around piers and isolated foundations and structures, backfill and fill shall be placed and consolidated simultaneously on all sides to prevent wedge action and displacement. Spread fill and backfill materials in 6" uniform horizontal layers with each layer compacted separately to required density.
7. For conduits that are not concrete encased, lay all conduits on a compacted bed of sand at least 3" deep. Backfill around conduits with sand, in 6" layers and compact each layer.
8. Backfill with sand up to grade for all conduits under slabs or paved areas. All other conduits shall have sand backfill to 6" above the top of the conduit.
9. Place all backfill above the sand in uniform layers not exceeding 6" deep. Place then carefully and uniformly tamp each layer to eliminate lateral or vertical displacement.
10. Where the fill and backfill will ultimately be under a building, floor or paving, each layer of fill shall be compacted to 95% of the maximum density as determined by AASHTO Designation T-99 or ASTM Designation D-698. Moisture content of soil at time of compaction shall not exceed plus or minus 2% of optimum moisture content as determined by AASHTO T-99 or ASTM D-698 test.
11. After backfilling of trenches, no superficial loads shall be placed on the exposed surface of the backfill until a period of 48 hours has elapsed.

F. Surface Restoration:

1. Where trenches are cut through graded, planted or landscaped areas, the areas shall be restored to the original condition. Replace all planting and landscaping features removed or damaged to its original condition. At least 6" of topsoil shall be applied where disturbed areas are to be seeded or sodded. All lawn areas shall be sodded unless seeding is called out in the drawings or specifications.
2. Concrete or asphalt type pavement, seal coat, rock, gravel or earth surfaces removed or damaged shall be replaced with comparable materials and restored to original condition. Broken edges shall be saw cut and repaired as directed by Architect/Engineer.

### 3.3 PROJECT CLOSEOUT

- A. The following paragraphs supplement the requirements of Division 1.

- B. Final Jobsite Observation:
  - 1. To prevent the Final Jobsite Observation from occurring too early, the Contractor shall review the completion status of the project and certify that the job is ready for the final jobsite observation.
  - 2. It is understood that if the Architect/Engineer finds the job not ready for the final observation and additional trips and observations are required to bring the project to completion, the cost of the additional time and expenses incurred by the Architect/Engineer will be deducted from the Contractor's final payment.
  
- C. The following must be submitted before Architect/Engineer recommends final payment:
  - 1. Operation and maintenance manuals with copies of approved shop drawings.
  - 2. Record documents including drawings and specifications.
  - 3. A report documenting the instructions given to the Owner's representatives complete with the number of hours spent in the instruction. The report shall bear the signature of an authorized agent of this Contractor and shall be signed by the Owner's representatives.
  - 4. Provide spare parts, maintenance, and extra materials in quantities specified in individual specification sections. Deliver to project site and place in location as directed and submit receipt to Architect/Engineer.
  - 5. Start-up reports on all equipment requiring a factory installation or start-up.
  
- D. Circuit Directories:
  - 1. Provide updated custom typed circuit directory for each existing branch circuit panelboard with new or revised circuits per the scope of work. Label shall include equipment name (examples: FIELD #1 - FIRST BASE). Printed copies of the bid document panel schedules are not acceptable as circuit directories.

### 3.4 OPERATION AND MAINTENANCE MANUALS

- A. General:
  - 1. Provide an electronic copy of the O&M manuals as described below for Architect/Engineer's review and approval. The electronic copy shall be corrected as required to address the Architect/Engineer's comments. Once corrected, electronic copies and paper copies shall be distributed as directed by the Architect/Engineer.

2. Approved O&M manuals shall be completed and in the Owner's possession prior to Owner's acceptance and at least 10 days prior to instruction of operating personnel.

B. Electronic Submittal Procedures:

1. Distribution: Email the O&M manual as attachments to all parties designated by the Architect/Engineer.
2. Transmittals: Each submittal shall include an individual electronic letter of transmittal.
3. Format: Electronic submittals shall be in PDF format only. Scanned copies, in PDF format, of paper originals are acceptable. Submittals that are not legible will be rejected. Do not set any permission restrictions on files; protected, locked, or secured documents will be rejected.
4. File Names: Electronic submittal file names shall include the relevant specification section number followed by a description of the item submitted, as follows. Where possible, include the transmittal as the first page of the PDF instead of using multiple electronic files.
  - a. O&M file name: O&M.div26.contractor.YYYYMMDD
  - b. Transmittal file name:  
O&Mtransmittal.div26.contractor.YYYYMMDD
5. File Size: Files shall be transmitted via a pre-approved method. Larger files may require an alternative transfer method, which shall also be pre-approved.
6. All text shall be searchable.
7. Bookmarks shall be used, dividing information first by specification section, then systems, major equipment and finally individual items. All bookmark titles shall include the nomenclature used in the construction documents and shall be an active link to the first page of the section being referenced.

C. Operation and Maintenance Instructions shall include:

1. Title Page: Include title page with project title, Architect, Engineer, Contractor, all subcontractors, and major equipment suppliers, with addresses, telephone numbers, website addresses, email addresses and point of contacts. Website URLs and email addresses shall be active links in the electronic submittal.
2. Table of Contents: Include a table of contents describing specification section, systems, major equipment, and individual items.
3. Copies of all final approved shop drawings and submittals. Include Architect's/Engineer's shop drawing review comments. Insert the individual

shop drawing directly after the Operation and Maintenance information for the item(s) in the review form.

4. Copies of all factory inspections and/or equipment startup reports.
5. Copies of warranties.
6. Schematic wiring diagrams of the equipment that have been updated for field conditions. Field wiring shall have label numbers to match drawings.
7. Dimensional drawings of equipment.
8. Detailed parts lists with lists of suppliers.
9. Operating procedures for each system.
10. Maintenance schedule and procedures. Include a chart listing maintenance requirements and frequency.
11. Replacement parts and service material requirements for each system and the frequency of service required.
12. Instruction books, cards, and manuals furnished with the equipment.
13. Copies of all panel schedules in electronic Microsoft Excel spreadsheet (.xlsx) file. Each panelboard shall be a separate tab in the workbook.

### 3.5 RECORD DOCUMENTS

- A. The following paragraphs supplement the requirements of Division 1.
- B. Maintain at the job site a separate and complete set of electrical drawings and specifications with all changes made to the systems clearly and permanently marked in complete detail.
- C. Mark drawings and specifications to indicate approved substitutions; Change Orders, and actual equipment and materials used. All Change Orders, RFI responses, Clarifications and other supplemental instructions shall be marked on the documents. Record documents that merely reference the existence of the above items are not acceptable. Should this Contractor fail to complete Record Documents as required by this contract, this Contractor shall reimburse Architect/Engineer for all costs to develop record documents that comply with this requirement. Reimbursement shall be made at the Architect/Engineer's hourly rates in effect at the time of work.
- D. Record changes daily and keep the marked drawings available for the Architect/Engineer's examination at any normal work time.
- E. Upon completing the job, and before final payment is made, give the marked-up drawings to the Architect/Engineer.
- F. Record actual routing of all conduits routed below grade.

### 3.6 SYSTEM STARTING AND ADJUSTING

- A. The electrical systems shall be complete and operating. System startup, testing, adjusting, and balancing to obtain satisfactory system performance is the responsibility of the Contractor. This includes all calibration and adjustment of electrical controls, balancing of loads, troubleshooting and verification of software, and final adjustments that may be needed.
- B. Complete all manufacturer-recommended startup procedures and checklists to verify proper equipment operation and does not pose a danger to personnel or property.
- C. All operating conditions and control sequences shall be tested during the start-up period. Testing all control relays.
- D. The Contractor, subcontractors, and equipment suppliers shall have skilled technicians to ensure that all systems perform properly. If the Architect/Engineer is requested to visit the job site for trouble shooting, assisting in start-up, obtaining satisfactory equipment operation, resolving installation and/or workmanship problems, equipment substitution issues or unsatisfactory system performance, including call backs during the warranty period, through no fault of the design; the Contractor shall reimburse the Owner on a time and materials basis for services rendered at the Architect/Engineer's standard hourly rates in effect when the services are requested. The Contractor shall pay the Owner for services required that are product, installation or workmanship related. Payment is due within 30 days after services are rendered.

### 3.7 FIELD QUALITY CONTROL

- A. All cables and wires shall be tested for shorts and grounds following installation and connection to devices. Replace shorted or grounded wires and cables.
- B. Any wiring device, electrical apparatus or luminaire, if grounded or shorted on any integral "live" part, shall have all defective parts or materials replaced.
- C. Each conductor shall be tested and shall test free of short circuits and grounds and have an insulation value not less than NEC Standards. Take readings between conductors, and between conductors and ground.
- D. Give other equipment furnished and installed by the Contractor all standard tests normally made to assure that the equipment is electrically sound, all connections properly made, voltage complies with equipment nameplate rating, and full load amperes are within equipment rating.

- E. If the results obtained in the tests are not satisfactory, make adjustments, replacements, and changes as needed. Then repeat the tests, and make additional tests, as the Architect/Engineer or authority having jurisdiction deems necessary.

**END OF SECTION 26 0500**

## **SECTION 26 0505 - ELECTRICAL DEMOLITION**

### **PART 1 - GENERAL**

#### **1.1 SECTION INCLUDES**

- A. Electrical demolition

### **PART 2 - PRODUCTS**

#### **2.1 GENERAL**

- A. Materials and equipment for extending work shall be as specified in individual Sections.

### **PART 3 - EXECUTION**

#### **3.1 EXAMINATION**

- A. THE DRAWINGS ARE INTENDED TO INDICATE THE SCOPE OF WORK REQUIRED AND DO NOT INDICATE EVERY BOX, CONDUIT, OR WIRE THAT MUST BE REMOVED. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID AND VERIFY EXISTING CONDITIONS.
- B. Verify that abandoned wiring and equipment serve only abandoned equipment. Extend conduit and wire to equipment that will remain in operation following demolition. Extension of conduit and wire to equipment shall be compatible with the surrounding area. Extended conduit and conductors to match existing size and material.

#### **3.2 PREPARATION**

- A. The Contractor shall obtain approval from the Owner before turning off power to any circuits. Coordinate all outages with Owner.

#### **3.3 DEMOLITION AND EXTENSION OF EXISTING ELECTRICAL WORK**

- A. Remove, relocate, and extend existing installations to accommodate new construction.
- B. Disconnect and remove devices that are to be demolished. Remove brackets, stems, hangers, and other accessories.
- C. Repair adjacent construction and finishes damaged during demolition and extension work.

- D. Extend existing installations using materials and methods compatible with existing electrical installations, or as specified. Extended conduit and conductors to match existing size and material. HID and fluorescent lamps, determined by the Toxicity Characteristic Leachate procedure (TCLP), to be hazardous waste shall be disposed of in an EPA-permitted hazardous waste disposal facility or by a permitted lamp recycler.
- E. Regulatory Requirements: Comply with governing EPA notification regulations before beginning demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- F. This Contractor is responsible for all costs incurred in repair, relocations, or replacement of any cables, conduits, or other services if damaged without proper investigation.

#### 3.4 CLEANING AND REPAIR

- A. Clean and repair existing materials and equipment that remain or are to be reused.

**END OF SECTION 26 0505**

## **SECTION 26 0513 - WIRE AND CABLE**

### **PART 1 - GENERAL**

#### **1.1 SECTION INCLUDES**

- A. Wire
- B. Cabling for remote control, signal, and power limited circuits

#### **1.2 REFERENCES**

- A. NEMA WC 70 - Power Cables Rated 2,000V or Less for the Distribution of Electrical Energy
- B. UL 44 – Thermoset-Insulated Wires and Cables
- C. UL 83 – Thermoplastic-Insulated Wires and Cables
- D. UL 1581 – Standard for Electrical Wires, Cables, and Flexible Cords

### **PART 2 - PRODUCTS**

#### **2.1 BUILDING WIRE**

- A. Feeders and Branch Circuits: Copper, stranded conductor, 600-volt insulation, THHN/THWN or XHHW-2. Smaller than 8 AWG may be solid or stranded, unless otherwise noted.
- B. Control Circuits: Copper, stranded conductor 600-volt insulation, THHN/THWN.
- C. Each new branch circuit shall have a dedicated neutral conductor. Neutral conductors shall be considered current-carrying conductors for wire derating.

#### **2.2 CABLING FOR REMOTE CONTROL, SIGNAL, AND POWER LIMITED CIRCUITS**

- A. Wire for specialized systems shall be as designated on the drawings, or elsewhere in these specifications. If not designated on the drawings or specifications, the system manufacturer's recommendations shall be followed.

### **PART 3 - EXECUTION**

#### **3.1 WIRE AND CABLE INSTALLATION SCHEDULE**

- A. All locations: Wire shall be installed in raceway.

#### **3.2 GENERAL WIRING METHODS**

- A. Wire sizes shall be as noted on the drawings. Use no wire smaller than 12 AWG for lighting circuits, and no smaller than 14 AWG for control wiring.

- B. The ampacity of multiple conductors in one conduit shall be derated per NEC 310.
- C. Splice only in junction boxes.
- D. Neatly train and lace wiring inside boxes, equipment, and panelboards.
- E. Make conductor lengths for parallel circuits equal.
- F. Care shall be taken so as not to subject the cable or wire to high mechanical stresses that would cause damage to the wire and cable.

### 3.3 WIRING INSTALLATION IN RACEWAYS

- A. Pulling shall be continuous without unnecessary stops and starts with wire or cable only partially through raceway.
- B. Where reels of cable or wire are used, they shall be set up on jacks close to the point where the wire or cable enters the conduit or duct so that the cable or wire may be unreeled and run into the conduit or duct with a minimum of change in the direction of the bend.
- C. Care shall be taken so that long pulls of wire or pulls around several bends are not made where the wire may be permanently stretched and the insulation damaged.
- D. Only nylon rope shall be permitted to pull cables into conduit and ducts.
- E. Completely and thoroughly swab raceway system before installing conductors.

### 3.4 WIRING CONNECTIONS AND TERMINATIONS

- A. Splice and tap only in accessible junction boxes.
- B. Use solderless, tin-plated copper, compression terminals (lugs) applied with circumferential crimp for conductor terminations, 8 AWG and larger.
- C. Use solderless, tin-plated, compression terminals (lugs) applied with indenter crimp for copper conductor terminations, 10 AWG and smaller.
- D. Use solderless pressure connectors with insulating covers for copper wire splices and taps, 8 AWG and smaller. For 10 AWG and smaller, use insulated spring wire connectors with plastic caps.
- E. Use compression connectors applied with circumferential crimp for conductor splices and taps, 6 AWG and larger. Tape uninsulated conductors and connectors with electrical tape to 150 percent of the insulation value of conductor.
- F. Thoroughly clean wires before installing lugs and connectors.
- G. Make splices, taps and terminations to carry full ampacity of conductors without perceptible temperature rise.

### 3.5 FIELD QUALITY CONTROL

- A. Inspect wire and cable for physical damage and proper connection.
- B. Torque test conductor connections and terminations to manufacturer's recommended values.
- C. Perform continuity test on all power and equipment branch circuit conductors. Verify proper phasing connections.
- D. It is the Contractor's responsibility to provide adequate physical protection to prevent foreign material application or contact with any wire. Foreign material is defined as any material that would negatively impact the validity of the manufacturer's performance warranty.

**END OF SECTION 26 0513**

## **SECTION 26 0526 - GROUNDING AND BONDING**

### **PART 1 - GENERAL**

#### **1.1 SECTION INCLUDES**

- A. Equipment grounding system
- B. Bonding system
- C. Grounding electrode system

#### **1.2 QUALITY ASSURANCE**

- A. Electrical Components, Devices, and Accessories: Listed and labeled as defined in Electrical Code, Article 100, by a testing agency acceptable to authorities having jurisdiction, and marked for intended use.
- B. Comply with UL 467 Grounding and Bonding Equipment.
- C. Comply with NFPA 780 and UL 96 when interconnecting with lightning protection system.

#### **1.3 REFERENCES**

- A. NFPA 70 - National Electrical Code (NEC)

#### **1.4 SUBMITTALS**

- A. Product Data: For the following:
  - 1. Ground rods.
- B. Submit product data for ground bars.

#### **1.5 SUMMARY**

- A. This section includes grounding of electrical systems and equipment. Grounding requirements specified in this Section may be supplemented by special requirements of systems described in other Sections.

### **PART 2 - PRODUCTS**

#### **2.1 GROUNDING CONDUCTORS**

- A. For insulated conductors, comply with Division 26 Section 26 05 13 "Wire and Cable".

- B. Material: Copper.
- C. Equipment Grounding Conductors: Match the material and insulation type of corresponding circuit conductors.
- D. Grounding Electrode Conductors: Stranded copper..
- E. Underground Conductors: Bare, tinned, stranded, copper.
- F. Copper Bonding Conductors: As follows:
  1. Bonding Cable: 28 kcmil, 14 strands of No. 17 AWG copper conductor, 1/4 inch in diameter.
  2. Bonding Conductor: No. 4 or No. 6 AWG, stranded copper conductor.
  3. Bonding Jumper: Bare copper tape, braided bare copper conductors, terminated with copper ferrules; 1-5/8 inches wide and 1/16 inch thick.
  4. Tinned Bonding Jumper: Tinned-copper tape, braided copper conductors, terminated with copper ferrules; 1-5/8 inches wide and 1/16 inch thick.

## 2.2 CONNECTOR PRODUCTS

- A. Comply with UL 467; listed for use for specific types, sizes, and combinations of conductors and connected items.
- B. Connectors: Hydraulic compression type or Exothermic-welded type, in kit form, and selected per manufacturer's written instructions.
- C. Bolted Connectors: Bolted-pressure-type connectors.

## 2.3 GROUNDING ELECTRODES

- A. Ground Rods Copper-clad steel.

## PART 3 - EXECUTION

### 3.1 CONNECTIONS

- A. General: Make connections so galvanic action or electrolysis possibility is minimized. Select connectors, connection hardware, conductors, and connection methods so metals in direct contact will be galvanically compatible.
  1. Use electroplated or hot-tin-coated materials to ensure high conductivity and to make contact points closer to order of galvanic series.
  2. Make connections with clean, bare metal at points of contact.
  3. Make aluminum-to-steel connections with stainless-steel separators and mechanical clamps.
  4. Make aluminum-to-galvanized steel connections with tin-plated copper jumpers and mechanical clamps.

5. Coat and seal connections having dissimilar metals with inert material to prevent future penetration of moisture to contact surfaces.
  - B. Exothermic-Welded Connections: Comply with manufacturer's written instructions. Welds that are puffed up or that show convex surfaces indicating improper cleaning are not acceptable.
  - C. Compression-Type Connections: Use hydraulic compression tools to provide correct circumferential pressure for compression connectors. Use tools and dies recommended by connector manufacturer. Provide embossing die code or other standard method to make a visible indication that a connector has been adequately compressed on grounding conductor.
  - D. Equipment Grounding Conductor Terminations: For No. 8 AWG and larger, use pressure-type grounding lugs. No. 10 AWG and smaller grounding conductors may be terminated with winged pressure-type connectors.
  - E. Noncontact Metal Raceway Terminations: If metallic raceways terminate at metal housings without mechanical and electrical connection to housing, terminate each conduit with a grounding bushing. Connect grounding bushings with a bare grounding conductor to grounding bus or terminal in housing. Bond electrically non-continuous conduits at entrances and exits with grounding bushings and bare grounding conductors, unless otherwise indicated.
  - F. Underground Connections: Exothermic-welded connections.
  - G. Connections at back boxes, junction boxes, pull boxes, and equipment terminations: The equipment grounding conductor(s) associated with all circuits in the box shall be connected together and to the box using a suitable grounding screw. The removal of the respective receptacle, luminaire, or other device served by the box shall not interrupt the grounding continuity. The connection to the non-metallic boxes shall be made to any metallic fitting or device requiring grounding.
  - H. Tighten screws and bolts for grounding and bonding connectors and terminals according to manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486A and UL 486B.
  - I. Moisture Protection: If insulated grounding conductors are connected to ground rods or grounding buses, insulate entire area of connection and seal against moisture penetration of insulation and cable.
- 3.2 INSTALLATION
- A. Use only copper conductors for both insulated and bare grounding conductors in direct contact with earth, concrete, masonry, crushed stone, and similar materials.
  - B. Grounding Conductors: Route along shortest and straightest paths possible, unless otherwise indicated. Avoid obstructing access or placing conductors where they may be subjected to strain, impact, or damage. Each grounding conductor that passes through a below grade wall must be provided with a waterstop.

- C. Bonding Straps and Jumpers: Install so vibration by equipment mounted on vibration isolation hangers and supports is not transmitted to rigidly mounted equipment. Use exothermic-welded connectors for outdoor locations, unless a disconnect-type connection is required; then use a bolted clamp. Bond straps directly to the basic structure, taking care not to penetrate any adjacent parts. Install straps only in locations accessible for maintenance.
- D. In raceways, use insulated equipment grounding conductors.
- E. Underground Grounding Conductors: Use copper conductor, No. 2/0 AWG minimum. Bury at least 24 inches below grade or bury 12 inches above duct bank when installed as part of the duct bank.

### 3.3 EQUIPMENT GROUNDING SYSTEM

- A. Comply with Electrical Code, for types, sizes, and quantities of equipment grounding conductors, unless specific types, larger sizes, or more conductors than required by Electrical Code are indicated.
- B. Install equipment grounding conductors in all feeders and circuits. Terminate each end on a grounding lug or bus.

### 3.4 BONDING SYSTEM

- A. Metal Poles Supporting Outdoor Lighting Fixtures > 15 feet: Provide a grounding electrode in addition to installing a separate equipment grounding conductor with supply branch-circuit conductors.

### 3.5 GROUNDING ELECTRODE SYSTEM

- A. Provide bonding at Utility Company's metering equipment.
- B. Ground Rods: Install at least two rods spaced at least 20 feet from each other and located at least the same distance from other grounding electrodes.
  - 1. Drive ground rods until tops are 12 inches below finished floor or final grade, unless otherwise indicated.
  - 2. Interconnect ground rods with grounding electrode conductors. Use exothermic welds, except at test wells and as otherwise indicated. Make connections without exposing steel or damaging copper coating.

3.6 FIELD QUALITY CONTROL

- A. Inspect grounding and bonding system conductors and connections for tightness and proper installation.
  - 1. Measure ground resistance from system neutral connection at service entrance to convenient ground reference points using suitable ground testing equipment. Resistance shall not exceed 5 ohms.

**END OF SECTION 26 0526**

## **SECTION 26 0527 - SUPPORTING DEVICES**

### **PART 1 - GENERAL**

#### **1.1 SECTION INCLUDES**

- A. Conduit and Equipment Supports
- B. Fastening Hardware
- C. Concrete Housekeeping Pads

#### **1.2 QUALITY ASSURANCE**

- A. Support systems shall be adequate for weight of equipment and conduit, including wiring, which they carry.

#### **1.3 COORDINATION**

- A. Coordinate size, shape and location of concrete pads with equipment.

### **PART 2 - PRODUCTS**

#### **2.1 MANUFACTURERS**

- A. Allied Support Systems
- B. Cooper B-Line
- C. Erico, Inc.
- D. Hilti
- E. Power Fasteners
- F. Orbit Industries

#### **2.2 MATERIAL**

- A. Support Channel: Hot-dip galvanized stainless steel for wet/damp locations; painted steel for interior/dry locations. All field cut ends shall be touched up with matching finish to inhibit rusting.
- B. Hardware: Corrosion resistant.

C. Anchorage and Structural Attachment Components:

1. Strength: Defined in reports by ICBO Evaluation Service or another agency acceptable to Authorities Having Jurisdiction.
  - a. Structural Safety Factor: Strength in tension and shear of components used shall be at least two times the maximum seismic forces to which they will be subjected.
2. Through Bolts: Structural type, hex head, high strength. Comply with ASTM A 325.
3. Welding Lugs: Comply with MSS-SP-69, Type 57.
4. Concrete Anchors: Fasten to concrete using cast-in or post-installed anchors designed per the requirements of Appendix D. Post-installed anchors shall be qualified for use in cracked concrete by ACI-355.2.

D. Concrete Housekeeping Pads:

1. Concrete materials and workmanship required for the Contractor's work shall be provided by the Contractor. Materials and workmanship shall conform to the applicable standards of the Portland Cement Association. Reinforce with 6" x 6", W1.4-W1.4 welded wire fabric. Concrete shall withstand 3,000 pounds compression per square inch at twenty-eight days.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Fabricate supports from structural steel or steel channel, rigidly welded or bolted to present a neat appearance. Use hexagon head bolts with spring lock washers under all nuts.
- B. Install cabinets and panelboards with minimum of four anchors.
- C. Refer to Section 26 05 33 for special conduit supporting requirements.

### **END OF SECTION 26 0527**

## SECTION 26 0533 - CONDUIT AND BOXES

### PART 1 - GENERAL

#### 1.1 SECTION INCLUDES

- A. Rigid metallic conduit and fittings (RMC)
- B. Intermediate metallic conduit and fittings (IMC)
- C. Electrical metallic tubing and fittings (EMT)
- D. Flexible metallic conduit and fittings (FMC)
- E. Liquidtight flexible metallic conduit and fittings (LFMC)
- F. Rigid polyvinyl chloride conduit and fittings (PVC)
- G. High density polyethylene conduit and fittings (HDPE)
- H. Reinforced thermosetting resin conduit (RTRC)
- I. Handholes
- J. Pull and junction boxes

#### 1.2 REFERENCES

- A. American National Standards Institute (ANSI):
  - 1. ANSI C80.1 - Rigid Steel Conduit, Zinc-Coated
  - 2. ANSI C80.3 - Electrical Metallic Tubing, Zinc-Coated and Fittings
  - 3. ANSI C80.4 - Fittings for Rigid Metal Conduit and Electrical Metallic Tubing
  - 4. ANSI C80.6 – Intermediate Metal Conduit, Zinc Coated
  - 5. ANSI/NEMA OS 1 - Sheet-Steel Outlet Boxes, Device Boxes, Covers and Box Supports
- B. Federal Specifications (FS):
  - 1. A–A–50553A – Fittings for Conduit, Metal, Rigid, (Thick-Wall and Thin-Wall (EMT) Type
  - 2. A–A–55810 – Specification for Flexible Metal Conduit
- C. NECA “Standards of Installation”
- D. National Electrical Manufacturers Association (NEMA):
  - 1. ANSI/NEMA FB 1 – Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit, Electrical Metallic Tubing and Cable
  - 2. RN 1 – Polyvinyl chloride (PVC) Externally Coated Galvanized Rigid Steel Conduit, Rigid Aluminum Conduit, and Intermediate Metal Conduit
  - 3. TC 2 – Electrical Polyvinyl Chloride (PVC) Conduit

4. TC 9 – Fittings for PVC Plastic Utilities Duct for Underground Installation
- E. Underwriters Laboratories (UL): Applicable Listings
1. UL 1 – Flexible Metal Conduit
  2. UL 6 – Rigid Metal Conduit
  3. UL514-B – Conduit Tubing and Cable Fittings
  4. UL651-A – Type EB and a PVC Conduit and HDPE Conduit
  5. UL651-B – Continuous Length HDPE Conduit
  6. UL746A – Standard for Polymeric Materials – Short Term Property Evaluations
  7. UL797 – Electrical Metal Tubing
  8. UL1242 – Intermediate Metal Conduit
- F. Definitions:
1. Fittings: Conduit connection or coupling.
  2. Body: Enlarged fittings with opening allowing access to the conductors for pulling purposes only.

## PART 2 - PRODUCTS

### 2.1 RIGID METALLIC CONDUIT (RMC) AND FITTINGS

- A. Minimum Size Galvanized Steel: 3/4 inch (19mm), unless otherwise noted.
- B. Fittings and Conduit Bodies:
1. Expansion Joints: Malleable iron and hot dip galvanized providing a minimum of 4 inches of movement. Fitting shall be watertight with an insulating bushing and a bonding jumper.
  2. Conduit End Bushings: Malleable iron type with molded-on high impact phenolic thermosetting insulation. Where required elsewhere in the contract documents, bushing shall be complete with ground conductor saddle and clamp. High impact phenolic threaded type bushings are not acceptable.
  3. All other fittings and conduit bodies shall be of malleable iron construction and hot dip galvanized.

### 2.2 INTERMEDIATE METALLIC CONDUIT (IMC) AND FITTINGS

- A. Minimum Size Galvanized Steel: 3/4 inch, unless otherwise noted.
- B. Fittings and Conduit Bodies:
1. Expansion Joints: Malleable iron and hot dip galvanized providing a minimum of 4 inches of movement. Fitting shall be watertight with an insulating bushing and a bonding jumper.
  2. Conduit End Bushings: Malleable iron type with molded-on high impact phenolic thermosetting insulation. Where required elsewhere in the contract documents, bushing shall be complete with ground conductor

saddle and clamp. High impact phenolic threaded type bushings are not acceptable.

3. All other fittings and conduit bodies shall be of malleable iron construction and hot dip galvanized.

### 2.3 ELECTRICAL METALLIC TUBING (EMT) AND FITTINGS

- A. Minimum Size Electrical Metallic Tubing: 1/2 inch, unless otherwise noted.
- B. Fittings and Conduit Bodies: Compression or set-screw type of steel designed for their specific application.

### 2.4 FLEXIBLE METALLIC CONDUIT (FMC) AND FITTINGS

- A. Minimum Size Galvanized Steel: 1/2 inch, unless otherwise noted.
- B. Maximum length of FMC shall be six (6) feet.
- C. Construction: Flexible steel, approved for conduit ground, zinc coated, threadless type formed from a continuous length of spirally wound, interlocked zinc coated strip steel. Provide a separate equipment grounding conductor when used for equipment where flexibility is required.
- D. Fittings and Conduit Bodies:
  1. Threadless hinged clamp type, galvanized zinc coated cadmium plated malleable cast iron or screw-in type, die-cast zinc.
  2. Fittings and conduit bodies shall include plastic or cast metal inserts supplied by the manufacturer to protect conductors from sharp edges.

### 2.5 LIQUIDTIGHT FLEXIBLE METALLIC CONDUIT (LFMC) AND FITTINGS

- A. Minimum size: 3/4 inch, unless noted otherwise.
- B. Construction: Flexible steel, approved for conduit ground, zinc coated, threadless type formed from a continuous length of spirally wound, interlocked zinc coated strip steel and an extruded PVC cover.
- C. Fittings and Conduit Bodies:
  1. Watertight, compression type, galvanized zinc coated cadmium plated malleable cast iron, UL listed.
  2. Fittings and conduit bodies shall include plastic or cast metal inserts supplied by the manufacturer to protect conductors from sharp edges.

### 2.6 RIGID NON-METALLIC CONDUIT (PVC) AND FITTINGS

- A. Minimum Size Rigid Smooth-Wall Nonmetallic Conduit: 3/4 inch, unless otherwise noted.
- B. Construction: Schedule 40 and Schedule 80 rigid polyvinyl chloride (PVC), UL labeled for 90°C.

- C. Fittings and Conduit Bodies: NEMA TC 3; sleeve type suitable for and manufactured especially for use with the conduit by the conduit manufacturer.
- D. Plastic cement for joining conduit and fittings shall be provided as recommended by the manufacturer.

2.7 HIGH DENSITY POLYETHYLENE (HDPE)

- A. Minimum Size: 2 inch, unless noted otherwise.
- B. Materials used for the manufacture of polyethylene pipe and fittings shall be extra high molecular weight, high-density polyethylene resin. The material shall be listed by PPI (Plastic Pipe Institute) and shall meet the following resin properties:

ASTM Test	Description	Values HDPE
D-1505	Density g/CM 3	< .941
D-1238	Melt Index, g/10 min Condition E	> .55 grams/10 min.
D-638	Tensile Strength at yield (psi)	3000 min.
D-1693	Environmental Stress Crack Resistance Condition B, F 20	96 hrs.
D-790	Flexural Modulus, MPa (psi)	< 80,000
D-746	Brittleness Temperature	-75°C Max

- C. The pipe shall contain no recycled compound except that generated in the manufacturer's own plant from resin of the same raw material, including both the base resin and coextruded resin. The pipe shall be homogeneous throughout and free of visible cracks, holes, voids, foreign inclusions, or other defects that may affect the wall integrity.
- D. Fitting and Conduit Bodies:
  1. Directional Bore and Plow Type Installation: Electrofusion or Universal Aluminum threaded couplings. Tensile strength of coupled pipe must be greater than 2,000 lbs.
  2. For all other type of installation: Coupler must provide a water tight connection. The tensile strength of coupled pipe must be greater than 1,000 lbs.
  3. E-loc type couplings are not acceptable in any situations.

2.8 REINFORCED THERMOSETTING RESIN CONDUIT (RTRC) AND FITTINGS

- A. Minimum Size: 1 inch.
- B. Conduit shall be fiberglass reinforced epoxy using a filament winding process. Conduit, elbows and fittings shall be manufactured from the same resin/hardener/glass system and the same filament wound system. Resin systems shall be epoxy with no fillers. Glass used shall be E-type.

- C. Fitting and Conduit Bodies:
  - 1. Expansion fittings for RTRC shall be provided in accordance with NEC Table 355.44.
  - 2. Joints in wet locations and underground locations shall be watertight.

## 2.9 PULL AND JUNCTION BOXES

- A. Sheet Metal Boxes: ANSI/NEMA OS 1; galvanized steel.
- B. Cast Metal Boxes: NEMA 250; Type 4 and Type 6, flat-flanged, surface-mounted junction box, UL listed as raintight. Galvanized cast iron box and cover with ground flange, neoprene gasket, and stainless steel cover screws.

## 2.10 HANDHOLES

- A. Handhole, composite polymer concrete body and cover. Stainless steel hardware. Bolted non-skid cover rated for 5,000 pounds with factory etched "Electric" label. Design load occasional non-deliberate vehicular traffic. Contractor to select size as required for each location.
  - 1. Approved Manufacturers:
    - a. Hubbell/Quazite
    - b. Carson Industries
    - c. Armorcast
    - d. Highline Products
    - e. Synertech

## PART 3 - EXECUTION

### 3.1 CONDUIT INSTALLATION SCHEDULE AND SIZING

- A. In the event the location of conduit installation represents conflicting installation requirements as specified in the following schedule, a clarification shall be obtained from the Engineer. If this Contractor is unable to obtain a clarification as outlined above, concealed rigid galvanized steel conduit installed per these specifications and the NEC shall be required.
- B. The conduit installation schedule on drawing coversheet shall be adhered to unless they constitute a violation of applicable codes or are noted otherwise on the drawings.
- C. Size conduit according to NEC. Conduit and conductor sizing shall be coordinated to limit conductor fill to less than 40%, maintain conductor ampere capacity as required by the NEC (to include enlarged conductors due to temperature and quantity derating values) and to prevent excessive voltage drop and pulling tension due to long conduit/conductor lengths.
- D. Conduit sizes shall change only at the entrance or exit to a junction box, unless specifically noted on the drawings.

### 3.2 CONDUIT ARRANGEMENT

- A. Conduit routing on drawings shall be considered diagrammatic, unless noted otherwise. The correct routing shall be chosen by the Contractor based on information in the contract documents, in accordance with manufacturer's written instructions, applicable codes, the NECA's "Standard of Installation", in accordance with recognized industry standards, and coordinated with other contractors.
- B. Contractor shall adapt his work to the job conditions and make such changes as required and permitted by the Engineer, such as moving to clear beams and joists, adjusting at columns, avoiding interference with windows, etc., to permit the proper installation of other mechanical and/or electrical equipment.

### 3.3 CONDUIT SUPPORT

- A. Conduit shall be held in place by the correct size of galvanized one-hole conduit clamps, two-hole conduit straps, patented support devices, clamp back conduit hangers, or by other means if called for on the drawings.
- B. Support individual horizontal raceways with separate, malleable-iron pipe hangers or clamps.
- C. Spring-steel conduit clips specifically designed for supporting single conduits or tubing may be used in lieu of malleable-iron hangers for securing raceways to slotted channel and angle supports.
- D. Group conduits in parallel runs where practical and use conduit racks or trapeze hangers constructed of steel channel, suspended with threaded solid rods or wall mounted from metal channels with conduit straps or clamps.
- E. Arrange supports in vertical runs so the weight of raceways and enclosed conductors is carried entirely by raceway supports, with no weight load on raceway terminals.
- F. Supports for metallic conduit shall be no greater than 10 feet. A smaller interval may be used if necessitated by building construction, but in no event shall support spans exceed the NEC requirements. Conduit shall be securely fastened within 3 feet of each outlet box, junction box, device box, cabinet, or fitting.
- G. Supports of flexible conduit shall be within 12 inches of each outlet box, junction box, device box, cabinet, or fitting and at intervals not to exceed 4.5 feet.
- H. Finish:
  - 1. Prime coat exposed steel hangers and supports. Hangers and supports in crawl spaces, pipe shafts, and above suspended ceiling spaces are not considered exposed.

2. Trim all ends of exposed field fabricated steel hangers, slotted channel and threaded rod to within 1" of support or fastener to eliminate potential injury to personnel unless shown otherwise on the drawings. Smooth ends and install elastomeric insulation with two coats of latex paint if exposed steel is within 6'-6" of finish floor and presents potential injury to personnel.

### 3.4 CONDUIT INSTALLATION

#### A. Conduit Connections:

1. Shorter than standard conduit lengths shall be cut square using industry standards. The ends of all conduits cut shall be reamed or otherwise finished to remove all rough edges.
2. Where conduits with tapered threads cannot be coupled with standard couplings, then approved split or Erickson couplings shall be used. Running threads will not be permitted.
3. Install expansion/deflection joints where conduit crosses structure expansion/seismic joints.

#### B. Conduit Bends:

1. Use a hydraulic one-shot conduit bender or factory elbows for bends in conduit 2" in size or larger. All steel conduit bending shall be done cold; no heating of steel conduit shall be permitted.
2. A run of conduit shall not contain more than the equivalent of four (4) quarter bends (360°), including those bends located immediately at the outlet or body.
3. All bends of rigid polyvinyl chloride conduit (PVC) shall be made with the manufacturer's approved bending equipment. The use of spot heating devices will not be permitted (i.e. blow torches).
4. Rigid polyvinyl chloride conduit (PVC) runs longer than 100 feet or runs which have more than two 90° equivalent bends (regardless of length) shall use rigid metal or RTRC factory elbows for bends.
5. Use conduit bodies to make sharp changes in direction.

#### C. Conduit Placement:

1. Conduit shall be mechanically continuous from source of current to all outlets. Conduit shall be electrically continuous from source of current to all outlets, unless a properly sized grounding conductor is routed within the conduit. All metallic conduits shall be bonded per the NEC.
2. Avoid moisture traps where possible. Where unavoidable, provide a junction box with drain fitting at conduit low point.
3. Seal interior of conduit where the temperature differential can potentially be greater than 20°F, to prevent moisture penetration. Seal shall be placed where conduit enters warm space. Conduit seal fitting shall be a drain/seal, with sealing compound, equal to O-Z/Gedney type EYD.
4. Rigid polyvinyl chloride conduit (PVC) shall be installed when material surface temperatures and ambient temperature are greater than 40°F.
5. Where rigid polyvinyl chloride conduit (PVC) is used below grade, in a slab, below a slab, etc., a transition to rigid galvanized steel or PVC-coated steel

conduit shall be installed before conduit exits earth. The metallic conduit shall extend a minimum of 6" into the surface concealing the non-metallic conduit.

6. Contractor shall provide a polypropylene pull cord with 2000 lbs. tensile strength in each empty conduit (indoor and outdoor), except in sleeves and nipples.

### 3.5 CONDUIT TERMINATIONS

- A. Where conduit bonding is indicated or required in the contract documents, the bushings shall be a grounding type sized for the conduit and ground bonding conductor as manufactured by O-Z/Gedney, Appleton, Thomas & Betts, Burndy, Regal, Orbit Industries or approved equal.
- B. Conduits with termination fittings shall be threaded for one (1) lock nut on the outside and one (1) lock nut and bushing on the inside of each box.
- C. Where conduits terminate in boxes with knockouts, they shall be secured to the boxes with lock nuts and provided with approved screw type tinned iron bushings or fittings with plastic inserts.
- D. Where conduits terminate in boxes, fittings, or bodies with threaded openings, they shall be tightly screwed against the shoulder portion of the threaded openings.
- E. Rigid polyvinyl chloride conduit (PVC) shall be terminated using fittings and bodies produced by the manufacturer of the conduit, unless noted otherwise. Prepare conduit as per manufacturer's recommendations before joining. All joints shall be solvent welded by applying full even coat of plastic cement to the entire areas that will be joined. Turn the conduit at least a quarter to one half turn in the fitting and let the joint cure for 1-hour minimum or as per the manufacturer's recommendations.

### 3.6 UNDERGROUND CONDUIT INSTALLATION

- A. Conduit Connections: Conduit joints in a multiple conduit run shall be staggered at least one foot apart.
- B. Conduit Bends:
  1. Conduits shall have long sweep radius elbows instead of standard elbows wherever special bends are indicated and noted on the drawings, or as required by the manufacturer of the equipment or system being served.
- C. Conduit Placement:
  1. Conduit runs shall be pitched a minimum of 4" per 100 feet to drain toward the terminations. Duct runs shall be installed deeper than the minimum wherever required to avoid any conflicts with existing or new piping, tunnels, etc.

2. For parallel runs, use suitable separators and chairs installed not greater than 4' on centers. Band conduit together with suitable banding devices. Securely anchor conduit to prevent movement during concrete placement or backfilling.
3. Where concrete is required, the materials for concreting shall be thoroughly mixed to a minimum  $f'c = 2500$  and immediately placed in the trench around the conduits. No concrete that has been allowed to partially set shall be used.
4. Before the Contractor pulls any cables into the conduit he shall have a mandrel 1/4" smaller than the conduit inside diameter pulled through each conduit and if any concrete or obstructions are found, the Contractor shall remove them and clear the conduit. Spare conduit shall also be cleared of all obstructions.
5. Conduit terminations in masonry pull boxes shall be with malleable iron end bell fittings.
6. All spare conduits not terminated in a covered enclosure shall have its terminations plugged as described above.
7. Conduit shall be installed a minimum of 24" below finished grade, unless otherwise noted on the drawings or elsewhere in these specifications.
8. All non-metallic conduit installed underground outside of a slab shall be rigid.

D. Horizontal Directional Drilling:

1. Entire drill path shall be accurately surveyed, with entry and exit stakes placed and coordinated with other contractors. If using a magnetic guidance system, entire drill path shall be surveyed for any surface geo-magnetic variations or anomalies.
2. Any utility locates within 20 feet of the bore path shall have the exact location physically verified by hand digging or vacuum excavation. Restore inspection holes to original condition after verification.

### 3.7 BOX INSTALLATION SCHEDULE

A. Galvanized steel boxes may be used in:

1. Exposed interior locations in unfinished spaces.
2. Direct contact with concrete except slab on grade.

B. Cast boxes shall be used in:

1. Wet locations.
2. Direct contact with earth.

### 3.8 COORDINATION OF BOX LOCATIONS

- A. Provide electrical boxes as shown on the drawings, and as required for splices, taps, wire pulling, equipment connections, and code compliance.

### 3.9 BOX IDENTIFICATION

- A. All junction, pull, and connection boxes shall be labeled as follows:
1. For power and lighting circuits, indicate system voltage and identity of contained circuits ("120V, 1LA1-3,5,7").
  2. For other wiring, indicate system type and description of wiring ("Lighting Controls")
  3. All identification shall be neatly hand printed with permanent marker.

**END OF SECTION 26 0533**

## SECTION 26 2000 - SERVICE ENTRANCE

### PART 1 - GENERAL

#### 1.1 QUALITY ASSURANCE

- A. Utility Company: ComEd.
- B. Contact: Jake Klco, [Jacob.Klco@ComEd.com](mailto:Jacob.Klco@ComEd.com) (847-421-0501)
- C. Install service entrance in accordance with Utility Company's rules and regulations.

#### 1.2 SYSTEM DESCRIPTION

- A. Fitzsimons:
  - 1. System Voltage: 480/277 volts, three-phase, four-wire, 60 Hertz.
  - 2. System Voltage: 240/120 volts, single-phase, three-wire, 60 Hertz.
- B. Cartwright:
  - 1. System Voltage: 240/120 volts, single-phase, three-wire, 60 Hertz.

### PART 2 - PRODUCTS

#### 2.1 METERING EQUIPMENT

- A. Meter: Furnished by the Utility Company.
- B. Cartwright: Metering Transformer Compartment: Furnished and installed by the Contractor to Utility Company's specifications. Compartment shall be standalone mounted at main distribution panel. Conduit and conductors between metering cabinets and instrumentation shall be by the Contractor. Connections as required by the Utility Company.

#### 2.2 IDENTIFICATION

- A. Provide a permanent plaque or sign denoting all services, feeders, and branch circuits supplying the building or structure and the area served by each. Install plaque or sign at each service disconnecting means.

### PART 3 - EXECUTION

#### 3.1 INSTALLATION

- A. Make arrangements with Utility Company to obtain permanent electric service to the Project.

- B. Primary distribution equipment and transformers shall be furnished and installed by the Utility Company.
- C. Primary conductors shall be furnished, installed, and terminated by the Utility Company. Primary conduit shall be furnished and installed by the Contractor, as shown on the drawings, to the Utility Company's requirements.

**END OF SECTION 26 2000**

## **SECTION 26 2416 - PANELBOARDS**

### **PART 1 - GENERAL**

#### **1.1 SECTION INCLUDES**

- A. Branch circuit panelboards: Panel '###'

#### **1.2 RELATED SECTIONS AND WORK**

- A. Refer to the Electrical Distribution Diagram and Electrical Schedules for size, rating, and configuration.
- B. Section 26 09 13 - Energy Metering and Management System

#### **1.3 REFERENCES**

- A. NEMA AB 1 - Molded Case Circuit Breakers
- B. NEMA PB 1 - Panelboards
- C. NEMA PB 1.1 - Instructions for Safe Installation, Operation and Maintenance of Panelboards Rated 600 Volts or Less
- D. NEMA PB 1.2 - Application Guide for Ground-fault Protective Devices for Equipment
- E. UL 67 - Panelboards

#### **1.4 SUBMITTALS**

- A. Include outline and support point dimensions, voltage, main bus ampacity, integrated short circuit ampere rating, circuit breaker and fusible switch arrangement and sizes.

#### **1.5 SPARE PARTS**

- A. Keys: Furnish four (4) each to the Owner.

## PART 2 - PRODUCTS

### 2.1 GENERAL

### 2.2 RATINGS

#### A. Definitions:

1. Series rated equipment shall be defined as equipment that can achieve a required UL AIC rating with an upstream device such as a main breaker or a combination of devices to meet or exceed a required UL AIC rating. All series rated equipment shall have a permanently attached nameplate indicating that device rating must be maintained.
2. Fully rated equipment shall be defined as equipment where all devices in that equipment shall carry a minimum of the AIC rating that is specified.

- B. The panelboards for this project shall be fully rated unless otherwise specifically noted in the Drawings or Specifications.

### 2.3 BRANCH CIRCUIT PANELBOARDS

#### A. General

##### 1. Manufacturers:

- a. Square D NQ, NF
- b. Eaton
- c. Siemens

- B. Lighting and Appliance Branch Circuit Panelboards: NEMA PB 1; circuit breaker type.

- C. Enclosure: NEMA PB 1; Type 1.

- D. Provide cabinet front with hinged trim to allow access to wiring gutters without removal of trim and flush lock all keyed alike. Finish in manufacturer's standard gray enamel.

- E. Provide panelboards with copper bus, ratings as scheduled on the drawings. Provide copper ground bus in all panelboards.

- F. Service entrance rated.

- G. All unlabeled circuits shown on the panelboard schedule shall be fully prepared spaces for future breakers.

- H. Minimum Integrated Short Circuit Rating: As shown on the drawings.

- I. Molded Case Circuit Breakers: Bolt-on type thermal magnetic trip circuit breakers, with common trip handle for all poles. Provide circuit breakers UL listed as Type SWD for lighting circuits. Provide UL Class A ground fault interrupter circuit breakers where scheduled on the drawings. Do not use tandem circuit breakers.

## 2.4 ACCESSORIES

- A. Provide REQUIRED accessories as described below. Provide SCHEDULED accessories when listed with plan schedules. Refer to plan schedules for additional requirements.
- B. Provide a 120-volt, 1,500-watt maximum heater strip for exterior panel enclosure. Controlled by a standalone thermostat installed in the enclosure.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Provide filler plates for unused spaces in panelboards.
- B. Provide custom typed circuit directory for each branch circuit panelboard. Label shall include equipment name or final approved room name, room number, and load type for each circuit (examples: SUMP SP-1 or ROOM 101 RECEIPT). Revise directory to reflect circuit changes required to balance phase loads. Printed copies of the bid document panel schedules are not acceptable as circuit directories.

### 3.2 FIELD QUALITY CONTROL

- A. Visual and Mechanical Inspection: Inspect for physical damage, proper alignment, anchorage, and grounding. Check proper installation and tightness of connections for circuit breakers, fusible switches, and fuses.

**END OF SECTION 26 2416**

## **SECTION 26 4300 - SURGE PROTECTION DEVICES**

### **PART 1 - GENERAL**

#### **1.1 SECTION INCLUDES**

- A. SPD equipment to be installed at designated service entrance equipment, panels, and electronic equipment.

#### **1.2 QUALITY ASSURANCE**

- A. The specified unit shall be designed, manufactured, tested and installed in compliance with the above references. The unit shall be "Listed by Underwriters Laboratories" to UL 1449.
- B. Each unit shall be designed and manufactured by a qualified manufacturer of power conditioning equipment. The qualified manufacturer must have been engaged in the design and manufacturer of such products for a minimum of five years.

#### **1.3 REFERENCES**

- A. ANSI/IEEE C62.33 - IEEE Guide on Testing of MOV components
- B. ANSI/IEEE C62.35 - IEEE Guide on Testing of SAD components
- C. ANSI/IEEE C62.41 - IEEE Recommended Practice on Surge Voltage in Low Voltage AC Power Circuits
- D. ANSI/IEEE C62.45 - IEEE Guide on Surge Testing for Equipment Connected to Low Voltage AC Power Circuits
- E. ANSI/UL 1449 Latest Edition - UL Standard for Safety for Surge Protective Devices
- F. CBEMA - Computer Business Equipment Manufacturers Association
- G. IEC 664 - International Engineering Consortium, Standard for Clamping Voltage
- H. NFPA 70 - National Electrical Code (NEC)
- I. UL 67 - Listed for Internal Panelboard Transient Voltage Surge Suppressors
- J. UL 96A - Devices listed as approved for secondary surge arrestors (VZCA)
- K. UL 248-1 - Fusing
- L. UL 1283 - Electromagnetic Interference Filters, Fifth Edition

## 1.4 SUBMITTALS

- A. Shop Drawings: Should include device dimensions, mounting requirements including wire size and over-current protection device rating, nameplate nomenclature, electrical ratings, short circuit current rating, and test results as indicated below under "Testing, Warranty and Life Expectancy" as provided by an independent test lab or a UL certified test lab for the category(ies) of suppression device(s) specified using the appropriate IEEE test wave. Product data sheets with installation instructions for each size and type of device are required. Shop drawings submitted without the testing data as required by section this section will be rejected.
- B. Fuse information: Provide fuse information if required for operation. Include size, manufacturer, time-current chart responses to UL 1449 testing requirements, maximum surge protection capability per mode and phase as limited by the fuse, and verification of repetitive surge protection device operation without system degeneration greater than 10%.

## 1.5 TESTING, WARRANTY AND LIFE EXPECTANCY

- A. Manufacturer must provide independent testing on repetitive capability and maximum surge current rating of service entrance suppressor units. This shall be performed at a nationally recognized lab not affiliated with the manufacturer.
  - 1. Single pulse surge current capacity: Single pulse surge current tested in a mode at rated surge currents.
  - 2. Single pulse surge current capacity test: An initial UL 1449 defined 1.2 x 50 $\mu$ s, 6000V open circuit voltage waveform and an 8 x 20 $\mu$ s, 500A and 3kA short circuit current waveform shall be applied to benchmark the unit's suppression voltage (VPR).
  - 3. A single 8 x 20 $\mu$ s waveform pulse of maximum rated surge current per mode shall then be applied. To complete the test, another UL 1449 surge shall be applied to verify the unit's survival. Survival is achieved if the suppression voltage measured from the two UL1449 surges does not vary by more than 10%.
- B. Minimum Repetitive Surge Current Capacity:
  - 1. Service entrance suppressor units should be tested repetitively at an independent lab to verify repetitive capacity.
  - 2. Minimum Repetitive Surge Current Capacity Test:
    - a. An initial UL 1449 surge defined as 1.2 x 50 $\mu$ s, 6000V open circuit voltage waveform and an 8 x 20 $\mu$ s, 500A and 3kA short circuit current waveform shall be applied to benchmark the unit's suppression voltage.
    - b. A repetitive number of ANSI/IEEE C62.41.2-2002 (Category C3) surges, defined as a 1.2 x 50 $\mu$ s 10kV or 20kV open circuit voltage waveform and an 8 x 20 $\mu$ s 10,000A short circuit current waveform, shall then be applied at one-minute intervals.
    - c. To complete the test, another UL 1449 surge shall be applied to verify the unit's survival.

3. Survival is achieved if the suppression voltage (VPR) does not vary by more than 10%.
  4. Proof of such testing shall be the test log generated by the surge generator.
- C. Provide UL 1449 classification white sheet pages indicating the VPR (voltage protection rating) for each SPD unit submitted for this product using the 6kV/3kA combination wave surge.
  - D. Warranty: Ten (10) years. Includes workmanship, installation and programming.
  - E. No scheduled parts replacement or preventative maintenance shall be required.

## PART 2 - PRODUCTS

### 2.1 DESCRIPTION

- A. General: The unit shall provide transient voltage suppression, surge current diversion and high-frequency noise attenuation, when connected in parallel to the facilities distribution system. The unit MCOV shall not be less than 115% of the nominal system voltage. Operating frequency shall be for a 60 Hz system. The unit shall provide protection in all normal modes for "wye" and "delta" systems.

### 2.2 RATINGS

#### A. SPD-1; Service Entrance Suppressors:

1. For 120/240-volt, 1 phase, 3 wire, type 2, category C3 unit.
  - a. Surge current capacity: 100,000/200,000 amps per protection mode/phase
  - b. Nominal Discharge Current: 20 kA.
  - c. Mounting: Refer to the drawings.
  - d. Voltage Protection Rating: Refer to requirements below.
  - e. Components: Minimum component size of 20mm thermally protected metal oxide varistors (MOV).
  - f. Disconnect: Surge-rated disconnect with 200,000 SCCR.
2. Manufacturers:
  - a. Current Technology Current Guard Plus
  - b. LEA International LSS Series

#### B. Voltage Protection Rating:

1. Protection modes and UL 1449 voltage protection rating for surge suppression units per each mode (L-N, L-L, L-G, and N-G as appropriate).

C. EMI/RFI Noise Rejection or Filtering:

1. Each unit shall include a UL1283 first order, high-frequency filter for noise filtering between 10 KHz and 100 MHz.

D. Indication:

1. Each unit shall include solid-state indicators with externally mounted LED visual status indicators that indicate on-line status of each protection mode of the unit.
2. Each unit shall include a visual indicator that indicates the unit is functioning properly and providing protection.
3. Each unit shall include an audible alarm with silencing switch to indicate when protection has failed.
4. Each unit shall contain form "C" contacts for remote indication of an alarm status.

E. Fuses:

1. Use fuses recommended by the manufacturer to satisfy repetitive UL 1449 operation of the surge suppression unit.
2. Fuses shall be rated 200, 000 AIC minimum interrupting capacity.

## PART 3 - EXECUTION

### 3.1 INSPECTION

- A. Examine equipment for size and type of surge protection device to be used to ensure physical compatibility.
- B. Inspect surge protection device for any signs of physical damage due to shipping or handling before installing surge protection device.

### 3.2 INSTALLATION

A. Mounting Location:

1. The unit shall be installed as close as practical to the panel secondary lugs in accordance with applicable national/Local Electrical Codes and the manufacturer's recommended installation instructions.

B. Connections:

1. Conductors from the protected bus to the unit shall not be any longer than necessary avoiding unnecessary bends. The conductor leads shall be twisted together and as short as possible. Connection shall be with mechanical lugs for each phase, neutral, and ground if applicable. Contractor shall provide wire and circuit breakers sized per the approved manufacturer's requirements. Maximum lead length from protected bus to surge protection device shall be per manufacturer's requirements, but no greater than 5'-0".

C. General:

1. Check unit for proper operation of protection and indication under start-up.
2. Check unit to ensure all MOVs for each mode of protection are operational. Verify integral fuse links are operational and have not melted.
3. Surge suppression devices shall not be installed ahead of the main service disconnect(s).
4. Install fuses in all fuse holders and fused disconnects internal to the surge protection unit. Use fuses recommended by the manufacturer to satisfy repetitive UL 1449 operation of the surge suppression unit. External fusing of the surge protection device is not allowed.
5. Coordinate location of surge protection device to allow adequate clearances for maintenance.

**END OF SECTION 26 4300**

## **SECTION 26 5119 - LED LIGHTING**

### **PART 1 - GENERAL**

#### **1.1 SECTION INCLUDES**

- A. Exterior luminaires and accessories
- B. Light-emitting diode (LED) luminaire systems
- C. Lighting poles

#### **1.2 RELATED SECTIONS**

- A. The lighting system design includes a combination of luminaire sources, lighting control components, programming sequences, and supplementary components for building and energy code compliance. The design uses performance-based specifications for portions of the lighting system to account for the limitation of comparable product solutions available by competitive manufacturers. The Contractor shall reference related specification sections, plans, schedules, and details prior to submitting pricing, submittals, and installation. The Contractor shall coordinate system component compatibility among various manufacturers and suppliers for a turnkey lighting system. Referenced sections include, but are not limited to, the following:

- 1. Electrical drawings: Plans, luminaire schedules, lighting control sequence of operations, diagrams, and details.

#### **1.3 REFERENCES**

- A. ANSI C78.377 - Specifications for the Chromaticity of Solid State Lighting Products
- B. ANSI C82.16 - Light-Emitting Diode Drivers - Method of Measurement
- C. ANSI C82.77 - Standard for Harmonic Emission Limits and Related Power Quality Requirements for Lighting Equipment
- D. NFPA 70E - National Electrical Safety Code
- E. NEMA SSL1 - Electronic Drivers for LED Devices, Arrays or System
- F. UL 8750 - Light Emitting Diode (LED) Equipment for use in Lighting Products
- G. LM-79 - Approved Method: Electrical and Photometric Measurements of Solid-State Lighting Products
- H. LM-80 - Measuring Luminous Flux and Color Maintenance of LED
- I. FS W-L-305 - Light Set, General Illumination (Emergency or Auxiliary)

J. UL 924 - Standard for Emergency Lighting and Power Equipment

#### 1.4 SUBMITTALS

A. Basic Requirements of Submittal:

1. Submit product data sheets for luminaires, LED light engines, drivers and poles. Include complete product model number with all options as specified. Submittal shall be arranged with luminaires listed in ascending order, and with each luminaire's, LED light engine, driver, or pole information following luminaire's product data. Failure to organize submittal in this manner will result in the submittal being rejected.
2. Include outline drawings, support points, weights, and accessory information for each luminaire.

#### 1.5 DELIVERY, STORAGE, AND HANDLING

- A. Protect luminaire finishes, lenses, and trims from damage during storage and installation. Do not remove protective films until construction cleanup within each area is complete.
- B. Handle site lighting poles carefully to prevent breakage and damage to finish.

#### 1.6 WARRANTY

- A. The warranty period begins at the date of Substantial Completion.
- B. LED Light Engines and Drivers:
1. LED Drivers and Dimming Drivers: Five (5) years
  2. Light Emitting Diode (LED) Light Engines: Five (5) years

#### 1.7 REGULATORY REQUIREMENTS

- A. Conform to NFPA 101 for installation requirements.

### PART 2 - PRODUCTS

#### 2.1 EXTERIOR LUMINAIRES AND ACCESSORIES - GENERAL

- A. Listed for wet or damp location as scheduled. Provide ingress protection (IP) rating when scheduled.
- B. Provide low temperature LED drivers, with reliable starting to -20°F.

#### 2.2 LIGHT EMITTING DIODE (LED) LUMINAIRE SYSTEMS

- A. Refer to the luminaire schedule for color temperature and minimum color rendering index CRI requirements.

- B. LED chip arrays specified as color changing shall have chip colors as noted on the luminaire schedule.
- C. Rated life shall be minimum of 50,000 hours at L70.
- D. LED chips shall be wired so that failure of one chip does not prohibit operation of the remainder of the chip array.
- E. Luminaire delivered lumens is defined as the absolute lumens per the manufacturers LM-79-08 test report.
- F. LED light engine shall have a maximum LLD of 0.85 at 50,000 hours at 25°C ambient.
- G. LED Driver:
  1. Solid state driver with integral heat sink. Driver shall have over-heat, short-circuit and overload protection, power factor 0.90 or above and maximum total harmonic distortion of 20%. Driver shall have a voltage fluctuation tolerance of +/- 10%.
  2. Drivers shall have dimming capabilities as outlined in the luminaire schedule for each luminaire type. Dimming shall control light output in a continuous curve from 100% to 10% unless noted otherwise.
  3. Driver shall have a minimum of 50,000 hours rated life.
  4. Driver shall be tested to ANSI C82-16 for input current inrush, total harmonic distortion (THD), and power factor. Driver start time shall be less than 0.5 seconds to 98% of initial light output. Flicker should be less than 30% throughout the operating range.
  5. Driver shall be field replaceable without removal of the luminaire.
  6. Class A sound rating; inaudible in a 27 dBA ambient.
  7. Demonstrate no visible change in light output with a variation of plus or minus 10 percent change in line-voltage input.

### 2.3 LIGHTING POLES

- A. Manufacturer of pole shall be the same as manufacturer of specified luminaire.
- B. Provide metal poles in the shape and size noted on the Luminaire Schedule.
- C. Wind Load: 100 MPH velocity, with 1.14 percent three-second gust factor with luminaires and brackets mounted.
- D. Hand Hole: 2 x 4 inches with removable weatherproof cover installed at manufacturer's standard location. Provide matching gasketed cover plate.
- E. Anchor Bolts: As recommended by pole manufacturer. Provide template, flat washers, lock washers, and hex nuts for each pole. Grout between anchor plate and concrete base with non-shrink grout after pole is plumbed.

## PART 3 - EXECUTION

### 3.1 INSTALLATION

- A. Luminaire Pole Bases: Sized and constructed as indicated on the drawings. Project anchor bolts 2 inches minimum above base. Install poles plumb with double nuts for adjustment. Grout around pole anchor base.
- B. Use belt slings or non-chafing ropes to raise and set pre-finished luminaire poles.

### 3.2 RELAMPING

- A. Replace failed LED light engine modules or arrays at completion of work.

### 3.3 ADJUSTING AND CLEANING

- A. Align luminaires and clean lenses and diffusers at completion of work. Clean paint splatters, dirt, and debris from installed luminaires.
- B. Touch up luminaire and pole finish at completion of work.

### 3.4 LUMINAIRE SCHEDULE

- A. As shown on the drawings.

**END OF SECTION 26 5119**

**SECTION 31 2000**  
**EARTHWORK**

1.0 GENERAL

1.1 Description

A. The work consists of all work as called for by plans and/or proposal form and may include the following: rough and finish grading to approved grade stakes; excavation of organic or unstable soils; excavation of debris and rocks; excavation, stockpiling and redistribution of topsoil; placement of sand or gravel base; placing and grading supplemental topsoil; and all other grading and excavation operations. Unless otherwise called for in the plans and specifications, work shall conform to all applicable Soil Erosion and Sedimentation Control Regulations as enacted in the County, City/Village, Soil and Water Conservation District, etc. having jurisdiction over the project location.

1.2 Submittals

A. Contractor shall submit samples and information to the Owner's Representative on the location of the source for any proposed materials to be brought on site. Source shall be subject to approval before use.

2.0 PRODUCTS

2.1 Fill Materials

A. Fill and backfill materials shall be clean, porous, granular materials free of clay, rock or gravel larger than two inches (2") in any dimension, debris, frozen material, vegetation or other deleterious matter. Contractor shall be permitted to use material excavated as part of this project as backfill material provided that excavated material meets all other requirements herein and is free of trash and other debris. Sod shall not be used for fill.

B. Fill material must be approved by the Owner's Representative before being placed. When suitable materials are not available from the excavation they shall be provided by the Contractor from off-site sources.

2.2 Topsoil

A. Topsoil is defined as follows: all topsoil shall be fertile, friable natural topsoil, typical for this locality. It shall not contain a mixture of subsoil or slag and shall be free of lumps, stones, plants or roots, stalks or other extraneous matter and shall not be used while in a frozen or muddy condition. Topsoil shall have an acidity range of pH 5.5 to pH 7.5 and shall contain not less than five percent nor more than twenty percent organic matter as determined by loss on ignition of moisture free sample dried at 100 degrees centigrade. Topsoil shall be classifiable as loam, silt loam, silty clay loam, or sandy clay loam, as determined from the Natural Resources Conservation Service - USDA triangular soil texture chart. Topsoil shall be used in the upper six inches (6") of all seeded areas.

2.3 Base Material

A. Base materials shall conform to specified detail and shall be properly graded mixture of natural or crushed gravel, crushed stone, or natural processed sand that will readily compact to the required density and remain in that condition.

### 3.0 EXECUTION

#### 3.1 Layout

- A. The corners of the designated areas, including separate paving, surfacing, and lawn, shall be determined by careful survey according to plans and details. Stakes shall be set indicating the exact position of these corners and the final elevation of the indicated area.
- B. Before any excavation or filling operation begins, approval of the location and the proposed elevation must be obtained from the Owner's Representative. If existing conditions are at variance with the drawings, the Owner's Representative shall be notified before proceeding with the work and adjustments made only as directed.
- C. Back-filling shall be done only after the Owner's Representative has inspected and approved sub-grade. Notice that the work is ready for inspection shall be given promptly, and 48 hours minimum shall be allowed for making necessary examinations. Failure to comply may require excavation to previous grade and the performance of back-filling operations again at no additional cost to the Owner.

#### 3.2 Stripping Topsoil

- A. Prior to the stripping of topsoil, all areas within the grading limits containing existing debris shall be cleaned sufficiently to permit easy use of the topsoil free of unmanageable debris. Topsoil in areas that are to be graded shall be stripped to the depth designated and stockpiled in an area approved by the Owner's Representative. This is the first supply of topsoil to be used for spreading over disturbed or graded areas. The site shall be excavated to provide a sub-grade which shall be shaped to true and even lines so as to assure a uniform thickness of the base course or other surfacing installation. Excess material and debris generated from this work shall be hauled from the site at the Contractor's expense.

#### 3.3 Unsatisfactory Materials

- A. Unsuitable materials or unstable bearing soil for structures and pavements shall be excavated to stable soil and replaced with an approved sand, gravel or soil and compacted as specified.

#### 3.4 Excavation for Structures

- A. Excavation for all structures, paving, and site improvements shall be to the tolerances specified and shall extend sufficient distances from footing and foundations to permit placing and removal of forms, installation of services, and other construction operations and inspections.

#### 3.5 Dewatering

- A. Site is to be maintained in dry condition in excavations and areas to be filled. Fill, topsoil, or sub-base shall not be placed in water or excessively damp conditions. It is the Contractor's responsibility to remove water and maintain dry conditions.

#### 3.6 Placing Fill

- A. During grading and filling operations, all fill shall be placed in five inches (5"), or less layers and compacted by operating heavy track, or rubber tired equipment over it or with compaction equipment. Fill and backfill shall be so placed as to

cause minimum disturbance to underlying soils. Material shall have the correct moisture content. Wet soil shall be disked or otherwise scarified to allow each layer to dry.

- B. Holes, pits and removed footings shall be filled and compacted to within six inches (6") of the surrounding grade with approved clean fill and then topped with six inches (6") compacted topsoil. Filling holes shall be considered incidental to the Contract.

### 3.7 Compaction

- A. Fill and sub-base material shall be compacted to not less than the 95% ASTM D1557 or Proctor Density. Compaction of topsoil in lawn areas shall be 85% of proctor density.

### 3.8 Grade Tolerance

- A. All earthwork shall be within one-half inch (1/2" or 0.042') of the elevations called for on the plans. All pavement grading shall be within one quarter inch (1/4" or 0.021') of the elevations called for in the plans. All grading shall drain uniformly to designated low points and all changes in elevation and transition areas shall be with gentle, rounded gradients. The grade tolerance allowed shall not create a situation where a walk or area becomes inaccessible per the Americans with Disabilities Act. If this occurs the work shall be removed at the cost of the Contractor and reinstalled to meet current ADA standards.

END OF SECTION

**SECTION 32 0117**  
**ASPHALT CRACK REPAIR SYSTEM**

1.0 GENERAL

1.1 Description

- A. This work consists of providing all labor, materials, tools and equipment necessary to perform surface preparation; crack repair, using the Armor Crack Repair System or equal, on an existing asphalt surface.

1.2 Required Submittals

- A. Manufacturer's Certification: Submit manufacturer's certification that materials comply with specified requirements and are suitable for intended application.
- B. Manufacturer's Project References are required prior to bid opening if a product other than those listed as pre-approved are submitted as an 'or-equal': Submit manufacturer's list of successfully completed asphalt crack repair projects, including project name, location, and date of application.
- C. Installer's Project References: Submit applicator's list of successfully completed asphalt crack repair projects, including project name, location, type and quantity of crack repair applied, and date of application.
- D. Installer's certificate: Submit proof that installer is certified by A.S.T. LLC to install the ARMOR CRACK REPAIR SYSTEM as manufactured by them.
- E. Warranty Documentation: Submit manufacturer's standard warranty. It is not to be less than one year from the date of project acceptance. All material and labor including any surface preparation or removals is to be included and non-prorated.

1.3 QUALITY ASSURANCE

- A. Manufacturer's Qualifications:
1. Manufacturer regularly engaged, for past 5 years, in manufacture of Crack Repair systems for asphalt surfaces of similar type to that specified.
- B. Applicator's Qualifications:
1. The installer must have been regularly engaged, for past 3 years, in the installation of the ARMOR CRACK REPAIR SYSTEM of similar type to that specified.
  2. Employ persons certified to install the ARMOR CRACK REPAIR SYSTEM
- C. Finished surfacing shall conform to the guidelines of the ASBA (American Sports Builders Association), USTA (U.S. Tennis Association), USAPA (U.S.A. Pickleball Association), respectively

2.0 MATERIAL

- 2.1 ARMOR CRACK REPAIR SYSTEM as manufactured by A.S.T. LLC Farmindale, NJ 07727 or approved equal
- 2.2 Elite Acrylic Patch Crack Filler as supplied by U.S Tennis Court Construction Co. Lockport, IL 60441 or approved equal.

3.0 EXECUTION

3.1 Weather Limitations

- A. Do not install when rain is imminent or if humidity is extremely high
- B. Do not install if asphalt is in any way damp
- C. Do not apply Armor Crack Repair System unless the Temperature is 60° or above.

City of Evanston

### 3.2 Surface Preparation

- A. Thoroughly remove dirt, dust, debris, oil, grease, vegetation, loose materials, and other contaminants from the surface which could adversely affect the installation of the crack repair system. The Surface shall then be power washed using a deck power washing unit or Hydro-Jet-Blaster. Wand washing will not be accepted.
- B. Cracks to be repaired shall be routed using a powered asphalt routing machine and then blown clean using an air lance so that no dust or debris remains in the crack.

### 3.3 Crack Filling

- A. Cracks shall be filled from the bottom to the top with acrylic patch crack filler. Special care shall be taken to assure all void space is filled. Multiple applications will be required to level the crack filler with the adjacent surface.
- B. Sand and pre-coat as needed to assure repairs are not visible following acrylic surface applications.

### 3.4 ARMOR CRACK REPAIR SYSTEM

- A. Install the ARMOR CRACK REPAIR SYSTEM over the fully prepared cracks
- B. The manufacturer's installation instructions shall be strictly followed.

### 3.5 Protection of pavement surface

- A. It is the Contractor's responsibility to secure the court area from unauthorized access during the work. This may include the addition of temporary fence. Materials and labor for this work is considered incidental and will not be paid for separately.

### 3.4 Protection of Vegetation

- B. Protection of existing vegetation shall conform to other sections of these Specifications. Protected vegetation shall include all trees, shrubs, plants or other vegetation within or adjacent to the construction area.
- C. At no time shall any material or equipment be stored, nor any construction activity take place within the drip line of any tree, within or adjacent to the construction area, without the written approval of the Owner/Owner's Rep.

### 3.5 Restoration

- A. The Contractor shall be responsible for the restoration of adjacent turf or planting areas disturbed or damaged through the fulfillment of this Contract.
- B. Disturbed areas shall be restored by the placement of pulverized topsoil raked smooth and level with the finished pavement surface, free of any stones or debris. Seeding shall be as per landscape specification.

## 4.0 BASIS OF PAYMENT

- 4.1 A linear foot quantity (400) of crack repair has been listed on the bid proposal in order to establish a unit cost. Prior to final acceptance of the work, the contractor shall meet on site with the Owner/Owner's Rep to measure the total linear feet of repairs made. Upon agreement on the quantity of repairs made between the Contractor and the Owner/Owner's Rep, a change order will be prepared that will add to, or subtract from the amount of repair stated on the bid proposal form. This change order will establish the final payment amount.

END OF SECTION

**SECTION 32 1216**  
**ASPHALT PAVING**

1.0 GENERAL

1.1 Description

A. This work consists of providing all labor, material, tools and equipment necessary to construct new asphalt paths, parking lots, and/or roadways as shown on the plans.

1.2 Code and Regulations

A. Materials and methods used in the fulfillment of this Contract shall conform to the State of Illinois Standard Specifications for Road and Bridge Construction, hereby referred to as "State Specifications", latest edition, and all supplemental specifications and provisions adopted prior to the date of the Invitation to Bid for this project.

1.3 Submittals

A. Provide product data for each product specified

B. Job-Mix Designs: For each job mix proposed.

1. Job-mix design documentation shall include the amount of RAP material, by percentage of total mix, to be utilized.

2. Job-mix design documentation shall clearly indicate source/origin of RAP material.

C. Qualification Data: For IDOT qualified manufacturer.

D. Material Certificates: For each paving material, from manufacturer

E. Material Test Reports: For each paving material and mix.

2.0 MATERIALS

2.1 Crushed Aggregate Base

A. CA-6 crushed aggregate, Class B, shall be placed, to a compacted depth as indicated on plans, as a base course. The aggregate shall be thoroughly dry, unyielding and free of screening and dirt before proceeding with priming and paving, in accordance with material and placement standards of Section 301 of the State Specifications.

2.2 Prime Coat

A. The prime course shall consist of cutback asphalt MC-30 in conformance with Section 406 of the IDOT Specifications. Bituminous prime coat shall be applied with the application rate being a minimum of 0.30 gallons per square yard. Priming shall be applied through the use of a pressurized distributor vehicle or hand sprayer, at a rate of 0.2 to 0.5 gallons per square yard. Excess prime showing on the surface after the curing period, shall be blotted with sand prior to placement of the asphalt. All work and materials shall conform to applicable provisions of Section 406 of the IDOT Standard Specifications.

2.3 Asphalt Binder Course

A. The asphalt binder course shall be HMA Binder Course Mix, IL19.0, N50, conforming the IDOT Standard Specifications. All work and materials shall be performed in accordance with applicable provisions of the IDOT Standard Specifications. The minimum thickness of the completed bituminous binder course shall be as noted on plans measured at any point on the pavement surface.

## 2.4 Asphalt Surface Course

- A. The asphalt surface course shall be HMA Surface Course Mix IL9.5, N50, constructed on previously placed bituminous binder course or compacted base, per plans. The minimum thickness of the finished bituminous surface course shall be as noted on plans measured at any point of the pavement surface per appropriate detail. The work and materials shall conform to applicable provisions of the IDOT Standard Specifications Section 406
  - 1. The bituminous material used in the surface mixture shall be asphaltic cement grade 85-100 or 120-150 as approved by the Owner's Representative.
- B. The finished surface shall be true, uniform in texture, free from ruts, depressions, cracks, tears and checks, in conformance with Section 406 of the State Specifications. When tested, water should not stand or pool twenty-four hours after flooding

## 3.0 EXECUTION

### 3.1 Field Conditions

- A. Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the following conditions are not met.

### 3.2 Methods

- A. Construction methods shall follow specifications described herein.

### 3.3 Protection of Vegetation

- A. Protection of existing vegetation shall conform with Specification 01 2100 as contained in this Specifications document. Protected vegetation shall include all trees, shrubs, plants or other vegetation within or adjacent to the construction area.
- B. At no time shall any material or equipment be stored, nor any construction activity take place within the drip line of any tree, within or adjacent to the construction area, without the written approval of the Owner/Owner's representative.

### 3.4 Restoration

- A. The Contractor shall be responsible for the restoration of adjacent turf or planting areas disturbed or damaged through the fulfillment of this Contract.
- B. Disturbed areas shall be restored by the placement of pulverized topsoil raked smooth and level with the finished pavement surface, free of any stones or debris. Seeding shall be as per landscape specification.

END OF SECTION

**SECTION 32 1217**  
**ASPHALT PAVING – SPORT COURTS**

1.0 GENERAL

1.1 Description

A. This work consists of providing all labor, material, tools and equipment necessary to install asphaltic concrete paving, prime, and tack coats for tennis, pickleball, and/or basketball court paving as shown on the drawings.

1.2 Code and Regulations

A. Materials and methods used in the fulfillment of this Contract shall conform to the State of Illinois Standard Specifications for Road and Bridge Construction, latest edition, hereby referred to as "State Specifications" and all supplemental specifications and provisions adopted prior to the date of the Invitation to Bid for this project.

1.3 Submittals

A. Provide product data for each product specified

B. Job-Mix Designs: For each job mix proposed.

1. Job-mix design documentation shall include the amount of RAP material, by percentage of total mix, to be utilized.

2. Job-mix design documentation shall clearly indicate source/origin of RAP material.

C. Qualification Data: For IDOT qualified asphalt manufacturer.

D. Material Certificates: For each paving material, from manufacturer

E. Material Test Reports: For each paving material and mix.

F. Court Color Finish material product data, and color selection sheets for approval by Owner/Owner Rep.

2.0 MATERIALS

2.1 Crushed Aggregate Base

A. CA-6 crushed aggregate, Class B, shall be placed, to a compacted depth as indicated on the plans as a base course. The aggregate shall be thoroughly dry, unyielding and free of screening and dirt before proceeding with priming and paving, in accordance with material and placement standards of Section 301 of the State Specifications.

2.2 Prime Coat

A. The prime course shall consist of cutback asphalt MC-30 in conformance with Section 406 of the State Specifications. Bituminous prime coat shall be applied with the application rate being a minimum of 0.30 gallons per square yard. Priming shall be applied through the use of a pressurized distributor vehicle or hand sprayer, at a rate of 0.2 to 0.5 gallons per square yard. Excess prime showing on the surface after the curing period, shall be blotted with sand prior to placement of the asphalt. All work and materials shall conform to applicable provisions of Section 406 of the IDOT Standard Specifications.

2.3 Asphalt Binder Course

A. The bituminous concrete binder course shall be HMA binder Course Mix, IL19.0, N50, conforming to Section 406 of the IDOT Standard Specifications. All work and materials shall be performed in accordance with applicable provisions of Section 406 of the IDOT Standard Specifications. The minimum thickness of the completed bituminous binder course shall be as noted on the plans measured at any point on the pavement surface.

2.4 Asphalt Surface Course

A. The bituminous surface course shall be HMA surface Course Mix, IL9.5, N50 conforming to Section 406 of the IDOT Standard Specifications. Class "B" (modified) constructed on previously placed bituminous binder course. The minimum thickness of the finished bituminous surface course shall be as shown on the plans as measured at any point of the pavement surface. The work and materials shall conform to applicable provisions of Section 406 of the Standard Specifications except as revised herein. The aggregate used in the preparation of the surface mixture shall conform to the following gradation:

Passing 1/2" sieve	100%
Passing #4 sieve	65% - 85%
Passing #10 sieve	50% - 65%
Passing #40 sieve	10% - 27%
Passing #200 sieve	5% - 7%

- B. The finished surface shall be true, uniform in texture, free from ruts, depressions, cracks, tears and checks, in conformance with Section 406 of the State Specifications. When tested, water should not stand or pool twenty-four hours after flooding
- C. The finished surface shall be true, uniform in texture, free from ruts, depressions, cracks, tears and checks, in conformance with Section 406 of the State Specifications. When tested, water should not stand or pool twenty-four hours after flooding

2.5 Caulk for Court

A. As manufactured by: Nova Sports U.S.A. [www.novasports.com](http://www.novasports.com) or approved equal.

B. Install per manufacturer recommendations:

1. Clean crack so that it is free of all vegetation and debris. Remove all lost pavement from crack.
2. Install backer rod (must be wider than crack) into crack, top of rod 3/16" below surface or fill crack with clean sand to within 3/16" of surface
3. Using a broad knife, squeegee rubber, or similar tool, fill crack to refusal with Novacaulk #1. It is important to exert some pressure when placing the Novacaulk into the void so that the material comes in contact with the walls of the crack.
4. Allow the Novacaulk to set. (4 hours during ideal drying conditions - longer when damp or cool).
5. Apply a coat of Novacaulk #2 over the crack. This coat should be thicker directly over the crack and taper to a feather edge. This application should be wider than the actual crack by 3 to 6 inches on both sides. Extremely wide cracks may need a second application of Novacaulk #2 and probably the repair should extend further out to the side. Novacaulk #2 is easily spread with a squeegee when first placed on the pavement. If, after a few minutes, it becomes difficult to spread smoothly, sprinkle a few drops of water over the repair. This will make the material easier to smooth.

2.6 Color Finish materials for sport courts

A. Plexipave Systems by California Products Corp  
[www.californiasportsurfaces.com](http://www.californiasportsurfaces.com)  
Elite Sport Coating Systems [www.ustenniscc.com](http://www.ustenniscc.com)

Laykold Systems by Laykold [www.laykold.com](http://www.laykold.com)  
Duracourt Outdoor Coatings [www.duracourt.net](http://www.duracourt.net)  
Or other approved equal products

- B. Plexipave Court Patch Binder. Mixed with 100 pounds of 60-80 mesh clean silica sand (dry), 3 gallons "Court Patch Binder" and 1 to 2 gallons Portland Cement (dry) – depending on humidity and temperature.
- C. Plexipave Acrylic Resurfacer – Mixed with 55 gallons acrylic resurfacer, 20-40 gallons water, 600-800 pounds (60-mesh) sand.
- D. Fortified Plexipave – Mixed with 30 gallons Plexipave Color Base, 20 gallons Plexichrome and 20 gallons water.
- E. Plexipave Textured Line Paint (white).
- F. Colors for Tennis and Basketball or other applicable sport to be as indicated on plans.

### 3.0 EXECUTION

#### 3.1 Methods

- A. Construction methods shall follow the specifications described herein.

#### 3.2 Protection of Vegetation

- A. Protection of existing vegetation shall conform with Specification 01 2100 as contained in this Specifications document. Protected vegetation shall include all trees, shrubs, plants or other vegetation within or adjacent to the construction area.
- B. At no time shall any material or equipment be stored, nor any construction activity take place within the drip line of any tree, within or adjacent to the construction area, without the written approval of the Owner/Owner's representative.

#### 3.3 Restoration

- A. The Contractor shall be responsible for the restoration of adjacent turf or planting areas disturbed or damaged through the fulfillment of this Contract.
- B. Disturbed areas shall be restored by the placement of pulverized topsoil raked smooth and level with the finished pavement surface, free of any stones or debris. Seeding shall be as per landscape specification.

#### 3.4 Prime and Tack Coat

- A. All work shall be in accordance with the Standard Specifications. If asphaltic surface course is not applied the same day as binder course, the binder surface shall be tack coated prior to surface paving. Prior to placement of tack coat the surface shall be thoroughly cleaned and swept. Tack coat shall be applied at a rate of 0.08 gallons per square yard immediately prior to placement of asphaltic surface course.

#### 3.5 Joints

- A. Joints between successive day's work shall be constructed and treated as to insure thorough and continuous bond between the old and new mixtures.
- B. Transverse construction joints shall be constructed by cutting the material back for its full depth so as 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 tack coat material applied with a hose and spray nozzle attachment to fully coat the joint surface.
- C. Longitudinal joints shall be made by overlapping the screed on the previously laid material for a width of not more than two inches (2"), and depositing a sufficient amount of asphaltic mixture so that the finished joint will be smooth and tight. Binder course and surface course shall be placed with longitudinal joints at right angles to one another. 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 twelve inches (12") shall be permitted between the location of the joints in the binder course and the location of similar joints in the surface course above.

D. All costs for furnishing and applying tack coat to butt joints as specified above shall be considered incidental.

### 3.6 Testing

A. Contractor shall coordinate with Owner for testing of asphalt courses. Owner or Owner's agent shall perform testing of asphalt courses.

B. Both asphalt courses shall meet minimum 89% maximum density.

### 3.7 Bituminous Paving

A. Bituminous paving work shall include the construction of plant mixed asphaltic concrete 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 pavement bed. Contractor shall notify Owner of any areas of suspected instability.

C. Completed binder course shall not vary from the required grade more than one-fourth inch (1/4") in ten feet (10') when measured in any direction.

D. Surface course finish shall be smooth with no pockets that will retain water and shall not vary more than one-eighth inch (1/8") under a ten foot (10') straight edge. Entire surface shall drain and shall be without flat areas.

E. Allow surface course to cure for fifteen (15) days prior to application of color finish system. Verify cure time with manufacturer.

### 3.8 Expansion Joint Saw cuts at Tennis

A. Saw cut finished asphalt surface one-half inch (1/2") wide at locations indicated on plans. Apply Nova Caulk at cleaned saw cut.

### 3.9 Color Finish System

B. Prior to application of the color finish system, flood the court surface with water, preferably by rainfall, and allow to drain for forty-five (45) minutes. Any depressions holding water deeper than one-sixteenth inch (1/16") shall be marked to identify extent of such areas. Patch and level areas with color finish system materials per manufacturer's directions, as follows:

1. Asphalt or acrylic resurfacer mixed with silica sand.

2. For depressions deeper than one-sixteenth inch (1/16"), use Court Patch Binder mixed as indicated with Portland Cement, Silica Sand and water

A. Continue flooding, marking, and patching operations until uniform surface is obtained. Due to minimum pitch of surface, water will not "rush" off the surface nor will court dry off immediately. Some squeegee work may be necessary to accelerate drying time.

B. Allow patched bituminous surface course to cure for five (5) days before application of color finish course.

C. Net sleeves, fencing, and other court equipment shall be installed prior to color coat.

### 3.10 Color Finish Course

A. Color finish course shall be applied by an experienced manufacturer approved applicator and in accordance with the manufacturer's printed instructions. The materials shall be applied using a soft rubber squeegee (spraying not permitted). Asphaltic emulsion is not an acceptable base coat.

B. Bituminous surface course and each coat of color finish course shall be thoroughly clean and dry to receive initial and subsequent coats of color finish

- course. Perform no work when rain is imminent or when the surface temperature is below or is likely to fall below 50° F. or above 140° F. during application work.
- 1.2 The color finish course consists of three (3) applications of “Plexipave Acrylic Texture Coat System” or approved equal. Control surface texture during application to provide a slow surface speed.
- A. Apply “Plexipave Acrylic Resurfacer” in a minimum of one coat to obtain a per coat application rate of 0.05 to 0.07 gallons per square yard based on undiluted material.
  - B. Finished surface shall be smooth, free of ridges, valleys, and tool marks.
  - C. Apply “Mineral Filled Fortified Plexipave Coat” in two (2) applications to obtain a total quantity of not less than application rate of 0.15 and no more than 0.23 gallons per square yard based on undiluted material.
- 3.11 Playing Lines
- A. Accurately locate and mark two inch (2”) wide playing lines with three inch (3”) base lines (tennis court) according to the court layouts shown on the Project Drawings.
  - B. Mask edges and paint lines with white Plexicolor textured line paint in accordance with manufacturer’s standard instructions. Use of traffic, oil, alkyd, or solvent vehicle type paint is prohibited. All paint line edges to be short and crisp. Spraying is prohibited.
  - C. Do not commence painting playing lines until a minimum of 48 hours after completion of color finish course.

END OF SECTION 32 1216

**SECTION 32 1313**  
**CONCRETE PAVING - Fiber**

1.0 GENERAL

1.1 Description

- A. This work shall consist of all labor, equipment and materials necessary for complete installation of concrete work: slabs, paving, curbs, walls, footings, and concrete work as called for in the plans and details.
- B. All work, which is without a specification herein, shall be performed in accordance with the Standard Specifications for Road and Bridge Construction, latest edition adopted by the Illinois Department of Transportation.

1.2 Submittals

- A. Mix Design: Submit proposed mix design for approval.
- B. One copy of the delivery ticket shall be furnished to the Owner's Representative at the time the truck arrives at the job site.

2.0 MATERIALS

2.1 Crushed Aggregate Base

- A. CA-6 crushed aggregate, Type B, shall be placed, to a compacted depth as indicated on plans, as a base course. The aggregate shall be thoroughly dry, unyielding and free of screening and dirt before proceeding with priming and paving, in accordance with material and placement standards of IDOT State Specifications.

2.2 Concrete Materials

- A. The concrete shall be constructed of Portland Cement Concrete Type A, which shall have a minimum of six (6) bags of type one cement per cubic yard. Concrete shall meet ASTM C94.
- B. The coarse aggregate used shall contain a maximum of 2%, by volume, deleterious material (commonly called chert free aggregate) and the maximum size of the stone shall be three-quarter inch (3/4").
- C. Air content shall be not less than 5%, or more than 8%, and the slump shall not exceed four inches (4"). Fourteen (14) day compressive strength tests resulting in less than 3500 p.s.i. shall be cause for removal and replacement at Contractor's cost. Portland Cement shall conform to the requirements of the current ASTM Specifications for Air-Entraining Portland Cement.

2.3 Metal Reinforcing

- A. Metal shall be fabricated conforming to the most current standard of ASTM A616, Deformed Billet-Steel Bars for Concrete Reinforcement of the grades indicated on the drawings. Welded wire mesh or fabric shall conform to Specifications for Welded Steel Wire Fabric for Concrete Reinforcement ASTM 185-current year. Welded wire mesh shall not be used for slabs or paving.

2.4 Fiber Reinforcing

- A. Fiber reinforcing material to be SINTA F19 or approved equal, manufactured from 100% virgin polypropylene in a microfilament form and contain over 50 million individual fibers for each 1.0 lb/yd<sup>3</sup> dosed. Product shall be engineered specifically for use in concrete, alkali resistant, non-absorptive and completely non-corrosive. Product shall comply with ASTM Designation C 1116 Standard

Specification for Fiber-Reinforced Concrete and Shotcrete, Type III Synthetic Fiber-Reinforced Concrete or Shotcrete.

- B. Fibers shall be 20 mm (3/4 in.) multifilament polypropylene fibers as supplied by GCP Applied Technologies, Cambridge, MA 02140, or approved equal. Required dosage rate shall be as specified by the design engineer or architect. Product shall be used in strict accordance with the supplier's recommendations and within time as specified in ASTM C94. The fibers shall comply with ASTM Designation C1116 Type III 4.1.3 and with applicable building codes. Certification of compliance shall be made available on request. Standard ACI 302 procedures for placing, finishing and curing shall be followed when using SINTA F19

## 2.5 Additives

- A. Additives that have not been aforementioned within this specification shall not be used in any concrete without written approval from the Owner or Owner's Representative.

## 2.6 Forms

- A. Forms shall be of lumber with a minimum two-inch (2") nominal thickness and six-inch (6") nominal width or steel with equal rigidity. They shall be held securely in place by stakes, braces, or other means and shall not allow concrete leakage. Forms for curves shall be flexible or shall be curved forms conforming to radius of curves shown on drawings. The use of straight sections will not be permitted for curves. Forms shall be clean and those for surfaces to be exposed shall produce a smooth, even finish without fins or board marks.

## 2.7 Expansion Joint Material

- A. Expansion joint material shall meet the Illinois Department of Transportation Standard for Road and Bridge Construction, latest edition, Section 1051.00 Preformed Expansion Joint Fillers. Approved filler shall be as described in Section 1051.03 Bituminous Preformed Joint Filler and 1051.04 Preformed Fiber Joint Filler and 1051.05 Bituminous Preformed Inorganic Fiber Joint Filler and 1051.08 Preformed Closed Cell Plastic Joint Filler. All applicable sections shall apply for the above approved items.

## 3.0 EXECUTION

### 3.1 Concrete Mixing

- A. Concrete shall be mixed only as required for immediate use and any which has developed initial set shall not be used. Concrete, which has partially hardened, shall not be re-tempered or re-mixed. The use of a fractional sack of cement will not be permitted unless the fractional part is measured by weight. The mixer shall be cleaned thoroughly each time when out of operation for more than thirty minutes.
- B. Concrete mixes will be measured as described in the current Method Test for Consistency of Portland Cement Concrete of the ASTM Designation C-143. The concrete shall at times be of such consistency and workability, that it will puddle readily into corners and angles of the forms and around joint, dowels, tie bars and reinforcement without excessive spading, segregation or undue accumulation of water.
- C. The mixing of concrete in truck mixers in route from the batching plant to the site will not be allowed without prior approval. Mixing shall take place at the

batching plant. The mixing shall be done on a level area, sloping not more than two percent in any direction.

- D. The concrete shall be discharged within a period of one hour after the introduction of the mixing water with the dry materials or within a period of 1-1/2 hours after the cement has been placed in contact with the aggregates. It shall be within the specified limits for consistency and air content and it shall not be segregated.

### 3.2 Sub-grade

- A. Sub-grade or base shall be accurately graded and compacted as specified in Section 31 2000, EARTHWORK. The sub-grade or base shall be moistened just before the concrete is placed.

### 3.3 Forms

- A. The forms shall be set so that concrete slabs will have a slope of not less than one-quarter inch (1/4") per foot. Forms shall be held in line and grade by stake or braces at intervals to produce layout as specified in plans. Straight lines shall change to curve where line is tangent to curve. Forms shall be constructed in a manner that will permit their removal from exposed areas without damage to fresh concrete. Forms shall be of the full depth of the structure. Provide uniform bearing for all forms. The inside surface of the forms shall be oiled with a light, clear paraffin-base oil which will not discolor or otherwise injuriously affect the concrete as on walls or other exposed surfaces. All forming shall be approved by Owner or Owner's Representative before pouring concrete.

### 3.4 Reinforcement

- A. All steel reinforcement shall be accurately placed in position shown on plans and firmly held during the placing of concrete. When placed in the work, steel shall be free from dirt, rust, mill scale, paint, oil or other foreign material. Bars shall be placed with a variation in spacing between adjacent bars of not more than one-sixth of the spacing shown on the plans, and the clear distance from the near surface of the concrete and the reinforcement shall not vary from the distance shown on the plans by more than one-fourth the plan distance. Bars shall be tied at all intersections except where the spacing is less than one foot in each direction in which case every other intersection shall be tied. Supports for reinforcement which are to remain in the work shall be either precast concrete blocks of approved shape and dimensions or approved preformed steel bar-chairs.
- B. Bars shall not be spliced except as provided on the plans or as authorized by the Owner or Owner's Representative.
- C. SINTA™ F19 fiber may be added to concrete at any point during the batching or mixing process. SINTA™ F19 may be added to the aggregate during weighing or charging, or to the central mixer or truck before, during, or after charging. The load must be mixed at high speed for 5 minutes, or 70 revolutions, after the addition of the SINTA™ F19 to ensure uniform distribution. The standard range of addition for SINTA™ F19 is ¾ to 3 lbs/yd (450 to 1800 g/m ) of concrete. Typically, 1½ lbs/yd (900 g/m ) of SINTA™ F19 provides excellent results. Higher addition rates may be used to produce concrete when special properties are required.

### 3.5 Placing Concrete

- A. Placing concrete shall not be permitted until the sub-grade and forms have been approved by the Owner or Owner's Representative. The concrete shall be placed in one pour for the full depth of stated structure unless otherwise approved by the Owner or Owner's Representative. The concrete shall be placed in successive batches for the entire width of structure. It shall be struck off from 1/2" to 3/4" higher than the finished grade, tamped until all voids are removed and free mortar appears on the surface. Finally, it shall be thoroughly spaded along the edges, struck off to the proper grade, and finished to a plane, even surface with floats and trowels. The final troweling shall be done with steel trowel, leaving a smooth even surface.

### 3.6 Finishing

- A. After the water sheen has disappeared, the surface shall be given a final finish by brushing with a whitewash brush. The brush shall be drawn across the sidewalk or structure at right angles to the edges of the walk or structure, with adjacent strokes slightly overlapping, producing a uniform, slightly roughened surface with parallel brush marks. Brush marks should be of a depth to produce a light broom finish.
- B. Edges on all concrete shall be rounded to a radius of one-quarter inch (1/4") with a finishing tool unless otherwise specified. All joints shall be rounded with a double edging tool having a radius of one-quarter inch (1/4") on each side and the surface shall then be brushed lightly to produce a slightly roughened surface and remove the finishing tool marks.
- C. The surface shall be divided by grooves called contraction joints constructed at right angles to the centerline of the sidewalk or structure. These joints shall extend to one-quarter inch (1/4") the depth of the sidewalk, shall be not less than one-eighth inch (1/8") and no more than one-quarter inch (1/4") in width, and shall be edged with a jointing or edging tool having one-quarter inch (1/4") radius. The joints shall be five feet (5') apart on sidewalks and ten feet apart on curbs unless otherwise specified.
- D. Expansion joints shall be placed between all separate pours, all structures and at thirty foot intervals on both sidewalks and curbs.

### 3.7 Sandblast Finish

- A. Specified sandblast surfaces to be finished with silica sand suitable for intended purpose at least twelve (12) days after the concrete has been poured. Sandblast depth per plans, exposing the aggregate but not so deep as to drive the aggregate out of the wall or create voids in the surface. Create uniform pattern and exposure while avoiding over-blasting. Seal all surfaces with two (2) coats approved clear sealer after concrete has fully cured and dried.
- B. Sandblast sample shall be created by the Contractor for approval by Owner's Representative before work commences.

### 3.8 Protection

- A. Protection of Concrete shall be performed in following manner:
  - 1. Protection Against Vandalism: The Contractor shall take all necessary precautions to ensure the protection of work against vandalism or graffiti. Any work, which is blemished in the finish, will be cause for rejection of flat work or curbing.
  - 2. Protection Against Rain: The Contractor shall take such precautions as are necessary to protect the concrete from damage.

3. Hot Weather Limitations - Casting of concrete during hot weather shall be limited by the temperature at the time of placing. Concrete shall not be cast when the temperature is above 90° F. Care shall be taken to properly wet and protect all concrete placed indirect sun or in hot weather.
4. Cold Weather Limitations - No concrete shall be placed unless the temperature of the air in the shade and away from artificial heat is at least 32° F and rising unless specifically approved. All concrete poured at less than 40° F, or at a time when within 24 hours of pouring concrete the temperature shall dip below 40° F shall be insulated. The Contractor shall be responsible for the concrete placed during cold weather and any concrete injured by frost action shall be removed and replaced at Contractors expense.

### 3.9 Curing

- A. Forms shall be left in place for a period of not less than 12 hours. Immediately after they have been removed, all porous or honeycomb areas thus uncovered shall be filled smooth with mortar consisting of one part cement and two parts fine aggregate. Also, the ends of all expansion joints shall be cut open to the full width of the expansion joint material.
- B. Placing concrete, once started, shall be a continuous operation. No portion of a walk, curb or paved area shall be partially poured except as shown for installation of joints.

### 3.10 Footings

- A. Concrete footings shall be sloped at the top to ensure drainage away from the embedded item (post or otherwise). All footings shall be constructed as indicated on the detail drawings. All footings unspecified on drawings shall be according to the manufacturer's specifications of the product to be footed, but depth of all footings shall be a minimum of 42" below finished grade.

END OF SECTION

**SECTION 32 1816**  
**SAFETY SURFACES - ENGINEERED WOOD FIBER**

1.0 GENERAL

1.1 Description

Safety surfacing consists of providing all material and labor necessary for complete installation of engineered wood fiber (EWF) safety surfacing in playground areas.

All materials and installation shall conform to ASTM F1292 Standard Specification for Impact Attenuation of Surface Systems Under and Around Playground Equipment. All materials shall have been tested according to the ASTM F1292 specifications and shall meet or exceed all requirements for height of equipment installed or height of existing equipment that is specified to remain. Testing shall have been completed within 5 years of installation.

All materials shall meet ASTM F1951 Standard Specification for Determination of Accessibility of Surface Systems Under and Around Playground Equipment. All materials shall have been tested according to the ASTM F1951 specifications and shall meet or exceed all requirements. Testing shall have been completed within 5 years of installation.

All materials shall meet ASTM F2075 Standard Specification for Engineered Wood Fiber for Use as a Playground Safety Surface Under and Around Playground Equipment.

1.2 Submittals

- A. A sample of EWF surface shall be submitted to the Owner/Owner's Representative for approval.
- B. A copy of the most current test results, from an independent testing laboratory, for the EWF documenting that it meets all related ASTM standards as called for above. **These items shall be approved prior to ordering or delivery to the site.**
- C. A delivery ticket for material shall be made available upon request.

2.0 MATERIALS

2.1 Engineered Wood Fiber

1. Shredded wood fiber shall be made from only hardwoods, and be free of bark, leaves, twigs, and all debris.
2. Sizing shall comply with ASTM F2075 sieve size requirements with no more than 15% fines to aid compaction.
3. No chemical treatment or additives are allowed. This material shall meet the ASTM specifications listed in section 1.1.

2.3 Filter Fabric

Filter fabric shall be Tyvar Filter Fabric by Dupont or Geo-Textile fabric by Geo-Synthetics or approved equal.

3.0 EXECUTION

City of Evanston

32 1816 – SAFETY SURFACES - ENGINEERED WOOD FIBER

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Page 1 of 2

### 3.1 Subgrade

Surfacing shall be built on a prepared sub-grade as per appropriate detail on plans. All stones, rocks, pieces of concrete, roots or any other debris shall be removed. The prepared sub-grade shall be clear, level and compacted. Any stumps or roots shall be removed to eighteen inches (18") below finished grade.

### 3.2 Filter Fabric

Filter fabric shall cover 100% of sub-grade for engineered wood fiber surfacing and sand surfacing sub-grade. At filter fabric seams, a six-inch (6") overlap with pinning shall be installed.

### 3.3 Engineered Wood Fiber

Install surfacing in four-inch (4") layers over filter fabric. Compact each layer using a 3-ton eccentric hand-operated vibrator roller, a 2-1/2 ton plate compactor or equal. The material shall be compacted approximately 30%. Add successive four inch (4") lifts and repeat process until material is installed to specified depth. Prior to the final compacting, surface shall be level.

END OF SECTION

**SECTION 32 3119**  
**PANEL FENCES AND GATES**

1.0 GENERAL

1.1 Description

- A. Fence installation shall consist of furnishing all labor materials, tools and equipment necessary to install fences: fence sections, posts, fasteners, footings, as called for in the plans and details.
- B. The basis of design is the Ameristar Wireworks Plus fence system or an approved equal.

1.2 Product Handling and Storage

- A. Contractor shall order and/or have fabricated and take delivery of all products and materials. Upon receipt, all materials shall be checked to ensure that no damages occurred during shipping or handling. Materials shall be stored in such a manner to ensure proper ventilation and drainage, and to protect against damage, weather, vandalism, and theft.

1.3 Incorporated Specifications

- A. All work shall also conform to the American with Disabilities Act standards as indicated in the plans and specifications. All work not conforming to said standards shall be removed and reinstalled at the contractor's expense.
- B. Section 31 2000 – Earthwork
- C. Section 32 1313 - Concrete

1.4 Submittals

- A. Provide manufacturer's literature, specification sheets and shop drawings of proposed fence, gates, latch systems, posts, etc., as called for in the plans, for approval by Owner/Owner's representative

2.0 MATERIALS

2.1 Materials

- A. The specified or approved fence manufacturer shall supply a total ornamental metal fencing system including all components required.
  - 1. The aluminum material for the fence panels and posts shall conform to the requirements of ASTM B221
  - 2. All fence material shall have a yield strength of 45,000 psi.
  - 3. All fence material shall have a minimum zinc (hot-dip galvanized) coating weight of 0.60 oz/sq.ft., and have a coating designation of G-60.
- B. The material for the pickets shall be 3/4" square x 18 gauge, rails shall be 1.5" x 1.4375" x 14 gauge, and posts shall be 2 1/2" dia. X 16 gauge
- C. All materials shall meet the vertical and horizontal load and infill requirements of ASTM F2408.

2.2 Finish

- A. The fence system shall be coated using an inline electrode position coating (E-coating) process consisting of a multistage pretreatment/wash and a duplex application of epoxy primer and acrylic topcoat. The minimum cumulative coating thickness of epoxy and acrylic topcoat shall be 2 mils.
- B. Finish shall be black
- C. The fence system coating shall be capable of meeting the performance requirements described in the following table.

<u>Quality Characteristics</u>	<u>ASTM Test Method</u>	<u>Performance Requirements</u>
Adhesion	D3359 – Method B	Adhesion (Retention of Coating) over 90% of test area (Tape and knife test).
Corrosion Resistance	B117, D714 & D1654	Corrosion Resistance over 1,500 hours (Scribed per D1654; failure mode is accumulation of 1/8” coating loss from scribe or medium #8 blisters).
Impact Resistance	D2794	Impact Resistance over 60 inch lb. (Forward impact using 0.625” ball).
Weathering Resistance	D822 D2244, D523 (60° Method)	Weathering Resistance over 1,000 hours (Failure mode is 60% loss of gloss or color variance of more than 3 delta-E color units).

2.3 Gates

- A. Gates shall be fabricated by the same manufacturer as the fence in the same color, style and finish.
- B. As noted on the plans and details the gate shall be furnished with ADA compliant kick plate.

3.0 EXECUTION

3.1 Preparation

- A. Fence installation shall be laid out by the contractor in accordance with the construction plans. Layout shall be approved by the Owner’s Representative prior to beginning installation.

3.2 Installation

- A. If ground mounted, the footings shall be dug to full depth and posts placed in the center of each footing. Each fence posts shall be installed in a concrete footing 42” deep and 12” diameter. Each gate post shall be installed in a concrete footing 42” deep and 18” diameter. Fence posts, panels and gates shall be installed according to manufactures specifications. Panels shall be attached to posts using fasteners supplied by the manufacturer.

3.3 Cleaning

- A. The contractor shall clean the job site of excess materials: post hole excavations shall be scattered uniformly away from posts.

3.4 Protection of Work

- A. It is the Contractors responsibility to protect fence work from vandalism, defacement, and weather. Any work damaged will not be excepted and shall be removed and replaced at the Contractor’s expense.

3.5 Restoration

- A. The contractor shall be responsible for the restoration of adjacent turf or planting areas disturbed or damaged through the fulfillment of this contract. Disturbed areas shall be restored by the placement of pulverized topsoil raked smooth and level with the finished pavement surface or adjacent lawn area, free of any stones or debris, seeded with a grass seed mixture approved by the Owner’s Representative. Contractor shall ensure no concrete debris or remnants from concrete trucks remain on site.

END OF SECTION 32 3119

**SECTION 32 9219**  
**SEEDING**

Part 1 - GENERAL

1.1 Scope

- A. The work includes furnishing and placing black earth (topsoil), finish grading, tilling, cleaning seed bed, fertilizer/weed control, seed, mowing and performing all operations in connection with seeding all complete and subject to the terms and conditions of the contract. No blanket shall be used during the seeding process.

Part 2 - PRODUCTS

2.1 Materials

- A. Black Earth (topsoil) if required by project specification shall be fertile, friable, natural surface soil to be capable of producing satisfactory agricultural crops. Black Earth shall conform to the Chicago Park District Standard Specification No. 32 9113 "Topsoil."

B. Fertilizer

- 1. Fertilizer shall be delivered to the site in unopened, original containers, each bearing name and address of the manufacturer, name brand or trademark and manufacturer's guaranteed analysis.
- 2. Any fertilizer which becomes caked or otherwise damaged, making it unsuitable for use, will not be accepted.
- 3. Seeding
  - a. Fertilizer for seed shall be an organic seed starter fertilizer, dry and free flowing, equal to "Bio-Seed Starter" as manufactured by BioGreen LLC, 30937 Gilmer Rd., Volo IL 60073 (847-740-9637).
  - b. Organic seed starter fertilizer is to have the following NPK analysis: 4.5-13.5-0
  - c. Organic seed starter fertilizer is to be formulated as follows:

Nitrogen	4.5%
Available phosphate (P <sub>2</sub> O <sub>5</sub> )	13.5%
Calcium (Ca)	12.3%
Protein	23.0%
Carbohydrates	16.5%
Humic Acids	3.4%
Soil Microbial Cultures	1.0%

- d. The balance of the fertilizer shall be organic materials usually present in such a product.

C. Grass Seed

- 1. Grass Seed shall be cleaned seed of seed crop from the year stipulated in the project specification. All seed shall meet the requirements established by the State and Federal Seed and Weed Control Laws, covering law on "Agricultural Seed." Seeds shall meet the following requirements in respect to purity and germination.

Seed Variety	Purity % Pure Live Seed % Weed Seed %		
	Minimum	Minimum	Maximum
Alkaligrass, "Fults"	98	85	0.10
Buffalograss	75	72	0.50

Fescue, Creeping Red	75	82	1.00
Fescue, Fine-Leaf	92	85	0.10
Fescue, Hard	97	85	0.10
Fescue, Red	97	85	0.10
Fescue, Tall	92	88	1.00
Kentucky Bluegrass	75	72	0.50
Redtop	75	78	1.80
Ryegrass, Annual	92	88	0.50
Ryegrass, Perennial	92	88	0.50

2. The percentage of hard seed included as a part of the germination percentage of any lot of seed, shall not exceed twenty. Kentucky Blue Grass seed shall weigh a minimum of 21 pounds to the measured bushel and for all seeding shall be of the crop year indicated in the project specifications.
3. Packing and Marking: All seed shall be delivered in sacks unmixed. Seeds shall be packed for delivery in suitable bags in accordance with standard commercial practice. Each bag shall be tagged or labeled as required by the law of the State of Illinois. The vendor's name shall show on or be attached to each bag, together with a statement signed by the vendor, showing:
  - a. The kind of seed contained;
  - b. The percentage of purity and germination;
  - c. The percentage of hard seed, if any;
  - d. A statement conforming to the laws of the State of Illinois as hereinbefore mentioned, showing percentage of weed seeds if any.

4. Grass Seed Mixes

The seed shall be mixed thoroughly in the following proportions, by weight. Where specified varieties are not available, alternative varieties must be approved in writing by the owner or owner's representative prior to ordering.

- a. General Turf/Athletic Field Grass Seed Mix

“Appalachian” Kentucky Bluegrass	20%
“Elfkin” Perennial Ryegrass	20%
“Esquire” Perennial Ryegrass	20%
“Fourtuna” Kentucky Bluegrass	20%
“Rugby” M Kentucky Bluegrass	20%
- b. Shade Tolerant Grass Seed Mix

“Rose” Creeping Red Fescue	30%
“Esquire” Perennial Ryegrass	20%
“Wrigley’s” Chewings Fescue	15%
“Geronimo” Kentucky Bluegrass	15%
“Appalachian” Kentucky Bluegrass	10%
“Ridu” Hard Fescue	10%
- c. Low-Mow Grass Seed Mix

“Bighorn” Sheeps Fescue	25%
“Discovery” Hard Fescue	25%
“Shademaster II” Creeping Red Fescue	25%
“Tiffany” Chewings Fescue	25%
- d. Salt Tolerant Grass Seed Mix

'Fults' Weeping Alkaligrass ( <i>Puccinellia distans</i> )	30%
85/80 Kentucky Bluegrass	30%
VNS Creeping Red Fescue	20%
Turf type Perennial Ryegrass VNS	10%
'Discovery' Hard Fescue	10%

### Part 3 - EXECUTION

#### 3.1 Site Preparation

- A. Spreading and Rough Grading of Black Earth (if required). The contractor shall spread and rough grade the areas to an elevation approximately 0.2 feet plus or minus below the finish grade as directed by the engineer. All equipment used for spreading and rough grading work shall be as approved by the engineer.
- B. Filling: All areas to be seeded shall be thoroughly prepared to the required depth of approximately three inches, by disking, harrowing or by other approved means. Limited areas shown on the drawing, which are too small to make these operations practicable shall receive special scarification prior to final tilling. Tilling shall continue until the condition of the soil is acceptable to the engineer as suitable for the specified type of seeding. When conditions are such, by reason of drought, excess moisture, or other factors that satisfactory results are not likely to be obtained, the work will be stopped by the engineer and shall be resumed only when directed. Undulations or irregularities in the surface, that would interfere with further contractor's operations or maintenance, shall be leveled before the next specified operation.
- C. Cleanup: After completion of tilling operations, the surface shall be cleared of all stones, stumps or other objects larger than 1-inch in thickness of diameter and of roots, brush, wire, grade stakes and other objects that may be a hindrance to maintenance operations. Adjacent paved areas shall be kept clean and soil or other dirt that may be brought upon the surface shall be removed promptly.
- D. Fine Grading: Final grades on the areas to be seeded are shown on the drawings by contour lines. The surfaces shall be left at the indicated grades in an even and properly compacted condition which insofar as practicable will not provide dips and pockets where water may stand. Upon completion of tilling operations and immediately prior to sowing seed, the area shall be finish graded as needed to correct surface irregularities produced by the preceding operations or by other cause and to restore design grades.

#### 3.2 Seeding

##### A. General

1. Types of Seed Installation
  - a. Hydro- seeding
2. Timing of Grass Seed Installation (Sowing)
  - a. Sowing of grass seed shall be performed only when daytime temperatures are consistently between 60°F and 75°F and nighttime temperatures do not exceed 70°F
  - b. Generally, these acceptable temperature ranges occur from approximately April 15 through May 31 and from approximately September 15 through October 31 of each year.
  - c. No sowing of grass seed will be permitted beyond the specified dates and/or acceptable temperatures ranges.

##### B. Seeding

1. Hydro-Seeding

- a. Hydro-seeding consists of applying a mixture of wood fiber mulch, grass seed, fertilizer and stabilizing emulsion with hydro-mulch equipment to a prepared seed bed.
- b. Seed mixture to be used for hydro-seeding operations is to be approved by the owner or owner's representative prior to installation.
- c. Installation
  - 1) Hydro-seeding is to be performed with the appropriate equipment.
  - 2) Mulch, seed, fertilizer and emulsion-to-water ratio(s) are to conform with industry standards to produce good to excellent results.
  - 3) Seed-to-water ratio and application rates are to be sufficient to produce a minimum of 98% grass coverage.

C. Maintenance During Seed Establishment

- 1. All turf seed installations are to be maintained by the Contractor through establishment and final acceptance of the turf; the Contractor's responsibility for maintenance ends only upon final acceptance of the successfully established turf.
- 2. Required maintenance during establishment of all seeded areas will include, but may not be limited to:
  - a. Watering
  - b. Mowing
  - c. Protection
- 3. Watering
  - a. All seeded areas shall be watered daily with a fine spray until germination. The seed bed shall be kept moist but not wet during the period of seed germination. Care must be taken that the seed bed does not dry out in spots.
  - b. During germination, the water shall penetrate to a depth of 1-inch into the seed bed.
  - c. After germination, as the grass roots penetrate more deeply into the soil, the quantity of water shall be increased so that the depth of penetration is a minimum of 3-inches.
  - d. Water shall be applied in such a way as to prevent damage to or flooding of the areas being watered and/or adjacent surfaces.
  - e. Water will be supplied by the Park District for watering purposes where available. If water is not available on site, the contractor shall supply water from his own source. The contractor shall furnish the hose and proper equipment for watering purposes. Contractor shall have the necessary city permits in order to obtain water from city hydrants.
- 4. Mowing
  - a. The contractor shall cut grass starting when the grass becomes 3-inches high, and once a week thereafter, or as often as necessary to maintain the grass height at 3", without removing more than 1/3 of the leaf blade at any cutting.
  - b. The contractor shall maintain a height of not less than 3 inches.
  - c. The contractor shall be responsible for at least THREE cuttings prior to final inspection.
  - d. Included in the cutting of grass shall be the cutting and trimming required around trees, baseball backstops, drainage structures, curbs and all areas that grass abuts, as

required or directed by the engineer. Trash and other debris is to be removed from turf areas prior to mowing operations. All mowing equipment shall be maintained in excellent operation condition, with all cutting edges sharp and in proper adjustment.

#### 5. Protection of Seeded Areas

- a. The contractor is responsible for the proper care of the seeded areas during the period when the vegetation is being established.
- b. The Contractor shall be responsible for protecting the seeded areas from vehicular, pedestrian and other traffic, run-off, erosion and any other events, occurrences and/or uses that may compromise the work.
- c. Site protection is to consist of temporary landscape protection fencing (wire or plastic mesh fabric), at least 48" in height, OR other barrier as approved by the owner or owner's representative.
- d. "NEWLY SEEDED" or other appropriate approved warning placards shall be posted until all work under the contract is completed and accepted.
- e. Site protection is to be put in place when work begins and be maintained for the duration of the work; the Contractor's responsibility for site protection ends only upon final acceptance of the successfully established turf.
- f. Damage to the turf resulting from inadequate site protection will be repaired by the Contractor at no additional charge to the Park District.

#### D. Repair

1. If at any time before completion and acceptance of the entire work covered by this contract, any portion of the surface becomes gullied or otherwise damaged following seeding, dies due to lack of water, becomes rutted due to improper protection, has been winter-killed or otherwise damaged or destroyed, the affected portion shall be repaired to re-establish the condition and grade of the soil prior to seeding and shall then be reseeded as specified hereinbefore by the contractor, at no additional cost to the Park District.
2. The Contractor shall be responsible for the repair of any damage to existing lawns, which may result from his work, and such repairs shall be made swiftly in a thorough and workmanlike manner, with minimum inconvenience to the Owner and users of the site. Where lawn areas have been disturbed or damaged, the damaged lawn areas, ruts and depressions shall be cultivated, filled with topsoil, settled to proper grades and seeded. Repairs shall be made to the satisfaction of the Owner or Owner's representative.

### 3.04 Final Inspection & Acceptance of Established Turf

#### A. General

1. Final inspection of the established turf will occur after at least three mowings have taken place, and will be performed by the owner or owner's representative.
2. Fall-installed turf seed which has not become sufficiently established to require 3 mowings prior to dormancy will be the Contractor's responsibility through the dormant period and into the next growing season, until establishment and mowing requirements are achieved.
3. Site protection shall remain in place until owner or owner's representative project manager acknowledges final acceptance.

#### B. Turf will be considered established and acceptable when ALL of the following criteria are met:

1. Seeded Turf
  - a. Turf has grown enough to require at least three mowings

- b. Turf is healthy and thriving, with minimum 98% coverage
- c. All bare and/or thin areas 6 inches in diameter or larger have been repaired to the satisfaction of owner or owner's representative

End of Section

**SECTION 32 9300**  
**LANDSCAPING**

1.0 GENERAL

1.1 Description

A. This work consists of supplying and installing plant materials; preparing and placing all topsoil, planting mix, fertilizer, mulch, and related items and furnishing and installing ground cover, perennials, annuals, shrubs, and trees. The Contractor shall be responsible for furnishing all materials, equipment, and labor necessary to complete the work and for maintenance in accordance with the plans and specifications.

1.2 Acceptance

A. Acceptance of plant material shall be given by the Owner's Representative before plant material is installed and again after installation. Rejected plants shall be immediately removed from the site at the Contractor's expense.

B. Final inspection of all plantings will be made at the conclusion of the work. The work will be accepted by the Owner upon the satisfactory completion of all work but exclusive of the replacement of plant materials. At the time of final acceptance of the project, all constructed areas must be free of weeds.

1.3 Guarantee Period

A. The guarantee period for all planting shall begin at the date of written acceptance by the Owner or Owner's representative and shall continue for a period of twelve months.

B. The Contractor shall replace as weather conditions permit, all plants 1/3 dead or more, and all plants not in a vigorous, thriving condition noted at the end of the guarantee period.

C. Plants used for replacement shall be of the same size and variety specified in the plant list. Replacement plants shall be furnished, planted and mulched as specified herein and guaranteed for one year following the acceptance of the replacement work at no additional cost to the Owner.

1.4 Utility Responsibility

A. The Contractor is responsible for damage to underground utilities. All locations shall be checked for the presence of utilities. Call JULIE (Joint Utilities Locating Information for Excavators) toll free at 1-800-892-0123.

2.0 MATERIAL

2.1 Planting Mix

A. Planting mix shall be 80% topsoil, 10% mushroom compost, and 10% sand. The three shall be mixed thoroughly. Planting mix shall be free of weed seeds.

2.2 Topsoil

A. Topsoil shall meet technical specification Section 31 2000, Earthwork.

2.3 Mulch

A. Mulch shall be rough cut and shredded hardwoods cured for a minimum of one year. No color additive. No weeds.

## 2.4 Plant Material

- A. Plant materials shall be freshly dug vigorous plants of specimen quality, symmetrical, thickly branched, tightly knit plants, true to species and variety and conforming to the measurements specified in the plant list and complying with ANSI Z60.1-2014. All plants shall be free of disease, insect pests, eggs, larva, and shall have healthy, well-balanced root systems. Specified plants of the same species and variety shall be matched specimens from a single block source and shall not be pruned before delivery. Standards for measurement, branching and grading of plant material shall be in conformance with current codes and standards recommended by the American Association of Nurserymen, Inc., as stated in the American Standard for Nursery Stock
- B. Balled and burlapped (BB) plants shall be dug with firm natural balls of earth, with sufficient diameter and depth to include all fibrous and feeding roots. No plants moved with a ball will be accepted if the ball is cracked or broken before or during planting operations.
- C. All plants shall have been grown under climatic conditions similar to those in the locality of the project for at least two years. Plants shall have been transplanted or root pruned at least once in the past three years. No heeled-in plants or plants from cold storage will be accepted.
- D. Substitutions will not be permitted. If proof is submitted that specified plants or sizes are unobtainable, a proposal will be considered for the nearest equivalent size or variety.
- E. All plants shall conform to the measurements specified in the plant list; exceptions are as follows:
  - 1. When size substitutions are necessary, the contractor shall request approval from the Owner's Representative in writing. It is up to the Owner's Representative to approve in writing requested substitutions.

## 3.0 EXECUTION

### 3.1 Planting Operations

- A. Weather Conditions: Planting shall be done under favorable weather conditions or as authorized by the Owner's Representative.
- B. Planting season shall be between April 15 to June 15 or between September 15 to October 15. Dates are dependent on species of plant material and weather.
- C. Planting might begin or end prior or after above dates as approved by owner or owner's representative.

### 3.2 Transportation and Delivery

- A. All plants that cannot be planted immediately on delivery shall be set on the ground or in a trench and the balls well covered with soil, manure or other acceptable material to prevent freezing, drying or over watering conditions. The Contractor shall notify the Owner's Representative at least 48 hours in advance of the anticipated delivery of any plant material for on-site approval.
- B. Plants transported to the site in open vehicles shall be covered with tarpaulins or other suitable covers securely fastened to the body of the vehicles and covered shipments shall be adequately ventilated to prevent overheating of the plants.
- C. All plants shall be kept moist, fresh and protected for the entire period during which the plants are being handled in transit or in temporary storage. No plant shall be so bound with rope or wired at any time as to damage the bark, break branches, or destroy the plant's natural shape.

### 3.3 Installation

- A. Prior to excavation, the Contractor will stake all trees and mark shrub locations and perennial bed locations for approval of the Owner's Representative. Whenever the Contractor is in doubt as to the proper location or spacing of plants, he shall request clarification. The Contractor is responsible for stripping sod from proposed planting areas and leveling soil according to drawings and specifications. This is considered incidental to the contract and will not be paid for separately. All planting pits shall be excavated to the full depth of the plant ball or container. The ball top shall be properly set to finished grade. All excavated material not used in the soil mixture or soil backfill shall be removed and legally disposed of off site.
- B. Excavation: The diameter of each planting pit shall be a minimum of twenty-four inches (24") greater than the diameter of the plant ball for trees and large shrubs and twelve inch (12") greater than diameter of small shrubs.
- C. Set plants in center of pits plumb and straight and at such a level that after settlement, the base of the plants will be at the finished grade. Set plants upright and faced to give the best appearance or relationship to each other or adjacent structures.
- D. When balled and burlapped trees are set, compact planting mixture around base of ball to fill all voids. All burlap, ropes and wires shall be removed from the sides and top of balls. No wire or wire baskets shall remain in the ground after planting.
- E. Immediately after the plant pit is back filled, a shallow basin slightly larger than pit shall be formed with a ridge of soil to facilitate watering. Strip sod from around the planting pit to form a six foot (6') diameter circle of bare ground around trees or to form a planting bed for shrubs as shown in the drawings.
- F. All non-turf soil surface in planting areas shall be mulched. Mulch shall be no less than three inches (3") deep, and no greater than four inches (4") deep. Mulch shall not come in contact with trunk of trees.

### 3.4 Pruning

- A. Each tree and shrub shall be pruned in accordance with standard horticultural practice to preserve the natural character of the plant and in the manner fitting its use in the landscape design.
  - 1. All dead wood or suckers and all broken or badly bruised branches shall be removed.
  - 2. Pruning shall be done with clean, sharp tools.
  - 3. Flowering trees shall be pruned only to remove dead and broken branches or branches that rub.

### 3.5 Watering and Maintenance

- A. At the time of planting, water is to be applied lightly until six inches (6") to eight inches (8") depth of wetness is met. Every effort shall be made to water from early morning to approximately one (1) hour before mid-day. Where watering systems exists, the Contractor shall utilize the systems in the manner they were intended.
- B. Contractor shall water plant material from the point when it is installed to thirty days after substantial completion is met for the entire project. Watering shall take place so that no less than 1" of water is applied to each plant within any seven day period.

- C. Prior to final acceptance of the project, the Contractor shall inspect the plantings throughout the growing season and take necessary steps to control insect and blight attack. The Contractor shall also inspect the plantings after severe storm and exercise all corrective measures required to maintain finished quality appearance and good plant vigor.
- D. No pesticides or herbicides shall be applied to any plant material without the approval of the Owner's Representative. Care shall be taken in watering plant material so as not to over water or in any way damage the plants. The Contractor is encouraged to monitor the soil moisture condition frequently and water when necessary to improve the percentage of plant survival. The Owner will not take over watering of plant material until thirty days after substantial completion of the project is met.

### 3.6 Tree Watering Bags

- A. Slow-Release Irrigation Tree Bag: UV-light-stabilized nylon-reinforced polyethylene sheet manufactured for drip irrigation of plants and emptying its water contents over an extended time period. Provide one bag for each new tree installed, incidental to contract. Contractor shall fill bags with water per manufacturer's recommendations based on tree caliper size and weather demands at the time of installation through 30 days beyond substantial completion.
- B. Tree bags as manufactured by DeWitt Dew Right, Treegator, or approved equal.

END OF SECTION

**SECTION 33 4100**  
**EXTERIOR SEWER FACILITIES**

1.0 GENERAL

1.1 Summary

- A. The work includes furnishing and installing certain portion of sewer including drains, frames and covers, and all pipe and accessories constructing concrete manholes, and testing of all sewer work; all as shown and specified.

1.2 Quality Control

- A. Sewer Work: Comply with all requirements and local codes and Standard Specifications for all Road and Bridge Construction, published by the Illinois Department of Transportation, latest edition.
- B. Illinois Standards: Standard Specifications for Water and Sewer Main Construction

1.3 Submittals

- A. Submit the following for review and action:
1. Shop Drawings: Submit shop drawings for precast concrete manholes, and all other specified structures. Include frames, covers, and grates.
  2. Product Data: Provide data indicating pipe, pipe accessories, filter fabric, and structures that meet the specifications.
  3. Contractor shall submit to the Architect/Engineer before any materials are delivered, the name and brand of materials which he proposes to use, and none but accepted materials shall be delivered to the site.
  4. Samples for approval shall be submitted in advance to allow ample time for testing for quality and no work shall be done until the required approval has been given.
  5. Manufacturer's Certificates: Provide certification that products meet or exceed specified requirements.
  6. Manufacturer's Installation Instructions: Indicate special procedures required to install products specified.
  7. Permit: Submit three (3) copies of permit when received.
  8. Submit upon completion of project, a copy of Certificate of Approval from agency that issued permit.

2.0 PRODUCTS

2.1 Components

- A. General: All Material shall be delivered to the site of the work in sufficient quantities so that work, will not be delayed. Contractor shall submit to the Engineer before any materials are delivered, the name and brand of materials which is to be used and none but accepted materials shall be delivered to the site. Samples for approval shall be submitted in advance to allow ample time for testing for quality and no work shall be done until the required approval has been given.
- B. Concrete shall have a compressive strength of 4,000 PSI in 28 days. The slump shall be 4 inches max. The mixing water shall be clean and free from organic matter and other deleterious substances. Proportion of materials will be determined by the Engineer
1. Ready-mixed concrete may be used, and if used, shall be mixed and delivered in accordance with ASTM C94.

2. Portland cement shall conform to ASTM C150, Type 1.
3. Aggregates shall be clean and well-graded from fine to coarse with a maximum size of 1 inch and shall conform to ASTM C33.
4. Forms, if required, shall be as approved.

## 2.2 Components for Sewer Work

- A. All components shall be subject to field inspection by the Owner and Owners representative. Any section of pipe or structure that is damaged by handling or is defective as determined by the Owner or owner's representative will be marked and returned to the manufacturer.
- B. All materials shall be delivered to the site of the work in sufficient quantities so that work, will not be delayed.
- C. Reinforcing steel where shown shall conform to either ASTM A615, grade 60 for steel bars or ASTM A 185 for welded wire fabric.
- D. Precast concrete blocks for manhole: ASTM C139 (Thickness 5", Height 7  $\frac{3}{4}$ " )
- E. Sewer Brick: ASTM C32, Grade MS
- F. Mortar: ASTM C270, Type N
- G. Hub-and-Spigot, Cast-Iron Soil Pipe and Fittings: ASTM A74 service and extra-heavy classes, and shall be coated with a heavy mastic or tar.
  1. Fittings used shall be cast iron drainage fittings of the same grade and coated in the same manner as the pipe specified above. All junctions shall be made with "Y" and 1/8 bend fittings.
  2. Joints shall be caulked with white oakum and shall be secured with molten caulking lead, not less than 1 inch deep.
- H. Extra Strength Vitrified Clay Pipe (ESVCP) and fitting: Extra strength, unglazed bell and spigot pipe. ASTM C 700. Flexible compression joints for vitrified clay pipe and fittings, ASTM C 425. Pipe must meet the requirements for Section 550 of the IDOT Standard Specifications for Road and Bridge Construction, latest edition.
- I. Reinforced Concrete Pipe; ASTM C 76 Class II unless otherwise indicated; reinforced concrete fittings, same strength as adjoining pipe, tongue-and-groove gasketed joints complying with ASTM C 443. Install in accordance with ACPA "Concrete Pipe Installation Manual"
- J. PVC Pipe for under drains shall meet the requirements shown on the plans and the PVC perforated subsurface drain pipe, SDR 35–ASTM D 3034.
- K. Cleanouts shall meet requirements of plans and have a ductile iron frame and cover for cleanout, ASTM A-536 and proof loaded as per AASHTO M306. Castings must be proof loaded as per AASHTO M306. All lids must be marked with a CO with raised capital letters. 2" high with  $\frac{3}{4}$ " raised.
- L. Precast Concrete Manholes: Precast, reinforced concrete, of depth indicated, with provision for rubber gasket joints.
  1. Ballast: Increase thickness of precast concrete section or as concrete to base section, as required to prevent flotation.
  2. Base Section: 6-inch (150mm) minimum thickness for floor slab and 4-inch (100mm) minimum for thickness for walls and base riser section, and having a separate base slab or base section with integral floor.
  3. Riser section: 4-inch (100mm) minimum for thickness, 48-inch (1220mm) diameter and length to provide depth indicated.
  4. Top Section: Eccentric cone type, unless concentric one or flat-slab-top is indicated. Top of cone of size that matches grade rings.

5. Gasket: ASTM C 443 (ASTM C 478M), rubber.
  6. Grade Rings: include 2 or 3 reinforced concrete rings, of 6 to 9 inches (152 to 229 mm) total thickness, that match a 24 inch (610mm) diameter frame and cover.
  7. Steps: ASTM C 478 (ASTM C 478M) ductile iron, individual steps.
  8. Pipe Connection: ASTM C 923 (ASTM C 923M), resilient, of size required, for each pipe connecting to base section.
- M. Precast Concrete Catch Basin: Precast, reinforced concrete, of depth indicated, with provision for rubber gasket.
1. Base Section: 6-inch (150mm) minimum thickness; 4-inch (100mm) minimum thickness for walls and base riser section, and having a separate base slab or base section with integral floor.
  2. Riser Section: 4-inch (100mm) minimum thickness 48-inch (1220mm) diameter and length to provide depth indicated.
  3. Top Section: Eccentric cone type, unless concentric cone or flat slab is indicated. Top of cone of size that matches grade rings.
  4. Gasket: ASTM C 443 (ASTM C 478M), rubber.
  5. Grade Rings: include 2 or 3 reinforced concrete rings, of 6 to 9 inches (152 to 229 mm) total thickness, that match a 24 inch (610mm) diameter frame and cover. ASTM C478
  6. Steps: ASTM C 478 (ASTM C 478M) ductile iron, individual steps.
  7. Pipe Connection: ASTM C 923 (ASTM C 923M), resilient, of size required, for each pipe connecting to base section.
- N. Frames and Gates: Frames and grates for manholes shall be equal to No. 1420-A basin cover and frame, (see plan for solid or grated tops) all as manufactured by EAST JORDAN IRON WORKS, INC. All open grates located in paved walking paths shall comply with ADA requirements for openings.
- O. Plastic Underground Warning Tapes: Polyethylene plastic tape, 6 inches wide by 4 mils thick, solid green in color with continuously printed in black letters "CAUTION-SEWER LINE BURIED BELOW".
- P. Keep Catch Basin Free/Clean of Debris During Construction.

### 3.0 EXECUTION

#### 3.1 Sewer Pipe Installation

- A. Before joining the pipe in the trench, the bell and spigot surface shall be wiped free of dust or other foreign matter. A lubricant or sealant as recommended by the pipe manufacturer shall be applied to the bell end spigot mating surface just before they are joined together.
- B. The spigot end shall be positioned into the bell end of the pipe previously laid and shall then be shoved home to compress the joints and to assure a tight fit between the interfaces.
- C. Sewer pipe shall be laid with bell end upgrade, all changes in direction shall be made with elbow and proper curved fittings, and junctions shall be made with "Y" branches. Where pipe enters manhole, it shall be properly centered in the opening and well-cemented with mortar.
- D. Seal ends of pipe at the locations as shown on plans, using an airtight plug or by other means acceptable to the project manager.
- E. When one pipe material is to join another pipe material and the change in pipe material will not occur at a manhole or catch basin, the dissimilar pipes must be joined using a "band-seal" adapter coupling.

- F. Inspect piping before installation to detect apparent defect. Mark defective materials with white paint and promptly remove from site.
- G. Lay piping beginning at low point of system, true to grades and alignment indicated, with unbroken continuity of invert.
- H. Place plugs in end of uncompleted conduit at end of day or wherever work stops.
- I. Flush lines between manholes if required to remove collected debris.
- J. Make joints between different type of pipe with standard manufactured adapters and fitting intended for that purpose.
- K. Close open ends of abandoned underground utilities which are indicated to remain in place. Provide sufficiently strong closures to withstand hydro-static or earth pressure which may result after ends of abandoned utilities have been closed. Close open ends of concrete or masonry utilities with not less than 8" thick brick masonry bulkheads.
- L. Inspect piping to determine whether line displacement or other damage has occurred.
- M. Make inspection after lines between structure locations have been installed and approximately 2-ft of backfill is in place and again at completion of project. If inspection indicates poor alignment, debris, displaced pipe, installation, or other defects, correct such defects, and re-inspect.
- N. Prior to the connection of sewer pipes to existing structure/sewer pipes, the structure shall be identified, cleaned and videotaped. This shall occur from the connection point of the sewer line or structure downstream including sewer lines/structures down to the city street sewer system connection or open water outfall. The contractor is responsible for all cleaning and videotaping at contractor's expense. This shall be included in the base bid. The cleaning and videotaping shall occur as soon as practical and any damaged pipe discovered during cleaning and videotaping shall be brought to the owner or owner's representative's attention immediately.
- O. Pavement sections requiring removal must be full panel sections and pavement anchors will be required for pavement restoration.

### 3.2 Manhole and Catch Basin Installation

- A. Place precast concrete section as indicated, where manholes or catch basin occur in pavements, set tops of frames and covers flush with finish surface. Elsewhere, set tops of 3" above finished surface, unless otherwise indicated.
- B. Install in accordance with ASTM C 891.
- C. Provide rubber joints gasket complying with ASTM C 443 or apply bituminous mastic coating

### 3.3 Connections

- A. Connection to new Sewers: make sewer service connections and downspout connections with service wyes or tees of the same type of material as the parent sewer.
- B. Connections to existing sewers: Make connections to existing conduits and structures so that finished work will conform as nearly as practicable to requirements specified for new work. Use tee or wye saddle on existing sewer and structures. Do not allow proposed sewer to extend more than 1 inch into parent sewer. If the exiting sewer pipe is cracked, broken or otherwise damaged by the contractor in making this circular opening, the contractor shall replace this section of pipe with a pipe equal to the pipe of the existing sewer.

The joint between the exiting storm sewer and the proposed storm sewer shall be completely sealed with brick and mortar.

### 3.4 Structures to be Adjusted

- A. General This work consists of adjusting existing catch basins, manholes, inlets, valve vaults, electric manholes or other structure to bring casting to the finished grade of the proposed improvements. Perform work in accordance with section 602 and 603 of IDOT Standard Specification except as modified herein.
- B. Construction requirements: Use brick and mortar or precast adjusting rings to adjust structures. Set adjustment bricks, rings, and structure frames in a full mortar bed. Shimming of the frame with wood and stones is not allowed. Use of partial bricks is not allowed.
- C. Timing: If adjustments are made in areas open to traffic, complete the adjustment in the same day as it is started.

### 3.5 Abandoned Sewers and Structures

- A. Existing manholes, catch basins and inlets designated to be removed at locations where the existing inlet and/or outlet pipes are to be abandoned, shall be removed for the full depth of the structure. If the abandoned pipes are not designated to be removed, the ends of the pipe at the structure shall be sealed with concrete or brick and mortar in a matter satisfactory to the Owner.

### 3.6 Sewer Pipe Crossing – Sewers and Water Mains

- A. Normal conditions: Water mains crossing house sewers, storm sewers or sanitary sewer crossing water mains shall be laid to provide a separation of at least 18 inches between the bottom of the water main and the top of the sewer. Unless the following unusual conditions exist:
- B. Subtext sewers passing over or under water mains should be constructed of materials and with joints that are equivalent to water main standards of construction.
- C. Construction of sewers crossing over water mains shall insure additional protection to the water main by providing:
  - 1. A vertical separate of at least 18 inches between the bottom of the sewer and top of the water main:
  - 2. Adequate structural support for the sewer to prevent excessive deflection of joints and settling on and breaking the water mains:
  - 3. That the length of above type sewer pipe be centered at the point of crossing so that the joints will be equidistant and as far as possible from the water main.

### 3.7 Drainage Structures to be Cleaned

- 1. General: clean existing manholes, catch basins, and inlets of all debris. Rod pipes within project limits and to the nearest drainage structure downstream to ensure proper flow and drainage within the sewer pipe
- 2. Sewer cleaning methods shall be washing with high pressure water (water jetting) or vacuum sewer jetting.

END OF SECTION



# SHEET INDEX

1.0	Title Sheet
1.1	Sheet Index
<b>CARTWRIGHT PARK</b>	
C 2.0	Soil & Sediment Control Plan
C 2.1	Tree Preservation & Removals Plan
C 2.2	Existing Conditions & Removals Plan
C 3.0	Layout Plan
C 3.1	Playground Enlargement
C 4.0	Dimension Plan - Paving
C 4.1	Dimension Plan - Equipment
C 5.0	Grading Plan
C 5.1	Utility Plan
C 6.0	Landscape Plan
C 6.1	Landscape Plan - Enlargements
C 7.0	Construction Details
C 7.1	Construction Details
C 7.2	Construction Details
C 7.3	Construction Details
C 7.4	Construction Details
C 7.5	Construction Details
C E0.0	Electrical Coversheet
C ED1.1	Electrical Site Demolition
C E1.1	Electrical Site Plan
C E1.2	Electrical Site Plan - Photometrics
C E2.0	Electrical Details
C E3.0	Electrical Diagrams
C E4.0	Electrical Schedules
C E5.0	Electrical Site Lighting - Cut Sheets
C E5.1	Electrical Site Lighting - Cut Sheets

<b>FITZSIMONS PARK</b>	
F 2.0	Soil Erosion & Sediment Control Plan
F 2.1	Tree Preservation & Removals Plan
F 2.2	Existing Conditions & Removals Plan - Overall
F 2.3	Existing Conditions & Removals Plan - West
F 2.4	Existing Conditions & Removals Plan - East
F 3.0	Layout Plan
F 4.0	Dimension Plan - Paving
F 4.1	Dimension Plan - Equipment
F 5.0	Grading Plan
F 5.1	Utility Plan
F 6.0	Landscape Plan
F 6.1	Landscape Plan - Enlargements
F 7.0	Construction Details
F 7.1	Construction Details
F 7.2	Construction Details
F 7.3	Construction Details
F E0.0	Electrical Coversheet
F ED1.1	Electrical Site Plan Demolition
F E1.1	Electrical Site Plan
F E2.0	Electrical Details



909 Davis Street  
Evanston, Illinois 60201  
Phone: 847-448-4311

PROJECT  
**Cartwright Park  
Improvements**

3250 Grant Street, Evanston, IL 60201

**Fitzsimons  
Park  
Improvements**

801 Lee Street, Evanston, IL 60202

PROJECT TEAM



CIVIL ENGINEER:  
Environmental Design  
International Inc.  
33 W. Monroe Street, Suite  
1825 Chicago, Illinois 60603  
Phone: 312-345-1400

ELECTRICAL ENGINEER  
IMEG Consultants Corp.  
263 Shuman Boulevard  
Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

ORIGINAL ISSUE DATE  
**Issue for Bid** 12FEB2026

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PROJECT NUMBER **1358 & 1359**

SHEET TITLE  
**Sheet Index**

SHEET NUMBER

**1.1**



City of  
Evanston

909 Davis Street  
Evanston, Illinois 60201  
Phone: 847-448-4311

PROJECT  
**Cartwright Park  
Improvements**  
3250 Grant Street, Evanston, IL 60201

PROJECT TEAM



**uplandDesign Ltd**  
Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

CIVIL ENGINEER:  
Environmental Design  
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33 W. Monroe Street, Suite  
1825 Chicago, Illinois 60603  
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263 Shuman Boulevard  
Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

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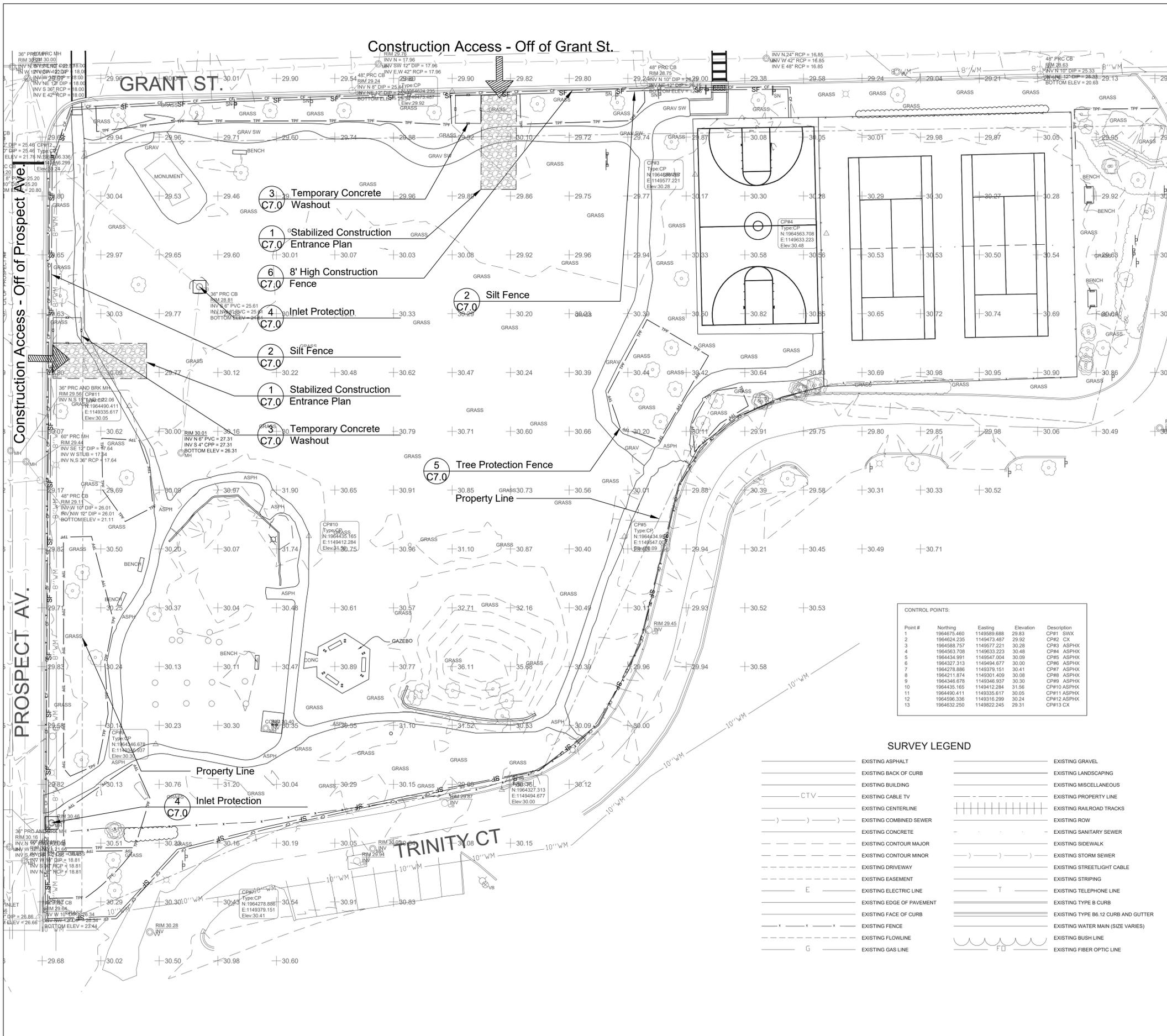
PROJECT NUMBER **1358 & 1359**

SHEET TITLE

**Soil &  
Sediment  
Control Plan**

SHEET NUMBER

**C 2.0**



CONTROL POINTS:

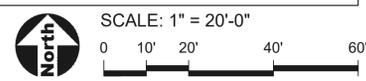
Point #	Northing	Easting	Elevation	Description
1	1964675.460	1149589.688	29.83	CP#1 SWX
2	1964624.235	1149473.487	29.92	CP#2 CX
3	1964588.757	1149577.221	30.28	CP#3 ASPHX
4	1964563.708	1149633.223	30.48	CP#4 ASPHX
5	1964434.991	1149547.004	30.09	CP#5 ASPHX
6	1964327.313	1149494.677	30.00	CP#6 ASPHX
7	1964278.896	1149376.151	30.41	CP#7 ASPHX
8	1964211.874	1149301.409	30.08	CP#8 ASPHX
9	1964346.678	1149346.937	30.30	CP#9 ASPHX
10	1964435.165	1149412.284	31.56	CP#10 ASPHX
11	1964490.411	1149335.617	30.05	CP#11 ASPHX
12	1964596.336	1149316.299	30.24	CP#12 ASPHX
13	1964632.250	1149822.245	29.31	CP#13 CX

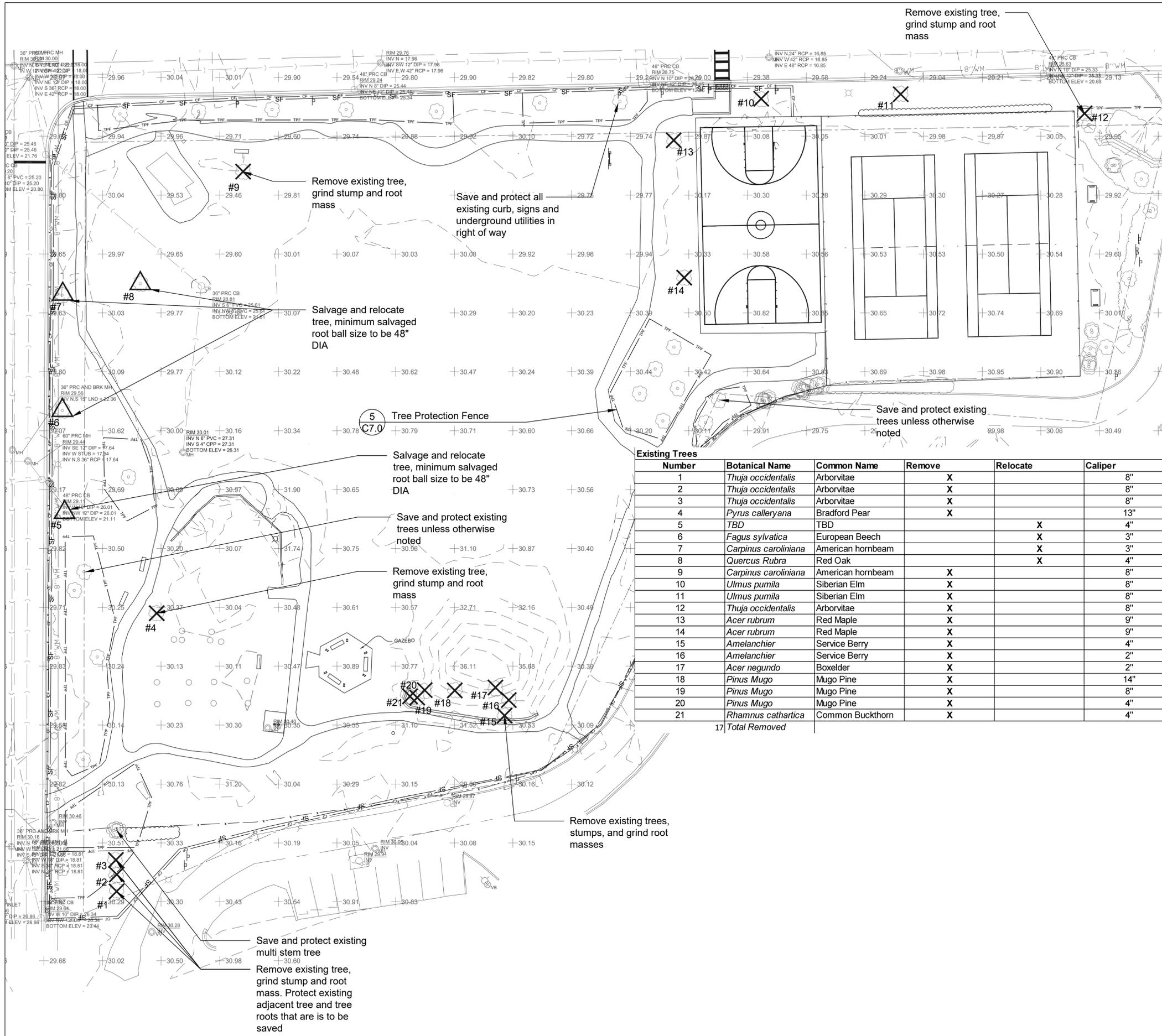
**SURVEY LEGEND**

—	EXISTING ASPHALT	—	EXISTING GRAVEL
- - -	EXISTING BACK OF CURB	- - -	EXISTING LANDSCAPING
- - -	EXISTING BUILDING	- - -	EXISTING MISCELLANEOUS
- - -	EXISTING CABLE TV	- - -	EXISTING PROPERTY LINE
- - -	EXISTING CENTERLINE	- - -	EXISTING RAILROAD TRACKS
- - -	EXISTING COMBINED SEWER	- - -	EXISTING ROW
- - -	EXISTING CONCRETE	- - -	EXISTING SANITARY SEWER
- - -	EXISTING CONTOUR MAJOR	- - -	EXISTING SIDEWALK
- - -	EXISTING CONTOUR MINOR	- - -	EXISTING STORM SEWER
- - -	EXISTING DRIVEWAY	- - -	EXISTING STREETLIGHT CABLE
- - -	EXISTING EASEMENT	- - -	EXISTING STRIPING
- - -	EXISTING ELECTRIC LINE	- - -	EXISTING TELEPHONE LINE
- - -	EXISTING EDGE OF PAVEMENT	- - -	EXISTING TYPE B CURB
- - -	EXISTING FACE OF CURB	- - -	EXISTING TYPE B6 12 CURB AND GUTTER
- - -	EXISTING FENCE	- - -	EXISTING WATER MAIN (SIZE VARIES)
- - -	EXISTING FLOWLINE	- - -	EXISTING BUSH LINE
- - -	EXISTING GAS LINE	- - -	EXISTING FIBER OPTIC LINE

**LEGEND**

— TPF —	Tree Protection Fence
— CF —	Construction Fence/Construction Limits
— SF —	Silt Fence
□	Inlet and Pipe Protection
□	Concrete Washout





**GENERAL NOTES: TREE PRESERVATION & REMOVALS PLAN**

1. Reference sheet C 2.2 for existing conditions & removals notes



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Evanston, Illinois 60201  
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**PROJECT TEAM**

uplandDesign Ltd  
Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

**CIVIL ENGINEER:**  
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33 W. Monroe Street, Suite 1825  
Chicago, Illinois 60603  
Phone: 312-345-1400

**ELECTRICAL ENGINEER**  
IMEG Consultants Corp.  
263 Shuman Boulevard Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

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**REVISIONS**

TD/CG	REVISION

**PROJECT NUMBER 1358 & 1359**

**SHEET TITLE**  
**Tree Preservation & Removals Plan**

**SHEET NUMBER**

**C 2.1**

**Existing Trees**

Number	Botanical Name	Common Name	Remove	Relocate	Caliper
1	<i>Thuja occidentalis</i>	Arborvitae	X		8"
2	<i>Thuja occidentalis</i>	Arborvitae	X		8"
3	<i>Thuja occidentalis</i>	Arborvitae	X		8"
4	<i>Pyrus calleryana</i>	Bradford Pear	X		13"
5	TBD			X	4"
6	<i>Fagus sylvatica</i>	European Beech		X	3"
7	<i>Carpinus caroliniana</i>	American hornbeam		X	3"
8	<i>Quercus Rubra</i>	Red Oak		X	4"
9	<i>Carpinus caroliniana</i>	American hornbeam	X		8"
10	<i>Ulmus pumila</i>	Siberian Elm	X		8"
11	<i>Ulmus pumila</i>	Siberian Elm	X		8"
12	<i>Thuja occidentalis</i>	Arborvitae	X		8"
13	<i>Acer rubrum</i>	Red Maple	X		9"
14	<i>Acer rubrum</i>	Red Maple	X		9"
15	<i>Amelanchier</i>	Service Berry	X		4"
16	<i>Amelanchier</i>	Service Berry	X		2"
17	<i>Acer negundo</i>	Boxelder	X		2"
18	<i>Pinus Mugo</i>	Mugo Pine	X		14"
19	<i>Pinus Mugo</i>	Mugo Pine	X		8"
20	<i>Pinus Mugo</i>	Mugo Pine	X		4"
21	<i>Rhamnus cathartica</i>	Common Buckthorn	X		4"
17	Total Removed				

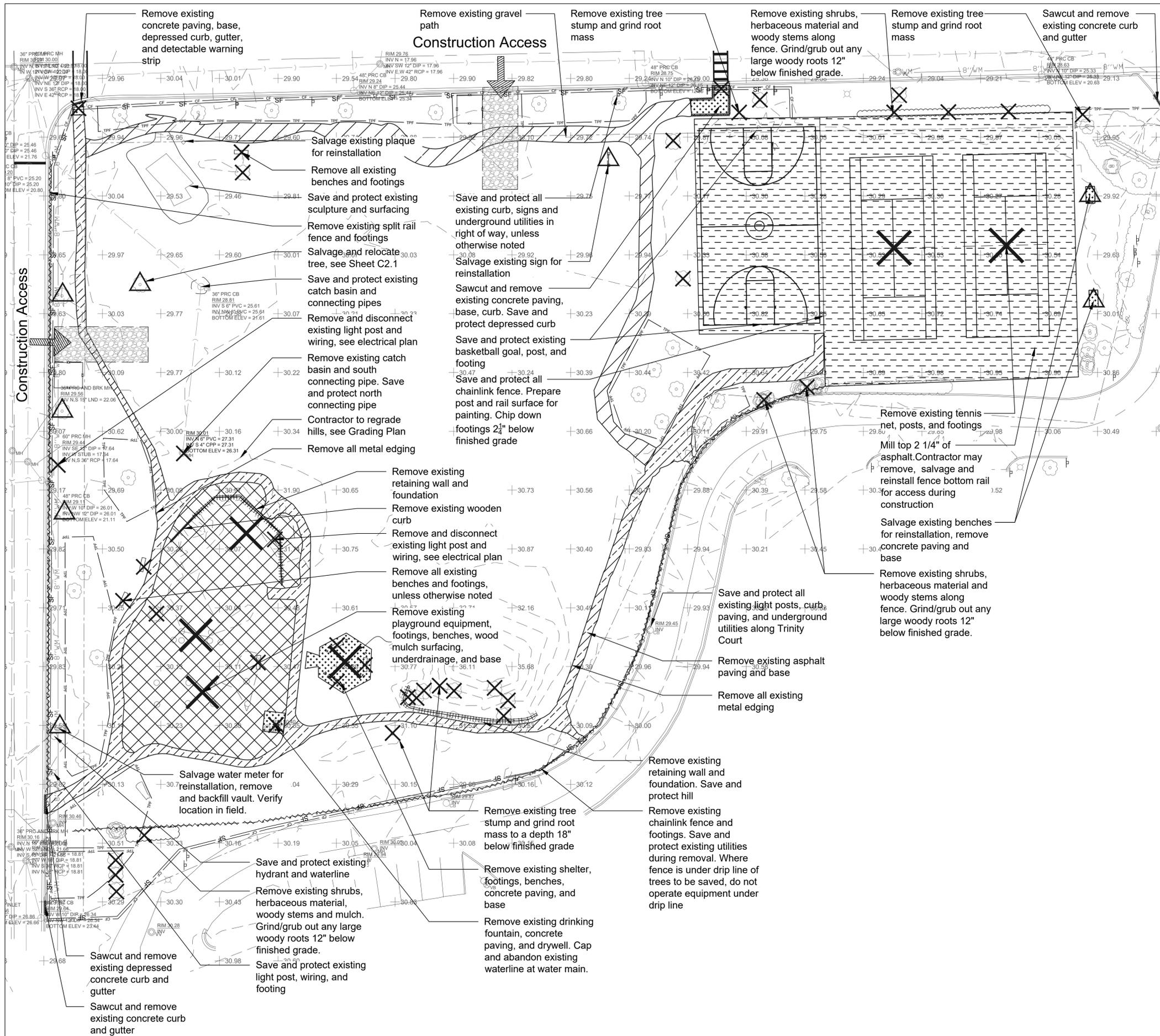
**REMOVALS LEGEND**

- Remove and properly dispose of trees, grind stump and root mass to a depth of 18" below existing grade or proposed grade which ever is lowest unless otherwise noted on plan.
- Remove and Dispose of Item as Marked
- Salvage and relocate item as marked



SCALE: 1" = 20'-0"





**GENERAL NOTES: EXISTING CONDITIONS & REMOVALS**

- The Contractor is to locate all utilities, public and private, prior to beginning construction. Contractor will be responsible for any damages to utilities caused by their work. Contact J.U.L.I.E. 72 hours prior to construction at 1-800-982-0123 or (811) for location of utilities and contractor shall be responsible for protection of the same.
- Contact City of Evanston Fleet and Facilities Management 72 hours prior to construction at 847-866-2974 for utility locates within the park.
- Site conditions are shown based upon available information, contractor to verify all existing conditions prior to bidding.
- The contractor shall be responsible for the protection of all private utilities even though they may not be shown on the plans. Any utility damaged during the construction shall be repaired or replaced to the satisfaction of the Owner at the contractor's expense. No tree shall be planted within 10 lateral feet of any underground waterline, sewer line, transmission line or other utility.
- Contours and elevations shown hereon are referenced to Evanston Datum. Horizontal control is State Plane and vertical control is Evanston Datum.
- A Topographic Survey was completed for the Owner by Owner.
- The Contractor shall walk the site prior to submitting a bid to be fully familiar with site conditions.
- The Contractor shall protect and preserve all section, property or survey reference markers.
- Tree Protection Fence to be installed as shown on plans and details prior to beginning construction. (incidental to cost). Do not drive, store equipment or materials within dripline of existing trees that are to be saved. Hold necessary disturbance to a minimum.
- Contractor will be held responsible for damage to items not scheduled for removal.
- Contractor shall repair or replace all damaged sidewalks, curbs or paving to remain in place that were damaged as a result of work stated in contract documents.
- No excavations are to be left open to foul weather, rain, snow, etc. which would necessitate further excavation and additional sub grade materials.
- Work site safety is the responsibility of the Contractor.
- Vehicular Construction access shall be at the locations specified to minimize damage. Construction access shall be approved by the Owner's representative.
- Construction Limits: Construction Limits are as noted on plans. Do not store equipment or stockpile materials outside of construction limits. Any areas disturbed as a result of construction shall be restored to lawn or other surface by contractor to match pre-construction condition.
- Topsoil may be stockpiled for redistribution as needed. Excess topsoil, debris and plant material to be removed off site and disposed of legally.
- Construction fence shall be installed prior to beginning construction. Construction fence to be 8' high with driven posts and privacy screens. (incidental to contract).
- Place erosion control measures as required to eliminate sedimentation into non-construction areas and as shown on plans and details prior to beginning construction.
- Before beginning work at the site and throughout the course of the work contractor to inspect and verify the location and condition of every item affected by the work under this contract and report discrepancies to the Owner's Representative before beginning work.
- Should discrepancies appear among the contract documents or between the contract documents and existing conditions, the contractor shall request an interpretation from the Owner's Representative before bidding. If the contractor fails to make such requests, it is presumed that both provisions were included in the bid, and the Owner's Representative shall determine which of the conflicting requirements shall govern. The contractor shall perform the work at no additional cost to the Owner in accordance with the Owner's Representative determination. Where conflicts exist between or within the contract documents between and applicable standards, codes, ordinances or manufacturers recommendations, and clarification has not been requested from the Owner's Representative prior to bidding as provided for above, the more stringent or higher quality standard shall prevail. Large scale drawings shall take precedence over small scale drawings, figured dimensions on the drawings over scaled dimensions and noted material over graphic representations.
- The contractor shall provide all work and materials which any section or part of the drawings, specifications or conditions require them to provide, regardless of whether such requirement is or is not faithfully repeated in other parts of the documents thereof to which the provisions might be appropriate.
- All necessary site work permits will be obtained by Contractor. Contractor and all subcontractors shall register and pay associated registration fees to the Building Department. Building permit fees will be waived. Contractor is responsible for following permit requirements including coordination of inspections and/or re-inspections.
- Contractor shall follow all permit requirements as part of the project.

**REMOVALS LEGEND**

- Remove existing engineered wood fiber surfacing and playground equipment, full depth
- Remove existing concrete paving, full depth
- Remove existing asphalt paving, full depth
- Mill and remove top 2 1/4" of asphalt paving
- Remove existing gravel path, full depth
- Remove existing curb as noted
- Remove existing fence
- Remove existing wall
- Remove and properly dispose of trees, grind stump and root mass to a depth of 18" below existing grade or proposed grade which ever is lowest unless otherwise noted on plan.
- Remove and Dispose of Item as Marked
- Salvage and relocate item as marked



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Evanston, Illinois 60201  
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3250 Grant Street, Evanston, IL 60201

**PROJECT TEAM**

Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

**CIVIL ENGINEER:**  
Environmental Design International Inc.  
33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603  
Phone: 312-345-1400

**ELECTRICAL ENGINEER**  
IMEG Consultants Corp.  
263 Shuman Boulevard Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

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**REVISIONS**

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PROJECT NUMBER **1358 & 1359**

SHEET TITLE  
**Existing Conditions & Removals Plan**

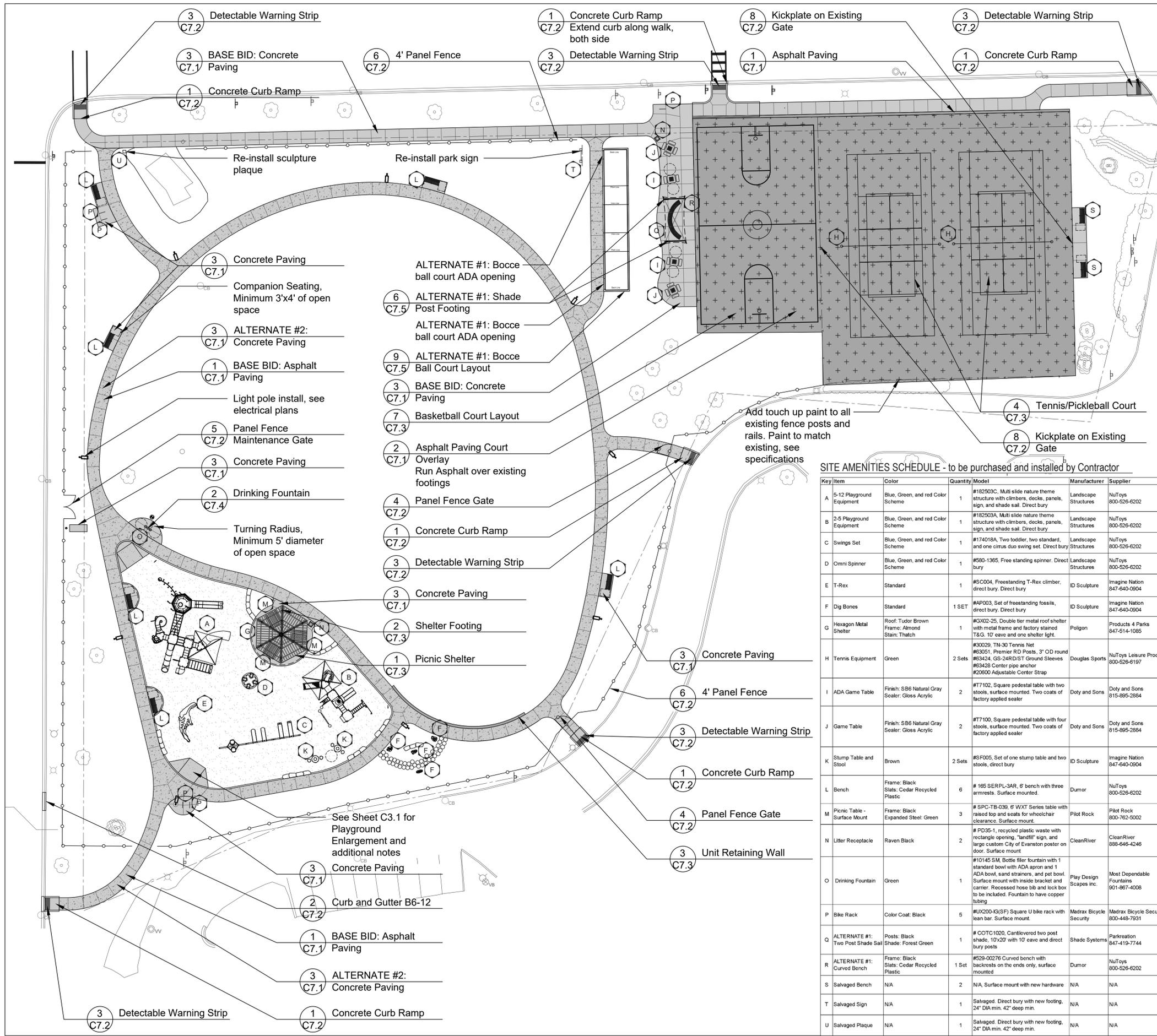
SHEET NUMBER

**C 2.2**



SCALE: 1" = 20'-0"





**SITE AMENITIES SCHEDULE - to be purchased and installed by Contractor**

Key/Item	Color	Quantity	Model	Manufacturer	Supplier
A 5-12 Playground Equipment	Blue, Green, and red Color Scheme	1	#182503C, Multi slide nature theme structure with climbers, decks, panels, sign, and shade sail. Direct bury	Landscape Structures	NuToys 800-526-6202
B 2-5 Playground Equipment	Blue, Green, and red Color Scheme	1	#182503A, Multi slide nature theme structure with climbers, decks, panels, sign, and shade sail. Direct bury	Landscape Structures	NuToys 800-526-6202
C Swings Set	Blue, Green, and red Color Scheme	1	#174018A, Two toddler, two standard, and one citrus duo swing set. Direct bury	Landscape Structures	NuToys 800-526-6202
D Omni Spinner	Blue, Green, and red Color Scheme	1	#580-1365, Free standing spinner. Direct bury	Landscape Structures	NuToys 800-526-6202
E T-Rex	Standard	1	#5C004, Freestanding T-Rex climber, direct bury. Direct bury	ID Sculpture	Imagine Nation 847-640-0904
F Dig Bones	Standard	1 SET	#AP003, Set of freestanding fossils, direct bury. Direct bury	ID Sculpture	Imagine Nation 847-640-0904
G Hexagon Metal Shelter	Roof: Tudor Brown Frame: Almond Stain: Thatch	1	#GX02-25, Double tier metal roof shelter with metal frame and factory stained T&G. 10' eave and one shelter light.	Polygon	Products 4 Parks 847-514-1055
H Tennis Equipment	Green	2 Sets	#30029, TN-30 Tennis Net #63051, Premier RD Posts, 3" OD round #63424, GS-24RDIS T Ground Sleeves #63428, Center pipe anchor #20600 Adjustable Center Strap	Douglas Sports	NuToys Leisure Products 800-526-6197
I ADA Game Table	Finish: S86 Natural Gray Sealer: Gloss Acrylic	2	#T7102, Square pedestal table with two stools, surface mounted. Two coats of factory applied sealer	Doty and Sons	Doty and Sons 815-895-2884
J Game Table	Finish: S86 Natural Gray Sealer: Gloss Acrylic	2	#T7100, Square pedestal table with four stools, surface mounted. Two coats of factory applied sealer	Doty and Sons	Doty and Sons 815-895-2884
K Stump Table and Stool	Brown	2 Sets	#SF005, Set of one stump table and two stools, direct bury	ID Sculpture	Imagine Nation 847-640-0904
L Bench	Frame: Black Slats: Cedar Recycled Plastic	6	#165 SERPL-3AR, 6' bench with three armrests. Surface mounted.	Dumor	NuToys 800-526-6202
M Picnic Table - Surface Mount	Frame: Black Expanded Steel Green	3	#SPC-TB-039, 6' WXT Series table with raised top and seats for wheelchair clearance. Surface mount.	Pilot Rock	Pilot Rock 800-762-5002
N Litter Receptacle	Raven Black	2	#PD35-1, recycled plastic waste with rectangular opening, "landfill" sign, and large custom City of Evanston poster on door. Surface mount.	CleanRiver	CleanRiver 888-648-4246
O Drinking Fountain	Green	1	#10145 SM Bottle filler fountain with 1 standard bowl with ADA apron and 1 ADA bowl, sand strainers, and pet bowl. Surface mount with inside bracket and carrier. Recessed hose bib and lock box to be included. Fountain to have copper tubing.	Play Design Scapes inc.	Most Dependable Fountains 901-867-4008
P Bike Rack	Color Coat: Black	5	#UX200-IG(SF) Square U bike rack with lean bar. Surface mount.	Madrax Bicycle Security	Madrax Bicycle Security 800-448-7931
Q ALTERNATE #1: Two Post Shade Sail	Posts: Black Shade: Forest Green	1	#COTC1020, Cantilevered two post shade, 10'x20' with 10' eave and direct bury posts	Shade Systems	Parkreation 847-419-7744
R ALTERNATE #1: Curved Bench	Frame: Black Slats: Cedar Recycled Plastic	1 Set	#529-00276 Curved bench with backrests on the ends only, surface mounted	Dumor	NuToys 800-526-6202
S Salvaged Bench	N/A	2	N/A, Surface mount with new hardware	N/A	N/A
T Salvaged Sign	N/A	1	Salvaged. Direct bury with new footing, 24" DIA min. 42" deep min.	N/A	N/A
U Salvaged Plaque	N/A	1	Salvaged. Direct bury with new footing, 24" DIA min. 42" deep min.	N/A	N/A

**GENERAL NOTES: LAYOUT**

- It is the responsibility of the Contractor to perform layout of all project elements and points for review by Owner prior to construction. (This work is considered incidental to the project and not paid as a separate bid item).
- The contractor shall be responsible for all materials and quantities as required to complete the work in accordance with the plans and specifications. The contractor will notify the Owner's Representative in writing of any discrepancies or changes required to complete the work before any action may be taken. All changes or change orders must be approved by the Owner's Representative and Owner before any changes are executed.
- Contractor shall confirm that all equipment use/safety zones specified by play equipment manufacturer are adhered to.
- All play equipment footings shall meet manufacturers recommendations for footing depth and width.

**REFERENCED SPECIFICATIONS AND CODES**

- The Americans with Disabilities Act and the Illinois Accessibility Code.
- The Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Control, and IEPA Standards and Specifications for Soil Erosion and Sedimentation Control.
- U.S. Soil Conservation Service Field Engineering Handbook
- All codes and ordinances of the City of Evanston, Cook County Soil and Water Conservation Districts, and all agencies having jurisdiction.
- All requirements of the Occupational Safety and Health Administration.
- The cited standard specifications, codes and permits, with these construction plans and details, are all to be considered part of the work, incidental items or accessories necessary to complete this work may not be specifically noted but are considered a part of these improvements.
- Illinois Department of Transportation Standard Specification
- In case of conflict, the more restrictive provision shall apply.

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uplandDesign Ltd  
Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

**CIVIL ENGINEER:**  
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33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603  
Phone: 312-345-1400

**ELECTRICAL ENGINEER**  
IMEG Consultants Corp.  
263 Shuman Boulevard Suite 550  
Naperville, Illinois 60563  
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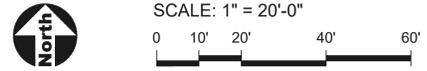
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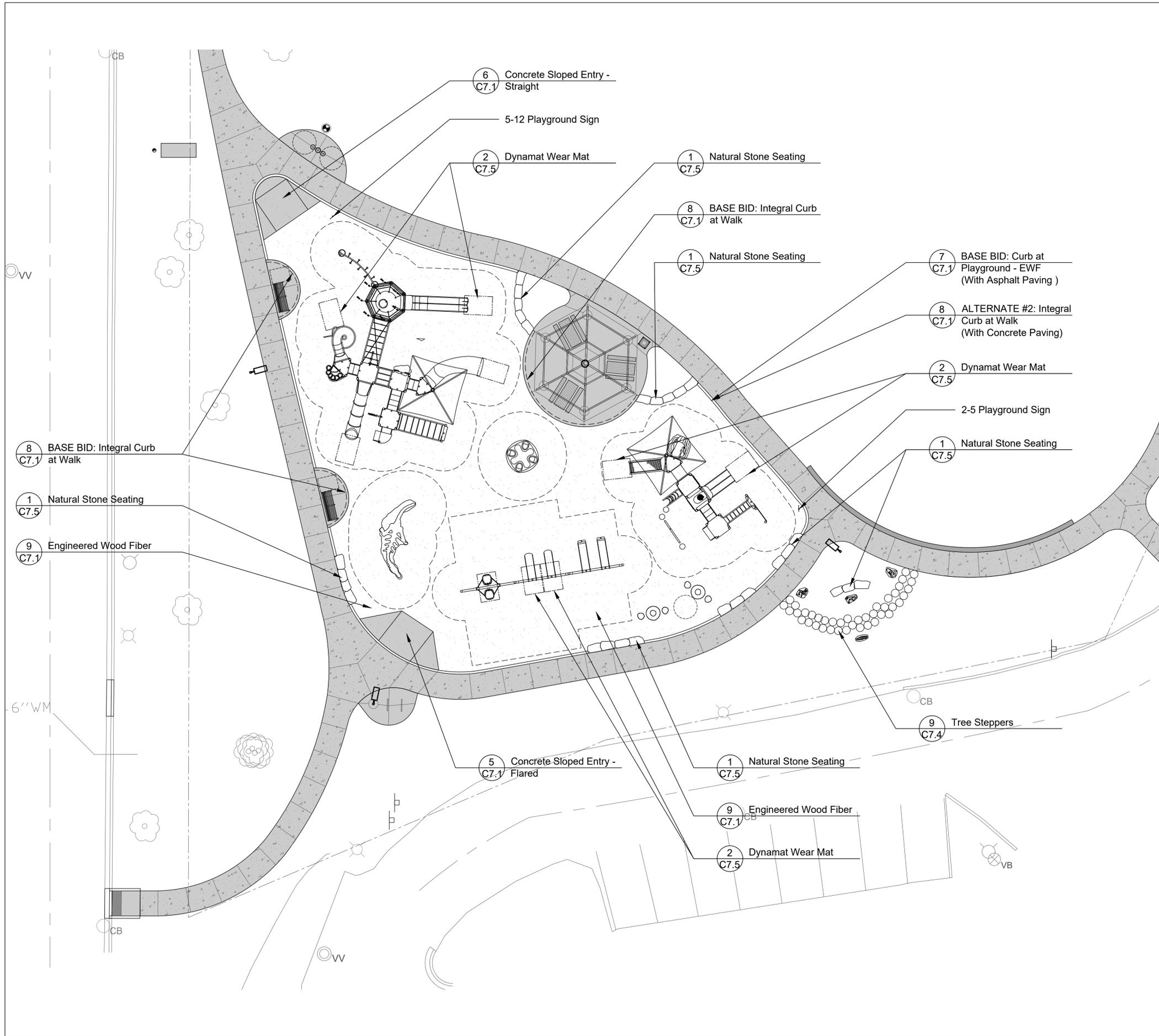
**PROJECT NUMBER 1358 & 1359**

**SHEET TITLE**  
**Layout Plan**

**SHEET NUMBER**

**C 3.0**





**GENERAL NOTES: LAYOUT**

1. Reference sheet C 3.0 for General Notes: Layout and Site Amenities Chart

**REFERENCED SPECIFICATIONS AND CODES**

1. Reference sheet C 3.0 for Specification and Codes

**LEGEND**

- BASE BID: Concrete Paving
- ALTERNATE #2: Concrete Paving
- Engineered Wood Fiber Surfacing
- Retaining Wall
- Panel Fence
- Light Pole
- Dynamat Wear Mat
- 5' Diameter ADA Turning Radius
- Companion Seating, 3'x4' Minimum Open Space



SCALE: 1" = 20'-0"



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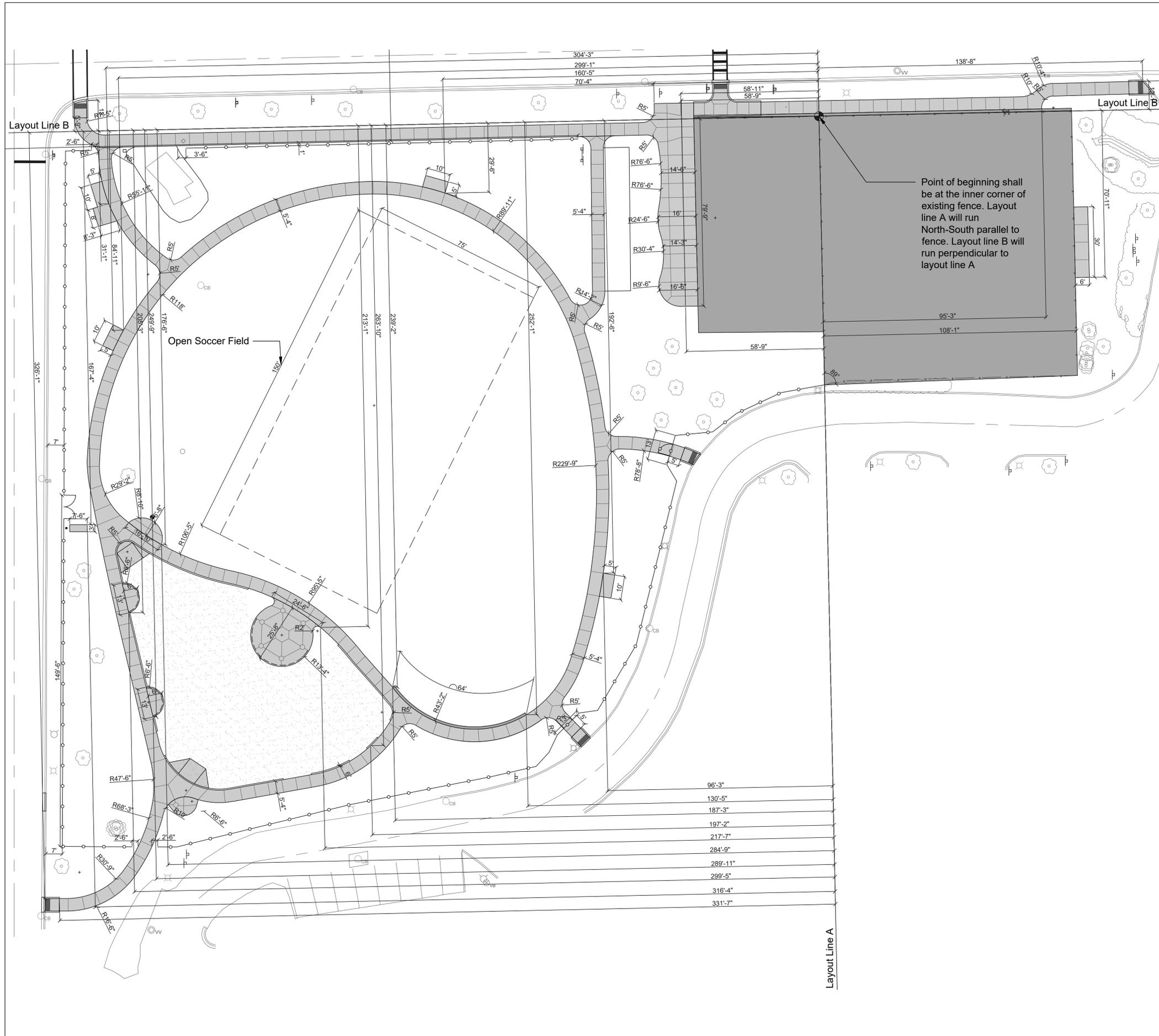
**PROJECT NUMBER 1358 & 1359**

**SHEET TITLE**

**Playground Enlargement**

**SHEET NUMBER**

**C 3.1**



**GENERAL NOTES: DIMENSION**

1. Layout of equipment is to center of post.
2. Layout play equipment with safety zones to be staked by the Contractor for review by Owner's Representative prior to play equipment installation.
3. Paving radii shall be formed completely and shall smoothly transition into tangents and adjoining lines. Dimensions are to face of curb and edge of pavement unless otherwise specified.
4. Dimensions are in feet or degrees. Dimensions are perpendicular & parallel unless otherwise noted.
5. See Layout Plan, Sheet C3.0 for additional general notes and referenced specifications and codes.
6. Contractor shall perform all construction layout for the project. Contractor may be provided with an electronic file in AutoCAD format to assist with layout. Neither the Owner nor their representative shall be responsible for setting additional layout points.

Point of beginning shall be at the inner corner of existing fence. Layout line A will run North-South parallel to fence. Layout line B will run perpendicular to layout line A



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Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
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Naperville, Illinois 60563  
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**PROJECT NUMBER 1358 & 1359**

**SHEET TITLE**

**Dimension Plan - Paving**

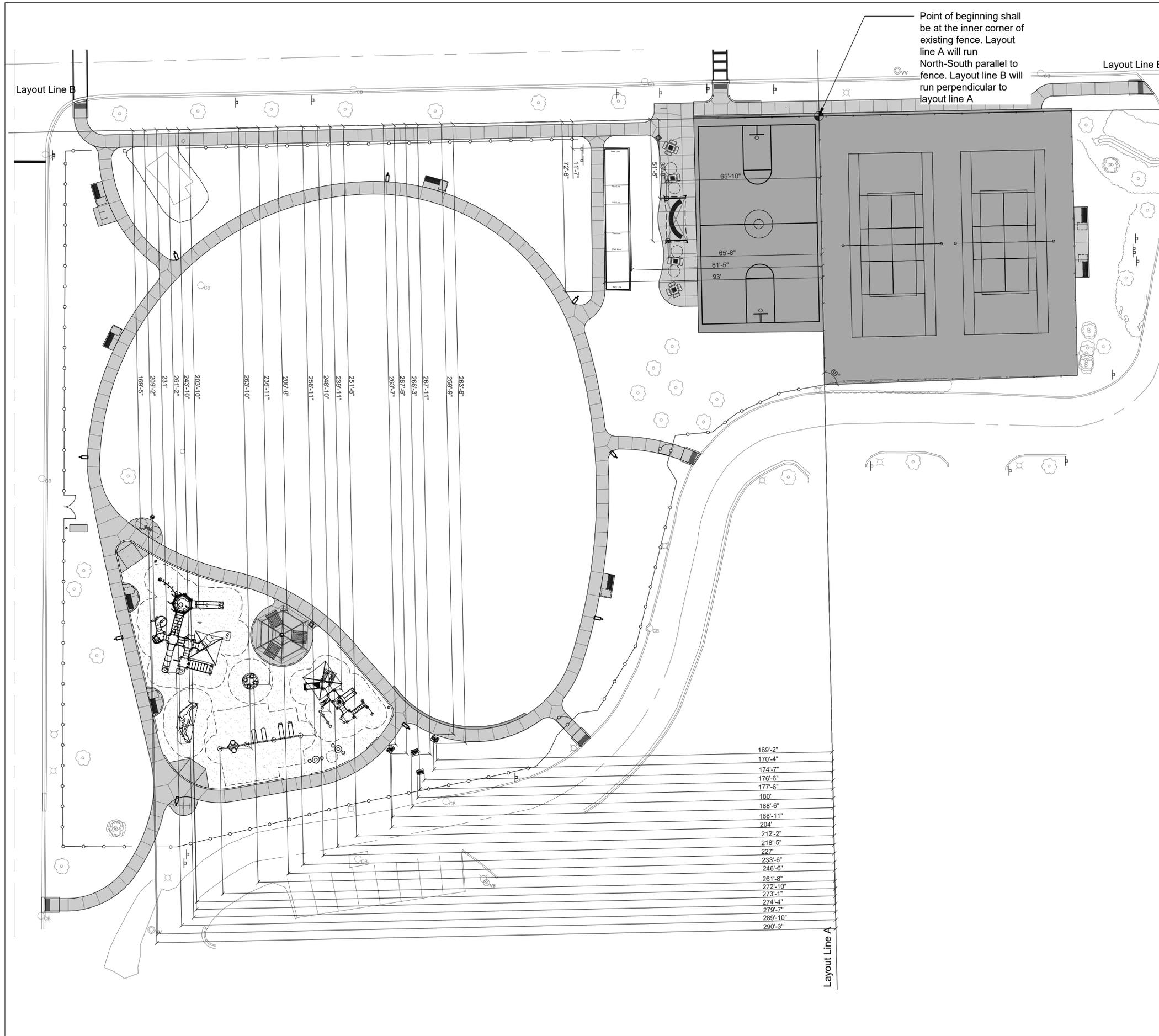
**SHEET NUMBER**

**C 4.0**



SCALE: 1" = 20'-0"





GENERAL NOTES: DIMENSION  
Reference sheet C 4.0 for General Notes: Dimension



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PROJECT NUMBER **1358 & 1359**

SHEET TITLE  
**Dimension Plan - Equipment**

SHEET NUMBER

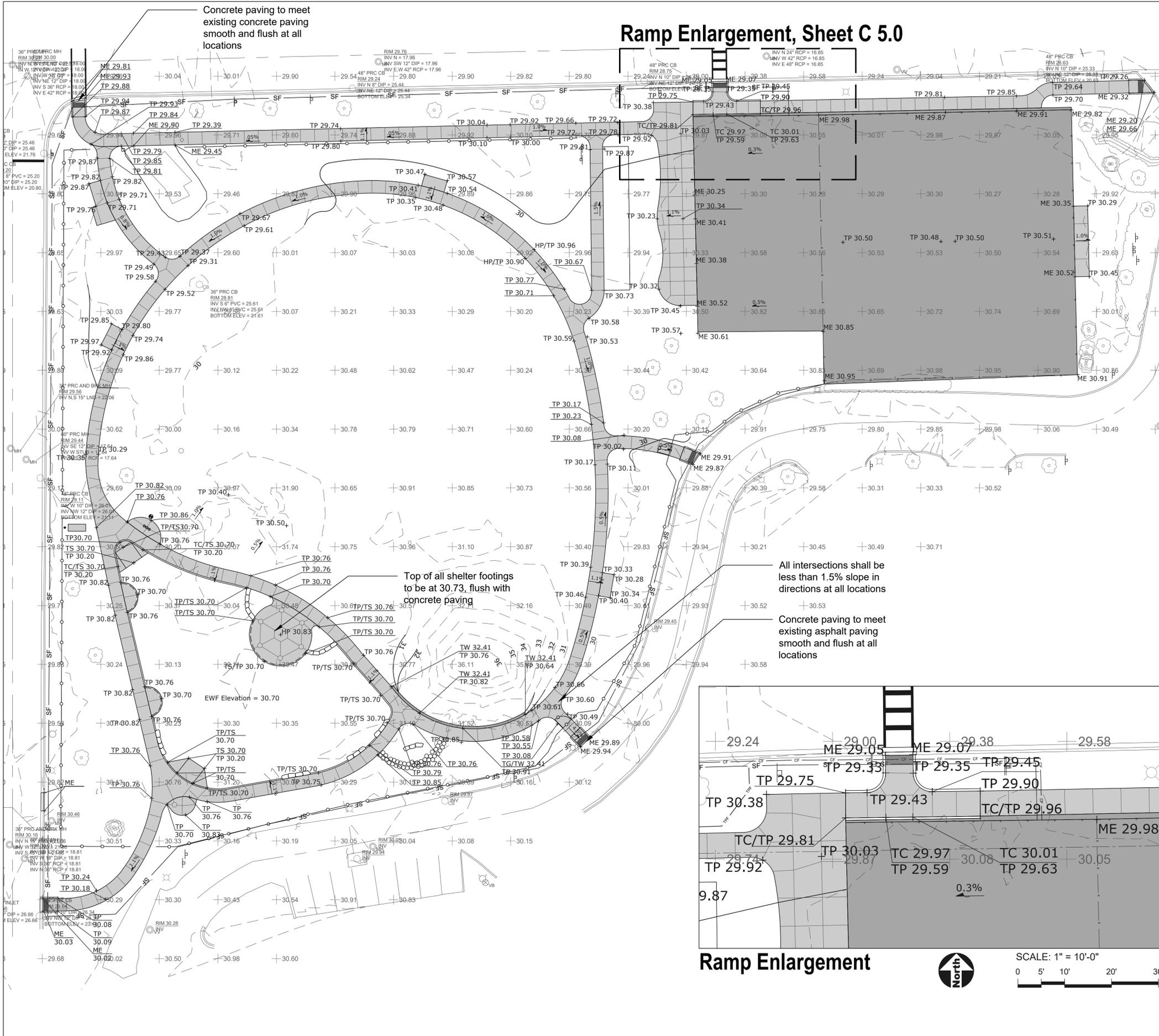
**C 4.1**

- LEGEND
- Concrete Paving
  - Asphalt Paving Overlay
  - Engineered Woodfiber Surfacing
  - Panel Fence
  - Point of Beginning



SCALE: 1" = 20'-0"  
0 10' 20' 40' 60'

# Ramp Enlargement, Sheet C 5.0



## GENERAL NOTES: GRADING AND UTILITY

- Finished surfaces to be smooth and even with no abrupt or awkward changes in grade. Paving to meet adjacent grades flush and smooth. Transitions not to exceed 1/4" vertical or horizontal difference.
- Paving to meet Americans with Disabilities Act (ADA) 303.
- Contractor shall restore all areas disturbed as a result of construction. Restoration material shall be per plans or to match existing material.
- All walks, drives and paved areas are to follow ADA per incorporated specifications. Any deviation shall be removed and reinstalled to follow this law at the contractor's expense. Contractors to alert owner representative of any discrepancy prior to construction.
- All Accessible Route paving shall not exceed 5% in any direction. Cross slopes shall be less than 1.5%. ADA Turning Radius paving shall be less than 1.5% in all directions. Walking Surfaces shall meet ADA 403.
- Contractor shall slope all walks and slabs to eliminate ponding. In general paving to have a minimum slope of 1% unless noted on plans. Swales and lawns shall be sloped away from paved surfaces.
- This work shall include the excavation, stockpile, and placement of topsoil and suitable excavated material along with removal of all excess topsoil and debris off site and dispose of legally.
- Follow the Illinois Procedures and Standards for Urban Soil Erosion and Sedimentation Control, IEPA Standards and Specifications for Soil Erosion and Sedimentation Control, and U.S. Soil Conservation Service Field Engineering Handbook.
- Compaction Testing: a) Follow specified testing procedures b) Prior to placement of aggregate base material, General Contractor is to schedule a proof roll with Owner's Representative. General Contractor shall provide a fully loaded, rubber tired three-axle dump with GVW of 20 ton minimum unless Owner has agreed to use of a different size/weight vehicle. Moisture conditions may require that proof roll be postponed and/or repeated.
- As-built survey to be completed by Professional Surveyor and then reviewed by Owner.

## PROJECT BENCHMARK

City of Evanston Control Monument Number 1 Northing: 1964675.460 Easting: 1149589.688 Elevation: 29.83	Control Monument Number 2 Northing: 1964624.235 Easting: 1149473.487 Elevation: 29.92	Control Monument Number 3 Northing: 1964588.757 Easting: 1149577.22 Elevation: 30.28	Control Monument Number 4 Northing: 1964563.708 Easting: 1149633.223 Elevation: 30.48
--	--	---	--

## LEGEND

681	Existing Contour Line
681	Proposed Contour Line
+30.85	Existing Spot Elevation
+30.29	Proposed Spot Elevation
2%	Drainage Flow Direction
SF	Silt Fence

## INDEX OF ACRONYMS AND ABBREVIATIONS

HP	High Point
INV	Pipe Invert Elevation
LP	Low Point
ME	Match Existing Elevation
RIM	Top of Rim Elevation
TC	Top of Curb
TP	Top of Pavement
TW	Top of Wall
TS	Top of Surfacing



909 Davis Street  
Evanston, Illinois 60201  
Phone: 847-448-4311

## PROJECT Cartwright Park Improvements

3250 Grant Street, Evanston, IL 60201

## PROJECT TEAM

**uplandDesign Ltd**  
Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

**CIVIL ENGINEER:**  
Environmental Design  
International Inc.  
33 W. Monroe Street, Suite  
1825 Chicago, Illinois 60603  
Phone: 312-345-1400

**ELECTRICAL ENGINEER**  
IMEG Consultants Corp.  
263 Shuman Boulevard  
Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

## ORIGINAL ISSUE DATE

**Issue for Bid** 12FEB2026

## REVISIONS

TD/CG	

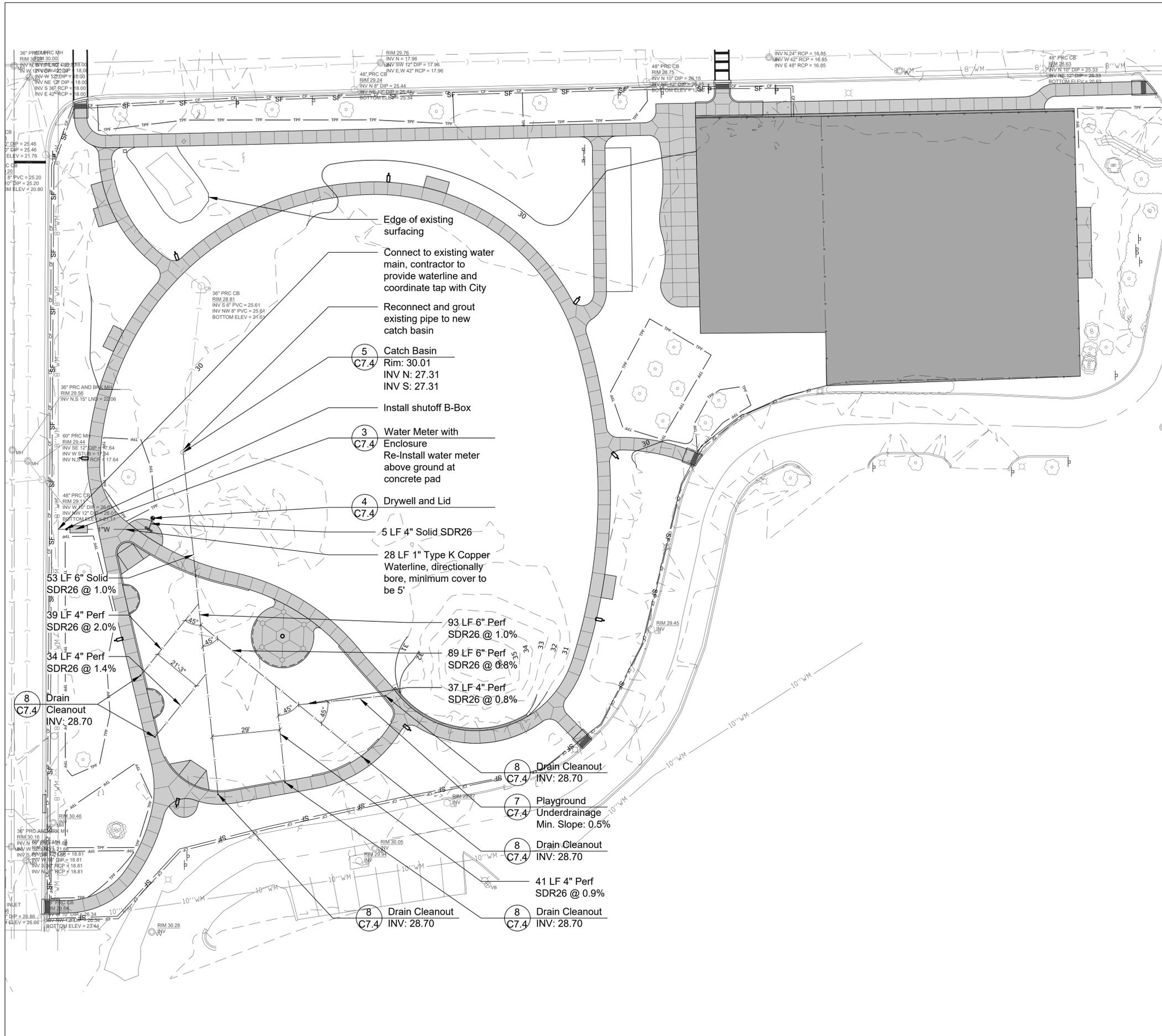
PROJECT NUMBER **1358 & 1359**

## SHEET TITLE

**Grading Plan**

## SHEET NUMBER

**C 5.0**



**GENERAL NOTES: GRADING AND UTILITY**

Reference sheet C 5.0 for General Notes: Grading and Utility



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Naperville, Illinois 60563  
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**ORIGINAL ISSUE DATE**

**Issue for Bid** 12FEB2026

**REVISIONS**

TD/CG		

**PROJECT NUMBER 1358 & 1359**

**SHEET TITLE**

**Utility Plan**

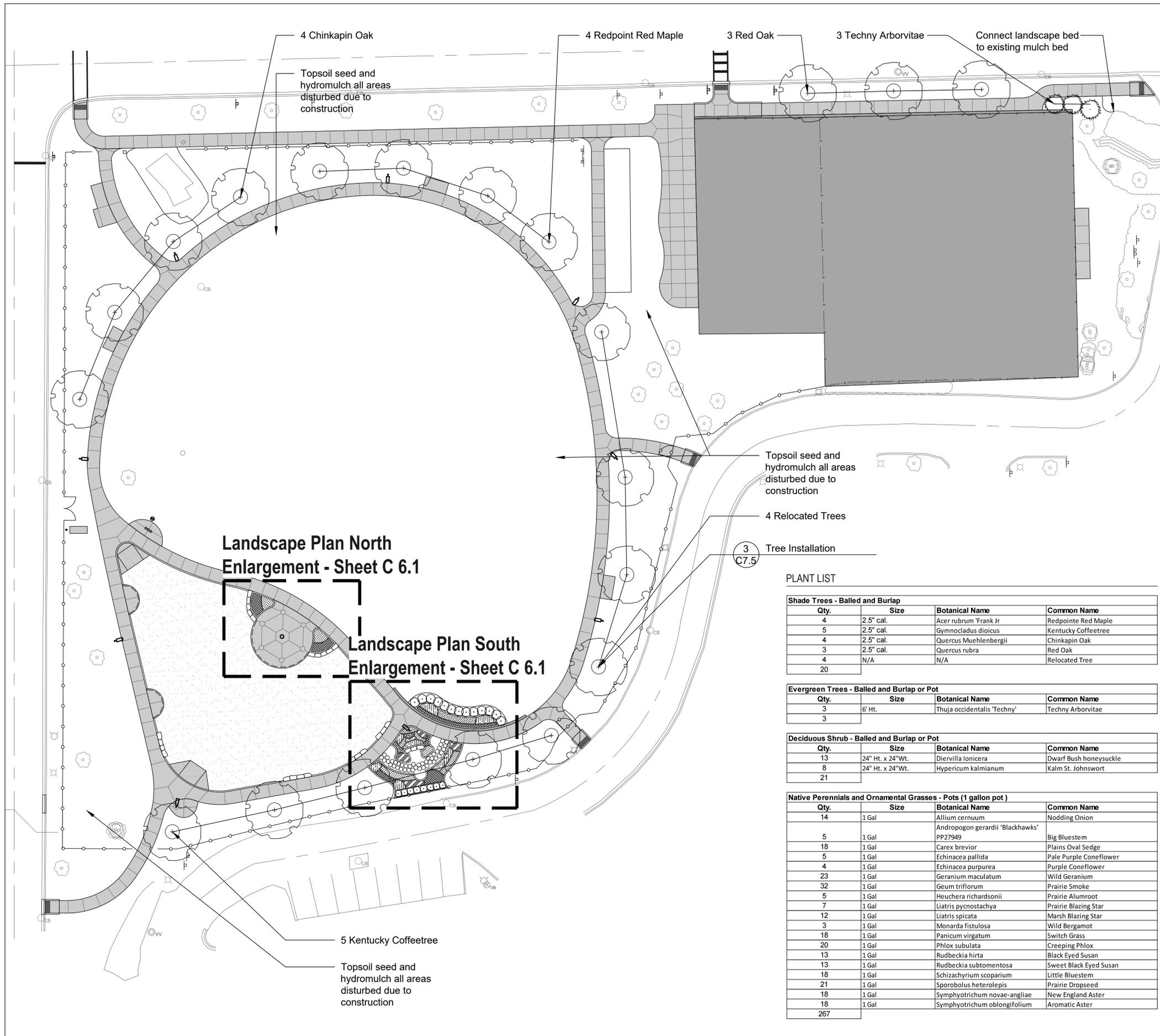
**SHEET NUMBER**

**C 5.1**



SCALE: 1" = 20'-0"





**GENERAL NOTES: LANDSCAPE**

- Notes indicated on grading plans shall pertain to landscape plans. Final grade of planting beds shall be as per grading plan.
- The landscape contractor shall be responsible for making themselves familiar with all underground utilities and structures.
- All existing plant material and trees shall be saved and protected unless otherwise noted. Contractor to protect new and existing trees and landscaping from damage and shall restore all areas disturbed as a result of construction.
- Plant material shall be supplied from Northern Illinois nursery stock, shall be dug the planting season it is installed, and shall conform to the American Association of Nurseryman's standards.
- Plant material shall be size and type specified. Substitution of plant material shall be on a case by case basis and approved in writing by the Owner's Representative. In no case shall plant material be smaller than indicated in the plans.
- Do not willfully proceed with plantings as designed when it is obvious that obstructions and/or grade differences exist that may not have been known during the design process. Such conditions shall be immediately brought to the attention of the Owner's Representative.
- All plant material shall be inspected and approved by the Owner's Representative prior to the installation of any and all plant material.
- Plant locations shall be flagged in field with Owner's Rep. Final location of all plant material shall be subject to approval of the Owner's Representative prior to digging any holes. The landscape contractor is responsible for providing Owner's Representative with 48 hour minimum advance notice prior to planting.
- Plants shall be watered on the day they are planted and maintained with watering until final acceptance of the project.
- Apply a pre-emergent as per manufacturer's specification prior to installing mulch. All herbicide and pesticide applications shall comply with City of Evanston requirements. Beds and tree rings (6" diameter) shall have 3" of hardwood shredded mulch applied. Trees that are not located in beds, shall have a tree ring.
- Landscape plant material shall be guaranteed for 12 months from final acceptance. Any plant 1/3 dead or more shall be replaced under the guarantee.
- Contractor to prepare landscape beds by roto-tilling 2" of Mushroom Compost into new beds. Do not add compost nor roto-till within drip line of existing trees.
- Lawn Seeding shall be under favorable weather conditions, and shall follow dates in specification. Turf mixes shall be installed and lawn established at all disturbed areas.
- Do not overseed into mulch beds and paving.
- Contractor shall restore all areas disturbed as a result of construction. Aerate soil where compacted and/or driven on during construction.

**Landscape Plan North  
Enlargement - Sheet C 6.1**

**Landscape Plan South  
Enlargement - Sheet C 6.1**

**PLANT LIST**

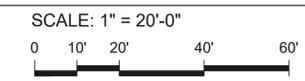
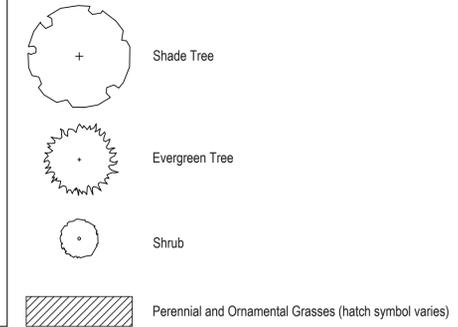
Shade Trees - Balled and Burlap			
Qty.	Size	Botanical Name	Common Name
4	2.5" cal.	Acer rubrum 'Frank Jr	Redpointe Red Maple
5	2.5" cal.	Gymnocladus dioicus	Kentucky Coffeetree
4	2.5" cal.	Quercus Muehlenbergii	Chinkapin Oak
3	2.5" cal.	Quercus rubra	Red Oak
4	N/A	N/A	Relocated Tree
20			

Evergreen Trees - Balled and Burlap or Pot			
Qty.	Size	Botanical Name	Common Name
3	6' Ht.	Thuja occidentalis 'Techny'	Techny Arborvitae
3			

Deciduous Shrub - Balled and Burlap or Pot			
Qty.	Size	Botanical Name	Common Name
13	24" Ht. x 24"Wt.	Diervilla lonicera	Dwarf Bush honeysuckle
8	24" Ht. x 24"Wt.	Hypericum kalmianum	Kalm St. Johnswort
21			

Native Perennials and Ornamental Grasses - Pots (1 gallon pot)			
Qty.	Size	Botanical Name	Common Name
14	1 Gal	Allium cernuum	Nodding Onion
5	1 Gal	Andropogon gerardii 'Blackhawks' PP27949	Big Bluestem
18	1 Gal	Carex brevior	Plains Oval Sedge
5	1 Gal	Echinacea pallida	Pale Purple Coneflower
4	1 Gal	Echinacea purpurea	Purple Coneflower
23	1 Gal	Geranium maculatum	Wild Geranium
32	1 Gal	Geum triflorum	Prairie Smoke
5	1 Gal	Heuchera richardsonii	Prairie Alumroot
7	1 Gal	Liatris pycnostachya	Prairie Blazing Star
12	1 Gal	Liatris spicata	Marsh Blazing Star
3	1 Gal	Monarda fistulosa	Wild Bergamot
18	1 Gal	Panicum virgatum	Switch Grass
20	1 Gal	Phlox subulata	Creeping Phlox
13	1 Gal	Rudbeckia hirta	Black Eyed Susan
13	1 Gal	Rudbeckia subtomentosa	Sweet Black Eyed Susan
18	1 Gal	Schizachyrium scoparium	Little Bluestem
21	1 Gal	Sporobolus heterolepis	Prairie Dropseed
18	1 Gal	Symphotrichum novae-angliae	New England Aster
18	1 Gal	Symphotrichum oblongifolium	Aromatic Aster
267			

**LEGEND**



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**PROJECT**  
**Cartwright Park Improvements**  
3250 Grant Street, Evanston, IL 60201

**PROJECT TEAM**

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Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
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33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603  
Phone: 312-345-1400

**ELECTRICAL ENGINEER**  
IMEG Consultants Corp.  
263 Shuman Boulevard Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

**ORIGINAL ISSUE DATE**  
**Issue for Bid** 12FEB2026

**REVISIONS**

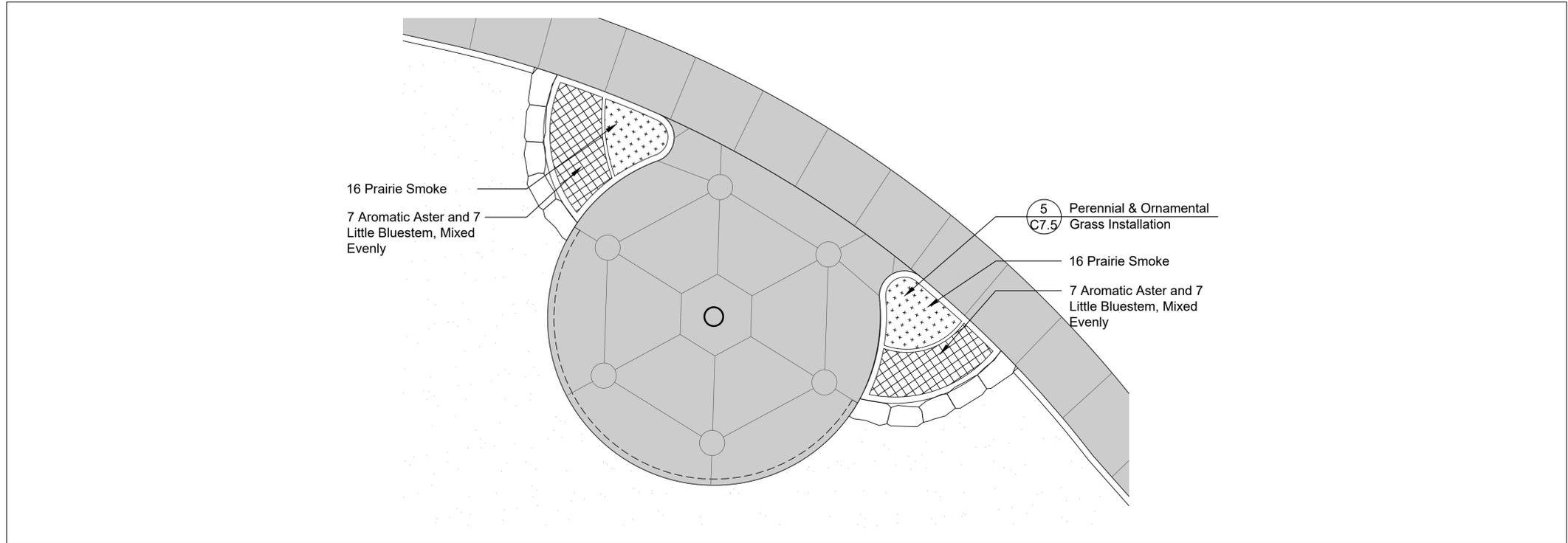
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**PROJECT NUMBER 1358 & 1359**

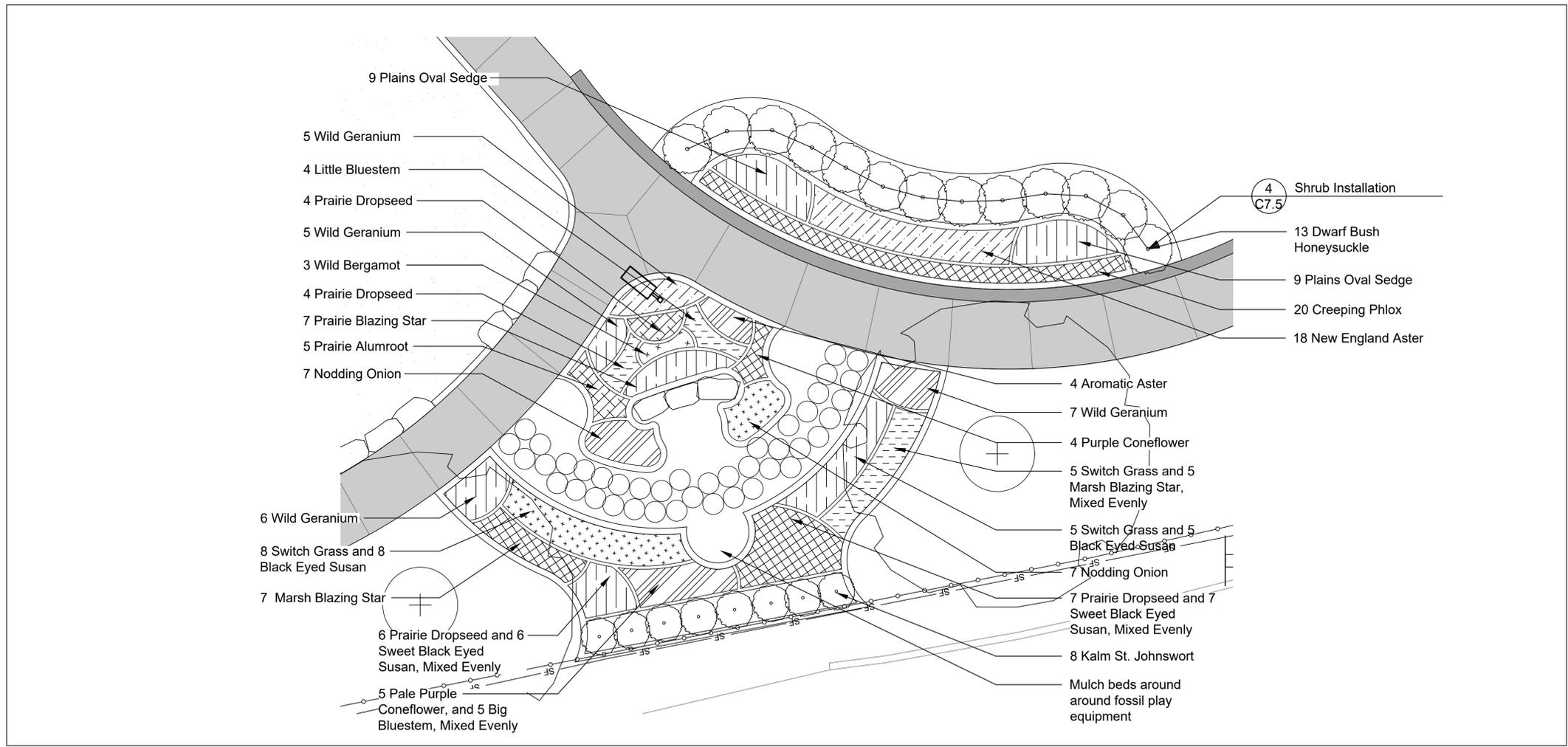
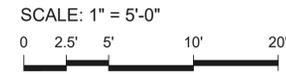
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**Landscape Plan**

**SHEET NUMBER**

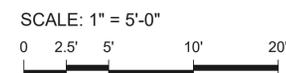
**C 6.0**



**Landscape Plan North Enlargement**



**Landscape Plan South Enlargement**



**GENERAL NOTES: LANDSCAPE**

1. Reference sheet C 6.0 for General Notes: Landscape



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TD/CG		

**PROJECT NUMBER 1358 & 1359**

**SHEET TITLE**

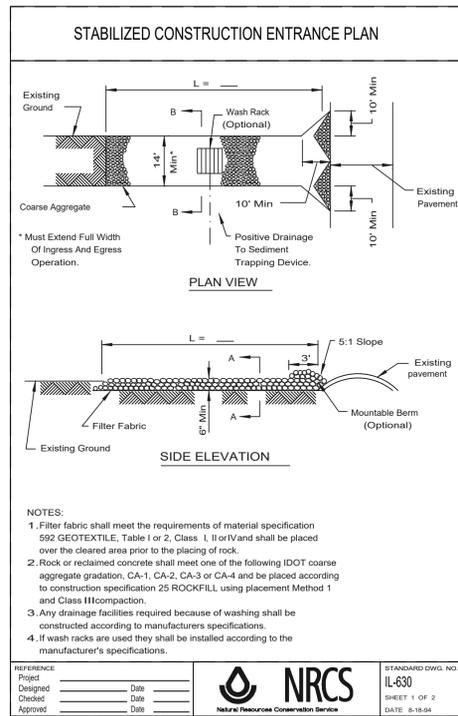
**Landscape Plan - Enlargements**

**SHEET NUMBER**

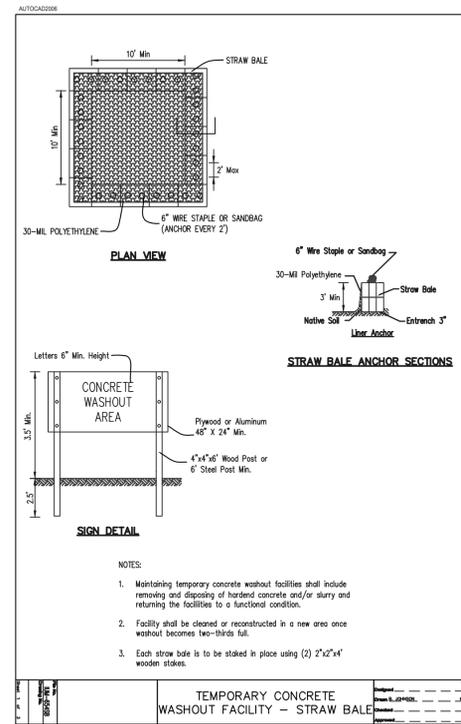
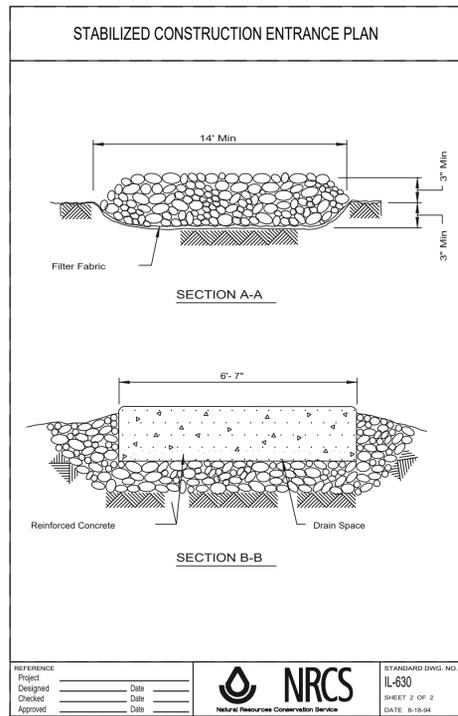
**C 6.1**

**LEGEND**

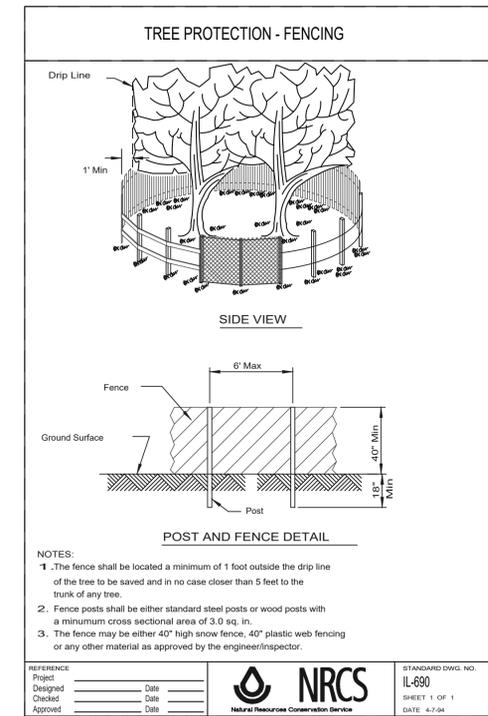
- Shade Tree
- Evergreen Tree
- Shrub
- Perennial and Ornamental Grass (hatch symbol varies)



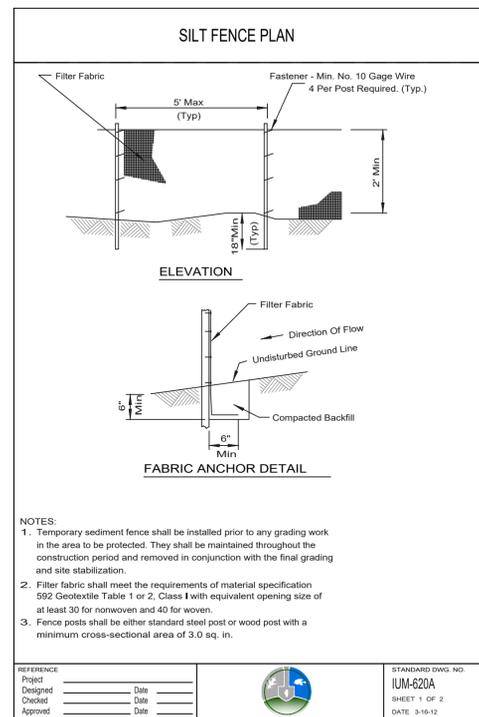
1 **Stabilized Construction Entrance Plan**  
SCALE: NTS  
d-NRCS-IL630-construction entrance\_12



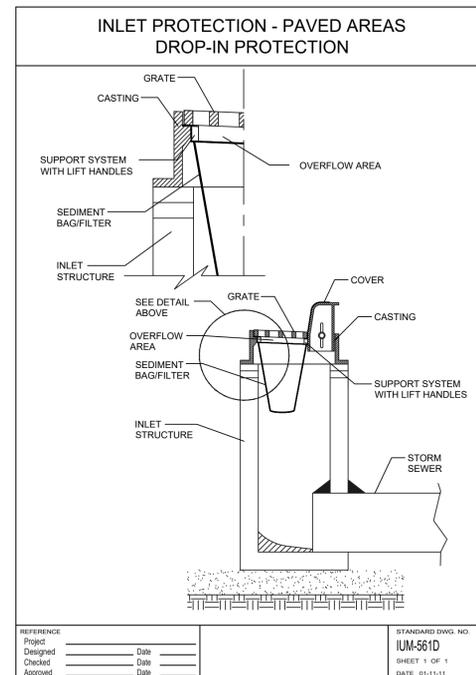
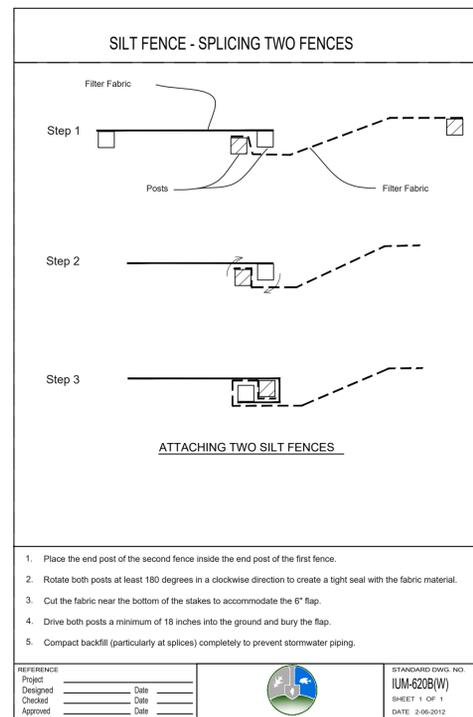
3 **Temporary Concrete Washout**  
SCALE: NTS  
d-IUM-654SB-concrete washout\_12



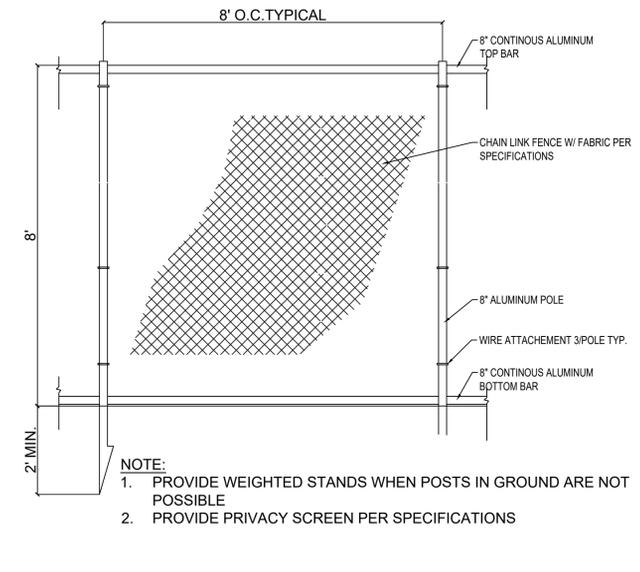
5 **Tree Protection Fence**  
SCALE: NTS  
d-NRCS-IL690-tree protection fence\_12



2 **Silt Fence**  
SCALE: NTS  
d-IUM 620B-silt fence\_12



4 **Inlet Protection**  
SCALE: NTS



6 **8' High Construction Fence**  
SCALE: 1/2"=1'-0"  
CPD-Construction Fence\_24



909 Davis Street  
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**PROJECT**  
**Cartwright Park Improvements**

3250 Grant Street, Evanston, IL 60201

**Park Improvements**

801 Lee Street, Evanston, IL 60202

**PROJECT TEAM**

**uplandDesign Ltd**  
Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

**CIVIL ENGINEER:**  
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33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603  
Phone: 312-345-1400

**ELECTRICAL ENGINEER**  
IMEG Consultants Corp.  
263 Shuman Boulevard Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

ORIGINAL ISSUE DATE  
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**REVISIONS**

TD/CG		

PROJECT NUMBER **1358 & 1359**

SHEET TITLE  
**Construction Details**

SHEET NUMBER

**C 7.0**



City of Evanston

909 Davis Street  
Evanston, Illinois 60201  
Phone: 847-448-4311

PROJECT

# Cartwright Park Improvements

3250 Grant Street, Evanston, IL 60201

# Fitzsimons Park Improvements

801 Lee Street, Evanston, IL 60202

PROJECT TEAM



## uplandDesign Ltd

Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

CIVIL ENGINEER:

Environmental Design International Inc.  
33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603  
Phone: 312-345-1400

ELECTRICAL ENGINEER

IMEG Consultants Corp.  
263 Shuman Boulevard Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

ORIGINAL ISSUE DATE

**Issue for Bid** 12FEB2026

REVISIONS

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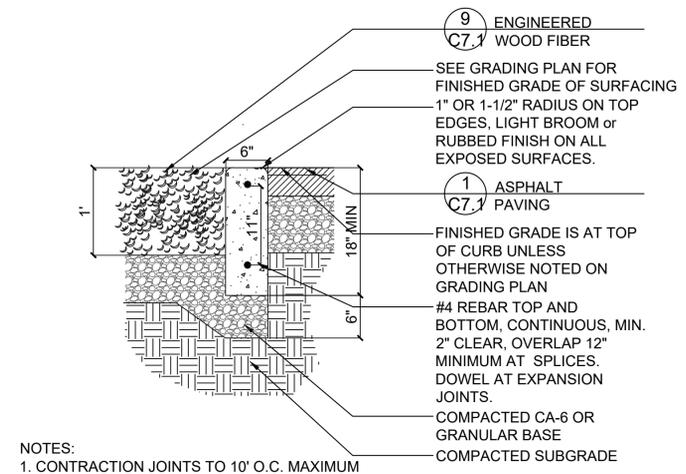
PROJECT NUMBER 1358 & 1359

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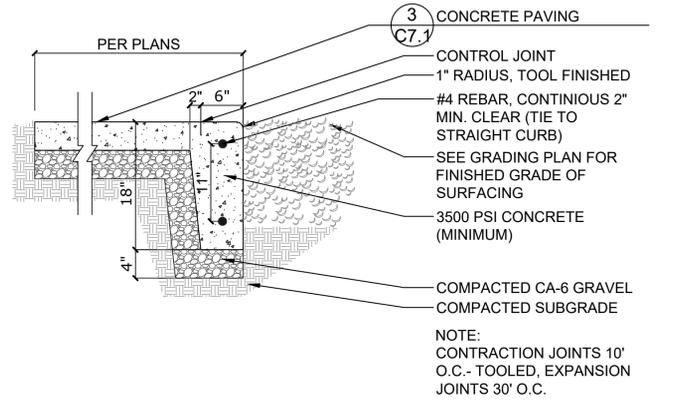
# Construction Details

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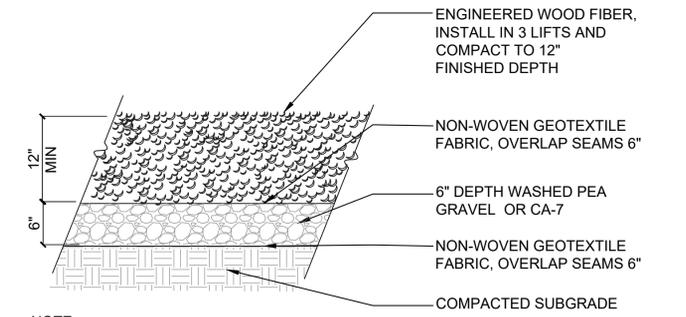
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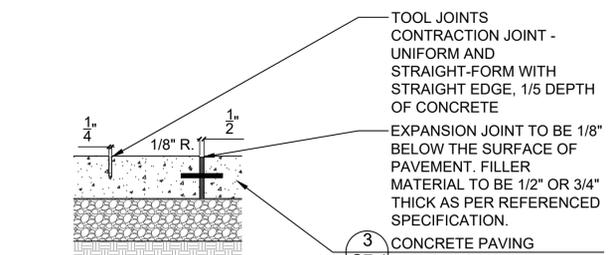
**7 Curb at Playground - EWF**  
SCALE: 1" = 1'-0"  
det-curb play



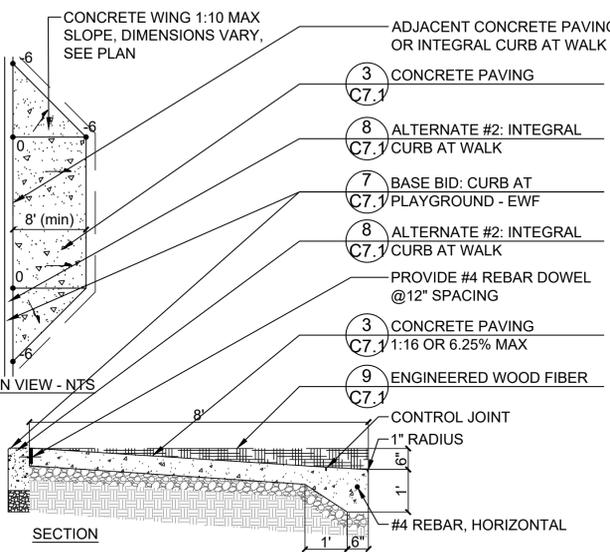
**8 Integral Curb at Walk**  
SCALE: 1" = 1'-0"  
3  
C7.1  
d-curb\_integral 18in\_12.dwg



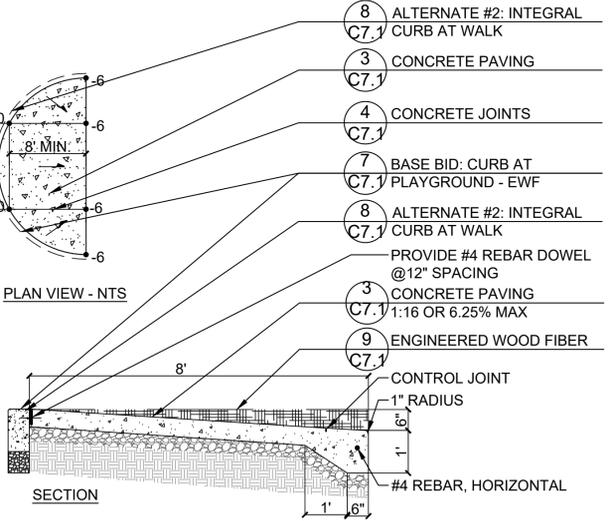
**9 Engineered Wood Fiber**  
SCALE: 1" = 1'-0"  
Eng Wood Fiber\_1\_12



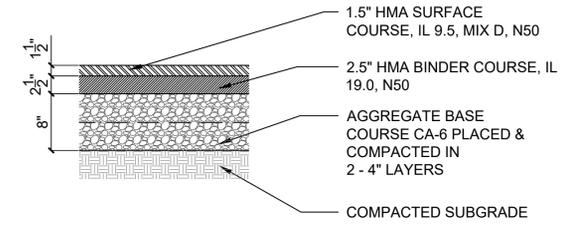
**4 Concrete Joints**  
SCALE: 1 1/2" = 1'-0"  
d-conc\_joints\_8.dwg



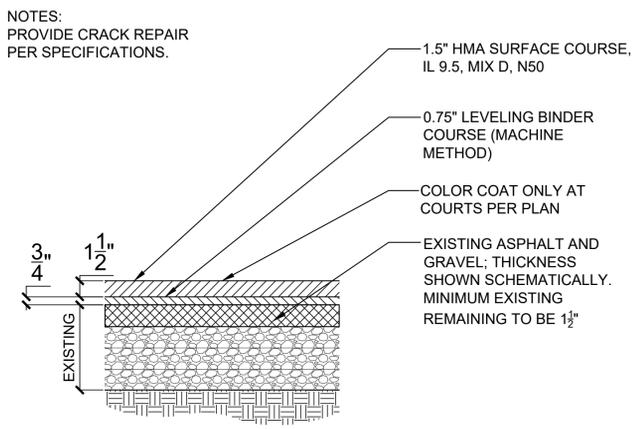
**5 Concrete Sloped Entry - Flared**  
SCALE: 1/2" = 1'-0"  
d-conc-sloped entry\_24



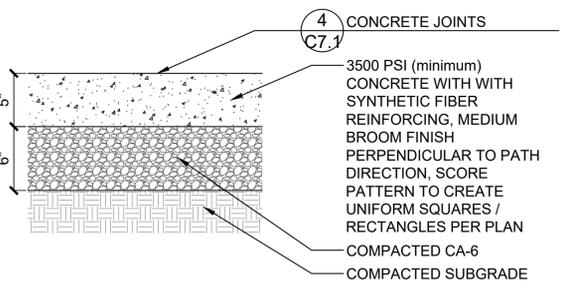
**6 Concrete Sloped Entry - Straight**  
SCALE: 1/2" = 1'-0"  
d-conc\_sloped entry-ahstrand\_24



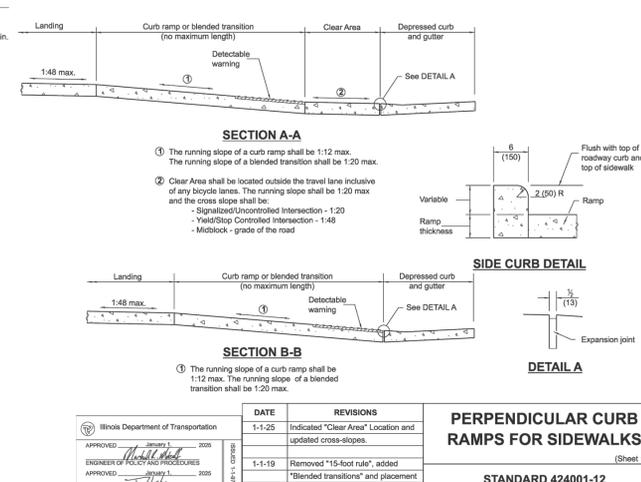
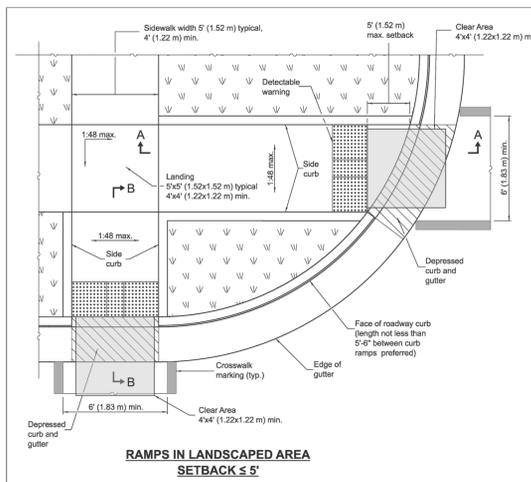
**1 Asphalt Paving**  
SCALE: 1" = 1'-0"  
d-asph\_trail\_12.dwg



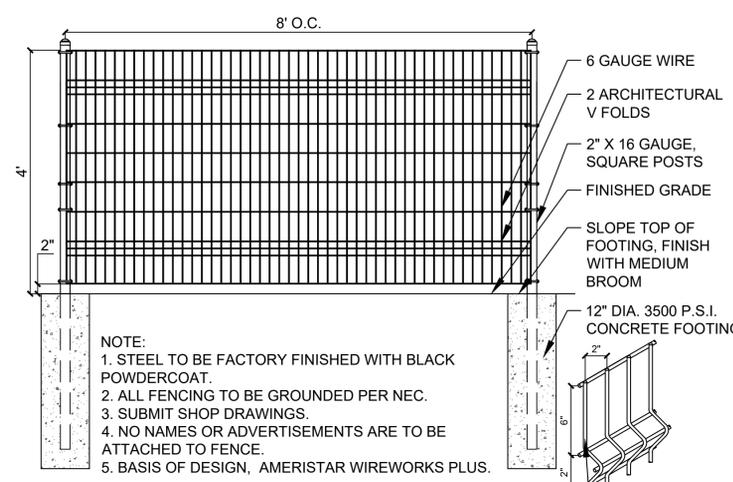
**2 Asphalt Paving - Court Overlay**  
SCALE: 1 1/2" = 1'-0"  
d-asph\_pav 4.25in\_8.dwg



**3 Concrete Paving**  
SCALE: 1 1/2" = 1'-0"  
d-conc pav\_5\_8

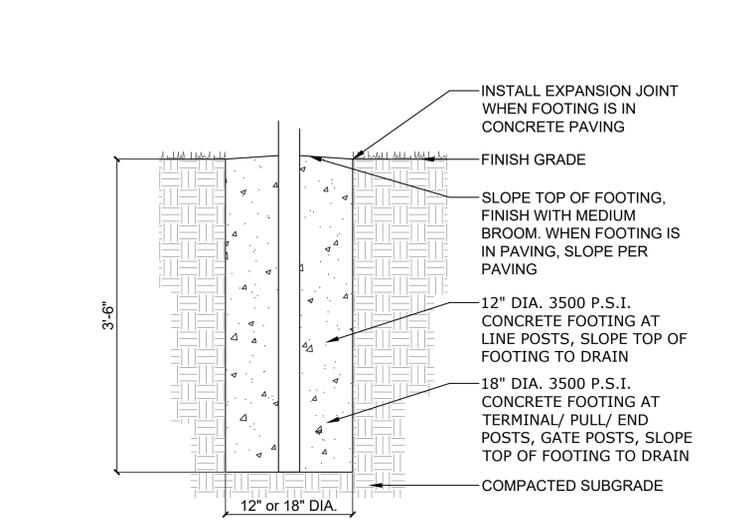


DATE	REVISIONS	PERPENDICULAR CURB RAMPS FOR SIDEWALKS
1-1-25	Indicated "Clear Area" Location and updated cross-slopes.	STANDARD 424001-12 (Sheet 1 of 2)
1-1-19	Removed "15-foot rule", added "Blended transitions" and placement tolerances for detectable warnings.	

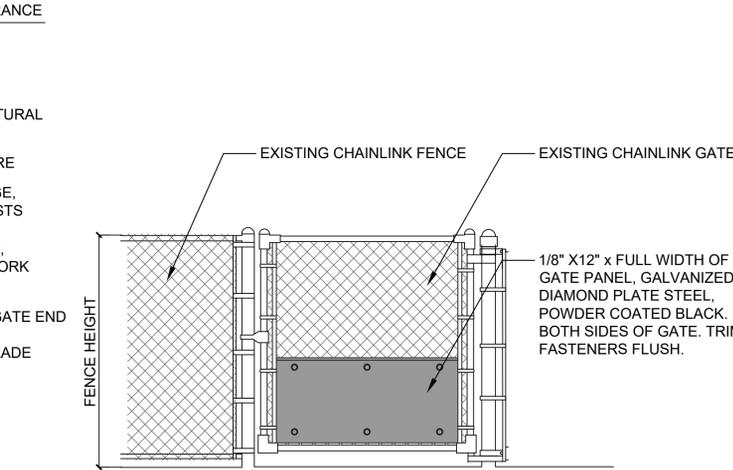


- NOTE:
1. STEEL TO BE FACTORY FINISHED WITH BLACK POWDERCOAT.
  2. ALL FENCING TO BE GROUNDED PER NEC.
  3. SUBMIT SHOP DRAWINGS.
  4. NO NAMES OR ADVERTISEMENTS ARE TO BE ATTACHED TO FENCE.
  5. BASIS OF DESIGN, AMERISTAR WIREWORKS PLUS.

**6** 4' Panel Fence  
SCALE: N.T.S.  
PanelFence



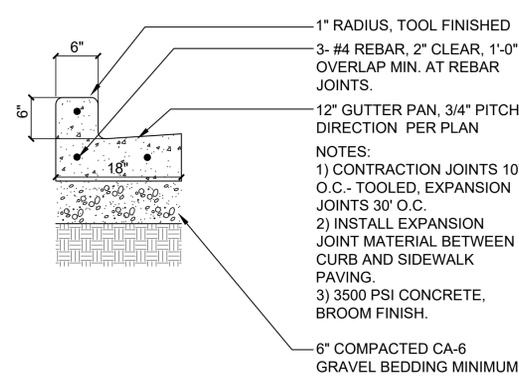
**7** Fence Post Footing  
SCALE: 1\"/>



**8** Kickplate on Existing Gate  
SCALE: N.T.S.  
REV: 08/2024  
d-fence-chainlink-single gate-12

**1** Concrete Curb Ramp  
SCALE: 1/4\"/>

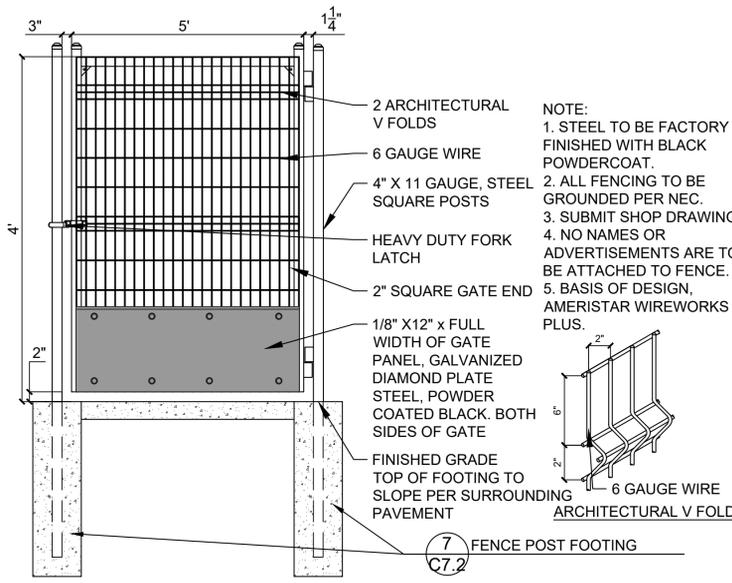
d-conc curb ramp\_48.dwg



- NOTES:
- 1) CONTRACTION JOINTS 10' O.C.- TOOLED, EXPANSION JOINTS 30' O.C.
  - 2) INSTALL EXPANSION JOINT MATERIAL BETWEEN CURB AND SIDEWALK PAVING.
  - 3) 3500 PSI CONCRETE, BROOM FINISH.

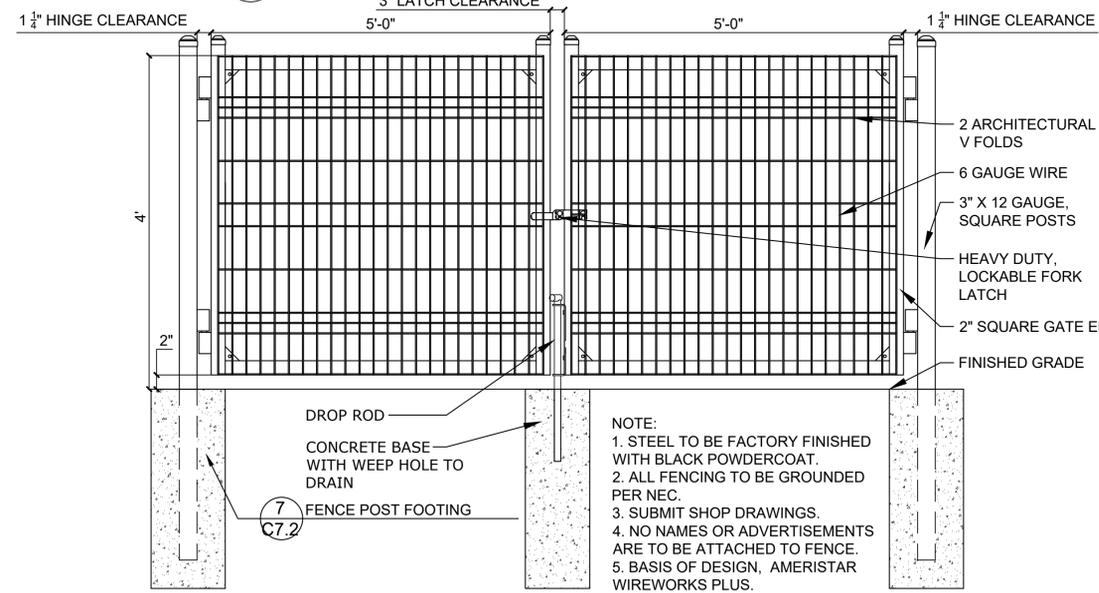
**2** Curb and Gutter B6-12  
SCALE: 1\"/>

d-curb\_b6-12\_12.dwg



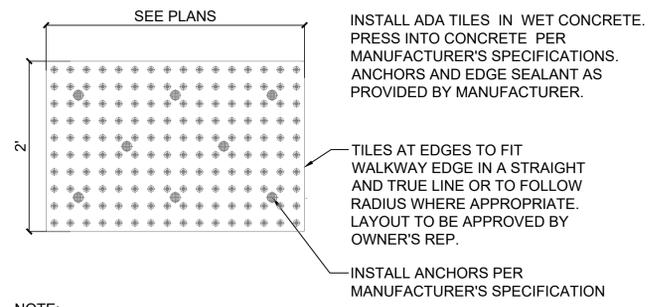
- NOTE:
1. STEEL TO BE FACTORY FINISHED WITH BLACK POWDERCOAT.
  2. ALL FENCING TO BE GROUNDED PER NEC.
  3. SUBMIT SHOP DRAWINGS.
  4. NO NAMES OR ADVERTISEMENTS ARE TO BE ATTACHED TO FENCE.
  5. BASIS OF DESIGN, AMERISTAR WIREWORKS PLUS.

**4** Panel Fence Gate  
SCALE: N.T.S.  
PanelFence



- NOTE:
1. STEEL TO BE FACTORY FINISHED WITH BLACK POWDERCOAT.
  2. ALL FENCING TO BE GROUNDED PER NEC.
  3. SUBMIT SHOP DRAWINGS.
  4. NO NAMES OR ADVERTISEMENTS ARE TO BE ATTACHED TO FENCE.
  5. BASIS OF DESIGN, AMERISTAR WIREWORKS PLUS.

**5** Panel Fence Maintenance Gate  
SCALE: N.T.S.  
PanelFence



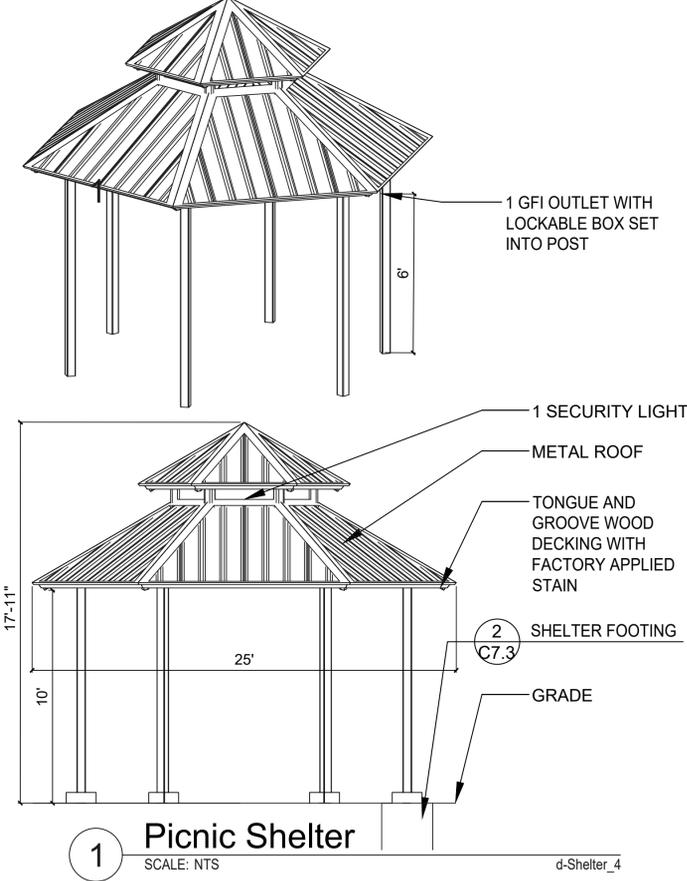
- NOTE:
1. THE PRODUCT USED FOR DETECTABLE WARNINGS SHALL BE PREFABRICATED DETECTABLE WARNING PANELS (RED BRICK), FABRICATED FROM GALVANIZED STEEL, 10-GAUGE THICKNESS, SUITABLE FOR WET-SET OR SURFACE-APPLIED INSTALLATION
  2. THE GALVANIZED STEEL DETECTABLE WARNING PANELS SHALL BE OF UNIFORM QUALITY, FREE FROM SURFACE DEFECTS
  3. WHEN INSTALLED ON A RADIUS TILE EDGES TO FIT FLUSH TO ONE ANOTHER. DO NOT CUT TILE.
  4. A LIST OF APPROVED MANUFACTURERS OF GALVANIZED STEEL DETECTABLE WARNING TILES IS AVAILABLE THROUGH THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S BUREAU OF DESIGN AND ENVIRONMENT MANUALS AND APPROVED PRODUCTS LISTS.

**3** Detectable Warning Strip  
SCALE: N.T.S.  
d-truncated dome-ada tile\_12.dwg

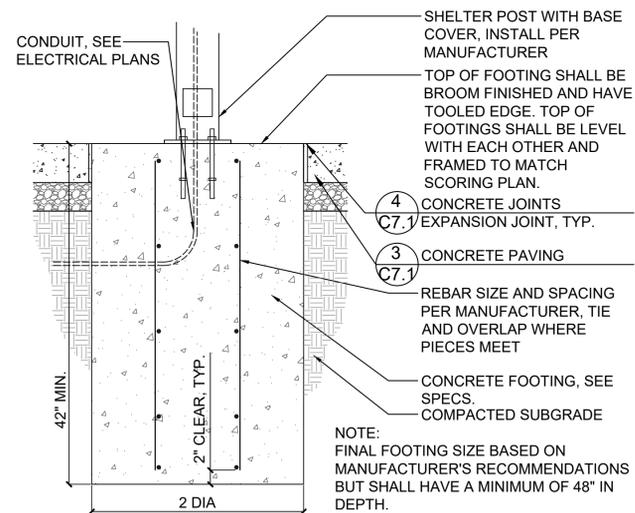
REVISIONS	TD/CG	

**NOTES:**

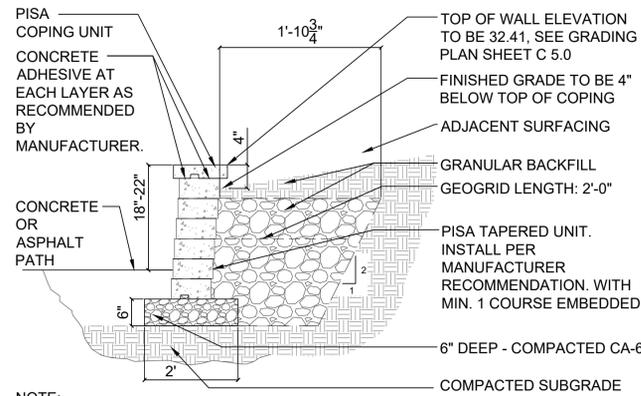
- MANUFACTURER:  
POLIGON, SUPPLIER: PRODUCTS4PARKS, 847-514-1085  
CONTRACTOR TO PROVIDE ALL NECESSARY MATERIALS AND EQUIPMENT FOR A COMPLETE INSTALLATION.
- CONTRACTOR TO TAKE DELIVERY OF SHELTER. UNCRATE, CHECK, DELIVER TO SITE AND FULLY ASSEMBLE AND INSTALL.
- POSTS TO SET ON FOOTING AND ATTACHED TO GALVANIZED ANCHOR BOLTS SUPPLIED BY MANUFACTURER.
- BID ITEMS TO INCLUDE COMPLETE SHELTER INCLUDING FOOTINGS, FILL & COMPACTION, LIGHTING & ELECTRICAL CONNECTION, AND TONGUE & GROOVE DECKING STAINED BY FACTORY.
- FOLLOW MANUFACTURER'S SPECIFICATIONS FOR INSTALLATION INSTRUCTIONS. COLOR: PER SITE AMENITIES SCHEDULE. ALL STEEL COMPONENTS TO BE POWDERCOATED.
- SUBMIT STAMPED ENGINEERED SHOP DRAWINGS.
- ELECTRICAL CONDUIT, PAINT TO MATCH SHELTER METAL. PROVIDE PROPOSED ROUTING TO OWNER FOR APPROVAL.



**1 Picnic Shelter**  
SCALE: NTS  
d-Shelter\_4

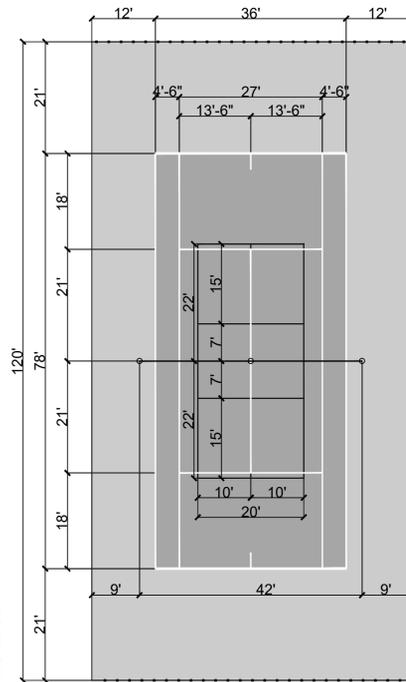


**2 Shelter Footing**  
SCALE: N.T.S.  
det-shelter-footing\_12

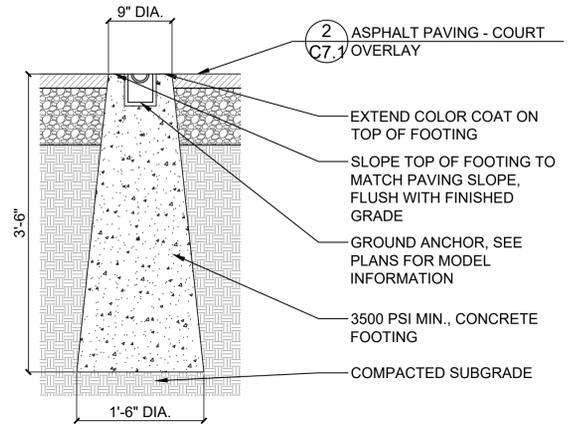


- NOTE:**
- GEOGRID REINFORCEMENT TO BE CUT PERPENDICULAR TO WALL FACE
  - STONE BLOCK TO BE PISAXL SMOOTH IN FIELDSTONE COLOR AS PROVIDED BY UNILCOK, 630-8929-215

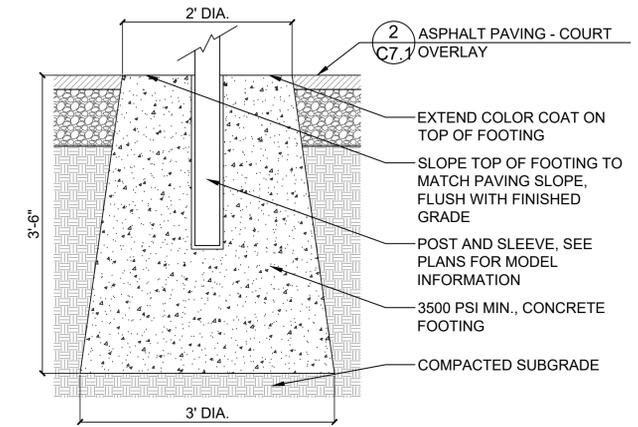
**3 Unit Retaining Wall**  
SCALE: Not to Scale  
d-block retaining wall\_12.dwg



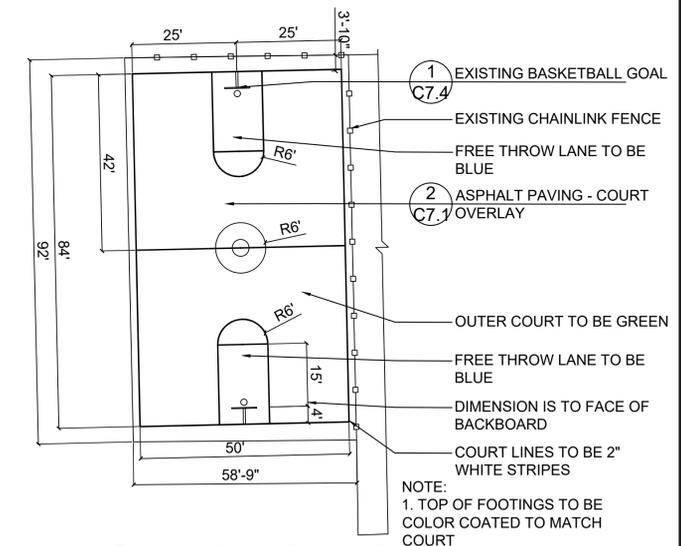
**4 Tennis / Pickleball Court**  
SCALE: 1/16"=1'-0"  
d-tennis-court\_192



**5 Tennis Center Anchor Footing**  
SCALE: 1"=1'-0"  
d-tennis-anchor-footing\_12



**6 Tennis Post Footing**  
SCALE: 1"=1'-0"  
d-tennis-footing\_12



**7 Basketball Court Layout**  
SCALE: Not to Scale  
basketball



909 Davis Street  
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**PROJECT**  
**Cartwright Park Improvements**

3250 Grant Street, Evanston, IL 60201

**Fitzsimons Park Improvements**

801 Lee Street, Evanston, IL 60202

**PROJECT TEAM**

**uplandDesign Ltd**  
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Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

**CIVIL ENGINEER:**  
Environmental Design International Inc.  
33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603  
Phone: 312-345-1400

**ELECTRICAL ENGINEER**  
IMEG Consultants Corp.  
263 Shuman Boulevard Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

ORIGINAL ISSUE DATE  
**Issue for Bid 12FEB2026**

**REVISIONS**

TD/CG		

PROJECT NUMBER **1358 & 1359**

SHEET TITLE  
**Construction Details**

SHEET NUMBER

**C 7.3**



City of  
Evanston

909 Davis Street  
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Phone: 847-448-4311

PROJECT

# Cartwright Park Improvements

3250 Grant Street, Evanston, IL 60201

# Fitzsimons Park Improvements

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ORIGINAL ISSUE DATE

**Issue for Bid** 12FEB2026

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TD/CG		

PROJECT NUMBER 1358 & 1359

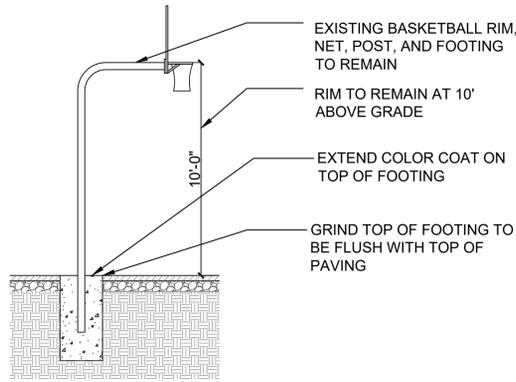
SHEET TITLE

# Construction Details

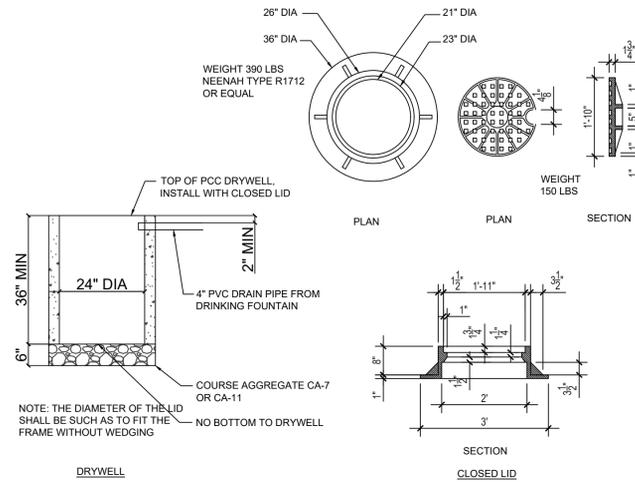
SHEET NUMBER

# C 7.4

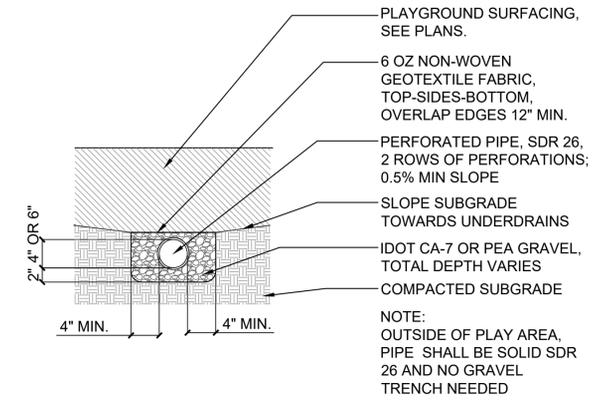
© Copyright 2026 Upland Design Ltd.



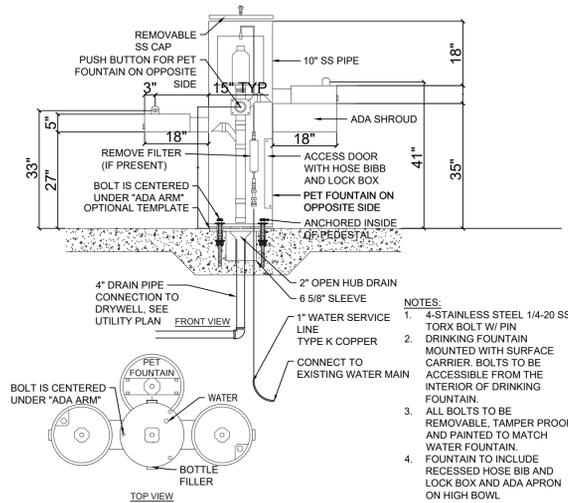
1 Existing Basketball Goal  
SCALE: 1/4"=1'-0" d-ball-goal\_48



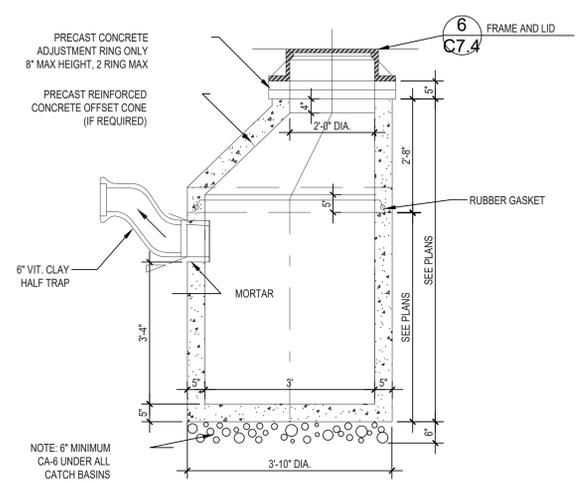
4 Drywell and Lid  
SCALE: N.T.S. cpd drinking fountain\_0417



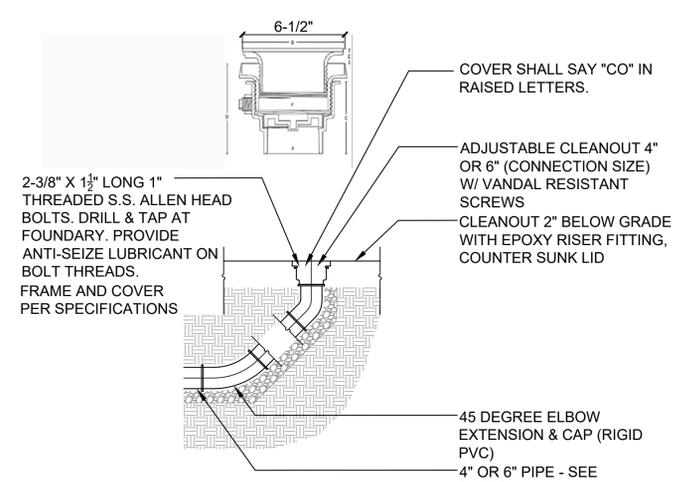
7 Playground Underdrainage  
SCALE: 1\"/>



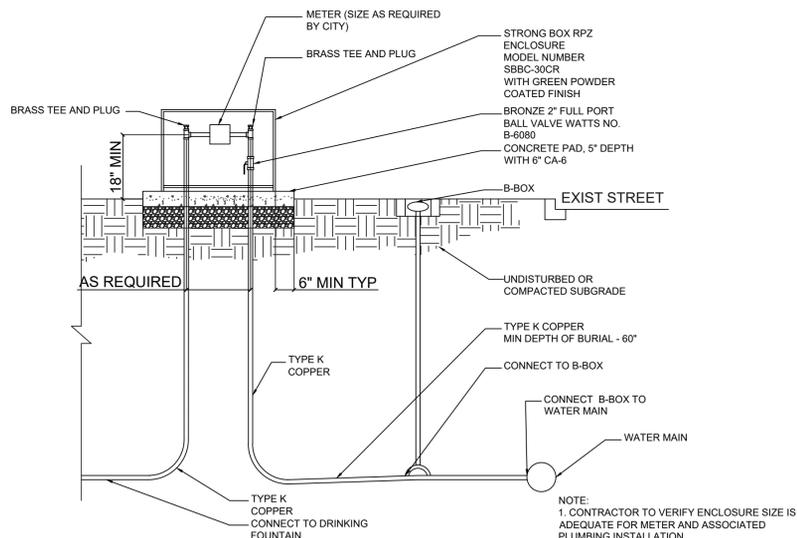
2 Drinking Fountain  
SCALE: N.T.S. cpd drinking fountain\_0417



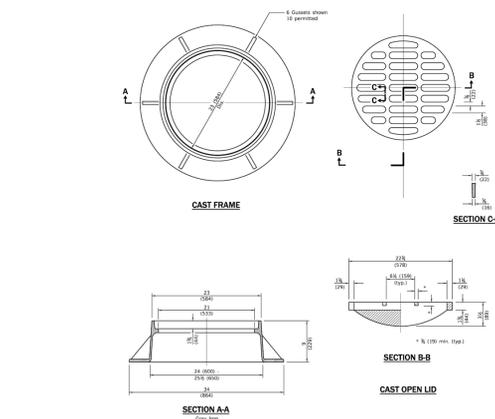
5 Catch Basin  
SCALE: N.T.S. STANDARD CATCH BASIN no restrictor-5-12



8 Drain Cleanout  
SCALE: N.T.S. d-drain cleanout\_16

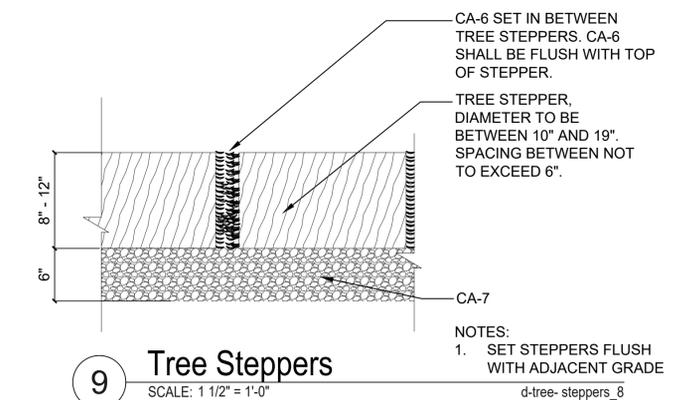


3 Water Meter with Enclosure  
SCALE: N.T.S. cpd drinking fountain\_0417

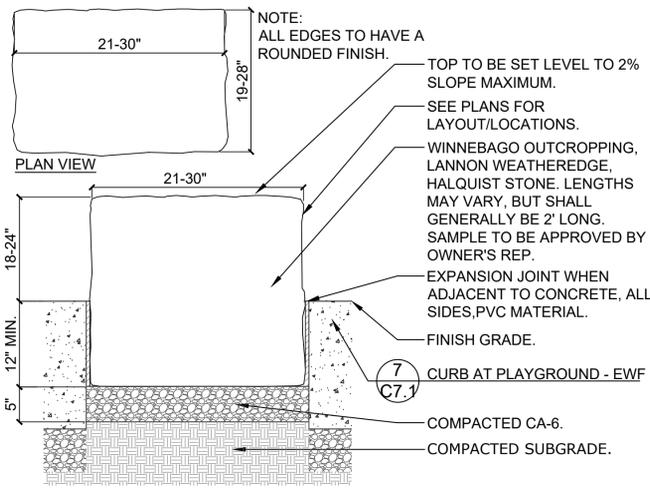


6 Frame and Lid  
SCALE: N.T.S. frm-ae\_0833

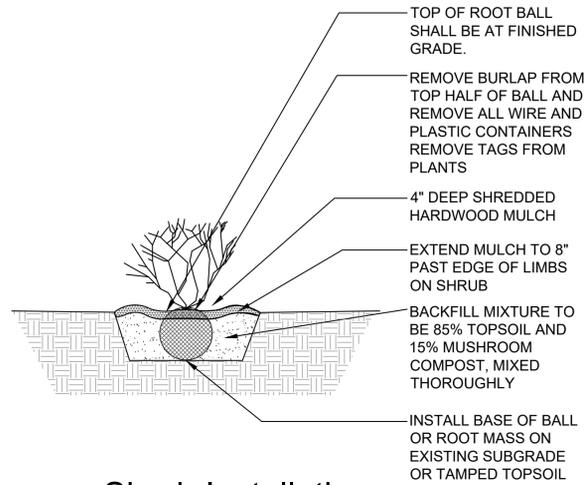
NOTE:  
STEPPER TO BE NATURALLY ROT RESISTANT WOOD OR TREATED WOOD. ACCEPTABLE WOOD INCLUDES CEDAR OR APPROVED EQUAL



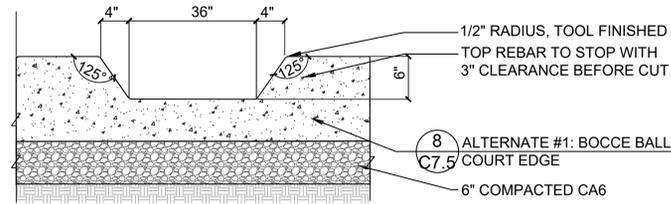
9 Tree Steppers  
SCALE: 1/2\"/>



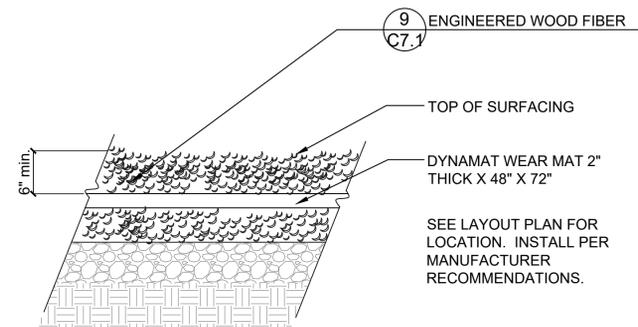
**1** Natural Stone Seating  
SCALE: 1"=1'-0" d-natural stone seating\_12



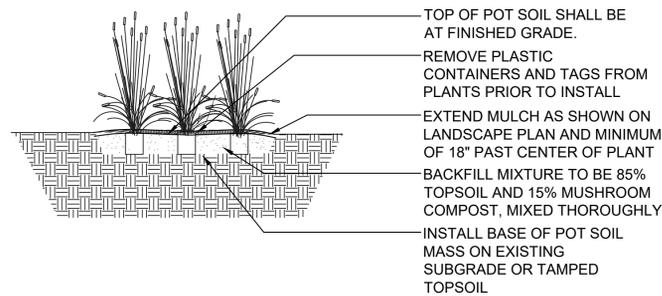
**4** Shrub Installation  
SCALE: N.T.S. d-plant-shrub\_12



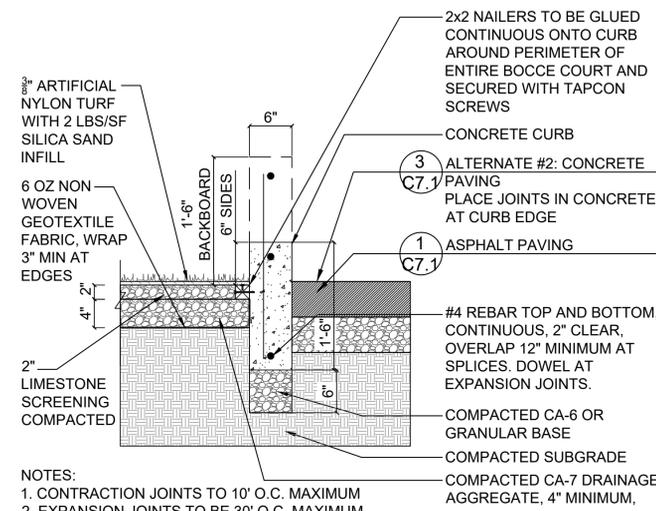
**7** ALTERNATE #1: Bocce Ball Curb Cut  
SCALE: Not To Scale



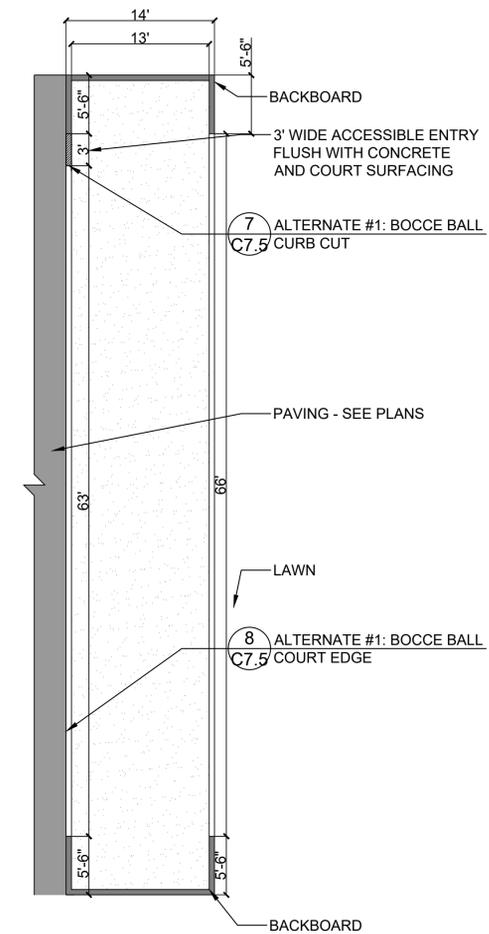
**2** DynaMat Wear Mat  
SCALE: 1"=1'-0" d-eng wood fiber\_12



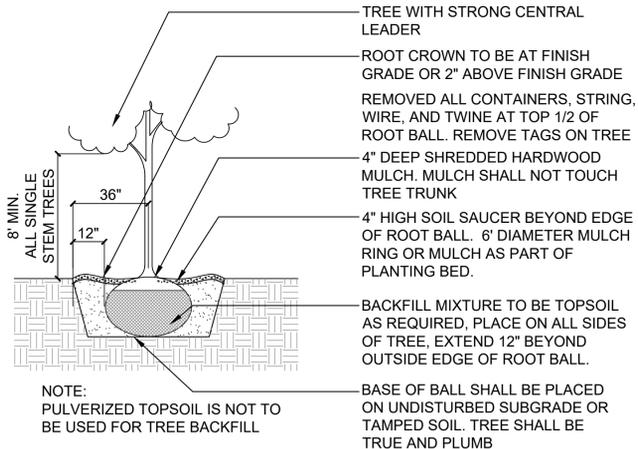
**5** Perennial & Ornamental Grass Installation  
SCALE: 1"=1'-0" d-perennials



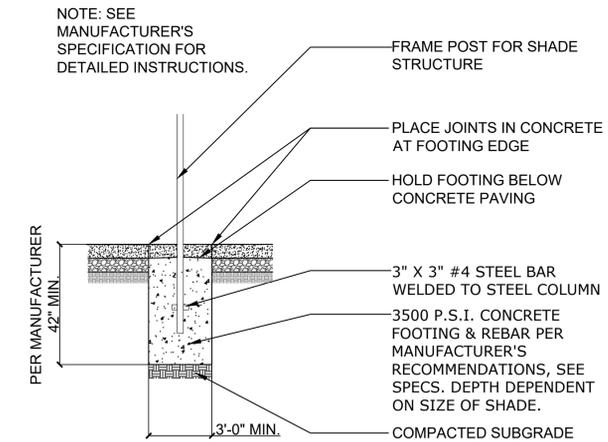
**8** ALTERNATE #1: Bocce Ball Court Edge  
SCALE: 1"=1'-0" d-bocce ball court edge\_12



**9** ALTERNATE #1: Bocce Ball Court Layout  
SCALE: 1/8"=1'-0" d-bocce ball layout\_96



**3** Tree Installation  
SCALE: N.T.S. d-plant-tree\_12



**6** ALTERNATE #1: Shade Post Footing  
SCALE: 1/4"=1'-0" d-shadepostfooting\_4



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801 Lee Street, Evanston, IL 60202

**PROJECT TEAM**

**uplandDesign Ltd**  
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Chicago, Illinois 312-350-4088  
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uplandDesign.com

**CIVIL ENGINEER:**  
Environmental Design International Inc.  
33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603  
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**ELECTRICAL ENGINEER**  
IMEG Consultants Corp.  
263 Shuman Boulevard Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

ORIGINAL ISSUE DATE  
**Issue for Bid** 12FEB2026

REVISIONS

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PROJECT NUMBER **1358 & 1359**

SHEET TITLE  
**Construction Details**

SHEET NUMBER

**C 7.5**



909 Davis Street  
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# PROJECT Cartwright Park Improvements

3250 Grant St, Evanston, IL 60201

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REVISIONS		

PROJECT NUMBER **1355**

## SHEET TITLE ELECTRICAL COVERSHEET

SHEET NUMBER  
**C E0.0**

CONDUIT INSTALLATION SCHEDULE							
THE FOLLOWING SCHEDULE SHALL BE ADHERED TO UNLESS THEY CONSTITUTE A VIOLATION OF APPLICABLE CODES OR ARE NOTED OTHERWISE ON THE DRAWINGS. THE INSTALLATION OF RMC CONDUIT WILL BE PERMITTED IN PLACE OF ALL CONDUIT SPECIFIED IN THIS SCHEDULE. REFER TO CONDUIT AND BOXES SPECIFICATION 26 05 33 FOR ADDITIONAL INFORMATION.							
INSTALLATION TYPE	RMC	IMC	EMT	PVC	RTRC	PVC COATED RMC	HDPE
WITHIN INTERIOR ENCLOSURES, NOT EXPOSED TO EXTERIOR.		X	X				
WET AND DAMP LOCATIONS: (CONDUIT, BOXES, FITTINGS, INSTALLED AND EQUIPPED TO PREVENT WATER ENTRY)	X	X			X		
UNDERGROUND SITE CONDUITS:							
SITE CONDUIT	X			X	X	X	X

### VIEW KEY

NAME → LEVEL NAME  
10'-0" → HEIGHT ABOVE PROJECT 0'-0"

1 → KEYNOTE: INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL.

INDICATES DIRECTION OF TRUE NORTH  
PLAN OR DETAIL NUMBER  
PLAN OR DETAIL NAME  
1/8" = 1'-0"  
PLAN OR DETAIL SCALE

INDICATES SIMILAR DETAIL REFERENCED IN MULTIPLE LOCATIONS  
DETAIL REFERRED TO BY SECTION CUT  
SHEET DETAIL IS LOCATED ON → T101

LINE TYPE AND TAG KEY:  
NEW WORK BY THIS CONTRACTOR (WIDE LINE)  
NEW  
--- EXISTING TO BE REMOVED (SHORT DASHED PATTERN)  
--- NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)  
EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)  
EXISTING  
--- EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)  
--- EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)  
HALFTONING DOES NOT MODIFY SCOPE.  
'TAG-E' TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING  
TAG-1 UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE. IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST  
⊕ INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

### ELECTRICAL ABBREVIATION KEY

ABBR:	DESCRIPTION:
C	CONDUIT (BRANCH CIRCUIT OR FEEDER CONTEXT)
TYP	TYPICAL
GFCI	GROUND FAULT CIRCUIT INTERRUPTER

- ### ELECTRICAL INSTALLATION NOTES:
- CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBERING ON THE PANEL PROVIDED. COMMON NEUTRALS MAY NOT BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN EACH PHASE.
  - ELECTRICAL IDENTIFICATION. REFER TO SPECIFICATION SECTION 26 05 53 FOR COLOR/LABEL REQUIREMENTS FOR CONDUIT, BOX, CABLE/WIRE, AND EQUIPMENT.

### ELECTRICAL SYMBOL LIST - POWER

SYMBOL	EQUIP ABBREV	SPEC SECTION	DESCRIPTION
⊕	ECONN	26 05 33	ELECTRICAL CONNECTION - SURFACE
□	PANEL-##	26 24 16	PANELBOARD - SURFACE MOUNT
□	TC-# / LC-#	---	TIMELock AND LIGHTING CONTACTOR. REFER TO CONTACTOR SCHEDULE OR DIAGRAM NOTES.
□	SPD-#	26 43 00	SURGE PROTECTION DEVICE
⊕	PC-#	---	PHOTOCELL. REFER TO DIAGRAM NOTES.

### ELECTRICAL SYMBOL LIST - RECEPTACLES

SYMBOL	TAG	DESCRIPTION
⊕	W	(2) GFCI WEATHER RESISTANT DUPLEX RECEPTACLES
⊕		GFCI WEATHER RESISTANT DUPLEX RECEPTACLE

### ELECTRICAL SYMBOL LIST

SYMBOL:	TAG:	SPEC SECTION:	DESCRIPTION:
□			POLE MOUNTED LUMINAIRE
○			CANOPY PENDANT

### LUMINAIRE CIRCUIT AND CONTROL KEY

□ E1 = FIXTURE TAG  
1 = CIRCUIT NUMBER

\*IF LABEL IS ORIENTED HORIZONTALLY A SLASH WILL SEPARATE THIS INFORMATION. EX: F1 / 1

### ELECTRICAL SHEET INDEX

C E0.0	ELECTRICAL COVERSHEET
C ED1.1	ELECTRICAL SITE PLAN DEMOLITION
C E1.1	ELECTRICAL SITE PLAN
C E1.2	ELECTRICAL SITE PLAN - PHOTOMETRICS
C E2.0	ELECTRICAL DETAILS
C E3.0	ELECTRICAL DIAGRAMS
C E4.0	ELECTRICAL SCHEDULES
C E5.0	ELECTRICAL SITE LIGHTING - CUT SHEETS
C E5.1	ELECTRICAL SITE LIGHTING - CUT SHEETS
GRAND TOTAL:	9

263 SHUMAN BOULEVARD  
SUITE 550  
NAPERVILLE, IL 60563  
P: 630.527.2320  
www.imegcorp.com

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Illinois Design Firm Registration #184008976-0014  
REF. SCALE IN INCHES PROJECT #25001751.00

Project Number 1/23/2025 10:42:09 AM CARTWRIGHT PARK



909 Davis Street  
Evanston, Illinois 60201  
Phone: 847-448-4311

PROJECT  
**Cartwright  
Park  
Improvements**

3250 Grant St, Evanston, IL 60201

PROJECT TEAM



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**Issue for Bid** 12FEB2026

REVISIONS


PROJECT NUMBER **1355**

SHEET TITLE

**ELECTRICAL  
SITE PLAN  
DEMOLITION**

SHEET NUMBER

**C ED1.1**



Project Number 1/23/2025 10:42:10 AM CARTWRIGHT PARK



**1 ELECTRICAL SITE PLAN DEMOLITION**

1" = 20'-0"

**IMEG** 263 SHUMAN BOULEVARD  
SUITE 550  
NAPERVILLE, IL 60563  
P: 630.527.2320  
www.imegcorp.com

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PROJECT

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NO.	DESCRIPTION	DATE

PROJECT NUMBER **1355**

SHEET TITLE

## ELECTRICAL SITE PLAN

SHEET NUMBER

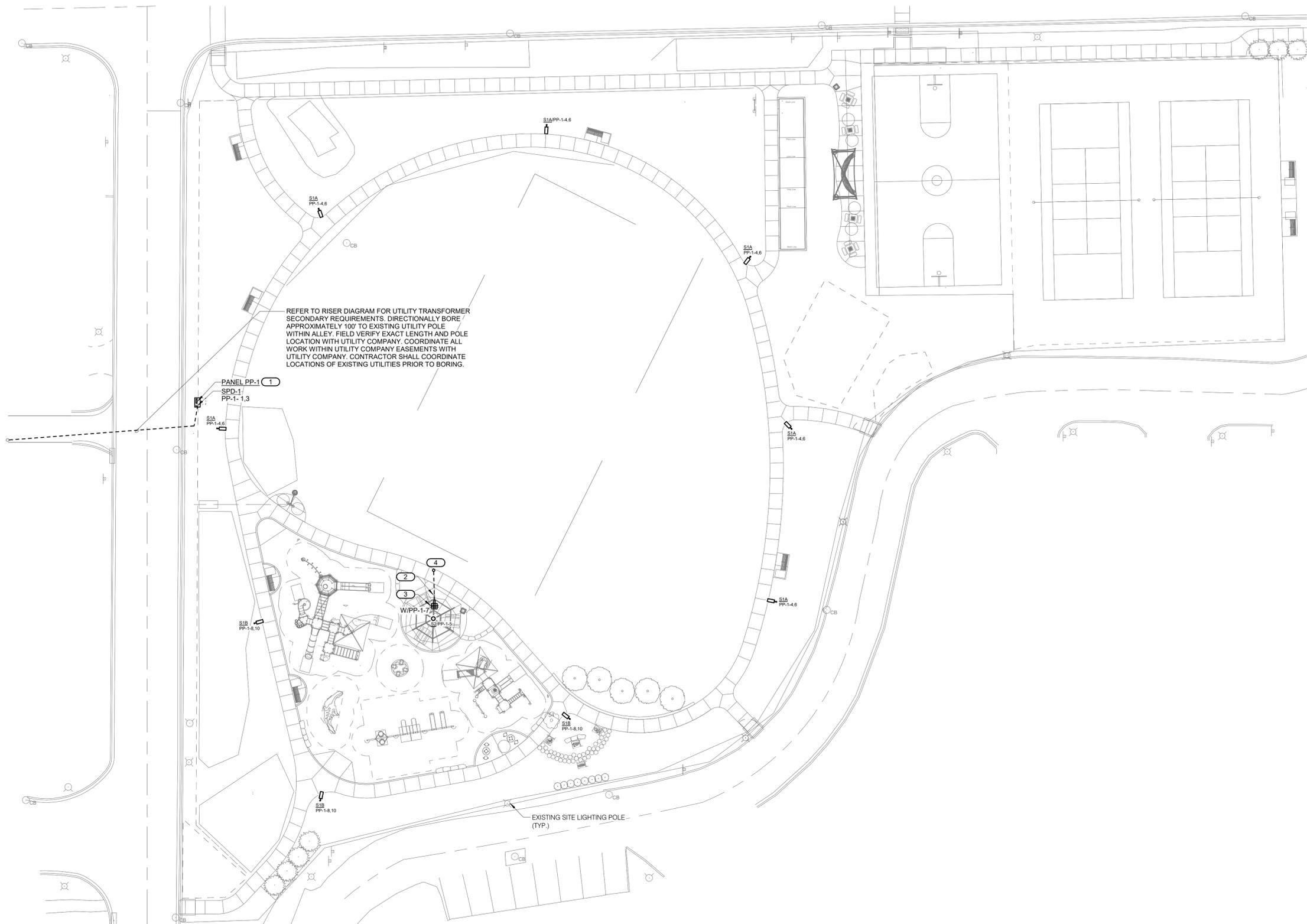
**C E1.1**

**SHEET NOTES:**

1. NOT ALL EXISTING PARK EQUIPMENT AND UNDERGROUND CONDUIT ARE SHOWN. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS WITH NEW WORK BEFORE STARTING WORK.
2. REFER TO LUMINAIRE SCHEDULE FOR NEW LIGHTING FIXTURE REQUIREMENTS.
3. NEW CONDUIT SHALL BE INSTALLED BY DIRECTIONAL BORING. ALL DISTURBED SURFACES SHALL BE RESTORED TO MATCH PRE-CONSTRUCTION CONDITIONS.
4. REFER TO 2/C E2.0 FOR POLE BASE DETAIL.

**KEYNOTES:**

1. PANEL SHALL BE INSTALLED IN PAD MOUNTED CABINET, PAINTED ALUMINUM (COLOR SELECTED BY LANDSCAPE ARCHITECT) NEMA 3R ENCLOSURE WITH STAINLESS STEEL HARDWARE AND LOCKABLE DOORS. CABINET SIZE SHALL BE MIN. 44"W x 26"D x 59"H. FINAL DIMENSIONS TO BE VERIFIED DURING SHOP DRAWING REVIEW. BASIS OF DESIGN CABINET MANUFACTURER: SOUTHERN MANUFACTURING OR APPROVED EQUAL. MOUNT ENCLOSURE ON CONCRETE PAD. REFER TO DETAIL 1/C E2.0. REFER TO SPECIFICATION SECTIONS AND RISER DIAGRAM FOR DISTRIBUTION CABINET INTERIOR ACCESSORIES. STUB AND GAP (2) EMPTY 2 1/2" CONDUITS FROM PAD TO GREEN SPACE ADJACENT TO PAD AND TERMINATE WITHIN LANDSCAPING HANDHOLE (REFER TO SPECIFICATION SECTION 26 05 33 FOR HANDHOLE REQUIREMENTS).
2. STUB-UP CONDUIT INSIDE COLUMN, EXIT COLUMN NEAR UNDERSIDE OF ROOF (COORDINATE WITH SHELTER MANUFACTURER), AND ROUTE IMC CONDUIT TO LUMINAIRE ALONG STRUCTURAL MEMBERS CONCEALED FROM VIEW AS MUCH AS POSSIBLE. PENDANT MOUNT LUMINAIRE ON IMC CONDUIT STEM TO CLEAR ROOF SLOPE. PROVIDE CAST BOX WITH GASKET AND WEATHERPROOF SWIVEL HANGER (GARVIN #SC OR EQUAL), PROVIDE FACTORY COLORED CONDUIT - COLOR SELECTED BY LANDSCAPE ARCHITECT.
3. MOUNT RECEPTACLE FLUSH WITHIN COLUMN CUT OUT (BY SHELTER MANUFACTURER). STUB-UP CONDUIT INSIDE COLUMN. QUAD RECEPTACLES SHALL BE (2) WEATHER RESISTANT GFCI TYPE NEMA 5-20R, APPROVED MANUFACTURER: HUBBELL GFRWRST 20, LEVITON GFWT2, PASS & SEYMOUR 209TRWR, COOPER WRSGF20. PROVIDE WITH EXTRA DUTY WHILE-IN-USE WEATHERPROOF LOCKABLE COVER, SET CUT OUT/RECEPTACLES AS HIGH AS POSSIBLE ON COLUMN.
4. PROVIDE COPPER GROUND ROD AND BOND TO METAL SHELTER STRUCTURE WITH #8 AWG COPPER CONDUCTOR.



REFER TO RISER DIAGRAM FOR UTILITY TRANSFORMER SECONDARY REQUIREMENTS. DIRECTIONALLY BORE APPROXIMATELY 100' TO EXISTING UTILITY POLE WITHIN ALLEY. FIELD VERIFY EXACT LENGTH AND POLE LOCATION WITH UTILITY COMPANY. COORDINATE ALL WORK WITHIN UTILITY COMPANY EASEMENTS WITH UTILITY COMPANY. CONTRACTOR SHALL COORDINATE LOCATIONS OF EXISTING UTILITIES PRIOR TO BORING.

**1** **ELECTRICAL SITE PLAN**  
1" = 20'-0"



263 SHUMAN BOULEVARD  
SUITE 550  
NAPERVILLE, IL 60563  
P: 630.527.2320  
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Project Number 1/23/2025 10:42:19 AM CARTWRIGHT PARK



909 Davis Street  
Evanston, Illinois 60201  
Phone: 847-448-4311

PROJECT  
**Cartwright  
Park  
Improvements**

3250 Grant St, Evanston, IL 60201

PROJECT TEAM



**uplandDesign Ltd**

Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

CIVIL ENGINEER:  
Environmental Design  
International Inc.  
33 W. Monroe Street, Suite  
1825 Chicago, Illinois 60603  
Phone: 312-345-1400

ELECTRICAL ENGINEER  
IMEG Corp.  
263 Shuman Boulevard  
Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

ORIGINAL ISSUE DATE

**Issue for Bid** 12FEB2026

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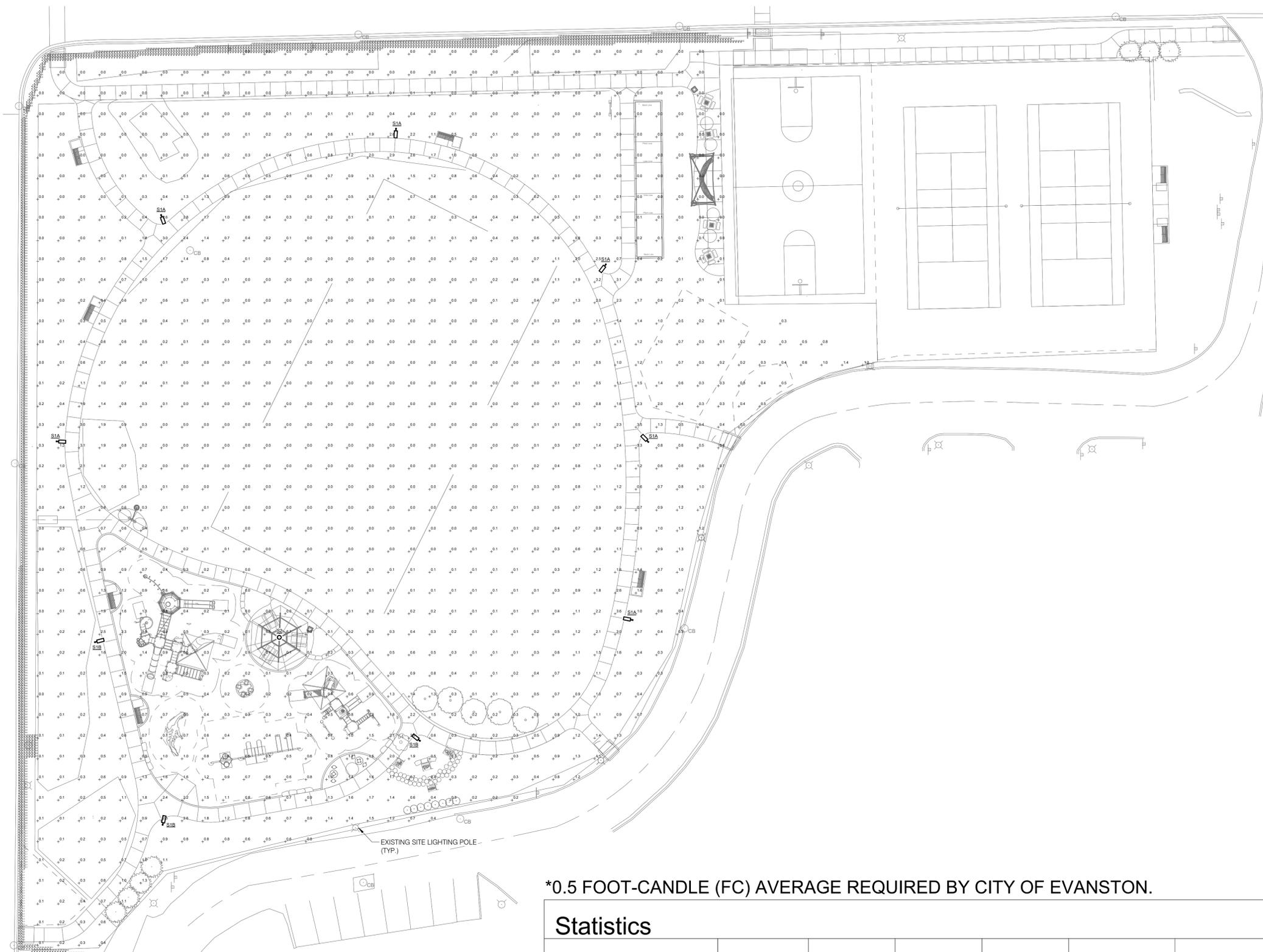

PROJECT NUMBER **1355**

SHEET TITLE

**ELECTRICAL  
SITE PLAN -  
PHOTOMETRICS**

SHEET NUMBER

**C E1.2**



\*0.5 FOOT-CANDLE (FC) AVERAGE REQUIRED BY CITY OF EVANSTON.

Statistics						
Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
PLAYGROUND	+	0.5 fc	1.5 fc	0.0 fc	N/A	N/A
PROPERTY LINE	+	0.0 fc	0.3 fc	0.0 fc	N/A	N/A
WALKWAY	+	0.5 fc	1.4 fc	0.0 fc	N/A	N/A

**1 ELECTRICAL SITE PLAN - PHOTOMETRICS**  
1" = 20'-0"

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NAPERVILLE, IL 60563  
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PROJECT  
**Cartwright  
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3250 Grant St, Evanston, IL 60201

PROJECT TEAM

**uplandDesign Ltd**  
Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
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International Inc.  
33 W. Monroe Street, Suite  
1825 Chicago, Illinois 60603  
Phone: 312-345-1400

ELECTRICAL ENGINEER  
IMEG Corp.  
263 Shuman Boulevard  
Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

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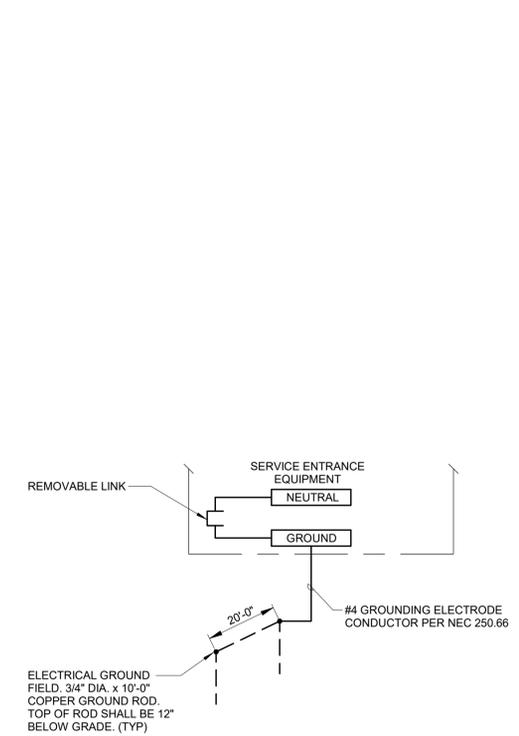
SHEET TITLE

**ELECTRICAL  
DETAILS**

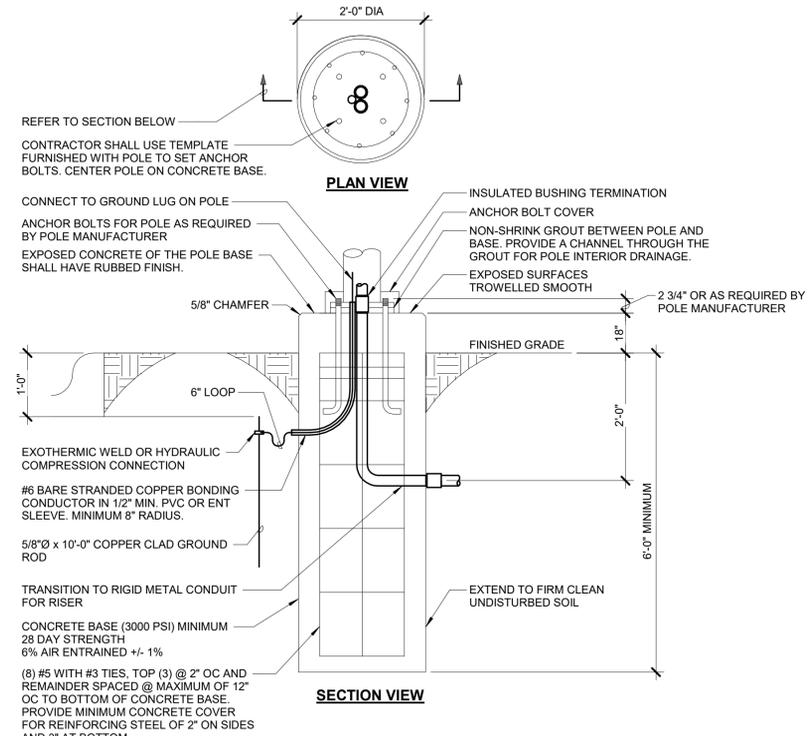
SHEET NUMBER

**C E2.0**

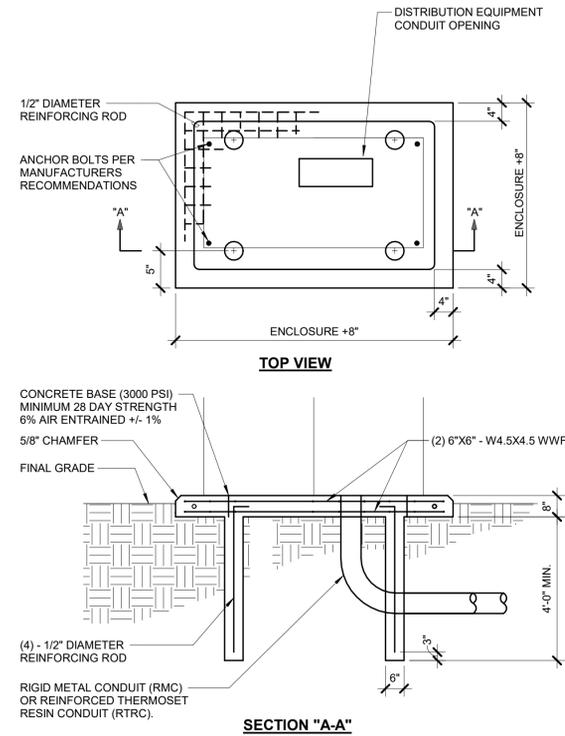
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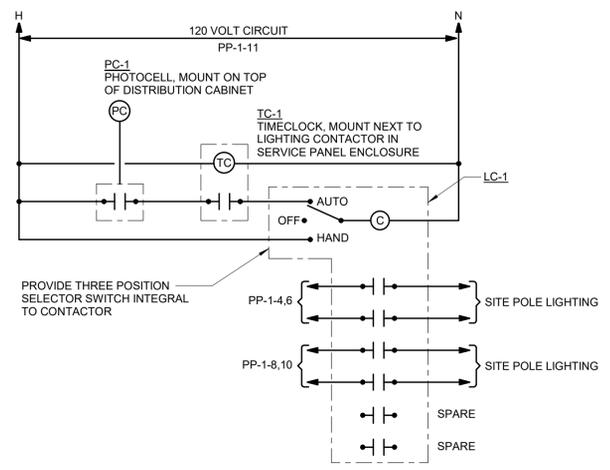
**3 SERVICE ENTRANCE GROUNDING ELECTRODE SYSTEM**  
NO SCALE



**2 POLE BASE DETAIL**  
NO SCALE



**1 DISTRIBUTION ENCLOSURE PAD DETAIL**  
NO SCALE



**4 EXTERIOR LIGHTING CONTROL DIAGRAM**  
NO SCALE

- NOTES:
- (TC-1): ASTRONOMICAL TIME SWITCH, 7-DAY, 1 CHANNEL, ELECTRONIC, ONE SPDT 5-AMP CONTACT, LCD DISPLAY, 12 OR 24-HOUR FORMAT, MINIMUM 100 HOURS CARRYOVER, UL LISTED, APPROVED MANUFACTURERS: PARAGON EC71ST, TORK DW2100A, INTERMATIC ET7011SC.
  - LC-1: REFER TO LIGHTING CONTACTOR SCHEDULE ON C E4.0.
  - (PC-1): STANDALONE EXTERIOR PHOTO SENSOR, SENSOR SHALL BE WITHIN A WEATHERPROOF ENCLOSURE, WITH DESIGN OPERATION IN TEMPERATURES OF 30°F TO +130°F. SENSOR SHALL HAVE THREADED STEM FOR BOX MOUNTING, WITH KNUCKLE TO PERMIT AIMING OF RECEPTOR AFTER INSTALLATION. SENSOR SHALL BE MOUNTED FACING NORTH. APPROVED MANUFACTURERS: PARAGON, TORK, INTERMATIC.

Sequence: Site lights are controlled by photocell and astronomical time clock.  
ON: Site luminaires shall turn on at a pre-set time (owner determined) via time clock and photocell dusk-to-dawn control, or by lighting contactor HAND mode.  
OFF: Site luminaires are turned off at a pre-set time (owner determined) via time clock and photocell dusk-to-dawn control, or by lighting contactor OFF mode.

Project Number 1/23/2025 10:42:28 AM CARTWRIGHT PARK



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PROJECT  
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PROJECT TEAM

uplandDesign Ltd  
Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

CIVIL ENGINEER:  
Environmental Design International Inc.  
33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603  
Phone: 312-345-1400

ELECTRICAL ENGINEER  
IMEG Corp.  
263 Shuman Boulevard Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

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**Issue for Bid** 12FEB2026

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PROJECT NUMBER **1355**

SHEET TITLE  
**ELECTRICAL DIAGRAMS**

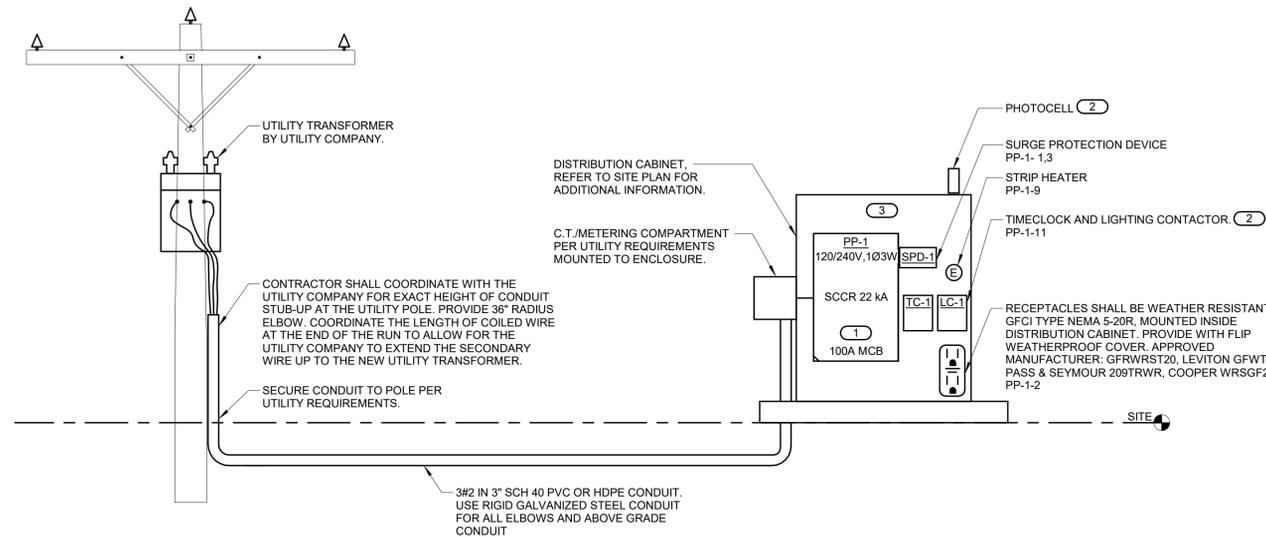
SHEET NUMBER  
**C E3.0**

**ELECTRICAL - RISER DIAGRAM NOTES:**

- THE RISER DIAGRAM IS INTENDED TO CONVEY THE COMPONENTS OF THE ELECTRICAL DISTRIBUTION SYSTEM. REFER TO ELECTRICAL DRAWINGS, DETAILS, DISTRIBUTION / PANEL / EQUIPMENT / EQUIPMENT CONNECTION SCHEDULES, AND SPECIFICATIONS FOR ADDITIONAL INFORMATION.
- SHORT CIRCUIT CURRENT RATINGS (SCCR) FOR EQUIPMENT ARE MINIMUM REQUIREMENTS FOR BUS BRACING AND DEVICE RATINGS. ALL EQUIPMENT SHALL BE FULLY RATED UNLESS SPECIFICALLY NOTED AS SERIES RATED.
- PROVIDE O.Z. GEDNEY OR EQUAL GROUND BUSHING FOR ALL SERVICE AND FEEDER RACEWAYS BONDED TO GROUND BUS WITH CONDUCTOR SIZED TO MAXIMUM FEEDER GROUND CAPACITY.
- REFER TO COVER SHEET FOR ADDITIONAL EQUIPMENT TAG INFORMATION (SPD-#, M-#, ETC).
- REFER TO GROUNDING ELECTRODE SYSTEM AND BONDING DETAILS
  - EGC - EQUIPMENT GROUNDING CONDUCTOR
  - GEC - GROUNDING ELECTRODE CONDUCTOR
- CIRCUIT BREAKER CHARACTERISTICS AND ACCESSORIES:
  - [CB] INDICATES CIRCUIT BREAKER

**KEYNOTES:**

- REFER TO SERVICE ENTRANCE GROUNDING DETAIL 3/C E2.0.
- REFER TO EXTERIOR LIGHTING CONTROL DIAGRAM 4/C E2.0.
- ALL WIRING WITHIN DISTRIBUTION CABINET SHALL BE IN CONDUIT.



**1 ELECTRICAL RISER DIAGRAM**  
NO SCALE

**PANEL PP-1**

MOUNTING: SURFACE  
ENCLOSURE: NEMA 1  
FED FROM: UTILITY TRANSFORMER  
LOCATION: SITE ENCLOSURE

SOLID NEUTRAL GROUND BUS

MAIN: 100 MCB  
VOLTS: 120/240 Single  
PHASE: 1  
WIRE: 3  
SCCR: 22 kA

NOTES: PROVIDE SERVICE ENTRANCE RATED.

KEY	CKT NO.	LOAD DESCRIPTION	OCPD		WIRE SIZE			A		B			WIRE SIZE		OCPD	LOAD DESCRIPTION	CKT NO.	KEY		
			AMPS	P	H	N	G	A	B	G	N	H	P	AMPS						
	1	SPD-1	30	2	10	10	10	0.1	0.18			12	12	12	1	20	Receptacles	2		
	3	Canopy Lighting	20	1	10	10	10	0.06	0.12			8	--	8	2	20	Site Lighting	4		
	5	Receptacles	20	1	10	10	10			0.18	0.06	8	--	8	2	20	Site Lighting	6		
	7	STRIP HEATER	20	1	12	12	12	1.5	0.06							20	Site Lighting	8		
	9	TC-1/LC-1	20	1	12	12	12									20	SPARE	10		
	11	SPARE	20	1	--	--	--	0	0							20	SPARE	12	--	
	13	SPARE	20	1	--	--	--									20	SPARE	14	--	
	15	SPARE	20	1	--	--	--									20	SPARE	16	--	
	17	SPARE	20	1	--	--	--	0	0							20	SPARE	18	--	
	19	SPARE	20	1	--	--	--									20	SPARE	20	--	
	21	SPACE	--	1	--	--	--									--	SPACE	22	--	
	23	SPACE	--	1	--	--	--									--	SPACE	24	--	
	25	SPACE	--	1	--	--	--									--	SPACE	26	--	
	27	SPACE	--	1	--	--	--									--	SPACE	28	--	
	29	SPACE	--	1	--	--	--									--	SPACE	30	--	
			Total Load:		2.03 kVA		0.47 kVA													
			Total Amps:		16.88		3.88													

**LOAD SUMMARY**

LOAD CLASSIFICATION	CONNECTED LOAD	DEMAND FACTOR	ESTIMATED DEMAND	TOTALS*
Lighting	0.431 kVA	100%	0.431 kVA	
Power	1.700 kVA	100%	1.700 kVA	<b>TOTAL CONNECTED LOAD:</b> 2.49 kVA
Receptacles	0.360 kVA	100%	0.360 kVA	<b>TOTAL ESTIMATED DEMAND LOAD:</b> 2.491 kVA
				<b>TOTAL CONNECTED AMPS:</b> 10.38 A
				<b>TOTAL ESTIMATED DEMAND AMPS:</b> 10.4

\*TOTAL DEMAND CALCS SUBTRACT ANY REDUNDANT LOAD AND THE SMALLER OF ANY NONCOINCIDENT HVAC LOADS. THIS CALC IS DONE AT EACH PANEL.

CIRCUIT KEY NOTES:

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909 Davis Street  
Evanston, Illinois 60201  
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PROJECT

# Cartwright Park Improvements

3250 Grant St, Evanston, IL 60201

PROJECT TEAM



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Chicago, Illinois 312-350-4088  
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CIVIL ENGINEER:

Environmental Design  
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33 W. Monroe Street, Suite  
1825 Chicago, Illinois 60603  
Phone: 312-345-1400

ELECTRICAL ENGINEER

IMEG Corp.  
263 Shuman Boulevard  
Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

ORIGINAL ISSUE DATE

**Issue for Bid** 12FEB2026

REVISIONS

NO.	DESCRIPTION	DATE

PROJECT NUMBER **1355**

SHEET TITLE

# ELECTRICAL SCHEDULES

SHEET NUMBER

## C E4.0

LUMINAIRE SCHEDULE LEGEND		
<b>DESCRIPTION:</b>		
PAF - PAINT AFTER FABRICATION		
CFSA - COLOR FINISH SELECTION BY ARCHITECT		
CFCFA - CUSTOM COLOR FINISH SELECTED BY ARCHITECT		
CONFIRM ALL COLORS AND FINISHES OF ALL LUMINAIRE COMPONENTS WITH LANDSCAPE ARCHITECT PRIOR TO THE RELEASE OF THE LUMINAIRE ORDER		
<b>OPTICS:</b>		
BEAM ANGLE		
##° or ## DEG - BEAM ANGLE IN DEGREES		
VNSP - VERY NARROW SPOT	NFL - NARROW FLOOD	
NSP - NARROW SPOT	FL - FLOOD	
SP - SPOT	WFL - WIDE FLOOD	
WSP - WIDE SPOT	VWF - VERY WIDE FLOOD	
VWSP - VERY WIDE SPOT		
<b>MOUNTING (MTG):</b>		
CL - CEILING	P - PERIMETER	SU - SURFACE
CV - COVE	PL - POLE	UC - UNDER CABINET
G - GROUND SURFACE	RE - RECESSED	WL - WALL
IG - IN GRADE	SP - SUSPENDED	O - OTHER (SEE DESCRIPTION)
VERIFY AND COORDINATE ALL CEILING TYPES WITH LUMINAIRE MOUNTING AND TRIM REQUIREMENTS. REFER TO ARCHITECTURAL DESIGN ELEVATIONS, SECTIONS, AND DETAILS FOR LUMINAIRE MOUNTING LOCATIONS AND REQUIREMENTS.		
MOUNTING HEIGHTS INDICATED IN THE SCHEDULE ARE TO THE BOTTOM OF FIXTURE UNLESS NOTED OTHERWISE.		
<b>DIMENSIONS:</b>		
L - LENGTH	W - WIDTH	H - HEIGHT
D - DEPTH	Ø - DIAMETER	
VAR. - DIMENSION VARIES, SEE ARCHITECTURAL PLANS.		
<b>LIGHT SOURCE:</b>		
SOURCE TYPE	LED - INTEGRAL LIGHT EMITTING DIODE DLED - DYNAMIC TUNABLE WHITE LED RLED - RETROFIT LED LAMP WLED - WARM DIM LED	
CCT / CRI	EXTERIOR CORRELATED COLOR TEMPERATURE 3000K. COLOR RENDERING INDEX (CRI) AT OR ABOVE 80, UNLESS NOTED OTHERWISE.	
<b>DELIVERED LUMENS:</b>		
LUMENS INDICATED ARE MINIMUM INITIAL DELIVERED LUMENS AT SPECIFIED CCT AND CRI.		
<b>WATTS:</b>		
MAXIMUM ANSI WATTS PER: (BLANK) = PER LUMINAIRE FT = LINEAR FOOT LAMP POLE		
<b>POWER SUPPLY:</b>		
PS TYPE	(BLANK) - INTEGRAL UNLESS NOTED OTHERWISE REM - REMOTE EM - EMERGENCY BATTERY	
CONTROL METHOD	0-10V - 0 TO 10V DIMMING 10% 1% 0.1% 0.01% AS INDICATED DALI - DIGITAL ADDRESSABLE LIGHTING INTERFACE (IEC 62386) DMX - USITT DMX512-A (ANSI E1.11) UPC - UNIVERSAL PHASE CONTROL DIMMING (PHASE ADAPTIVE) SWC - SWITCHED CONTROL O - OTHER (SEE DESCRIPTION)	
<b>MANUFACTURER - SERIES:</b>		
1. THE FIRST MANUFACTURER AND MODEL LISTED IS THE BASIS OF DESIGN. 2. THE MODEL NUMBER SHOWN SHALL NOT BE CONSIDERED COMPLETE AND MATERIAL SHALL NOT BE ORDERED BY MANUFACTURER AND MODEL NUMBER ONLY. THE COMPLETE DESCRIPTION AND THE SPECIFICATION SHALL BE COORDINATED WITH THE MODEL NUMBER TO DETERMINE THE EXACT MATERIAL AND ACCESSORIES TO BE ORDERED.		

LUMINAIRE SCHEDULE										
TAG	DESCRIPTION	OPTICS	MTG	DIMENSIONS	LIGHT SOURCE	DELIVERED LUMENS	WATTS	POWER SUPPLY	MANUFACTURER - SERIES	NOTES
S1A	LED AREA POLE MOUNT LUMINAIRE. SINGLE HEAD LE3F TYPE III (ASYM) DISTRIBUTION, FLAT GLASS LENS. DIE-CAST HOUSING. 3000K COLOR TEMPERATURE. WET LOCATION LISTED. PROVIDE WITH HOUSE SIDE SHIELD. MOUNT ON ROUND STRAIGHT EXTRUDED-ALUMINIUM POLE (LUMEC SAM8). 16-FOOT POLE HEIGHT AND 0.258-INCH WALL THICKNESS. FIXTURE SHALL BE MOUNTED TO POLE USING TYPE 'MM' MEDIUM REACH BRACKET MOUNTING ARMS WELDED TO POLE ADAPTOR, CONFIGURATION STYLE '1A'. FIXTURE AND POLE FINISHED TO BE COORDINATED WITH LANDSCAPING ARCHITECT AND EVANSTON.		PL	32 3/4"L X 14 1/4"W X 7 7/8"H	LED	4,992 lm	37 / FIX	240	LUMEC DMSS0 (EVANSTON STANDARD)	
S1B	LED AREA POLE MOUNT LUMINAIRE. SINGLE HEAD LE4F TYPE IV (ASYM) DISTRIBUTION, FLAT GLASS LENS. DIE-CAST HOUSING. 3000K COLOR TEMPERATURE. WET LOCATION LISTED. PROVIDE WITH HOUSE SIDE SHIELD. MOUNT ON ROUND STRAIGHT EXTRUDED-ALUMINIUM POLE (LUMEC SAM8). 16-FOOT POLE HEIGHT AND 0.258-INCH WALL THICKNESS. FIXTURE SHALL BE MOUNTED TO POLE USING TYPE 'MM' MEDIUM REACH BRACKET MOUNTING ARMS WELDED TO POLE ADAPTOR, CONFIGURATION STYLE '1A'. FIXTURE AND POLE FINISHED TO BE COORDINATED WITH LANDSCAPING ARCHITECT AND EVANSTON.		PL	32 3/4"L X 14 1/4"W X 7 7/8"H	LED	4,954 lm	37 / FIX	240	SIMILAR TO S1A	
S2	ROUND CANOPY LIGHT, DOWNLIGHT ONLY, TYPE V WIDE DISTRIBUTION, DIE CAST ALUMINIUM HOUSING, POLYCARBONATE LENS. 3000K COLOR TEMPERATURE. WET LOCATION LISTED. PROVIDE WITH DEBRIS SHIELD. COLOR SELECTED BY LANDSCAPE ARCHITECT. PROVIDE WITH INTEGRAL OCCUPANCY AND DAYLIGHT SENSING AND ADJUSTABLE DIM LEVELS. PROVIDE REMOTE CONTROLLER TO OWNER.	WSP	SP	5"W X .18 1/2"Ø	LED	5,100 lm	55 / FIX	120	KENALL SENScape SPG18 OR APPROVED EQUAL	

CONTACTOR SCHEDULE									
SWITCH TYPE:					REMARKS:				
EH - ELECTRICALLY HELD					HOA - HAND OFF AUTO				
MH - MECHANICALLY HELD									
ITEM	SWITCH TYPE	CONTACT VOLTAGE	# OF POLES (CONTACTOR)	AMPS	NEMA ENCLOSURE	COIL VOLTAGE	REMARKS	APPROVED MANUFACTURERS	
LC-1	EH	120	4	30	1	120	HOA	SQUARE D SIEMENS EATON	

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LUMEC



Domus 50 is one of the most versatile luminaires offered by LumeC. This classic shape was one of the first in a line of pioneering LumeC designs. Domus offers a subtly refined design that balances shape, dimension and proportion.

Ordering guide example: DMS50-30W32LE3K-03-ACDR-LE2A-LUV-DMS-MAI-RCD-PHB-BTKX

Table with columns: Series, LED module, CCT, Dim, Optical system, Voltage, Driver, Adaptors. Includes sub-tables for DMS50 Domus and DMS50 Domus LED.

Ordering guide (continued) Recaptical, Control, Options, Luminaire, Pole & Brackets, Finish

Table with columns: Recaptical, Control, Options, Luminaire, Pole & Brackets, Finish. Lists various options and their descriptions.

DMS50-Domus-LED 0125 page 1 of 7

DMS50 Domus LED Pendant Urban Luminaire

Dimensions EPA: 1.35 ft max. Weight: 62 lbs (28 kg) max.



LED Performance

Table with columns: Ambient Temperature, Driver (mA), Calculated (1-hr) Lumen Output, Lumen Maintenance % @ 60,000 hours.

1. Predicted performance based on the LED manufacturer's test and engineering design estimates. 2. Light loss due to lumen depreciation (LM70) and color shift (CRI) are not included in this table.

DMS50 Domus LED Pendant Urban Luminaire

LED Wattage and Lumen Values: for DMS50@3000K

Large table with columns: Pole Size, LED, LED Output, Efficacy, B/G Rating, Lumens Output, Efficacy, B/G Rating, Lumens Output, Efficacy, B/G Rating, Lumens Output, Efficacy, B/G Rating. Includes sub-tables for Sag Lens 3000K, Pole Size 3000K, Pole Size 4000K, Pole Size 5000K.

Actual performance may vary due to installation variables including height, dimming, mounting height, light loss factors, etc. Lightly recommended for use in applications with a typical ambient temperature of 65°F (19°C) and 50% relative humidity.

DMS50-Domus-LED 0125 page 3 of 7

DMS50 Domus LED Pendant Urban Luminaire

LED Wattage and Lumen Values: for DMS50 @ 4000K, multiply 4000K values by 0.769 for 2200K

Large table with columns: Pole Size, LED, LED Output, Efficacy, B/G Rating, Lumens Output, Efficacy, B/G Rating, Lumens Output, Efficacy, B/G Rating, Lumens Output, Efficacy, B/G Rating. Includes sub-tables for Sag Lens 4000K, Pole Size 4000K, Pole Size 5000K, Pole Size 6000K.

Actual performance may vary due to installation variables including height, dimming, mounting height, light loss factors, etc. Lightly recommended for use in applications with a typical ambient temperature of 65°F (19°C) and 50% relative humidity.

DMS50-Domus-LED 0125 page 4 of 7

DMS50 Domus LED Pendant Urban Luminaire

Specifications

Housing: In a round shape, this housing is made of die cast A300 aluminum... Access-Whichever: A die cast A300 aluminum technical ring with latch... LED engine: LED type: Lumileds LUXEON®... Lens: LEAF-LE2A: Type II (ASPM) with acrylic globe... Driver: Driver comes standard with dimming compatible 0-10V... Heat sink: Made of cast aluminum optimizing the LEDs' efficiency and life...

DMS50 Domus LED Pendant Urban Luminaire

Specifications (continued)

Luminaire options: PH: House side shield... PHB: Photocentric cell, bottom type... PHSL: Extended photocentric cell, Twist-Lock Type... PHB: Shorting cap, Twist-Lock Type... RCD: Receptacle 8 pins... RCD2: Receptacle 7 pins... SP2: Integral surge protector... Luminaire adaptor: MA1: The luminaire is suspended by means of a mounting adaptor with a 1" (25mm) NPT threaded hole... MA2: 1/2" (12.7mm) NPT threaded hole accepting threaded tube from the mounting... SMA: The luminaire is suspended by means of a decorative side-mounted cast aluminum adaptor... DMB: The luminaire is suspended by means of a decorative side-mounted cast aluminum adaptor... Certifications and Compliance: Meets the ANSI C136.31, American National Standard for Recreational Luminaires... Tested Options Include: BEZT: Textured Midnight Blue... WHTX: Textured White

DMS50-Domus-LED 0125 page 2 of 7

DMS50 Domus LED Pendant Urban Luminaire

Specifications (continued)

Poles & Brackets: Sample configurations... Pole: MA1... Pole: ITA00-BA... Pole: S048-PS... Quality control: Manufacturer to ISO 9001:2015 standards and ISO 14001:2015 International Quality Standards Certification.

DMS50-Domus-LED 0125 page 1 of 7



909 Davis Street Evanston, Illinois 60201 Phone: 847-448-4311

PROJECT Cartwright Park Improvements

3250 Grant St, Evanston, IL 60201

PROJECT TEAM

uplandDesign Ltd Landscape Architecture & Park Planning Chicago, Illinois 312-350-4088 Plainfield, Illinois 815-254-0091 upland-design.com

CIVIL ENGINEER: Environmental Design International Inc. 33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603 Phone: 312-345-1400

ELECTRICAL ENGINEER: IMEG Corp. 263 Shuman Boulevard Suite 550 Naperville, Illinois 60563 Phone: 630-527-2320

ORIGINAL ISSUE DATE Issue for Bid 12FEB2026

Table with columns: REVISIONS, Description, Date. Includes a grid for revision tracking.

PROJECT NUMBER 1355

SHEET TITLE ELECTRICAL SITE LIGHTING - CUT SHEETS

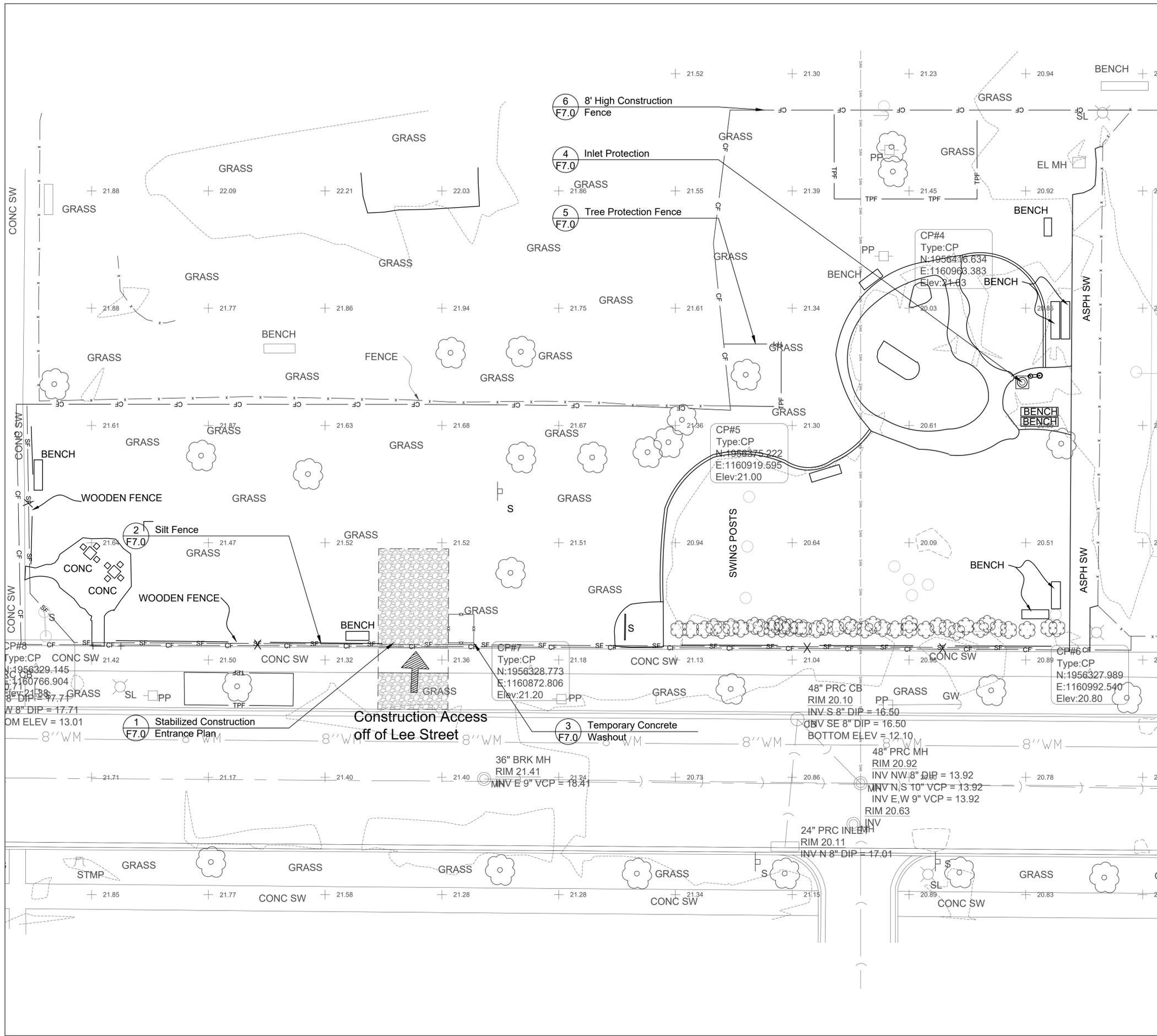
SHEET NUMBER C E 5.0

IMEG 263 SHUMAN BOULEVARD SUITE 550 NAPERVILLE, IL 60563 P: 630.527.2320 www.imegcorp.com

Project Number 172312025 10:42:30 AM CARTWRIGHT PARK

**SENSCAPE™**  
**SPG18 SERIES**

**PRODUCT FEATURES:**  
 • Available in 180, 270, 360, 450, 90, 135, 180, 225, 270, 315, 360, 405, 450, 540, 630, 720, 810, 900, 945, 1080, 1260, 1440, 1620, 1800, 2160, 2520, 2880, 3240, 3600, 4320, 5040, 5760, 6480, 7200, 7920, 8640, 9360, 10080, 10800, 11520, 12240, 12960, 13680, 14400, 15120, 15840, 16560, 17280, 18000, 18720, 19440, 20160, 20880, 21600, 22320, 23040, 23760, 24480, 25200, 25920, 26640, 27360, 28080, 28800, 29520, 30240, 30960, 31680, 32400, 33120, 33840, 34560, 35280, 36000, 36720, 37440, 38160, 38880, 39600, 40320, 41040, 41760, 42480, 43200, 43920, 44640, 45360, 46080, 46800, 47520, 48240, 48960, 49680, 50400, 51120, 51840, 52560, 53280, 54000, 54720, 55440, 56160, 56880, 57600, 58320, 59040, 59760, 60480, 61200, 61920, 62640, 63360, 64080, 64800, 65520, 66240, 66960, 67680, 68400, 69120, 69840, 70560, 71280, 72000, 72720, 73440, 74160, 74880, 75600, 76320, 77040, 77760, 78480, 79200, 79920, 80640, 81360, 82080, 82800, 83520, 84240, 84960, 85680, 86400, 87120, 87840, 88560, 89280, 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**SURVEY LEGEND**

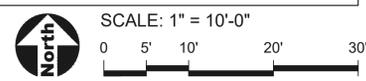
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	EXISTING BACK OF CURB
	EXISTING BUILDING
	EXISTING CABLE TV
	EXISTING CENTERLINE
	EXISTING COMBINED SEWER
	EXISTING CONCRETE
	EXISTING CONTOUR MAJOR
	EXISTING CONTOUR MINOR
	EXISTING DRIVEWAY
	EXISTING EASEMENT
	EXISTING ELECTRIC LINE
	EXISTING EDGE OF PAVEMENT
	EXISTING FACE OF CURB
	EXISTING FENCE
	EXISTING FLOWLINE
	EXISTING GAS LINE
	EXISTING GRAVEL
	EXISTING LANDSCAPING
	EXISTING MISCELLANEOUS
	EXISTING PROPERTY LINE
	EXISTING RAILROAD TRACKS
	EXISTING ROW
	EXISTING SANITARY SEWER
	EXISTING SIDEWALK
	EXISTING STORM SEWER
	EXISTING STREETLIGHT CABLE
	EXISTING STRIPING
	EXISTING TELEPHONE LINE
	EXISTING TYPE B CURB
	EXISTING TYPE B6.12 CURB AND GUTTER
	EXISTING 6'' WM
	EXISTING WATER MAIN (SIZE VARIES)
	EXISTING BUSH LINE
	EXISTING FIBER OPTIC LINE

**PROJECT BENCHMARK**

City of Evanston	Control Monument Number 5 North	Control Monument Number 5 South
Coordinates:	Northing: 1857482.430 (FT)	Northing: 1856997.776 (FT)
	Eastings: 968508.244 (FT)	Eastings: 968121.423 (FT)
	Elevation: 699.85 NAVD 88	Elevation: 690.81 NAVD 88 (691.04 (FT) NGVD 29)
	(700.08 (FT) NGVD 29)	
State of Illinois		
County of Will		

**LEGEND**

	Tree Protection Fence
	Construction Fence
	Silt Fence
	Inlet and Pipe Protection
	Concrete Washout
	Stabilized Construction Entrance Plan



909 Davis Street  
Evanston, Illinois 60201  
Phone: 847-448-4311

**PROJECT**  
**Cartwright Park Improvements**  
3250 Grant Street, Evanston, IL 60201  
**Fitzsimons Park Improvements**  
801 Lee Street, Evanston, IL 60202

**PROJECT TEAM**  
  
Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

**CIVIL ENGINEER:**  
Environmental Design International Inc.  
33 W. Monroe Street, Suite 1825  
Chicago, Illinois 60603  
Phone: 312-345-1400

**ELECTRICAL ENGINEER**  
IMEG Consultants Corp.  
263 Shuman Boulevard Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

ORIGINAL ISSUE DATE  
**Issue for Bid** 12FEB2026

**REVISIONS**

TD/CG		

PROJECT NUMBER **1358 & 1359**

SHEET TITLE  
**Soil Erosion & Sediment Control Plan**

SHEET NUMBER

**F 2.0**

1. Reference sheet C.2.1 for existing conditions & removals notes



909 Davis Street  
Evanston, Illinois 60201  
Phone: 847-448-4311

**PROJECT**  
**Cartwright Park Improvements**

3250 Grant Street, Evanston, IL 60201

**Fitzsimons Park Improvements**

801 Lee Street, Evanston, IL 60202

**PROJECT TEAM**

uplandDesign Ltd  
Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

**CIVIL ENGINEER:**  
Environmental Design International Inc.  
33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603  
Phone: 312-345-1400

**ELECTRICAL ENGINEER**  
IMEG Consultants Corp.  
263 Shuman Boulevard Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

ORIGINAL ISSUE DATE

**Issue for Bid 12FEB2026**

**REVISIONS**

TD/CG		

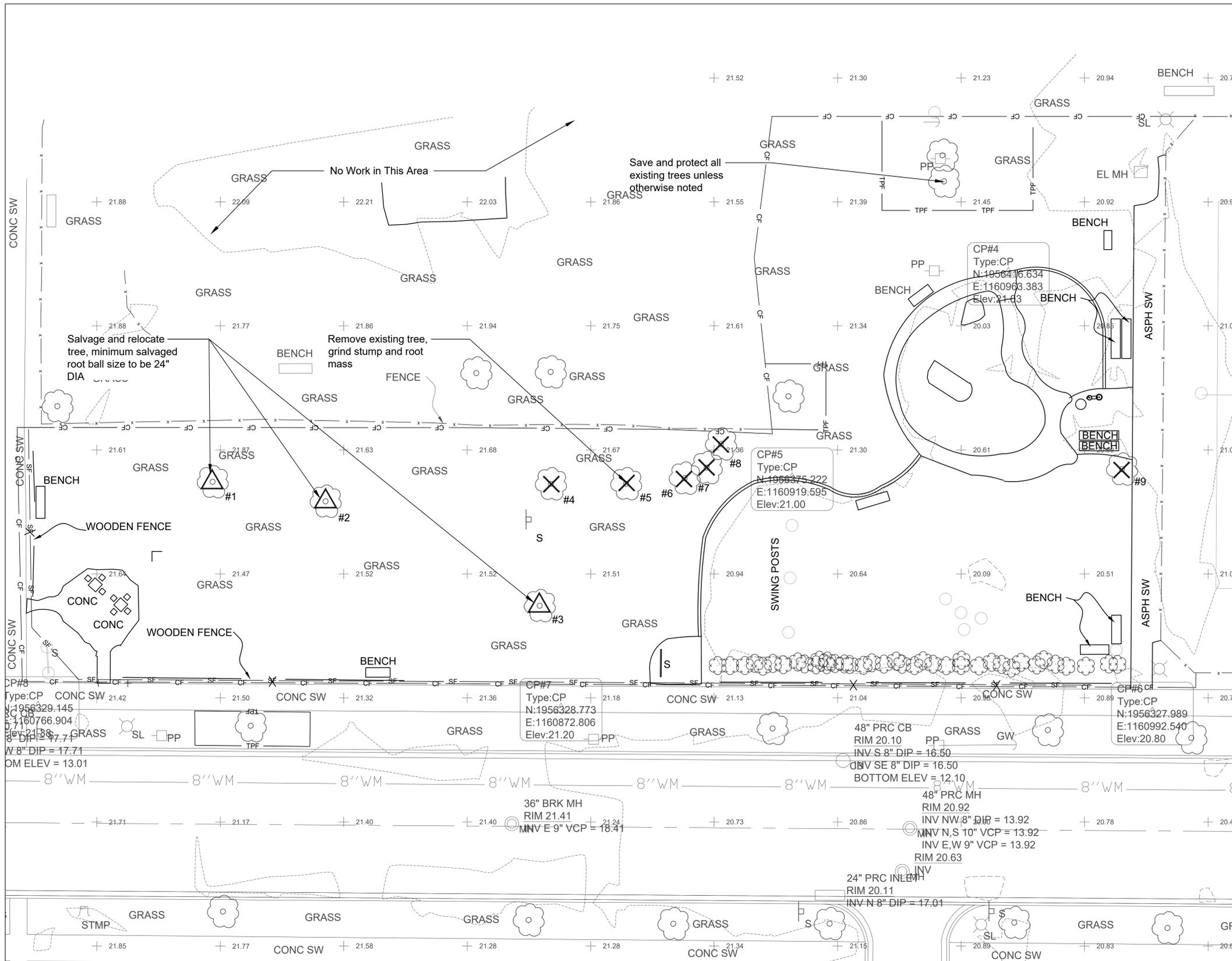
PROJECT NUMBER **1358 & 1359**

SHEET TITLE

**Tree Preservation & Removals Plan**

SHEET NUMBER

**F 2.1**

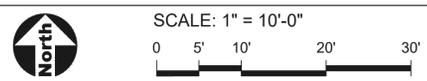


**Existing Trees**

Number	Botanical Name	Common Name	Remove	Relocate	Caliper
1	<i>Quercus Rubra</i>	Red Oak		X	1"
2	<i>Quercus Rubra</i>	Red Oak		X	1"
3	<i>Quercus Rubra</i>	Red Oak		X	1"
4	<i>Crataegus</i>	Hawthorn	X		6"
5	<i>Crataegus</i>	Hawthorn	X		6"
6	<i>Crataegus</i>	Hawthorn	X		10"
7	<i>Amelanchier</i>	Serviceberry	X		11"
8	<i>Amelanchier</i>	Serviceberry	X		7"
9	<i>Star Magnolia</i>	Magnolia stellata	X		30"
6	<b>Total Removed</b>				

**REMOVALS LEGEND**

- Remove and properly dispose of trees, grind stump and root mass to a depth of 18" below existing grade or proposed grade which ever is lowest unless otherwise noted on plan.
- Remove and Dispose of Item as Marked
- Salvage and Relocate Item as Marked



GENERAL NOTES: EXISTING CONDITIONS & REMOVALS

1. Reference sheet C 2.2 for existing conditions & removals notes



City of  
Evanston

909 Davis Street  
Evanston, Illinois 60201  
Phone: 847-448-4311

PROJECT

**Cartwright Park  
Improvements**

3250 Grant Street, Evanston, IL 60202

**Fitzsimons  
Park  
Improvements**

801 Lee Street, Evanston, IL 60202

PROJECT TEAM



**uplandDesign Ltd**

Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

CIVIL ENGINEER:

Environmental Design  
International Inc.  
33 W. Monroe Street, Suite  
1825 Chicago, Illinois 60603  
Phone: 312-345-1400

ELECTRICAL ENGINEER

IMEG Consultants Corp.  
263 Shuman Boulevard  
Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

ORIGINAL ISSUE DATE

**Issue for Bid** 12FEB2026

REVISIONS

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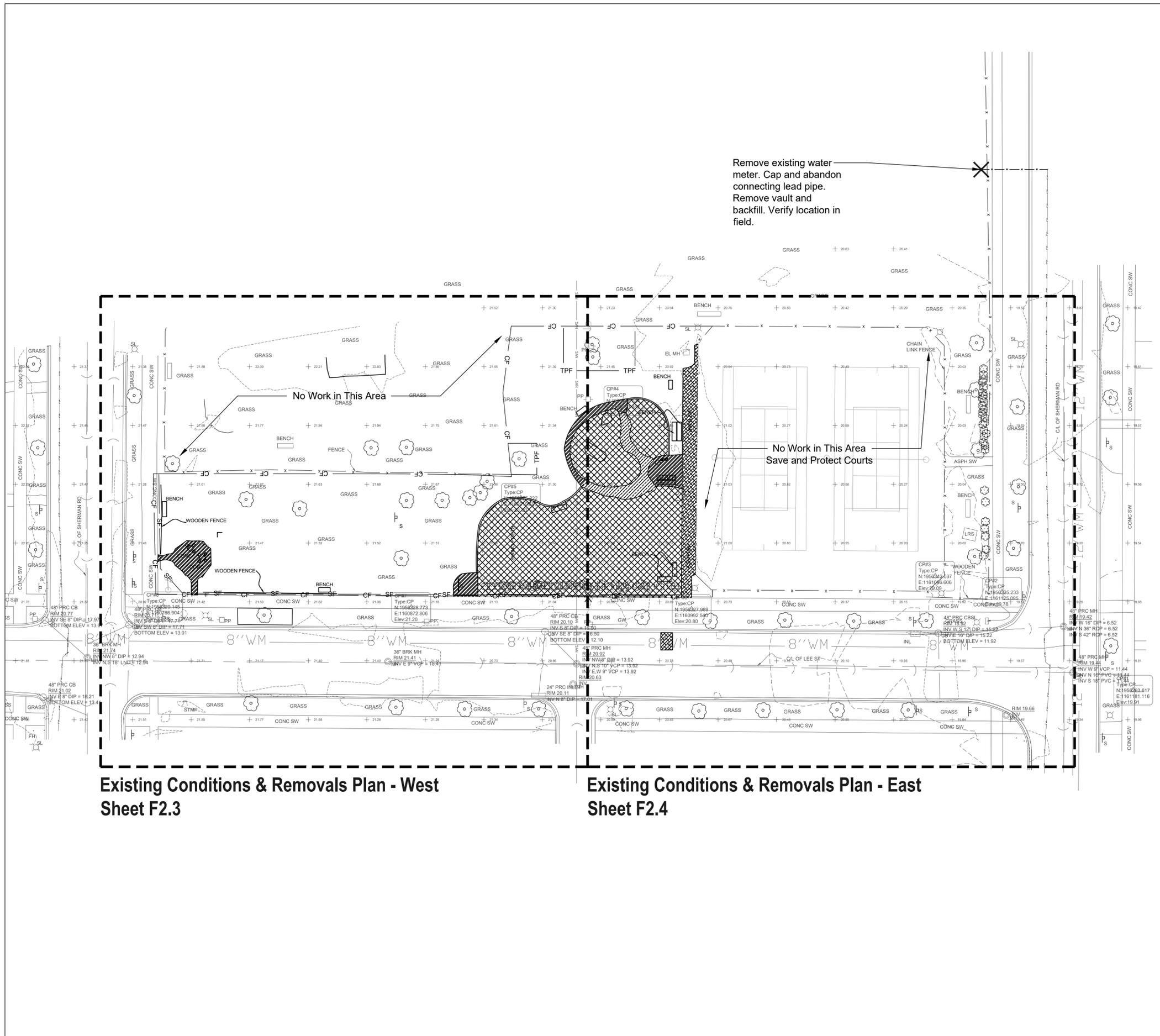
PROJECT NUMBER 1358 & 1359

SHEET TITLE

**Existing  
Conditions &  
Removals Plan  
- Overall**

SHEET NUMBER

**F 2.2**



Remove existing water meter. Cap and abandon connecting lead pipe. Remove vault and backfill. Verify location in field.

No Work in This Area

No Work in This Area  
Save and Protect Courts

**Existing Conditions & Removals Plan - West  
Sheet F2.3**

**Existing Conditions & Removals Plan - East  
Sheet F2.4**

REMOVALS LEGEND

- Remove existing engineered wood fiber surfacing, full depth
- Remove existing rubber surfacing, full depth
- Remove existing concrete paving, full depth
- Remove existing asphalt paving, full depth



SCALE: 1" = 10'-0"





GENERAL NOTES: EXISTING CONDITIONS & REMOVALS

1. Reference sheet C 2.1 for existing conditions & removals notes



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PROJECT

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Chicago, Illinois 312-350-4088  
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33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603  
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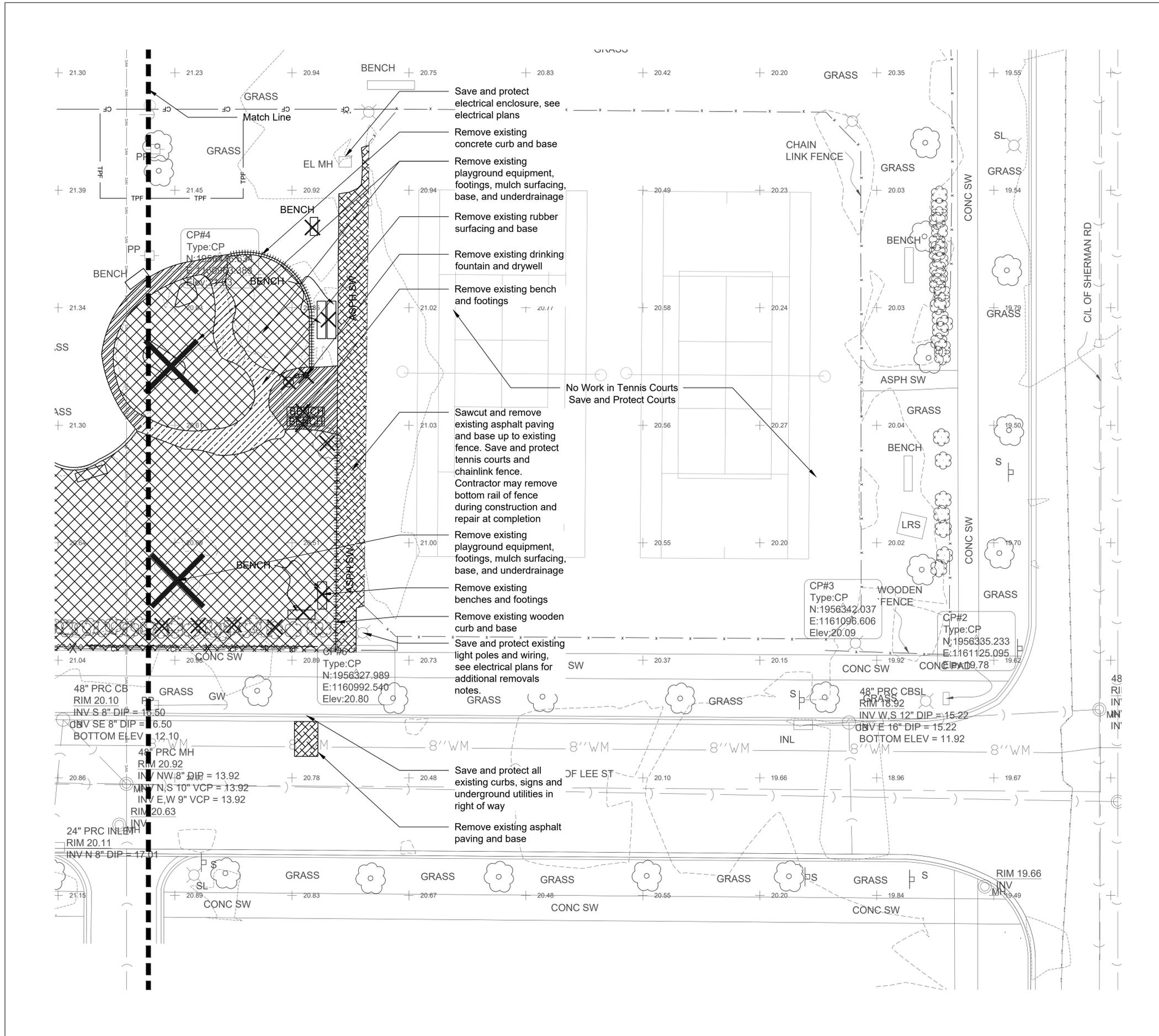
PROJECT NUMBER **1358 & 1359**

SHEET TITLE

**Existing Conditions & Removals Plan - East**

SHEET NUMBER

**F 2.4**

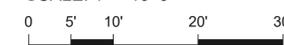


REMOVALS LEGEND

- Remove existing engineered wood fiber surfacing, full depth
- Remove existing rubber surfacing, full depth
- Remove existing concrete paving, full depth
- Remove existing asphalt paving, full depth
- Remove existing fence
- Remove existing curb and base
- Remove and properly dispose of trees, grind stump and root mass to a depth of 18" below existing grade or proposed grade which ever is lowest unless otherwise noted on plan.
- Remove and Dispose of Item as Marked
- Salvage and Relocate Item as Marked



SCALE: 1" = 10'-0"





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PROJECT

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Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

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Environmental Design  
International Inc.  
33 W. Monroe Street, Suite  
1825 Chicago, Illinois 60603  
Phone: 312-345-1400

ELECTRICAL ENGINEER

IMEG Consultants Corp.  
263 Shuman Boulevard  
Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

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PROJECT NUMBER 1358 & 1359

SHEET TITLE

# Layout Plan

SHEET NUMBER

# F 3.0

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### GENERAL NOTES: LAYOUT

- Reference sheet C 3.0 for layout plan notes

### REFERENCED SPECIFICATIONS AND CODES

Reference sheet C 3.0 for referenced specifications and codes

6 ALTERNATE #3: Shade Post Footing - Single Post

Turning radius, minimum open space of 5' DIA

4 Kickplate on Existing Gate

2 Concrete Paving

Turning radius, minimum open space of 5' DIA

5 Drinking Fountain

2 Concrete Paving

4 Concrete Sloped Entry - Flared

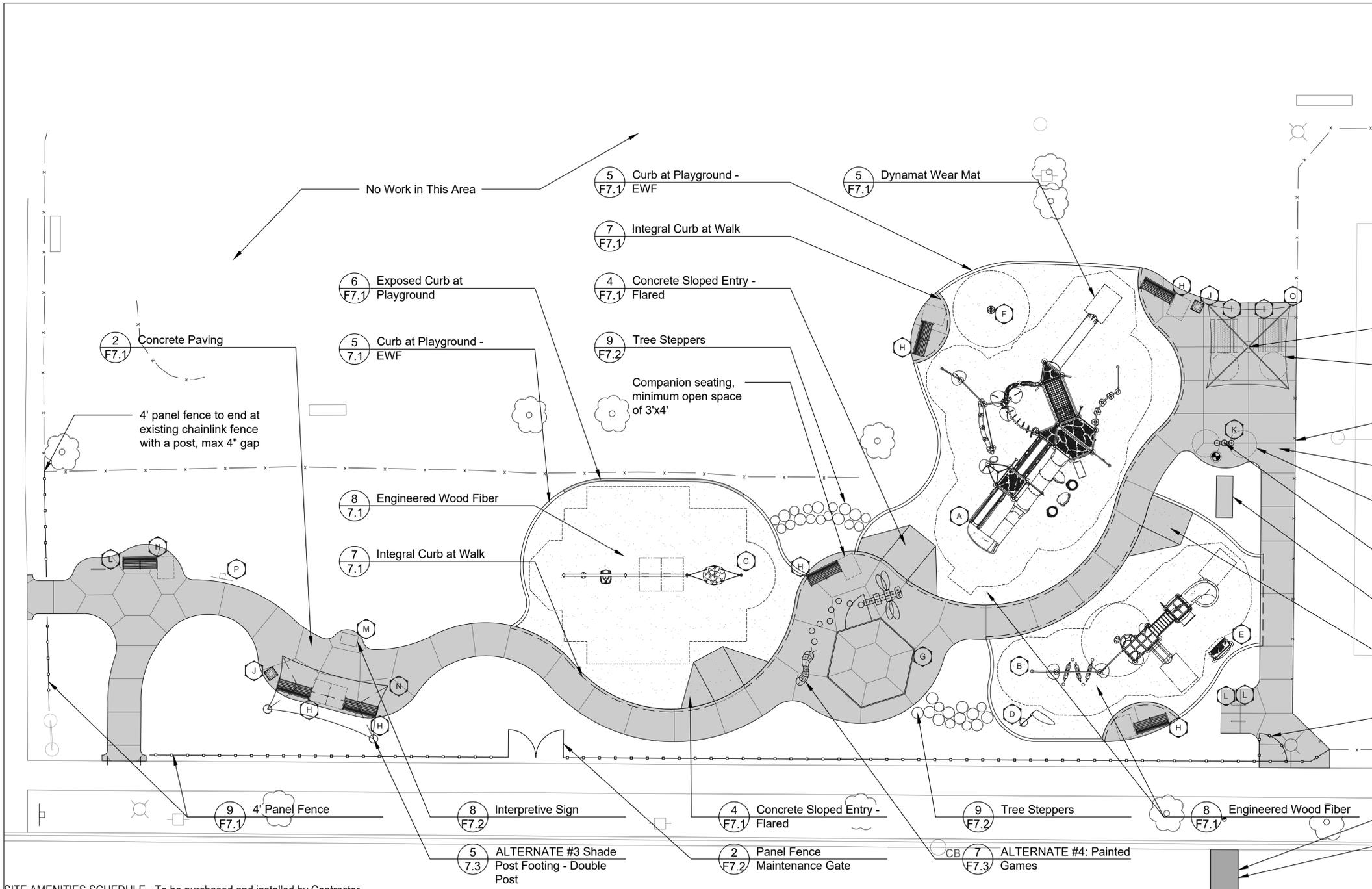
9 Panel Fence Gate

1 Asphalt Paving

Contractor to provide traffic control while working in the right of way. Traffic control to meet Illinois Department of Transportation's Standard Specification (Current Edition).

### LEGEND

- Asphalt Paving
- Concrete Paving
- Engineered Wood Fiber Surfacing
- 4' Panel Fence
- Integral Curb
- Exposed Curb at Playground



### SITE AMENITIES SCHEDULE - To be purchased and installed by Contractor

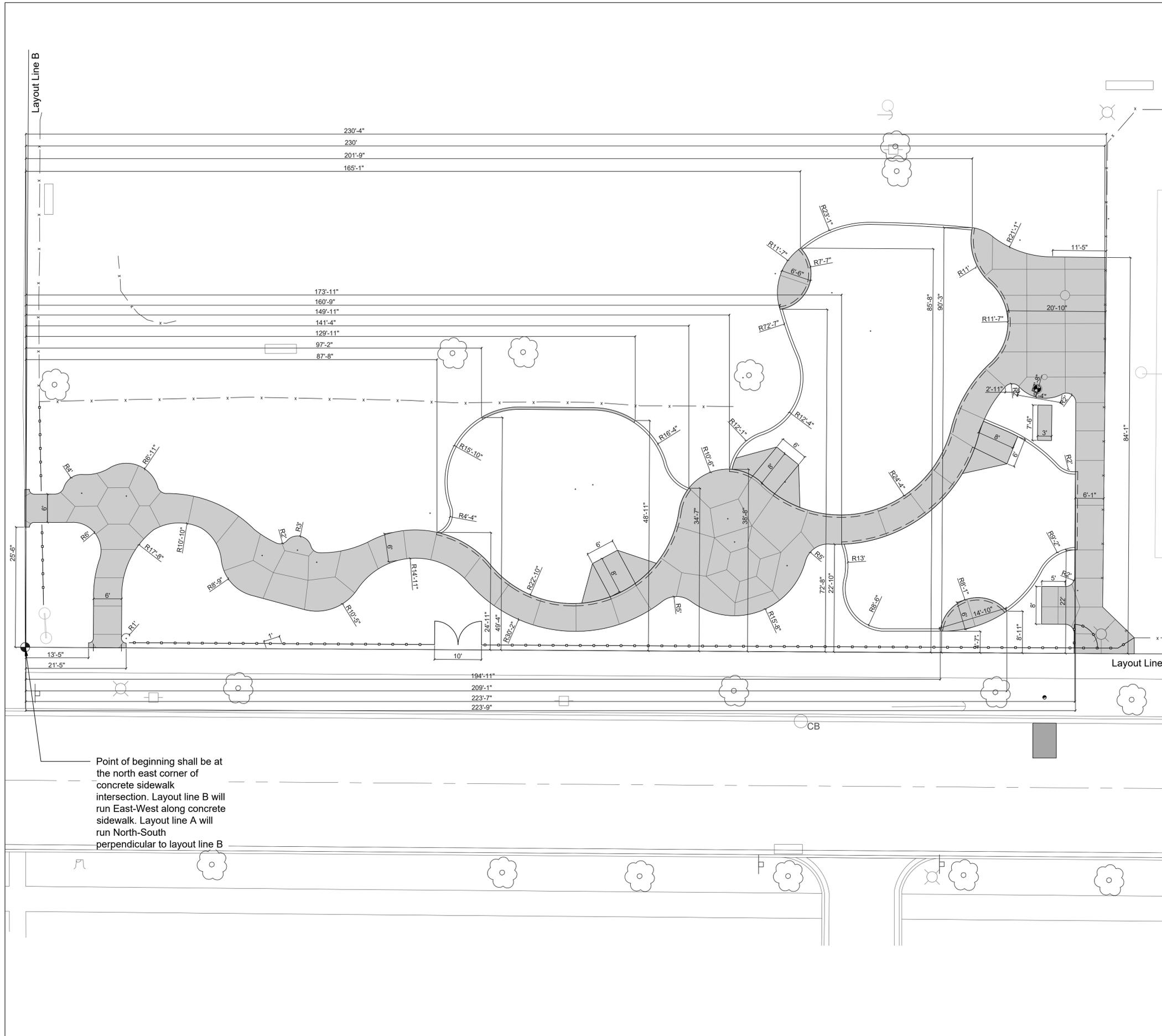
Key	Item	Color	Quantity	Model	Manufacturer	Supplier
A	5-12 Playground Equipment	Brown, Tan, and Lime Color Scheme	1	#560-2617, Multi slide nature theme structure with climbers, decks, and panels. Direct bury	Burke	Play Illinois 844-222-9990
B	2-5 Playground Equipment	Brown, Tan, and Lime Color Scheme	1	#290-0099, Multi slide nature theme structure with climbers, decks, and panels. Direct bury	Burke	Play Illinois 844-222-9990
C	Swings Set	Brown, Tan, and Lime Color Scheme	1	#550-0008, Two toddler, two belt, and one cirrus duo. Direct bury	Burke	Play Illinois 844-222-9990
D	Market Discovery Station	Brown, Tan, and Lime Color Scheme	1	#580-1365, Free standing imaginative play store front. Direct bury	Burke	Play Illinois 844-222-9990
E	Serenity Spot	Brown, Tan, and Lime Color Scheme	1	#470-0971, Free standing fort like environment with games, seat, and activities. Direct bury	Burke	Play Illinois 844-222-9990
F	Swift Twist Spinner	Brown, Tan, and Lime Color Scheme	1	#560-2780, Free standing spinner. Direct bury	Burke	Play Illinois 844-222-9990
G	Gaga Pit	Bracket: Green Wall Top Cover: Green Composite Lumber: Brown	1	#00630, Hexagon 30" high gaga ball pit with composite lumber, wall top cover, and ADA doorway, surface mounted	Coach Cliffs Gaga Ball Pits LLC	Coach Cliffs' Gaga Ball Pits LLC 847-573-2377
H	Bench	Frame: Black Slats: Cedar Recycled Plastic	7	#165 SERPL-3AR, 6' bench with three armrests. Surface mount.	Dumor	NUToys 800-526-6202

Key	Item	Color	Quantity	Model	Manufacturer	Supplier
I	Picnic Table - Surface Mount	Frame: Black Expanded Steel: Green	2	#SPC-TB-039, 6' WXT Series table with raised top and seats for ADA wheelchair clearance. Surface mount.	Pilot Rock	Pilot Rock 800-762-5002
J	Litter Receptacle	Raven Black	2	#FD35-1, recycled plastic waste with recycle opening, "landfill" sign, and large custom poster on door. Surface mount	CleanRiver	CleanRiver 888-646-4246
K	Drinking Fountain	Green	1	#10145 SM Bottle filler fountain with 1 standard bowl with ADA apron and 1 ADA bowl, sand strainers, and pet bowl. Surface mount with inside bracket and carrier. Recessed hose bib and lock box to be included. Fountain to have copper tubing	Play Design Scapes inc.	Most Dependable Fountains 901-867-4008
L	Bike Rack	Color Coat: Black	3	#UX200-IG(SF) Square U bike rack with lean bar. Surface mount.	Madrax Bicycle Security	Madrax Bicycle Security 800-448-7931
M	Interpretive Sign	Black Post	1	#CHPL, Surface mount. 24"x36"x1/2" Exterior single sided panel. Slige pedetal with 45° bracket. Graphics to be provided by Upland Design	izone	izone 888-464-9663
N	ALTERNATE #3: Two Post Shade Sail	Posts: Black Shade: Forest Green	1	#COTC1020, Cantilevered two post shade, 10'x20' with 10' eave and direct bury posts	Shade Systems	Parkreation 847-419-7744
O	ALTERNATE #3: Single Post Shade Sail	Posts: Black Shade: Forest Green	1	#SP1515, Squared, single center post, shade, 15'x15', with 10' eave and direct bury post	Shade Systems	Parkreation 847-419-7744
P	Salvaged Sign	N/A	1	Salvaged. Direct bury with new footing. 24" DIA min. 42" deep min.	N/A	N/A



SCALE: 1" = 10'-0"





Point of beginning shall be at the north east corner of concrete sidewalk intersection. Layout line B will run East-West along concrete sidewalk. Layout line A will run North-South perpendicular to layout line B

GENERAL NOTES: DIMENSION PLAN

1. Reference sheet C.4.0 for dimension plan notes

LEGEND

- Concrete Paving
- Asphalt Paving
- EJ Concrete Expansion Joints
- 4' Panel Fence
- Point of Beginning



SCALE: 1" = 10'-0"



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PROJECT

# Cartwright Park Improvements

3250 Grant Street, Evanston, IL 60201

# Fitzsimons Park Improvements

801 Lee Street, Evanston, IL 60202

PROJECT TEAM



**uplandDesign Ltd**  
Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

CIVIL ENGINEER:  
Environmental Design International Inc.  
33 W. Monroe Street, Suite 1825  
Chicago, Illinois 60603  
Phone: 312-345-1400

ELECTRICAL ENGINEER  
IMEG Consultants Corp.  
263 Shuman Boulevard Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

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REVISIONS

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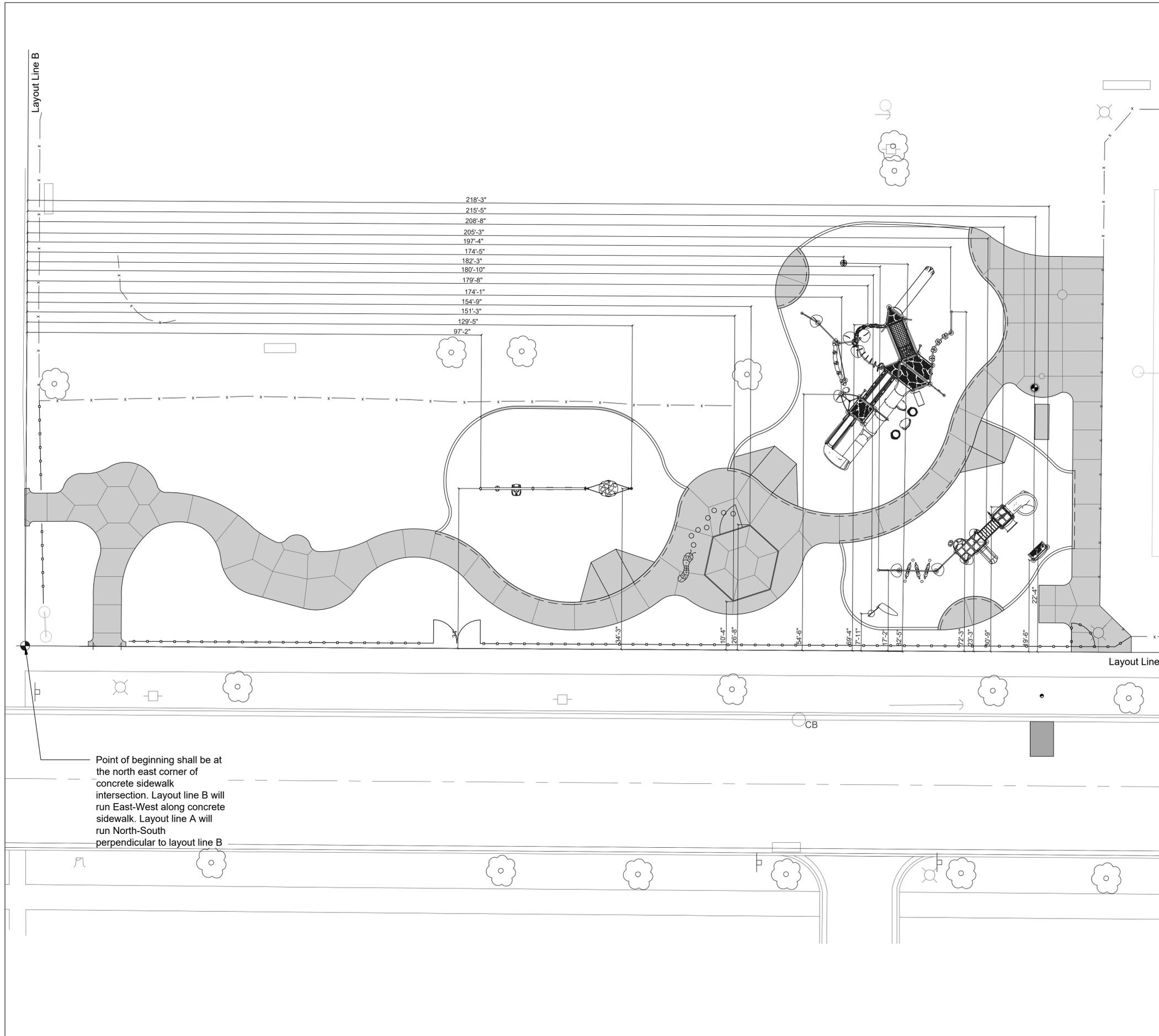
PROJECT NUMBER 1358 & 1359

SHEET TITLE

# Dimension Plan - Paving

SHEET NUMBER

# F 4.0

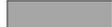


Point of beginning shall be at the north east corner of concrete sidewalk intersection. Layout line B will run East-West along concrete sidewalk. Layout line A will run North-South perpendicular to layout line B

GENERAL NOTES: DIMENSION

1. Reference sheet C.4.0 for dimension plan notes

LEGEND

-  Concrete Paving
-  Asphalt Paving
-  Concrete Expansion Joints
-  4' Panel Fence
-  Point of Beginning



SCALE: 1" = 10'-0"



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## uplandDesign Ltd

Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

CIVIL ENGINEER:

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International Inc.  
33 W. Monroe Street, Suite  
1825 Chicago, Illinois 60603  
Phone: 312-345-1400

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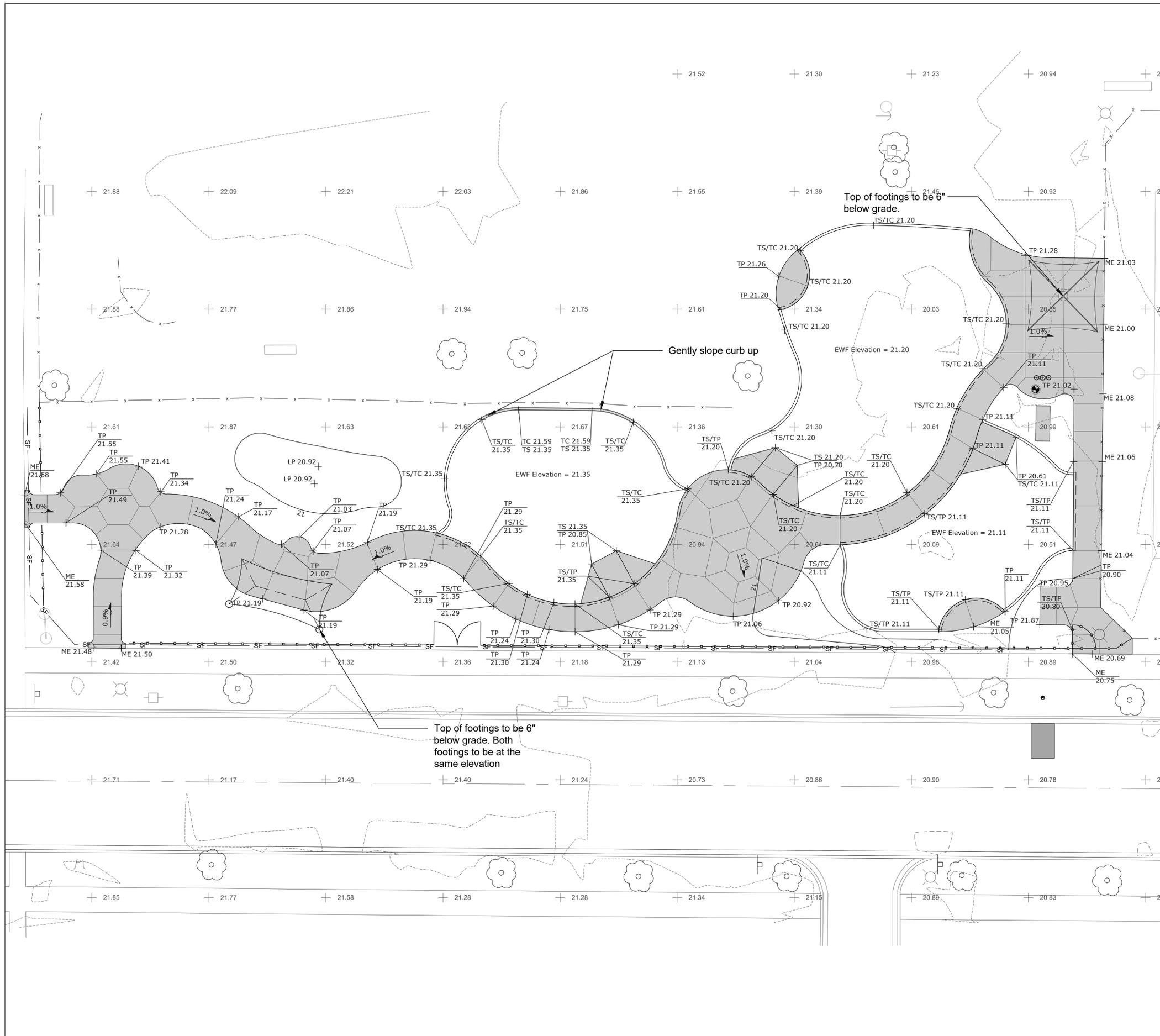
PROJECT NUMBER 1358 & 1359

SHEET TITLE

# Dimension Plan - Equipment

SHEET NUMBER

# F 4.1



**GENERAL NOTES: GRADING**

1. Reference sheet C 5.0 for grading plan notes

**LEGEND**

- 681 --- Existing Contour Line
- 681 — Proposed Contour Line
- + 21.13 Existing Spot Elevation
- TP 21.19<sup>+</sup> Proposed Spot Elevation
- 2% ▾ Drainage Flow Direction
- SF — Silt Fence

**INDEX OF ACRONYMS AND ABBREVIATIONS**

- HP - High Point
- INV - Pipe Invert Elevation
- LP - Low Point
- ME - Match Existing Elevation
- RIM - Top of Rim Elevation
- TC - Top of Curb
- TP - Top of Pavement
- TS - Top of Surface



SCALE: 1" = 10'-0"



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**PROJECT**

# Cartwright Park Improvements

3250 Grant Street, Evanston, IL 60201

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801 Lee Street, Evanston, IL 60202

**PROJECT TEAM**



**uplandDesign Ltd**  
Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

**CIVIL ENGINEER:**  
Environmental Design  
International Inc.  
33 W. Monroe Street, Suite  
1825 Chicago, Illinois 60603  
Phone: 312-345-1400

**ELECTRICAL ENGINEER**  
IMEG Consultants Corp.  
263 Shuman Boulevard  
Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

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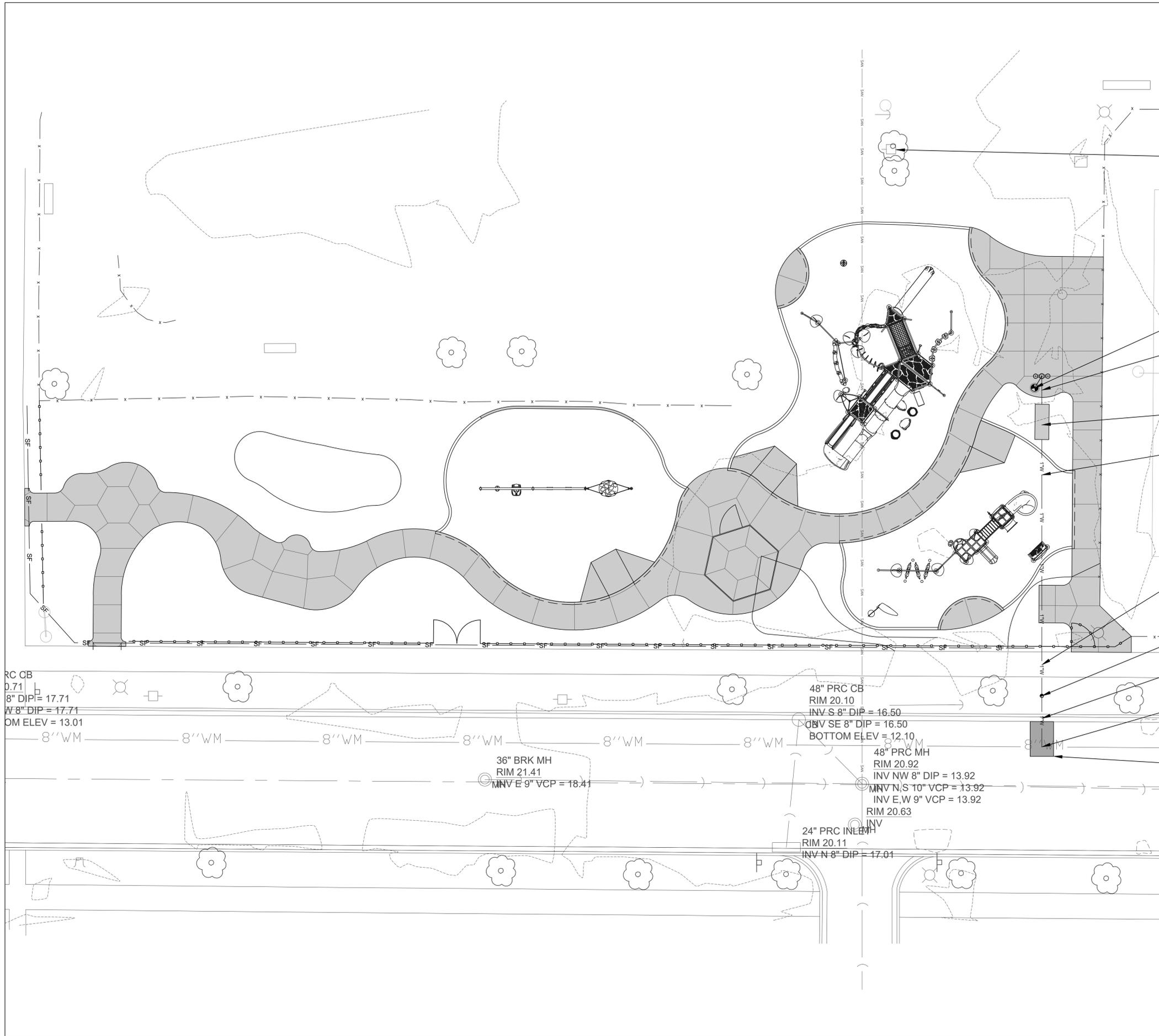
**PROJECT NUMBER 1358 & 1359**

**SHEET TITLE**

# Grading Plan

**SHEET NUMBER**

# F 5.0



**GENERAL NOTES: GRADING**

1. Reference sheet C 5.0 for grading plan notes

See electrical plans for proposed work

7  
F7.2 Drywell and Lid

6 LF 1" Type K Copper waterline, directionally bore, minimum cover of 5'

6  
F7.2 Water Meter with Enclosure

65 LF 1" Type K Copper waterline, directionally bore, minimum cover of 5'

Directionally bore underneath existing concrete paving, minimum cover of 5'

Install Shutoff B-Box

Directionally bore underneath existing curb

Connect to existing water main, contractor to provide waterline and coordinate tap with City

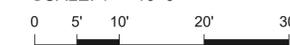
Restore street per IDOT standards

**LEGEND**

- 681 --- Existing Contour Line
- 681 — Proposed Contour Line
- SF — Silt Fence



SCALE: 1" = 10'-0"



City of  
**Evanston**

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IMEG Consultants Corp.  
263 Shuman Boulevard  
Suite 550  
Naperville, Illinois 60563  
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**SHEET TITLE**

**Utility Plan**

**SHEET NUMBER**

**F 5.1**

PLANT LIST

Shade Trees - Balled and Burlap			
Qty.	Size	Botanical Name	Common Name
2	2.5" cal.	<i>Catalpa Speciosa</i>	Northern Catalpa
2	2.5" cal.	<i>Taxodium distichum</i>	Bald Cypress
3	Varies	Varies	Relocated Tree
7			

Deciduous Shrubs - Balled and Burlap or Pot			
Qty.	Size	Botanical Name	Common Name
12	24" Ht. x 24"Wt.	<i>Thuja occidentalis 'linesville'</i>	Linesville Arborvitae
12			

Native Perennials and Ornamental Grasses - Pots (1 gallon pot)			
Qty.	Size	Botanical Name	Common Name
7	1 Gal	<i>Gaillardia aristata</i>	Blanket Flower
5	1 Gal	<i>Monarda bradburiana</i>	Eastern Beebalm
8	1 Gal	<i>Symphyotrichum oblongifolium</i>	Aromatic Aster
20			

Relocated Tree  
Topsoil, seed and hydromulch all areas disturbed due to construction

Relocated Tree

2 Tree Installation  
F7.3

Landscape Plan  
Enlargement 1 - Sheet F6.1

Landscape Plan  
Enlargement 2 - Sheet F6.1

8 Aromatic Aster  
5 Eastern Beebalm  
7 Blanket Flower  
Topsoil, seed and hydromulch all areas disturbed due to construction  
2 Northern Catalpa

Topsoil, seed and hydromulch all areas disturbed due to construction

GENERAL NOTES: LANDSCAPE

1. Reference sheet C 6.0 for landscape plan notes



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IMEG Consultants Corp.  
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Naperville, Illinois 60563  
Phone: 630-527-2320

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SHEET TITLE

**Landscape Plan**

SHEET NUMBER

**F 6.0**

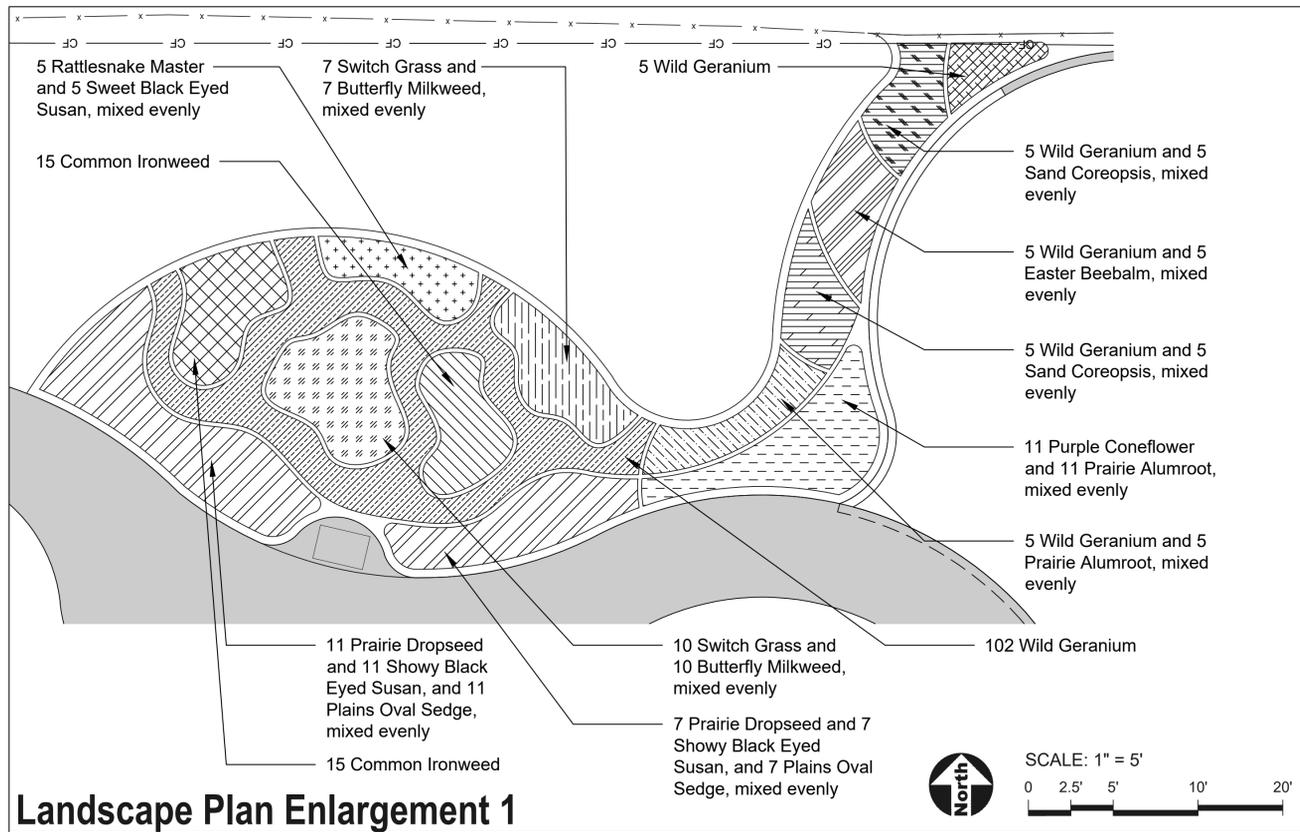
LEGEND

- Shade Tree
- Relocated Tree
- Shrub
- Ornamental Grass
- Perennial and Groundcover (hatch symbol varies)



SCALE: 1" = 10'-0"





**Landscape Plan Enlargement 1**

**PLANT LIST**

Deciduous Shrubs - Balled and Burlap or Pot			
Qty.	Size	Botanical Name	Common Name
17	1 Gal	<i>Hypericum kalmianum</i>	Kalm's St. Johnswort
26	2 Gal	<i>Itea virginica</i>	Little Henry Virginia Sweetspire
43			

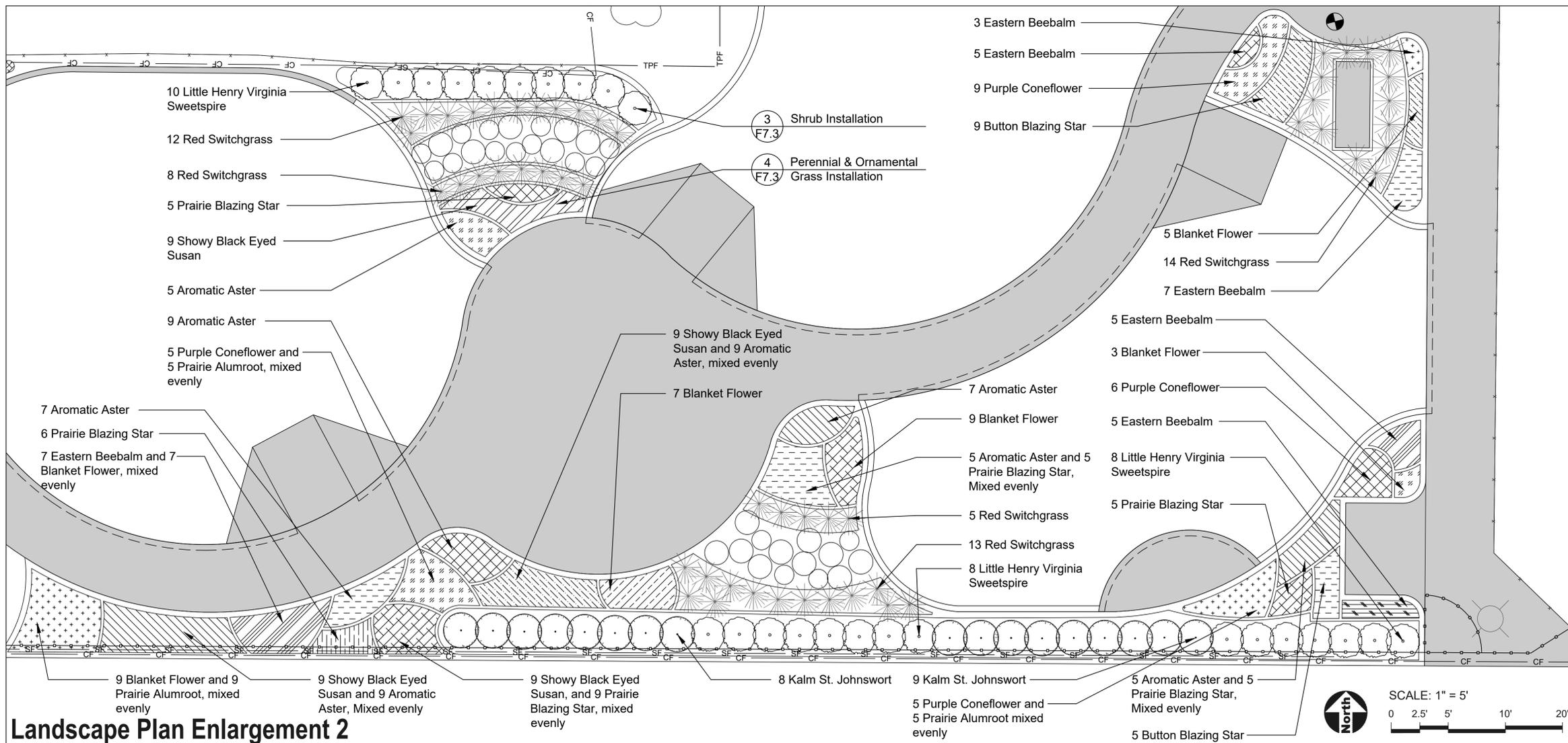
Native Perennials and Ornamental Grasses - Pots (1 gallon pot)			
Qty.	Size	Botanical Name	Common Name
17	1 Gal	<i>Asclepias tuberosa</i>	Butterfly Milkweed
18	1 Gal	<i>Carex brevior</i>	Plains Oval Sedge
10	1 Gal	<i>Coreopsis lanceolata</i>	Sand Coreopsis
36	1 Gal	<i>Echinacea purpurea</i>	Purple Coneflower
5	1 Gal	<i>Eryngium yuccifolium</i>	Rattlesnake Master
127	1 Gal	<i>Geranium maculatum</i>	Wild Geranium
35	1 Gal	<i>Heuchera richardsonii</i>	Prairie Alumroot
14	1 Gal	<i>Liatris aspera</i>	Button Blazing Star
35	1 Gal	<i>Liatris pycnostachya</i>	Prairie Blazing Star
37	1 Gal	<i>Monarda bradburiana</i>	Eastern Beebalm
40	1 Gal	<i>Gaillardia aristata</i>	Blanket Flower
17	1 Gal	<i>Panicum virgatum</i>	Switch Grass
52	1 Gal	<i>Panicum virgatum Prairie Winds</i>	Red Switchgrass
54	1 Gal	<i>Rudbeckia fulgida</i>	Showy Black Eyed Susan
5	1 Gal	<i>Rudbeckia subtomentosa</i>	Sweet Black Eyed Susan
18	1 Gal	<i>Sporobolus heterolepis</i>	Prairie Dropseed
56	1 Gal	<i>Symphotrichum oblongifolium</i>	Aromatic Aster
30	1 Gal	<i>Veronia fasciculata</i>	Common Ironweed
606			

**GENERAL NOTES: LANDSCAPE**

- Reference sheet C 6.0 for landscape plan notes

**LEGEND**

- Shrub
- Ornamental Grass
- Perennial and Groundcover (hatch symbol varies)
- CF Construction Limits / Construction Fence



**Landscape Plan Enlargement 2**



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Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
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**CIVIL ENGINEER:**  
Environmental Design International Inc.  
33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603  
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IMEG Consultants Corp.  
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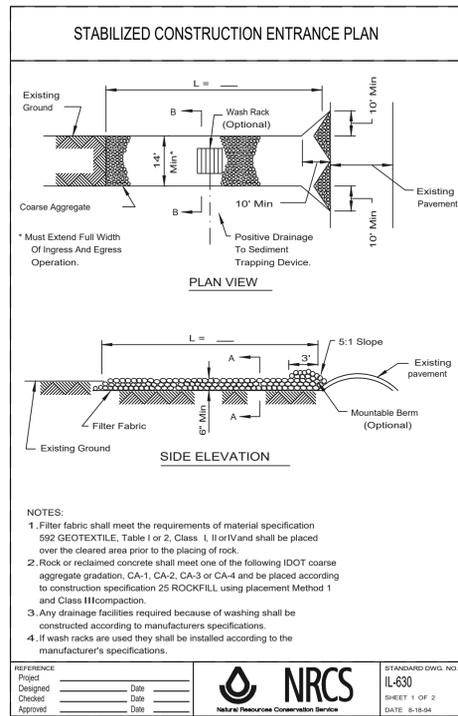
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PROJECT NUMBER **1358 & 1359**

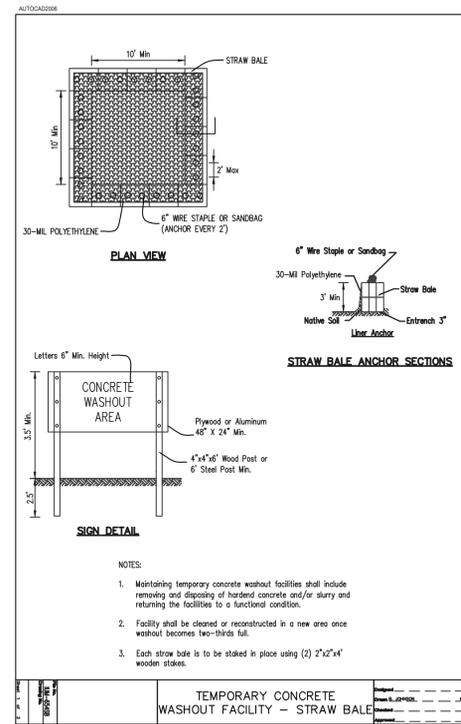
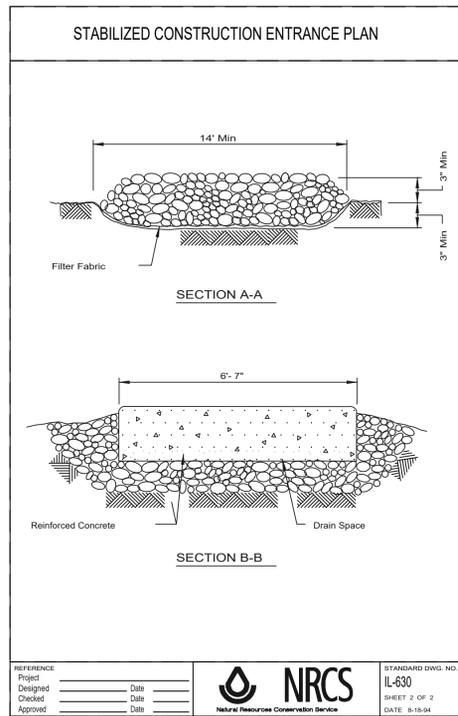
SHEET TITLE  
**Landscape Plan - Enlargements**

SHEET NUMBER

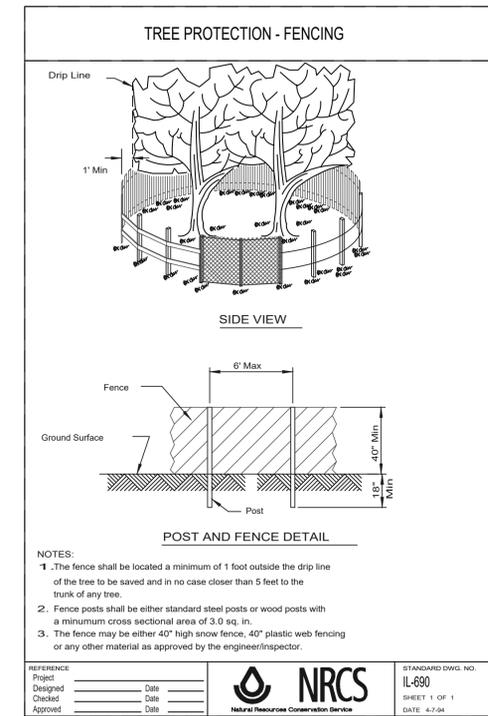
**F 6.1**



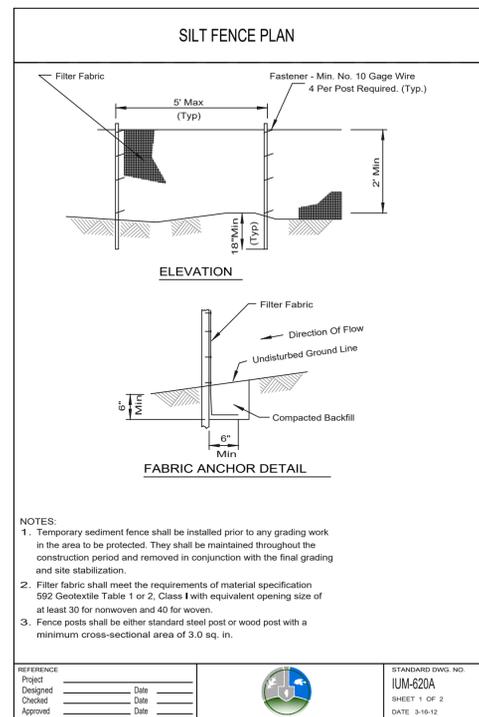
1 **Stabilized Construction Entrance Plan**  
 SCALE: NTS  
 d-NRCS-IL630-construction entrance\_12



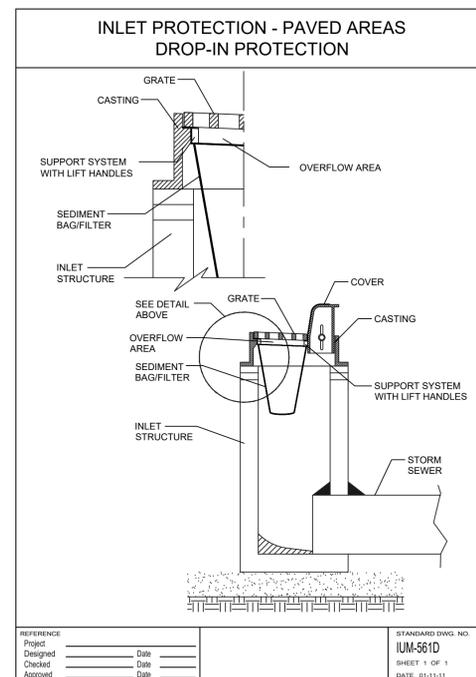
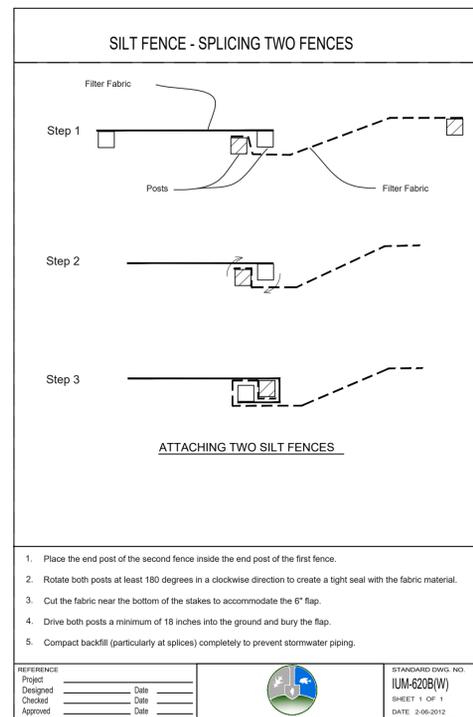
3 **Temporary Concrete Washout**  
 SCALE: NTS  
 d-IUM-654SB-concrete washout\_12



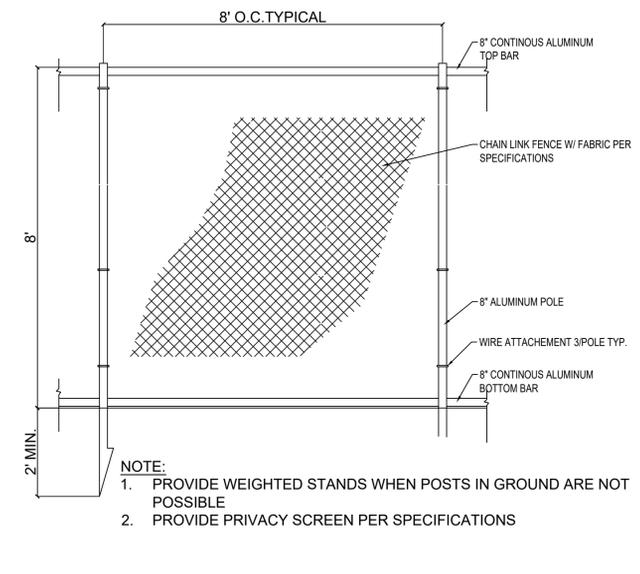
5 **Tree Protection Fence**  
 SCALE: NTS  
 d-NRCS-IL690-tree protection fence\_12



2 **Silt Fence**  
 SCALE: NTS  
 d-IUM 620B-silt fence\_12



4 **Inlet Protection**  
 SCALE: NTS



6 **8' High Construction Fence**  
 SCALE: 1/2"=1'-0"  
 CPD-Construction Fence\_24



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**PROJECT**  
**Cartwright Park Improvements**

3250 Grant Street, Evanston, IL 60201

**PROJECT**  
**Fitzsimons Park Improvements**

801 Lee Street, Evanston, IL 60202

**PROJECT TEAM**

**uplandDesign Ltd**  
 Landscape Architecture & Park Planning  
 Chicago, Illinois 312-350-4088  
 Plainfield, Illinois 815-254-0091  
 uplandDesign.com

**CIVIL ENGINEER:**  
 Environmental Design International Inc.  
 33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603  
 Phone: 312-345-1400

**ELECTRICAL ENGINEER**  
 IMEG Consultants Corp.  
 263 Shuman Boulevard Suite 550  
 Naperville, Illinois 60563  
 Phone: 630-527-2320

ORIGINAL ISSUE DATE  
**Issue for Bid 12FEB2026**

**REVISIONS**

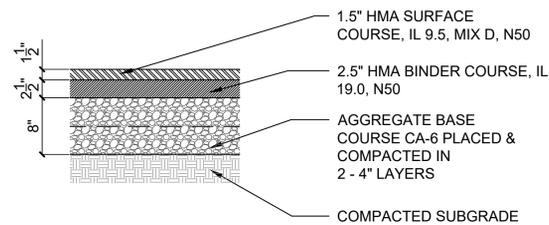
TD/CG		

PROJECT NUMBER **1358 & 1359**

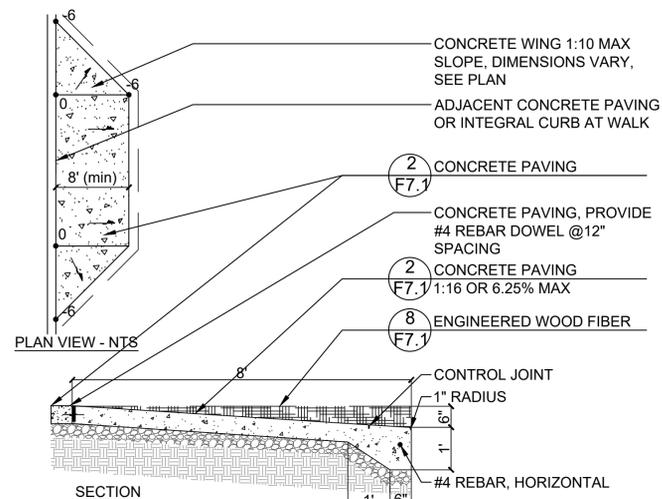
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**Construction Details**

SHEET NUMBER

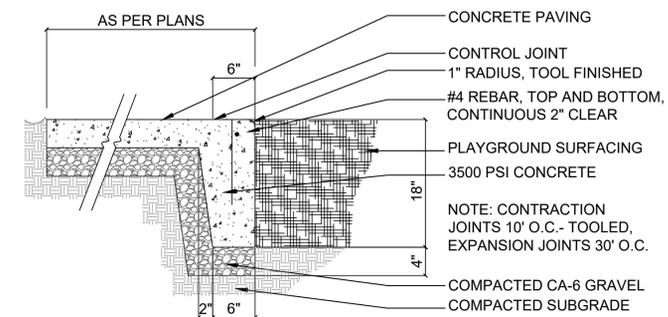
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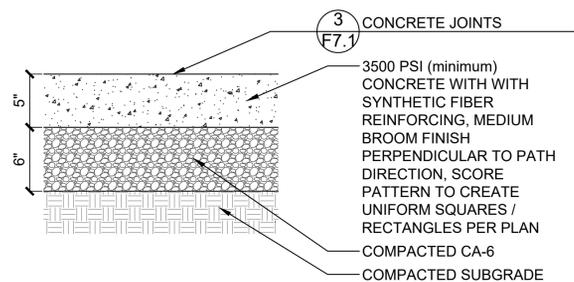
**1 Asphalt Paving**  
SCALE: 1"=1'-0"  
d-asph\_trail\_12.dwg



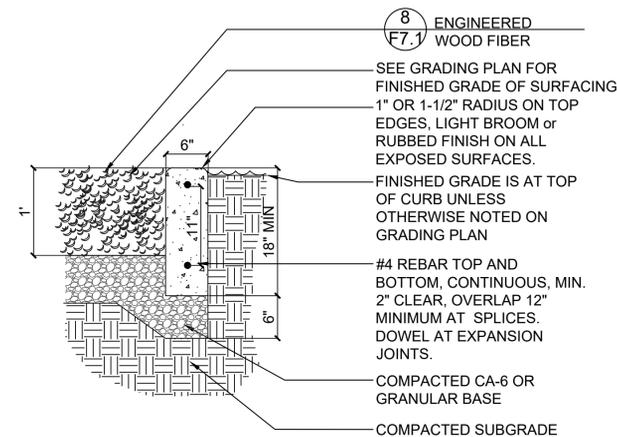
**4 Concrete Sloped Entry - Flared**  
SCALE: 1/2"=1'-0"  
d-conc-sloped entry\_24



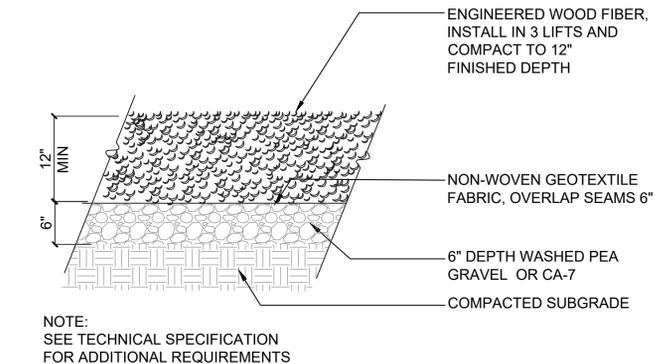
**7 Integral Curb at Walk**  
SCALE: 1"=1'-0"  
d-curb\_integral 12in\_12.dwg



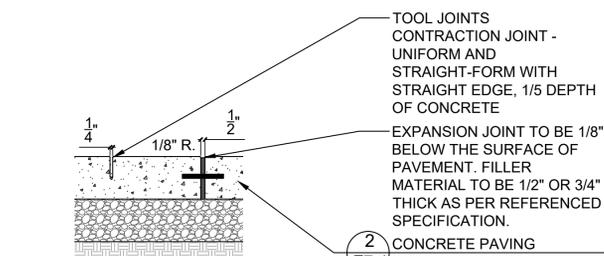
**2 Concrete Paving**  
SCALE: 1 1/2"=1'-0"  
d-conc pav-5\_8



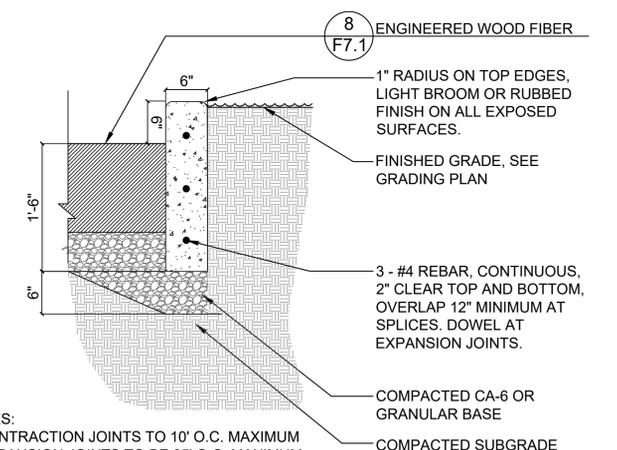
**5 Curb at Playground - EWF**  
SCALE: 1"=1'-0"  
det-curb play



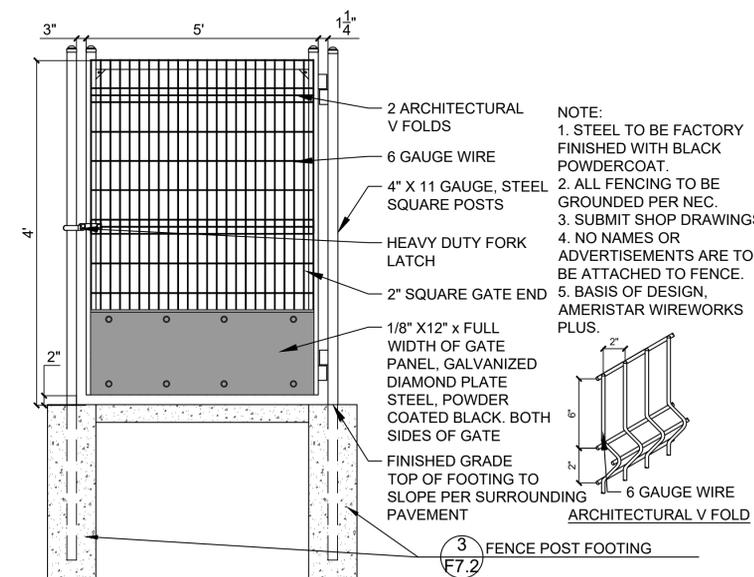
**8 Engineered Wood Fiber**  
SCALE: 1"=1'-0"  
Eng Wood Fiber\_1\_12



**3 Concrete Joints**  
SCALE: 1 1/2"=1'-0"  
d-conc\_joints\_8.dwg



**6 Exposed Curb at Playground**  
SCALE: 1"=1'-0"  
d-conc curb-pip\_12



**9 Panel Fence Gate**  
SCALE: N.T.S.  
PanelFence



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Evanston, Illinois 60201  
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**Cartwright Park Improvements**  
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801 Lee Street, Evanston, IL 60202

**PROJECT TEAM**

**uplandDesign Ltd**  
Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

**CIVIL ENGINEER:**  
Environmental Design International Inc.  
33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603  
Phone: 312-345-1400

**ELECTRICAL ENGINEER**  
IMEG Consultants Corp.  
263 Shuman Boulevard Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

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**Issue for Bid 12FEB2026**

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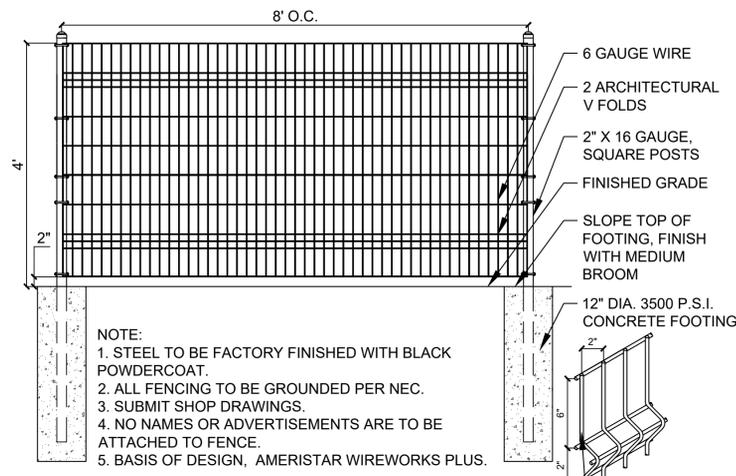
TD/CG		

PROJECT NUMBER **1358 & 1359**

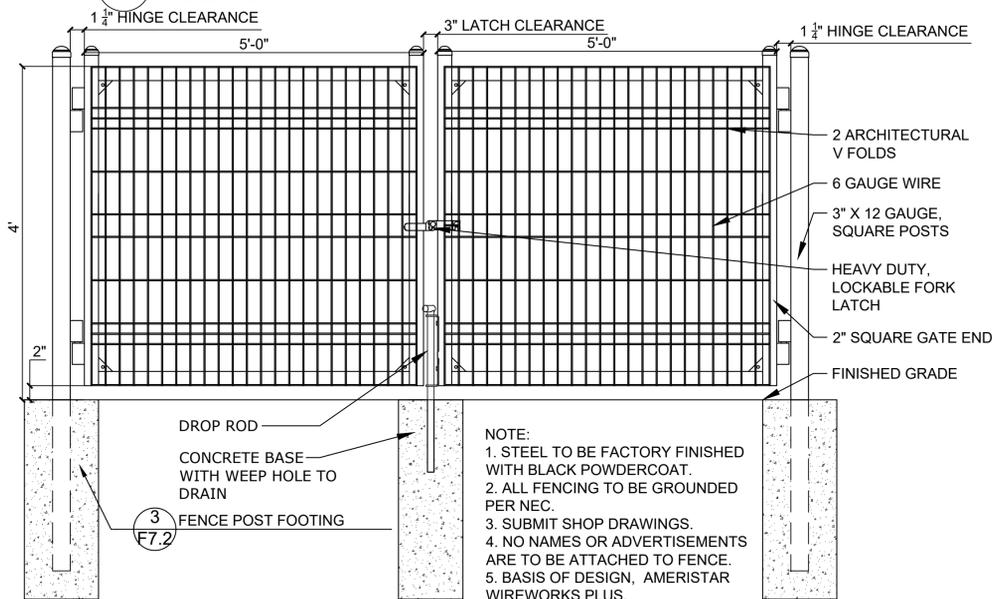
SHEET TITLE  
**Construction Details**

SHEET NUMBER

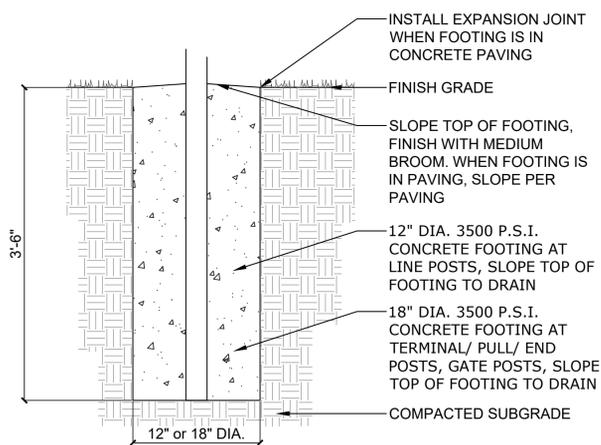
**F 7.1**



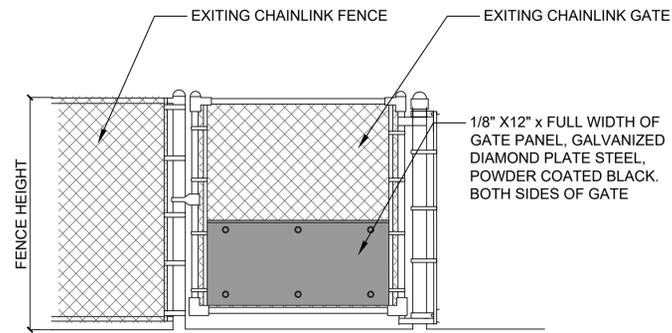
**1 4' Panel Fence**  
SCALE: N.T.S.  
PanelFence



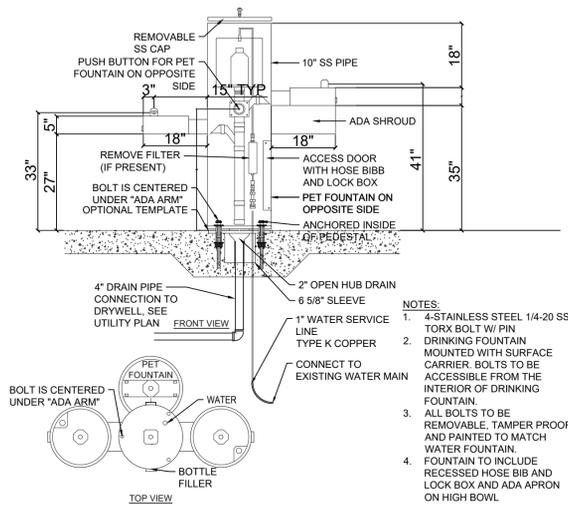
**2 Panel Fence Maintenance Gate**  
SCALE: N.T.S.  
PanelFence



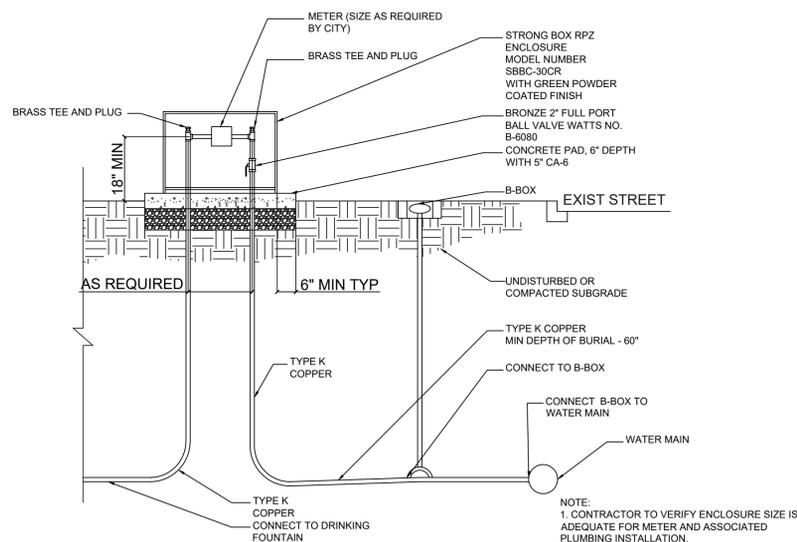
**3 Fence Post Footing**  
SCALE: 1" = 1'-0"  
d-fence-footing at conc\_12.dwg



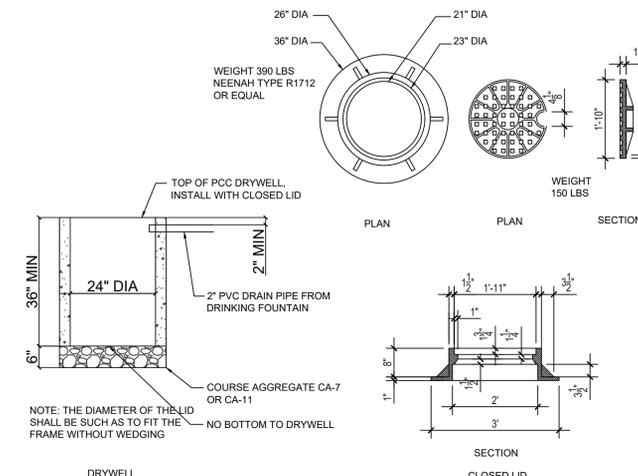
**4 Kickplate on Existing Gate**  
SCALE: N.T.S.  
d-fence-chainlink-single gate-12  
REV: 08/2024



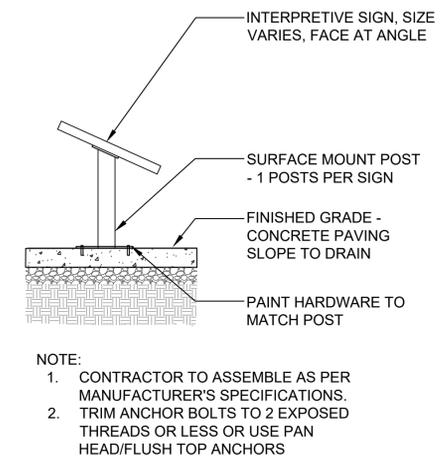
**5 Drinking Fountain**  
SCALE: N.T.S.  
cpd drinking fountain\_0417



**6 Water Meter with Enclosure**  
SCALE: N.T.S.  
cpd drinking fountain\_0417

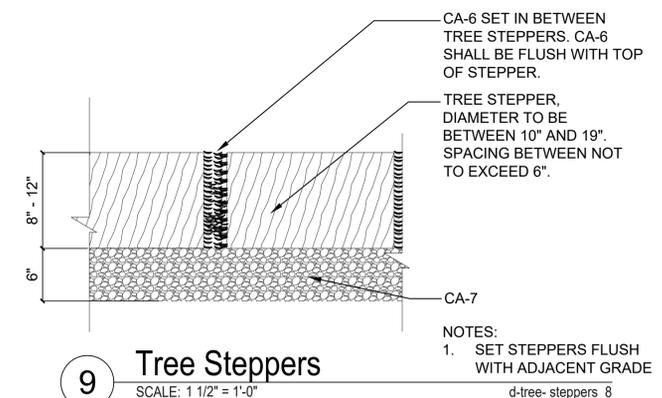


**7 Drywell and Lid**  
SCALE: N.T.S.  
cpd drinking fountain\_0417



**8 Interpretive Sign**  
SCALE: Not to Scale  
d-sign\_interpsign-sf\_12.dwg

NOTE:  
STEPPER TO BE NATURALLY ROT RESISTANT WOOD OR TREATED WOOD. ACCEPTABLE WOOD INCLUDES CEDAR OR APPROVED EQUAL



**9 Tree Steppers**  
SCALE: 1 1/2" = 1'-0"  
d-tree-steppers\_8



909 Davis Street  
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PROJECT  
**Cartwright Park Improvements**  
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801 Lee Street, Evanston, IL 60202

PROJECT TEAM

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Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
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uplandDesign.com

CIVIL ENGINEER:  
Environmental Design International Inc.  
33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603  
Phone: 312-345-1400

ELECTRICAL ENGINEER  
IMEG Consultants Corp.  
263 Shuman Boulevard Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

ORIGINAL ISSUE DATE  
**Issue for Bid** 12FEB2026

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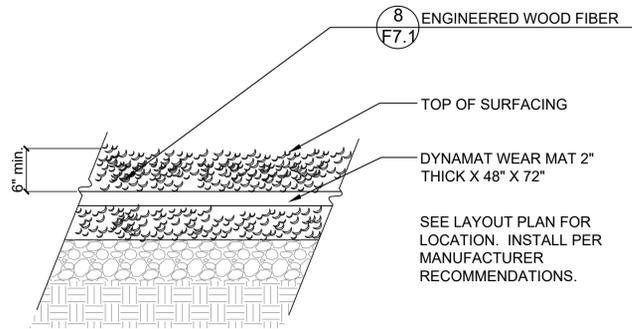
TD/CG		

PROJECT NUMBER **1358 & 1359**

SHEET TITLE  
**Construction Details**

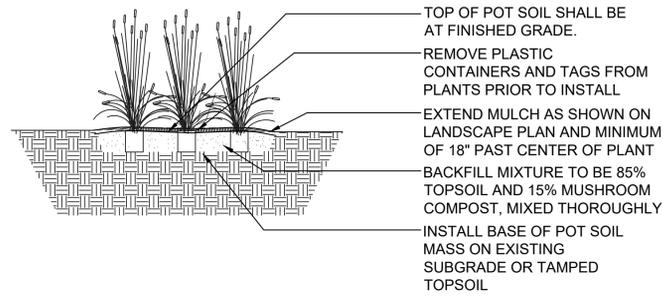
SHEET NUMBER

**F 7.2**

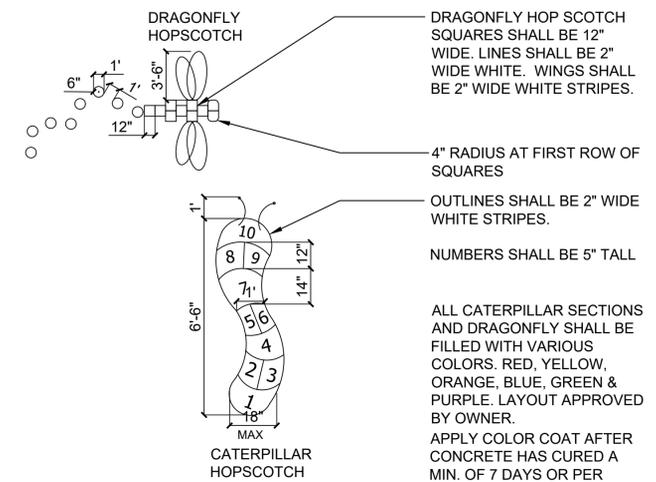


NOTE:  
 1. SEE TECHNICAL SPECIFICATION FOR ADDITIONAL REQUIREMENTS  
 2. MANUFACTURED BY PIERCETON RUBBER PRODUCTS, SUPPLIED BY PARKREATION PH: 847-419-7744

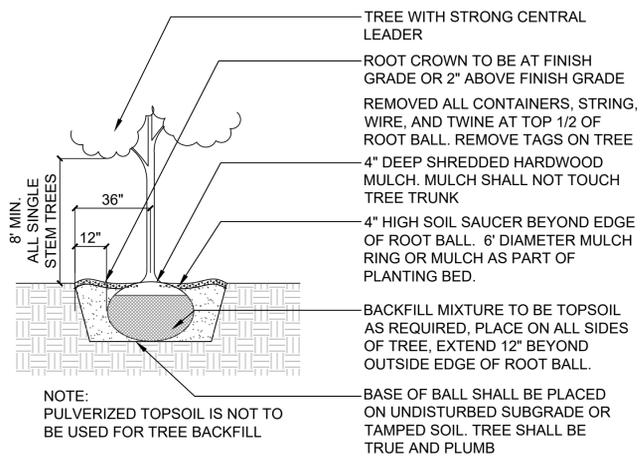
**1 DynaMat Wear Mat**  
 SCALE: 1"=1'-0" d-eng wood fiber\_12



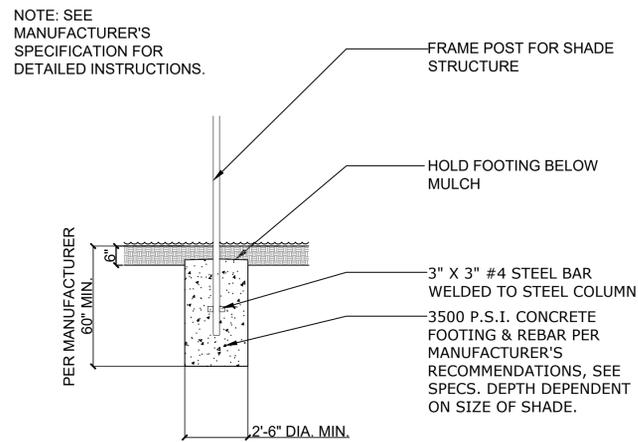
**4 Perennial & Ornamental Grass Installation**  
 SCALE: 1"=1'-0" d-perennials



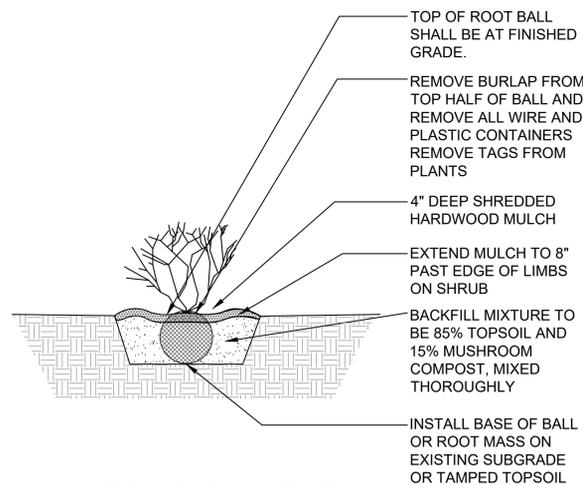
**7 ALTERNATE #4: Painted Games**  
 SCALE: N.T.S. d-play-painted\_games\_more12.dwg



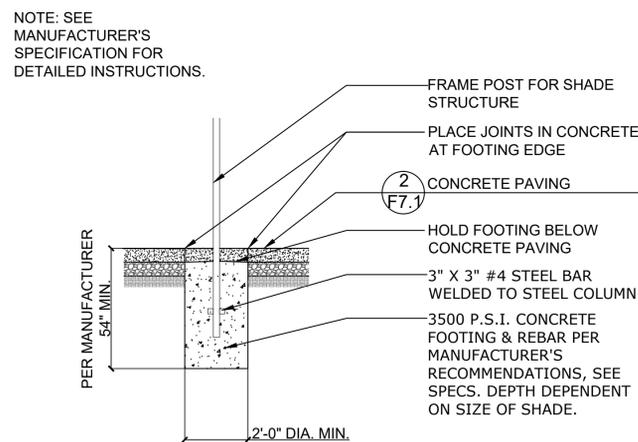
**2 Tree Installation**  
 SCALE: N.T.S. d-plant-tree\_12



**5 ALTERNATE #3: Shade Post Footing - Double Post**  
 SCALE: 1/4"=1'-0" d-shadepostfooting\_4



**3 Shrub Installation**  
 SCALE: N.T.S. d-plant-shrub\_12



**6 ALTERNATE #3: Shade Post Footing - Single Post**  
 SCALE: 1/4"=1'-0" d-shadepostfooting\_4



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 801 Lee Street, Evanston, IL 60202

PROJECT TEAM

Landscape Architecture & Park Planning  
 Chicago, Illinois 312-350-4088  
 Plainfield, Illinois 815-254-0091  
 uplandDesign.com

CIVIL ENGINEER:  
 Environmental Design International Inc.  
 33 W. Monroe Street, Suite 1825 Chicago, Illinois 60603  
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ELECTRICAL ENGINEER  
 IMEG Consultants Corp.  
 263 Shuman Boulevard Suite 550  
 Naperville, Illinois 60563  
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PROJECT NUMBER **1358 & 1359**

SHEET TITLE  
**Construction Details**

SHEET NUMBER

**F 7.3**



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Evanston, Illinois 60201  
Phone: 847-448-4311

PROJECT  
**Fitzsimons  
Park  
Improvements**

1033 Elmwood Ave, Evanston, IL 60202

PROJECT TEAM

**uplandDesign Ltd**  
Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
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CIVIL ENGINEER:  
Environmental Design  
International Inc.  
33 W. Monroe Street, Suite  
1825 Chicago, Illinois 60603  
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ELECTRICAL ENGINEER  
IMEG Corp.  
263 Shuman Boulevard  
Suite 550  
Naperville, Illinois 60563  
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**Issue for Bid** 12FEB2026

REVISIONS


PROJECT NUMBER **1359**

SHEET TITLE  
**ELECTRICAL  
COVERSHEET**

SHEET NUMBER  
**F E0.0**

**VIEW KEY**

NAME → LEVEL NAME  
10'-0" → HEIGHT ABOVE PROJECT 0'-0"

1 → KEYNOTE: INDICATES NOTE USED TO DESCRIBE ADDITIONAL INFORMATION ABOUT WORK REQUIRED, SPECIFIC TO THE SHEET AND/OR DETAIL

INDICATES DIRECTION OF TRUE NORTH  
PLAN OR DETAIL NUMBER  
PLAN OR DETAIL NAME  
**VIEW NAME**  
1/8" = 1'-0"  
PLAN OR DETAIL SCALE

INDICATES SIMILAR DETAIL REFERENCED IN MULTIPLE LOCATIONS  
DETAIL REFERRED TO BY SECTION CUT  
SHEET DETAIL IS LOCATED ON → T101

**LINE TYPE AND TAG KEY:**

NEW WORK BY THIS CONTRACTOR (WIDE LINE)  
— NEW  
- - - - - EXISTING TO BE REMOVED (SHORT DASHED PATTERN)  
- - - - - NEW UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

EXISTING TO REMAIN OR WORK BY OTHERS (NARROW LINE)  
— EXISTING  
- - - - - EXISTING TO BE REMOVED BY OTHERS (SHORT DASHED PATTERN)  
- - - - - EXISTING UNDERFLOOR OR UNDERGROUND (LONG DASHED PATTERN)

HALFTONING DOES NOT MODIFY SCOPE.

\*TAG-E TAGS WITH DASH 'E' INDICATES THE REFERENCED OBJECT IS EXISTING

TAG-1 UNDERLINED TAG INDICATES OBJECT IS IN-SCOPE. IF NEW, ADDITIONAL INFORMATION IS AVAILABLE IN A SCHEDULE, MATERIAL LIST, OR SYMBOL LIST

⊕ INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

**ELECTRICAL ABBREVIATION KEY**

ABBR:	DESCRIPTION:
C	CONDUIT (BRANCH CIRCUIT OR FEEDER CONTEXT)
TYP	TYPICAL

**ELECTRICAL INSTALLATION NOTES:**

- CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBERING ON THE PANEL PROVIDED. COMMON NEUTRALS MAY NOT BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN EACH PHASE.
- ELECTRICAL IDENTIFICATION. REFER TO SPECIFICATION SECTION 26 05 53 FOR COLOR/LABEL REQUIREMENTS FOR CONDUIT, BOX, CABLE/WIRE, AND EQUIPMENT.

**ELECTRICAL SHEET INDEX**

F E0.0	ELECTRICAL COVERSHEET
F ED1.1	ELECTRICAL SITE PLAN DEMOLITION
F E1.1	ELECTRICAL SITE PLAN
F E2.0	ELECTRICAL DETAILS
GRAND TOTAL: 4	

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SUITE 550  
NAPERVILLE, IL 60563  
P: 630.527.2320  
www.imegcorp.com

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0 1 2 3  
REF. SCALE IN INCHES PROJECT #25001751.00

Project Number 1/23/2025 10:48:17 AM FITZSIMMONS PARK IMPROVEMENTS



909 Davis Street  
Evanston, Illinois 60201  
Phone: 847-448-4311

PROJECT  
**Fitzsimons  
Park  
Improvements**

1033 Elmwood Ave, Evanston, IL 60202

PROJECT TEAM

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IMEG Corp.  
263 Shuman Boulevard  
Suite 550  
Naperville, Illinois 60563  
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PROJECT NUMBER **1359**

SHEET TITLE

**ELECTRICAL  
SITE PLAN  
DEMOLITION**

SHEET NUMBER

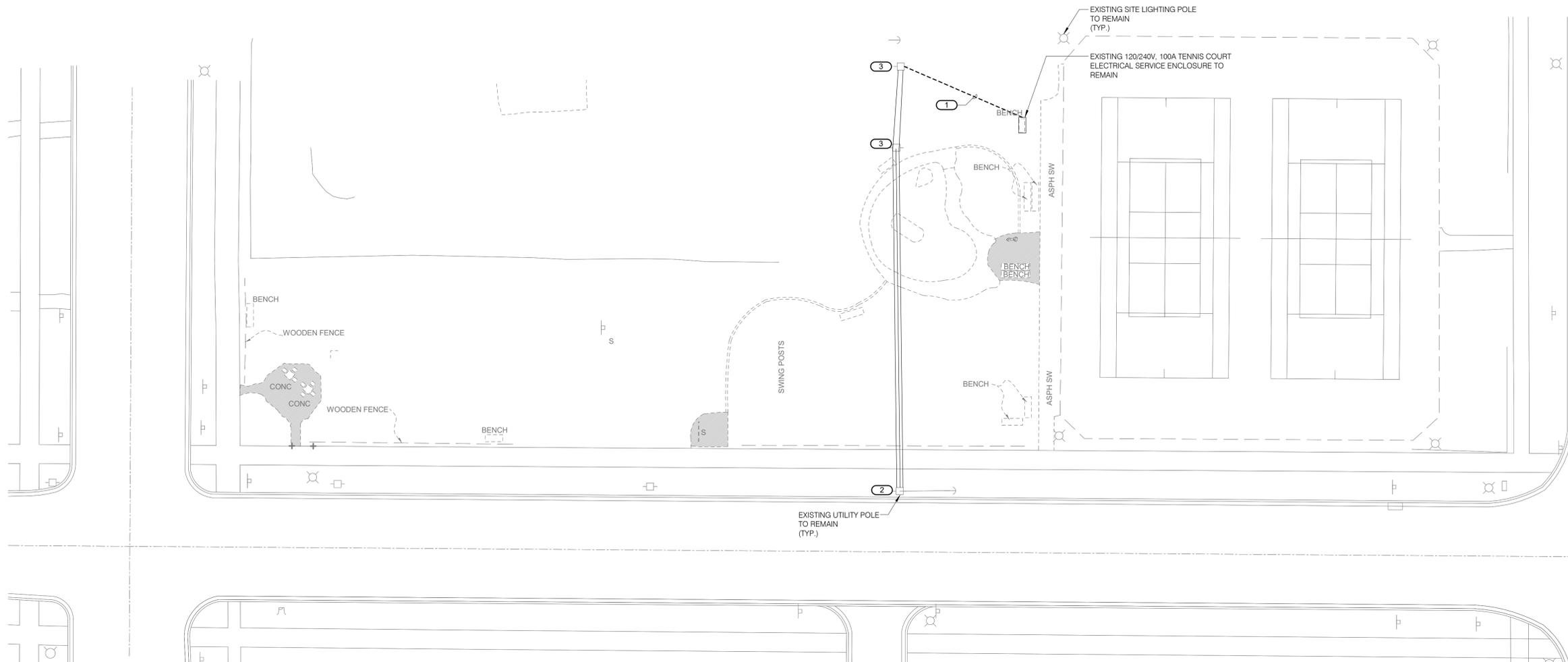
**F ED1.1**

**SHEET NOTES:**

1. CONTRACTOR SHALL COORDINATE ALL POWER AND TELCOMM WORK WITH UTILITY COMPANY AND WITH EVANSTON.

**KEYNOTES:**

1. EXISTING TENNIS COURT ELECTRICAL SECONDARY SERVICE WIRES TO BE REMOVED BACK TO EXISTING POLE MOUNTED UTILITY TRANSFORMER. REMOVE ANY EXPOSED CONDUIT. CONDUIT BELOW GRADE MAY BE ABANDONED IN PLACE. REFER TO NEW WORK FOR NEW SECONDARY SERVICE ROUTE. COORDINATE ALL OUTAGES AND WORK WITH UTILITY COMPANY AND EVANSTON.
2. EXISTING UTILITY POLE NORTH OF LEE ST. SHALL HAVE EXISTING 3-PHASE PRIMARY UTILITY FEED AND TELECOMMUNICATION CABLE SERVING NICHOLS MIDDLE SCHOOL REMOVED BY THE UTILITY COMPANIES. COORDINATE ALL OUTAGES AND WORK WITH UTILITY COMPANY AND EVANSTON.
3. EXISTING UTILITY POLE ON PARK PROPERTY SHALL BE REMOVED BY CONTRACTOR AFTER EXISTING UTILITY POWER AND TELECOMMUNICATIONS CABLING HAS BEEN REMOVED AND RE-ROUTED. REFER TO NEW WORK. COORDINATE ALL OUTAGES AND WORK WITH UTILITY COMPANY AND EVANSTON.



**1 ELECTRICAL SITE PLAN DEMOLITION**  
1/16" = 1'-0"

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263 SHUMAN BOULEVARD  
SUITE 550  
NAPERVILLE, IL 60563  
P: 630.527.2320  
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REF. SCALE IN INCHES PROJECT #25001751.00

Project Number 1723/2025 10:48:52 AM FITZSIMONS PARK IMPROVEMENTS



909 Davis Street  
Evanston, Illinois 60201  
Phone: 847-448-4311

PROJECT

# Fitzsimons Park Improvements

1033 Elmwood Ave, Evanston, IL 60202

PROJECT TEAM



**uplandDesign Ltd**  
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Environmental Design  
International Inc.  
33 W. Monroe Street, Suite  
1825 Chicago, Illinois 60603  
Phone: 312-345-1400

ELECTRICAL ENGINEER  
IMEG Corp.  
263 Shuman Boulevard  
Suite 550  
Naperville, Illinois 60563  
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PROJECT NUMBER **1359**

SHEET TITLE

# ELECTRICAL SITE PLAN

SHEET NUMBER

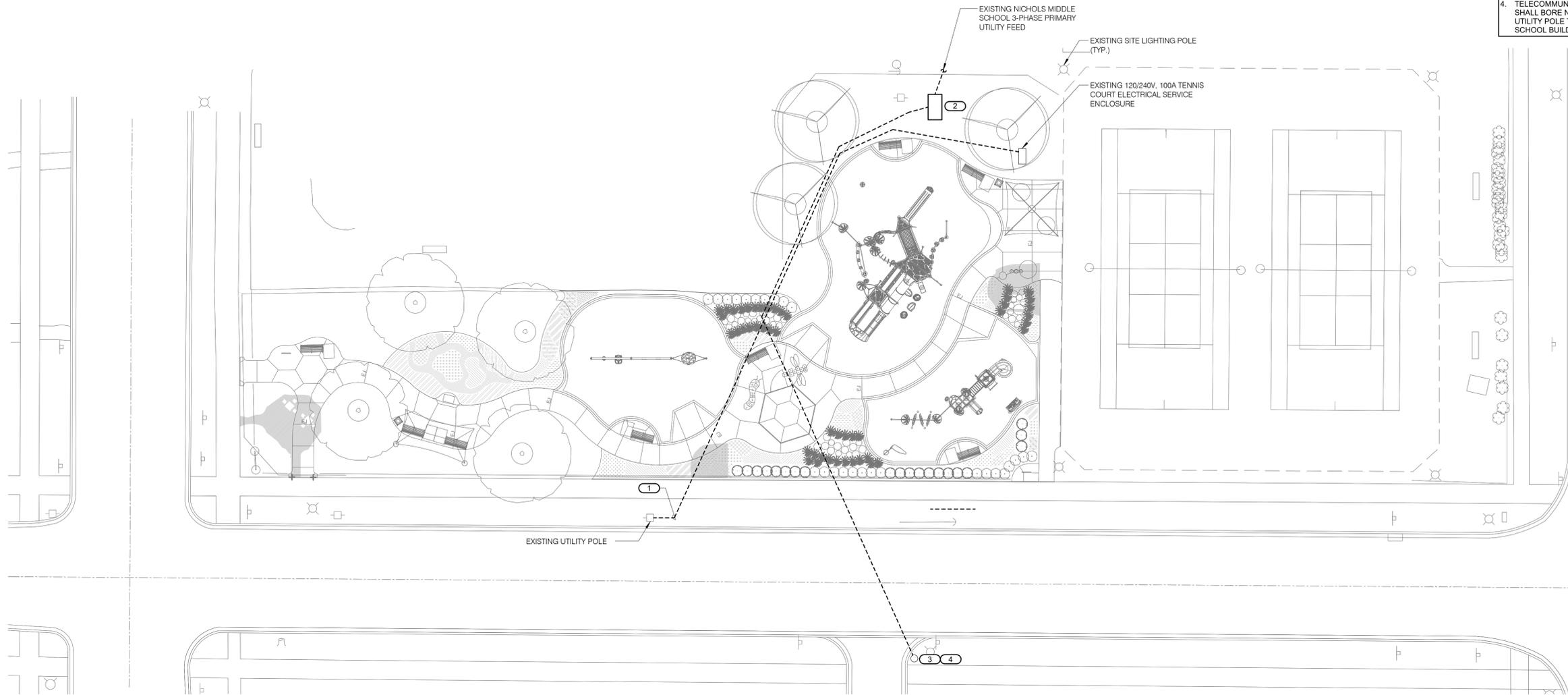
**F E1.1**

**SHEET NOTES:**

1. NOT ALL EXISTING PARK EQUIPMENT AND UNDERGROUND CONDUIT ARE SHOWN. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS WITH NEW WORK BEFORE STARTING WORK.
2. CONTRACTOR SHALL CALL FOR A LOCATE TO IDENTIFY ALL UNDERGROUND UTILITIES AND COORDINATE THE EXACT LOCATION OF THE NEW SPLICE BOX TO INTERCEPT THE EXISTING 3-PHASE PRIMARY CONDUIT PATHWAY.
3. COORDINATE WITH UTILITY COMPANIES FOR CONDUIT ROUTES TO AVOID ROUTING UNDER PLAYGROUND.

**KEYNOTES:**

1. DIRECTIONALLY BORE 3" SCH 40 PVC OR HDPE CONDUIT FROM EXISTING UTILITY POLE TO OWNER'S EXISTING TENNIS COURT SERVICE PANEL METER. STUB CONDUIT UP WITHIN EXISTING C.T. METERING COMPARTMENT. USE RIGID GALVANIZED CONDUIT FOR ALL ELBOWS AND ABOVE GRADE CONDUIT. PROVIDE 36" RADIUS ELBOW AT UTILITY POLE. ROUTE NEW SECONDARY WIRE FROM METER TO UTILITY POLE. USE MIN. OF #2. CONTRACTOR SHALL COORDINATE WITH THE UTILITY COMPANY FOR EXACT HEIGHT FOR CONDUIT STUB-UP AT THE UTILITY POLE. COORDINATE THE LENGTH OF COILED WIRE AT THE END OF THE RUN TO ALLOW FOR THE UTILITY COMPANY TO EXTEND THE SECONDARY WIRE UP TO THE NEW UTILITY TRANSFORMER.
2. PROVIDE AND INSTALL COMED SPLICE BOX TYPE C5279.B (REFER TO COMED SPEC ON DETAIL SHEET F E2.0) TO INTERCEPT EXISTING NICHOLS MIDDLE SCHOOL 3-PHASE PRIMARY UTILITY UNDERGROUND CONDUIT. EXTEND EXISTING CONDUIT INTO NEW SPLICE BOX AS REQUIRED.
3. UTILITY COMPANY SHALL INSTALL NEW ALLEY ARM UTILITY POLE IN CITY RIGHT-OF-WAY SOUTH OF LEE ST. WITH DOWNFEED ARM AND RISER TO RE-FEED NICHOLS MIDDLE SCHOOL 3-PHASE PRIMARY UTILITY FEED. UTILITY COMPANY SHALL BORE CONDUIT AND PROVIDE NEW PRIMARY CABLING TO CONTRACTOR INSTALLED SPLICE BOX.
4. TELECOMMUNICATIONS UTILITY COMPANY SHALL BORE NEW CONDUIT FROM NEW UTILITY POLE TO EXISTING NICHOLS MIDDLE SCHOOL BUILDING SERVICE ENTRANCE.



**1 ELECTRICAL SITE PLAN**  
1/16" = 1'-0"




263 SHUMAN BOULEVARD  
SUITE 550  
NAPERVILLE, IL 60563  
P: 630.527.2320  
www.imegcorp.com

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REF. SCALE IN INCHES PROJECT #25001751.00

Project Number 1723/2025 10:48:52 AM FITZSIMMONS PARK IMPROVEMENTS

PROJECT  
**Fitzsimons  
Park  
Improvements**

1033 Elmwood Ave, Evanston, IL 60202

PROJECT TEAM



**uplandDesign Ltd**

Landscape Architecture & Park Planning  
Chicago, Illinois 312-350-4088  
Plainfield, Illinois 815-254-0091  
uplandDesign.com

CIVIL ENGINEER:  
Environmental Design  
International Inc.  
33 W. Monroe Street, Suite  
1825 Chicago, Illinois 60603  
Phone: 312-345-1400

ELECTRICAL ENGINEER  
IMEG Corp.  
263 Shuman Boulevard  
Suite 550  
Naperville, Illinois 60563  
Phone: 630-527-2320

ORIGINAL ISSUE DATE

**Issue for Bid** 12FEB2026

REVISIONS


PROJECT NUMBER **1359**

SHEET TITLE

**ELECTRICAL  
DETAILS**

SHEET NUMBER

**F E2.0**

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SUITE 550  
NAPERVILLE, IL 60563  
P: 630.527.2320  
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REF. SCALE IN INCHES PROJECT #25001751.00

3-9-18  
**C5279**  
PAGE 1 OF 3

REVISES STANDARD DATED 4-27-12  
COMPATIBLE UNITS AVAILABLE IN ASSET SUITE

3-9-18  
**C5279**  
PAGE 1 OF 3

**JOINT COVER/SPLICE BOX**  
34.5KV AND BELOW SYSTEMS

TYPE OF INSTALLATION  
C5279.A JOINT COVER (3-1/2" 750kcmil STRAIGHT JOINTS MAXIMUM)  
B TWO-PIECE COVER SPLICE BOX (3-1/2" 500kcmil STRAIGHT JOINTS AND BELOW)  
C THREE-PIECE COVER SPLICE BOX (3-1/2" 750kcmil STRAIGHT JOINTS MAXIMUM)  
D TWO-PIECE COVER SPLICE BOX (3-1/2" 3/0 STRAIGHT JOINTS MAXIMUM)

ITEM	CAT ID DESCRIPTION	TABLE-1	CAT ID	UNIT	QUANTITY	
					A,B,C,D	E
A	CONDUIT CABLE SEALING FOAM	C5194.A			2	4
B	BOX, SPLICE, 48 X 78 X 48 IN., STRAIGHT HEAVY DUTY, ADJUSTABLE		0000383280	EA	2	4
	COVER, CABLE JOINT, 12 IN. HIGH X 12 IN. WIDE X 36 IN. LONG, P		0000655149	EA	3	
	BOX, SPLICE, 48 X 86 X 48 IN., STRAIGHT HEAVY DUTY, ADJUSTABLE		0000383279	EA	1	
	BOX, SPLICE, 30 X 60 X 24 OPENING, HEAVY DUTY, 3-4 IN. KNOCKOUT		0001604280	EA	1	
C	MARKER, ELECTRONIC, MID-RANGE, RED, 4.5 IN. DIAMETER, POLYETH		0000649202	EA	2	2
D	SAND, TORPEDO, NO. 2, MILN DRIED, 60 LB. BAG, IN MOISTURE RESI		0000701021	BG	16	
E	SUPPORT BRACKET, WALL, 24 IN., STAINLESS STEEL		0001638958	EA	2	
F	ANCHOR, CONCRETE, 1/2-1 1/2, LENGTH 4-1/4 IN., NO WASHER AND NUT		0000381064	EA	4	4
G	WASHER, FLAT, 1/2 IN., 18/8 AUSTENITIC STAINLESS STEEL, ANSI/A		0000530427	EA	4	4
H	WASHER, PLASTIC, 1/2 IN., PVC,		0000381600	EA	4	4
J	NUT, HEX HEAD, 1/2-1 1/2, AUSTENITIC ALLOY 304 STAINLESS STEEL		0000530448	EA	4	4
K	BRACKET, CABLE, 23 1/2 IN X 6 IN, FIBERGLASS REPLACES 392007		0001638883	EA	2	
L	SADDLE, CABLE, * 5 1/2 IN. LONG, HIGH DENSE POLYETH, 3 IN. WI		0001638934	EA	4	4

NOTES:  
APPLICATION  
• THIS STANDARD SHALL BE USED TO COVER STRAIGHT JOINTS IN A SPLICE PIT OR SPLICE BOX. SPLICE BOX FOR USE IN PAVED AND UNPAVED PARKWAYS, SIDEWALKS, NOT FOR USE IN STREETS.  
SUPPLEMENTARY MATERIAL  
① FOR ADDITIONAL CABLE SUPPORTS AND INSTALLATION SEE C5050.  
INFORMATION  
① BOTTOM OF SPLICE-PIT SHALL BE UNDISTURBED OR WELL TAMPED EARTH FREE FROM ROCKS OR DEBRIS.  
② COVER CABLE AND JOINTS WITH SAND BEFORE INSTALLING COVERS.  
③ LAY ELECTRONIC MARKER AT END OF CABLE PROTECTION TUBE ON APPROXIMATELY 2 INCHES OF BACKFILL.  
④ BACKFILL SHALL BE FREE OF STONES, BROKEN GLASS, CANS, OR OTHER DEBRIS THAT MIGHT DAMAGE THE CABLE. IF THIS IS NOT AVAILABLE, SAND MAY BE SUBSTITUTED.  
⑤ JACKETED CABLE REQUIRES AT LEAST EIGHT GROUNDS WITHIN A MILE WITH 600 FEET MAXIMUM SEPARATION. INSTALL GROUND AT CABLE JOINT PER JOINT STANDARD.  
⑥ THE BOTTOM OF THE EXCAVATION SHOULD BE FIRM, UNDISTURBED, OR COMPACTED EARTH, LEVELED, WITHOUT ANY LARGE ROCKS OR OBSTRUCTIONS THAT WOULD PREVENT THE SPLICE BOX FROM SETTING LEVEL. THE SIZE OF THE HOLE AND WHETHER OR NOT SHORING IS NECESSARY WILL DEPEND ON SOIL CONDITIONS AND LOCAL CONSTRUCTION CODES. THE EXCAVATION SHOULD BE LARGE ENOUGH FOR THE INSTALLATION OF A GROUND ROD (IN UNDISTURBED SOILS) AND TO ENABLE THE SPLICE BOX TO BE INSTALLED WITHOUT DISTURBING THE SIDEWALKS.  
⑦ REPLACEMENT OF PAVING, CURBS, OR SIDEWALKS REMOVED BECAUSE OF SPLICE BOX CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH MUNICIPAL OR STATE REQUIREMENTS. SAND OR OTHER LOCALLY APPROVED MATERIAL SHALL BE USED AS BACKFILL EXCEPT WHEN THE EXCAVATED MATERIAL IS FINE AND DRY, CAN BE WELL COMPACTED, AND WILL NOT SETTLE AFTER PAVEMENT IS RESTORED. ALL BACKFILL AREAS SHALL BE THOROUGHLY COMPACTED AND FLOODED.  
⑧ PLASTIC CONDUIT ENTRANCE BELLS ARE CAST IN WINDOW WALL AREA TO ACCEPT 5 INCH PLASTIC CONDUIT ENTRANCE BELLS ARE DESIGNED WITH A REMOVABLE MEMBRANE TO BE REMOVED AT THE TIME OF CABLE INSTALLATION, WHEN USING 4 INCH POLYTYPE, TRANSITION TO SHORT PIECE OF 5 INCH PLASTIC CONDUIT (6IN TO 5IN COUPLING CAT # 0001616053) AND BRING 5 INCH PLASTIC CONDUIT TO SPLICE BOX ENTRANCE BELLS.  
⑨ A LIMIT OF 3-1/2" STRAIGHT JOINTS SHALL BE INSTALLED PER SPLICE BOX. NO ADDITIONAL JOINTS OR CABLES SHALL BE INSTALLED IN OR PASS THROUGH SPLICE BOX.

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ComEd SYSTEM STANDARD

3-9-18  
**C5279**  
PAGE 2 OF 3

COVER BOLTDOWN (SEE DETAIL-1)

3-9-18  
**C5279**  
PAGE 2 OF 3

COVER BOLTDOWN (SEE DETAIL-1)

COVER  
ADJUSTABLE HEIGHT  
ADJUSTMENT NUT  
LOCKING NUT  
BOX

1/2"-13NC PENTA HEAD STAINLESS STEEL BOLT  
ADJUST-TO-GRADE WALL SECTION  
6"  
SELF-CENTERING CORROSION RESISTANT NUT

TWO/THREE PIECE COVER

DIMENSIONS	ADJUSTABLE COVER	WEIGHT	
		COVER	BOX
C5279.B 85" 55"	TWO PIECE	400 LBS.	463 LBS.
C5279.C 104" 56"	THREE PIECE	520 LBS.	559 LBS.

DETAIL-1  
LIFTING U-BOLTS (4X)

COVER AND LID

PLAN

5" BELL ENDS (4X) TWO EACH SIDE

END

PULL EYE (2X) ONE EACH END

FINAL GRADE

ADJUST-TO-GRADE WALL SECTION (SEE DETAIL-1)

CABLE BRACKET SUPPORT INSERTS

CABLE JOINT

4" MINIMUM CRUSHED STONE OR GRAVEL

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ComEd SYSTEM STANDARD

3-9-18  
**C5279**  
PAGE 3 OF 3

COVER BOLTDOWN (SEE DETAIL-2)

COVER  
ADJUSTABLE HEIGHT  
ADJUSTMENT NUT  
LOCKING NUT  
BOX

3/4" X 2" PICK HOLES  
1/2"-13NC PENTA HEAD STAINLESS STEEL BOLT  
ADJUST-TO-GRADE WALL SECTION  
6"  
SKID RESISTANT SURFACE  
SELF-CENTERING CORROSION RESISTANT NUT

TWO-PIECE COVER

COVER	WEIGHT	
	COVER	BOX
C5279.D TWO PIECE	144 LBS.	460 LBS.

DETAIL-2

2'-6"

1/2" DIAMETER STUD TO RETAIN LIFTING SLING (4X)

2'-0"

3-4" KNOCKOUTS THREE EACH SIDE

END VIEW

FINAL GRADE

5'-0"

2"

CABLE JOINT

12" MINIMUM CRUSHED STONE OR GRAVEL

BOX & COVER SECTION

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ComEd SYSTEM STANDARD



# ANALYTICAL REPORT

## PREPARED FOR

Attn: Nicole Andrade  
Pioneer Engineering & Environmental Srvc  
2753 W 31st Street  
Chicago, Illinois 60608

Generated 4/22/2025 4:24:56 PM

## JOB DESCRIPTION

3324 Grant St (25-0127-101)

## JOB NUMBER

500-266452-1

# Eurofins Chicago

## Job Notes

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## Authorization



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Authorized for release by  
Jim Knapp, Senior Project Manager  
[Jim.Knapp@et.eurofinsus.com](mailto:Jim.Knapp@et.eurofinsus.com)  
(630)758-0262



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Case Narrative . . . . .	4
Detection Summary . . . . .	5
Method Summary . . . . .	6
Sample Summary . . . . .	7
Client Sample Results . . . . .	8
Definitions . . . . .	12
QC Association . . . . .	13
Surrogate Summary . . . . .	15
QC Sample Results . . . . .	17
Chronicle . . . . .	27
Certification Summary . . . . .	28
Chain of Custody . . . . .	29
Receipt Checklists . . . . .	30

# Case Narrative

Client: Pioneer Engineering & Environmental Srvc  
Project: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

**Job ID: 500-266452-1**

**Eurofins Chicago**

## Job Narrative 500-266452-1

### Receipt

The sample was received on 4/8/2025 11:05 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.3° C.

### GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) analyzed in batch 500-813322 was outside the method criteria for the following analyte(s): chlorobenzene, chloroform, 1,1,2-trichloroethane, methyl tert-butyl ether, 2-butanone, toluene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260D: The following analyte(s) recovered outside control limits for the LCSD associated with analytical batch 500-813322: toluene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### GC/MS Semi VOA

Method 8270E: The continuing calibration verification (CCV) analyzed in batch 500-813367 was outside the method criteria for the following analyte(s): Hexachlorocyclopentadiene and Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### GC Semi VOA

Method 8081B: The laboratory control sample (LCS) for preparation batch 500-813072 and analytical batch 500-814287 recovered outside control limits for the following analyte: Endrin aldehyde. All analytes were within the QC limits in the associated MS/MSD; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

**Client Sample ID: CCDD (0-3)**

**Lab Sample ID: 500-266452-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[b]fluoranthene	0.048		0.043		mg/Kg	1	✳	8270E	Total/NA
Chrysene	0.044		0.043		mg/Kg	1	✳	8270E	Total/NA
Fluoranthene	0.071		0.043		mg/Kg	1	✳	8270E	Total/NA
Pyrene	0.058		0.043		mg/Kg	1	✳	8270E	Total/NA
4,4'-DDD	0.013		0.0022		mg/Kg	1	✳	8081B	Total/NA
4,4'-DDT	0.021		0.0022		mg/Kg	1	✳	8081B	Total/NA
4,4'-DDE - DL	0.085		0.011		mg/Kg	5	✳	8081B	Total/NA
Arsenic	6.9		1.3		mg/Kg	1	✳	6010D	Total/NA
Barium	130		1.3		mg/Kg	1	✳	6010D	Total/NA
Cadmium	0.28		0.25		mg/Kg	1	✳	6010D	Total/NA
Chromium	39		1.3		mg/Kg	1	✳	6010D	Total/NA
Lead	19		0.63		mg/Kg	1	✳	6010D	Total/NA
Silver	18		0.63		mg/Kg	1	✳	6010D	Total/NA
Mercury	0.046		0.021		mg/Kg	1	✳	7471B	Total/NA
pH	5.66		0.20		SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

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# Method Summary

Client: Pioneer Engineering & Environmental Srvc  
Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CHI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET CHI
8081B	Organochlorine Pesticides (GC)	SW846	EET CHI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET CHI
6010D	Metals (ICP)	SW846	EET CHI
7471B	Mercury (CVAA)	SW846	EET CHI
9045D	pH	SW846	EET CHI
Moisture	Percent Moisture	EPA	EET CHI
3050B	Preparation, Metals	SW846	EET CHI
3541	Automated Soxhlet Extraction	SW846	EET CHI
3546	Microwave Extraction	SW846	EET CHI
5035	Closed System Purge and Trap	SW846	EET CHI
7471B	Preparation, Mercury	SW846	EET CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

EET CHI = Eurofins Chicago, 18410 Crossing Drive, Suite E, Tinley Park, IL 60487, TEL (708)534-5200

# Sample Summary

Client: Pioneer Engineering & Environmental Srvc  
Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

---

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
500-266452-1	CCDD (0-3)	Solid	04/07/25 09:15	04/08/25 11:05

1

2

3

4

5

6

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8

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10

11

12

13

14

15

# Client Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

**Client Sample ID: CCDD (0-3)**

**Lab Sample ID: 500-266452-1**

**Date Collected: 04/07/25 09:15**

**Matrix: Solid**

**Date Received: 04/08/25 11:05**

**Percent Solids: 75.6**

**Method: SW846 8260D - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
1,1,2,2-Tetrachloroethane	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
1,1,2-Trichloroethane	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
1,1-Dichloroethane	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
1,1-Dichloroethene	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
1,2-Dichloroethane	<0.0043		0.0043		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
1,2-Dichloropropane	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
2-Butanone (MEK)	<0.0043		0.0043		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
2-Hexanone	<0.0043		0.0043		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
4-Methyl-2-pentanone (MIBK)	<0.0043		0.0043		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Acetone	<0.017		0.017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Benzene	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Bromodichloromethane	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Bromoform	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Bromomethane	<0.0043		0.0043		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Carbon disulfide	<0.0043		0.0043		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Carbon tetrachloride	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Chlorobenzene	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Chloroethane	<0.0043		0.0043		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Chloroform	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Chloromethane	<0.0043		0.0043		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
cis-1,2-Dichloroethene	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
1,3-Dichloropropene, Total	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Dibromochloromethane	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Ethylbenzene	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Methyl tert-butyl ether	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Methylene Chloride	<0.0043		0.0043		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Styrene	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Tetrachloroethene	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Toluene	<0.0017	*	0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Xylenes, Total	<0.0034		0.0034		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
trans-1,2-Dichloroethene	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Trichloroethene	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1
Vinyl chloride	<0.0017		0.0017		mg/Kg	☼	04/08/25 17:41	04/11/25 14:10	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	109		70 - 134	04/08/25 17:41	04/11/25 14:10	1
4-Bromofluorobenzene (Surr)	102		75 - 131	04/08/25 17:41	04/11/25 14:10	1
Dibromofluoromethane	105		75 - 126	04/08/25 17:41	04/11/25 14:10	1
Toluene-d8 (Surr)	95		75 - 124	04/08/25 17:41	04/11/25 14:10	1

**Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.043		0.043		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Acenaphthylene	<0.043		0.043		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Anthracene	<0.043		0.043		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Benzo[a]anthracene	<0.043		0.043		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Benzo[a]pyrene	<0.043		0.043		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
<b>Benzo[b]fluoranthene</b>	<b>0.048</b>		0.043		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Benzo[g,h,i]perylene	<0.043		0.043		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1

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# Client Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

**Client Sample ID: CCDD (0-3)**

**Lab Sample ID: 500-266452-1**

**Date Collected: 04/07/25 09:15**

**Matrix: Solid**

**Date Received: 04/08/25 11:05**

**Percent Solids: 75.6**

**Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Benzo[k]fluoranthene	<0.043		0.043		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
<b>Chrysene</b>	<b>0.044</b>		0.043		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Dibenz(a,h)anthracene	<0.043		0.043		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
<b>Fluoranthene</b>	<b>0.071</b>		0.043		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Fluorene	<0.043		0.043		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Indeno[1,2,3-cd]pyrene	<0.043		0.043		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Naphthalene	<0.043		0.043		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Phenanthrene	<0.043		0.043		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
<b>Pyrene</b>	<b>0.058</b>		0.043		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
1,2,4-Trichlorobenzene	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
1,2-Dichlorobenzene	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
1,3-Dichlorobenzene	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
1,4-Dichlorobenzene	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
2,4,5-Trichlorophenol	<0.43		0.43		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
2,4,6-Trichlorophenol	<0.43		0.43		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
2,4-Dichlorophenol	<0.43		0.43		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
2,4-Dimethylphenol	<0.43		0.43		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
2,4-Dinitrophenol	<0.87		0.87		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
2,4-Dinitrotoluene	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
2,6-Dinitrotoluene	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
2-Chloronaphthalene	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
2-Chlorophenol	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
2-Methylnaphthalene	<0.087		0.087		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
2-Methylphenol	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
2-Nitroaniline	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
2-Nitrophenol	<0.43		0.43		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
3,3'-Dichlorobenzidine	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
3 & 4 Methylphenol	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
3-Nitroaniline	<0.43		0.43		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
4,6-Dinitro-2-methylphenol	<0.87		0.87		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
4-Bromophenyl phenyl ether	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
4-Chloro-3-methylphenol	<0.43		0.43		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
4-Chloroaniline	<0.87		0.87		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
4-Chlorophenyl phenyl ether	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
4-Nitroaniline	<0.43		0.43		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
4-Nitrophenol	<0.87		0.87		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Bis(2-chloroethoxy)methane	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Bis(2-chloroethyl)ether	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
bis(chloroisopropyl) ether	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Bis(2-ethylhexyl) phthalate	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Butyl benzyl phthalate	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Carbazole	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Dibenzofuran	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Diethyl phthalate	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Dimethyl phthalate	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Di-n-butyl phthalate	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Di-n-octyl phthalate	<0.43		0.43		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Hexachlorobenzene	<0.087		0.087		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1
Hexachlorobutadiene	<0.22		0.22		mg/Kg	☼	04/10/25 14:05	04/11/25 17:30	1

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# Client Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

**Client Sample ID: CCDD (0-3)**

**Lab Sample ID: 500-266452-1**

**Date Collected: 04/07/25 09:15**

**Matrix: Solid**

**Date Received: 04/08/25 11:05**

**Percent Solids: 75.6**

**Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	<0.87		0.87		mg/Kg	✳	04/10/25 14:05	04/11/25 17:30	1
Hexachloroethane	<0.22		0.22		mg/Kg	✳	04/10/25 14:05	04/11/25 17:30	1
Isophorone	<0.22		0.22		mg/Kg	✳	04/10/25 14:05	04/11/25 17:30	1
Nitrobenzene	<0.043		0.043		mg/Kg	✳	04/10/25 14:05	04/11/25 17:30	1
N-Nitrosodi-n-propylamine	<0.087		0.087		mg/Kg	✳	04/10/25 14:05	04/11/25 17:30	1
N-Nitrosodiphenylamine	<0.22		0.22		mg/Kg	✳	04/10/25 14:05	04/11/25 17:30	1
Pentachlorophenol	<0.87		0.87		mg/Kg	✳	04/10/25 14:05	04/11/25 17:30	1
Phenol	<0.22		0.22		mg/Kg	✳	04/10/25 14:05	04/11/25 17:30	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	73		31 - 166	04/10/25 14:05	04/11/25 17:30	1
Phenol-d5 (Surr)	72		30 - 153	04/10/25 14:05	04/11/25 17:30	1
Nitrobenzene-d5 (Surr)	70		37 - 147	04/10/25 14:05	04/11/25 17:30	1
2-Fluorobiphenyl (Surr)	74		43 - 145	04/10/25 14:05	04/11/25 17:30	1
2,4,6-Tribromophenol (Surr)	69		31 - 143	04/10/25 14:05	04/11/25 17:30	1
Terphenyl-d14 (Surr)	85		42 - 157	04/10/25 14:05	04/11/25 17:30	1

**Method: SW846 8081B - Organochlorine Pesticides (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	0.013		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
4,4'-DDT	0.021		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
Aldrin	<0.0022		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
alpha-BHC	<0.0022		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
alpha-Chlordane	<0.0022		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
beta-BHC	<0.0022		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
Chlordane (technical)	<0.0087		0.0087		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
delta-BHC	<0.0022		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
Dieldrin	<0.0022		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
Endosulfan I	<0.0022		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
Endosulfan II	<0.0022		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
Endosulfan sulfate	<0.0022		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
Endrin	<0.0022		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
Endrin aldehyde	<0.0022	*	0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
Endrin ketone	<0.0022		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
gamma-BHC (Lindane)	<0.0022		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
gamma-Chlordane	<0.0022		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
Heptachlor	<0.0022		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
Heptachlor epoxide	<0.0022		0.0022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
Methoxychlor	<0.011		0.011		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1
Toxaphene	<0.022		0.022		mg/Kg	✳	04/09/25 14:11	04/18/25 17:25	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	104		33 - 148	04/09/25 14:11	04/18/25 17:25	1
Tetrachloro-m-xylene	75		30 - 121	04/09/25 14:11	04/18/25 17:25	1

**Method: SW846 8081B - Organochlorine Pesticides (GC) - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDE	0.085		0.011		mg/Kg	✳	04/09/25 14:11	04/21/25 22:34	5

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	90		33 - 148	04/09/25 14:11	04/21/25 22:34	5

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# Client Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

**Client Sample ID: CCDD (0-3)**

**Lab Sample ID: 500-266452-1**

Date Collected: 04/07/25 09:15

Matrix: Solid

Date Received: 04/08/25 11:05

Percent Solids: 75.6

**Method: SW846 8081B - Organochlorine Pesticides (GC) - DL (Continued)**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	62		30 - 121	04/09/25 14:11	04/21/25 22:34	5

**Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.022		0.022		mg/Kg	✱	04/09/25 14:11	04/16/25 23:07	1
PCB-1221	<0.022		0.022		mg/Kg	✱	04/09/25 14:11	04/16/25 23:07	1
PCB-1232	<0.022		0.022		mg/Kg	✱	04/09/25 14:11	04/16/25 23:07	1
PCB-1242	<0.022		0.022		mg/Kg	✱	04/09/25 14:11	04/16/25 23:07	1
PCB-1248	<0.022		0.022		mg/Kg	✱	04/09/25 14:11	04/16/25 23:07	1
PCB-1254	<0.022		0.022		mg/Kg	✱	04/09/25 14:11	04/16/25 23:07	1
PCB-1260	<0.022		0.022		mg/Kg	✱	04/09/25 14:11	04/16/25 23:07	1
Polychlorinated biphenyls, Total	<0.022		0.022		mg/Kg	✱	04/09/25 14:11	04/16/25 23:07	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	63		49 - 129	04/09/25 14:11	04/16/25 23:07	1
DCB Decachlorobiphenyl	76		37 - 121	04/09/25 14:11	04/16/25 23:07	1

**Method: SW846 6010D - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	6.9		1.3		mg/Kg	✱	04/09/25 09:14	04/11/25 06:12	1
Barium	130		1.3		mg/Kg	✱	04/09/25 09:14	04/09/25 20:06	1
Cadmium	0.28		0.25		mg/Kg	✱	04/09/25 09:14	04/09/25 20:06	1
Chromium	39		1.3		mg/Kg	✱	04/09/25 09:14	04/11/25 06:12	1
Lead	19		0.63		mg/Kg	✱	04/09/25 09:14	04/09/25 20:06	1
Selenium	<1.3		1.3		mg/Kg	✱	04/09/25 09:14	04/11/25 06:12	1
Silver	18		0.63		mg/Kg	✱	04/09/25 09:14	04/09/25 20:06	1

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.046		0.021		mg/Kg	✱	04/10/25 13:15	04/11/25 08:18	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9045D)	5.66		0.20		SU			04/11/25 17:00	1

# Definitions/Glossary

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.

### GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.

### General Chemistry

Qualifier	Qualifier Description
F3	Duplicate RPD exceeds the control limit

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

## GC/MS VOA

### Analysis Batch: 813322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266452-1	CCDD (0-3)	Total/NA	Solid	8260D	813380
MB 500-813322/7	Method Blank	Total/NA	Solid	8260D	
LCS 500-813322/5	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 500-813322/8	Lab Control Sample Dup	Total/NA	Solid	8260D	

### Prep Batch: 813380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266452-1	CCDD (0-3)	Total/NA	Solid	5035	

## GC/MS Semi VOA

### Prep Batch: 813255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266452-1	CCDD (0-3)	Total/NA	Solid	3546	
MB 500-813255/1-A	Method Blank	Total/NA	Solid	3546	
LCS 500-813255/2-A	Lab Control Sample	Total/NA	Solid	3546	

### Analysis Batch: 813367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266452-1	CCDD (0-3)	Total/NA	Solid	8270E	813255
MB 500-813255/1-A	Method Blank	Total/NA	Solid	8270E	813255
LCS 500-813255/2-A	Lab Control Sample	Total/NA	Solid	8270E	813255

## GC Semi VOA

### Prep Batch: 813072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266452-1	CCDD (0-3)	Total/NA	Solid	3541	
500-266452-1 - DL	CCDD (0-3)	Total/NA	Solid	3541	
MB 500-813072/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-813072/2-A	Lab Control Sample	Total/NA	Solid	3541	
LCS 500-813072/3-A	Lab Control Sample	Total/NA	Solid	3541	

### Analysis Batch: 813965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266452-1	CCDD (0-3)	Total/NA	Solid	8082A	813072
MB 500-813072/1-A	Method Blank	Total/NA	Solid	8082A	813072
LCS 500-813072/3-A	Lab Control Sample	Total/NA	Solid	8082A	813072

### Analysis Batch: 814287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266452-1	CCDD (0-3)	Total/NA	Solid	8081B	813072
MB 500-813072/1-A	Method Blank	Total/NA	Solid	8081B	813072
LCS 500-813072/2-A	Lab Control Sample	Total/NA	Solid	8081B	813072

### Analysis Batch: 814531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266452-1 - DL	CCDD (0-3)	Total/NA	Solid	8081B	813072

# QC Association Summary

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

## Metals

### Prep Batch: 813014

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266452-1	CCDD (0-3)	Total/NA	Solid	3050B	
MB 500-813014/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-813014/2-A	Lab Control Sample	Total/NA	Solid	3050B	

### Prep Batch: 813153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266452-1	CCDD (0-3)	Total/NA	Solid	7471B	
MB 500-813153/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-813153/13-A	Lab Control Sample	Total/NA	Solid	7471B	

### Analysis Batch: 813166

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266452-1	CCDD (0-3)	Total/NA	Solid	6010D	813014
MB 500-813014/1-A	Method Blank	Total/NA	Solid	6010D	813014
LCS 500-813014/2-A	Lab Control Sample	Total/NA	Solid	6010D	813014

### Analysis Batch: 813360

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266452-1	CCDD (0-3)	Total/NA	Solid	6010D	813014

### Analysis Batch: 813378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266452-1	CCDD (0-3)	Total/NA	Solid	7471B	813153
MB 500-813153/12-A	Method Blank	Total/NA	Solid	7471B	813153
LCS 500-813153/13-A	Lab Control Sample	Total/NA	Solid	7471B	813153

## General Chemistry

### Analysis Batch: 813036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266452-1	CCDD (0-3)	Total/NA	Solid	Moisture	

### Analysis Batch: 813505

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266452-1	CCDD (0-3)	Total/NA	Solid	9045D	
LCS 500-813505/18	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-813505/19	Lab Control Sample Dup	Total/NA	Solid	9045D	
500-266452-1 DU	CCDD (0-3)	Total/NA	Solid	9045D	

# Surrogate Summary

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (70-134)	BFB (75-131)	DBFM (75-126)	TOL (75-124)
500-266452-1	CCDD (0-3)	109	102	105	95
LCS 500-813322/5	Lab Control Sample	107	95	103	97
LCS 500-813322/8	Lab Control Sample Dup	105	97	105	96
MB 500-813322/7	Method Blank	106	100	105	95

#### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
 BFB = 4-Bromofluorobenzene (Surr)  
 DBFM = Dibromofluoromethane  
 TOL = Toluene-d8 (Surr)

## Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (31-166)	PHL (30-153)	NBZ (37-147)	FBP (43-145)	TBP (31-143)	TPHL (42-157)
500-266452-1	CCDD (0-3)	73	72	70	74	69	85
LCS 500-813255/2-A	Lab Control Sample	86	82	80	83	82	91
MB 500-813255/1-A	Method Blank	75	70	73	74	53	90

#### Surrogate Legend

2FP = 2-Fluorophenol (Surr)  
 PHL = Phenol-d5 (Surr)  
 NBZ = Nitrobenzene-d5 (Surr)  
 FBP = 2-Fluorobiphenyl (Surr)  
 TBP = 2,4,6-Tribromophenol (Surr)  
 TPHL = Terphenyl-d14 (Surr)

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCBP1 (33-148)	TCX1 (30-121)
500-266452-1	CCDD (0-3)	104	75
500-266452-1 - DL	CCDD (0-3)	90	62
LCS 500-813072/2-A	Lab Control Sample	108	100
MB 500-813072/1-A	Method Blank	110	101

#### Surrogate Legend

DCBP = DCB Decachlorobiphenyl  
 TCX = Tetrachloro-m-xylene

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX2 (49-129)	DCBP2 (37-121)
500-266452-1	CCDD (0-3)	63	76
LCS 500-813072/3-A	Lab Control Sample	73	81

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# Surrogate Summary

Client: Pioneer Engineering & Environmental Srvc  
Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2 (49-129)	DCBP2 (37-121)
MB 500-813072/1-A	Method Blank	73	86

#### Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

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# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 500-813322/7**

**Matrix: Solid**

**Analysis Batch: 813322**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
1,1,2-Trichloroethane	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
1,1-Dichloroethane	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
1,1-Dichloroethene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
1,2-Dichloroethane	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
1,2-Dichloropropane	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
2-Butanone (MEK)	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
2-Hexanone	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
Acetone	<0.020		0.020		mg/Kg			04/11/25 11:56	1
Benzene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Bromodichloromethane	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Bromoform	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Bromomethane	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
Carbon disulfide	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
Carbon tetrachloride	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Chlorobenzene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Chloroethane	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
Chloroform	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Chloromethane	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
cis-1,2-Dichloroethene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
1,3-Dichloropropene, Total	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Dibromochloromethane	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Ethylbenzene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Methyl tert-butyl ether	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Methylene Chloride	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
Styrene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Tetrachloroethene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Toluene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Xylenes, Total	<0.0040		0.0040		mg/Kg			04/11/25 11:56	1
trans-1,2-Dichloroethene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Trichloroethene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Vinyl chloride	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	106		70 - 134		04/11/25 11:56	1
4-Bromofluorobenzene (Surr)	100		75 - 131		04/11/25 11:56	1
Dibromofluoromethane	105		75 - 126		04/11/25 11:56	1
Toluene-d8 (Surr)	95		75 - 124		04/11/25 11:56	1

**Lab Sample ID: LCS 500-813322/5**

**Matrix: Solid**

**Analysis Batch: 813322**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2,2-Tetrachloroethane	0.0500	0.0486		mg/Kg		97	70 - 122

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# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 500-813322/5**

**Matrix: Solid**

**Analysis Batch: 813322**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichloroethane	0.0500	0.0459		mg/Kg		92	70 - 125
1,1-Dichloroethane	0.0500	0.0519		mg/Kg		104	70 - 125
1,1-Dichloroethene	0.0500	0.0495		mg/Kg		99	70 - 120
1,2-Dichloroethane	0.0500	0.0494		mg/Kg		99	70 - 130
1,2-Dichloropropane	0.0500	0.0532		mg/Kg		106	70 - 125
2-Butanone (MEK)	0.0500	0.0459		mg/Kg		92	47 - 138
2-Hexanone	0.0500	0.0481		mg/Kg		96	48 - 146
4-Methyl-2-pentanone (MIBK)	0.0500	0.0480		mg/Kg		96	50 - 148
Acetone	0.0500	0.0379		mg/Kg		76	40 - 150
Benzene	0.0500	0.0495		mg/Kg		99	70 - 125
Bromodichloromethane	0.0500	0.0486		mg/Kg		97	67 - 129
Bromoform	0.0500	0.0508		mg/Kg		102	68 - 136
Bromomethane	0.0500	0.0592		mg/Kg		118	70 - 130
Carbon disulfide	0.0500	0.0493		mg/Kg		99	70 - 129
Carbon tetrachloride	0.0500	0.0475		mg/Kg		95	75 - 125
Chlorobenzene	0.0500	0.0465		mg/Kg		93	50 - 150
Chloroethane	0.0500	0.0530		mg/Kg		106	75 - 125
Chloroform	0.0500	0.0455		mg/Kg		91	57 - 135
Chloromethane	0.0500	0.0530		mg/Kg		106	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0488		mg/Kg		98	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0486		mg/Kg		97	70 - 125
Dibromochloromethane	0.0500	0.0474		mg/Kg		95	69 - 125
Ethylbenzene	0.0500	0.0505		mg/Kg		101	61 - 136
Methyl tert-butyl ether	0.0500	0.0455		mg/Kg		91	50 - 140
Methylene Chloride	0.0500	0.0470		mg/Kg		94	70 - 126
Styrene	0.0500	0.0526		mg/Kg		105	70 - 125
Tetrachloroethene	0.0500	0.0495		mg/Kg		99	70 - 124
Toluene	0.0500	0.0426		mg/Kg		85	70 - 125
Xylenes, Total	0.100	0.0951		mg/Kg		95	53 - 147
trans-1,2-Dichloroethene	0.0500	0.0484		mg/Kg		97	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0469		mg/Kg		94	70 - 125
Trichloroethene	0.0500	0.0491		mg/Kg		98	70 - 125
Vinyl chloride	0.0500	0.0514		mg/Kg		103	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		70 - 134
4-Bromofluorobenzene (Surr)	95		75 - 131
Dibromofluoromethane	103		75 - 126
Toluene-d8 (Surr)	97		75 - 124

**Lab Sample ID: LCSD 500-813322/8**

**Matrix: Solid**

**Analysis Batch: 813322**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.0500	0.0383		mg/Kg		77	70 - 128	24	30
1,1,1,2,2-Tetrachloroethane	0.0500	0.0392		mg/Kg		78	70 - 122	21	30
1,1,2-Trichloroethane	0.0500	0.0356		mg/Kg		71	70 - 125	25	30

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# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCSD 500-813322/8**  
**Matrix: Solid**  
**Analysis Batch: 813322**

**Client Sample ID: Lab Control Sample Dup**  
**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethane	0.0500	0.0418		mg/Kg		84	70 - 125	22	30
1,1-Dichloroethene	0.0500	0.0395		mg/Kg		79	70 - 120	22	30
1,2-Dichloroethane	0.0500	0.0402		mg/Kg		80	70 - 130	20	30
1,2-Dichloropropane	0.0500	0.0420		mg/Kg		84	70 - 125	24	30
2-Butanone (MEK)	0.0500	0.0367		mg/Kg		73	47 - 138	22	30
2-Hexanone	0.0500	0.0384		mg/Kg		77	48 - 146	23	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0384		mg/Kg		77	50 - 148	22	30
Acetone	0.0500	0.0318		mg/Kg		64	40 - 150	18	30
Benzene	0.0500	0.0390		mg/Kg		78	70 - 125	24	30
Bromodichloromethane	0.0500	0.0391		mg/Kg		78	67 - 129	22	30
Bromoform	0.0500	0.0393		mg/Kg		79	68 - 136	26	30
Bromomethane	0.0500	0.0510		mg/Kg		102	70 - 130	15	30
Carbon disulfide	0.0500	0.0393		mg/Kg		79	70 - 129	23	30
Carbon tetrachloride	0.0500	0.0381		mg/Kg		76	75 - 125	22	30
Chlorobenzene	0.0500	0.0366		mg/Kg		73	50 - 150	24	30
Chloroethane	0.0500	0.0452		mg/Kg		90	75 - 125	16	30
Chloroform	0.0500	0.0357		mg/Kg		71	57 - 135	24	30
Chloromethane	0.0500	0.0443		mg/Kg		89	70 - 125	18	30
cis-1,2-Dichloroethene	0.0500	0.0392		mg/Kg		78	70 - 125	22	30
cis-1,3-Dichloropropene	0.0500	0.0374		mg/Kg		75	70 - 125	26	30
Dibromochloromethane	0.0500	0.0372		mg/Kg		74	69 - 125	24	30
Ethylbenzene	0.0500	0.0397		mg/Kg		79	61 - 136	24	30
Methyl tert-butyl ether	0.0500	0.0361		mg/Kg		72	50 - 140	23	30
Methylene Chloride	0.0500	0.0409		mg/Kg		82	70 - 126	14	30
Styrene	0.0500	0.0411		mg/Kg		82	70 - 125	25	30
Tetrachloroethene	0.0500	0.0403		mg/Kg		81	70 - 124	21	30
Toluene	0.0500	0.0332	*	mg/Kg		66	70 - 125	25	30
Xylenes, Total	0.100	0.0757		mg/Kg		76	53 - 147	23	30
trans-1,2-Dichloroethene	0.0500	0.0382		mg/Kg		76	70 - 125	23	30
trans-1,3-Dichloropropene	0.0500	0.0365		mg/Kg		73	70 - 125	25	30
Trichloroethene	0.0500	0.0386		mg/Kg		77	70 - 125	24	30
Vinyl chloride	0.0500	0.0429		mg/Kg		86	70 - 125	18	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 134
4-Bromofluorobenzene (Surr)	97		75 - 131
Dibromofluoromethane	105		75 - 126
Toluene-d8 (Surr)	96		75 - 124

## Method: 8270E - Semivolatile Organic Compounds (GC/MS)

**Lab Sample ID: MB 500-813255/1-A**  
**Matrix: Solid**  
**Analysis Batch: 813367**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 813255**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Acenaphthylene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Anthracene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1

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# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

## Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 500-813255/1-A**  
**Matrix: Solid**  
**Analysis Batch: 813367**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 813255**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzo[a]anthracene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Benzo[a]pyrene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Benzo[b]fluoranthene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Benzo[g,h,i]perylene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Benzo[k]fluoranthene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Chrysene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Dibenz(a,h)anthracene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Fluoranthene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Fluorene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Naphthalene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Phenanthrene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Pyrene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
1,2,4-Trichlorobenzene	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
1,2-Dichlorobenzene	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
1,3-Dichlorobenzene	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
1,4-Dichlorobenzene	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2,4,5-Trichlorophenol	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2,4,6-Trichlorophenol	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2,4-Dichlorophenol	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2,4-Dimethylphenol	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2,4-Dinitrophenol	<0.67		0.67		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2,4-Dinitrotoluene	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2,6-Dinitrotoluene	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2-Chloronaphthalene	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2-Chlorophenol	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2-Methylnaphthalene	<0.067		0.067		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2-Methylphenol	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2-Nitroaniline	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2-Nitrophenol	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
3,3'-Dichlorobenzidine	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
3 & 4 Methylphenol	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
3-Nitroaniline	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
4,6-Dinitro-2-methylphenol	<0.67		0.67		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
4-Bromophenyl phenyl ether	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
4-Chloro-3-methylphenol	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
4-Chloroaniline	<0.67		0.67		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
4-Chlorophenyl phenyl ether	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
4-Nitroaniline	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
4-Nitrophenol	<0.67		0.67		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Bis(2-chloroethoxy)methane	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Bis(2-chloroethyl)ether	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
bis(chloroisopropyl) ether	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Butyl benzyl phthalate	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Carbazole	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Dibenzofuran	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Diethyl phthalate	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Dimethyl phthalate	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1

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# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

## Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 500-813255/1-A**  
**Matrix: Solid**  
**Analysis Batch: 813367**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 813255**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Di-n-octyl phthalate	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Hexachlorobenzene	<0.067		0.067		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Hexachlorobutadiene	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Hexachlorocyclopentadiene	<0.67		0.67		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Hexachloroethane	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Isophorone	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Nitrobenzene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
N-Nitrosodi-n-propylamine	<0.067		0.067		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
N-Nitrosodiphenylamine	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Pentachlorophenol	<0.67		0.67		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Phenol	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	75		31 - 166	04/10/25 14:05	04/11/25 11:47	1
Phenol-d5 (Surr)	70		30 - 153	04/10/25 14:05	04/11/25 11:47	1
Nitrobenzene-d5 (Surr)	73		37 - 147	04/10/25 14:05	04/11/25 11:47	1
2-Fluorobiphenyl (Surr)	74		43 - 145	04/10/25 14:05	04/11/25 11:47	1
2,4,6-Tribromophenol (Surr)	53		31 - 143	04/10/25 14:05	04/11/25 11:47	1
Terphenyl-d14 (Surr)	90		42 - 157	04/10/25 14:05	04/11/25 11:47	1

**Lab Sample ID: LCS 500-813255/2-A**  
**Matrix: Solid**  
**Analysis Batch: 813367**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 813255**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	3.33	2.61		mg/Kg		78	63 - 109
Acenaphthylene	3.33	2.61		mg/Kg		78	61 - 115
Anthracene	3.33	2.90		mg/Kg		87	68 - 120
Benzo[a]anthracene	3.33	2.67		mg/Kg		80	70 - 121
Benzo[a]pyrene	3.33	2.97		mg/Kg		89	73 - 132
Benzo[b]fluoranthene	3.33	2.78		mg/Kg		83	68 - 123
Benzo[g,h,i]perylene	3.33	2.93		mg/Kg		88	65 - 126
Benzo[k]fluoranthene	3.33	2.97		mg/Kg		89	64 - 128
Chrysene	3.33	2.73		mg/Kg		82	70 - 123
Dibenz(a,h)anthracene	3.33	3.06		mg/Kg		92	66 - 125
Fluoranthene	3.33	2.85		mg/Kg		86	66 - 123
Fluorene	3.33	2.72		mg/Kg		82	62 - 113
Indeno[1,2,3-cd]pyrene	3.33	3.07		mg/Kg		92	66 - 131
Naphthalene	3.33	2.60		mg/Kg		78	54 - 98
Phenanthrene	3.33	2.82		mg/Kg		84	65 - 115
Pyrene	3.33	2.86		mg/Kg		86	71 - 128
1,2,4-Trichlorobenzene	3.33	2.67		mg/Kg		80	49 - 100
1,2-Dichlorobenzene	3.33	2.63		mg/Kg		79	47 - 94
1,3-Dichlorobenzene	3.33	2.54		mg/Kg		76	47 - 92
1,4-Dichlorobenzene	3.33	2.59		mg/Kg		78	46 - 92
2,4,5-Trichlorophenol	3.33	2.66		mg/Kg		80	48 - 121
2,4,6-Trichlorophenol	3.33	2.64		mg/Kg		79	50 - 121

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# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

## Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-813255/2-A**  
**Matrix: Solid**  
**Analysis Batch: 813367**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 813255**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dichlorophenol	3.33	2.74		mg/Kg		82	51 - 109
2,4-Dimethylphenol	3.33	2.71		mg/Kg		81	48 - 93
2,4-Dinitrophenol	6.67	4.23		mg/Kg		64	10 - 130
2,4-Dinitrotoluene	3.33	2.91		mg/Kg		87	65 - 120
2,6-Dinitrotoluene	3.33	2.88		mg/Kg		86	66 - 117
2-Chloronaphthalene	3.33	2.70		mg/Kg		81	60 - 107
2-Chlorophenol	3.33	2.72		mg/Kg		82	50 - 102
2-Methylnaphthalene	3.33	2.64		mg/Kg		79	58 - 103
2-Methylphenol	3.33	2.75		mg/Kg		83	50 - 104
2-Nitroaniline	3.33	2.66		mg/Kg		80	61 - 126
2-Nitrophenol	3.33	2.94		mg/Kg		88	41 - 114
3,3'-Dichlorobenzidine	3.33	2.15		mg/Kg		64	36 - 131
3 & 4 Methylphenol	3.33	2.61		mg/Kg		78	49 - 109
3-Nitroaniline	3.33	2.54		mg/Kg		76	44 - 124
4,6-Dinitro-2-methylphenol	6.67	5.32		mg/Kg		80	36 - 138
4-Bromophenyl phenyl ether	3.33	2.90		mg/Kg		87	57 - 124
4-Chloro-3-methylphenol	3.33	2.60		mg/Kg		78	57 - 113
4-Chloroaniline	3.33	2.24		mg/Kg		67	22 - 110
4-Chlorophenyl phenyl ether	3.33	2.66		mg/Kg		80	60 - 112
4-Nitroaniline	3.33	2.62		mg/Kg		79	60 - 115
4-Nitrophenol	6.67	3.72		mg/Kg		56	45 - 126
Bis(2-chloroethoxy)methane	3.33	2.57		mg/Kg		77	54 - 102
Bis(2-chloroethyl)ether	3.33	2.57		mg/Kg		77	49 - 99
bis(chloroisopropyl) ether	3.33	2.44		mg/Kg		73	43 - 111
Bis(2-ethylhexyl) phthalate	3.33	2.85		mg/Kg		85	70 - 139
Butyl benzyl phthalate	3.33	2.76		mg/Kg		83	65 - 140
Carbazole	3.33	2.86		mg/Kg		86	68 - 120
Dibenzofuran	3.33	2.70		mg/Kg		81	64 - 112
Diethyl phthalate	3.33	2.66		mg/Kg		80	66 - 115
Dimethyl phthalate	3.33	2.63		mg/Kg		79	65 - 114
Di-n-butyl phthalate	3.33	2.69		mg/Kg		81	69 - 125
Di-n-octyl phthalate	3.33	2.75		mg/Kg		82	61 - 131
Hexachlorobenzene	3.33	2.89		mg/Kg		87	52 - 126
Hexachlorobutadiene	3.33	2.60		mg/Kg		78	42 - 103
Hexachlorocyclopentadiene	3.33	2.23		mg/Kg		67	10 - 100
Hexachloroethane	3.33	2.54		mg/Kg		76	45 - 95
Isophorone	3.33	2.54		mg/Kg		76	47 - 108
Nitrobenzene	3.33	2.55		mg/Kg		76	52 - 105
N-Nitrosodi-n-propylamine	3.33	2.51		mg/Kg		75	48 - 110
N-Nitrosodiphenylamine	3.33	2.89		mg/Kg		87	67 - 112
Pentachlorophenol	6.67	3.29		mg/Kg		49	32 - 128
Phenol	3.33	2.92		mg/Kg		88	52 - 110

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol (Surr)	86		31 - 166
Phenol-d5 (Surr)	82		30 - 153
Nitrobenzene-d5 (Surr)	80		37 - 147
2-Fluorobiphenyl (Surr)	83		43 - 145

# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

## Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-813255/2-A**  
**Matrix: Solid**  
**Analysis Batch: 813367**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 813255**

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	82		31 - 143
Terphenyl-d14 (Surr)	91		42 - 157

## Method: 8081B - Organochlorine Pesticides (GC)

**Lab Sample ID: MB 500-813072/1-A**  
**Matrix: Solid**  
**Analysis Batch: 814287**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 813072**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
4,4'-DDD	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
4,4'-DDE	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
4,4'-DDT	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Aldrin	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
alpha-BHC	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
alpha-Chlordane	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
beta-BHC	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Chlordane (technical)	<0.0067		0.0067		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
delta-BHC	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Dieldrin	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Endosulfan I	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Endosulfan II	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Endosulfan sulfate	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Endrin	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Endrin aldehyde	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Endrin ketone	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
gamma-BHC (Lindane)	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
gamma-Chlordane	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Heptachlor	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Heptachlor epoxide	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Methoxychlor	<0.0083		0.0083		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Toxaphene	<0.017		0.017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl	110		33 - 148	04/09/25 14:11	04/18/25 13:23	1
Tetrachloro-m-xylene	101		30 - 121	04/09/25 14:11	04/18/25 13:23	1

**Lab Sample ID: LCS 500-813072/2-A**  
**Matrix: Solid**  
**Analysis Batch: 814287**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 813072**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
4,4'-DDD	0.0133	0.0141		mg/Kg		106	47 - 137
4,4'-DDE	0.0133	0.0132		mg/Kg		99	50 - 130
4,4'-DDT	0.0133	0.0165		mg/Kg		124	46 - 143
Aldrin	0.0133	0.0133		mg/Kg		100	52 - 122
alpha-BHC	0.0133	0.0137		mg/Kg		102	50 - 123
alpha-Chlordane	0.0133	0.0151		mg/Kg		113	52 - 129

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# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

**Lab Sample ID: LCS 500-813072/2-A**  
**Matrix: Solid**  
**Analysis Batch: 814287**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 813072**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
beta-BHC	0.0133	0.0157		mg/Kg		117	44 - 140	
delta-BHC	0.0133	0.0138		mg/Kg		104	57 - 125	
Dieldrin	0.0133	0.0136		mg/Kg		102	51 - 133	
Endosulfan I	0.0133	0.0149		mg/Kg		112	30 - 120	
Endosulfan II	0.0133	0.0152		mg/Kg		114	30 - 120	
Endosulfan sulfate	0.0133	0.0158		mg/Kg		119	42 - 150	
Endrin	0.0133	0.0144		mg/Kg		108	43 - 144	
Endrin aldehyde	0.0133	0.00446	*	mg/Kg		33	39 - 131	
Endrin ketone	0.0133	0.0146		mg/Kg		110	51 - 135	
gamma-BHC (Lindane)	0.0133	0.0136		mg/Kg		102	50 - 122	
gamma-Chlordane	0.0133	0.0145		mg/Kg		109	52 - 132	
Heptachlor	0.0133	0.0145		mg/Kg		109	53 - 129	
Heptachlor epoxide	0.0133	0.0152		mg/Kg		114	50 - 139	
Methoxychlor	0.0133	0.0188		mg/Kg		141	45 - 144	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	108		33 - 148
Tetrachloro-m-xylene	100		30 - 121

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Lab Sample ID: MB 500-813072/1-A**  
**Matrix: Solid**  
**Analysis Batch: 813965**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 813072**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.017		0.017		mg/Kg		04/09/25 14:11	04/16/25 17:59	1
PCB-1221	<0.017		0.017		mg/Kg		04/09/25 14:11	04/16/25 17:59	1
PCB-1232	<0.017		0.017		mg/Kg		04/09/25 14:11	04/16/25 17:59	1
PCB-1242	<0.017		0.017		mg/Kg		04/09/25 14:11	04/16/25 17:59	1
PCB-1248	<0.017		0.017		mg/Kg		04/09/25 14:11	04/16/25 17:59	1
PCB-1254	<0.017		0.017		mg/Kg		04/09/25 14:11	04/16/25 17:59	1
PCB-1260	<0.017		0.017		mg/Kg		04/09/25 14:11	04/16/25 17:59	1
Polychlorinated biphenyls, Total	<0.017		0.017		mg/Kg		04/09/25 14:11	04/16/25 17:59	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	73		49 - 129	04/09/25 14:11	04/16/25 17:59	1
DCB Decachlorobiphenyl	86		37 - 121	04/09/25 14:11	04/16/25 17:59	1

**Lab Sample ID: LCS 500-813072/3-A**  
**Matrix: Solid**  
**Analysis Batch: 813965**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 813072**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
PCB-1016	0.167	0.134		mg/Kg		81	57 - 120	
PCB-1260	0.167	0.144		mg/Kg		86	61 - 125	

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# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

**Lab Sample ID:** LCS 500-813072/3-A  
**Matrix:** Solid  
**Analysis Batch:** 813965

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 813072

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	73		49 - 129
DCB Decachlorobiphenyl	81		37 - 121

## Method: 6010D - Metals (ICP)

**Lab Sample ID:** MB 500-813014/1-A  
**Matrix:** Solid  
**Analysis Batch:** 813166

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 813014

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<1.0		1.0		mg/Kg		04/09/25 09:14	04/09/25 18:59	1
Barium	<1.0		1.0		mg/Kg		04/09/25 09:14	04/09/25 18:59	1
Cadmium	<0.20		0.20		mg/Kg		04/09/25 09:14	04/09/25 18:59	1
Chromium	<1.0		1.0		mg/Kg		04/09/25 09:14	04/09/25 18:59	1
Lead	<0.50		0.50		mg/Kg		04/09/25 09:14	04/09/25 18:59	1
Selenium	<1.0		1.0		mg/Kg		04/09/25 09:14	04/09/25 18:59	1
Silver	<0.50		0.50		mg/Kg		04/09/25 09:14	04/09/25 18:59	1

**Lab Sample ID:** LCS 500-813014/2-A  
**Matrix:** Solid  
**Analysis Batch:** 813166

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 813014

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Arsenic	10.0	9.02		mg/Kg		90	80 - 120
Barium	200	199		mg/Kg		99	80 - 120
Cadmium	5.00	4.68		mg/Kg		94	80 - 120
Chromium	20.0	18.6		mg/Kg		93	80 - 120
Lead	10.0	9.70		mg/Kg		97	80 - 120
Selenium	10.0	8.58		mg/Kg		86	80 - 120
Silver	5.00	5.40		mg/Kg		108	80 - 120

## Method: 7471B - Mercury (CVAA)

**Lab Sample ID:** MB 500-813153/12-A  
**Matrix:** Solid  
**Analysis Batch:** 813378

**Client Sample ID:** Method Blank  
**Prep Type:** Total/NA  
**Prep Batch:** 813153

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Mercury	<0.017		0.017		mg/Kg		04/10/25 13:15	04/11/25 08:04	1

**Lab Sample ID:** LCS 500-813153/13-A  
**Matrix:** Solid  
**Analysis Batch:** 813378

**Client Sample ID:** Lab Control Sample  
**Prep Type:** Total/NA  
**Prep Batch:** 813153

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Mercury	0.167	0.168		mg/Kg		101	80 - 120

# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

## Method: 9045D - pH

Lab Sample ID: 500-266452-1 DU  
Matrix: Solid  
Analysis Batch: 813505

Client Sample ID: CCDD (0-3)  
Prep Type: Total/NA

Analyte	Sample Result	Sample Qualifier	DU Result	DU Qualifier	Unit	D	RPD	RPD Limit
pH	5.66		6.70	F3	SU		17	5

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- 2
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- 5
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- 13
- 14
- 15

# Lab Chronicle

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

**Client Sample ID: CCDD (0-3)**

**Lab Sample ID: 500-266452-1**

**Date Collected: 04/07/25 09:15**

**Matrix: Solid**

**Date Received: 04/08/25 11:05**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9045D		1	813505	ST	EET CHI	04/11/25 17:00
Total/NA	Analysis	Moisture		1	813036	ST	EET CHI	04/09/25 10:54

**Client Sample ID: CCDD (0-3)**

**Lab Sample ID: 500-266452-1**

**Date Collected: 04/07/25 09:15**

**Matrix: Solid**

**Date Received: 04/08/25 11:05**

**Percent Solids: 75.6**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			813380	OP	EET CHI	04/08/25 17:41
Total/NA	Analysis	8260D		1	813322	OP	EET CHI	04/11/25 14:10
Total/NA	Prep	3546			813255	LH	EET CHI	04/10/25 14:05
Total/NA	Analysis	8270E		1	813367	WS	EET CHI	04/11/25 17:30
Total/NA	Prep	3541			813072	SV	EET CHI	04/09/25 14:11 - 04/09/25 20:01 <sup>1</sup>
Total/NA	Analysis	8081B		1	814287	H7CM	EET CHI	04/18/25 17:25
Total/NA	Prep	3541	DL		813072	SV	EET CHI	04/09/25 14:11 - 04/09/25 20:01 <sup>1</sup>
Total/NA	Analysis	8081B	DL	5	814531	H7CM	EET CHI	04/21/25 22:34
Total/NA	Prep	3541			813072	SV	EET CHI	04/09/25 14:11 - 04/09/25 20:01 <sup>1</sup>
Total/NA	Analysis	8082A		1	813965	H7CM	EET CHI	04/16/25 23:07
Total/NA	Prep	3050B			813014	BDE	EET CHI	04/09/25 09:14 - 04/09/25 15:14 <sup>1</sup>
Total/NA	Analysis	6010D		1	813166	SJ	EET CHI	04/09/25 20:06
Total/NA	Prep	3050B			813014	BDE	EET CHI	04/09/25 09:14 - 04/09/25 15:14 <sup>1</sup>
Total/NA	Analysis	6010D		1	813360	SJ	EET CHI	04/11/25 06:12
Total/NA	Prep	7471B			813153	MJG	EET CHI	04/10/25 13:15
Total/NA	Analysis	7471B		1	813378	MJG	EET CHI	04/11/25 08:18

<sup>1</sup> This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

**Laboratory References:**

EET CHI = Eurofins Chicago, 18410 Crossing Drive, Suite E, Tinley Park, IL 60487, TEL (708)534-5200

# Accreditation/Certification Summary

Client: Pioneer Engineering & Environmental Srvc  
Project/Site: 3324 Grant St (25-0127-101)

Job ID: 500-266452-1

## Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	100201	05-31-25

- 1
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- 14
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# Login Sample Receipt Checklist

Client: Pioneer Engineering & Environmental Srvc

Job Number: 500-266452-1

**Login Number: 266452**

**List Number: 1**

**Creator: Hernandez, Stephanie**

**List Source: Eurofins Chicago**

Question	Answer	Comment
Radioactivity wasn't checked or is <math>\leq</math> background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <math><6\text{mm}</math> (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	





# ANALYTICAL REPORT

## PREPARED FOR

Attn: Nicole Andrade  
Pioneer Engineering & Environmental Srvc  
2753 W 31st Street  
Chicago, Illinois 60608

Generated 4/22/2025 4:26:25 PM

## JOB DESCRIPTION

1033 Elmwood Ave (25-0128-101)

## JOB NUMBER

500-266454-1

# Eurofins Chicago

## Job Notes

This report may not be reproduced except in full, and with written approval from the laboratory. The results relate only to the samples tested. For questions please contact the Project Manager at the e-mail address or telephone number listed on this page.

The test results in this report relate only to the samples as received by the laboratory and will meet all requirements of the methodology, with any exceptions noted. This report shall not be reproduced except in full, without the express written approval of the laboratory. All questions should be directed to the Eurofins Chicago Project Manager.

## Authorization



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Authorized for release by  
Jim Knapp, Senior Project Manager  
[Jim.Knapp@et.eurofinsus.com](mailto:Jim.Knapp@et.eurofinsus.com)  
(630)758-0262



# Table of Contents

Cover Page . . . . .	1
Table of Contents . . . . .	3
Case Narrative . . . . .	4
Detection Summary . . . . .	5
Method Summary . . . . .	6
Sample Summary . . . . .	7
Client Sample Results . . . . .	8
Definitions . . . . .	12
QC Association . . . . .	13
Surrogate Summary . . . . .	15
QC Sample Results . . . . .	17
Chronicle . . . . .	27
Certification Summary . . . . .	28
Chain of Custody . . . . .	29
Receipt Checklists . . . . .	30

# Case Narrative

Client: Pioneer Engineering & Environmental Srvc  
Project: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

**Job ID: 500-266454-1**

**Eurofins Chicago**

## Job Narrative 500-266454-1

### Receipt

The sample was received on 4/8/2025 11:05 AM. Unless otherwise noted below, the sample arrived in good condition, and where required, properly preserved and on ice. The temperature of the cooler at receipt was 2.3° C.

### GC/MS VOA

Method 8260D: The continuing calibration verification (CCV) analyzed in batch 500-813322 was outside the method criteria for the following analyte(s): chlorobenzene, chloroform, 1,1,2-trichloroethane, methyl tert-butyl ether, 2-butanone, toluene. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

Method 8260D: The following analyte(s) recovered outside control limits for the LCSD associated with analytical batch 500-813322: toluene. This is not indicative of a systematic control problem because these were random marginal exceedances. Qualified results have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### GC/MS Semi VOA

Method 8270E: The continuing calibration verification (CCV) analyzed in batch 500-813367 was outside the method criteria for the following analyte(s): Hexachlorocyclopentadiene and Pentachlorophenol. A CCV standard at or below the reporting limit (RL) was analyzed with the affected samples and found to be acceptable. As indicated in the reference method, sample analysis may proceed; however, any detection for the affected analyte(s) is considered estimated.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### GC Semi VOA

Method 8081B: The %RPD between the primary and confirmation column exceeded 40% for trans-Chlordane for the following sample: CCDD (0-3) (500-266454-1). The lower value(s) has been reported and qualified in accordance with the laboratory's SOP.

Method 8081B: The laboratory control sample (LCS) for preparation batch 500-813072 and analytical batch 500-814287 recovered outside control limits for the following analyte: Endrin aldehyde. All analytes were within the QC limits in the associated MS/MSD; therefore, the data have been reported.

No additional analytical or quality issues were noted, other than those described above or in the Definitions/Glossary page.

### Metals

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### General Chemistry

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

### Organic Prep

No analytical or quality issues were noted, other than those described in the Definitions/Glossary page.

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# Detection Summary

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

**Client Sample ID: CCDD (0-3)**

**Lab Sample ID: 500-266454-1**

Analyte	Result	Qualifier	RL	MDL	Unit	Dil Fac	D	Method	Prep Type
Benzo[a]anthracene	0.12		0.053		mg/Kg	1	✳	8270E	Total/NA
Benzo[a]pyrene	0.13		0.053		mg/Kg	1	✳	8270E	Total/NA
Benzo[b]fluoranthene	0.17		0.053		mg/Kg	1	✳	8270E	Total/NA
Benzo[g,h,i]perylene	0.091		0.053		mg/Kg	1	✳	8270E	Total/NA
Benzo[k]fluoranthene	0.070		0.053		mg/Kg	1	✳	8270E	Total/NA
Chrysene	0.14		0.053		mg/Kg	1	✳	8270E	Total/NA
Fluoranthene	0.25		0.053		mg/Kg	1	✳	8270E	Total/NA
Indeno[1,2,3-cd]pyrene	0.090		0.053		mg/Kg	1	✳	8270E	Total/NA
Phenanthrene	0.096		0.053		mg/Kg	1	✳	8270E	Total/NA
Pyrene	0.24		0.053		mg/Kg	1	✳	8270E	Total/NA
alpha-Chlordane	0.0018		0.0018		mg/Kg	1	✳	8081B	Total/NA
gamma-Chlordane	0.0019		0.0018		mg/Kg	1	✳	8081B	Total/NA
4,4'-DDE - DL	0.17		0.018		mg/Kg	10	✳	8081B	Total/NA
4,4'-DDT - DL	0.051		0.018		mg/Kg	10	✳	8081B	Total/NA
Arsenic	2.4		1.0		mg/Kg	1	✳	6010D	Total/NA
Barium	17		1.0		mg/Kg	1	✳	6010D	Total/NA
Chromium	11		1.0		mg/Kg	1	✳	6010D	Total/NA
Lead	22		0.51		mg/Kg	1	✳	6010D	Total/NA
Mercury	0.069		0.017		mg/Kg	1	✳	7471B	Total/NA
pH	4.80		0.20		SU	1		9045D	Total/NA

This Detection Summary does not include radiochemical test results.

# Method Summary

Client: Pioneer Engineering & Environmental Srvc  
Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

Method	Method Description	Protocol	Laboratory
8260D	Volatile Organic Compounds by GC/MS	SW846	EET CHI
8270E	Semivolatile Organic Compounds (GC/MS)	SW846	EET CHI
8081B	Organochlorine Pesticides (GC)	SW846	EET CHI
8082A	Polychlorinated Biphenyls (PCBs) by Gas Chromatography	SW846	EET CHI
6010D	Metals (ICP)	SW846	EET CHI
7471B	Mercury (CVAA)	SW846	EET CHI
9045D	pH	SW846	EET CHI
Moisture	Percent Moisture	EPA	EET CHI
3050B	Preparation, Metals	SW846	EET CHI
3541	Automated Soxhlet Extraction	SW846	EET CHI
3546	Microwave Extraction	SW846	EET CHI
5035	Closed System Purge and Trap	SW846	EET CHI
7471B	Preparation, Mercury	SW846	EET CHI

#### Protocol References:

EPA = US Environmental Protection Agency

SW846 = "Test Methods For Evaluating Solid Waste, Physical/Chemical Methods", Third Edition, November 1986 And Its Updates.

#### Laboratory References:

EET CHI = Eurofins Chicago, 18410 Crossing Drive, Suite E, Tinley Park, IL 60487, TEL (708)534-5200

# Sample Summary

Client: Pioneer Engineering & Environmental Srvc  
Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

---

<u>Lab Sample ID</u>	<u>Client Sample ID</u>	<u>Matrix</u>	<u>Collected</u>	<u>Received</u>
500-266454-1	CCDD (0-3)	Solid	04/07/25 10:17	04/08/25 11:05

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# Client Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

**Client Sample ID: CCDD (0-3)**

**Lab Sample ID: 500-266454-1**

**Date Collected: 04/07/25 10:17**

**Matrix: Solid**

**Date Received: 04/08/25 11:05**

**Percent Solids: 92.4**

**Method: SW846 8260D - Volatile Organic Compounds by GC/MS**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
1,1,1-Trichloroethane	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
1,1,2,2-Tetrachloroethane	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
1,1,2-Trichloroethane	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
1,1-Dichloroethane	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
1,1-Dichloroethene	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
1,2-Dichloroethane	<0.0045		0.0045		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
1,2-Dichloropropane	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
2-Butanone (MEK)	<0.0045		0.0045		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
2-Hexanone	<0.0045		0.0045		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
4-Methyl-2-pentanone (MIBK)	<0.0045		0.0045		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Acetone	<0.018		0.018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Benzene	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Bromodichloromethane	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Bromoform	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Bromomethane	<0.0045		0.0045		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Carbon disulfide	<0.0045		0.0045		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Carbon tetrachloride	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Chlorobenzene	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Chloroethane	<0.0045		0.0045		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Chloroform	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Chloromethane	<0.0045		0.0045		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
cis-1,2-Dichloroethene	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
1,3-Dichloropropene, Total	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Dibromochloromethane	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Ethylbenzene	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Methyl tert-butyl ether	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Methylene Chloride	<0.0045		0.0045		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Styrene	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Tetrachloroethene	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Toluene	<0.0018	*	0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Xylenes, Total	<0.0036		0.0036		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
trans-1,2-Dichloroethene	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Trichloroethene	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1
Vinyl chloride	<0.0018		0.0018		mg/Kg	☼	04/08/25 17:41	04/11/25 13:46	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
1,2-Dichloroethane-d4 (Surr)	107		70 - 134	04/08/25 17:41	04/11/25 13:46	1
4-Bromofluorobenzene (Surr)	99		75 - 131	04/08/25 17:41	04/11/25 13:46	1
Dibromofluoromethane	104		75 - 126	04/08/25 17:41	04/11/25 13:46	1
Toluene-d8 (Surr)	97		75 - 124	04/08/25 17:41	04/11/25 13:46	1

**Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.053		0.053		mg/Kg	☼	04/10/25 14:05	04/11/25 17:55	1
Acenaphthylene	<0.053		0.053		mg/Kg	☼	04/10/25 14:05	04/11/25 17:55	1
Anthracene	<0.053		0.053		mg/Kg	☼	04/10/25 14:05	04/11/25 17:55	1
<b>Benzo[a]anthracene</b>	<b>0.12</b>		0.053		mg/Kg	☼	04/10/25 14:05	04/11/25 17:55	1
<b>Benzo[a]pyrene</b>	<b>0.13</b>		0.053		mg/Kg	☼	04/10/25 14:05	04/11/25 17:55	1
<b>Benzo[b]fluoranthene</b>	<b>0.17</b>		0.053		mg/Kg	☼	04/10/25 14:05	04/11/25 17:55	1
<b>Benzo[g,h,i]perylene</b>	<b>0.091</b>		0.053		mg/Kg	☼	04/10/25 14:05	04/11/25 17:55	1

Eurofins Chicago

# Client Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

**Client Sample ID: CCDD (0-3)**

**Lab Sample ID: 500-266454-1**

**Date Collected: 04/07/25 10:17**

**Matrix: Solid**

**Date Received: 04/08/25 11:05**

**Percent Solids: 92.4**

**Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>Benzo[k]fluoranthene</b>	<b>0.070</b>		0.053		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
<b>Chrysene</b>	<b>0.14</b>		0.053		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Dibenz(a,h)anthracene	<0.053		0.053		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
<b>Fluoranthene</b>	<b>0.25</b>		0.053		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Fluorene	<0.053		0.053		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
<b>Indeno[1,2,3-cd]pyrene</b>	<b>0.090</b>		0.053		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Naphthalene	<0.053		0.053		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
<b>Phenanthrene</b>	<b>0.096</b>		0.053		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
<b>Pyrene</b>	<b>0.24</b>		0.053		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
1,2,4-Trichlorobenzene	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
1,2-Dichlorobenzene	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
1,3-Dichlorobenzene	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
1,4-Dichlorobenzene	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
2,4,5-Trichlorophenol	<0.53		0.53		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
2,4,6-Trichlorophenol	<0.53		0.53		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
2,4-Dichlorophenol	<0.53		0.53		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
2,4-Dimethylphenol	<0.53		0.53		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
2,4-Dinitrophenol	<1.1		1.1		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
2,4-Dinitrotoluene	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
2,6-Dinitrotoluene	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
2-Chloronaphthalene	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
2-Chlorophenol	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
2-Methylnaphthalene	<0.11		0.11		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
2-Methylphenol	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
2-Nitroaniline	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
2-Nitrophenol	<0.53		0.53		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
3,3'-Dichlorobenzidine	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
3 & 4 Methylphenol	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
3-Nitroaniline	<0.53		0.53		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
4,6-Dinitro-2-methylphenol	<1.1		1.1		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
4-Bromophenyl phenyl ether	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
4-Chloro-3-methylphenol	<0.53		0.53		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
4-Chloroaniline	<1.1		1.1		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
4-Chlorophenyl phenyl ether	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
4-Nitroaniline	<0.53		0.53		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
4-Nitrophenol	<1.1		1.1		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Bis(2-chloroethoxy)methane	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Bis(2-chloroethyl)ether	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
bis(chloroisopropyl) ether	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Bis(2-ethylhexyl) phthalate	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Butyl benzyl phthalate	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Carbazole	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Dibenzofuran	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Diethyl phthalate	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Dimethyl phthalate	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Di-n-butyl phthalate	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Di-n-octyl phthalate	<0.53		0.53		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Hexachlorobenzene	<0.11		0.11		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Hexachlorobutadiene	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1

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# Client Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

**Client Sample ID: CCDD (0-3)**

**Lab Sample ID: 500-266454-1**

**Date Collected: 04/07/25 10:17**

**Matrix: Solid**

**Date Received: 04/08/25 11:05**

**Percent Solids: 92.4**

**Method: SW846 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Hexachlorocyclopentadiene	<1.1		1.1		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Hexachloroethane	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Isophorone	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Nitrobenzene	<0.053		0.053		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
N-Nitrosodi-n-propylamine	<0.11		0.11		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
N-Nitrosodiphenylamine	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Pentachlorophenol	<1.1		1.1		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1
Phenol	<0.27		0.27		mg/Kg	✳	04/10/25 14:05	04/11/25 17:55	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	81		31 - 166	04/10/25 14:05	04/11/25 17:55	1
Phenol-d5 (Surr)	80		30 - 153	04/10/25 14:05	04/11/25 17:55	1
Nitrobenzene-d5 (Surr)	79		37 - 147	04/10/25 14:05	04/11/25 17:55	1
2-Fluorobiphenyl (Surr)	83		43 - 145	04/10/25 14:05	04/11/25 17:55	1
2,4,6-Tribromophenol (Surr)	76		31 - 143	04/10/25 14:05	04/11/25 17:55	1
Terphenyl-d14 (Surr)	94		42 - 157	04/10/25 14:05	04/11/25 17:55	1

**Method: SW846 8081B - Organochlorine Pesticides (GC)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
4,4'-DDD	<0.0018		0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
Aldrin	<0.0018		0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
alpha-BHC	<0.0018		0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
<b>alpha-Chlordane</b>	<b>0.0018</b>		0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
beta-BHC	<0.0018		0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
Chlordane (technical)	<0.0071		0.0071		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
delta-BHC	<0.0018		0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
Dieldrin	<0.0018		0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
Endosulfan I	<0.0018		0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
Endosulfan II	<0.0018		0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
Endosulfan sulfate	<0.0018		0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
Endrin	<0.0018		0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
Endrin aldehyde	<0.0018	*	0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
Endrin ketone	<0.0018		0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
gamma-BHC (Lindane)	<0.0018		0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
<b>gamma-Chlordane</b>	<b>0.0019</b>		0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
Heptachlor	<0.0018		0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
Heptachlor epoxide	<0.0018		0.0018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
Methoxychlor	<0.0088		0.0088		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1
Toxaphene	<0.018		0.018		mg/Kg	✳	04/09/25 14:11	04/18/25 17:36	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	123		33 - 148	04/09/25 14:11	04/18/25 17:36	1
Tetrachloro-m-xylene	95		30 - 121	04/09/25 14:11	04/18/25 17:36	1

**Method: SW846 8081B - Organochlorine Pesticides (GC) - DL**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
<b>4,4'-DDE</b>	<b>0.17</b>		0.018		mg/Kg	✳	04/09/25 14:11	04/21/25 22:45	10
<b>4,4'-DDT</b>	<b>0.051</b>		0.018		mg/Kg	✳	04/09/25 14:11	04/21/25 22:45	10

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
DCB Decachlorobiphenyl	131		33 - 148	04/09/25 14:11	04/21/25 22:45	10

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# Client Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

**Client Sample ID: CCDD (0-3)**

**Lab Sample ID: 500-266454-1**

Date Collected: 04/07/25 10:17

Matrix: Solid

Date Received: 04/08/25 11:05

Percent Solids: 92.4

**Method: SW846 8081B - Organochlorine Pesticides (GC) - DL (Continued)**

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	89		30 - 121	04/09/25 14:11	04/21/25 22:45	10

**Method: SW846 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
PCB-1016	<0.018		0.018		mg/Kg	✱	04/09/25 14:11	04/16/25 23:22	1
PCB-1221	<0.018		0.018		mg/Kg	✱	04/09/25 14:11	04/16/25 23:22	1
PCB-1232	<0.018		0.018		mg/Kg	✱	04/09/25 14:11	04/16/25 23:22	1
PCB-1242	<0.018		0.018		mg/Kg	✱	04/09/25 14:11	04/16/25 23:22	1
PCB-1248	<0.018		0.018		mg/Kg	✱	04/09/25 14:11	04/16/25 23:22	1
PCB-1254	<0.018		0.018		mg/Kg	✱	04/09/25 14:11	04/16/25 23:22	1
PCB-1260	<0.018		0.018		mg/Kg	✱	04/09/25 14:11	04/16/25 23:22	1
Polychlorinated biphenyls, Total	<0.018		0.018		mg/Kg	✱	04/09/25 14:11	04/16/25 23:22	1

Surrogate	%Recovery	Qualifier	Limits	Prepared	Analyzed	Dil Fac
Tetrachloro-m-xylene	67		49 - 129	04/09/25 14:11	04/16/25 23:22	1
DCB Decachlorobiphenyl	68		37 - 121	04/09/25 14:11	04/16/25 23:22	1

**Method: SW846 6010D - Metals (ICP)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Arsenic	2.4		1.0		mg/Kg	✱	04/09/25 16:53	04/10/25 15:12	1
Barium	17		1.0		mg/Kg	✱	04/09/25 16:53	04/10/25 15:12	1
Cadmium	<0.21		0.21		mg/Kg	✱	04/09/25 16:53	04/10/25 15:12	1
Chromium	11		1.0		mg/Kg	✱	04/09/25 16:53	04/10/25 15:12	1
Lead	22		0.51		mg/Kg	✱	04/09/25 16:53	04/10/25 15:12	1
Selenium	<1.0		1.0		mg/Kg	✱	04/09/25 16:53	04/10/25 15:12	1
Silver	<0.51		0.51		mg/Kg	✱	04/09/25 16:53	04/11/25 17:56	1

**Method: SW846 7471B - Mercury (CVAA)**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	0.069		0.017		mg/Kg	✱	04/10/25 13:15	04/11/25 08:24	1

**General Chemistry**

Analyte	Result	Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
pH (SW846 9045D)	4.80		0.20		SU			04/09/25 13:49	1

# Definitions/Glossary

Client: Pioneer Engineering & Environmental Srvc  
Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

## Qualifiers

### GC/MS VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.

### GC Semi VOA

Qualifier	Qualifier Description
*-	LCS and/or LCSD is outside acceptance limits, low biased.

## Glossary

Abbreviation	These commonly used abbreviations may or may not be present in this report.
☼	Listed under the "D" column to designate that the result is reported on a dry weight basis
%R	Percent Recovery
CFL	Contains Free Liquid
CFU	Colony Forming Unit
CNF	Contains No Free Liquid
DER	Duplicate Error Ratio (normalized absolute difference)
Dil Fac	Dilution Factor
DL	Detection Limit (DoD/DOE)
DL, RA, RE, IN	Indicates a Dilution, Re-analysis, Re-extraction, or additional Initial metals/anion analysis of the sample
DLC	Decision Level Concentration (Radiochemistry)
EDL	Estimated Detection Limit (Dioxin)
LOD	Limit of Detection (DoD/DOE)
LOQ	Limit of Quantitation (DoD/DOE)
MCL	EPA recommended "Maximum Contaminant Level"
MDA	Minimum Detectable Activity (Radiochemistry)
MDC	Minimum Detectable Concentration (Radiochemistry)
MDL	Method Detection Limit
ML	Minimum Level (Dioxin)
MPN	Most Probable Number
MQL	Method Quantitation Limit
NC	Not Calculated
ND	Not Detected at the reporting limit (or MDL or EDL if shown)
NEG	Negative / Absent
POS	Positive / Present
PQL	Practical Quantitation Limit
PRES	Presumptive
QC	Quality Control
RER	Relative Error Ratio (Radiochemistry)
RL	Reporting Limit or Requested Limit (Radiochemistry)
RPD	Relative Percent Difference, a measure of the relative difference between two points
TEF	Toxicity Equivalent Factor (Dioxin)
TEQ	Toxicity Equivalent Quotient (Dioxin)
TNTC	Too Numerous To Count

# QC Association Summary

Client: Pioneer Engineering & Environmental Srvc  
Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

## GC/MS VOA

### Analysis Batch: 813322

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266454-1	CCDD (0-3)	Total/NA	Solid	8260D	813380
MB 500-813322/7	Method Blank	Total/NA	Solid	8260D	
LCS 500-813322/5	Lab Control Sample	Total/NA	Solid	8260D	
LCSD 500-813322/8	Lab Control Sample Dup	Total/NA	Solid	8260D	

### Prep Batch: 813380

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266454-1	CCDD (0-3)	Total/NA	Solid	5035	

## GC/MS Semi VOA

### Prep Batch: 813255

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266454-1	CCDD (0-3)	Total/NA	Solid	3546	
MB 500-813255/1-A	Method Blank	Total/NA	Solid	3546	
LCS 500-813255/2-A	Lab Control Sample	Total/NA	Solid	3546	

### Analysis Batch: 813367

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266454-1	CCDD (0-3)	Total/NA	Solid	8270E	813255
MB 500-813255/1-A	Method Blank	Total/NA	Solid	8270E	813255
LCS 500-813255/2-A	Lab Control Sample	Total/NA	Solid	8270E	813255

## GC Semi VOA

### Prep Batch: 813072

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266454-1	CCDD (0-3)	Total/NA	Solid	3541	
500-266454-1 - DL	CCDD (0-3)	Total/NA	Solid	3541	
MB 500-813072/1-A	Method Blank	Total/NA	Solid	3541	
LCS 500-813072/2-A	Lab Control Sample	Total/NA	Solid	3541	
LCS 500-813072/3-A	Lab Control Sample	Total/NA	Solid	3541	

### Analysis Batch: 813965

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266454-1	CCDD (0-3)	Total/NA	Solid	8082A	813072
MB 500-813072/1-A	Method Blank	Total/NA	Solid	8082A	813072
LCS 500-813072/3-A	Lab Control Sample	Total/NA	Solid	8082A	813072

### Analysis Batch: 814287

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266454-1	CCDD (0-3)	Total/NA	Solid	8081B	813072
MB 500-813072/1-A	Method Blank	Total/NA	Solid	8081B	813072
LCS 500-813072/2-A	Lab Control Sample	Total/NA	Solid	8081B	813072

### Analysis Batch: 814531

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266454-1 - DL	CCDD (0-3)	Total/NA	Solid	8081B	813072

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# QC Association Summary

Client: Pioneer Engineering & Environmental Srvc  
Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

## Metals

### Prep Batch: 813118

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266454-1	CCDD (0-3)	Total/NA	Solid	3050B	
MB 500-813118/1-A	Method Blank	Total/NA	Solid	3050B	
LCS 500-813118/2-A	Lab Control Sample	Total/NA	Solid	3050B	

### Prep Batch: 813153

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266454-1	CCDD (0-3)	Total/NA	Solid	7471B	
MB 500-813153/12-A	Method Blank	Total/NA	Solid	7471B	
LCS 500-813153/13-A	Lab Control Sample	Total/NA	Solid	7471B	

### Analysis Batch: 813358

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266454-1	CCDD (0-3)	Total/NA	Solid	6010D	813118
MB 500-813118/1-A	Method Blank	Total/NA	Solid	6010D	813118
LCS 500-813118/2-A	Lab Control Sample	Total/NA	Solid	6010D	813118

### Analysis Batch: 813378

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266454-1	CCDD (0-3)	Total/NA	Solid	7471B	813153
MB 500-813153/12-A	Method Blank	Total/NA	Solid	7471B	813153
LCS 500-813153/13-A	Lab Control Sample	Total/NA	Solid	7471B	813153

### Analysis Batch: 813535

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266454-1	CCDD (0-3)	Total/NA	Solid	6010D	813118
MB 500-813118/1-A	Method Blank	Total/NA	Solid	6010D	813118
LCS 500-813118/2-A	Lab Control Sample	Total/NA	Solid	6010D	813118

## General Chemistry

### Analysis Batch: 813036

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266454-1	CCDD (0-3)	Total/NA	Solid	Moisture	

### Analysis Batch: 813083

Lab Sample ID	Client Sample ID	Prep Type	Matrix	Method	Prep Batch
500-266454-1	CCDD (0-3)	Total/NA	Solid	9045D	
LCS 500-813083/2	Lab Control Sample	Total/NA	Solid	9045D	
LCSD 500-813083/3	Lab Control Sample Dup	Total/NA	Solid	9045D	

# Surrogate Summary

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)			
		DCA (70-134)	BFB (75-131)	DBFM (75-126)	TOL (75-124)
500-266454-1	CCDD (0-3)	107	99	104	97
LCS 500-813322/5	Lab Control Sample	107	95	103	97
LCS 500-813322/8	Lab Control Sample Dup	105	97	105	96
MB 500-813322/7	Method Blank	106	100	105	95

#### Surrogate Legend

DCA = 1,2-Dichloroethane-d4 (Surr)  
 BFB = 4-Bromofluorobenzene (Surr)  
 DBFM = Dibromofluoromethane  
 TOL = Toluene-d8 (Surr)

## Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)					
		2FP (31-166)	PHL (30-153)	NBZ (37-147)	FBP (43-145)	TBP (31-143)	TPHL (42-157)
500-266454-1	CCDD (0-3)	81	80	79	83	76	94
LCS 500-813255/2-A	Lab Control Sample	86	82	80	83	82	91
MB 500-813255/1-A	Method Blank	75	70	73	74	53	90

#### Surrogate Legend

2FP = 2-Fluorophenol (Surr)  
 PHL = Phenol-d5 (Surr)  
 NBZ = Nitrobenzene-d5 (Surr)  
 FBP = 2-Fluorobiphenyl (Surr)  
 TBP = 2,4,6-Tribromophenol (Surr)  
 TPHL = Terphenyl-d14 (Surr)

## Method: 8081B - Organochlorine Pesticides (GC)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		DCBP1 (33-148)	TCX1 (30-121)
500-266454-1	CCDD (0-3)	123	95
500-266454-1 - DL	CCDD (0-3)	131	89
LCS 500-813072/2-A	Lab Control Sample	108	100
MB 500-813072/1-A	Method Blank	110	101

#### Surrogate Legend

DCBP = DCB Decachlorobiphenyl  
 TCX = Tetrachloro-m-xylene

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	Percent Surrogate Recovery (Acceptance Limits)	
		TCX2 (49-129)	DCBP2 (37-121)
500-266454-1	CCDD (0-3)	67	68
LCS 500-813072/3-A	Lab Control Sample	73	81

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# Surrogate Summary

Client: Pioneer Engineering & Environmental Srvc  
Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

Matrix: Solid

Prep Type: Total/NA

### Percent Surrogate Recovery (Acceptance Limits)

Lab Sample ID	Client Sample ID	TCX2 (49-129)	DCBP2 (37-121)
MB 500-813072/1-A	Method Blank	73	86

#### Surrogate Legend

TCX = Tetrachloro-m-xylene

DCBP = DCB Decachlorobiphenyl

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

## Method: 8260D - Volatile Organic Compounds by GC/MS

**Lab Sample ID: MB 500-813322/7**

**Matrix: Solid**

**Analysis Batch: 813322**

**Client Sample ID: Method Blank**

**Prep Type: Total/NA**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
1,1,1-Trichloroethane	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
1,1,2,2-Tetrachloroethane	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
1,1,2-Trichloroethane	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
1,1-Dichloroethane	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
1,1-Dichloroethene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
1,2-Dichloroethane	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
1,2-Dichloropropane	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
2-Butanone (MEK)	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
2-Hexanone	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
4-Methyl-2-pentanone (MIBK)	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
Acetone	<0.020		0.020		mg/Kg			04/11/25 11:56	1
Benzene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Bromodichloromethane	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Bromoform	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Bromomethane	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
Carbon disulfide	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
Carbon tetrachloride	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Chlorobenzene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Chloroethane	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
Chloroform	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Chloromethane	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
cis-1,2-Dichloroethene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
1,3-Dichloropropene, Total	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Dibromochloromethane	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Ethylbenzene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Methyl tert-butyl ether	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Methylene Chloride	<0.0050		0.0050		mg/Kg			04/11/25 11:56	1
Styrene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Tetrachloroethene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Toluene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Xylenes, Total	<0.0040		0.0040		mg/Kg			04/11/25 11:56	1
trans-1,2-Dichloroethene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Trichloroethene	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1
Vinyl chloride	<0.0020		0.0020		mg/Kg			04/11/25 11:56	1

Surrogate	MB	MB	Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
1,2-Dichloroethane-d4 (Surr)	106		70 - 134		04/11/25 11:56	1
4-Bromofluorobenzene (Surr)	100		75 - 131		04/11/25 11:56	1
Dibromofluoromethane	105		75 - 126		04/11/25 11:56	1
Toluene-d8 (Surr)	95		75 - 124		04/11/25 11:56	1

**Lab Sample ID: LCS 500-813322/5**

**Matrix: Solid**

**Analysis Batch: 813322**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2,2-Tetrachloroethane	0.0500	0.0486		mg/Kg		97	70 - 122

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# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

**Lab Sample ID: LCS 500-813322/5**

**Matrix: Solid**

**Analysis Batch: 813322**

**Client Sample ID: Lab Control Sample**

**Prep Type: Total/NA**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
1,1,2-Trichloroethane	0.0500	0.0459		mg/Kg		92	70 - 125
1,1-Dichloroethane	0.0500	0.0519		mg/Kg		104	70 - 125
1,1-Dichloroethene	0.0500	0.0495		mg/Kg		99	70 - 120
1,2-Dichloroethane	0.0500	0.0494		mg/Kg		99	70 - 130
1,2-Dichloropropane	0.0500	0.0532		mg/Kg		106	70 - 125
2-Butanone (MEK)	0.0500	0.0459		mg/Kg		92	47 - 138
2-Hexanone	0.0500	0.0481		mg/Kg		96	48 - 146
4-Methyl-2-pentanone (MIBK)	0.0500	0.0480		mg/Kg		96	50 - 148
Acetone	0.0500	0.0379		mg/Kg		76	40 - 150
Benzene	0.0500	0.0495		mg/Kg		99	70 - 125
Bromodichloromethane	0.0500	0.0486		mg/Kg		97	67 - 129
Bromoform	0.0500	0.0508		mg/Kg		102	68 - 136
Bromomethane	0.0500	0.0592		mg/Kg		118	70 - 130
Carbon disulfide	0.0500	0.0493		mg/Kg		99	70 - 129
Carbon tetrachloride	0.0500	0.0475		mg/Kg		95	75 - 125
Chlorobenzene	0.0500	0.0465		mg/Kg		93	50 - 150
Chloroethane	0.0500	0.0530		mg/Kg		106	75 - 125
Chloroform	0.0500	0.0455		mg/Kg		91	57 - 135
Chloromethane	0.0500	0.0530		mg/Kg		106	70 - 125
cis-1,2-Dichloroethene	0.0500	0.0488		mg/Kg		98	70 - 125
cis-1,3-Dichloropropene	0.0500	0.0486		mg/Kg		97	70 - 125
Dibromochloromethane	0.0500	0.0474		mg/Kg		95	69 - 125
Ethylbenzene	0.0500	0.0505		mg/Kg		101	61 - 136
Methyl tert-butyl ether	0.0500	0.0455		mg/Kg		91	50 - 140
Methylene Chloride	0.0500	0.0470		mg/Kg		94	70 - 126
Styrene	0.0500	0.0526		mg/Kg		105	70 - 125
Tetrachloroethene	0.0500	0.0495		mg/Kg		99	70 - 124
Toluene	0.0500	0.0426		mg/Kg		85	70 - 125
Xylenes, Total	0.100	0.0951		mg/Kg		95	53 - 147
trans-1,2-Dichloroethene	0.0500	0.0484		mg/Kg		97	70 - 125
trans-1,3-Dichloropropene	0.0500	0.0469		mg/Kg		94	70 - 125
Trichloroethene	0.0500	0.0491		mg/Kg		98	70 - 125
Vinyl chloride	0.0500	0.0514		mg/Kg		103	70 - 125

Surrogate	LCS %Recovery	LCS Qualifier	Limits
1,2-Dichloroethane-d4 (Surr)	107		70 - 134
4-Bromofluorobenzene (Surr)	95		75 - 131
Dibromofluoromethane	103		75 - 126
Toluene-d8 (Surr)	97		75 - 124

**Lab Sample ID: LCSD 500-813322/8**

**Matrix: Solid**

**Analysis Batch: 813322**

**Client Sample ID: Lab Control Sample Dup**

**Prep Type: Total/NA**

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1,1-Trichloroethane	0.0500	0.0383		mg/Kg		77	70 - 128	24	30
1,1,1,2,2-Tetrachloroethane	0.0500	0.0392		mg/Kg		78	70 - 122	21	30
1,1,2-Trichloroethane	0.0500	0.0356		mg/Kg		71	70 - 125	25	30

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# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

## Method: 8260D - Volatile Organic Compounds by GC/MS (Continued)

Lab Sample ID: LCSD 500-813322/8

Matrix: Solid

Analysis Batch: 813322

Client Sample ID: Lab Control Sample Dup

Prep Type: Total/NA

Analyte	Spike Added	LCSD Result	LCSD Qualifier	Unit	D	%Rec	%Rec Limits	RPD	RPD Limit
1,1-Dichloroethane	0.0500	0.0418		mg/Kg		84	70 - 125	22	30
1,1-Dichloroethene	0.0500	0.0395		mg/Kg		79	70 - 120	22	30
1,2-Dichloroethane	0.0500	0.0402		mg/Kg		80	70 - 130	20	30
1,2-Dichloropropane	0.0500	0.0420		mg/Kg		84	70 - 125	24	30
2-Butanone (MEK)	0.0500	0.0367		mg/Kg		73	47 - 138	22	30
2-Hexanone	0.0500	0.0384		mg/Kg		77	48 - 146	23	30
4-Methyl-2-pentanone (MIBK)	0.0500	0.0384		mg/Kg		77	50 - 148	22	30
Acetone	0.0500	0.0318		mg/Kg		64	40 - 150	18	30
Benzene	0.0500	0.0390		mg/Kg		78	70 - 125	24	30
Bromodichloromethane	0.0500	0.0391		mg/Kg		78	67 - 129	22	30
Bromoform	0.0500	0.0393		mg/Kg		79	68 - 136	26	30
Bromomethane	0.0500	0.0510		mg/Kg		102	70 - 130	15	30
Carbon disulfide	0.0500	0.0393		mg/Kg		79	70 - 129	23	30
Carbon tetrachloride	0.0500	0.0381		mg/Kg		76	75 - 125	22	30
Chlorobenzene	0.0500	0.0366		mg/Kg		73	50 - 150	24	30
Chloroethane	0.0500	0.0452		mg/Kg		90	75 - 125	16	30
Chloroform	0.0500	0.0357		mg/Kg		71	57 - 135	24	30
Chloromethane	0.0500	0.0443		mg/Kg		89	70 - 125	18	30
cis-1,2-Dichloroethene	0.0500	0.0392		mg/Kg		78	70 - 125	22	30
cis-1,3-Dichloropropene	0.0500	0.0374		mg/Kg		75	70 - 125	26	30
Dibromochloromethane	0.0500	0.0372		mg/Kg		74	69 - 125	24	30
Ethylbenzene	0.0500	0.0397		mg/Kg		79	61 - 136	24	30
Methyl tert-butyl ether	0.0500	0.0361		mg/Kg		72	50 - 140	23	30
Methylene Chloride	0.0500	0.0409		mg/Kg		82	70 - 126	14	30
Styrene	0.0500	0.0411		mg/Kg		82	70 - 125	25	30
Tetrachloroethene	0.0500	0.0403		mg/Kg		81	70 - 124	21	30
Toluene	0.0500	0.0332	*	mg/Kg		66	70 - 125	25	30
Xylenes, Total	0.100	0.0757		mg/Kg		76	53 - 147	23	30
trans-1,2-Dichloroethene	0.0500	0.0382		mg/Kg		76	70 - 125	23	30
trans-1,3-Dichloropropene	0.0500	0.0365		mg/Kg		73	70 - 125	25	30
Trichloroethene	0.0500	0.0386		mg/Kg		77	70 - 125	24	30
Vinyl chloride	0.0500	0.0429		mg/Kg		86	70 - 125	18	30

Surrogate	LCSD %Recovery	LCSD Qualifier	LCSD Limits
1,2-Dichloroethane-d4 (Surr)	105		70 - 134
4-Bromofluorobenzene (Surr)	97		75 - 131
Dibromofluoromethane	105		75 - 126
Toluene-d8 (Surr)	96		75 - 124

## Method: 8270E - Semivolatile Organic Compounds (GC/MS)

Lab Sample ID: MB 500-813255/1-A

Matrix: Solid

Analysis Batch: 813367

Client Sample ID: Method Blank

Prep Type: Total/NA

Prep Batch: 813255

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Acenaphthene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Acenaphthylene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Anthracene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1

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# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

## Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 500-813255/1-A**  
**Matrix: Solid**  
**Analysis Batch: 813367**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 813255**

Analyte	MB	MB	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Benzo[a]anthracene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Benzo[a]pyrene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Benzo[b]fluoranthene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Benzo[g,h,i]perylene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Benzo[k]fluoranthene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Chrysene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Dibenz(a,h)anthracene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Fluoranthene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Fluorene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Indeno[1,2,3-cd]pyrene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Naphthalene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Phenanthrene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Pyrene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
1,2,4-Trichlorobenzene	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
1,2-Dichlorobenzene	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
1,3-Dichlorobenzene	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
1,4-Dichlorobenzene	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2,4,5-Trichlorophenol	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2,4,6-Trichlorophenol	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2,4-Dichlorophenol	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2,4-Dimethylphenol	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2,4-Dinitrophenol	<0.67		0.67		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2,4-Dinitrotoluene	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2,6-Dinitrotoluene	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2-Chloronaphthalene	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2-Chlorophenol	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2-Methylnaphthalene	<0.067		0.067		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2-Methylphenol	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2-Nitroaniline	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
2-Nitrophenol	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
3,3'-Dichlorobenzidine	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
3 & 4 Methylphenol	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
3-Nitroaniline	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
4,6-Dinitro-2-methylphenol	<0.67		0.67		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
4-Bromophenyl phenyl ether	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
4-Chloro-3-methylphenol	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
4-Chloroaniline	<0.67		0.67		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
4-Chlorophenyl phenyl ether	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
4-Nitroaniline	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
4-Nitrophenol	<0.67		0.67		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Bis(2-chloroethoxy)methane	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Bis(2-chloroethyl)ether	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
bis(chloroisopropyl) ether	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Bis(2-ethylhexyl) phthalate	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Butyl benzyl phthalate	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Carbazole	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Dibenzofuran	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Diethyl phthalate	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Dimethyl phthalate	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1

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# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

## Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: MB 500-813255/1-A**  
**Matrix: Solid**  
**Analysis Batch: 813367**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 813255**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Di-n-butyl phthalate	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Di-n-octyl phthalate	<0.33		0.33		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Hexachlorobenzene	<0.067		0.067		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Hexachlorobutadiene	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Hexachlorocyclopentadiene	<0.67		0.67		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Hexachloroethane	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Isophorone	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Nitrobenzene	<0.033		0.033		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
N-Nitrosodi-n-propylamine	<0.067		0.067		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
N-Nitrosodiphenylamine	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Pentachlorophenol	<0.67		0.67		mg/Kg		04/10/25 14:05	04/11/25 11:47	1
Phenol	<0.17		0.17		mg/Kg		04/10/25 14:05	04/11/25 11:47	1

Surrogate	MB %Recovery	MB Qualifier	Limits	Prepared	Analyzed	Dil Fac
2-Fluorophenol (Surr)	75		31 - 166	04/10/25 14:05	04/11/25 11:47	1
Phenol-d5 (Surr)	70		30 - 153	04/10/25 14:05	04/11/25 11:47	1
Nitrobenzene-d5 (Surr)	73		37 - 147	04/10/25 14:05	04/11/25 11:47	1
2-Fluorobiphenyl (Surr)	74		43 - 145	04/10/25 14:05	04/11/25 11:47	1
2,4,6-Tribromophenol (Surr)	53		31 - 143	04/10/25 14:05	04/11/25 11:47	1
Terphenyl-d14 (Surr)	90		42 - 157	04/10/25 14:05	04/11/25 11:47	1

**Lab Sample ID: LCS 500-813255/2-A**  
**Matrix: Solid**  
**Analysis Batch: 813367**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 813255**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	Limits
Acenaphthene	3.33	2.61		mg/Kg		78	63 - 109
Acenaphthylene	3.33	2.61		mg/Kg		78	61 - 115
Anthracene	3.33	2.90		mg/Kg		87	68 - 120
Benzo[a]anthracene	3.33	2.67		mg/Kg		80	70 - 121
Benzo[a]pyrene	3.33	2.97		mg/Kg		89	73 - 132
Benzo[b]fluoranthene	3.33	2.78		mg/Kg		83	68 - 123
Benzo[g,h,i]perylene	3.33	2.93		mg/Kg		88	65 - 126
Benzo[k]fluoranthene	3.33	2.97		mg/Kg		89	64 - 128
Chrysene	3.33	2.73		mg/Kg		82	70 - 123
Dibenz(a,h)anthracene	3.33	3.06		mg/Kg		92	66 - 125
Fluoranthene	3.33	2.85		mg/Kg		86	66 - 123
Fluorene	3.33	2.72		mg/Kg		82	62 - 113
Indeno[1,2,3-cd]pyrene	3.33	3.07		mg/Kg		92	66 - 131
Naphthalene	3.33	2.60		mg/Kg		78	54 - 98
Phenanthrene	3.33	2.82		mg/Kg		84	65 - 115
Pyrene	3.33	2.86		mg/Kg		86	71 - 128
1,2,4-Trichlorobenzene	3.33	2.67		mg/Kg		80	49 - 100
1,2-Dichlorobenzene	3.33	2.63		mg/Kg		79	47 - 94
1,3-Dichlorobenzene	3.33	2.54		mg/Kg		76	47 - 92
1,4-Dichlorobenzene	3.33	2.59		mg/Kg		78	46 - 92
2,4,5-Trichlorophenol	3.33	2.66		mg/Kg		80	48 - 121
2,4,6-Trichlorophenol	3.33	2.64		mg/Kg		79	50 - 121

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# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

## Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-813255/2-A**  
**Matrix: Solid**  
**Analysis Batch: 813367**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 813255**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
2,4-Dichlorophenol	3.33	2.74		mg/Kg		82	51 - 109
2,4-Dimethylphenol	3.33	2.71		mg/Kg		81	48 - 93
2,4-Dinitrophenol	6.67	4.23		mg/Kg		64	10 - 130
2,4-Dinitrotoluene	3.33	2.91		mg/Kg		87	65 - 120
2,6-Dinitrotoluene	3.33	2.88		mg/Kg		86	66 - 117
2-Chloronaphthalene	3.33	2.70		mg/Kg		81	60 - 107
2-Chlorophenol	3.33	2.72		mg/Kg		82	50 - 102
2-Methylnaphthalene	3.33	2.64		mg/Kg		79	58 - 103
2-Methylphenol	3.33	2.75		mg/Kg		83	50 - 104
2-Nitroaniline	3.33	2.66		mg/Kg		80	61 - 126
2-Nitrophenol	3.33	2.94		mg/Kg		88	41 - 114
3,3'-Dichlorobenzidine	3.33	2.15		mg/Kg		64	36 - 131
3 & 4 Methylphenol	3.33	2.61		mg/Kg		78	49 - 109
3-Nitroaniline	3.33	2.54		mg/Kg		76	44 - 124
4,6-Dinitro-2-methylphenol	6.67	5.32		mg/Kg		80	36 - 138
4-Bromophenyl phenyl ether	3.33	2.90		mg/Kg		87	57 - 124
4-Chloro-3-methylphenol	3.33	2.60		mg/Kg		78	57 - 113
4-Chloroaniline	3.33	2.24		mg/Kg		67	22 - 110
4-Chlorophenyl phenyl ether	3.33	2.66		mg/Kg		80	60 - 112
4-Nitroaniline	3.33	2.62		mg/Kg		79	60 - 115
4-Nitrophenol	6.67	3.72		mg/Kg		56	45 - 126
Bis(2-chloroethoxy)methane	3.33	2.57		mg/Kg		77	54 - 102
Bis(2-chloroethyl)ether	3.33	2.57		mg/Kg		77	49 - 99
bis(chloroisopropyl) ether	3.33	2.44		mg/Kg		73	43 - 111
Bis(2-ethylhexyl) phthalate	3.33	2.85		mg/Kg		85	70 - 139
Butyl benzyl phthalate	3.33	2.76		mg/Kg		83	65 - 140
Carbazole	3.33	2.86		mg/Kg		86	68 - 120
Dibenzofuran	3.33	2.70		mg/Kg		81	64 - 112
Diethyl phthalate	3.33	2.66		mg/Kg		80	66 - 115
Dimethyl phthalate	3.33	2.63		mg/Kg		79	65 - 114
Di-n-butyl phthalate	3.33	2.69		mg/Kg		81	69 - 125
Di-n-octyl phthalate	3.33	2.75		mg/Kg		82	61 - 131
Hexachlorobenzene	3.33	2.89		mg/Kg		87	52 - 126
Hexachlorobutadiene	3.33	2.60		mg/Kg		78	42 - 103
Hexachlorocyclopentadiene	3.33	2.23		mg/Kg		67	10 - 100
Hexachloroethane	3.33	2.54		mg/Kg		76	45 - 95
Isophorone	3.33	2.54		mg/Kg		76	47 - 108
Nitrobenzene	3.33	2.55		mg/Kg		76	52 - 105
N-Nitrosodi-n-propylamine	3.33	2.51		mg/Kg		75	48 - 110
N-Nitrosodiphenylamine	3.33	2.89		mg/Kg		87	67 - 112
Pentachlorophenol	6.67	3.29		mg/Kg		49	32 - 128
Phenol	3.33	2.92		mg/Kg		88	52 - 110

Surrogate	LCS %Recovery	LCS Qualifier	Limits
2-Fluorophenol (Surr)	86		31 - 166
Phenol-d5 (Surr)	82		30 - 153
Nitrobenzene-d5 (Surr)	80		37 - 147
2-Fluorobiphenyl (Surr)	83		43 - 145

# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

## Method: 8270E - Semivolatile Organic Compounds (GC/MS) (Continued)

**Lab Sample ID: LCS 500-813255/2-A**  
**Matrix: Solid**  
**Analysis Batch: 813367**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 813255**

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
2,4,6-Tribromophenol (Surr)	82		31 - 143
Terphenyl-d14 (Surr)	91		42 - 157

## Method: 8081B - Organochlorine Pesticides (GC)

**Lab Sample ID: MB 500-813072/1-A**  
**Matrix: Solid**  
**Analysis Batch: 814287**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 813072**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
4,4'-DDD	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
4,4'-DDE	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
4,4'-DDT	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Aldrin	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
alpha-BHC	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
alpha-Chlordane	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
beta-BHC	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Chlordane (technical)	<0.0067		0.0067		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
delta-BHC	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Dieldrin	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Endosulfan I	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Endosulfan II	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Endosulfan sulfate	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Endrin	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Endrin aldehyde	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Endrin ketone	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
gamma-BHC (Lindane)	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
gamma-Chlordane	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Heptachlor	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Heptachlor epoxide	<0.0017		0.0017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Methoxychlor	<0.0083		0.0083		mg/Kg		04/09/25 14:11	04/18/25 13:23	1
Toxaphene	<0.017		0.017		mg/Kg		04/09/25 14:11	04/18/25 13:23	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
DCB Decachlorobiphenyl	110		33 - 148	04/09/25 14:11	04/18/25 13:23	1
Tetrachloro-m-xylene	101		30 - 121	04/09/25 14:11	04/18/25 13:23	1

**Lab Sample ID: LCS 500-813072/2-A**  
**Matrix: Solid**  
**Analysis Batch: 814287**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 813072**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
4,4'-DDD	0.0133	0.0141		mg/Kg		106	47 - 137
4,4'-DDE	0.0133	0.0132		mg/Kg		99	50 - 130
4,4'-DDT	0.0133	0.0165		mg/Kg		124	46 - 143
Aldrin	0.0133	0.0133		mg/Kg		100	52 - 122
alpha-BHC	0.0133	0.0137		mg/Kg		102	50 - 123
alpha-Chlordane	0.0133	0.0151		mg/Kg		113	52 - 129

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# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

## Method: 8081B - Organochlorine Pesticides (GC) (Continued)

**Lab Sample ID: LCS 500-813072/2-A**  
**Matrix: Solid**  
**Analysis Batch: 814287**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 813072**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
beta-BHC	0.0133	0.0157		mg/Kg		117	44 - 140	
delta-BHC	0.0133	0.0138		mg/Kg		104	57 - 125	
Dieldrin	0.0133	0.0136		mg/Kg		102	51 - 133	
Endosulfan I	0.0133	0.0149		mg/Kg		112	30 - 120	
Endosulfan II	0.0133	0.0152		mg/Kg		114	30 - 120	
Endosulfan sulfate	0.0133	0.0158		mg/Kg		119	42 - 150	
Endrin	0.0133	0.0144		mg/Kg		108	43 - 144	
Endrin aldehyde	0.0133	0.00446	*	mg/Kg		33	39 - 131	
Endrin ketone	0.0133	0.0146		mg/Kg		110	51 - 135	
gamma-BHC (Lindane)	0.0133	0.0136		mg/Kg		102	50 - 122	
gamma-Chlordane	0.0133	0.0145		mg/Kg		109	52 - 132	
Heptachlor	0.0133	0.0145		mg/Kg		109	53 - 129	
Heptachlor epoxide	0.0133	0.0152		mg/Kg		114	50 - 139	
Methoxychlor	0.0133	0.0188		mg/Kg		141	45 - 144	

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
DCB Decachlorobiphenyl	108		33 - 148
Tetrachloro-m-xylene	100		30 - 121

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography

**Lab Sample ID: MB 500-813072/1-A**  
**Matrix: Solid**  
**Analysis Batch: 813965**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 813072**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
PCB-1016	<0.017		0.017		mg/Kg		04/09/25 14:11	04/16/25 17:59	1
PCB-1221	<0.017		0.017		mg/Kg		04/09/25 14:11	04/16/25 17:59	1
PCB-1232	<0.017		0.017		mg/Kg		04/09/25 14:11	04/16/25 17:59	1
PCB-1242	<0.017		0.017		mg/Kg		04/09/25 14:11	04/16/25 17:59	1
PCB-1248	<0.017		0.017		mg/Kg		04/09/25 14:11	04/16/25 17:59	1
PCB-1254	<0.017		0.017		mg/Kg		04/09/25 14:11	04/16/25 17:59	1
PCB-1260	<0.017		0.017		mg/Kg		04/09/25 14:11	04/16/25 17:59	1
Polychlorinated biphenyls, Total	<0.017		0.017		mg/Kg		04/09/25 14:11	04/16/25 17:59	1

Surrogate	MB MB		Limits	Prepared	Analyzed	Dil Fac
	%Recovery	Qualifier				
Tetrachloro-m-xylene	73		49 - 129	04/09/25 14:11	04/16/25 17:59	1
DCB Decachlorobiphenyl	86		37 - 121	04/09/25 14:11	04/16/25 17:59	1

**Lab Sample ID: LCS 500-813072/3-A**  
**Matrix: Solid**  
**Analysis Batch: 813965**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 813072**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec	
							Limits	
PCB-1016	0.167	0.134		mg/Kg		81	57 - 120	
PCB-1260	0.167	0.144		mg/Kg		86	61 - 125	

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# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

## Method: 8082A - Polychlorinated Biphenyls (PCBs) by Gas Chromatography (Continued)

**Lab Sample ID: LCS 500-813072/3-A**  
**Matrix: Solid**  
**Analysis Batch: 813965**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 813072**

Surrogate	LCS LCS		Limits
	%Recovery	Qualifier	
Tetrachloro-m-xylene	73		49 - 129
DCB Decachlorobiphenyl	81		37 - 121

## Method: 6010D - Metals (ICP)

**Lab Sample ID: MB 500-813118/1-A**  
**Matrix: Solid**  
**Analysis Batch: 813358**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 813118**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Arsenic	<1.0		1.0		mg/Kg		04/09/25 16:53	04/10/25 12:57	1
Barium	<1.0		1.0		mg/Kg		04/09/25 16:53	04/10/25 12:57	1
Cadmium	<0.20		0.20		mg/Kg		04/09/25 16:53	04/10/25 12:57	1
Chromium	<1.0		1.0		mg/Kg		04/09/25 16:53	04/10/25 12:57	1
Lead	<0.50		0.50		mg/Kg		04/09/25 16:53	04/10/25 12:57	1
Selenium	<1.0		1.0		mg/Kg		04/09/25 16:53	04/10/25 12:57	1

**Lab Sample ID: MB 500-813118/1-A**  
**Matrix: Solid**  
**Analysis Batch: 813535**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 813118**

Analyte	MB MB		RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
	Result	Qualifier							
Silver	<0.50		0.50		mg/Kg		04/09/25 16:53	04/11/25 19:27	1

**Lab Sample ID: LCS 500-813118/2-A**  
**Matrix: Solid**  
**Analysis Batch: 813358**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 813118**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Arsenic	10.0	9.08		mg/Kg		91	80 - 120
Barium	200	183		mg/Kg		92	80 - 120
Cadmium	5.00	4.65		mg/Kg		93	80 - 120
Chromium	20.0	18.5		mg/Kg		93	80 - 120
Lead	10.0	9.64		mg/Kg		96	80 - 120
Selenium	10.0	9.09		mg/Kg		91	80 - 120

**Lab Sample ID: LCS 500-813118/2-A**  
**Matrix: Solid**  
**Analysis Batch: 813535**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 813118**

Analyte	Spike Added	LCS LCS		Unit	D	%Rec	%Rec Limits
		Result	Qualifier				
Silver	5.00	5.18		mg/Kg		104	80 - 120

# QC Sample Results

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

## Method: 7471B - Mercury (CVAA)

**Lab Sample ID: MB 500-813153/12-A**  
**Matrix: Solid**  
**Analysis Batch: 813378**

**Client Sample ID: Method Blank**  
**Prep Type: Total/NA**  
**Prep Batch: 813153**

Analyte	MB Result	MB Qualifier	RL	MDL	Unit	D	Prepared	Analyzed	Dil Fac
Mercury	<0.017		0.017		mg/Kg		04/10/25 13:15	04/11/25 08:04	1

**Lab Sample ID: LCS 500-813153/13-A**  
**Matrix: Solid**  
**Analysis Batch: 813378**

**Client Sample ID: Lab Control Sample**  
**Prep Type: Total/NA**  
**Prep Batch: 813153**

Analyte	Spike Added	LCS Result	LCS Qualifier	Unit	D	%Rec	%Rec Limits
Mercury	0.167	0.168		mg/Kg		101	80 - 120

# Lab Chronicle

Client: Pioneer Engineering & Environmental Srvc  
 Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

**Client Sample ID: CCDD (0-3)**

**Lab Sample ID: 500-266454-1**

**Date Collected: 04/07/25 10:17**

**Matrix: Solid**

**Date Received: 04/08/25 11:05**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Analysis	9045D		1	813083	ST	EET CHI	04/09/25 13:49
Total/NA	Analysis	Moisture		1	813036	ST	EET CHI	04/09/25 10:54

**Client Sample ID: CCDD (0-3)**

**Lab Sample ID: 500-266454-1**

**Date Collected: 04/07/25 10:17**

**Matrix: Solid**

**Date Received: 04/08/25 11:05**

**Percent Solids: 92.4**

Prep Type	Batch Type	Batch Method	Run	Dilution Factor	Batch Number	Analyst	Lab	Prepared or Analyzed
Total/NA	Prep	5035			813380	OP	EET CHI	04/08/25 17:41
Total/NA	Analysis	8260D		1	813322	OP	EET CHI	04/11/25 13:46
Total/NA	Prep	3546			813255	LH	EET CHI	04/10/25 14:05
Total/NA	Analysis	8270E		1	813367	WS	EET CHI	04/11/25 17:55
Total/NA	Prep	3541			813072	SV	EET CHI	04/09/25 14:11 - 04/09/25 20:01 <sup>1</sup>
Total/NA	Analysis	8081B		1	814287	H7CM	EET CHI	04/18/25 17:36
Total/NA	Prep	3541	DL		813072	SV	EET CHI	04/09/25 14:11 - 04/09/25 20:01 <sup>1</sup>
Total/NA	Analysis	8081B	DL	10	814531	H7CM	EET CHI	04/21/25 22:45
Total/NA	Prep	3541			813072	SV	EET CHI	04/09/25 14:11 - 04/09/25 20:01 <sup>1</sup>
Total/NA	Analysis	8082A		1	813965	H7CM	EET CHI	04/16/25 23:22
Total/NA	Prep	3050B			813118	S1Z	EET CHI	04/09/25 16:53 - 04/09/25 21:53 <sup>1</sup>
Total/NA	Analysis	6010D		1	813358	SJ	EET CHI	04/10/25 15:12
Total/NA	Prep	3050B			813118	S1Z	EET CHI	04/09/25 16:53 - 04/09/25 21:53 <sup>1</sup>
Total/NA	Analysis	6010D		1	813535	SJ	EET CHI	04/11/25 17:56
Total/NA	Prep	7471B			813153	MJG	EET CHI	04/10/25 13:15
Total/NA	Analysis	7471B		1	813378	MJG	EET CHI	04/11/25 08:24

<sup>1</sup> This procedure uses a method stipulated length of time for the process. Both start and end times are displayed.

**Laboratory References:**

EET CHI = Eurofins Chicago, 18410 Crossing Drive, Suite E, Tinley Park, IL 60487, TEL (708)534-5200

# Accreditation/Certification Summary

Client: Pioneer Engineering & Environmental Srvc  
Project/Site: 1033 Elmwood Ave (25-0128-101)

Job ID: 500-266454-1

## Laboratory: Eurofins Chicago

The accreditations/certifications listed below are applicable to this report.

Authority	Program	Identification Number	Expiration Date
Illinois	NELAP	100201	05-31-25

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 10
- 11
- 12
- 13
- 14
- 15

# Chain of Custody Record

670176



Environment Testing  
America

Address \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Regulatory Program:  DW  NPDES  RCRA  Other



TAL-8210

<b>Client Contact</b> Company Name: <u>Fluor</u> Address: <u>2703 W. 31st St</u> City/State/Zip: <u>Chicago, IL 60648</u> Phone: _____ Fax: _____ Project Name: <u>1033 Elmwood Ave</u> Site: _____ P O #: <u>25-0128-b1</u>		<b>Project Manager:</b> <u>Nicole Androch</u> Tel/Email: <u>nicole.androch@eurofins.com</u>		<b>Site Contact:</b> _____ Lab Contact: _____		Date: _____ Carrier: _____	
<b>Analysis Turnaround Time</b> <input type="checkbox"/> CALENDAR DAYS <input type="checkbox"/> WORKING DAYS TAT if different from Below: <u>5 day</u>		Filtered Sample (Y/N) _____ Perform MS / MSD (Y/N) _____		500-266454 COC		COC No: _____ of _____ COCs	
<b>Sample Identification</b>		Sample Date	Sample Time	Sample Type (C=Comp, G=Grab)	Matrix	# of Cont	Sample Specific Notes
<u>CCDD(03)</u>		<u>4/8/25</u>	<u>10:17m</u>	<u>G</u>	<u>S</u>	<u>4</u>	<u>UCCS</u> <u>SVOC</u> <u>PURS</u> <u>Total PCB/Suho</u> <u>PH</u> <u>PURS</u> <u>Pesticides</u>
Preservation Used: 1= Ice, 2= HCl; 3= H2SO4; 4=HNO3; 5=NaOH; 6= Other _____							
Possible Hazard Identification: Are any samples from a listed EPA Hazardous Waste? Please List any EPA Waste Codes for the sample in the Comments Section if the lab is to dispose of the sample <input type="checkbox"/> Non-Hazard <input type="checkbox"/> Flammable <input type="checkbox"/> Skin Irritant <input type="checkbox"/> Poison B <input type="checkbox"/> Unknown				Sample Disposal ( A fee may be assessed if samples are retained longer than 1 month ) <input type="checkbox"/> Return to Client <input type="checkbox"/> Disposal by Lab <input type="checkbox"/> Archive for _____ Months			
Special Instructions/QC Requirements & Comments:							
Custody Seals Intact <input type="checkbox"/> Yes <input type="checkbox"/> No		Custody Seal No _____		Cooler Temp (°C) Obs'd _____ Corr'd _____		Therm ID No _____	
Relinquished by: <u>[Signature]</u>		Company: <u>Fluor</u>		Date/Time: <u>4/8/25</u>		Received by: <u>[Signature]</u>	
Relinquished by: <u>[Signature]</u>		Company: <u>EETA</u>		Date/Time: <u>4-8-25 11:05</u>		Received by: _____	
Relinquished by: _____		Company: _____		Date/Time: _____		Received in Laboratory by: <u>Stephanie Hernandez</u>	
Relinquished by: _____		Company: _____		Date/Time: _____		Received by: <u>EETA</u>	



## Login Sample Receipt Checklist

Client: Pioneer Engineering & Environmental Srvc

Job Number: 500-266454-1

**Login Number: 266454**

**List Number: 1**

**Creator: Hernandez, Stephanie**

**List Source: Eurofins Chicago**

Question	Answer	Comment
Radioactivity wasn't checked or is </= background as measured by a survey meter.	True	
The cooler's custody seal, if present, is intact.	True	
Sample custody seals, if present, are intact.	True	
The cooler or samples do not appear to have been compromised or tampered with.	True	
Samples were received on ice.	True	
Cooler Temperature is acceptable.	True	
Cooler Temperature is recorded.	True	2.3
COC is present.	True	
COC is filled out in ink and legible.	True	
COC is filled out with all pertinent information.	True	
Is the Field Sampler's name present on COC?	True	
There are no discrepancies between the containers received and the COC.	True	
Samples are received within Holding Time (excluding tests with immediate HTs)	True	
Sample containers have legible labels.	True	
Containers are not broken or leaking.	True	
Sample collection date/times are provided.	True	
Appropriate sample containers are used.	True	
Sample bottles are completely filled.	True	
Sample Preservation Verified.	True	
There is sufficient vol. for all requested analyses, incl. any requested MS/MSDs	True	
Containers requiring zero headspace have no headspace or bubble is <6mm (1/4").	N/A	
Multiphasic samples are not present.	True	
Samples do not require splitting or compositing.	True	
Residual Chlorine Checked.	N/A	



Engineering & Environmental Services, LLC

2753 W. 31st Street | Chicago, IL 60608

Tel: 773-722-9200 | Fax: 773-722-9201 | pioneerEES.com

December 10, 2025

Upland Design Ltd.  
1229 N. North Branch Street, #220A  
Chicago, Illinois 60642  
ATTN: Liz Dafoe

**Re: Report of Geotechnical Investigation  
Proposed Cartwright Park Improvements  
3324 Grant Street  
Evanston, Illinois  
Pioneer Project No. 25-0127-151**

Dear Ms. Dafoe:

Pioneer Engineering & Environmental Services, LLC (Pioneer) was contracted to conduct a geotechnical investigation for the proposed Cartwright Park improvements located in Evanston, Illinois. The investigation was performed in general accordance with Pioneer Proposal No. 21488, revised and dated October 1, 2025. The scope of the investigation included drilling, sampling, and laboratory testing of soil obtained in two (2) borings, one (1) pavement core, and one (1) single-ring infiltration test in support of the proposed infiltration and pavement design of the project.

### **Project Overview**

The Project Site is located at Cartwright Park: 3324 Grant Street in Evanston, Illinois. The Project Site is currently developed as a park that includes a playground, gazebo, landscaped areas, soccer field, basketball court, and tennis courts. The Site is bordered Grant Street to the north, Prospect Avenue to the west, and Trinity Court to the south and east.

The proposed improvements are to include various park improvements including constructing a new gazebo at the southern end and pavement improvements to basketball and tennis courts. No architectural plans or loads were provided. Pioneer assumes the proposed gazebo will be lightly loaded and will be founded on a shallow foundation system.

### **Historical Site Information.**

A cursory review of available historical aerial photos were made to help determine if the past history of the site, such as previous structures, may provide insight into the existing site subsurface conditions. Aerial photographs from 1938 to present were reviewed to help determine where foundations or floor slabs from previous site use might be located.

Aerial photographs indicate that prior to the earliest available aerial photographs from 1938, the Site and surrounding area were undeveloped grass field or agricultural farmland and the residential neighborhoods to the north and west were already constructed. Between 1962 and 1972, Trinity Court and the southern adjacent buildings were constructed. The park appeared to be a grass field at this time before 1972 to 1974 where the playground was constructed. Between 1974 and 1984 the basketball and tennis courts were constructed and then repaved in 2005. Since 2005, the Site and surrounding area have remained relatively unchanged to present day.

## Subsurface Investigation

Two (2) soil borings were performed for the current project (reference the attached Boring Location Diagram, Figure 1). The borings were located in the field using conventional taping procedures with aid from a GPS unit. The ground surface elevation at each boring location was interpolated from the Google Earth website. The borings were performed within the project area and were advanced to a depth of 10 feet below the existing ground surface. One (1) pavement core was performed within the tennis courts using a diamond bit portable core machine and was extended beyond the gravel base layer using a hand auger probe technique. One (1) single-ring infiltration test was also performed at the Site at a depth of 4 feet below existing grade near Boring B-2 location.

The borings were drilled with an ATV-mounted Geoprobe 3126GT drill rig using 3 ¼-inch diameter hollow stem augers (HSAs). Representative soil samples were obtained from each sampling interval using the split barrel sampling procedure performed in accordance with ASTM Standard D 1586, "Method for Penetration Test and Split Barrel Sampling of Soils". In the split barrel sampling procedure, a 140-pound hammer falls 30 inches and drives a two-inch outer diameter split barrel sampler 18 inches into the soil. The number of blows required to drive the barrel sampler the final 12 inches is the Standard Penetration Resistance (SPT N-value) for that interval. This test result indicates the soil's relative density and comparative consistency, and provides a basis for estimating the relative strength and compressibility of soil. Representative soil samples were obtained at 2.5-foot intervals to a depth of 10 feet.

The soil samples obtained from each interval were logged in the field according to their predominant geological characteristics. The field log was subsequently used to prepare the final boring logs that are included as an attachment to this report. Soil samples obtained from the drilling operations were identified by boring number and sampling depth, and brought to Pioneer's laboratory for further examination and testing. Upon completion of the drilling, the boreholes were backfilled with bentonite chips to the existing ground surface.

The soil samples were analyzed for physical soil parameters including moisture content and unconfined compressive strength. In addition, the soil was further classified in accordance with the Unified Soil Classification System. A natural moisture content test was performed for each sampling interval and/or stratum in accordance with ASTM Standard D 2216. Additional estimated unconfined compressive strength values for cohesive soil samples were obtained by using a spring-loaded pocket penetrometer and/or Rimac machine. The laboratory test data is included on the attached Boring Logs.

## Subsurface Conditions

The following generalized soil profile was encountered in the borings.

- Surficial Pavement (C-1). The pavement core C-1 encountered 3.75 inches of asphalt over a 13-inch layer of gravel base materials. The gravel base materials appear to resemble crushed limestone similar to IDOT gradation CA-6. The pavement core was terminated when reaching clay soils at an approximate depth of 1.4 feet below surface grade. These materials possess a moisture content of 4.3 percent.
- Surficial Topsoil. The borings encountered approximately 1.5 feet of Black Silty Clay Topsoil at the surface. The topsoil possesses moisture contents of 27.7 and 27.8 percent.
- Very Tough to Hard Brown and Gray Silty Clay. The topsoil is underlain by very tough to hard Brown and Gray Silty Clay soils with trace amounts of sand and gravel. This stratum extends to depths of 5.5 to 8 feet below surface grade. This deposit possesses unconfined compressive strengths ranging from 3.6 to 5.0 tons per square foot (tsf) and moisture contents of 12.5 to 26.8 percent.

- Hard Gray and Reddish Brown Silty Clay. In Boring B-1, the Brown and Gray Silty Clay changes to hard Gray Silty Clay with little amounts of Reddish Brown Sand mixed within the clay. This stratum extends to the boring termination depth of 10 feet below existing grade. This deposit possesses an unconfined compressive strength of 4.5 tsf and a moisture content of 14.0 percent.
- Hard Gray Clayey Silt. In Boring B-2, the Brown and Gray Silty Clay is underlain by hard Gray Clayey Silt extending to the boring termination depth of 10 feet below the existing surface grade. This deposit possesses unconfined compressive strengths of 4.5 to 6.9 tsf and moisture contents of 12.5 percent.

Groundwater Conditions. Groundwater was not encountered at either boring location at the time of drilling within the depths explored. Seasonal and yearly fluctuations in the water table can be expected due to variations in precipitation, evaporation, and surface runoff. Also, it is likely that pockets of perched groundwater may occur after precipitation events. A seasonal high groundwater table at a depth of 5.5 feet from the ground surface should be used for design.

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 resistance, locations of the samples and laboratory test data. 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 may be gradual.

### **Infiltration Test Procedure and Results**

One (1) representative soil (bag) samples was obtained from the bottom of the infiltration test depth to verify the soil gradation at the invert level of the proposed structure. The sample was then returned to the lab to perform a Particle Size Distribution Test (-200 Wash) per ASTM D1140 on the soil sample directly beneath the infiltration zone for the test performed.

Infiltration Laboratory Testing. A Particle Size Distribution (-200 Wash) Test was performed per ASTM D1140 on the soil sample directly beneath the infiltration zone for the test performed. The results of the laboratory testing program are included on the Particle Size Distribution Test Results and are summarized below.

**Table 2: Particle Size Distribution Test Results**

Test Number	Soil Type (USDA)	Gravel (%)	Sand (%)	Silt/Clay (%)
I-1 (B-2) (4 ft)	Silty Clay (CL)	0.34	2.88	96.78

Infiltration Testing. Infiltration testing was performed following the procedure for single-ring infiltration testing as described below. Infiltration testing was performed at a depth of 4 feet below existing surface grade.

One (1) infiltration test was conducted at test location I-1 at a depth of approximately 4 feet below existing grade. The test was performed by: (1) advancing a 12.5-inch diameter borehole at the location listed above to a depth of approximately 4 feet below existing grade; (2) installing a 12-inch diameter casing; (3) filling the casing with water to saturate the soils below; and (4) measuring the steady-state rate at which the water level dropped within the casing through the saturated soils below. The water level was measured using a

measuring tape and a stop watch. After the infiltration testing was completed, the casing was removed and the boring was backfilled with soil cuttings.

Infiltration Test Results. The measured results of the infiltration test is presented in the attached Single-Ring Infiltrometer Infiltration Rate Determination sheet. A graph showing the cumulative amount of water infiltrated versus time is also attached. The calculations and test results are also shown on the determination sheet.

The graph of Infiltration (inches) versus time (minutes) is characterized by an initial steep infiltration rate followed by a moderate infiltration rate. The moderate or steady-state rate of infiltration rate is used for design purposes. The results are summarized as follows.

**Table 3: Infiltration Test Results**

Test Number	Soil Type (USDA)	Estimated Infiltration Rate Per Field Test (inches per hour)
I-1 (B-2) (4 ft)	Silty Clay (CL)	0.01

Recommendations. The calculated field infiltration rate compares favorably to Design Infiltration Rates for USDA Textures (University of Wisconsin, Madison, 2006) of 0.03 inches per hour for Clay Loam/Silty Clay Loam. A Design Infiltration Rate of 0.01 inches per hour should be used for areas where the Silty Clay/Clayey Silt is exposed at the base of the stormwater feature.

## **Conclusions and Recommendations**

### **Site Preparation**

Topsoil/Asphalt Pavement Removal. The surface cover of Topsoil should be stripped from the Site. The site generally exhibited up to 18 inches of topsoil surface cover. The tennis and basketball courts exhibit approximately 3.75 inches of asphalt over 13 inches of a gravel base. Once removed, the site should then be proofrolled to identify soft or unstable soils. Areas that exhibit excessive rutting or deflection should be disked, dried and recompact. If unsuccessful, the unstable areas can be removed and replaced with Structural Fill.

Demolition. Current development plans do not consist of demolition of any existing structures. Based on the historic aerials, it appears that no previous existing structures were demolished throughout the Site. If former structures are encountered, concrete from the previous structures floor slabs and foundation walls/footings should be removed from the site or crushed and stockpiled for re-use in project earthwork. If properly sized (per IDOT CA-1, CA-6, or CA-7 gradation), the crushed concrete can be used as structural backfill.

If any existing footings and foundation walls exist, they should be removed below the proposed footings, but can generally be left in place unless they are in direct conflict with the new building components or if they are located within 2 feet of the design subgrade for floor slabs.

Any sanitary sewers or utilities leaving the site and not being reused should be plugged to ensure they do not become a conduit for lost soil below the floor slab. The plug should consist of a minimum 2-foot long section of non-shrink hydraulic cement or equivalent.

**Foundation System**

Design Criteria. If any proposed structures are planned, such as a gazebo or picnic shelter with a floor slab-on-grade, the following soil parameter recommendations can be used. For discussion purposes, it is assumed that the design bottom of frost-depth footings will be approximately 3.5 feet below existing surface grade.

Footing Support Soils. The following soil deposits were considered for support of the foundation system.

- The very tough to hard Silty Clay Soils encountered up to depths of 10 feet below surface grade possess excellent engineering properties for the support of any proposed structures.
- The underlying hard Clayey Silt encountered in Boring B-2 possesses excellent engineering qualities for the support of any proposed structures.

Continuous/Spread Footings. Pioneer believes conventional foundations of continuous footings for walls and spread footings for interior columns can be used to support the building loads. Frost-depth footings founded on the native soils described above can be dimensioned using a net allowable bearing capacity of 4,000 psf. The net allowable soil bearing pressure refers to that pressure which may be imposed on the foundation soils in excess of the final minimum surrounding overburden pressure.

**Table 4: Summary of Bearing Capacity vs. Depth**

Footing Type (Borings)	Footing Bearing Depth Below Existing Grade	Allowable Bearing Capacity (psf)	Soil Type	Estimated Settlement (inches)
Frost-Depth Footings	3'-5" to 4'-0"	4,000	Brown and Gray Silty Clay	1.0
Extended footings	4'-6" to 6'-0"	4,000	Brown and Gray Silty Clay or Clayey Silt	1.0

The net allowable soil bearing pressure refers to that pressure which may be imposed on the foundation soils in excess of the final minimum surrounding overburden pressure. Total settlement on the order of 1.0 inch, or less. Differential settlements ranging from 1/2 inch to 2/3 the total settlement are possible across the building area due to variations in subsurface conditions and foundation loadings.

Undercut/Replacement of Unsuitable Soil. While not expected, the following should be used where unsuitable soil is encountered below the design footing subgrade and an undercut-replacement scheme is used for footing support. Any unsuitable soil such as Fill that is encountered at the design footing subgrade should be removed to the depth encountered and replaced with Structural Fill. Typical Structural Fill, such as 3-inch crushed limestone or concrete choked with 1-inch nominal granular material (IDOT CA-7 gradation), should be placed in 18-inch thick lifts and compacted by use of a vibratory compactor or through the force of a backhoe's bucket to seat the stone. The width of the excavation should extend at least one foot horizontally beyond the perimeter of the footing on all sides for each one foot of vertical undercut below the bottom of the footing, thus providing for adequate lateral distribution of the foundation stresses.

An additional discussion of the placement and compaction of Structural Fill is included in the Earthwork Controls section of this report.

Additional Footing Design Criteria. All footings should be founded a minimum of 3.5 feet below final exterior grade to eliminate the effects of frost on footing behavior. Interior column footings below a heated building should be founded at least 2 feet below the final floor slab level. In order to prevent local bearing failure, isolated column footings should have a minimum lateral dimension of 24-inches and continuous footings should have a minimum width of 18-inches. If the foundations are constructed during winter months or if the footings will likely be subjected to freezing temperatures after construction is completed, then the footings should be protected from freezing.

In order to limit the effects of differential movement that may occur due to variations in the character of the supporting soils and variations in seasonal moisture contents, Pioneer recommends that the continuous footings be suitably reinforced to make them as rigid as practical.

### Slab-On-Grade

Slab-On-Grade. Floor slabs constructed near existing surface grade may be located on the above noted silty clay to clayey silt. The following procedures should be used for support and to help minimize settlement of the at-grade floor slabs.

Once the proposed floor slab areas are excavated to the design subgrade, the exposed subgrade soil should be visually inspected for unsuitable soils. Topsoil and Fill, if encountered, containing a high content of organic material or wood debris should be removed to the depth encountered. If possible, the subgrade can also be proofrolled using a fully loaded dump truck. If encountered, old footings, slabs or foundation walls should be removed to a depth of 2 feet below slab design subgrade elevation.

All unsuitable soils should be replaced with compacted Structural Fill. Structural Fill should be an approved onsite cohesive soil or imported granular soil equivalent to an IDOT CA-6 or CA-7 gradation. Structural Fill should be placed and compacted in lifts with a maximum lift thickness of 8 inches. Each lift of IDOT CA-7 open graded granular soil should be compacted to a minimum of 75 percent of the relative density in accordance with ASTM Standards D 4253 and D 4254. If IDOT CA-6 granular material is used, the soil should be compacted to a minimum of 95 percent of the maximum density per ASTM D 1557 (Modified Proctor).

The above partial-depth removal and replacement scheme is provided as an economical method to minimize slab settlement and cracking. Because all of the Fill, if encountered, is not being removed, it is possible that zones of voids or loose Fill will still remain and could lead to future settlement. If no risk of floor slab settlement is desired, it is recommended that the existing fill be removed in its entirety and replaced with structural fill.

Assuming the floor slab subgrade is prepared as recommended, a modulus of subgrade reaction of 100 pounds per cubic inch (pci) should be used.

The floor slab should be supported by a minimum 6-inch thick granular base course of IDOT CA-7 crushed stone or equivalent. The base course will not only facilitate fine grading of the slab subgrade surface, but will also serve as a capillary cutoff layer, which would minimize the migration of moisture through the floor slab. The use of a vapor barrier beneath the floor slab is also recommended. A simple polyethylene membrane can generally be installed at a minimal cost, further minimizing the migration of moisture through the floor slab, which may damage sensitive floor coverings.

Floor slabs-on-grade should be isolated from the foundation system and contain the proper number of isolation and contraction joints to maintain the integrity of the slab should minor differential movements occur.

**Lateral Earth Pressure**

Temporary shoring may be required depending on the proximity to existing structures, utilities, and property lines. Shoring and permanent below grade structures (such as light poles), should be designed in accordance with the recommendations in this section.

The following table presents recommended values of earth pressure and friction coefficients based on our experience with soils in the area. Equivalent fluid pressures are frequently used for the calculation of lateral earth pressures for the "at-rest", "active" and "passive" conditions, and are also provided. Earth pressures are influenced by the structural design of the temporary shoring, methods of construction and the strength of the subgrade. The "at-rest" condition ( $K_0$ ) assumes no wall rotation and is usually applicable for basement walls. The recommended design lateral earth pressures do not include a factor of safety and do not provide for possible hydrostatic pressure on the walls. If hydrostatic forces are included in the wall design, an additional 62 pcf should be added to the "active" and "at-rest" equivalent fluid pressures provided below. The temporary shoring should also be adequately braced to resist the lateral earth pressures and any short-time construction loads in addition to permanent surcharge loads.

If temporary shoring is not free to rotate or deflect at the top, possibly due to tiebacks or walers, Pioneer recommends designing temporary shoring for the "at-rest" lateral earth pressure condition using  $K_0$ . Temporary shoring that is permitted to rotate and deflect at the top can be designed for the active lateral earth pressure condition using  $K_a$ .

**Table 5: Estimated Lateral Pressure and Friction Parameters**

EARTH PRESSURE CONDITIONS	COEFFICIENT FOR BACKFILL TYPE	EQUIVALENT FLUID PRESSURE (pcf/ft)	DRAINED FRICTION ANGLE (degrees)	MOIST UNIT WEIGHT (pcf)
Active ( $K_a$ )	Gravel – 0.27	Gravel – 32	Gravel – 35	Gravel – 120
	Sand – 0.35	Sand – 39	Sand – 29	Sand – 110
	Lean Clay - 0.36	Lean Clay – 45	Lean Clay – 28	Lean Clay – 125
At-Rest ( $K_0$ )	Gravel – 0.43	Gravel – 52	Gravel – 35	Gravel – 120
	Sand – 0.52	Sand – 57	Sand – 29	Sand – 110
	Lean Clay – 0.48	Lean Clay – 60	Lean Clay – 28	Lean Clay – 125
Passive ( $K_p$ )	Gravel – 3.69	Gravel – 443	Gravel – 35	Gravel – 120
	Sand – 2.88	Sand – 317	Sand – 29	Sand – 110
	Lean Clay – 2.77	Lean Clay – 346	Lean Clay – 28	Lean Clay – 125
<b>FRICTION COEFFICIENTS</b>				
Concrete placed on Granular Fill			Tan $\delta$ = 0.45	
Concrete placed on Sand			Tan $\delta$ = 0.35	
Concrete placed on Clay			Tan $\delta$ = 0.30	

Notes: The Equivalent Fluid Pressures in the table above are based on a moist, not submerged backfill.

Horizontal loads acting on a retaining wall are resisted by friction along the foundation base and by passive pressure against the footing face, which is perpendicular to the line of applied force. The passive pressures

on the toe of the retaining wall can be computed by assuming a passive pressure coefficient from the table above for granular backfill on the consideration that some friction angle will develop between the backfill and the outer face of the structure. Passive resistance should be considered only for soils below the 3.5-foot frost depth.

**Pavement Design Considerations.**

Pavement Support. If any pavement areas are to be constructed, the following recommendations should be taken into consideration. The proposed pavement areas should be excavated to design subgrade to 2-feet outside the limits of the paved area. The exposed soil should be proofrolled and any topsoil or unstable soil removed to a depth of 2 feet below design subgrade as discussed in the Floor Slab section of the report. Pavement subgrade soil with moisture contents greater than 20 percent are typically unstable under construction traffic and will need to be dried/recompacted or excavated and replaced with Structural Fill.

Pavement Section. Pioneer recommends a flexible pavement section be designed according to the State of Illinois Department of Transportation, Division of Highways, Highway Design Manual using AASHTO-H-20 loading as a maximum. The AASTHO design method takes into consideration the structural design traffic, the subgrade support value, and the structural layer coefficients for each component of the pavement system. Local pavement design practices are presented in the IDOT publication “Pavement Design Procedure” dated August 31, 1995.

The following pavement sections are considered the minimum pavement sections to be used for this project and are typically recommended in local practice, and are in general accordance with IDOT’s “Pavement Design Procedures”, for similar structures. It is recommended that the completed site plan be analyzed to determine the most likely traffic patterns for heavy delivery trucks and garbage trucks. The recommended Heavy-Duty Pavement section should be used in these traffic corridors. For any loading dock areas planned, it is recommended to design using the Rigid, Heavy-Duty Pavement section.

**Table 6: Pavement Section Recommendations**

Pavement Material	Compacted Material Thickness (Inches)		
	Flexible Pavement (Light Duty)	Flexible Pavement (Heavy Duty)	Rigid Pavement (Heavy Duty)
Portland Cement Concrete	-	-	6
Bituminous Surface Coarse	1.5	2	-
Bituminous Binder Coarse	1.5	3	-
Type B Granular Base Coarse (IDOT CA-6)	10	12	6
Total Pavement Section Thickness	13	17	12.5

The bituminous concrete binder and surface courses should consist of fine, dense, graded aggregate, Class I as defined in the IDOT Standard Specifications for Road and Bridge Construction. All placement and compaction activities should meet the requirements of the IDOT Standard Specifications.

The design of pavements should incorporate provisions for drainage of both the pavement surface and the base course layer. Should standing water be allowed to accumulate on the pavement surface or within the base course, the sub-grade will soften and it is likely that the pavement will deteriorate. The base course should be protected from water inflow along drainage paths. The base course should extend beyond the edges of the pavement in low areas to allow any water that enters the base course a path for exit.

**Groundwater Control and Excavation Stability**

Groundwater was not encountered at either of the boring locations during drilling within the explored depths. For excavations above the water table, pumps should be readily available to maintain relatively dry excavations in the event of water seepage.

During rainy seasons and under normal conditions, surface runoff and seepage water that may accumulate overnight or momentarily in foundation excavations should be promptly removed through standard perimeter ditch, sump, and pump procedures. Water, as well as loosed or disturbed materials, should be removed from the base of excavations immediately prior to the placement of concrete.

Precautions should also be taken so that the foundation systems of existing structures and utilities are not undermined. If temporary shoring will not be used to brace the sides of the excavation, Pioneer recommends sloping the sides of the excavation in accordance with local ordinances and OSHA regulations. Materials removed from the excavation should not be stockpiled immediately adjacent to the excavation, since this surcharge load may cause a sudden collapse of the slope.

**Earthwork Controls**

Structural Fill should meet the following properties for use as floor slab support soils.

**Table 7: Structural Fill Material Requirements**

Fill Type	USCS Classification	Acceptable Location for Placement
Cohesive	CL, CL-ML	Below floor slabs and pavement
Granular	GW, GP, GM, GC SW, SP, SM, SC	Below floor slabs, pavement and foundations
Unsuitable	CH, MH, ML, OL, OH, PT	Non-structural areas

Structural Fill should be placed and compacted in accordance with the following requirements.

**Table 8: Fill Placement and Compaction Requirements**

Description	Requirement
Fill Lift Thickness	10 inches loose measurement when sheepsfoot or steel drum rollers are used 6 inches loose measurement when jumping jacks or plate compactors are used
Minimum Compaction Requirement Below Foundations and Slabs-on-Grade and Upper 12 Inches of Paved Areas	95% of the maximum dry density per ASTM D-1557 (Modified Proctor)
Minimum Compaction Requirement Below 12 Inches of Paved Areas and Landscaped Areas	90% of the maximum dry density per ASTM D 1557 (Modified Proctor)
Moisture Content of Cohesive Soils	-2% to +3 % of optimum moisture content per ASTM D 1557
Open-Graded Aggregate including IDOT CA-1 and CA-7 Gradations	Compact in 8-inch thick lifts loose measure to achieve stability through particle interlock

All subgrade surfaces should be protected during construction from deterioration or softening caused by frost or ponding of water. Water should not be allowed to stand in the excavations for a sustained period of time. All soft, loose, or disturbed soils should be removed to competent support materials. If the floor slab or pavement subgrade is prepared in the winter, exposed subgrade soils should be protected from freezing. Structural fill should not be placed on frozen soils.

### Report Limitations

This geotechnical investigation report has been prepared to aid in the evaluation and design of this project. As a result, this report has provided generalized guidelines to be considered during the actual design and construction phases of the proposed building. The information provided in this report should be evaluated by, and the site improvements should be designed by a licensed structural engineer or architect. Should deviations from the noted subsurface conditions be encountered during construction, this information should be brought to Pioneer's attention. Pioneer would welcome the opportunity to provide field construction services for this project. The analysis and recommendations submitted in this report are based upon the data obtained from the soil borings performed at the locations indicated on the location diagram. It should be understood that this location was approximate, since the boring locations were not surveyed. This report does not reflect any variations that may occur between and beyond these borings.

This report has been prepared for the sole use of the client identified in the report and cannot be relied upon by other persons or entities without Pioneer's permission. The observations and conclusions contained herein are limited by the scope and intent of the work mutually agreed upon by the client and Pioneer and the work actually performed. There are no warranties, implied or expressed, concerning the integrity of the areas and/or mediums not analytically tested.

Pioneer appreciates the opportunity to provide our services for this project. Please feel free to contact us if you have any questions or concerns.

Respectfully Submitted,  
*Pioneer Engineering & Environmental Services, LLC*



Kevin Gosiewski  
Geotechnical Project Manager



Alex Barlan, P.E.  
Senior Geotechnical Engineer

- Attachments:
- Boring Locations and Site Diagram (Figure 1)
  - Boring Logs
  - Infiltration and Sieve Test Results
  - Soil Classification Chart





**FIGURE 1**  
**Soil Boring Location**  
**& Site Diagram**  
**Cartwright Park**  
**Evanston, IL**

Scale:  
 1" = 60'  
 0' 60'

Drawn by:  
 M. S. Valadez

Job No.:  
 25-0127-151

Date:  
 December 2025

Checked by:  
 Kevin Gosiewski

Legend: Approximate Property Line

 Approximate Property Line  
 Geotechnical Soil Boring Location

**CLIENT** Upland Design, Ltd.

**PROJECT DESCRIPTION** Proposed Cartwright Park

**PROJECT NUMBER** 25-0127-151

**PROJECT LOCATION** 3324 Grant Street - Evanston, IL

**DATE STARTED** 11/11/2025 **COMPLETED** 11/11/2025

**GROUND ELEVATION** 609.00' **ELEVATION DATUM** MSL

**CONTRACTOR** Pioneer **DRILLER** GA

**RIG TYPE** Geoprobe 3126GT

**LATITUDE** 42.058274 **LONGITUDE** -87.725111

▽ **AT TIME OF DRILLING** N/A

**LOGGED BY** JV **CHECKED BY** KG

▼ **AFTER DRILLING** N/A

**METHOD** Auger

**SAMPLER TYPE** Split Spoon

Elevation (ft)	Depth (ft)	Graphic Log	Visual Classification and Remarks	Samples					Lab					
				Sample Number	Sample Type	Sample Graphic	Blow Counts (N Value)	% Recovery	Vane Shear (psf)	Qp-Pocket Penetrometer (tsf)	Qu-Unconfined Compressive Strength (tsf)	Moisture Content (%)	Dry Density (pcf)	
609														
			Black, <b>Topsoil</b> , silty clay	1.5	1	Auger								27.7
			Brown and gray, <b>Silty Clay</b> , trace sand and gravel (CL)		2	SS		3-3-5 (8)	72		4.0	4.0	23.9	102.0
605					3	SS		4-5-7 (12)	67		4.5	3.6	26.8	
					4	SS		5-13-18 (31)	67		4.5	4.8	13.4	120.3
600			Gray and reddish brown, <b>Silty Clay</b> , little sand, trace gravel (CL)	8	5	SS		7-15-21 (36)	78		4.5		14.0	
	10		End of boring at 10'	10										

	Topsoil		SS - Small Split Spoon
	CL		Auger - Auger Sample

**REMARKS**

Elevation interpolated via Google Earth data.

**CLIENT** Upland Design, Ltd.

**PROJECT DESCRIPTION** Proposed Cartwright Park

**PROJECT NUMBER** 25-0127-151

**PROJECT LOCATION** 3324 Grant Street - Evanston, IL

**DATE STARTED** 11/11/2025 **COMPLETED** 11/11/2025

**GROUND ELEVATION** 608.00' **ELEVATION DATUM** MSL

**CONTRACTOR** Pioneer **DRILLER** GA

**RIG TYPE** Geoprobe 3126GT

**LATITUDE** 42.058586 **LONGITUDE** -87.725114

▽ **AT TIME OF DRILLING** N/A

**LOGGED BY** JV **CHECKED BY** KG

▼ **AFTER DRILLING** N/A

**METHOD** Auger

**SAMPLER TYPE** Split Spoon

Elevation (ft)	Depth (ft)	Graphic Log	Visual Classification and Remarks	Samples					Lab					
				Sample Number	Sample Type	Sample Graphic	Blow Counts (N Value)	% Recovery	Vane Shear (psf)	Qp-Pocket Penetrometer (tsf)	Qu-Unconfined Compressive Strength (tsf)	Moisture Content (%)	Dry Density (pcf)	
608														
			Black, <b>Topsoil</b> , silty clay	1.5	1	Auger							27.8	
			Brown and gray, <b>Silty Clay</b> , trace sand and gravel (CL)		2	SS		2-3-5 (8)	56		4.5		20.2	
605														
			Gray, <b>Clayey Silt</b> , trace sand and gravel (CL-ML)	5.5	3	SS		3-4-6 (10)	72		4.5	5.0	13.4	119.7
					4	SS		6-15-18 (33)	89		4.5	6.9	12.5	125.4
600														
					5	SS		5-14-19 (33)	89		4.5	4.5	12.5	126.6
				10										

End of boring at 10'

	CL		Auger - Auger Sample
	Topsoil		SS - Small Split Spoon
	CL-ML	-	-

**REMARKS**

Elevation interpolated via Google Earth data.

**CLIENT** Upland Design, Ltd. **PROJECT DESCRIPTION** Proposed Cartwright Park  
**PROJECT NUMBER** 25-0127-151 **PROJECT LOCATION** 3324 Grant Street - Evanston, IL  
**DATE STARTED** 11/11/2025 **COMPLETED** 11/11/2025 **GROUND ELEVATION** 609.00' **ELEVATION DATUM** MSL  
**CONTRACTOR** Pioneer **DRILLER** GA **RIG TYPE** Geoprobe 3126GT  
**LATITUDE** 42.058709 **LONGITUDE** -87.724324 **AT TIME OF DRILLING** N/A  
**LOGGED BY** JV **CHECKED BY** KG **AFTER DRILLING** N/A  
**METHOD** Diamond Core **SAMPLER TYPE** Core

Elevation (ft)	Depth (ft)	Graphic Log	Visual Classification and Remarks	Samples						Lab			
				Sample Number	Sample Type	Sample Graphic	Blow Counts (N Value)	% Recovery	Vane Shear (psf)	Qp-Pocket Penetrometer (tsf)	Qu-Unconfined Compressive Strength (tsf)	Moisture Content (%)	Dry Density (pcf)
609													
			3.75" Asphalt 0.3	1	Core							4.3	
			13" Gravel Base 1.4										

End of boring at 1.4'

 Core - Core Sample	-
--	---

**REMARKS**  
Elevation interpolated via Google Earth data.





**Sieve Analysis Report**

Cartwright Park, Evanston

Date of Report: November 18, 2025  
 Total Sample Wt (g): 409.6

Project No.: 25-0127-151  
 Material Tested: Silty Clay

Sample Number: I-1  
 Depth: 4 feet

Sieve Size	Weight of Sieve Sample	Cumulative Weight	Percent Retained	Percent Passing	Specifications
1.5"	0	0	0.00	100.00	N/A
1.0"	0	0	0.00	100.00	N/A
3/4"	0	0	0.00	100.00	N/A
1/2"	0	0	0.00	100.00	N/A
3/8"	0	0	0.00	100.00	N/A
#4	1.4	1.4	0.34	99.66	N/A
#8	0	1.4	0.34	99.66	N/A
#10	0	1.4	0.34	99.66	N/A
#16	1.0	2.4	0.59	99.41	N/A
#30	0	2.4	0.59	99.41	N/A
#40	1.6	4	0.98	99.02	N/A
#50	1.2	5.2	1.27	98.73	N/A
#100	4.0	9.2	2.25	97.75	N/A
#200	4.0	13.2	3.22	96.78	N/A
Pan	396.4	409.6	100.00		

**Respectfully Submitted,**  
**PIONEER ENGINEERING & ENVIRONMENTAL SERVICES, INC.**



Engineering & Environmental Services, LLC

2753 W. 31st Street | Chicago, IL 60608

Tel: 773-722-9200 | Fax: 773-722-9201 | pioneerEES.com

December 11, 2025

Upland Design Ltd.  
1229 N. North Branch Street, #220A  
Chicago, Illinois 60642  
ATTN: Tom Dvorak

**Re: Report of Geotechnical Investigation  
Proposed Fitzsimons Park Improvements  
1033 Elmwood Avenue  
Evanston, Illinois  
Pioneer Project No. 25-0128-151**

Dear Mr. Dvorak:

Pioneer Engineering & Environmental Services, LLC (Pioneer) was contracted to conduct a geotechnical investigation for the proposed Fitzsimons Park improvements located in Evanston, Illinois. The investigation was performed in general accordance with Pioneer Proposal No. 22602, dated October 20, 2025. The scope of the investigation included drilling, sampling, and laboratory testing of soil obtained in one (1) boring and one (1) single-ring infiltration test in support of the proposed infiltration and pavement design of the project.

### **Project Overview**

The Project Site is located at Fitzsimons Park: 1033 Elmwood Avenue in Evanston, Illinois. The Project Site is currently developed as a park that includes a playground, landscaped areas, soccer field, and tennis courts. The Site is bordered Elmwood Avenue to the west, Lee Street to the south, Sherman Avenue to the east, and Nichols Middle School to the north.

The proposed park improvements are to include to the area south of the soccer field. No architectural plans were provided.

### **Historical Site Information.**

A cursory review of available historical aerial photos were made to help determine if the past history of the site, such as previous structures, may provide insight into the existing site subsurface conditions. Aerial photographs from 1938 to present were reviewed to help determine where foundations or floor slabs from previous site use might be located.

Aerial photographs indicate that prior to the earliest available aerial photographs from 1938, the Site and surrounding area were already developed. The eastern side of the Site consisted of residential-like buildings, the western side of the Site was an undeveloped grass field, and the Middle School was already constructed. The residential structures were all demolished by 1962 to 1974 and the playground and tennis courts were constructed by 1984. A parking lot and basketball court to the north for the school was constructed between 1988 and 1999. Since 1999, the Site and surrounding area have remained relatively unchanged to present day.

## Subsurface Investigation

One (1) soil boring was performed for the current project (reference the attached Boring Location Diagram, Figure 1). The boring was located in the field using conventional taping procedures with aid from a GPS unit. The ground surface elevation at each test location was interpolated from the Google Earth website. The boring was performed within the project area and was advanced to a depth of 15 feet below the existing ground surface. One (1) single-ring infiltration test was also performed at the Site at a depth of 4 feet below existing grade near Boring B-1 location.

The boring was drilled with an ATV-mounted Geoprobe 3126GT drill rig using 3 ¼-inch diameter hollow stem augers (HSAs). Representative soil samples were obtained from each sampling interval using the split barrel sampling procedure performed in accordance with ASTM Standard D 1586, "Method for Penetration Test and Split Barrel Sampling of Soils". In the split barrel sampling procedure, a 140-pound hammer falls 30 inches and drives a two-inch outer diameter split barrel sampler 18 inches into the soil. The number of blows required to drive the barrel sampler the final 12 inches is the Standard Penetration Resistance (SPT N-value) for that interval. This test result indicates the soil's relative density and comparative consistency, and provides a basis for estimating the relative strength and compressibility of soil. Representative soil samples were obtained at 2.5-foot intervals to a depth of 15 feet.

The soil samples obtained from each interval were logged in the field according to their predominant geological characteristics. The field log was subsequently used to prepare the final boring log that is included as an attachment to this report. Soil samples obtained from the drilling operations were identified by boring number and sampling depth, and brought to Pioneer's laboratory for further examination and testing. Upon completion of the drilling, the boreholes were backfilled with bentonite chips to the existing ground surface.

The soil samples were analyzed for physical soil parameters including moisture content and unconfined compressive strength. In addition, the soil was further classified in accordance with the Unified Soil Classification System. A natural moisture content test was performed for each sampling interval and/or stratum in accordance with ASTM Standard D 2216. Additional estimated unconfined compressive strength values for cohesive soil samples were obtained by using a spring-loaded pocket penetrometer and/or Rimac machine. The laboratory test data is included on the attached Boring Log.

## Subsurface Conditions

The following generalized soil profile was encountered in the borings.

- Surficial Topsoil. The boring encountered approximately 1.5 feet of Black Silty Clay Topsoil at the surface. The topsoil possesses a moisture content of 24.7 percent.
- Loose Brown and Gray Sand. The topsoil is underlain by loose Brown and Gray Sand with trace to little amounts of silt and gravel. This stratum extends to an approximate depth of 12 feet below surface grade. This deposit possesses Standard Penetration Test (SPT) N-values ranging from 4 to 7 blows per foot (bpf) and moisture contents of 5.6 percent above the water table to 25.3 percent below the water table.
- Loose Gray Sandy Silt. The Sand is underlain by loose Gray Sandy Silt which extends to the boring termination depth of 15 feet below the existing surface grade. This deposit possesses a SPT N-value of 6 bpf and a moisture content of 23.7 percent.

Groundwater Conditions. Groundwater was encountered at a depth of 6 feet below surface grade while drilling. A water elevation after boring completion could not be measured due to the borehole collapsing after the removal of augers. Seasonal and yearly fluctuations in the water table can be expected due to variations

in precipitation, evaporation, and surface runoff. Also, it is likely that pockets of perched groundwater may occur after precipitation events. A seasonal high groundwater table at a depth of 6 feet from the ground surface should be used for design.

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 resistance, locations of the samples and laboratory test data. 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 may be gradual.

### **Infiltration Test Procedure and Results**

One (1) representative soil (bag) samples was obtained from the bottom of the infiltration test depth to verify the soil gradation at the invert level of the proposed structure. The sample was then returned to the lab to perform a Particle Size Distribution Test (-200 Wash) per ASTM D1140 on the soil sample directly beneath the infiltration zone for the test performed.

Infiltration Laboratory Testing. A Particle Size Distribution (-200 Wash) Test was performed per ASTM D1140 on the soil sample directly beneath the infiltration zone for the test performed. The results of the laboratory testing program are included on the Particle Size Distribution Test Results and are summarized below.

**Table 1: Particle Size Distribution Test Results**

Test Number	Soil Type (USDA)	Gravel (%)	Sand (%)	Silt/Clay (%)
I-1 (B-1) (4 ft)	Loamy Sand to Sandy Loam	7.84	86.95	5.21

Infiltration Testing. Infiltration testing was performed following the procedure for single-ring infiltration testing as described below. Infiltration testing was performed at a depth of 4 feet below existing surface grade.

One (1) infiltration test was conducted at test location I-1 at a depth of approximately 4 feet below existing grade. The test was performed by: (1) advancing a 12.5-inch diameter borehole at the location listed above to a depth of approximately 4 feet below existing grade; (2) installing a 12-inch diameter casing; (3) filling the casing with water to saturate the soils below; and (4) measuring the steady-state rate at which the water level dropped within the casing through the saturated soils below. The water level was measured using a measuring tape and a stop watch. After the infiltration testing was completed, the casing was removed and the boring was backfilled with soil cuttings.

Infiltration Test Results. The measured results of the infiltration test is presented in the attached Single-Ring Infiltrometer Infiltration Rate Determination sheet. A graph showing the cumulative amount of water infiltrated versus time is also attached. The calculations and test results are also shown on the determination sheet.

The graph of Infiltration (inches) versus time (minutes) is characterized by an initial steep infiltration rate followed by a moderate infiltration rate. The moderate or steady-state rate of infiltration rate is used for design purposes. The results are summarized as follows.

**Table 2: Infiltration Test Results**

Test Number	Soil Type (USDA)	Estimated Infiltration Rate Per Field Test (inches per hour)
I-1 (B-1) (4 ft)	Loamy Sand to Sandy Loam	0.58

Recommendations. The calculated field infiltration rate compares favorably to Design Infiltration Rates for USDA Textures (University of Wisconsin, Madison, 2006) of 0.50 inches per hour for Sandy Loam, Fine Sand, Loamy Sand, Very Fine Sand, and Loamy Fine Sand. A Design Infiltration Rate of 0.58 inches per hour should be used for areas where the Sand is exposed at the base of the stormwater feature.

## **Conclusions and Recommendations**

### Site Preparation

Topsoil Removal. The surface cover of Topsoil should be stripped from the Site. The site generally exhibited up to 18 inches of topsoil surface cover. Once removed, the site should then be proofrolled to identify soft or unstable soils. Areas that exhibit excessive rutting or deflection should be disked, dried and recompacted. If unsuccessful, the unstable areas can be removed and replaced with Structural Fill.

Demolition. Current development plans do not consist of demolition of any existing structures. Based on the historic aerials, it appears that no previous existing structures were demolished within the proposed improvement area at the Site. If former structures are encountered, concrete from the previous structures floor slabs and foundation walls/footings should be removed from the site or crushed and stockpiled for re-use in project earthwork. If properly sized (per IDOT CA-1, CA-6, or CA-7 gradation), the crushed concrete can be used as structural backfill.

If any existing footings and foundation walls exist, they should be removed below the proposed footings, but can generally be left in place unless they are in direct conflict with the new building components or if they are located within 2 feet of the design subgrade for floor slabs.

Any sanitary sewers or utilities leaving the site and not being reused should be plugged to ensure they do not become a conduit for lost soil below the floor slab. The plug should consist of a minimum 2-foot long section of non-shrink hydraulic cement or equivalent.

### Foundation System

Design Criteria. If any proposed structures are planned, such as a gazebo or picnic shelter with a floor slab-on-grade, the following soil parameter recommendations can be used. For discussion purposes, it is assumed that the design bottom of frost-depth footings will be approximately 3.5 feet below existing surface grade.

Footing Support Soils. The following soil deposits were considered for support of the foundation system.

- The loose Sandy Soils encountered up to a depth of 12 feet below surface grade possess adequate engineering properties for the support of any proposed structures if properly prepared. The exposed surface may become disturbed when excavating. The subgrade should be compacted prior to placing any concrete.

Continuous/Spread Footings. Pioneer believes conventional foundations of continuous footings for walls and spread footings for interior columns can be used to support the building loads. Frost-depth footings founded

on the native soils described above can be dimensioned using a net allowable bearing capacity of 2,000 psf. The net allowable soil bearing pressure refers to that pressure which may be imposed on the foundation soils in excess of the final minimum surrounding overburden pressure.

**Table 3: Summary of Bearing Capacity vs. Depth**

Footing Type (Borings)	Footing Bearing Depth Below Existing Grade	Allowable Bearing Capacity (psf)	Soil Type	Estimated Settlement (inches)
Frost-Depth Footings	3'-5" to 5'-0"	2,000	Brown and Gray Sand	1.0
Extended footings	5'-6" to 6'-6"	2,000	Brown and Gray Sand	1.0

The net allowable soil bearing pressure refers to that pressure which may be imposed on the foundation soils in excess of the final minimum surrounding overburden pressure. Total settlement on the order of 1.0 inch, or less. Differential settlements ranging from 1/2 inch to 2/3 the total settlement are possible across the building area due to variations in subsurface conditions and foundation loadings.

Undercut/Replacement of Unsuitable Soil. While not expected, the following should be used where unsuitable soil is encountered below the design footing subgrade and an undercut-replacement scheme is used for footing support. Any unsuitable soil such as Fill that is encountered at the design footing subgrade should be removed to the depth encountered and replaced with Structural Fill. Typical Structural Fill, such as 3-inch crushed limestone or concrete choked with 1-inch nominal granular material (IDOT CA-7 gradation), should be placed in 18-inch thick lifts and compacted by use of a vibratory compactor or through the force of a backhoe's bucket to seat the stone. The width of the excavation should extend at least one foot horizontally beyond the perimeter of the footing on all sides for each one foot of vertical undercut below the bottom of the footing, thus providing for adequate lateral distribution of the foundation stresses.

An additional discussion of the placement and compaction of Structural Fill is included in the Earthwork Controls section of this report.

Additional Footing Design Criteria. All footings should be founded a minimum of 3.5 feet below final exterior grade to eliminate the effects of frost on footing behavior. Interior column footings below a heated building should be founded at least 2 feet below the final floor slab level. In order to prevent local bearing failure, isolated column footings should have a minimum lateral dimension of 24-inches and continuous footings should have a minimum width of 18-inches. If the foundations are constructed during winter months or if the footings will likely be subjected to freezing temperatures after construction is completed, then the footings should be protected from freezing.

In order to limit the effects of differential movement that may occur due to variations in the character of the supporting soils and variations in seasonal moisture contents, Pioneer recommends that the continuous footings be suitably reinforced to make them as rigid as practical.

### **Slab-On-Grade**

Slab-On-Grade. Floor slabs constructed near existing surface grade may be located on the above noted native sand; however there Historical Site Section noted that buildings may have been at the Site (and potential fill to the bottom of those former footings). The following procedures should be used for support and to help minimize settlement of the at-grade floor slabs.

Once the proposed floor slab areas are excavated to the design subgrade, the exposed subgrade soil should be visually inspected for unsuitable soils. Topsoil and Fill, if encountered, containing a high content of organic material or wood debris should be removed to the depth encountered. If possible, the subgrade can also be proofrolled using a fully loaded dump truck. If encountered, old footings, slabs or foundation walls should be removed to a depth of 2 feet below slab design subgrade elevation.

All unsuitable soils should be replaced with compacted Structural Fill. Structural Fill should be an approved onsite cohesive soil or imported granular soil equivalent to an IDOT CA-6 or CA-7 gradation. Structural Fill should be placed and compacted in lifts with a maximum lift thickness of 8 inches. Each lift of IDOT CA-7 open graded granular soil should be compacted to a minimum of 75 percent of the relative density in accordance with ASTM Standards D 4253 and D 4254. If IDOT CA-6 granular material is used, the soil should be compacted to a minimum of 95 percent of the maximum density per ASTM D 1557 (Modified Proctor).

The above partial-depth removal and replacement scheme (if buried structures and fill are encountered) is provided as an economical method to minimize slab settlement and cracking. Because all of the Fill, if encountered, is not being removed, it is possible that zones of voids or loose Fill will still remain and could lead to future settlement. If no risk of floor slab settlement is desired, it is recommended that the existing fill be removed in its entirety and replaced with structural fill.

Assuming the floor slab subgrade is prepared as recommended, a modulus of subgrade reaction of 75 pounds per cubic inch (pci) should be used.

The floor slab should be supported by a minimum 6-inch thick granular base course of IDOT CA-7 crushed stone or equivalent. The base course will not only facilitate fine grading of the slab subgrade surface, but will also serve as a capillary cutoff layer, which would minimize the migration of moisture through the floor slab. The use of a vapor barrier beneath the floor slab is also recommended. A simple polyethylene membrane can generally be installed at a minimal cost, further minimizing the migration of moisture through the floor slab, which may damage sensitive floor coverings.

Floor slabs-on-grade should be isolated from the foundation system and contain the proper number of isolation and contraction joints to maintain the integrity of the slab should minor differential movements occur.

### **Lateral Earth Pressure**

Temporary shoring may be required depending on the proximity to existing structures, utilities, and property lines. Shoring and permanent below grade structures (such as light poles), should be designed in accordance with the recommendations in this section.

The following table presents recommended values of earth pressure and friction coefficients based on our experience with soils in the area. Equivalent fluid pressures are frequently used for the calculation of lateral earth pressures for the "at-rest", "active" and "passive" conditions, and are also provided. Earth pressures are influenced by the structural design of the temporary shoring, methods of construction and the strength of the subgrade. The "at-rest" condition ( $K_0$ ) assumes no wall rotation and is usually applicable for basement walls. The recommended design lateral earth pressures do not include a factor of safety and do not provide

for possible hydrostatic pressure on the walls. If hydrostatic forces are included in the wall design, an additional 62 pcf should be added to the “active” and “at-rest” equivalent fluid pressures provided below. The temporary shoring should also be adequately braced to resist the lateral earth pressures and any short-time construction loads in addition to permanent surcharge loads.

If temporary shoring is not free to rotate or deflect at the top, possibly due to tiebacks or walers, Pioneer recommends designing temporary shoring for the “at-rest” lateral earth pressure condition using  $K_0$ . Temporary shoring that is permitted to rotate and deflect at the top can be designed for the active lateral earth pressure condition using  $K_a$ .

**Table 4: Estimated Lateral Pressure and Friction Parameters**

EARTH PRESSURE CONDITIONS	COEFFICIENT FOR BACKFILL TYPE	EQUIVALENT FLUID PRESSURE (pcf/ft)	DRAINED FRICTION ANGLE (degrees)	MOIST UNIT WEIGHT (pcf)
Active ( $K_a$ )	Gravel – 0.27	Gravel – 32	Gravel – 35	Gravel – 120
	Sand – 0.35	Sand – 39	Sand – 29	Sand – 110
	Lean Clay – 0.36	Lean Clay – 45	Lean Clay – 28	Lean Clay – 125
At-Rest ( $K_0$ )	Gravel – 0.43	Gravel – 52	Gravel – 35	Gravel – 120
	Sand – 0.52	Sand – 57	Sand – 29	Sand – 110
	Lean Clay – 0.48	Lean Clay – 60	Lean Clay – 28	Lean Clay – 125
Passive ( $K_p$ )	Gravel – 3.69	Gravel – 443	Gravel – 35	Gravel – 120
	Sand – 2.88	Sand – 317	Sand – 29	Sand – 110
	Lean Clay – 2.77	Lean Clay – 346	Lean Clay – 28	Lean Clay – 125
<b>FRICTION COEFFICIENTS</b>				
Concrete placed on Granular Fill			Tan $\delta = 0.45$	
Concrete placed on Sand			Tan $\delta = 0.35$	
Concrete placed on Clay			Tan $\delta = 0.30$	

Notes: The Equivalent Fluid Pressures in the table above are based on a moist, not submerged backfill.

Horizontal loads acting on a retaining wall are resisted by friction along the foundation base and by passive pressure against the footing face, which is perpendicular to the line of applied force. The passive pressures on the toe of the retaining wall can be computed by assuming a passive pressure coefficient from the table above for granular backfill on the consideration that some friction angle will develop between the backfill and the outer face of the structure. Passive resistance should be considered only for soils below the 3.5-foot frost depth.

**Pavement Design Considerations.**

Pavement Support. If any pavement areas are to be constructed, the following recommendations should be taken into consideration. The proposed pavement areas should be excavated to design subgrade to 2-feet outside the limits of the paved area. The exposed soil should be proofrolled and any topsoil or unstable soil removed to a depth of 2 feet below design subgrade as discussed in the Floor Slab section of the report. Pavement subgrade soil with moisture contents greater than 20 percent are typically unstable under construction traffic and will need to be dried/recompacted or excavated and replaced with Structural Fill.

Pavement Section. Pioneer recommends a flexible pavement section be designed according to the State of Illinois Department of Transportation, Division of Highways, Highway Design Manual using AASHTO-H-20 loading as a maximum. The AASTHO design method takes into consideration the structural design traffic, the subgrade support value, and the structural layer coefficients for each component of the pavement system. Local pavement design practices are presented in the IDOT publication “Pavement Design Procedure” dated August 31, 1995.

The following pavement sections are considered the minimum pavement sections to be used for this project and are typically recommended in local practice, and are in general accordance with IDOT’s “Pavement Design Procedures”, for similar structures. It is recommended that the completed site plan be analyzed to determine the most likely traffic patterns for heavy delivery trucks and garbage trucks. The recommended Heavy-Duty Pavement section should be used in these traffic corridors. For any loading dock areas planned, it is recommended to design using the Rigid, Heavy-Duty Pavement section.

**Table 5: Pavement Section Recommendations**

Pavement Material	Compacted Material Thickness (Inches)		
	Flexible Pavement (Light Duty)	Flexible Pavement (Heavy Duty)	Rigid Pavement (Heavy Duty)
Portland Cement Concrete	-	-	6
Bituminous Surface Coarse	1.5	2	-
Bituminous Binder Coarse	1.5	3	-
Type B Granular Base Coarse (IDOT CA-6)	10	12	6
Total Pavement Section Thickness	13	17	12.5

The bituminous concrete binder and surface courses should consist of fine, dense, graded aggregate, Class I as defined in the IDOT Standard Specifications for Road and Bridge Construction. All placement and compaction activities should meet the requirements of the IDOT Standard Specifications.

The design of pavements should incorporate provisions for drainage of both the pavement surface and the base course layer. Should standing water be allowed to accumulate on the pavement surface or within the base course, the sub-grade will soften and it is likely that the pavement will deteriorate. The base course should be protected from water inflow along drainage paths. The base course should extend beyond the edges of the pavement in low areas to allow any water that enters the base course a path for exit.

**Groundwater Control and Excavation Stability**

Groundwater was encountered at a depth of 6 feet below grade while drilling. For excavations above the water table, pumps should be readily available to maintain relatively dry excavations in the event of water seepage. It should be noted that the sandy soils encountered at the Site in the boring will allow free flowing

water into excavation areas. The contractor should be experienced and knowledgeable in controlling groundwater in granular soils, especially in an area with a high groundwater elevation.

During rainy seasons and under normal conditions, surface runoff and seepage water that may accumulate overnight or momentarily in foundation excavations should be promptly removed through standard perimeter ditch, sump, and pump procedures. Water, as well as loosed or disturbed materials, should be removed from the base of excavations immediately prior to the placement of concrete.

Precautions should also be taken so that the foundation systems of existing structures and utilities are not undermined. If temporary shoring will not be used to brace the sides of the excavation, Pioneer recommends sloping the sides of the excavation in accordance with local ordinances and OSHA regulations. Materials removed from the excavation should not be stockpiled immediately adjacent to the excavation, since this surcharge load may cause a sudden collapse of the slope.

**Earthwork Controls**

Structural Fill should meet the following properties for use as floor slab support soils.

**Table 6: Structural Fill Material Requirements**

Fill Type	USCS Classification	Acceptable Location for Placement
Cohesive	CL, CL-ML	Below floor slabs and pavement
Granular	GW, GP, GM, GC SW, SP, SM, SC	Below floor slabs, pavement and foundations
Unsuitable	CH, MH, ML, OL, OH, PT	Non-structural areas

Structural Fill should be placed and compacted in accordance with the following requirements.

**Table 7: Fill Placement and Compaction Requirements**

Description	Requirement
Fill Lift Thickness	10 inches loose measurement when sheepsfoot or steel drum rollers are used 6 inches loose measurement when jumping jacks or plate compactors are used
Minimum Compaction Requirement Below Foundations and Slabs-on-Grade and Upper 12 Inches of Paved Areas	95% of the maximum dry density per ASTM D-1557 (Modified Proctor)
Minimum Compaction Requirement Below 12 Inches of Paved Areas and Landscaped Areas	90% of the maximum dry density per ASTM D 1557 (Modified Proctor)
Moisture Content of Cohesive Soils	-2% to +3 % of optimum moisture content per ASTM D 1557
Open-Graded Aggregate including IDOT CA-1 and CA-7 Gradations	Compact in 8-inch thick lifts loose measure to achieve stability through particle interlock

All subgrade surfaces should be protected during construction from deterioration or softening caused by frost or ponding of water. Water should not be allowed to stand in the excavations for a sustained period of time. All soft, loose, or disturbed soils should be removed to competent support materials. If the floor slab

Proposed Park Improvements  
Fitzsimons: 1033 Elmwood Avenue  
Evanston, Illinois  
Pioneer Project No. 25-0128-151  
December 11, 2025



or pavement subgrade is prepared in the winter, exposed subgrade soils should be protected from freezing. Structural fill should not be placed on frozen soils.

### Report Limitations

This geotechnical investigation report has been prepared to aid in the evaluation and design of this project. As a result, this report has provided generalized guidelines to be considered during the actual design and construction phases of the proposed building. The information provided in this report should be evaluated by, and the site improvements should be designed by a licensed structural engineer or architect. Should deviations from the noted subsurface conditions be encountered during construction, this information should be brought to Pioneer's attention. Pioneer would welcome the opportunity to provide field construction services for this project. The analysis and recommendations submitted in this report are based upon the data obtained from the soil borings performed at the locations indicated on the location diagram. It should be understood that this location was approximate, since the boring locations were not surveyed. This report does not reflect any variations that may occur between and beyond these borings.

This report has been prepared for the sole use of the client identified in the report and cannot be relied upon by other persons or entities without Pioneer's permission. The observations and conclusions contained herein are limited by the scope and intent of the work mutually agreed upon by the client and Pioneer and the work actually performed. There are no warranties, implied or expressed, concerning the integrity of the areas and/or mediums not analytically tested.

Pioneer appreciates the opportunity to provide our services for this project. Please feel free to contact us if you have any questions or concerns.

Respectfully Submitted,  
*Pioneer Engineering & Environmental Services, LLC*



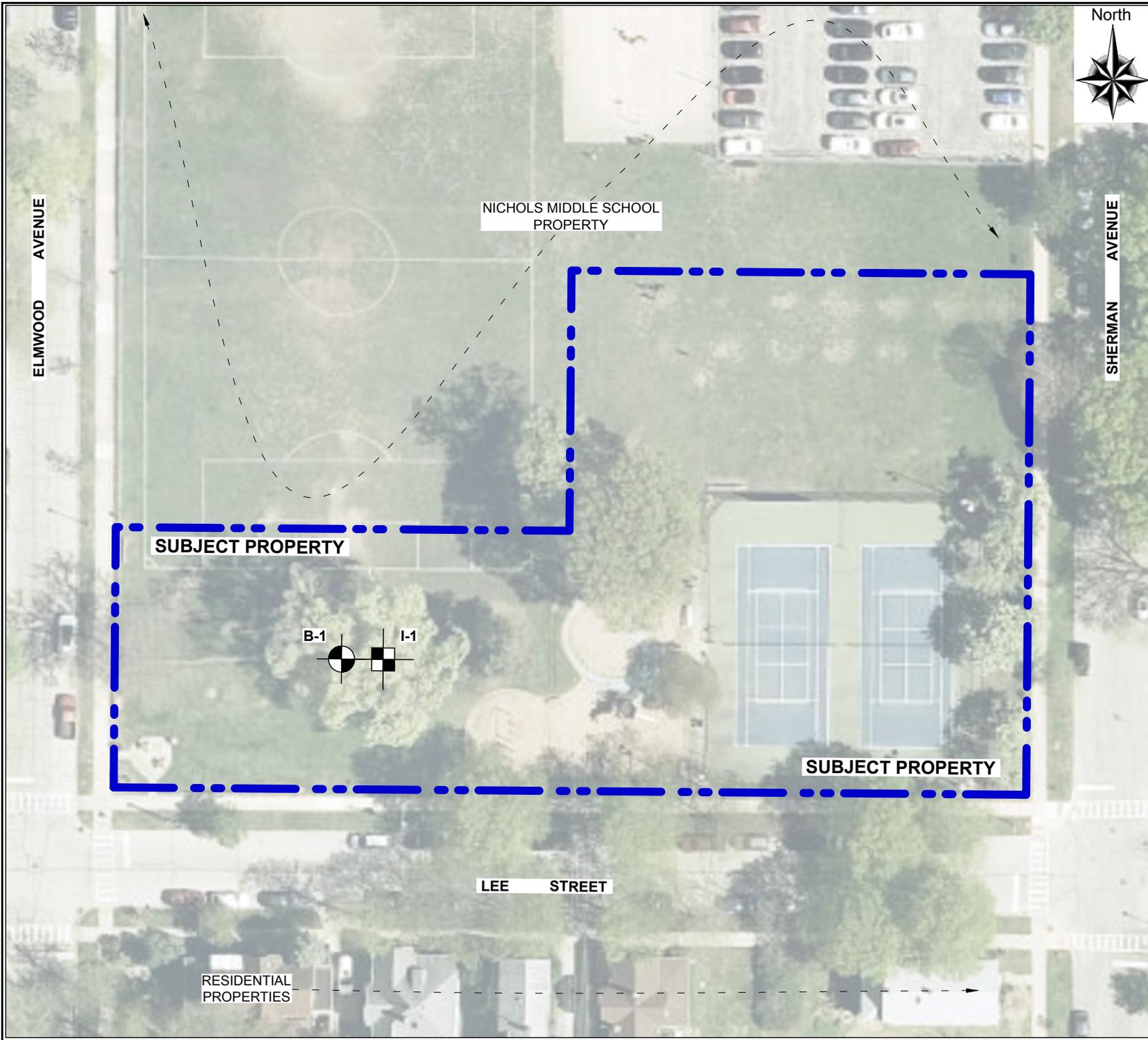
Kevin Gosiewski  
Geotechnical Project Manager



Alex Barlan, P.E.  
Senior Geotechnical Engineer

Attachments: Boring Locations and Site Diagram (Figure 1)  
Boring Log  
Infiltration and Sieve Test Results  
Soil Classification Chart





**FIGURE 1**  
**Soil Boring Location**  
**& Site Diagram**  
**Fitzsimons Park**  
**Evanston, IL**

Scale:  
 1" = 50'  
 0' 50'

Drawn by:  
 M. S. Valadez

Job No.:  
 25-0128-151

Date:  
 December 2025

Checked by:  
 Kevin Gosiewski

Legend: Approximate Property Line

-  Approximate Property Line
-  Geotechnical Soil Boring Location
-  Infiltration Testing Location

**CLIENT** Upland Design, Ltd.  
**PROJECT NUMBER** 25-0128-151  
**DATE STARTED** 11/12/2025 **COMPLETED** 11/12/2025  
**CONTRACTOR** Pioneer **DRILLER** GA  
**LATITUDE** 42.035955 **LONGITUDE** -87.683363  
**LOGGED BY** JV **CHECKED BY** KG  
**METHOD** Auger

**PROJECT DESCRIPTION** Proposed Fizzsimons Park  
**PROJECT LOCATION** 1033 Elmwood Avenue - Evanston, IL  
**GROUND ELEVATION** 600.00' **ELEVATION DATUM** MSL  
**RIG TYPE** Geoprobe 3126GT  
**AT TIME OF DRILLING** 6'  
**AFTER DRILLING** N/A  
**SAMPLER TYPE** Split Spoon

Elevation (ft)	Depth (ft)	Graphic Log	Visual Classification and Remarks	Samples					Lab				
				Sample Number	Sample Type	Sample Graphic	Blow Counts (N Value)	% Recovery	Vane Shear (psf)	Qp-Pocket Penetrometer (tsf)	Qu-Unconfined Compressive Strength (tsf)	Moisture Content (%)	Dry Density (pcf)
600													
			Black, <b>Topsoil</b> , silty clay	1	Auger								24.7
			Brown and gray, <b>Sand</b> , trace to little silt, trace gravel, moist to wet (SP)	2	SS		1-2-3 (5)	56					5.6
				3	SS		2-3-4 (7)	67					5.6
595	5			4	SS		2-3-3 (6)	56					24.7
				5	SS		1-2-2 (4)	61					25.3
590	10			6	SS		1-2-2 (4)	72					24.7
			Gray, <b>Sandy Silt</b> , wet (SM)	7	SS		2-3-3 (6)	67					23.7
585	15												

End of boring at 15'

	-		Topsoil
	SP		Auger - Auger Sample
	SM		SS - Small Split Spoon

**REMARKS**

Elevation interpolated via Google Earth data.





**Sieve Analysis Report**

Fitzsimons Park, Evanston

Date of Report: November 18, 2025  
 Total Sample Wt (g): 531.9

Project No.: 25-0128-151  
 Material Tested: Sand

Sample Number: I-1  
 Depth: 4 feet

Sieve Size	Weight of Sieve Sample	Cumulative Weight	Percent Retained	Percent Passing	Specifications
1.5"	0	0	0.00	100.00	N/A
1.0"	0	0	0.00	100.00	N/A
3/4"	0	0	0.00	100.00	N/A
1/2"	16.8	16.8	3.16	96.84	N/A
3/8"	5.1	21.9	4.12	95.88	N/A
#4	19.8	41.7	7.84	92.16	N/A
#8	0	41.7	7.84	92.16	N/A
#10	0	41.7	7.84	92.16	N/A
#16	67.3	109	20.49	79.51	N/A
#30	0	109	20.49	79.51	N/A
#40	40.7	149.7	28.14	71.86	N/A
#50	33.0	182.7	34.35	65.65	N/A
#100	236.2	418.9	78.76	21.24	N/A
#200	85.3	504.2	94.79	5.21	N/A
Pan	27.7	531.9	100.00		

**Respectfully Submitted,**  
**PIONEER ENGINEERING & ENVIRONMENTAL SERVICES, INC.**

NOTE: DUAL SYMBOLS ARE USED TO INDICATE BORDERLINE SOIL CLASSIFICATIONS

MAJOR DIVISIONS			SYMBOLS		TYPICAL DESCRIPTIONS
			GRAPH	LETTER	
COARSE GRAINED SOILS	GRAVEL AND GRAVELLY SOILS	CLEAN GRAVELS (LITTLE OR NO FINES)		<b>GW</b>	WELL-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES		<b>GP</b>	POORLY-GRADED GRAVELS, GRAVEL - SAND MIXTURES, LITTLE OR NO FINES
		GRAVELS WITH FINES (APPRECIABLE AMOUNT OF FINES)		<b>GM</b>	SILTY GRAVELS, GRAVEL - SAND - SILT MIXTURES
		(APPRECIABLE AMOUNT OF FINES)		<b>GC</b>	CLAYEY GRAVELS, GRAVEL - SAND - CLAY MIXTURES
	SAND AND SANDY SOILS	CLEAN SANDS (LITTLE OR NO FINES)		<b>SW</b>	WELL-GRADED SANDS, GRAVELLY SANDS, LITTLE OR NO FINES
		SANDS WITH FINES		<b>SP</b>	POORLY-GRADED SANDS, GRAVELLY SAND, LITTLE OR NO FINES
		SANDS WITH FINES (APPRECIABLE AMOUNT OF FINES)		<b>SM</b>	SILTY SANDS, SAND - SILT MIXTURES
		(APPRECIABLE AMOUNT OF FINES)		<b>SC</b>	CLAYEY SANDS, SAND - CLAY MIXTURES
FINE GRAINED SOILS	SILTS AND CLAYS	LIQUID LIMIT LESS THAN 50		<b>ML</b>	INORGANIC SILTS AND VERY FINE SANDS, ROCK FLOUR, SILTY OR CLAYEY FINE SANDS OR CLAYEY SILTS WITH SLIGHT PLASTICITY
				<b>CL</b>	INORGANIC CLAYS OF LOW TO MEDIUM PLASTICITY, GRAVELLY CLAYS, SANDY CLAYS, SILTY CLAYS, LEAN CLAYS
				<b>OL</b>	ORGANIC SILTS AND ORGANIC SILTY CLAYS OF LOW PLASTICITY
	SILTS AND CLAYS	LIQUID LIMIT GREATER THAN 50		<b>MH</b>	INORGANIC SILTS, MICACEOUS OR DIATOMACEOUS FINE SAND OR SILTY SOILS
				<b>CH</b>	INORGANIC CLAYS OF HIGH PLASTICITY
				<b>OH</b>	ORGANIC CLAYS OF MEDIUM TO HIGH PLASTICITY, ORGANIC SILTS
				<b>PT</b>	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS
HIGHLY ORGANIC SOILS				<b>PT</b>	PEAT, HUMUS, SWAMP SOILS WITH HIGH ORGANIC CONTENTS

## Drilling and Sampling Abbreviations:

### Sample/Drilling:

SS- Split Spoon Sampler  
 ST- Shelby Tube Sampler  
 RC- Rock Core: NX, BX, AX  
 HSA- Hollow Stem Auger

### In-Situ Tests:

SPT-Standard Penetration Test  
 PMT-Pressuremeter Test  
 VS-Vane Shear  
 DCP-Dynamic Cone Penetrometer  
 Q<sub>p</sub>-Estimated Unconfined Compressive Strength using Pocket Penetrometer  
 Q<sub>u</sub>-Estimated Unconfined Compressive Strength using Rimac Tester

## Correlation of Penetration Resistances to Soil Properties:

### Relative Density- Sands, Silts

More than 50% retained onto the No. 200 sieve

### Consistency of Cohesive Soils

More than 50% passing the No. 200 sieve

<u>SPT-N Value</u>	<u>Relative Density</u>	<u>Unconfined Compressive Strength Q<sub>p</sub>, tsf</u>	<u>Consistency</u>
0-3	Very Loose	under 0.25	Very Soft
4-9	Loose	0.25-0.49	Soft
10-29	Medium Dense	0.50-0.99	Stiff
30-49	Dense	1.00-1.99	Tough
50-80	Very Dense	2.00-3.99	Very Tough
		4.00-8.00	Hard
		over 8.00	Very Hard

## Gradation Description and Terminology:

<u>Major Component of Sample</u>	<u>Size Range</u>	<u>Description of Minor Components</u>	<u>Percent of Dry Weight</u>
Boulders	Over 12 inches	Trace	1-9
Cobbles	12 inches to 3 inches	Little	10-19
Gravel	3 inches to No. 4 sieve	Some	20-34
<i>Coarse</i>	<i>3 inches to ¾ inches</i>	And	35-50
<i>Fine</i>	<i>¾ inches to No. 4 sieve</i>		
Sand	No. 4 sieve to No. 200 sieve		
<i>Coarse</i>	<i>No. 4 sieve to No. 10 sieve</i>		
<i>Medium</i>	<i>No. 10 sieve to No. 40 sieve</i>		
<i>Fine</i>	<i>No. 40 sieve to No. 200 sieve</i>		
Silt/Clay	Passing No. 200 sieve		

**23-O-25**

**AN ORDINANCE**

**Amending Title 1, Chapter 17, “Contracts with the City” of the City Code**

**WHEREAS**, the City of Evanston is a unit of local government organized and operating under federal and state laws;

**WHEREAS**, the City of Evanston seeks to preserve administrative resources by ensuring that only qualified contractors and subcontractors are awarded contracts on public works construction projects;

**WHEREAS**, the City of Evanston, has determined that quality workmanship, efficient operation, safety, and timely completion of projects are not necessarily insured by awarding a construction contract solely on the basis of the low bid;

**WHEREAS**, the City of Evanston seeks to enhance its ability to identify the lowest “responsible bidder” on all public works construction projects by instituting more comprehensive submission requirements which are in compliance with Illinois law; **WHEREAS**, the City of Evanston has a compelling proprietary interest in awarding contracts for public works construction projects in a manner that will yield successful project delivery in terms of work that is performed safely, at the lowest responsible cost, and in accordance with the highest possible standards of quality and efficiency;

**WHEREAS**, the City of Evanston has a compelling interest in ensuring that workers on public works construction projects are paid appropriate wages and receive appropriate benefits, as set forth in, and required by, the Illinois Prevailing Wage Act and the Federal Davis-Bacon and Related Acts;

**WHEREAS**, securing successful delivery of public works construction projects presents significant challenges due to the complex, unpredictable and inherently dangerous nature of the construction industry, wherein errors in project planning or execution, including those caused by inexperienced or unqualified craft labor personnel, can result in serious safety risks, excessive cost overruns, flawed or inferior project quality, and disruptions in project schedules that may delay the use of critical government functions or facilities;

**WHEREAS**, the City of Evanston enacted the Local Employment Program (LEP) Ordinance, Section 1-17-1(C) in 2014, in an effort to increase the hiring of Evanston residents and Evanston construction apprentices on public works projects; and

**WHEREAS**, City ordinances with apprenticeship standards increase the likelihood of contractors on publicly funded projects to use apprentices, resulting in a better local tax base and a safer, more efficient job site;

**WHEREAS**, a responsible bidder ordinance assures efficient use of taxpayer dollars, promotes public safety, and is in the public interest;

**WHEREAS**, the Evanston City Council finds that it is in the best interest of the City of Evanston residents to amend the City Code with respect to bidding.

**BE IT ORDAINED BY THE CITY COUNCIL OF THE CITY OF  
EVANSTON, COOK COUNTY, ILLINOIS:**

**SECTION 1:** Title 1, Chapter 17, "Contracts with the City" of the Evanston City Code of 2012, as amended, is hereby further amended as follows:

**1-17-1. CONTRACTS WITH THE CITY.**

- (A) All contracts with the City costing in excess of twenty-five thousand dollars (\$25,000.00) must be approved by the City Council. Contracts for the purchase of goods or services to be utilized in the conduct of the affairs of the City, shall be let by the City Manager or his/her designee, with the approval of the City Council, to a reliable, responsible and acceptable bidder, after advertising for the same, and bonds to be approved by the City Council may be taken for the faithful performance thereof.
- (B) All contracts for the purchase of goods or services with entirely City funds shall be awarded to the lowest quote/bid price or lowest evaluated quote/bid price from a responsive and responsible Evanston business enterprise ("EBE") provided the EBE's quote/bid price does not surpass the lowest quote/bid price or lowest evaluated quote/bid price from a responsive and responsible nonlocal business by more than five percent (5%).

All contracts let from requests for proposals (RFPs) and requests for qualifications (RFQs) with entirely City funds shall be awarded to the most qualified consultant that is an EBE, provided the EBE price/cost does not surpass the lowest price/cost or lowest evaluated price/cost from a nonlocal business by more than five percent (5%).

1. An "EBE" shall mean an entity which is located in or has one or more offices located in the City for a minimum of one year and which performs a "commercially useful function."
  - a. An EBE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the EBE must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether an EBE is performing a commercially useful function, the City will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the EBE credit claimed for its performance of the work and other relevant factors.
  - b. An EBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project

through which funds are passed in order to obtain the appearance of EBE participation. In determining whether an EBE is such an extra participant, the City will examine similar transactions, particularly those in which EBEs do not participate.

- c. If an EBE does not perform or exercise responsibility for at least thirty (30) percent of the total cost of its contract with its own work force, or the EBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, then it is not performing a commercially useful function.
  - d. When an EBE is presumed not to be performing a commercially useful function as provided in Subsection (B)1c of this Section, the EBE may present evidence to rebut this presumption. The City may determine that the firm is performing a commercially useful function given the type of work involved and normal industry practices.
2. In determining whether a business has been located in Evanston for one (1) year, the MWEBE Committee will consider the following:
- a. Whether the vendor pays property and/or sales taxes in Evanston; and
  - b. Whether the business entity's address or the address given on the federal and/or state income tax return is within Evanston.
  - c. The date of issuance of an Evanston business license.

The City may waive the one-year requirement if the entity provides evidence of a substantial commitment to Evanston.

- 3. Businesses that maintain a distribution warehouse or which manufacture in Evanston will receive EBE credit of sixty (60) percent and one hundred (100) percent, respectively. Those that do not maintain a distribution warehouse or manufacturing operation but have an office in Evanston will be considered a broker and receive a five (5) percent credit.
- 4. Eligibility as an EBE will be periodically reviewed and may be revoked at any time if the entity no longer meets the above requirements.

(C) Local Employment Program.

- 1. *Definitions.* For the purposes of this Subsection (C), the employment program, the following terms shall be defined as follows:

<i>CONTRACT.</i>	The written agreement to provide services established between the City and a contractor, including, but not limited to, a redevelopment agreement between the City and any contractor or party.
<i>CONTRACTOR.</i>	An individual, partnership, corporation, joint venture or other legal entity entering into a contract, or a subcontract of whatever tier, for a public works project.
<i>DESK REVIEW.</i>	A method of monitoring compliance with the local employment program in which the Business and Workforce Development

	Coordinator contacts a contractor or subcontractor to gather relevant information or request relevant documentation.
<i>EMERGENCY WORK.</i>	Work necessitated by an imminent threat to the property of the city or the health, safety, or welfare of its citizens.
<i>GENERAL CONTRACTOR.</i>	An entity that enters into a contract directly with the city. The general contractor may also be known as the prime contractor.
<i>LOCAL RESIDENT DATABASE.</i>	A database maintained by the City's Business and Workforce Development Coordinator containing the names of local residents who have expressed interest in employment on City public works projects.
<i>NEW HIRE.</i>	Any employee of a contractor who is not listed on the contractor's last quarterly tax statement and was hired prior to or during the commencement of work on a public works project contract subject to the requirements of the local employment program.
<i>ON SITE MONITORING.</i>	The Business and Workforce Development Coordinator's act of visiting the site of a public works project to ensure compliance with the requirements of the local employment program.
<i>PUBLIC WORKS PROJECT.</i>	Any construction, alteration, demolition, or repair work done under contract and paid for in whole or in part from City funds.
<i>RESIDENT.</i>	Any person whose domicile is in the City. The domicile is an individual's one and only true, fixed and permanent home and principal establishment. In order to qualify as a resident for purposes of the local employment program, an individual must have established domicile within the City at least thirty (30) days prior to commencing work on any public works project subject to the local employment program.
<i>SUBCONTRACT.</i>	A contract that exists between the general contractor and a subcontractor or between subcontractors of any tier.
<i>SUBCONTRACTOR.</i>	An entity that enters into a contract with the general contractor or another subcontractor.
<i>TIER.</i>	The level of relationship to the prime contractor of a subcontractor who enters into a contract under a prime contractor or another subcontractor to perform a portion of the work on a project.

2. *Work hours and new hire requirements.*

- a. Unless prohibited by federal, state, or local law, all contractors entering into contracts with the City for public works projects valued at two hundred fifty thousand dollars (\$250,000.00) shall ensure that:
  - 1) Fifteen percent (15%) of the total work hours are performed at the construction site by City of Evanston residents, as laborers and/or trade persons; and
  - 2) A minimum of one (1) Evanston resident is hired.

- b. The effectiveness of the local employment program regarding the minimum percentage of work hours and residents hired will be evaluated by city staff after two (2) years of implementation.
  - c. These requirements shall bind the contractor both with respect to persons working directly for the contractor and to subcontractors, regardless of tier or phase of the project, hired to perform any portion of the contracted work. The contractor shall ensure that subcontractors comply with the requirements of the local employment program. It shall be the responsibility and obligation of the contractor that all contracts are in overall compliance with this Subsection (C) and all the requirements listed herein.
  - d. Requirements of the local employment program are satisfied if the contractor already employs Evanston residents sufficient to meet fifteen percent (15%) of the project's total work hours. Some or all of these requirements may be waived if a waiver is obtained from the City pursuant to Subsection (C)5. of this Section.
3. *Contracts, bid documents, subcontracts.* Where appropriate and consistent with law, contracts and bid documents shall incorporate the local employment program by reference and shall provide that the failure of any contractor or subcontractor to comply with any of its requirements shall be deemed a material breach of the contract or subcontract entitling the City to all the remedies and damages available for material breach of a contract. All subcontracts shall expressly acknowledge the City's status as a third party beneficiary to the subcontract and further expressly acknowledge that the City, as a third party beneficiary, shall have the right to enforce the provisions of the local employment program. Contracts and bid documents shall require bidders, contractors and subcontractors to maintain records necessary for monitoring their compliance with the local employment program.
4. *Automatic review.* This Subsection (C) shall be reviewed to address any deficiencies on a bi-annual basis by the Minority, Women and Evanston Business Enterprise Development Committee.
5. *Waiver.*
- a. The contractor may request that the Business and Workforce Development Coordinator waive all or a portion of the requirements imposed under the local employment program. Such requests must be in writing and must be received by the Business and Workforce Development Coordinator prior to the award of any public works project contract. In order to apply for a waiver, the contractor must submit:
    - 1) Documentation to the Business and Workforce Development Coordinator demonstrating that:
      - a) The contractor utilized the local resident database to attempt to satisfy the local employment program hiring requirement.

- b) The contractor notified residents of the employment opportunities available for the project. Such notification must have appeared in the employment section of a newspaper of local general circulation. Additionally, the Illinois department of employment security's office located in Evanston, Illinois, must have been notified of the employment opportunities. All notices must have stated that all qualified applicants would receive consideration without regard to race, color, religion, sex or national origin.
    - c) The contractor, for a contract utilizing union labor, contacted in writing Chicagoland labor unions to request a resident for employment on the project.
  - 2) Any additional documents requested by the Business and Workforce Development Coordinator in order to evaluate the waiver request.
- 6. *Business and Workforce Development Coordinator.*
  - a. The Business and Workforce Development Coordinator shall determine, based on the required documentation and conditions cited by the contractor that make compliance unfeasible, whether to grant the waiver prior to the award of the contract. Examples of such conditions include, but are not limited to:
    - 1) Intermittent service by one (1) trade throughout the life of the project.
    - 2) Nonavailability of resident(s) necessary to fulfill craft position(s) required for the project.
  - b. If circumstances arise subsequent to the issuance of the contract, the results of which the contractor believes will prevent satisfying the local employment program requirements, the contractor will immediately notify the Business and Workforce Development Coordinator by requesting in writing a waiver of the percentage that cannot be met. The Business and Workforce Development Coordinator or his or her designee shall meet with the applicant as necessary and issue a decision within five (5) business days, including a determination as to any retroactive liability for failure to achieve the goals for work undertaken prior to the application for such a waiver.
- 7. *Local resident selection.* It is the contractor's responsibility to meet the requirement of the local employment program. In order to satisfy the work hours and/or new hire requirements of the local employment program, contractors working under a collective bargaining agreement shall contact the appropriate local union hall to request a resident. If a resident is not available for dispatch by that union hall, the contractor shall contact the Business and Workforce Development Coordinator or his or her designee to request an available Evanston resident. The Business and Workforce Development Coordinator or his or her designee will thereafter provide the name of a resident matching the qualifications defined by the contractor to the local union

hall and that resident will be dispatched to the contractor within three (3) business days in accordance with the lawful hiring hall rules of the respective union. Failure of the Business and Workforce Development Coordinator to provide an individual shall not relieve the contractor from their responsibility to comply with the local employment program.

In order to satisfy the work hours and/or new hire requirement of the local employment program, contractors working in the absence of a collective bargaining agreement shall contact the Business and Workforce Development Coordinator or his or her designee to request an available Evanston resident from the local resident database. The Business and Workforce Development Coordinator or his or her designee will provide the name of a resident matching the qualifications identified by the contractor within three (3) business days.

8. *Reporting requirements.* The contractor shall submit reports as required by the City in order to comply with the local employment program. These reports may include weekly certified payroll records for all crafts within five (5) working days of the end of each payroll period. Additionally, the City may require a weekly or monthly summary of the information that would be obtainable from the certified payroll regarding local hire by craft. These reports, if required, must show the person-hours on a laborer and/or trade person basis and, in the case of certified payroll records, identify the address, new hires, and trade and status journey person or apprentice of all employees on the project. All reports must have an original signature and be signed by an authorized officer of the company under penalty of perjury. The City will make a copy of all required forms available to contractors.

Nothing in the local employment program is intended to eliminate the requirement of a contractor to maintain certified payrolls or of the subcontractors to provide certified payrolls to the contractor, or for any contractor to provide certified payrolls to any party that requests them, as required under Illinois state law.

9. *Monitoring.* The Business and Workforce Development Coordinator or his or her designee will monitor compliance with the requirements of the local employment program by means including, but not limited to, desk reviews or on site monitoring. Audits of compliance may require the review of documents such as certified payrolls, canceled checks, or quarterly wage and withholding reports. Full scale investigations of noncompliance or violations will be on an as needed basis as determined by the Business and Workforce Development Coordinator.

A contractor that fails to provide requested documents or misrepresents material facts in such documents shall be deemed to be noncompliant with the local employment program.

10. *Post-award meeting.* At its discretion, the Business and Workforce Development Coordinator or his or her designee may require the contractor to attend a post-award meeting to familiarize the contractor with the local employment program requirements and to identify the individual by position

and name if available. If requested by the contractor post-award, or at any time during the project, the City shall hold such a meeting within ten (10) business days.

11. *Penalty.* If the contractor or subcontractor should fail to meet the total percentage of resident project hours for any reason, without having received a waiver as outlined in Subsection (C)5. above, the City may impose a fine up to one percent (1.0%) of the approved project price in total. Contractors or subcontractors that are out of compliance due to a resident termination or resignation, shall immediately notify the Business and Workforce Development Coordinator of this occurrence within two (2) business days. Subsequently, the contractor or subcontractor shall have five (5) additional business days to replace a terminated or resigned worker with another resident. If the contractor or subcontractor fails to make the replacement or to notify the Business and Workforce Development Coordinator of this occurrence, the offending party will also be subject to a penalty up to one percent (1.0%) of the approved project price. If the noncompliant contractor makes a good faith effort to replace the resident, the fine may be waived.

At the sole discretion of the City, a contractor or subcontractor that has violated the terms of the local employment program within a three-year period may be determined a non-responsible bidder and excluded from bidding on future projects for a period of not less than one (1) year.

At the sole discretion of the City, an employee that has been hired through the LEP may be removed from the program for a period of not less than one (1) year for failing to adhere to program guidelines or due to termination by the contractor for cause. Such termination process will be reviewed by the Business and Workforce Development Coordinator.

12. *Workforce reserve account.* The City shall establish a reserve account for the deposit of all penalty funds within the general fund. This account may be utilized for the support of the LEP and other workforce development programs as follows:
- The MWEBE Committee shall receive a report on the balance of penalty funds as of the end of the fiscal year no later than March 31 after the close of that year.
  - The MWEBE Committee shall recommend utilization of these funds for placement in the next year's proposed budget in accordance with current LEP and workforce development program goals.
  - Both program goals and recommended expenditure of funds will be subject to approval by the City Council.

(D) *Minority, women, disadvantage, and Evanston business enterprise (M/W/D/EBE) goals.*

1. *Definitions.* For the purposes of this Subsection (D), Minority, Women, Disadvantage, and Evanston Business Enterprise (M/W/D/EBE) Goals, the following terms shall be defined as follows:

<i>DISADVANTAGE-OWNED BUSINESS ENTERPRISE or DBE.</i>	A firm must be at fifty-one percent (51%) owned by one (1) or more disadvantaged individual (socially and economically) or, in the case of a publicly-held corporation, fifty-one percent (51%) of the stock of which is owned by one (1) or more disadvantaged individual (socially and economically) whose management and daily business operations are controlled by one (1) or disadvantaged individual (socially and economically). The City Manager or his or her designee shall determine which DBE certifications shall be accepted by the City.
<i>EVANSTON-OWNED BUSINESS ENTERPRISE or EBE.</i>	An entity which is located in or has one (1) or more offices located in the City for a minimum of one (1) year and which performs a "commercially useful function." The business must be certified by the City in accordance with the provisions of Section 1-17-1(B).
<i>MINORITY-OWNED BUSINESS ENTERPRISE or MBE.</i>	A business which is at least fifty-one percent (51%) owned by one (1) or more members of one (1) or more minority groups, or, in the case of a publicly-held corporation, at least fifty-one percent (51%) of the stock of which is owned by one (1) or more members of one (1) or more minority groups, whose management and daily operations are controlled by one (1) or more members of one (1) or more minority groups. The City Manager or his or her designee shall determine which MBE certifications shall be accepted by the City.
<i>M/W/D/EBE GOALS.</i>	The City of Evanston establishes the goal of awarding not less than twenty-five percent (25%) of its contract awards to MBE, WBE, DBE and EBE businesses. The City of Evanston establishes the goal of awarding not less than three percent (3%) utilization of EBEs in its contract awards. The provisions of this Section shall be implemented by the City Manager or his or her designee. The provisions of this Section do not guarantee contract participation.
<i>WOMEN-OWNED BUSINESS ENTERPRISE or WBE.</i>	A business which is at least fifty-one percent (51%) owned by one (1) or more women, or, in the case of a publicly-held corporation, fifty-one percent (51%) of the stock of which is owned by one (1) or more women, whose management and daily business operations are controlled by one (1) or more women. The City Manager or his or her designee shall determine which WBE certifications shall be accepted by the City.

2. A minority-owned business enterprise ("MBE"), women-owned business enterprise ("WBE"), or disadvantage-business enterprise ("DBE") (collectively, "M/W/D/BE") must perform a "commercially useful function."
  - a. A M/W/D/BE performs a commercially useful function when it is responsible for execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved. To perform a commercially useful function, the M/W/D/BE

must also be responsible, with respect to materials and supplies used on the contract, for negotiating price, determining quality and quantity, ordering the material, and installing (where applicable) and paying for the material itself. To determine whether an M/W/D/BE is performing a commercially useful function, the City will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the M/W/D/BE credit claimed for its performance of the work and other relevant factors.

- b. A M/W/D/BE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of M/W/D/BE participation. In determining whether a M/W/D/BE is such an extra participant, the City will examine similar transactions, particularly those in which M/W/D/BE's do not participate.
  - c. If a M/W/D/BE does not perform or exercise responsibility for at least thirty percent (30%) of the total cost of its contract with its own work force, or the M/W/D/BE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, then it is not performing a commercially useful function.
  - d. When an M/W/D/BE is presumed not to be performing a commercially useful function as provided in Subsection (D)(2)(c) of this Section, the M/W/D/BE may present evidence to rebut this presumption. The City may determine that the firm is performing a commercially useful function given the type of work involved and normal industry practices.
3. Businesses that maintain a distribution warehouse or manufacturing operation will receive M/W/D/BE credit of sixty percent (60%). Those that do not maintain a distribution warehouse or manufacturing operation will be considered a broker and receive a five (5) percent credit.
  4. Eligibility as a M/W/D/BE will be periodically reviewed and may be revoked at any time if the entity no longer meets the above requirements.

(E) Additional Requirements for Public Works Contracts. All bidders for public works contracts must comply with the below specifications in bid submission and during the project for a successful bidder. The City Council may, by a majority vote of the members present, waive any of these requirements for an Evanston-Owned Business Enterprise as defined in Section 1-17-1(D)(1) or a Nearby Business Enterprise as defined in Section 1-17-1(E)(1).

1. Definitions. For the purposes of this Subsection, the following definitions apply:

<u>APPRENTICESHIP TRAINING PROGRAM.</u>	<u>A program approved and registered by the United States Department of Labor's Office of Apprenticeship, or its successor organization, that has graduated at least five (5) apprentices in each other past five (5) years for each of the construction crafts</u>
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	<u>the bidder will perform on the project. Evidence of graduation rates are not required for apprentice able crafts dedicated exclusively to the transportation of material and equipment to and from the public works project.</u>
<u>BIDDER.</u>	<u>A contractor that submits a bid in response to a City of Evanston Request for Proposal.</u>
<u>COMMERCIALLY USEFUL FUNCTION.</u>	<u>A business enterprise that is responsible for the execution of the work of the contract and is carrying out its responsibilities by actually performing, managing, and supervising the work involved.</u>
<u>NEARBY BUSINESS ENTERPRISE ("NBE").</u>	<u>A business enterprise located within five (5) miles of Evanston City limits for a minimum of one (1) year and performs a commercially useful function.</u>
<u>PUBLIC WORKS CONTRACT.</u>	<u>Any construction, alteration, demolition, or repair work done under contract on City owned property.</u>
<u>RELIABLE, RESPONSIVE AND ACCEPTABLE BIDDER.</u>	<u>A bidder who submits a bid that conforms in all material respects to the requirements and criteria in the invitation for bids. This means the bid promises to perform in the precise manner requested by the government, and any minor irregularities in the bid shall not defeat responsiveness.</u>

2. Excessive Pass Through Prohibited. Any bidder must directly perform at least 25% of the services identified in the project solicitation. The named bidder submitting the bid must be the entity directly performing the services. Any affiliates and/or subsidiaries shall not contribute to the minimum performance percentage required.

3. Apprenticeship Training Program Required.

(a) Public Works contracts for over \$25,000 amount or greater shall only be let to: (i) a contractor with evidence of participation in an Apprenticeship Training Program applicable to the work to be performed on the project; or (ii) a contractor who has satisfied the experience requirements under subsection (d).

(b) All contracts submitted to the City Council must identify whether the contractor meets this requirement.

(c) Required evidence of participation in an apprenticeship program includes but is not limited to a copy of all applicable apprenticeship standards and Apprenticeship Agreement(s) for any apprentice(s) who will perform work on the public works project; and documentation from each applicable apprenticeship program certifying that it has graduated at least five (5) apprentices in each of the past five (5) years for each construction craft the bidder will perform on the project.

(d) Contractors may alternatively satisfy this requirement by certifying that all workers who will perform work on the public works project have relevant experience in lieu of participation in an apprenticeship program. Relevant experience may

include: (i) performing at least 1,800 hours of work in the trade the worker will perform on the public works project over the preceding two (2) years; (ii) completion of an apprenticeship program in the trade the worker will perform on the public works project; or (iii) obtaining a journeyman credential in the trade the worker will perform on the public works project. Required evidence to be eligible under this section includes but is not limited to W-2 records, journeyman credentials, apprenticeship completion cards, or certificates of graduation from apprenticeship programs.

(e) Additional evidence of apprenticeship participation, graduation requirements, or previous experience may be requested by the City of Evanston in its discretion.

4. *Occupational Safety and Health Administration Safety Cards Required.* Prior to beginning work for the City, the bidder shall certify that all employees for the contractor that will be on the work site shall have completed a ten hour (10) or greater OSHA safety program. The contractor must submit copies of the employees' OSHA cards to the City prior to the project commencing.

5. *Near Business Enterprises.* In the absence of an Evanston Business Enterprise as required by City Code 1-17-1(B), the City shall award the contract for the public works contract to the lowest bid price or lowest evaluated quote/bid price from a responsive or responsible NBE, provided that the NBE's bid price does not surpass the lowest bid price or lowest evaluated bid price from a responsible and responsible non NBE or EBE business by more than three percent (3%).

a. An NBE shall perform a commercially useful function.

i. To determine whether an NBE is performing a commercially useful function, the City will evaluate the amount of work subcontracted, industry practices, whether the amount the firm is to be paid under the contract is commensurate with the work it is actually performing and the NBE credit claimed for its performance of the work and other relevant factors.

ii. An NBE does not perform a commercially useful function if its role is limited to that of an extra participant in a transaction, contract, or project through which funds are passed in order to obtain the appearance of NBE participation. In determining whether an NBE is such an extra participant, the City will examine similar transactions, particularly those in which NBEs do not participate.

iii. If an NBE does not perform or exercise responsibility for at least thirty (30) percent of the total cost of its contract with its own work force, or the NBE subcontracts a greater portion of the work of a contract than would be expected on the basis of normal industry practice for the type of work involved, then it is not performing a commercially useful function.

iv. When an NBE is presumed not to be performing a commercially useful function as provided in Subsection (B)1c of this Section, the EBE may present evidence to rebut this presumption. The City may determine

that the firm is performing a commercially useful function given the type of work involved and normal industry practices.

- b. In determining whether a business has been located in Evanston or within five (5) miles of Evanston City limits for one (1) year, the MWEBE Committee will consider the following:
- i. Whether the vendor pays property and/or sales taxes in Evanston, or, in the case of a NBE, in a community that is within five (5) miles of City limits; and
  - ii. Whether the business entity's address or the address given on the federal and/or state income tax return is within Evanston or, in the case of a NBE, in a community that is within five (5) miles of City limits.
  - iii. The date of issuance of an Evanston business license or, in the case of a NBE, the date of issuance of a business license by a community located within five (5) miles of City limits.
  - iv. The City may waive the one-year requirement if the entity provides evidence of a substantial commitment to Evanston.
- c. Businesses that maintain a distribution warehouse or which manufacture in Evanston will receive EBE credit of sixty (60) percent and one hundred (100) percent, respectively. Those that do not maintain a distribution warehouse or manufacturing operation but have an office in Evanston will be considered a broker and receive a five (5) percent credit.
- d. Eligibility as an NBE will be periodically reviewed and may be revoked at any time if the entity no longer meets the above requirements.

6. *Certifications Required at time of Bid Submittal.* All bidders, including any subcontractors included in the bid, as applicable, shall be compliant and shall submit certification of compliance with the following at the time of the bid submittal:

- a. The Prevailing Wage Act, 820 ILCS 130/1 *et seq.*
- i. Compliance with the Prevailing Wage Act is required for the previous five (5) years and certification that the contractor has not been found in violation of the Prevailing Wage Act by the Illinois Department of Labor; and
  - ii. A contractor who has been found by the Illinois Department of Labor to be in violation of the Prevailing Wage Act twice in a five-year (5) period shall be barred from bidding for a Public Works Contract for four (4) years from the date of the most recent finding from the Illinois Department of Labor.
- b. The Substance Abuse Prevention on Public Works Project Act, 820 ILCS 265/1 *et seq.*
- i. Compliance with the Substance Abuse Prevention on Public Works Act must include a copy of its written program for the prevention of substance abuse pursuant to the Act.

- c. The Workers' Compensation Act, 820 ILCS 305/1 *et seq.*;
- i. A copy of the applicable workers' compensation policy must be submitted to the City along with documentation of the Illinois Department of Labor registration. The bidder shall additionally certify that all employees are properly classified under the workers' compensation policy.
- d. The Unemployment Insurance Act, 820 ILCS 405/100, *et seq.*;
- i. A copy of the applicable Illinois Department of Employment Security current registration.
- e. A copy of the Illinois Secretary of State's Department of Business Services online records evidencing that the bidder has a current corporate annual report on file. If the bidder is an individual, sole proprietor, or partnership, this subsection shall not apply;
- f. A copy of the current registration with the Illinois Department of Revenue, if the bidder has employees;
- g. A disclosure of any federal, state or local tax liens or tax delinquencies against the bidder or any officers of the bidder in the last five (5) years;
- i. Compliance with the Federal Davis-Bacon Act and Related Acts, if applicable;
- j. Compliance with the Employee Classification Act 820 ILCS 185/1, *et seq.*
- i. All contractors and subcontractors shall submit certified payrolls as specified in Illinois Public Act 94-0515.
- k. All applicable professional or trade licensure, including documentation of said licenses, certification that all licenses are current, and disclosure of any suspension or revocation of such license held by the company, or of any director, officer or manager of the company;
- l. Certification of compliance with 720 ILCS 5/33E-11 and that the bidder is not barred from contracting with any unit of State or local government as a result of a violation of 720 ILCS 5/33E-3,4;
- m. Certification that all individuals who perform work on behalf of the contractor are properly classified as either (i) an employee or (ii) an independent contractor under all applicable state and federal laws and local ordinances; and
- n. Disclosure of any determinations by a court, State or Federal agency of violations of any federal, state or local laws, including but not limited to OSHA, contracting or antitrust laws, tax or licensing laws, environmental laws or the Federal Davis-Bacon and Related Acts.

Any bidder who fails to adhere to this Subsection shall be deemed disqualified from the bid process. If a bidder or contractor has a material change to the information provided to the City of Evanston, the bidder or contractor must notify the City within fourteen (14) days of this material change in writing. Failure to self-report a material change may result in disqualification from the bid.

7. *Subcontractors.* A bidder shall submit documentation including the name and address of each subcontractor from whom the bidder has accepted a bid and/or intends to hire on any part of the project. Further, each such subcontractor shall be required to adhere to the requirements set forth herein as though it were bidding directly to the City of Evanston. Each contractor shall submit all subcontractor information and supporting documentation to the City of Evanston prior to the subcontractor commencing work on the project. It shall be the responsibility of the bidder to ensure its subcontractors comply with all of the requirements of this Code, including the timely and complete submittals of all required documentation and full compliance with all obligations set forth in this Section.

8. *Certification for 12-Month Period.* In anticipation of bidding on a project, a contractor may submit the certifications identified in the preceding section to the City's Purchasing Manager or their designee. The Purchasing Manager or their designee shall review the certifications for completeness. Upon review, if the certifications are complete, the Purchasing Manager or their designee shall advise the contractor of same via an email address designated by the contractor. If the certifications are incomplete, the contractor shall be also notified via email and given fourteen (14) days to complete the submission. Once the certifications are completed, the contractor shall be notified of a "Certification for 12-Month Period" and shall not be required to resubmit these certifications for a period of twelve (12) months following the notification. Any material changes to these certifications shall be reported in writing to the City's Purchasing Manager or designee. In the event that these documents are still required to be submitted by a State or federal agency that is contributing funding to a project, this provision shall not apply.

9. *Projects of Similar Size and Scope.* In projects in the amount of \$25,000 or greater, bidders shall identify and submit documentation with their bid of relevant experience on projects of similar size and scope in the past five (5) years and submit references for same. Projects of similar size and scope shall be as further defined and outlined in the request for proposal ("RFP"). The bidder shall also identify any civil judgments, mediation or arbitration awards against it for default, breach, or damages due to delay or work inadequately performed. Information submitted pursuant to this section shall be considered in determining responsible bidders for the project at issue.

10. *Statement of Past Performance.* Bidders shall submit with their bid a record of all work performed for public bodies completed in the prior three (3) years. Such statements shall include the name of the public body, the type of work performed, the original contract price, the final contract price, the names of all subcontractors used and if liquidated damages were assessed.

11. Public Records. All information submitted by a successful bidder pursuant to this Section are subject to review pursuant to the Illinois Freedom of Information Act (5 ILCS 140/1 et seq.).

(E) (F) Contractor Debarment, Suspension, and Prohibited Contracts.

1. *Definitions.* For the purposes of this Subsection, the following definitions apply:

<i>CITY MANAGER.</i>	The City of Evanston City Manager or his/her designee.
<i>CONTRACTOR.</i>	A person, partnership, corporation, or other entity that has contracted with, or is seeking to contract with, the City to construct a public improvement, to provide goods to, or perform services for or on behalf of the City. A contractor includes a contractor, subcontractor, vendor, or any person or entity who or which owns an interest of ten percent (10%) or more in a contractor, subcontractor, or vendor.
<i>DEBARMENT.</i>	An action taken by the City which results in a contractor being prohibited from bidding or proposing on, being awarded or performing work on a contract with the City. A contractor who has been determined by the City to be subject to such a prohibition is debarred.

2. *Effect of Debarment or Suspension.* A debarred or suspended contractor is prohibited from bidding or proposing or being awarded or performing work on a contract with the City during the period of debarment or suspension.
3. *Debarment or Suspension.* The City Manager is authorized to debar or suspend a contractor for just cause. The period of debarment or suspension will be determined by the City Manager in consultation with the Corporation Counsel, on a case by case basis. Debarment or suspension may be lifted for good cause shown. Reasons for debarment or suspension include, but are not limited to, the following:
  - a. Commission of fraud or a criminal offense as an incident to obtaining or attempting to obtain a public or private contract or subcontract or in the performance of such a contract or subcontract;
  - b. Conviction or indictment under a State or Federal statute of embezzlement, theft, forgery, bribery, falsification or destruction of records, receiving stolen property, or any other offense indicating a lack of business integrity or business honesty which affects responsibility as a vendor or contractor;
  - c. Conviction or indictment under a State or Federal antitrust statute;
  - d. A finding by a State or Federal agency with statutory authority to adjudicate civil rights violations, or by a judge or jury in a State or Federal

- court of competent jurisdiction, that the vendor or contractor has violated State or Federal civil rights statutes in its hiring or business practices;
- e. Failure or default without good cause to perform in accordance with the terms of any contract and the associated supporting documents or unsatisfactory performance of any contract and the associated supporting documents with the City;
  - f. Disqualification or rejection of a bid by the vendor on three (3) or more occasions within a three (3) year period;
  - g. Commission of an act or omission indicating a lack of business integrity or business honesty;
  - h. Debarment, disqualification or suspension by another government entity for any reason; or
  - i. Any Federal or State funding that, by law, rule, or regulation, precludes the City from paying a contractor from those funding.
4. *Procedure.* Before a contractor is debarred or suspended, written notice of debarment or suspension must be provided to that contractor. Such notice must apprise the contractor of the reasons for the debarment or suspension and must inform the contractor of the right to be heard before the City Manager. The City Manager must grant a reasonable opportunity for the debarred or suspended contractor to be heard on the issue of said debarment or suspension, if the contractor submits a request in writing within seven (7) calendar days of the mailing of the written notice. The City Manager will make a final determination after consulting with Corporation Counsel.
  5. *Assignment of Contracts.* No contract will be assigned or sublet by the successful bidder without the consent of the City Manager.
  6. *Prohibited Bidders and Contractors.*
    - a. Unless otherwise provided, no contractor will bid or enter into a contract or subcontract under this Subsection if the business or any officer, director, partner, or other managerial agent of the business has been convicted of a felony under the Sarbanes-Oxley Act of 2002 or a Class 3 or Class 2 felony under the Illinois Securities Law of 1953 for a period of five (5) years from the date of conviction.
    - b. Every bid submitted to and contract executed by the City and every subcontractor will contain a certification by the bidder, contractor, or subcontractor, respectively, that the bidder, contractor, or subcontractor is not barred from being awarded a contract or subcontract under this Section and acknowledges that the City Manager will declare the related contract void if any of the certificates completed pursuant to this Subsection (b) are false.
  7. *Debt Delinquency.*

- a. No person will submit a bid for or enter into a contract or subcontract under this Section if that person knows or should know that they or any affiliate is delinquent in the payment of any debt to the City, unless the person or affiliate has entered into a deferred payment plan to pay off the debt.
  - b. Every bid submitted to and contract executed by the City and every subcontract will contain a certification by the bidder, contractor, or subcontractor, respectively, that the contractor or the subcontractor and its affiliate is not barred from being awarded a contract or subcontract under this Section and acknowledges that the City Manager may declare the related contract void if any of the certifications completed pursuant to this Subsection (b) are false.
8. *Voidable Contracts.*
- a. If any contract or amendment is entered into or purchase or expenditure of funds is made at any time in violation of this Subsection or any other law, the contract or amendment may be declared void by the City Manager or may be ratified and affirmed, provided the City Manager determines that ratification is in the best interests of the City. If the contract is ratified and affirmed, it will be without prejudice to the City's rights to any appropriate damages.
  - b. If, during the term of a contract, the City Manager determines that the contractor is delinquent in the payment of debt as set forth in Subsection 1-17-1(E)(7), the City Manager, or his/her designee, may declare the contract void if he/she determines that voiding the contract is in the best interests of the City.
  - c. If, during the term of a contract, the City Manager determines that the contractor is in violation of Subsection 1-17-1(E)(6), the City Manager will declare the contract void.
  - d. If, during the term of a contract, the contracting agency learns from an annual certification or otherwise determines that the contractor no longer qualifies to enter into City contracts under this Section, the City Manager may declare the contract void if he/she determines that voiding the contract is in the best interests of the City.

**SECTION 2:** All ordinances or parts of ordinances in conflict herewith are hereby repealed.

**SECTION 3:** If any provision of this Ordinance or application thereof to any person or circumstance is held unconstitutional or otherwise invalid, such invalidity shall not affect other provisions or applications of this Ordinance that can be given effect

without the invalid application or provision, and each invalid application of this Ordinance is severable.

**SECTION 4:** This Ordinance shall be in full force and effect beginning upon passage.

**SECTION 5:** The findings and recitals contained herein are declared to be prima facie evidence of the law of the City and shall be received in evidence as provided by the Illinois Compiled Statutes and the courts of the State of Illinois.

Introduced:                     May 27, 2025

Approved:

Adopted:                     May 27, 2025

  May 30, 2025

  
box SIGN                      4LR35Q59-4PXY3YY

Daniel Biss, Mayor

Attest:

Approved as to form:

  
box SIGN                      1RXPY3KL-4PXY3YY

Stephanie Mendoza, City Clerk

  
box SIGN                      1VWXZ88Z-4PXY3YY

Alexandra B, Ruggie, Corporation Counsel

## Cook County Prevailing Wage Rates posted on 12/15/2025

Trade Title	Rg	Type	C	Base	Foreman	Overtime					Pension	Vac	Trng	Other Ins	Add OT 1.5x owed	Add OT 2.0x owed
						M-F	Sa	Su	Hol	H/W						
ASBESTOS ABT-GEN	All	ALL		51.40	52.40	1.5	1.5	2.0	2.0	18.32	17.71	0.00	0.91	0.00	0.00	0.00
ASBESTOS ABT-MEC	All	BLD		42.02	45.38	1.5	1.5	2.0	2.0	16.44	16.64	0.00	0.92		3.37	6.73
BOILERMAKER	All	BLD		58.91	64.21	2.0	2.0	2.0	2.0	7.07	27.02	0.00	3.69	2.31	0.00	39.30
BRICK MASON	All	BLD		53.06	58.37	1.5	1.5	2.0	2.0	12.95	26.26	0.00	1.57	0.00	4.23	8.45
CARPENTER	All	ALL		56.71	58.71	1.5	1.5	2.0	2.0	13.64	27.26	2.61	1.04		0.00	0.00
CEMENT MASON	All	ALL		53.10	55.10	2.0	1.5	2.0	2.0	18.43	24.00	0.00	1.25		2.50	5.00
CERAMIC TILE FINISHER	All	BLD		49.09	49.09	1.5	1.5	2.0	2.0	13.25	17.61	0.00	1.37	0.00	5.57	11.14
CERAMIC TILE LAYER	All	BLD		57.04	62.04	1.5	1.5	2.0	2.0	13.25	21.60	0.00	1.50	0.00	7.63	15.26
COMMUNICATION ELECTRICIAN	All	BLD		51.14	56.25	1.5	1.5	2.0	2.0	16.70	14.48	1.40	1.27	0.10	0.00	0.00
CONCRETE SPECIALIST	All	BLD		51.81	58.21	1.5	1.5	2.0	2.0	12.95	27.56	0.00	1.57	0.00	4.88	9.75
CONCRETE SPECIALIST WELDER	All	BLD		54.40	58.21	1.5	1.5	2.0	2.0	12.95	27.56	0.00	1.57	0.00	4.88	9.75
ELECTRIC PWR EQMT OP	All	ALL		64.58	70.87	1.5	1.5	2.0	2.0	12.99	22.45	0.00	3.66	0.00	0.00	0.00
ELECTRIC PWR GRNDMAN	All	ALL		50.37	70.87	1.5	1.5	2.0	2.0	10.13	17.51	0.00	2.85	0.00	0.00	0.00
ELECTRIC PWR LINEMAN	All	ALL		64.58	70.87	1.5	1.5	2.0	2.0	12.99	22.45	0.00	3.66	0.00	0.00	0.00
ELECTRICIAN	All	ALL		57.75	63.53	1.5	1.5	2.0	2.0	19.34	21.13	1.60	1.87	0.30	0.00	0.00
ELEVATOR CONSTRUCTOR	All	BLD		70.68	79.52	2.0	2.0	2.0	2.0	16.28	21.36	5.65	0.80		0.00	0.00
FENCE ERECTOR	All	ALL		52.25	54.75	1.5	1.5	2.0	2.0	14.29	19.02	0.00	1.00	0.00	0.00	0.00
GLAZIER	All	BLD		53.55	55.05	1.5	2.0	2.0	2.0	16.04	26.64	0.00	2.30	0.00	0.00	0.00
HEAT/FROST INSULATOR	All	BLD		56.02	59.38	1.5	1.5	2.0	2.0	16.44	19.88	0.00	0.92		4.99	9.97
IRON WORKER	All	ALL		62.46	65.96	2.0	2.0	2.0	2.0	19.05	27.04	0.00	0.49	0.00	0.00	0.00
LABORER	All	ALL		51.40	52.15	1.5	1.5	2.0	2.0	18.32	17.71	0.00	0.91	0.00	0.00	0.00
LATHER	All	ALL		56.71	58.71	1.5	1.5	2.0	2.0	13.64	27.26	2.61	1.04		0.00	0.00
MACHINIST	All	BLD		60.39	64.39	1.5	1.5	2.0	2.0	11.43	9.95	1.85	1.47	0.00	0.00	0.00
MARBLE FINISHER	All	ALL		40.21	54.60	1.5	1.5	2.0	2.0	12.95	23.81	0.00	0.98	0.00	3.00	6.00
MARBLE SETTER	All	BLD		52.00	57.20	1.5	1.5	2.0	2.0	12.95	25.57	0.00	1.25	0.00	3.88	7.76
MATERIAL TESTER I	All	ALL		41.40		1.5	1.5	2.0	2.0	18.32	17.71	0.00	0.91	0.00	0.00	0.00

## Cook County Prevailing Wage Rates posted on 12/15/2025

MATERIALS TESTER II	All	ALL		46.40		1.5	1.5	2.0	2.0	18.32	17.71	0.00	0.91	0.00	0.00	0.00
MILLWRIGHT	All	ALL		56.71	58.71	1.5	1.5	2.0	2.0	13.64	27.26	2.61	1.04		0.00	0.00
OPERATING ENGINEER	All	BLD	1	64.80	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	BLD	2	63.50	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	3	60.95	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	BLD	4	59.20	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	BLD	5	68.55	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	BLD	6	65.80	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	BLD	7	67.80	68.80	2.0	2.0	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	FLT	1	73.95	73.95	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	FLT	2	72.45	73.95	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	FLT	3	67.95	73.95	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	FLT	4	63.45	73.95	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	FLT	5	75.45	73.95	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	FLT	6	63.45	73.95	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	1	63.00	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	2	62.45	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	3	60.40	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	4	59.00	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	5	57.80	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	6	66.00	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
OPERATING ENGINEER	All	HWY	7	64.00	67.00	1.5	1.5	2.0	2.0	24.70	21.55	2.00	2.75		0.00	0.00
ORNAMENTAL IRON WORKER	All	ALL		59.26	62.76	2.0	2.0	2.0	2.0	14.86	27.70	0.00	2.25	0.00	0.00	0.00
PAINTER	All	ALL		54.30	61.09	1.5	1.5	1.5	2.0	16.26	17.59	0.00	1.86	0.00	0.00	0.00
PAINTER - SIGNS	All	BLD		46.76	52.53	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		56.71	58.71	1.5	1.5	2.0	2.0	13.64	27.26	2.61	1.04		0.00	0.00
PIPEFITTER	All	BLD		58.50	61.50	1.5	1.5	2.0	2.0	15.15	22.85	0.00	3.12	0.00	0.00	0.00
PLASTERER	All	BLD		51.10	54.17	1.5	1.5	2.0	2.0	18.43	22.10	0.00	1.25	0.00	0.00	0.00
PLUMBER	All	BLD		60.50	64.15	1.5	1.5	2.0	2.0	19.10	17.94	0.00	1.98		0.00	0.00

## Cook County Prevailing Wage Rates posted on 12/15/2025

ROOFER	All	BLD		52.00	57.00	1.5	1.5	2.0	2.0	12.80	18.19	0.00	1.14	0.00	0.00	0.00
SHEETMETAL WORKER	All	BLD		54.58	58.95	1.5	1.5	2.0	2.0	15.88	28.92	0.00	1.20	0.00	0.00	0.00
SIGN HANGER	All	BLD		37.62	40.63	1.5	1.5	2.0	2.0	7.85	4.90	0.00	0.00	0.00	0.00	0.00
SPRINKLER FITTER	All	BLD		63.25	66.00	1.5	1.5	2.0	2.0	15.45	19.90	0.00	1.15	0.00	0.00	0.00
STEEL ERECTOR	All	ALL		62.46	65.96	2.0	2.0	2.0	2.0	19.05	27.04	0.00	0.49	0.00	0.00	0.00
STONE MASON	All	BLD		53.06	58.37	1.5	1.5	2.0	2.0	12.95	26.26	0.00	1.57	0.00	4.23	8.45
SURVEY WORKER	All	BLD		58.45	59.45	1.5	1.5	2.0	2.0	19.10	14.40	0.00	1.59		0.00	0.00
SURVEY WORKER	All	HWY		58.45	59.45	1.5	1.5	2.0	2.0	19.10	14.40	0.00	1.59		0.00	0.00
TERRAZZO FINISHER	All	BLD		51.44	51.44	1.5	1.5	2.0	2.0	13.25	18.87	0.00	1.41	0.00	4.45	8.89
TERRAZZO MECHANIC	All	BLD		55.35	58.85	1.5	1.5	2.0	2.0	13.25	20.26	0.00	1.46	0.00	4.70	9.39
TRAFFIC SAFETY WORKER I	All	HWY		43.40	45.40	1.5	1.5	2.0	2.0	10.08	10.08	0.00	1.05	0.00	0.00	0.00
TRAFFIC SAFETY WORKER II	ALL	HWY		44.40	46.40	1.5	1.5	2.0	2.0	10.08	10.08	0.00	1.05	0.00	0.00	0.00
TRUCK DRIVER	E	ALL	1	45.55	46.20	1.5	1.5	2.0	2.0	13.35	16.09	0.00	0.30	0.00	0.00	0.00
TRUCK DRIVER	E	ALL	2	45.80	46.20	1.5	1.5	2.0	2.0	13.35	16.09	0.00	0.30	0.00	0.00	0.00
TRUCK DRIVER	E	ALL	3	46.00	46.20	1.5	1.5	2.0	2.0	13.35	16.09	0.00	0.30	0.00	0.00	0.00
TRUCK DRIVER	E	ALL	4	46.20	46.20	1.5	1.5	2.0	2.0	13.35	16.09	0.00	0.30	0.00	0.00	0.00
TRUCK DRIVER	W	ALL	1	44.83	45.38	1.5	1.5	2.0	2.0	12.20	16.61	0.00	0.30	0.00	0.00	0.00
TRUCK DRIVER	W	ALL	2	44.98	45.38	1.5	1.5	2.0	2.0	12.20	16.61	0.00	0.30	0.00	0.00	0.00
TRUCK DRIVER	W	ALL	3	45.18	45.38	1.5	1.5	2.0	2.0	12.20	16.61	0.00	0.30	0.00	0.00	0.00
TRUCK DRIVER	W	ALL	4	45.38	45.38	1.5	1.5	2.0	2.0	12.20	16.61	0.00	0.30	0.00	0.00	0.00
TUCK POINTER	All	BLD		52.53	53.53	1.5	1.5	2.0	2.0	11.05	23.16	0.00	1.46	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

## Cook County Prevailing Wage Rates posted on 12/15/2025

**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 COOK 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.

TRUCK DRIVERS (WEST) - That part of the county West of Barrington Road.

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 ELECTRICIAN

## **Cook County Prevailing Wage Rates posted on 12/15/2025**

Installation, operation, inspection, maintenance, repair and service of radio, television, recording, voice sound vision production and reproduction, telephone and telephone interconnect, facsimile, data apparatus, coaxial, fibre optic and wireless equipment, appliances and systems used for the transmission and reception of signals of any nature, business, domestic, commercial, education, entertainment, and residential purposes, including but not limited to, communication and telephone, electronic and sound equipment, fibre optic and data communication systems, and the performance of any task directly related to such installation or service whether at new or existing sites, such tasks to include the placing of wire and cable and electrical power conduit or other raceway work within the equipment room and pulling wire and/or cable through conduit and the installation of any incidental conduit, such that the employees covered hereby can complete any job in full.

### **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-

## **Cook County Prevailing Wage Rates posted on 12/15/2025**

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; Welders.

### **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

## **Cook County Prevailing Wage Rates posted on 12/15/2025**

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 ENGINEER - FLOATING**

Class 1. Craft Foreman; Master Mechanic; Diver/Wet Tender; Engineer; Engineer (Hydraulic Dredge).

Class 2. Crane/Backhoe Operator; Boat Operator with towing endorsement; Mechanic/Welder; Assistant Engineer (Hydraulic Dredge); Leverman (Hydraulic Dredge); Diver Tender.

Class 3. Deck Equipment Operator, Machineryman, Maintenance of Crane (over 50 ton capacity) or Backhoe (115,000 lbs. or more); Tug/Launch Operator; Loader/Dozer and like equipment on Barge, Breakwater Wall, Slip/Dock, or Scow, Deck Machinery, etc.

Class 4. Deck Equipment Operator, Machineryman/Fireman (4 Equipment Units or More); Off Road Trucks; Deck Hand, Tug Engineer, Crane Maintenance (50 Ton Capacity and Under) or Backhoe Weighing (115,000 pounds or less); Assistant Tug Operator.

Class 5. Friction or Lattice Boom Cranes.

## **Cook County Prevailing Wage Rates posted on 12/15/2025**

Class 6. 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.

### **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.

### **TRAFFIC SAFETY Worker I**

Traffic Safety Worker I - work associated with the delivery, installation, pick-up and servicing of safety devices during periods of roadway construction, including such work as set-up and maintenance of barricades, barrier wall reflectors, drums, cones, delineators, signs, crash attenuators, glare screen and other such items, and the layout and application or removal of conflicting and/or temporary roadway markings utilized to control traffic in construction zones, as well as flagging for these operations.

### **TRAFFIC SAFETY WORKER II**

Work associated with the installation and removal of permanent pavement markings and/or pavement markers including both installations performed by hand and installations performed by truck.

### **TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION - EAST & WEST**

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 Turnpulls or Turntrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; 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

## **Cook County Prevailing Wage Rates posted on 12/15/2025**

Turntrailers or turnpulls 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.

### 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".

**Cook County Prevailing Wage Rates posted on 12/15/2025**

**City of Evanston** has partnered with **Euna OpenBids** – an online network connecting local governments with suppliers across the nation. Euna OpenBids is open and accessible to all businesses. Euna OpenBids gives you instant access to RFPs, bids, quotes, and other opportunities with City of Evanston.

By registering for a complimentary account with Euna OpenBids, you get Instant Access to bids for City of Evanston. Your free Euna OpenBids account provides:

- **Instant** access to all bid and quotes for City of Evanston
- **Automatic** notifications from City of Evanston right to your inbox
- The ability to **quickly view** the contractual terms and scope of work
- All the **forms and documents** you need in one place.

**It's Easy! Get started in 4 easy steps.**

## REGISTER

Go to  
[demandstar.com/registration](https://demandstar.com/registration)

### Get started for free!

Company Name

Email Address

This will be your username for logging in to OpenBids

Create your OpenBids account

Sign In

By creating an account, you agree to OpenBids Terms of Use and Privacy Policy.

STEP 1

## CHOOSE YOUR FREE AGENCY

Type "City of Evanston" in the Search Box, select the agency, then click "Next" .

### 1 of 4: Choose your free agency

A great way to find out about new opportunities on OpenBids is to subscribe to a government agency. To get started, please choose your first (free!) agency. You'll have a chance to sign up for more in just a moment.

Search by Agency Name

State

County

[Reset Search](#)

York County Purchasing

STEP 2

## CHOOSE COMMODITY CODES

Get notifications – ones that are relevant to your business by describing what you offer via “commodity codes”

### 2 of 4: Refine Bid Notifications

#### What are commodity codes?

OpenBids commodity codes are how we categorize goods and services for government procurement. When you choose commodity codes, OpenBids uses them to match what your company provides to what governments in your subscription need, helping you find the best bids and quotes to bid on.

Take control of your bid notification experience and maximize your chances of finding opportunities that are tailored to your needs. Add your key tags here and let us assist you in uncovering the most relevant and valuable bid opportunities in your industry.

Example: Infrastructure, Automobiles, Dairy, Agriculture

Search

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[Skip Commodity Codes and Tags](#)

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STEP 3

## CHOOSE MORE NOTIFICATIONS

Click “Continue without Adding Subscriptions” to proceed to City of Evanston specifically. Or, if you’d like to get notifications when other governments near you post a relevant solicitation, you can select any combination of our county, state or national plans on this page.

### 3 of 4: Choose Subscriptions

Now that you've chosen **Rock County** as your free agency, add more counties to grow your network of potential clients.

County subscriptions start at \$25 per year.

#### Please select a state to begin

State

Wisconsin

#### Choose your counties in Wisconsin

There are currently 51 Wisconsin counties with agencies publishing bids on OpenBids. Please choose which counties you'd like to subscribed to. You may also subscribe to all counties in Wisconsin and save!

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Search for Counties

#### Rock County Subscription

Rock County is in Rock County. Subscribe and get notifications from 4 agencies.

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#### Wisconsin Subscription

Rock County is in Wisconsin. Subscribe and get notifications from 146 agencies.

[Subscribe to Wisconsin for \\$450/year](#)

#### National Subscription

Choose a national subscription and get notifications from 2884 agencies.

STEP 4

## COMPLETE YOUR PROFILE

Enter your contact and company information and Click “Finish Registration”. You’ll receive an email to set up your password.

You’re done!

### 4 of 4: Complete your profile

**We've saved your selections.** Now that you've set up your subscriptions on OpenBids, tell us a little bit more about yourself.

#### Your contact information

First Name

Last Name

Phone Number

#### Your company Information

Company Phone Number