CITY OF EVANSTON

SPECIFICATIONS AND BID DOCUMENTS
Construction Bid with Sub-Contractors

BID NUMBER: 26-54

For

Ladd Arboretum Launch Project
November 12, 2026

BID DUE DATE:	**2:00 P.M., Tuesday, December 15, 2026**
VIRTUAL BID OPENING:	**2:15 P.M., Tuesday, December 15, 2026** **Google Meet ID:** meet.google.com/erk-vjyw-pza **Phone Numbers:** 617-675-4444 **PIN:** 491 020 418 0044#
NON-MANDATORY PRE-BID MEETING	**2:00 P.M., Thursday, November 19, 2026** **Evanston Ecology Center** **2024 McCormick Boulevard** **Evanston, Illinois 60201**
BID BOND:	**5% of Contract Amount**
PERFORMANCE/MATERIAL & LABOR PAYMENT BOND:	**100% of Contract Amount**
CONTRACT PERIOD:	**Contract Award through Deadlines Below** **Substantial Completion: May 26, 2028** **Final Completion: June 30, 2028**

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

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CITY OF EVANSTON
NOTICE TO BIDDERS

The City's Purchasing Office will receive bids until 2:00 P.M. local time, Tuesday, December 15, 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 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). Although registration is required, vendors can download solicitations and upload responses for free. Bids shall cover the following:

Ladd Arboretum Launch Project

Bid Number: 26-54

Work on this project includes construction of a new launch facility and reconstruction of an existing parking lot along the North Shore Channel at the southwest intersection of McCormick Boulevard and Bridge Street in Evanston, Illinois.

A non-mandatory pre-bid meeting will be held at the Evanston Ecology Center, 2024 McCormick Boulevard, Evanston, IL 60201 at 2:00 P.M. on Thursday, November 19, 2026. 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.php or DemandStar at: www.demandstar.com.

This project will be funded in part through a grant from the Department of Commerce and Economic Opportunity (DCEO) and shall follow all DCEO grant related requirements.

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.

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.

Cheryl Stuart
Purchasing Specialist

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

1. ONLINE NOTIFICATION OF SOLICITATIONS

The City is utilizing Demandstar.com (www.demandstar.com) for online 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

A. The City of Evanston will no longer accept hard copy paper submittals for any solicitation. Responses will only be accepted electronically via E-bidding through DemandStar (WWW.DEMANDSTAR.COM). Although registration is required, vendors can download solicitations and upload bid responses for free. **Please refer to the 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

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

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

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

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

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

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, or by contacting the Purchasing Office.

9. RESERVED RIGHTS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

The Evanston City Council reserves the right to award the contract to a 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

All contractors must follow the requirements of Ordinance 1-O-26, the City's Responsible Bidder Ordinance. Ordinance 1-O-26 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**. (NOT APPLICABLE)**
- **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

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

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

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

32. VARIANCES

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

33. INDEMNIFICATION

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

Time is of the essence as to the awarded contract and, of delivery or acceptable items or rending 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

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

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

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.

38. LOCAL EMPLOYMENT PROGRAM REQUIREMENTS (NOT APPLICABLE)

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 Joseph Fields, the Workforce Development Manager at jfields@cityofevanston.org or Tammi Nunez, Purchasing Manager at 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 REQUIREMENTS FOR RESPONSIBLE BIDDER ORDINANCE

Documentation or Certification	Description
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. QUESTIONS

All questions related to this bid document should be submitted in writing to Cheryl Stuart, Purchasing Specialist at cstuart@cityofevanston.org with a copy to Shane Cary, at scary@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.

41. COORDINATION OF EXISTING SITE WITH DRAWINGS

A. 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.

B. 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.

42. 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."

43. COMPLIANCE WITH LAWS

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.

44. QUALIFICATION OF BIDDERS

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 the 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.

C. Qualifications of the General Contractor shall be considered in awarding this bid. Any bidder who fails to meet the minimum experience with performing construction in navigable waters either through their own forces or through the services of an identified subcontractor may be deemed non-responsive at the discretion of the City.

45. COMPETENCY OF BIDDER

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.

46. PREFERENCE TO CITIZENS

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

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

A. UNIT PRICE BID

1. The Bidder is to submit a unit price bid for each bid line on the Bid Form which includes all costs incidental to performing the specified work.

2. 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.

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

4. The quantities provided in the bid documents are approximate only and are subject to increase or decrease. Actual compensation to the CONTRACTOR shall be based upon the actual quantities multiplied by the unit prices bid for each item. The unit prices submitted herewith is for the purpose of obtaining a gross sum, and for use in computing the value of additions and deductions and for the purpose of determining the lowest BIDDER. Should there be a discrepancy between the gross sum bid and that bid resulting from the summation of quantities multiplied by their respective unit prices, the latter shall apply.

3. QUANTITIES

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

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

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

A. Progress payments will be made in accordance with "Applications for Payment" and "Project Closeout" sections of the specifications, **before 50% completion,** less a 10% retainage for each payment; **at or after 50% completion,** less a 5% 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 the *Illinois Local Government Prompt Payment Act.*

7. DECISIONS TO WITHHOLD CERTIFICATION FOR PAYMENT

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

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

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

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

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

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

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

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

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

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

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. 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

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

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

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

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

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

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

25. LIQUIDATED DAMAGES

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:	May 26, 2026
Final Completion Deadline:	June 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

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

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.

DCEO Business Enterprise Program (BEP) Requirements

This project may be funded in part through a $609,000 grant from the Department of Commerce and Economic Opportunity (DCEO) after contract award. If awarded, DCEO will determine an overall Business Enterprise Program (BEP) Goal of a percentage of grant dollars going to minority-owned business enterprises (MBEs or WMBEs) and/or women-owned business enterprises (WBEs or WMBEs). This utilization goal will be based on the availability of State-certified vendors to perform the anticipated direct subcontracting opportunities of the Utilization Plan (UP).

If this grant is awarded, the contractor shall be required to employ certified vendors to perform a portion of the project in compliance with the grant requirements. The City will work with the contractor to determine the best way to integrate these requirements. Contractors are also asked to complete and submit Exhibit Q – Utilization of Certified Vendors for any subcontractors/suppliers they are planning to utilize on this project that are certified through this program.

Please Note: Only subcontractors/suppliers certified through the State of Illinois' Commission on Equity and Inclusion (CEI) Business Enterprise Program will count toward meeting the utilization goals for this grant.

To locate Certified BEP Vendors bidders shall:

1. Visit https://supplierdiversitymanagementportal.illinois.gov/VendorDirectory.aspx
2. Click in the "NIGP Codes" box and type in a keyword description of the kind of work you are looking to hire. One or more codes with short descriptions of work will appear. "Add" the codes that match the work you are looking for.
    - For instance, if your grant project requires excavation, you can type "excavation" in the search box, and Code 91244 "Excavation Services" will appear. Click Add, and your search will be narrowed to BEP certified businesses who perform excavation.
3. Click in the fourth box "Certification Type" and select Minority Business Enterprise (MBE), Persons with Disability Business Enterprise (PBE), Women Business Enterprise (WBE), and Women/Minority Business Enterprise (WMBE). These are the business enterprise categories that qualify for BEP.
4. Scroll down to the "Location" section. Here you will use the "Distance Search" of Zip Code. Input the zip code in which the project is taking place, and then from the drop-down menu select a distance to search. We recommend within 50 miles.
    - If you are doing a distance search, it is very important that you not fill out any other part of the location information. If you input a city, the search will default to only business enterprises located within the city. This will greatly restrict your vendor search.
5. Scroll down to the "I'm not a robot" box and click it. You may have to do a picture test. Once that is complete, click the green "Search" button.
    - A list of BEP vendors, certified as Minority Business Enterprise (MBE),

Persons with Disabilities Business Enterprise (PBE), Women Business Enterprise (WBE), and/or Women/Minority Business Enterprise (WMBE) matched to the Commodity Codes you added, and within the distance parameter, will appear.
    - You can then click on the business' name and get details on the business including contact information for soliciting bids.
6. If you want to do a general search of all BEP certified vendors in your area, regardless of work performed, just skip adding NIGP Codes and search only by location: city or distance from zip code.
    - A list of businesses will appear, and you can click on the business' name for details on that business including contact information and the work it performs (classified by the NIGP code).
7. You can also use the "Business Name/DBA" box to search specific businesses in your area to determine if they are state certified BEP.

DCEO IL Works Requirements

All DCEO grant funded projects receiving $500,000 or more shall comply with the Illinois Works Jobs Program Act including its apprenticeship initiative. A 10% apprenticeship goal for all grant funded work is expected for this project. Of that goal, half of the apprentice hours for each wage classification must be performed by graduates of the Illinois Works Program, Pre-apprenticeship Program, Climate Works Pre-apprenticeship Program, or Highway Construction Career Training Program. Contractors shall include all costs associated with these requirements in their base bid price.

INSURANCE REQUIREMENTS

TYPE OF INSURANCE	MINIMUM INSURANCE COVERAGE	
	Consequent Death Each Occurrence	Bodily Injury and Property Damage Aggregate
Commercial General Liability including: 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. 7. Broad Form Property Damage - construction projects only 8. Independent contractors 9. Personal Injury	$3,000,000 **Insurance Certificate Must State: The City Of Evanston is Named as Additional Insured**	$3,000,000
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
Ladd Arboretum Launch Project

(BID #26-54)

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: **LADD ARBORETUM LAUNCH PROJECT**

1.04 ACKNOWLEDGMENT:

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 the 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 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.

1.07 AGREEMENT

A. In submitting this Bid, the undersigned agrees:

1. To hold this Bid open for sixty (60) days from the 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.

1.08 SCHEDULE

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

1.09 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:

BASE BID AMOUNT LAUNCH: **$**_____

BASE BID AMOUNT PARKING LOT: **$**_____

TOTAL BASE BID AMOUNT: **$**_____

1.10 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 Base Bid Amount above.**

SCHEDULE OF PRICES

BASE BID - LAUNCH

PAY ITEM NUMBER	PAY ITEM NAME	UNIT OF MEASURE	TOTAL QUANTITY	UNIT PRICE	TOTAL PRICE
20200100	EARTH EXCAVATION	CU YD	840		
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	199		
20400100	BORROW EXCAVATION	CU YD	550		
20900110	POROUS GRANULAR BACKFILL	CU YD	1150		
50200100	STRUCTURE EXCAVATION	CU YD	1034		
50201121	COFFERDAM (TYPE 2) (LOCATION - 1)	EACH	1		
50300225	CONCRETE STRUCTURES	CU YD	455		
50300300	PROTECTIVE COAT	SQ YD	761		
50500505	STUD SHEAR CONNECTORS	EACH	1035		
50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	54600		
51201400	FURNISHING STEEL PILES HP10X42	FOOT	1285		
51202305	DRIVING PILES	FOOT	1285		
52200015	PERMANENT SHEET PILING	SQ FT	18325		
59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	130		
60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	345		
67100100	MOBILIZATION	L SUM	1		
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1		
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1		

81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	38		
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	230		
81028390	UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	215		
81028730	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.	FOOT	1055		
81400730	HANDHOLE, COMPOSITE CONCRETE	EACH	5		
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	1325		
81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	1350		
81702180	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 3/0	FOOT	128		
81702210	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C 300MCM	FOOT	928		
82500370	LIGHTING CONTROLLER, BASE MOUNTED, 240VOLT, 200AMP	EACH	1		
X0321809	PERMANENT GROUND ANCHOR	EACH	18		
X1400088	POWER PEDESTALS	EACH	3		
X1400397	RECEPTACLE OUTLET	EACH	2		
X1700066	POTHOLING	EACH	1		
X4240440	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH (SPECIAL)	SQ FT	2130		
X6640104	FENCE REMOVAL	FOOT	325		
X8000002	EV CHARGING STATION, COMPLETE	L SUM	1		
X8040310	ELECTRICAL SERVICE DISCONNECT	EACH	1		
X8140105	HANDHOLE (SPECIAL)	EACH	1		
Z0013798	CONSTRUCTION LAYOUT	L SUM	1		
	ALLOWANCE FOR LAUNCH	UNIT	1	50,000	50,000
	ARCHITECTURAL CONCRETE FORMLINER	SQ FT	2930		
	ARCHITECTURAL CONCRETE GRAFFITI COATING	SQ FT	2930		

	ARCHITECTURAL CONCRETE STAINING	SQ FT	2930		
	CANOE/KAYAK RAILING	FOOT	47		
	CHAIN LINK FENCE	FOOT	12		
	CONCRETE STAMPS - ANIMAL TRACKS	EACH	4		
	DECIDUOUS SHRUBS	EACH	30		
	DEICER	EACH	3		
	EROSION CONTROL COMPLETE	LSUM	1		
	FLOATING DOCK LAUNCH	LSUM	1		
	LANDSCAPE MAINTENANCE CONTRACT - 3 YEARS	LSUM	1		
	LIMESTONE BLOCK BENCHES	EACH	5		
	LIMESTONE BOULDER SEATING	EACH	6		
	PERENNIALS/GROUNDCOVER	EACH	292		
	PLANTING SOIL MIX	CU YD	720		
	POST MOUNTED SIGNS - ANIMAL INTERPRETATION	EACH	4		
	POST MOUNTED SIGNS - RULES AND INTERPRETIVE	EACH	2		
	RAILING SYSTEM	FOOT	518		
	RAILING SYSTEM WITH HANDRAIL	FOOT	64		
	SEED MIX AND BLANKET	SQ FT	12662		
	SHADE TREES	EACH	2		
	SHREDDED HARDWOOD BARK MULCH	CU YD	118		
	TREE PROTECTION FENCING	EACH	4		
	TREE REMOVAL	EACH	29		
	TREE ROOT PRUNING	LSUM	1		
	TREE TRANSPLANT	EACH	1		
	UNDERSTORY TREES	EACH	14		
	BASE BID - LAUNCH TOTAL				

BASE BID - PARKING LOT					
PAY ITEM NUMBER	**PAY ITEM NAME**	**UNIT OF MEASURE**	**TOTAL QUANTITY**	**UNIT PRICE**	**TOTAL PRICE**
20200100	EARTH EXCAVATION	CU YD	33		
20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	4		
21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	860		
35101500	AGGREGATE BASE COURSE, TYPE B	CU YD	429		
40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	58		
40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	120		
40603535	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	72		
42300500	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 9 INCH	SQ YD	60		
42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	2925		
42400800	DETECTABLE WARNINGS	SQ FT	45		
44000100	PAVEMENT REMOVAL	SQ YD	1100		
44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	60		
44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	1025		
44200934	CLASS B PATCHES, TYPE II, 8 INCH	SQ YD	18		
60200405	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 4 FRAME AND GRATE	EACH	1		
60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	2		
60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	4		
60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	1030		
67100100	MOBILIZATION	L SUM	1		

72000100	SIGN PANEL - TYPE 1	SQ FT	4		
72900100	METAL POST - TYPE A	FOOT	4		
78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	44		
78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1200		
80400100	ELECTRIC SERVICE INSTALLATION	EACH	1		
80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1		
81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	38		
81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	230		
81028730	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.	FOOT	255		
81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	805		
81702180	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 3/0	FOOT	128		
81702210	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C 300MCM	FOOT	928		
82500370	LIGHTING CONTROLLER, BASE MOUNTED, 240VOLT, 200AMP	EACH	1		
83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	21		
X0326862	STRUCTURES TO BE ADJUSTED	EACH	2		
X1700066	POTHOLING	EACH	1		
X3510416	AGGREGATE BASE COURSE, TYPE CA-16	TON	75		
X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	2100		
X6062400	CONCRETE GUTTER (SPECIAL)	FOOT	420		
X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1		
X8040310	ELECTRICAL SERVICE DISCONNECT	EACH	1		
X8250500	LIGHTING UNIT COMPLETE (SPECIAL)	EACH	2		
XX007259	SIGN AND POST REMOVAL	EACH	3		

XX009395	BRICK PAVERS, PERMEABLE	SQ FT	7700		
Z0013798	CONSTRUCTION LAYOUT	L SUM	1		
	ALLOWANCE FOR PARKING LOT	UNIT	1	$50,000	$50,000
	EROSION CONTROL COMPLETE	LSUM	1		
	PLANTING SOIL MIX	CU YD	160		
	SEED MIX AND BLANKET	SQ FT	2760		
	SHADE TREES	EACH	8		
	SHREDDED HARDWOOD BARK MULCH	CU YD	26		
	TOPSOIL, 4"	CU YD	7		
	TREE REMOVAL	EACH	1		
	BASE BID - PARKING LOT TOTAL				

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.

PRODUCT NAME AND/OR MANUFACTURER	ADD	DEDUCT
_____	_____	_____
_____	_____	_____
_____	_____	_____

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: _____

1.20 SKATE PARK CONTRACTOR QUALIFICATION REQUIREMENTS

PRIOR NAVIGABLE WATERWAY CONSTRUCTION EXPERIENCE

The General Contractor must demonstrate successful construction of a minimum of three projects impacting and within a navigable waterway, constructed for a public entity within the last five years. Projects must be in the Midwest, or in a similar climate.

1. PROJECT NAME:
PROJECT ADDRESS:
OWNER:
OWNER CONTACT INFORMATION:
SHOTCRETE NOZZLEMAN:
YEAR CONSTRUCTED:
SQUARE FOOTAGE:
CONTRACTOR'S SCOPE:
CONTRACT VALUE:

2. PROJECT NAME:
PROJECT ADDRESS:
OWNER:
OWNER CONTACT INFORMATION:
SHOTCRETE NOZZLEMAN:
YEAR CONSTRUCTED:
SQUARE FOOTAGE:
CONTRACTOR'S SCOPE:
CONTRACT VALUE:

3. PROJECT NAME:
PROJECT ADDRESS:
OWNER:
OWNER CONTACT INFORMATION:
SHOTCRETE NOZZLEMAN:
YEAR CONSTRUCTED:
SQUARE FOOTAGE:
CONTRACTOR'S SCOPE:
CONTRACT VALUE:

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 1-O-26, 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. **(NOT APPLICABLE)**
- 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 **(NOT APPLICABLE)**, Apprenticeship Program participation, and regulatory compliance obligations listed under Ordinance 1-O-26.

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 (NOT APPLICABLE)

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 Joseph Fields, the Workforce Development Manager at jfields@cityofevanston.org or Tammi Nunez, Purchasing Manager at tnunez@cityofevanston.org.

EXHIBIT C (NOT APPLICABLE)

LOCAL EMPLOYMENT PROGRAM COMPLIANCE

CITY CODE SECTION 1-17-1(C): LOCAL EMPLOYMENT PROGRAM

I have read and understood the requirements of the City of Evanston Local Employment Program ("LEP") as set forth in City of Evanston Code Section 1-17-1(C): Local Employment Program. I intend to comply with the program as follows:

Estimated total labor cost = $ _____ 15% of total labor cost = $ _____

_____ My total bid, including all alternates, is under $250,000, and the LEP does not apply.

_____ My total bid, including all alternates, is equal to or greater than $250,000, and I already employ, and will continue to employ for the duration of the contract for which I am submitting this bid, Evanston residents (residing in zip codes 60201 or 60202) for at least 15% of all hours worked at the construction site by construction trade workers.

_____ My total bid, including all alternates, is equal to or greater than $250,000, and I will employ, for the duration of the contract for which I am submitting this bid, through use of the City of Evanston database or otherwise, Evanston residents (residing in zip codes 60201 or 60202) for at least 15% of all hours worked at the construction site by construction trade workers.

_____ My total bid, including all alternates, is equal to or greater than $250,000, and I have been unable to comply with the LEP requirements but am willing to work with the City to achieve compliance.

_____ My total bid, including all alternates, is equal to or greater than $250,000, and after having made sincere attempt to comply as noted below, I seek a waiver on a portion or all of the LEP requirements on this contract. Complete next section "Reasons for Waiver Request" below.

I UNDERSTAND THAT FAILURE TO COMPLY WITH THE LEP, REGARDLESS OF INTENT, MAY RESULT IN MAXIMUM PENALTY AS SET FORTH IN CITY CODE SECTION 1-17-1(C)(11), AS AMENDED.

WAIVER WILL BE GRANTED ONLY AFTER SINCERE ATTEMPT TO COMPLY*

REASONS FOR WAIVER REQUEST: PLEASE CHECK ALL THAT APPLY AND COMPLETE INFORMATION REQUESTED:

1. I have made sincere attempt as otherwise indicated below but have nonetheless been unable to comply.

a. I do or will employ Evanston residents for the project, but such employment amounts to **____%** of total labor cost.

2. The nature of the job is so technical that after having made sincere attempt as otherwise indicated below, I have been unable to locate any Evanston residents qualified to perform any aspects of the work. Please describe applicable job requirements/qualifications. Attach separate sheet if necessary:

_____

_____

***THE FOLLOWING DEMONSTRATE **SINCERE ATTEMPT TO COMPLY**: PLEASE CHECK EACH BOX COMPLETED, AS APPLICABLE:

3. I have utilized the local resident database and otherwise worked with the City in attempt to hire Evanston residents in compliance with LEP on this project, and have nonetheless been unable to comply;

4. I have placed one or more ads in a local newspaper seeking to hire Evanston residents in compliance with LEP on this project, and have nonetheless been unable to comply; and

5. If I am utilizing union labor, I have contacted Chicagoland labor unions to request Evanston residents for employment in compliance with LEP on this project and have nonetheless been unable to comply.

I have read The City of Evanston, Local Employment Program (LEP) requirements as set forth in City Code Section 1-17-1(C): Local Employment Program. I understand and will comply with the LEP requirements for this project with respect to the job and/or any waiver, as applicable. **I UNDERSTAND THAT IF MY APPLICATION IS NOT COMPLETE, MY BID MUST BE REJECTED.**

SIGNED:

_____ _____ _____

Signature Printed Name and Title Date

On behalf of Company: _____

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 Business Enterprises, 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 an M/W/D/EBE and check the appropriate box below. This M/W/D/EBE will be applying with documentation from:

❑ Cook County ❒ State Certification

❒ Federal Certification ❒ Women's Business Enterprise National Council

❒ City of Chicago ❒ Chicago Minority Supplier Development Council

2. Attach a 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 _____.

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

EXHIBIT F

M/W/D/EBE PARTICIPATION WAIVER REQUEST

I am _____ of _____, and I have the 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:_____ Date: _____
(Signature)

EXHIBIT G

Construction Contractors' Assistance Organizations ("Assist Agencies") Form

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

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

EXHIBIT H

DCEO BEP UTILIZATION OF CERTIFIED VENDORS

(Please submit a separate form for **each** proposed certified vendor)

To achieve the BEP utilization goal through contracting, the following is proposed:

1) The proposed certified vendor's:

Company Name: _____

Address:_____

Phone: _____ FEIN #_____

At the time of submission, the above vendor is:

☐ Certified with the Commission on Equity and Inclusion (CEI) as MBE/WBE/WMBE/PBE (circle applicable designation).

☐ Meets the criteria and has applied for certification with CEI. Application #_____

2) A detailed description of the commercially useful work to be done by this certified vendor is as follows:

_____

_____

_____

_____

3) This DCEO Grant amount is $609,000. The portion of the grant which will be contracted / subcontracted to this certified vendor is $ _____.

4) A joint venture agreement is not required, as the arrangement between _____ and _____ is that of contractor / sub-contractor and not a joint venture.

5) The Grantee has not prohibited or otherwise limited _____ (certified vendor) from providing contractor / sub-contractor quotes to other potential bidders / Grantees.

EXHIBIT I

CERTIFICATION OF BIDDER REGARDING EQUAL EMPLOYMENT OPPORTUNITY (Only if Contract Exceeds $10,000)

This certification is required pursuant to Executive Order 11246 (30 F.R. 12319-25). The implementing rules and regulations provide that any bidder or prospective contractor, or any of their proposed sub-contractors, shall state as an initial part of the bid or negotiations of the contract whether it has participated in any previous contract or sub-contract subject to the equal opportunity clause; and, if so, whether it has filed all compliance reports due under applicable instructions.

Where the certification indicates that the bidder has not filed a compliance report due under applicable instructions, such bidder shall be required to submit a compliance report within seven calendar days after bid opening. No contract shall be awarded unless such report is submitted.

CERTIFICATION OF BIDDER

Name and Address of Bidder (Include ZIP Code)

IRS EMPLOYER I.D. NUMBER 36-_____

1. Bidder has participated in a previous contract or sub-contract subject to the Equal Opportunity Clause. ____Yes ___No

2. Bidder has filed all compliance reports due under applicable instructions. ___Yes ___No

3. Have you ever been or are you being considered for sanction due to violation of Executive Order 11246, as amended? ___Yes ___No

Name:_____

Title: _____

Signature: _____

Date: _____

EXHIBIT J

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 the 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.)

_____

_____

_____

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%.

_____

_____

_____

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

_____

_____

_____

SECTION 3 - TRUSTS

3a. Trust number and institution.

_____

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

_____

_____

_____

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

_____

_____

_____

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.

_____

_____

_____

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).

_____

_____

_____

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.)

_____

_____

_____

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 Seal)

Notary Public

Commission Expires: _____

EXHIBIT K

ADDITIONAL INFORMATION SHEET

Bid/Proposal Name: _____

Bid/Proposal Number #: _____

Company Name: _____

Contact Name: _____

Address: _____

City, State, Zip: _____

Telephone/FAX: #_____

E-mail: _____

Comments: _____

_____

_____

_____

_____

_____

_____

EXHIBIT L

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 M

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.

D. 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.

Category	Name of Sub-contractor	Address and Telephone

(Attach additional sheets as required)

END OF SECTION

EXHIBIT N

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 Seal)
Notary Public

Commission Expires: _____

EXHIBIT O

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 P

Contractor Services Agreement Acknowledgment Page

The City has attached its standard contractor services agreement as an exhibit to this bid document. Identify all exceptions to the agreement that would prevent your firm from executing it**. The City shall not consider or negotiate regarding exceptions submitted at any time after the submission of the Bidder's response.** *Please check one of the following statements:*

____I have read the contractor services agreement and plan on executing the agreement without any exceptions.

_____My firm cannot execute the City's standard contractor service agreement unless the exceptions noted below or in the attached sample contractor services agreement are made.

*****Please be aware that submitting exceptions to the contract may impact the likelihood of your firm being selected to perform this work.**

List exceptions in the area below:

_____

_____

_____

_____

_____

_____

_____

_____

_____

Authorized Signature:

Company Name:

Typed/Printed Name and Title:

Date:

EXHIBIT P

CONTRACTOR SERVICES AGREEMENT

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

Ladd Arboretum Launch Project

(BID #26-54)

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

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RECITALS

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

Construct a new launch and reconstruct an existing parking lot at the southwest corner of McCormick Boulevard and Bridge Street as documented in Bid 26-54.

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

a) City of Evanston Bid 26-54, attached as Exhibit A.

b) Contractor's response to Bid 26-54, 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, Arc View 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.

1.17 Digital Accessibility for Vendors, The City requires that all applicable web content, mobile applications, and electronic documents provided by our vendor partners meet WCAG 2.1 AA compliance and continue to maintain compliance with federal ADA requirements for local government platforms.

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 5/2*105 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. 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 26-54, 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 26-54 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, 3rd Floor
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 2007, 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 or 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:

Shane Cary
City of Evanston Project Manager, Bid 26-54
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 2026

EXHIBIT Q

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:

Sheet No.	Drawing Title
	Title Sheet
NOT-01	General Notes
NOT-02	General Notes
ATB-01	Benchmark, Alignment and Ties Sheet
TYP-01	Typical Section
SOQ-01	Summary of Quantities
STG-01	Staging Plan
SESC-01	Soil Erosion and Sediment Control Protection Plan
EXT-01	Existing Condition Plans
REM-01	Removal Plans
PRO-01	Proposed Plans
GRA-01	Grading Plans
DET-01	Floating Dock Detail
DET-02	Floating Dock Detail
DET-03	Floating Dock Detail
DET-04	Details
DET-05	Details
S-01	Structural General Plan
S-02	General Notes and Bill of Materials
S-03	Foundation Plan
S-04	Structural Grading Plan
S-05	Typical Cross Sections
S-06	Structure Details (1 of 3)
S-07	Structure Details (2 of 3)
S-08	Structure Details (3 of 3)
S-09	Proposed Wall A General Plan and Elevation
S-10	Proposed Wall A General Plan and Elevation
S-11	Proposed Wall B General Plan and Elevation
S-12	Proposed Wall C General Plan and Elevation
S-13	Proposed Wall D General Plan and Elevation
S-14	HP Pile Details
S-15	Boring Logs
E-01	Lighting/Electrical General Notes and Bill of Materials
E-02	Proposed Lighting/Electrical Plan
E-03	Lighting/Electrical Details

E-04	Lighting/Electrical Details
E-05	Lighting/Electrical Details
E-06	Lighting/Electrical Details
PH-01	Photometric Plan
L-1	Tree Protection & Removals
L-2	Hardscape & Furnishings Plan
L-3	Animal Tracks & Interpretation Plan
L-4	Railing Enlargements
L-5	Planting Plan
L-6	Plant Plan Enlargements
L-7	Animal Signs and Animal Tracks Details
L-8	Animal Signs Elevations
L-9	Sign Details
L-10	Furnishing Details
L-11	Furnishing Details
L-12	Hardscape Details
L-13	Tree Protection Details
L-14	Planting Details & Notes
L-15	Plant Schedule & General Notes

1.4 PROJECT SUMMARY

A. Work on this project includes:

1. Construction of a new launch facility to the North Shore Channel and reconstruction of an existing parking lot at the southwest corner of McCormick Boulevard and Bridge Street.

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 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, no street parking.
Parking spaces for workmen	Within job site only, no street parking.
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.

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 worksite 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. Existing parking lot and embankment along the North Shore Channel at the southwest corner of McCormick Boulevard and Bridge Street in Evanston, Illinois.

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.
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.
g. Schedule of submittals.

2. Submit the Schedule of Values to the Owner at the earliest feasible date, but in no case later than seven (7) days before the date scheduled for submittal of the initial Application for Payment.

B. If applicable, the format and content of the Schedule of Values shall match the project's unit pricing. The Contractor is strongly encouraged to utilize spreadsheet software for preparation of all pay applications.

1. Include the following Project identification on the Schedule of Values:

   a. Project name and location.
   b. Purchase order number.
   c. Contractor's name and address.
   d. Date of submittal.

2. Arrange the Schedule of Values in tabular form with separate columns to indicate the following for each item listed:

   a. Itemized description.
   b. Related Specification Section
   c. Name of subcontractor.
   d. Name of manufacturer or fabricator.
   e. Name of supplier.
   f. Change Orders (numbers) that have affected value.
   g. Dollar value.
   h. Percentage of Contract Sum to the nearest one-hundredth percent, adjusted to total 100 percent.

3. For each part of the Work where an Application for Payment may include materials or equipment, purchased or fabricated and stored, but not yet installed, provide separate line items on the Schedule of Values for initial cost of the materials, for each subsequent stage of completion, and for total installed value of that part of the Work.
4. Show line items for indirect costs and margins on actual costs, only to the extent that such items will be listed individually in Applications for Payment. Each item in the Schedule of Values and Applications for Payment shall be complete including its total cost and proportionate share of general overhead and profit margin.
5. Update and resubmit the Schedule of Values when Change Orders result in a change in the Contract Sum.

1.5 PROCEDURES

A. Informal submittal

1. Make informal submittal of request for payment by filling in, with erasable pencil, pertinent portions of AIA Document G702, "Application and Certification for Payment," plus continuation sheet or sheets of AIA Document G703.
2. Make this preliminary submittal to the Architect and Owner in accordance with the Owner's payment schedule.
3. Revise the informal submittal of the request for payment as directed by the Owner, initialing all copies.

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 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.
9.	IBC	Internation 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	Internation 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)

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 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 19th 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
AASHTO	American Assoc. of State Highway and Transportation Officials 444 N. Capitol St, Suite 225 Washington, DC	ACI	American Concrete Institute PO Box 19150 Detroit, MI 48219-0150 (313) 532-2600	ACIL	American Council of Independent Laboratories 1725 K St, NW Washington, DC 20006 (202) 887-5872

	20001 (202) 624-5800				
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. 1130Connecticut 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 17th 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. 42nd 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 47th 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 (216) 835-3040	ASTM	American Society for Testing and Materials 1916 Race St Philadelphia, PA 19103 (215) 299-5400
AWI	Architectural Woodwork Institute	AWPA	American Wood Preservers Assoc.	AWPB	American Wood Preservers Bureau

	2310 S. Walter Reed Dr. Arlington, VA 22206 (703) 671-9100		PO Box 286 Woodstock, MD 21163 (410) 465-3169		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	AWWA	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, 17th 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. 47th Street New York, NY 10017 (212) 705-7900	IESNA	Illuminating Engineering Society of North America 345 E 47th 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 Cleveland, OH 44115-2180	MCAA	Mechanical Contractors Assoc. of America 5410 Grosvenor Lane, Ste 120 Bethesda, MD	NAAMM	National Assoc. of Architectural Metal Manufacturers 600 S. Federal St, Ste 400 Chicago, IL 60605

			20814 (301) 897-0770		(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)	NBGQA	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
NFoPA	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
NWMA	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. 77th Street, South Dr. Indianapolis, IN 4626 (317) 251-6970	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
SHLMA	Southern Hardwood Lumber	SJI	Steel Joist Institute Suite A	SPIB	Southern Pine Inspection Bureau

	Manufacturers Assoc. (Now HMA)		1205 48th Ave North Myrtle Beach, SC 29577		4709 Scenic Highway Pensacola, FL 32504 (904) 434-2611
SSPC	Steel Structures Painting Council 4400 Fifth Ave. Pittsburgh, PA 15213 (412) 268-3327	SSPMA	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	WCLIB	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	WWPA	Western Wood Products Assoc. 522 SW 5th 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) Government Printing Office Washington, DC 20402	DOC	Department of Commerce 14th St and Constitution Ave, NW Washington, DC 20230	DOT	Department of Transportation 400 7th St, SW Washington, DC 20590 (202) 366-4000

	(202) 377-2000		(202) 377-2000		
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 7th St, SW, Room 9158 Washington, DC 20201 (202) 755-5210	FS	Federal Specification (from GSA) Supt. Of Documents, Government Printing Office 7th and D St, SW Washington, DC 20234 (202) 472-2205 or 472-2140	GSA	General Services Administration F St and 18th 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. 12th and 14th 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 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 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 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 01 10 50

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
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.

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.

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 for Launch, Additional Work - General:	**$50,000.00**
Allowance for Parking Lot, Additional Work - General:	**$50,000.00**

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 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.

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 that 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”.
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 14 calendar days of the date required for establishment of the Contractor's construction schedule.

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:

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.

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.

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. Consultant will be allowed a minimum of 2 weeks to perform review of submittals.

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
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

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 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 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.

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.

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

(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.

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.

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.

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 01580 - PROJECT CONSTRUCTION SIGN

PART 1 - GENERAL

1.1 WORK INCLUDES

A. Contractor shall:

1. Fabricate, install and remove one (1) project construction sign 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 ¾ 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.

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 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

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.

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 date substantiating compliance of proposed substitution with contract documents.
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)

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

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.
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)

END OF SECTION 01 70 00

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STATE OF ILLINOIS

SPECIAL PROVISIONS

The following Special Provisions supplement the specifications listed in the table below which apply to and govern the proposed improvement designated as Bid #26-54 and in case of conflict with any part or parts of said specifications, the said Special Provisions shall take precedence and govern.

SPECIFICATION	ADOPTED/DATED
Standard Specifications for Road and Bridge Construction	January 1, 2022
Manual on Uniform Traffic Control Devices for Streets and Highways	11th Edition, January 18, 2024
Illinois Manual On Uniform Traffic Control Devices for Streets And Highways" (ILMUTCD)	Current Edition
Supplemental Specifications and Recurring Special Provisions	January 1, 2025
Manual of Test Procedure of Materials	Current
Standard Specifications for Water & Sewer Main Construction in Illinois	8th Edition, 2020
Standard Specifications for Traffic Control Items (SSTCI)	Current
Americans with Disabilities Act of 1990 Accessibility Guidelines	Current
"Draft" Rehabilitation Act of 1973 (Section 504)	Current
Public Rights-Of-Way Accessibility Guidelines	Current

LOCATION OF PROJECT

The project is located along the Ladd Arboretum that borders the north bank of the North Shore Channel between Emerson Street and Green Bay Road. The existing parking lot and future location of the launch is located just southeast of the Bridge Street and McCormick Boulevard intersection.

DESCRIPTION OF WORK

The proposed Ladd Arboretum Launch Project is a rehabilitation parking lot and installation of a new launch project. The main purpose of this project is to create new launch for all users within the Evanston community.

Work will consist of improvements to the following; structures, earthwork, floating dock, lighting, sidewalk, curb and gutter, parking lot resurfacing, hardscape and landscaping elements.

Disposal of existing equipment shall be coordinated with the City. The City shall inspect removed equipment and direct the contractor to deliver it to the City or dispose it. All official notices required to be delivered to the City of Evanston under the terms of this Contract shall be sent to the following representative of the City:

Shane Cary
Architect/Project Manager
Public Works Agency
City of Evanston
909 Davis Street
Evanston, IL 60201
Phone (847) 859-7876

SUBSTANTIAL COMPLETION DATE

The substantial completion date for this project is **MAY 26, 2028.**

Substantial completion means all items are to be completed except for landscaping and punch list.

Ten (10) working days after the substantial completion date are allowed for cleanup and punch list items.

WORKING HOURS AND HOLIDAYS

Normal Work Hours

Normal work hours shall be Monday through Friday (excluding legal holidays) between 7:00 am and 4:00 p.m. local time during the calendar dates specified in Article 108.03. Except for work required to maintain warning lights, barricades and other safety/health-related systems no work shall be performed on Saturdays, Sundays, legal holidays, or between 4:00 pm and 7:00 am on other days without specific permission of the Owner. Approved work on Saturday shall be between 8:00 am and 4:00 pm.

If at any time during the project the Contractor elects to work on a Saturday, they must obtain written permission from the Capital Planning and Engineering Bureau, Senior Project Manager and/or City Engineer/Bureau Chief, Public Works Agency. Contractor shall request this at least twenty-four hours in advance of Saturday work. The contractor is required to estimate any Saturday work and include that in the bid amount.

Holidays

The Contractor shall notify the Owner and Engineer at least 72 hours before beginning work. The Contractor shall give a minimum of 24-hour notice, not including Saturdays, Sundays or legal holidays, prior to suspension of construction activities for any non-weather related reason. Suspension of work for non-weather related reasons must be pre-approved by the Engineer. The Contractor must be in advance of the Controlling Item as indicated by his submitted Construction Schedule as a condition of the Engineer's granting of authorization to suspend work. In addition, the suspension shall not affect the completion date of the Project. The Contractor shall notify the Engineer at least 24 hours, not including Saturdays, Sundays or legal holidays, prior to the resumption of work. The site must be left in a clean and neat manner, acceptable to the Engineer, prior to the authorization of the suspension.

The Contractor shall perform the Work in accordance with the following scheduling requirements:

The Contractor will be required to discuss their operations and get verbal and / or written permission at least twenty-four (24) hours in advance in order to work on the following dates:

Monday, May 31, 2027, Memorial Day
Friday, June 18, 2027, Juneteenth Day (observed)
Monday, July 5, 2027, Independence Day (observed)
Monday, September 6, 2027, Labor Day
Saturday, October 2, 2027, Rosh Hashanah
Monday, October 11, 2027, Yom Kippur

FAILURE TO COMPLETE THE WORK ON TIME

Should the Contractor fail to complete the work on or before the substantial completion date, the Contractor shall be liable to the City of Evanston in the amount of **$1,425.00**, not as a penalty but as liquidated damages, for each calendar day or a portion thereof of overrun in the contract time or such extended time as may have been allowed.

In fixing the damages as set out herein, the desire is to establish a certain mode of calculation for the work since the City's actual loss, in the event of delay, cannot be predetermined, would be difficult of ascertainment, and a matter of argument and unprofitable litigation. This said mode is an equitable rule for measurement of the City's actual loss and fairly takes into account the loss of use of the roadway if the project is delayed in completion. The City shall not be required to provide any actual loss in order to recover these liquidated damages provided herein, as said damages are very difficult to ascertain. Furthermore, no provision of this clause shall be construed as a penalty, as such is not the intention of the parties.

A calendar day is every day shown on the calendar and starts at 12:00 midnight and ends at the following 12:00 midnight, twenty-four hours later.

CONSTRUCTION LAYOUT

The Contractor shall provide all construction layout for this project. The Engineer will provide electronic CAD files and vertical and horizontal control points only.

The Contractor shall provide field forces, equipment and material to provide all layout necessary for the construction of this project. Lines and grade of pavement, curb and all other features shall be set at sufficient intervals to assure substantial conformance to plan line and grade.

The Contractor shall be responsible for having the finished work substantially conform to the lines, grades, elevations and dimensions called for in the plans or included in the CAD files. Any inspection or checking of the Contractor's layout by the Engineer and the acceptance of all or any part of it shall not relieve the Contractor of his/her responsibility to secure the proper dimension, grades and elevations of the several parts of the work. The Contractor shall exercise care in the preservation of all control points and shall have them reset at his/her expense when any are damaged, lost, displaced or removed or otherwise obliterated.

Responsibility of the Engineer

a. The Engineer will locate and reference the control points within or adjacent to the project limits.

   Locating and referencing the centerline of survey will consist of establishing and referencing the control points of the centerline of surveys such as PC's, PT's and as many POT's as are necessary to provide a line of sight.

b. The Engineer will establish benchmarks along the project.

c. The Engineer will make random checks of the Contractor's staking to determine if the work is in substantial conformance with the plans. Where the Contractor's work will tie into work that is being or will be done by others, checks will be made to determine if the work is in conformance with the proposed overall grade and horizontal alignment.

d. Where the Contractor, in providing layout, discovers discrepancies, the Engineer will check to determine their nature and make whatever revisions are necessary in the plans

e. It is not the responsibility of the Engineer, except as provided herein, to check the correctness of the Contractor's stakes; however, any errors that are apparent will be immediately called to the Contractor's attention and s(he) shall be required to make the necessary correction before the stakes are used for construction purposes.

f. The Engineer will provide CAD files which will be the basis for all of the required layout.

Responsibility of the Contractor

a. The Contractor shall establish from the given survey points and benchmarks all the control points necessary to construct the individual project elements. S(he) shall provide the Engineer adequate control in close proximity to each individual element to allow adequate checking of construction operations. This includes, but is not limited to, line and grade stakes, line and grade nails in form work, and/or filed or etched marks in substantially completed construction work.

   It is the Contractor's responsibility to tie in centerline control points in order to preserve them during construction operations.

b. The Contractor shall provide all necessary layout for all improvements constructed as part of this project. This will include all pavements, curbs, light poles, traffic signal poles, all foundations, structures, tree grates, vegetation and any other associated improvement.

c. All work shall be in accordance with normally accepted self-checking surveying practices. Field notes shall be kept in standard survey field notebooks and those books shall become the property of the Engineer at the completion of the project. All notes shall be neat, orderly and in accepted form. If at any time during construction, discrepancies are identified they shall be promptly brought to the attention of the Engineer.

Method of Measurement and Basis of Payment: This item will be paid for at the contract lump sum price for CONSTRUCTION LAYOUT, which prices shall be payment in full for all services, materials, labor and other items required to complete the work.

ADJUSTMENTS AND RECONSTRUCTIONS (D-1)

Effective: March 15, 2011

Revise the first paragraph of Article 602.04 to read:

"**602.04 Concrete.** Cast-in-place concrete for structures shall be constructed of Class SI concrete according to the applicable portions of Section 503. Cast-in-place concrete for pavement patching around adjustments and reconstructions shall be constructed of Class PP-1 concrete, unless otherwise noted in the plans, according to the applicable portions of Section 1020."

Revise the third, fourth and fifth sentences of the second paragraph of Article 602.11(c) to read:

"Castings shall be set to the finished pavement elevation so that no subsequent adjustment will be necessary, and the space around the casting shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b."

Revise Article 603.05 to read:

"**603.05 Replacement of Existing Flexible Pavement.** After the castings have been adjusted, the surrounding space shall be filled with Class PP-1 concrete, unless otherwise noted in the plans, to the elevation of the surface of the base course or binder course. HMA surface or binder course material shall not be allowed. The pavement may be opened to traffic according to Article 701.17(e)(3)b."

Revise Article 603.06 to read:

"**603.06 Replacement of Existing Rigid Pavement.** After the castings have been adjusted, the pavement and HMA that was removed, shall be replaced with Class PP-1 concrete, unless otherwise noted in the plans, not less than 9 in. (225 mm) thick. The pavement may be opened to traffic according to Article 701.17(e)(3)b.

The surface of the Class PP concrete shall be constructed flush with the adjacent surface."

Revise the first sentence of Article 603.07 to read:

"**603.07 Protection Under Traffic.** After the casting has been adjusted and the Class PP concrete has been placed, the work shall be protected by a barricade and two lights according to Article 701.17(e)(3)b."

HOT-MIX ASPHALT – MIXTURE DESIGN VERIFICATION AND PRODUCTION (D1)

Effective: January 1, 2019
Revised: January 1, 2026

Add to Article 1030.05 (d)(3) of the Standard Specifications to read:

" During mixture design, prepared samples shall be submitted to the District laboratory by the Contractor for verification testing. The required testing, number and size of prepared samples submitted, shall be according to the following tables.

High ESAL – Required Samples for Verification Testing	
Mixture	Hamburg Wheel and I-FIT Testing 1/ 2/
Binder	total of 3 - 160 mm tall bricks
Surface	total of 4 - 160 mm tall bricks

Low ESAL – Required Samples for Verification Testing	
Mixture	I-FIT Testing 1/ 2/
Binder	1 - 160 mm tall brick
Surface	2 - 160 mm tall bricks

1/ The compacted gyratory bricks for Hamburg wheel and I-FIT testing shall be 7.5 ± 0.5 percent air voids.

2/ If the Contractor does not possess the equipment to prepare the 160 mm tall brick(s), twice as many 115 mm tall compacted gyratory bricks will be acceptable.

In the Supplemental Specifications, replace the addition of the paragraph between the third and fourth paragraphs of Article 1030.10 with the following:

"When a test strip is not required, each HMA mixture shall still be sampled on the first day of production: I-FIT and Hamburg wheel testing for High ESAL; I-FIT testing for Low ESAL. Within two working days after sampling the mixture, the Contractor shall deliver gyratory cylinders to the District laboratory for Department verification testing. The High ESAL mixture test results shall meet the requirements of Articles 1030.05(d)(3) and 1030.05(d)(4). The Low ESAL mixture test results shall meet the requirements of Article 1030.05(d)(4). The required number and size of prepared samples submitted for the

Hamburg wheel and I-FIT testing shall be according to the "High ESAL - Required Samples for Verification Testing" table in Article 1030.05(d)(3) above."

Replace the eleventh paragraph of Article 1030.10 of the Standard Specifications with the following:

"If an initial Hamburg wheel or I-FIT test fails to meet the requirements of Article 1030.05(d), the Department will verify the results by testing the retained gyratory cylinders. Upon notification by the Engineer of a Hamburg wheel or I-FIT test failure on the retained gyratory cylinders, the Contractor shall substitute an approved mix design, submit a new mix design for mix verification testing according to Article 1030.05(d), or pave 250 tons with or without an adjustment and resample for Department Hamburg wheel and I-FIT testing as directed by the Engineer. Paving may continue as long as all other mixture criteria is being met. If Hamburg wheel or I-FIT tests on the resampled HMA fail, production of the affected mixture shall cease and the Contractor shall substitute an approved mix design or submit a new mix design for mix verification testing according to Article 1030.05(d)."

Add the following to the end of Article 1030.10 of the Standard Specifications to read:

"Mixture sampled during first day of production shall include approximately 60 lb (27 kg) of additional material for the Department to conduct Hamburg wheel testing and approximately 80 lb (36 kg) of additional material for the Department to conduct I-FIT testing. Within two working days after sampling, the Contractor shall deliver prepared samples to the District laboratory for verification testing. The required number and size of prepared samples submitted for the Hamburg wheel and I-FIT testing shall be according to the "High ESAL - Required Samples for Verification Testing" table in Article 1030.05(d)(3) above."

HOT-MIX ASPHALT BINDER AND SURFACE COURSE (D-1)

Effective: November 1, 2019
Revised: April 1, 2026

Add the following to the end of Article 406.06(c) of the Standard Specifications:

"The amount of HMA binder course placed shall be limited to that which can be surfaced during the same construction season."

Revise the fifteenth through eighteenth paragraphs of Article 406.14 of the Standard Specifications to read:

"The mixture used in constructing acceptable HMA test strips will be paid for at the contract unit price. Unacceptable HMA test strips shall be removed and replaced at no additional cost to the Department."

Revise Article 1004.03(c) to read:

"(c) Gradation. The coarse aggregate gradations shall be as listed in the following table.

Use	Size/Application	Gradation No.
Class A-1, A-2, & A-3	3/8 in. (10 mm) Seal	CA 16 or CA 20
Class A-1	1/2 in. (13 mm) Seal	CA 15
Class A-2 & A-3	Cover Coat	CA 14
HMA High ESAL	IL-19.0; Stabilized Subbase IL-19.0	CA 11 1/
	SMA 12.5 2/	CA 13 4/, CA 14, or CA 16
	SMA 9.5 2/	CA 13 3/4/ or CA 16 3/
	IL-9.5	CA 16, CM 13 4/
	IL-9.5FG	CA 16
HMA Low ESAL	IL-19.0L	CA 11 1/
	IL-9.5L	CA 16

1/ CA 16 or CA 13 may be blended with the CA 11.

2/ The coarse aggregates used shall be capable of being combined with the fine aggregates and mineral filler to meet the approved mix design and the mix requirements noted herein.

3/ The specified coarse aggregate gradations may be blended.

4/ CA 13 shall be 100 percent passing the 1/2 in. (12.5mm) sieve."

Revise Article 1004.03(e) of the Standard Specifications to read:

"(e) Absorption. For SMA the coarse aggregate shall also have water absorption ≤ 2.0 percent."

Revise the "High ESAL" portion of the table in Article 1030.01 to read:

"High ESAL	Binder Courses	IL-19.0, IL-9.5, IL-9.5FG, IL-4.75, SMA 12.5, SMA 9.5 Stabilized Subbase IL-19.0
	Surface Courses	IL-9.5, IL-9.5FG, SMA 12.5, SMA 9.5"

Revise Note 2. and add Note 6 to Article 1030.02 of the Standard Specifications to read:

"Item Article/Section

(g)Performance Graded Asphalt Binder (Note 6) 1032
(h)Fibers (Note 2)

Note 2. A stabilizing additive such as cellulose or mineral fiber shall be added to the SMA mixture according to Illinois Modified AASHTO M 325. The stabilizing additive shall meet the Fiber Quality Requirements listed in Illinois Modified AASHTO M 325. Prior to approval and use of fibers, the Contractor shall submit a notarized certification by the producer of these materials stating they meet these requirements. Reclaimed Asphalt Shingles (RAS) may be used in Stone Matrix Asphalt (SMA) mixtures designed with an SBA polymer modifier as a fiber additive if the mix design with RAS included meets AASHTO T305 requirements. The RAS shall be from a certified source that produces either Type I or Type 2. Material shall meet requirements noted herein and the actual dosage rate will be determined by the Engineer.

Note 6. The asphalt binder shall be an SBS PG 76-28 when the SMA is used on a full-depth asphalt pavement and SBS PG 76-22 when used as an overlay, except where modified herein. The asphalt binder shall be a SBS PG 76-22 for IL-4.75, except where modified herein.."

Revise table in Article 1030.05(a) of the Standard Specifications to read:

"MIXTURE COMPOSITION (% PASSING) [1/]												
Sieve Size	IL-19.0 mm		SMA 12.5		SMA 9.5		IL-9.5mm		IL-9.5FG		IL-4.75 mm	
	min	max	min	max	min	max	min	max	min	max	min	max
1 1/2 in (37.5 mm)												
1 in. (25 mm)		100										
3/4 in. (19 mm)	90	100		100								
1/2 in. (12.5 mm)	75	89	80	100		100		100		100		100
3/8 in. (9.5 mm)				65	90	100	90	100	90	100		100
#4 (4.75 mm)	40	60	20	30	36	50	34	69	60	75[6/]	90	100
#8 (2.36 mm)	20	42	16	24 [4/]	16	32[4/]	34 [5/]	52 [2/]	45	60[6/]	70	90
#16 (1.18 mm)	15	30					10	32	25	40	50	65
#30 (600 μm)			12	16	12	18			15	30		
#50 (300 μm)	6	15					4	15	8	15	15	30
#100 (150 μm)	4	9					3	10	6	10	10	18
#200 (75 μm)	3.0	6.0	7.0	9.0 [3/]	7.5	9.5 [3/]	4.0	6.0	4.0	6.5	7.0	9.0 [3/]
#635 (20 μm)			≤ 3.0		≤ 3.0							
Ratio Dust/Asphalt Binder		1.0		1.5		1.5		1.0		1.0		1.0

1/ Based on percent of total aggregate weight.
2/ The mixture composition shall not exceed 44 percent passing the #8 (2.36 mm) sieve for surface courses with Ndesign = 90.
3/ Additional minus No. 200 (0.075 mm) material required by the mix design shall be mineral filler, unless otherwise approved by the Engineer.
4/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted above the percentage stated on the table.

5/ When establishing the Adjusted Job Mix Formula (AJMF) the percent passing the #8 (2.36 mm) sieve shall not be adjusted below 34 percent.
6/ When the mixture is used as a binder, the maximum shall be increased by 0.5 percent passing."

Revise Article 1030.05(b) of the Standard Specifications to read:

(b) Volumetric Requirements. The target value for the air voids of the HMA shall be 4.0 percent, for IL-4.75 and SMA mixtures it shall be 3.5 percent and for Stabilized Subbase it shall be 3.0 percent at the design number of gyrations. The voids in the mineral aggregate (VMA) and voids filled with asphalt binder (VFA) of the HMA design shall be based on the nominal maximum size of the aggregate in the mix and shall conform to the following requirements.

	Voids in the Mineral Aggregate (VMA), % Minimum for Ndesign				
Mix Design	30	50	70	80	90
IL-19.0		13.5	13.5		13.5
IL-9.5		15.0	15.0		
IL-9.5FG		15.0	15.0		
IL-4.75[1/]		18.5			
SMA-12.5[1/2/5/]				17.0[3/]/16.0[4/]	
SMA-9.5[1/2/5/]				17.0[3/]/16.0[4/]	
IL-19.0L	13.5				
IL-9.5L	15.0				

1/ Maximum draindown shall be 0.3 percent according to Illinois Modified AASHTO T 305.

2/ The draindown shall be determined at the JMF asphalt binder content at the mixing temperature plus 30°F.

3/ Applies when specific gravity of coarse aggregate is ≥ 2.760.

4/ Applies when specific gravity of coarse aggregate is < 2.760.

5/ For surface course, the coarse aggregate can be crushed steel slag, crystalline crushed stone or crushed sandstone. For binder course, coarse aggregate shall be crushed stone (dolomite), crushed gravel, crystalline crushed stone, or crushed sandstone"

Revise the last paragraph of Article 1102.01 (a) (5) of the Standard Specifications to read:

"IL-4.75 and Stone Matrix Asphalt (SMA) mixtures which contain aggregate having absorptions greater than or equal to 2.0 percent, or which contain steal slag sand, shall have minimum surge bin storage plus haul time of 1.5 hours."

Revise the first and second paragraphs of Articles 1030.06(c)(2) of the Standard Specifications to read:

"(2) Personnel. The Contractor shall provide a QC Manager who shall have overall responsibility and authority for quality control. This individual shall maintain active certification as a Hot-Mix Asphalt Level II technician.

In addition to the QC Manager, the Contractor shall provide sufficient personnel to perform the required visual inspections, sampling, testing, and documentation in a timely manner. Mix designs shall be developed by personnel with an active certification as a Hot-Mix Asphalt Level III technician. Technicians performing mix design testing and plant sampling/testing shall maintain active certification as a Hot-Mix Asphalt Level I technician. The Contractor may provide a technician trainee who has successfully completed the Department's "Hot-Mix Asphalt Trainee Course" to assist in the activities completed by a Hot-Mix Asphalt Level I technician for a period of one year after the course completion date. The Contractor may also provide a Gradation Technician who has successfully completed the Department's "Gradation Technician Course" to run gradation tests only under the supervision of a Hot-Mix Asphalt Level II Technician. The Contractor shall provide a Hot-Mix Asphalt Density Tester who has successfully completed the Department's "Nuclear Density Testing" course to run all nuclear density tests on the job site."

Add Article 1030.06(d)(3) to the Standard Specifications to read:

"(3) The Contractor shall take possession of any Department unused backup or dispute resolution HMA mixture samples or density specimens upon notification by the Engineer. The Contractor shall collect the HMA mixture samples or density specimens from the location designated by the Engineer and may add these materials to RAP stockpiles according to Section 1031."

Revise the second paragraph of Articles 1030.07(a)(11) and 1030.08(a)(9) of the Standard
Specifications to read:

"When establishing the target density, the HMA maximum theoretical specific gravity

(Gmm) will be based on the running average of four available Department test results
for that project. If less than four Gmm test results are available, an average of all available Department test results for that project will be used. The initial Gmm will be
the last available Department test result from a QMP project. If there is no available
Department test result from a QMP project, the Department mix design verification test
result will be used as the initial Gmm."

Revise the Quality Control Limits table in Article 1030.09(c) to read:

CONTROL LIMITS						
Parameter	IL-19.0, IL-9.5, IL-9.5FG, IL-19.0L, IL-9.5L		SMA-12.5, SMA-9.5		IL-4.75	
	Individual Test	Moving Avg. of 4	Individual Test	Moving Avg. of 4	Individual Test	Moving Avg. of 4
% Passing: 1/						
1/2 in. (12.5 mm)	± 6 %	± 4 %	± 6 %	± 4 %		
3/8 in. (9.5mm)			± 4 %	± 3 %		
# 4 (4.75 mm)	± 5 %	± 4 %	± 5 %	± 4 %		
# 8 (2.36 mm)	± 5 %	± 3 %	± 4 %	± 2 %		
# 16 (1.18 mm)			± 4 %	± 2 %	± 4 %	± 3 %
# 30 (600 µm)	± 4 %	± 2.5 %	± 4 %	± 2.5 %		
Total Dust Content # 200 (75 µm)	± 1.5 %	± 1.0 %			± 1.5 %	± 1.0 %
Asphalt Binder Content	± 0.3 %	± 0.2 %	± 0.2 %	± 0.1 %	± 0.3 %	± 0.2 %
Air Voids 2/	± 1.2 %	± 1.0 %	± 1.2 %	± 1.0 %	± 1.2 %	± 1.0 %
Field VMA 3/	-0.7 %	-0.5 %	-0.7 %	-0.5 %	-0.7 %	-0.5 %

1/ Based on washed ignition oven or solvent extraction gradation.

2/ The air voids target shall be 3.2 to 4.8 percent.

3/ Allowable limit below minimum design VMA requirement.

Revise Article 1030.09(g)(1) of the Supplemental Specifications with the following:

"(1) The Contractor shall sample approximately 200 lb (91 kg) of mix as required for the

Department's random mixture verification tests according to Article 1030.09(h)(1)."

Revise Article 1030.09(g)(2) of the Standard Specifications to read:

"(2) The Contractor shall complete split verification sample tests listed in the Limits of Precision table in Article 1030.09(h)(1)."

Revise the second sentence of Article 1030.09(h)(1) of the Supplemental Specifications with the following:

"The random verification mixture sampling interval will be a maximum of 3,000 tons (2,720 metric tons). The Engineer will randomly identify one sample per interval, with a minimum of one sample per mix. If the remaining mix quantity is 600 tons (544 metric tons) or less, the quantity will be combined with the previous interval in the Engineer's random sample identification. If the required tonnage of a mixture for a single pay item is less than 250 tons (225 metric tons) in total, the Engineer will waive mixture verification sampling and testing."

Revise the third paragraph of Article 1030.09(h)(1) of the Standard Specifications to read:

"If comparisons of the mixture verification test results are outside the above limits of precision, the Department will verify the results by testing the retained split sample. The retest results will replace all the original results."

In the Supplemental Specifications, replace the revision for the end of the third paragraph of Article 1030.09(h)(2) with the following:

"When establishing the target density, the HMA maximum theoretical specific gravity (Gmm) will be the Department mix design verification test result."

Add after third sentence of Article 1030.09(b) to read:

"If the Contractor and Engineer agree the nuclear density test method is not appropriate for the mixture, cores shall be taken at random locations determined according to the

QC/QA document "Determination of Random Density Test Site Locations". Core densities shall be determined using the Illinois Modified AASHTO T 166 or T 275 procedure."

Revise Table 1 and Note 4/ of Table 1 in Article 406.07(a) of the Standard Specifications to read:

	Breakdown/Intermediate Roller (one of the following)	Final Roller (one or more of the following)	Density Requirement
IL-9.5, IL-9.5FG, IL-19.0 1/	V_D, P , T_B, 3W, O_T, O_B	V_S, T_B, T_F, O_T	As specified in Section 1030
IL-4.75 and SMA 3/ 4/	T_B, 3W, O_T	T_F, 3W	As specified in Section 1030
Mixtures on Bridge Decks 2/	T_B	T_F	As specified in Articles 582.05 and 582.06.

"4/ The Contractor shall provide a minimum of two steel-wheeled tandem rollers (T_B), and/or three-wheel (3W) rollers for breakdown, except one of the (T_B) or (3W) rollers shall be 84 inches (2.14 m) wide and a weight of 315 pound per linear inch (PLI) (5.63 kg/mm) and one of the (T_B) or (3W) rollers can be substituted for an oscillatory roller (O_T). T_F rollers shall be a minimum of 280 lb/in. (50 N/mm). The 3W and T_B rollers shall be operated at a uniform speed not to exceed 3 mph (5 km/h), with the drive roll for T_B rollers nearest the paver and maintain an effective rolling distance of not more than 150 ft (45 m) behind the paver."

Add the following after the fourth paragraph of Article 406.13 (b):

"The plan quantities of SMA mixtures shall be adjusted using the actual approved binder and surface Mix Design's G_{mb}."

Revise first paragraph of Article 1030.10 of the Standard Specifications to read:

"A test strip of 300 ton (275 metric tons), except for SMA mixtures it will be 400 ton (363 metric ton), will be required for each mixture on each contract at the beginning of HMA production for each construction year according to the Manual of Test Procedures for Materials "Hot Mix Asphalt Test Strip Procedures". At the request of the Producer, the Engineer may waive the test strip if previous construction during the current construction year has demonstrated the constructability of the mix using Department test results."

Revise fourth paragraph of Article 1030.10 of the Standard Specifications to read:

"When a test strip is constructed, the Contractor shall collect and split the mixture according to the document "Hot-Mix Asphalt Test Strip Procedures". The Engineer, or a representative, shall deliver split sample to the District Laboratory for verification testing. The Contractor shall complete mixture tests stated in Article 1030.09(a). Mixture sampled shall include enough material for the Department to conduct mixture tests detailed in Article 1030.09(a) and in the document "Hot-Mix Asphalt Mixture Design Verification Procedure" Section 3.3. The mixture test results shall meet the requirements of Articles 1030.05(b) and 1030.05(d), except Hamburg wheel tests will only be conducted on High ESAL mixtures during production. To be considered acceptable to remain in place, the Department's mixture test results shall meet the acceptable limits stated in Article 1030.09(i)(1). In addition, no visible pavement distress such as, but not limited to, segregation, excessive coarse aggregate fracturing outside of growth curves, excessive dust balls, or flushing shall be present as determined by the Engineer."

TRAFFIC CONTROL PLAN

Traffic Control shall be according to the applicable sections of the Standard Specifications, the Supplemental Specifications, the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways", any special details and Highway Standards contained in the plans, and the Special Provisions contained herein.

Special attention is called to Article 107.09 of the Standard Specifications and the following Highway Standards, Details, Quality Standard for Work Zone Traffic Control Devices, Recurring Special Provisions and Special Provisions contained herein, relating to traffic control.

List of Highway Standards:

701001-02	OFF ROAD OPERATIONS, 2 LANE, 2 WAY, MORE THAN 15 FEET
701006-05	OFF ROAD OPERATIONS, 2 LANE, 2 WAY 15 FEET TO 24 INCHES TO PAVEMENT EDGE
701801-06	SIDEWALK CORNER OR CROSSWALK CLOSURE
701901-08	TRAFFIC CONTROL DEVICES

The work shall be accomplished such that the streets will be left open to local traffic at the end of each working day.

It will also be necessary for the Contractor to provide advance written notice to residents, police, fire, school districts and trash haulers when access to any street and/or driveway will be temporarily closed or limited. At least one lane access must be provided to all commercial property at all times. Notices shall be delivered 24 hours prior to any temporary closures and shall provide a re-entrance date to the residents. Notices shall be reviewed and approved by the Engineer prior to issuance.

During construction, the Contractor shall provide lighted barricades, flagmen and other temporary protection where necessary for public safety at all times. Should traffic protection be determined to be inadequate by the Engineer, the City will take the necessary actions to protect the public, and the cost of this work will be charged to the Contractor. Temporary fence is incidental to this pay item.

Method of Measurement. This work will not be measured for payment.

Basis of Payment. This work will be considered included in the contract lump sum price for TRAFFIC CONTROL AND PROTECTION, (SPECIAL). All temporary pavement marking installation and removal will be included in this pay item.

DETECTABLE WARNINGS

Description.
This work shall consist of furnishing and installing detectable warning panels at locations as directed by the ENGINEER.

Materials.
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, and shall be provided by a manufacturer approved by the Illinois Department of Transportation. 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.

The galvanized steel detectable warning panels shall be of uniform quality, free from surface defects, and shall be provided with the specified finish as directed by the Engineer.

Construction Requirements.
The Contractor shall install the panels in accordance with the manufacturer's recommendations and details. The panels shall be installed during the construction of the new PCC sidewalk and shall be an integral part of the walking surface. The top of the panel shall be flush with the surface of the sidewalk and only the actual domes shall project above the walking surface.

The detectable warning panels shall be installed at curb ramps, medians and pedestrian refuge islands, at-grade railroad crossings, transit platform edges, and other locations where pedestrians are required to cross a hazardous vehicular way.

Method of Measurement and Basis of Payment. This work will be measured and paid for at the contract unit price per square foot for DETECTABLE WARNINGS which work includes furnishing and installing the detectable warning per the manufacturer's recommendations and as described herein.

STRUCTURES TO BE ADJUSTED

Description. This work shall be completed in conformance with applicable portions of Sections 602 and 603 of the Standard Specifications. Drainage and utility structures shall be understood to include catch basins, manholes, inlets, and valve vaults.

Method of Measurement and Basis of Payment. This work will be measured and paid for at the contract unit price per each for STRUCTURES TO BE ADJUSTED.

CONCRETE GUTTER (SPECAIL)

Description. This work shall be completed in conformance with applicable portions of Sections 606 of the Standard Specifications. This pay item is for the depressed gutter that borders the permeable pavers shown on the plans. This will include all labor, material and equipment necessary to perform tasks.

Method of Measurement and Basis of Payment. This work will be measured and paid for at the contract unit price per foot for CONCRETE GUTTER (SPECIAL).

SIGN AND POST REMOVAL

Description. This work shall be completed in conformance with applicable portions of Sections 724 of the Standard Specifications. This pay item is for the removal of both sign and post as called out on the plans. This will include all labor, material and equipment necessary to perform tasks.

Method of Measurement and Basis of Payment. This work will be measured and paid for at the contract unit price per each for SIGN AND POST REMOVAL.

PORTLAND CEMENT CONCRETE SIDEWALK, 6" (SPECIAL)

Description. This work shall be performed per Sections 311 and 424 of the Standard Specifications with the following alterations.

424.02 (c) Welded Wire Reinforcement. Welded wire reinforcement shall be included in all sidewalks. The WWR shall be 6-gauge wire (6x6 – W2.9/W2.9) and shall meet the requirements of Section 1006.10 of the Standard Specifications.

424.04 Subgrade Preparation. Sidewalks shall be placed at a minimum of 2 in. of subbase granular material, Type B. Additional granular material needed to bring the grade up to the proposed bottom of sidewalk will be included in the cost of this item.

424.06 Placing and finishing. The concrete placement includes all concrete for the sidewalk ramps, landings, as well as side curbs called out in the plans. Finishing will include edging along the faces of the walls and ½" preformed joints will be installed between the walk and proposed walls or where proposed walk meets existing sidewalks. Side curbs for the walks shall not be poured separately but shall be included in a single pour.

Method of Measurement. This work will be measured per square foot installed according to the plans or as approved by the Engineer.

Basis of Payment. This work will be paid for at the contract unit price SQUARE FOOT for PORTLAND CEMENT CONCRETE SIDEWALK 6" (SPECIAL) and shall be compensation in full for preparation, grading, furnishing, and finishing of all materials and labor needed to construction the sidewalk as shown in the plans or directed by the engineer.

BRICK PAVERS, PERMEABLE

Quality Assurance: Installation shall be by a contractor and crew with at least one year of experience in placing permeable pavers on projects of similar size. The contractor will be required to give a bond of 110% of the cost of the pavers for one year on settlement of more than ¼ inch.

Submittals: Full size samples of permeable paving units shall be submitted to indicate color and shape selections. Color will be selected by Owner or Owner's Representative. Sieve analysis for grading of bedding and joint opening aggregates shall be submitted. Color of opening aggregates will be selected by Owner or Owner's Representative.

A 6.33 ft. x 6.33 ft. (1.93 m x 1.93 m) paver area shall be installed prior to full installation. This area will be used to determine joint sizes, lines, laying pattern(s), color(s), and texture of the project.

Permeable Pavers: Pavers shall meet the minimum material and physical properties set forth in ASTM C 936, Standard Specification for Interlocking Concrete Paving Units. Average compressive strength 8000 psi (55MPa) with no individual unit under 7,200 psi (50 MPa). Average absorption of 5% with no unit greater than 7% when tested according to ASTM C 140. Resistance to 50 freeze-thaw cycles, when tested according to ASTM C 67, with no breakage greater than 1.0% loss in dry weight of any individual unit. This test method shall be conducted not more than 12 months prior to delivery of units. Pigment in concrete pavers shall conform to ASTM C 979. ACI Report No. 212.3R provides guidance on the use of pigments.

Pavers shall be Eco – Priora (il Campo texture) as manufactured by Unilock or approved equal.

The granular subbase material shall consist of No. 8 washed aggregate.

The granular base material shall be an 15-3/8" layer of WASHED CA-7.

The granular bedding and void opening aggregates material shall be graded in accordance with the requirements of ASTM D 33 No 8. Aggregate materials used in the construction of permeable pavements shall be washed, clean, have zero plasticity and contain no No. 200 sieve size materials. The aggregate materials must serve as the structural load bearing platform of the pavement as well as a temporary receptor for the infiltrated water that is collected through the openings in the pavement's surface.

Sub Grade Preparation: Do not install bedding aggregates or pavers during heavy rain or snowfall. Do not install bedding aggregates and pavers over frozen base materials. Do not install frozen bedding aggregates.

The site must be stripped of all topsoil and other objectionable materials to the grades specified. All subdrainage of underground services within the pavement area must be completed in conjunction with subgrade preparation and before the commencement of subbase construction.

After trimming to the grades specified, the pavement area is to be proof rolled to a percentage of Standard Proctor Maximum Dry Density. Any soft spots or localized pockets of objectionable material excavated and properly replaced with approved granular material.

The subgrade shall be trimmed to within 0 to 3/8 in. (0 to 10 mm) of the specified grades. The surface of the prepared subgrade shall not deviate by more than 3/8 in. (10 mm) from the bottom edge 39 in. (1 m) straight edge laid in any direction.

The Contractor shall insure that the prepared subgrade is protected from damage from inundation by surface water. No traffic shall be allowed to cross the prepared subgrade. Repair of any damage resulting shall be the responsibility of the Contractor and shall be repaired.

Granular Sub-base and Base Installation: Aggregate subbase and base shall be placed in uniform lifts not exceeding 6 in (150 mm) loose thickness and roller compacted according to the AASHTO guidelines for installing open graded aggregates. The granular base shall be trimmed to within to within 0 to 3/8 in. (0 to 10 mm) of the specified grade.

Geotechnical Filter Fabric: The installation of geotechnical filter fabric shall be incidental to the contract. Woven geotextile fabric shall meet requirements of IUM material specification 592 geotextile, Table 1, Class 1, with an apparent opening size of 0.50 mm. Fabric shall be installed such that it will surround the top, bottom and sides of the aggregate.

Paver Installation: Spread the bedding aggregate evenly over the base course and screed to a nominal 1 ½ in. to 2 in. (28 mm to 51 mm) thickness. The bedding aggregate should not be disturbed. Place sufficient bedding aggregate to stay ahead of the laid pavers. Do not use the bedding aggregate to fill depressions in the base surface.

Pavers shall be free of foreign material before installation. Compaction of pavers and joint material will occur after the joint material has been placed. Units cut no smaller than one-third of a whole paver will be accepted along edges subject to vehicular traffic. Pavers to be placed along the edge shall be cut with a masonry saw. The edges abutting conventional concrete are not unrestrained and should be fully compacted all the way to the edge. Upon completion of cutting, the area must be swept clean of all debris to facilitate inspection and to ensure pavers are not damaged during compaction. Low amplitude, high frequency plate compactor shall be used to compact the pavers. Use of a urethane plate compactor pad is recommended to minimize any scuffing of the paving stone surface. The pavers shall be compacted and the bedding aggregates shall be swept into all joints and void openings until they are full. This will require at least two or three passes with the compactor. Do not compact within 3 ft. (1 m) of the unrestrained edges of the paving units. All work to within 3 ft. (1 m) of the laying face must be left fully compacted at the completion of each day. Excess surface bedding and void opening aggregates shall be swept off when the job is complete. The final surface elevations shall not deviate, more than 3/8 in. (10 mm) under a 10 ft. (3 m) long straight edge. The

surface elevation of pavers shall be 1/8 to 1/4 in. (3 to 6 mm) above adjacent drainage inlets, concrete collars or channels.

Measurement and Payment: This work will be paid for at the contract unit price per Square Foot for BRICK PAVERS, PERMEABLE. The unit cost shall include the cost of all labor, materials, and equipment necessary to install the BRICK PAVERS, PERMEABLE as detailed in the plans and to the satisfaction of the OWNER.

HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH

Description. Work under this item shall be performed according to Section 440 of the IDOT Standard Specifications for Road and Bridge Construction, except as herein modified.

This work shall consist of the removal of hot-mix asphalt (HMA) surfaces, including adjacent Portland cement concrete pavement/trenches/patch surfaces, in preparation for subsequent resurfacing as shown in the plans and as directed by the Commissioner.

Construction Requirements. Prior to the start of grinding operations, all open lid structures shall be protected to prevent any grinding debris from entering the structure. Any debris entering structures shall be immediately removed and the entire structure shall be cleaned at no cost to the City.

Method of Measurement. This work will be measured for payment in square yards. No adjustment will be made for variations in the depth of material removed.

Basis of Payment. This work will be paid for at the contract unit price per square yard for HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH.

EROSION CONTROL COMPLETE

Description: The erosion and sediment control measures shown on the Drawings are schematic, represent the minimum anticipated measures, and are provided for guidance only. They do not constitute the Contractor's Erosion and Sediment Control Plan. The Contractor shall prepare and submit a site-specific Erosion and Sediment Control Plan, based on the Contractor's means, methods, sequencing, and staging, for the Engineer's review and approval within ten (10) days of Notice to Proceed. The Contractor shall be solely responsible for the adequacy and performance of the erosion and sediment control measures throughout construction. Additional or modified measures required by the Contractor's operations, staging, or field conditions shall be provided at no additional cost to the Owner.

All details shown for erosion control are included in this pay item and need to be implemented into the contractor's plan for approval. Perimeter erosion barrier, sediment control silt curtain, inlet filters silt fence, excelsior logs and any other erosion control items not listed are to be included in this pay item.

Submittals: The plan shall include drawings showing the locations, types, and details of erosion and sediment control features and construction.

Show the schedule of implementation coordinated with the construction schedule.

Include a narrative describing the program and maintenance.

Do not start operations until the Erosion and Sediment Control Plan has been approved by the Engineer and the required features are in place.

Product data for silt fence geotextile filter fabric and filter baskets must be submitted. Weekly inspection logs and maintenance of all erosion control procedures are to be submitted by Contractor to Engineer.

Photos before, during and after construction illustrating implementation of erosion control measures and on-going repairs/maintenance to these measures.

Quality Assurance:

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.

Objectives:

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.

Products:

Silt Fence:

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.

Property	Test Method	Requirements
Minimum Tensile Strength	ASTM 4632	90 lb
Maximum Elongation at 45 lb	ASTM 4632	50% Max
Apparent Opening Size	ASTM 4751	AOS<60 mm
Minimum Permittivity	ASTM D4491	1x10-2 SEC -1
Ultraviolet Exposure Strength Retention	ASTM D4355	70% @ 500h

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.

INLET FILTER

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

CONSTRUCTION ENTRANCE

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

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

TEMPORARY SEEDING PLANTS

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

Execution:

GENERAL

A. Do not start operations until the erosion and sediment control plan has been submitted and features and 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.

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.

COFFERDAM (TYPE 2) (LOCATION 1)

Description. Work under this item shall be performed according to Section 502 of the IDOT Standard Specifications for Road and Bridge Construction, except as herein modified.

In addition to Section 502, this pay item includes cofferdam excavation material and its proper storage and/or disposal of. Cofferdam plans shall be provided to the ENGINEER for review and approval prior to any installation begins.

Method of Measurement. This work will be measured for payment in each.

Basis of Payment. This work will be paid for at the contract unit price per each for HOT-COFFERDAM (TYPE 2) (LOCATION 1).

DEICER

Description

Supply, install, and commission (3) Kasco 3400 series de-icer (3400D for 120 V or 3400HD for 208–240 V, 3/4 HP continuous-duty) as shown in contract drawings and per manufacturer's recommendations. The unit shall be ETL-listed and approved to UL and CSA standards

Manufacturer

Kasco
800 Deere Rd.
Prescott, WI 54021
Kascomarine.com
Dan Cremin
Dan.c@kascomarine.com

Materials

Motor: 3/4 HP, oil-cooled, 1,750 RPM, thermal-overload protected, shaft with sacrificial anode.

Propeller/Cage: UV-stabilized thermoplastic, stainless-steel cage.

Cord: Underwater-rated SJTOW/UJ cable, quick-disconnect (on 10 AWG or larger), stainless strain relief, 20 AMP 250-Volt NEMA, L6-20P plug.

Accessories: Include universal mount complete 300-series stainless steel construction, multiple angling options

Installation

Mount per manufacturer’s manual: dock mounting

Position unit ≥ 3 ft below surface and > 1 ft above bottom to optimize thermal circulation

Provide GFCI-protected power circuit of appropriate voltage and amperage.

If cable exceeds 12 AWG, include quick-disconnect and stainless strain relief.

Install 20 AMP 250-Volt NEMA L6-20P plug

Testing and Commissioning

Upon installation, energize unit and verify continuous operation with vertical or angled flow patterns.

Confirm open-water diameter consistent with manufacturer's vertical circulation specs (approx. 75–85 ft), noting site variables may alter performance.

Maintain logs of operational current draw and water flow pattern for acceptance.

Warranty and Maintenance

Equip with at least a **2-year limited manufacturer warranty** (3-year for newer models) against defects
Contractor to inspect sacrificial anode before project turnover and advise Owner on replacement protocol.

Provide Owner with operation, maintenance, and storage instructions, including offseason storage tips (e.g., store unit upside down to preserve oil seals)

Measurement and Payment

Payment per each shall include DEICER unit, installation hardware, mooring assemblies, power connection, testing, and commissioning. No separate payment for mounts or controller unless specified.

FLOATING DOCK LAUNCH

Description. This work shall consist of the delegated design, fabrication, delivery, and installation of a pre-manufactured aluminum floating dock system with gangway, kayak chute, and ADA accessible kayak launch, according to the plans and this Special Provision.

The basis of design is BoardSafe Docks, as shown in the plans.

Boardsafe
Attn: Kelly Beals Business Development Team
604 Crisscross Rd. - Fleetwood, PA 19522
315.559.2116 kellyb@boardsafedocks.com

The system shall include:

1. Floating Docks — (7) 8’-2” x 16’-4” aluminum floating dock modules.
2. ADA Kayak Launch — (1) BoardSafe “Clip-A-Launch,” 6’-10” x 16’-4”, with Adaptive Boarding Kit.
3. Gangway — (1) 4’-0” x 16’-0” single-rail aluminum gangway.
4. Kayak Chute — (1) 4’-0” x 16’-0” aluminum kayak chute.
5. Bulkhead Mounting Angle Kit — (1) 9’-0” galvanized steel angle with integral hinges.
6. Dock-to-Dock Hinge Attachment — (1) 9’-0”.
7. Dock-to-Dock Threshold Strip — 110’-0” total.
8. Mending Plates — (10) 1’-4”.
9. Pipe Piling Guides — (4) Ø 4” x 10’-0”.
10. Railing — 87 linear feet.
11. Rub Rail — 56 linear feet, with (2) 8” x 8” x 3-3/4” corner bumper guards.

This item does not include the concrete bulkhead, gangway landing, and anchorage substrate; the accessible route to the top of the bulkhead; surveying, permitting, site preparation, or foundation design and installation; or ground protection mats for equipment access.

Materials

Materials shall be according to the following.

(a) Aluminum. Marine grade 6061 or 6063 for all structural framing; railing 6061-T6 or 6063-T5. The alloy and temper of every member shall be identified on the shop drawings and designed according to the Aluminum Association Aluminum Design Manual. Extrusions shall meet ASTM B221.

(b) Steel. The bulkhead mounting angle shall be ASTM A36 or Grade 50, hot-dip galvanized after fabrication according to ASTM A123.

(c) Welding. Aluminum welding shall be according to AWS D1.2 and steel welding according to AWS D1.1. Hinges shall be mechanically attached; welded hinge connections will not be permitted.

(d) Fasteners and Anchors. Fasteners shall be Type 316 stainless steel throughout, with locking nuts at hinges and railing connections. Concrete anchors shall be Type 316 stainless steel post-installed expansion anchors with an ICC-ES report for cracked concrete, sized by calculation.

(e) Isolation. Non-metallic isolators shall be provided at every contact between aluminum and concrete, steel, or other dissimilar metals.

(f) Flotation. Foam-filled, encapsulated in UV-inhibiting polyethylene, with no exposed foam. Float size and quantity shall be determined by the manufacturer to meet the freeboard requirements of this Special Provision.

(g) Composite Decking. Gray fiberglass-reinforced HDPE, 5/4” x 6” nominal, with a 24” on center span rating and a current ASTM D7032 evaluation report. Basis of design: Owens Corning WEARDECK Marine Grade. Decking shall be attached with the TimberStrong hidden-fastener system, with no fasteners in the deck surface, secured at each joist with one #10 stainless steel self-tapping screw. Board gaps shall not pass a 1/2” sphere.

(h) Aluminum Decking. 12” wide raised-rib, knurled aluminum plank, welded in place, for gangway and launch walking surfaces.

(i) Floating Docks. BoardSafe 50-Series Dock Frame: rectangular aluminum extrusion, 6.06” high x 3.77” wide, 3.69 lb per lineal foot, with a top track for bolting accessories and a side channel for “D” style rub rail and connection hardware. Internal joists at 24” on center maximum. 16” freeboard and 2-1/2” draft with no live load present.

(j) Gangway. 4’-0” x 16’-0”, single rail. Supplemental encapsulated foam flotation at the underside for 16” to 18” freeboard with no live load present. Structural truss railing on one side, 42” minimum height, with intermediate handrail at 34”; 4” toe kick on both sides; 36” minimum clear width. Aluminum plank decking. Integrated hinges at top and bottom, mechanically attached, with 1-1/4” schedule 40 stainless steel pipe hinge pins and stainless steel hardware.

(k) Kayak Chute. 4’-2” x 16’-0”, installed alongside the gangway. Supplemental encapsulated foam flotation for 16” to 18” freeboard with no live load present, with flotation at the end of the chute. Structural truss railing on the gangway side. Composite decking slide pads running the full length, matching the dock surface.

(l) Bulkhead Mounting Angle Kit. 9’-0” galvanized steel angle with integrated, mechanically attached hinges and 1-1/4” schedule 40 pipe hinge pins with stainless steel hardware, for attachment of the gangway and kayak chute to the bulkhead.

(m) Dock Connections. A 9’-0” dock-to-dock hinge attachment connecting the gangway and chute to the floating dock, with hinges sliding into the side slot of the 50-Series frame. Flat aluminum threshold strips connecting dock sections, bolted with stainless steel hardware into hex nuts in the top track. (10) 1’-4” aluminum mending plates on the vertical face of the docks, bolted into hex nuts in the top track.

(n) Pipe Piling Guides. (4) Ø 4” x 10’-0” pipe piling guides, as detailed on the plans, bolted to the exterior of the dock frame and adjustable by loosening the hardware and sliding the guide. Guides shall permit free vertical movement through the design water elevation range.

(o) Rub Rail and Corner Guards. Continuous, impact-absorbing “D” style rub rail mounted in the side channel of the 50-Series frame along the dock perimeter, with (2) 8” x 8” x 3-3/4” corner bumper guards.

(p) ADA Kayak Launch. BoardSafe “Clip-A-Launch,” 6’-10” x 16’-4”; 16” freeboard with no live load present; marine grade aluminum framing; stainless steel fasteners; encapsulated foam flotation; aluminum plank decking; composite slide pads in the cradle. Users shall be able to board at the bench and self-launch without leaving the kayak. The launch shall not use rollers; saddles shall cradle the hull and distribute its weight evenly.

(q) Adaptive Boarding Kit. Marine grade aluminum with stainless steel fasteners, consisting of a kayak roll cage, overhead grab bar, hand straps suspended from the roll cage, 4-tiered pull-out boarding bench with retractable seat, and informational instruction sign.

Railing. 87 linear feet of marine grade aluminum railing along the dock perimeter as shown on the plans: top rail at 3’-6”, intermediate rail at 1’-9”, posts at 5’-0” on center, and an integral aluminum toe kick, bolted to the top track with stainless steel hardware. The drop from the dock deck to the water is 16”, below the 30” threshold of IBC 1015.2, so the railing serves as a safety railing rather than a code-required guard.

Design Requirements:

(a) Delegated Design. The system, including connections, flotation, and attachments, shall be designed under the direct supervision of a Structural Engineer licensed in the State of Illinois. Reaction loads at the bulkhead mounting angle and pipe piling guides shall be furnished to the Engineer.

(b) Codes. The design shall comply with the 2021 International Building Code as adopted and amended by the City of Evanston, the 2010 ADA Standards for Accessible Design, and the Illinois Accessibility Code.

(c) Design Loads. Live loads on walking surfaces shall be established by the delegated design engineer according to the governing code and stated in the sealed calculations. Railings and handrails shall resist the loads of IBC 1607.8. Wind shall be according to ASCE/SEI 7, and current, debris, and ice conditions of the North Shore Channel shall be as established by the Engineer.

(d) Deflection. L/240 maximum under live load for decking, framing, gangway, and chute.

(e) Flotation and Freeboard. Floating docks and kayak launch: 16” freeboard and 2-1/2” draft with no live load present. Gangway and kayak chute: 16” to 18” freeboard at the floating end with no live load present. The assembled system shall float level, and flotation shall be sized to maintain safe freeboard under the design live load.

(f) Accessibility.

1. The gangway, docks, and kayak launch approach shall form an accessible route complying with ADA 1003 and Chapter 4, with 36” minimum clear width.

2. Gangway running slope shall not exceed 1:12 within the design water elevation range.

3. Gangway handrail at 34” on the railing side, with 4” toe kick edge protection on both sides.

4. Changes in level at thresholds and transitions shall comply with ADA 303, and walking-surface openings shall not pass a 1/2” sphere according to ADA 302.3.

5. A transfer space shall be provided at the boarding bench, and the overhead grab bar and hardware shall comply with ADA 307.

(g) Corrosion Control. Aluminum shall be isolated from concrete, steel, and dissimilar metals, and all fasteners in contact with aluminum shall be stainless steel.

Submittals:

The Contractor shall submit the following to the Engineer for approval before fabrication:

1. Product data for each component, including the Adaptive Boarding Kit.

2. Shop drawings and structural calculations, signed and sealed by a Structural Engineer licensed in the State of Illinois, showing layout, connections, anchorage, reaction loads, and the gangway slope at maximum and minimum design water elevations.

3. Welder qualification records according to AWS D1.2 and D1.1, and mill and galvanizing certifications.

4. An accessibility compliance statement from the manufacturer’s design professional.

5. Operation and maintenance data, including Adaptive Boarding Kit orientation materials.

6. Warranties and record drawings at completion.

Construction Requirements:

(a) Qualifications. The manufacturer shall be regularly engaged in manufacturing aluminum floating dock and accessible kayak launch systems of comparable scope. Welding shall be performed by welders qualified according to AWS D1.2 (aluminum) and AWS D1.1 (steel). All system components shall be furnished by one manufacturer. Products shall be manufactured in the United States and comply with Build America, Buy America (BABA) where the project is federally funded.

(b) Delivery and Storage. Components shall be delivered, stored, and handled according to the manufacturer’s instructions to prevent distortion of aluminum,

damage to flotation, and contact between aluminum or stainless steel and carbon steel.

(c) Examination. Before installation, the Contractor shall verify that the bulkhead and landing are complete, cured, correctly located, and within tolerance, and that the water elevation is within the range required for installation. Design water elevations (normal, maximum, minimum) will be furnished by the Engineer. Unsatisfactory conditions shall be reported in writing, and work shall not proceed until they are corrected.

(d) Installation. The system shall be installed by the manufacturer according to the approved shop drawings, the manufacturer's instructions, and the project permit conditions. Anchors shall be drilled into the cured concrete; cast-in anchors are not required. Isolation shall be installed at all dissimilar-material contacts, fasteners torqued to the manufacturer's schedule, and damaged galvanizing repaired according to ASTM A780.

(e) Field Checks. The Contractor shall verify freeboard, level attitude, free hinge and piling-guide movement, ADA clear width and changes in level, and function of the kayak launch and Adaptive Boarding Kit. The gangway running slope shall be recorded at installation and calculated for the maximum and minimum design water elevations. The manufacturer shall submit a written report confirming installation according to the approved shop drawings.

(f) Cleanup and Closeout. Debris shall be removed from the site and water, and the completed work protected until acceptance. The Contractor shall deliver O&M data, record drawings, and warranties, and provide orientation to the Owner's staff on the Adaptive Boarding Kit and seasonal inspection.

Warranty

(a) Manufacturer's Warranty. One (1) year from delivery, covering labor and materials. The warranty excludes acts of God (storms, wind, flooding, ice, or other adverse weather), modification by the Owner, and vessel damage.

(b) Flotation. Twenty (20) years against loss of buoyancy, shell rupture, and shell/foam separation.

(c) Composite Decking. Twenty-five (25) year limited commercial warranty from the decking manufacturer.

Method of Measurement and Basis of Payment. This work will be measured and paid for at the lump sum price for FLOATING DOCK LAUNCH, including all shop drawings, calculation, fabrication, delivery, installation, anchors, hardware, accessories, field checks labor, materials and closeout as needed.

SEDIMENT CONTROL, SILT CURTAIN

Description: This work shall consist of the furnishing, installing, maintaining, replacing, relocating, and removal of a flotation silt curtain assembly, designed to collect sediment/debris from in-stream work areas at locations determined by the Contractor based on anticipated construction operations and as directed by the Engineer to preserve the water quality of the river.

Equipment: The silt curtain should be of appropriate size to perform the required function of isolating the work area from the rest of the stream, with length of the curtain extending at least 1 foot greater than the elevation of water at all locations. The silt curtain assembly shall consist of the silt barrier with flotation segments and weighing devices and all required anchorage devices. The curtain shall be in good working condition and shall meet the approval of the Engineer. The silt curtain shall meet the specifications of the silt curtain manufacturer and the following physical and performance properties:

Testing Method	Requirement
Grab Tensile Warp Strength	ASTM D-4632 ≥ 240 lbs.
Elongation @ Break	ASTM D-4632 ≥ 60%
Trapezoidal Tear	ASTM D-4533 ≥ 90 lbs.
Puncture Strength	ASTM D-4833 ≥ 65 lbs.
UV Stability @ 500 hrs.	ASTM D-4355 ≥ 70%
Permittivity	ASTM D-4491 ≥ 0.1 sec-1
Water Flow Rate	ASTM D-4491 ≥ 11 gpm/ft2
AOS (US sieve #)	ASTM D-4751 ≥ 140 sieve
Material Construction	Nonwoven

All values are minimum average roll values.

Installation: The silt curtains shall be installed according to the manufacturer specifications, and in a manner approved by the Engineer prior to the start of construction within the body of water. Additional anchorage may be required based on the stream characteristics and manufactures specifications. Additional anchorage may consist of steel or timber driven piles to insure proper installation & anchoring.

Requirements: The Contractor shall inspect the work site to review the stream characteristics where the work is to occur. The silt curtain assembly shall be installed in the stream in a configuration that prevents silt from traveling beyond the work area but does not cause flooding upstream of the work area. The silt curtain shall be installed in a manner sufficient to withstand ten-year flood water level frequency. The silt curtain shall not be installed across the entire width of the stream. A maximum of 1/3 of the width of the stream may be isolated at any one time. The width of stream shall be defined as the linear measurement of the stream width at normal-level flow as shown on the plans or from bank to bank. Silt curtains shall not be installed at an angle greater than 45° from parallel with the direction of flow. Routine maintenance includes continually maintaining a properly working silt curtain. Also included is the regular removal and disposal of

excess sediment in contact with either side of the curtain, as directed by the Engineer. Excess sediment shall be removed between 48 and 72 hours prior to the removal of the silt curtain. Excess sediment is a sediment depth of four inches or greater. The Contractor shall remove the silt curtain in a manner that will prevent turbidity within the waterway.

Pumping of water contained within the silt curtain or any other structure shall be done in a manner approved by the Engineer. Direct pumping of water back into the stream shall not be permitted. All water pumping operations/procedures must be approved by the Engineer. The silt curtain assembly shall remain in place until the Engineer directs the Contractor for removal. The silt curtain assembly shall remain the property of the Contractor.

Method of Measurement: SEDIMENT CONTROL, SILT CURTAIN shall be measured at the contract unit price per EACH stretch of sediment that is being isolated by the silt curtain.

Basis of Payment: This work will be paid for EACH for SEDIMENT CONTROL, SILT CURTAIN. This price shall be payment in full for all labor, materials, transportation, handling, and related work necessary to furnish, install, maintain, replace, relocate, and remove.

ELECTRIC SERVICE INSTALLATION

Description. This item shall consist of all material and labor required to extend, connect or modify the electric services, as indicated or specified, which is over and above the work performed by the utility. Unless otherwise indicated, the cost for the utility work, if any, will be reimbursed to the Contractor separately under ELECTRIC UTILITY SERVICE CONNECTION. This item may apply to the work at more than one service location and each will be paid separately.

Materials. Materials shall be in accordance with the Standard Specifications.

Construction Requirements. The Contractor shall ascertain the work being provided by the electric utility and shall provide all additional material and work not included by other contract pay items required to complete the electric service work in complete compliance with the requirements of the utility.

No additional compensation will be allowed for work required for the electric service, even though not explicitly shown on the Drawings or specified herein

Method Of Measurement. Electric Service Installation shall be counted, each.

Basis Of Payment. This work will be paid for at the contract unit price each for **ELECTRIC SERVICE INSTALLATION**, which shall be payment in full for the work specified herein.

ELECTRIC UTILITY SERVICE CONNECTION

Description. This item shall consist of payment for work performed by ComEd in providing or modifying electric service as indicated. THIS MAY INVOLVE WORK AT MORE THAN ONE ELECTRIC SERVICE. For summary of the Electrical Service Drop Locations see the schedule contained elsewhere herein.

Construction Requirements. It shall be the Contractor's responsibility to contact ComEd. The Contractor shall coordinate his work fully with the ComEd both as to the work required and the timing of the installation. No additional compensation will be granted under this or any other item for extra work caused by failure to meet this requirement. Contact ComEd, New Business Center Call Center, at 866 NEW ELECTRIC (1-866-639-3532) to begin the service connection process. The Call Center Representatives will create a work order for the service connection. The representative will ask the requestor for information specific to the request. The representative will assign the request based upon the location of project.

The Contractor should make particular note of the need for the earliest attention to arrangements with ComEd for service. In the event of delay by ComEd, no extension of time will be considered applicable for the delay unless the Contractor can produce written evidence of a request for electric service within 30 days of execution.

Method of Payment. The Contractor will be reimbursed to the exact amount of money as billed by ComEd for its services. Work provided by the Contractor for electric service will be paid separately as described under ELECTRIC SERVICE INSTALLATION. No extra compensation shall be paid to the Contractor for any incidental materials and labor required to fulfill the requirements as shown on the plans and specified herein.

For bidding purposes, this item shall be estimated as $10,000.00

Basis Of Payment. This work will be paid for at the contract lump sum price for **ELECTRIC UTILITY SERVICE CONNECTION** which shall be reimbursement in full for electric utility service charges.

ELECTRICAL SERVICE DISCONNECT

Description: This work shall consist of furnishing and installing a meter main disconnect pedestal to power a lighting/electrical controller at the location shown on the plans. This work also includes a ground rod with ground wiring.

Materials. The pedestal shall be rated 200A, 120/240V single phase, 14KAIC. The main circuit breaker shall be rated 200A.

Service grounding shall be in accordance with Section 1087.01 of the Standard Specifications.

Construction Requirements: The pedestal shall be mounted to Unistrut channels for support as shown on the drawings. Service grounding shall be in accordance with Section 806 of the Standard Specifications. All work shall be installed as shown on the contract plan drawings, and in accordance with the N.E.C., local ordinances and Section 825 of the Standard Specifications.

Measurement and Payment: This work will be paid for at the contract unit price Each for **ELECTRICAL SERVICE DISCONNECT**, which price shall be payment in full for all material, labor and any other items required to complete the work.

EV CHARGING STATION, COMPLETE

Description. This work shall consist of installing a pedestal mounted twin level 2 electric vehicle charger complete with concrete foundation with bollards at locations shown on the contract drawings. The electric vehicle charger shall be purchased by the City of Evanston, contractor to coordinate pickup location with the City.

All work related material and labor to the installation of the electric vehicle charger shall be included (concrete foundation, bollards, excavation, backfill, disposal of surplus excavate material, etc.).

Materials and Construction Requirements. The Contractor shall install a new electric vehicle charger, that shall be furnished by the City of Evanston, including wiring, as well as all hardware and accessories. All materials shall be in accordance with the contract drawings and sections 1066 and 1070 of the standard specifications.

All work shall be in conformance with the drawings, Manufacturer's Installation Guide, Standard Specifications, N.E.C. and local ordinances.

Measurement and Basis of Payment. This work shall be paid for at the contract unit price Lump Sum for **EV CHARGING STATION, COMPLETE**, which price shall be payment in full for all material, labor and any other items required to complete the work.

LIGHTING UNIT COMPLETE (SPECIAL)

Description: This item shall consist of furnishing and installing a new parking lot assembly complete on a concrete foundation at the locations shown on the contract drawings.

Construction Requirements: All work shall be installed in accordance with Sections 821, 830, and 838 of the Standard Specifications, contract plan drawings, NEC, and local ordinances.

Materials: The contractor shall furnish and install new light pole (complete including all hardware and accessories), pole, luminaires, wiring, fuse kit(s), and fusing as shown on the drawings.

All materials shall be in accordance with the contract plan drawings and Sections 1065, 1066, 1067, 1069, and 1070 of the Standard Specifications.

Measurement and Payment: **The work shall be paid for at the contract unit price Each for LIGHTING UNIT COMPLETE (SPECIAL),** which price shall be payment in full for all material, labor and any other items required to complete the work.

POWER PEDESTALS

Description. This work shall consist of furnishing and installing a direct bury pedestal mounted GFCI receptacle where shown on the Contract Drawings.

All related material and labor for the installation of the power pedestal shall be included (pedestal, excavation, backfill, disposal of surplus excavate material, etc.)

Materials. All materials shall be in accordance with the contract plan drawings and Sections 1066 and 1070 of the Standard Specifications. All materials shall be in accordance with the contract plan drawings and requirements.

Construction Requirements. The receptacle pedestal shall be installed in accordance with manufacture's recommendations. All work shall be installed as shown on the contract plan drawings, N.E.C., local ordinances, and in accordance with Sections 801, 830, and 836 of the Standard Specifications.

The Contractor shall be responsible for coordinating all work.

Measurement and Payment. The work shall be paid for at the contract unit price each for POWER PEDESTALS, which shall be payment in full for all work listed herein.

POTHOLING

Description. This work shall consist of cutting a core in a paved driving surface, removing it, vacuum excavating to expose the underground utilities to witness the proposed conduit crossing, performing any necessary operation and maintenance activities, backfilling and reinstating the pavement core where shown on the plans.

Construction Requirements. All work performed by the Utility using this method shall be carried out in such a manner that the pavement surface worked upon is restored and matched as close as possible to the original condition of the surface.

Cutting of existing pavements shall be performed with a diamond tipped core saw with a maximum 8" diameter bit. The vertical alignment of the keyhole-coring saw shall be perpendicular to the horizon, and the cutting shall be extended to the full depth of the existing pavement structure. The core shall be removed intact. Coring operator shall place a temporary mark (paint) on the pavement core and adjacent pavement prior to cutting to ensure that the pavement core, when replaced, will have the same orientation as when it was first cut and removed. Pavement cores shall be either removed from the work site or stored in a safe and secure on-site location until it is reused.

The base and subbase material shall be removed by the hydro excavation method to expose the utilities to visually witness the conduit crossing.

The excavation shall be backfilled with Controlled Low-Strength Material (CLSM) in accordance with Section 593 of the Standard Specifications.

The pavement surface shall be restored to its original condition by setting the reinstated pavement core flush with and in its original orientation using the required bonding material. Bonding material shall be placed in accordance to the manufacturers' recommendations. All mixing, handling and curing practices recommended by the manufacturer shall be followed. The bonding material should flow easily up and around the reinserted core and, with no voids, completely fill the annular space around the core to achieve a waterproof, mechanical joint between the keyhole pavement core. Excess bonding material shall be removed from the restored pavement surfaces. A pavement core that is fractured in the vertical plane is considered to be defective and shall not be used to reinstate the pavement. If another equivalent core of sound condition and similar existing pavement of the same diameter, depth and composition as the defective core is available, it may be reinstated in substitution of the defective core.
If the pavement core is limited to the horizontal delimitation of two or more successive layers of pavement, that core is not considered to be defective if the layers are capable of being re-bonded to each other with the bonding material during reinstatement. Until the core has been reinstated and cured enough to drive over ,the contractor shall cover area with an appropriately-sized, steel plate. Plates are not allowed from November 1st to May 1st.

Materials. Bonding material shall be a packaged dry mix, non-shrinkable, and impervious to water penetration at the joint after application and meet the following:

-Specifications for Packaged, Dry, Rapid-Hardening Cementations Materials for Concrete Repairs- ASTM C928
-Compression- ASTM C109 or C39 4.3.3 Freeze/Thaw - ASTM C666 Standard Test Method for Resistance of Concrete to Rapid Freezing and Thawing
-Set Time - ASTM C266 Standard Test Method for Setting a Hydraulic-Cement Paste by Gilmore Needles
-Shear Strength (Slant Shear) - ASTM C882
-Thermal Expansion and Shrinkage - ASTM C531

The bonding material shall comply with the requirements of ASTM C928. In addition, the bonding material shall have the following bond strength characteristics (1500 psi after 1 day and 2000 psi after 7 days).
The bonding material shall, at a maximum of one hour at 50ºF (10ºC) carry an equivalent traffic loadable condition that is at a minimum greater than 2 times the half-axle load of the AASHTO standard 18-Kip Equivalent Single Axle Load (EASL) or AASHTO H-25 truck load.

Basis of Payment. This work will be paid for at the contract unit price per Each for **POTHOLING**, which price shall be payment in full for all material, labor and any other items required to complete the work.

HANDHOLE (SPECIAL)

Description. This work shall consist of furnishing and installing a 13”x24”x18” composite concrete handhole as shown on the plans or directed by the Engineer. All work related to the installation of the handhole shall be included (excavation, installation of handhole and cover, gravel french drain, backfill, disposal of surplus excavate material, etc.)

Materials. All materials shall be in accordance with the contract plan drawings and requirements.

Construction Requirements. The handhole shall be precast constructed of polymer concrete. The box and lid shall meet or exceed ANSI Tier 15 loading requirements and also be tested in accordance with the latest edition of NASI/SCTE 77. The box shall be placed on 12” of crushed stone for drainage. The lid shall have a logo as shown on plans. All work shall be installed as shown on the contract plan drawings and in accordance with Sections 814 of the Standard Specifications.

The Contractor shall be responsible for coordinating all work.

Measurement and Payment. The work shall be paid for at the contract unit price Each for: HANDHOLE (SPECIAL); for 13”x24”x18” deep, which shall be payment in full for all work listed herein.

RECEPTACLE OUTLET

Description. This work shall consist of furnishing and installing a pedestal mounted GFCI receptacle on a concrete foundation where shown on the Contract Drawings.

All related material and labor for the installation of the power pedestal shall be included (pedestal, excavation, concrete foundation, backfill, disposal of surplus excavate material, etc.)

Materials. All materials shall be in accordance with the contract plan drawings and Sections 1066 and 1070 of the Standard Specifications. All materials shall be in accordance with the contract plan drawings and requirements.

Construction Requirements. The receptacle pedestal shall be installed in accordance with manufacture's recommendations. All work shall be installed as shown on the contract plan drawings, N.E.C., local ordinances, and in accordance with Sections 801, 830, and 836 of the Standard Specifications.

The Contractor shall be responsible for coordinating all work and the proposed bolt circle dia., anchor bolt size, and handhole orientation for the proposed equipment installed.

Measurement and Payment. The work shall be paid for at the contract unit price each for RECEPTACLE OUTLET, which shall be payment in full for all work listed herein.

PERMANENT GROUND ANCHOR

Description. This work shall consist of designing, furnishing, installing, testing and stressing permanent cement-grouted ground anchors according to the plans and the special provisions. This work also includes the furnishing and installing of the anchorage head assemblies.

This is a performance specification for a single ground anchor. The Contractor shall be responsible for the permanent ground anchor design, construction and performance. The anchor bond lengths shown on the plans are estimated based on the soil data and were determined according to AASHTO Specifications. The Contractor shall select the ground anchor type, the installation method and determine the bond length and anchor diameter. The Contractor shall be responsible for installing ground anchors that will develop the design capacity indicated on the Contract Plans and meet the acceptance criteria according to the testing subsection of this Specification.

SITE GEOLOGY AND SOILS CONDITIONS:

The geologic conditions for this project are represented by the boring information shown on the plans. The Contractor, utilizing his/her expertise, shall be responsible for interpreting the data, including but not limited to, the making of additional borings as necessary to be fully familiar with the existing conditions in order to design and successfully install the permanent ground anchors as specified. Variations in geologic deposits, rock surface or ground water elevations, etc., are to be expected between borings and shall not be considered a change in site conditions as defined by Article 104.03 of the Standard Specifications.

SUBMITTALS: The Contractor selected to perform this work shall satisfy the qualification requirements and shall provide shop drawings for the proposed permanent ground anchor installation.

Qualifications. The Contractor performing the work described in this Specification shall have installed permanent ground anchors for a minimum of three (3) years. At the time of the preconstruction meeting, the Contractor shall submit a list containing at least five (5) projects, completed within the last three (3) years, where the Contractor has installed permanent ground anchors. A brief description of each project and a reference shall be included for each project listed. As a minimum, the reference shall include an individual's name, company and current phone number.

The Contractor shall submit a list identifying the field supervisor, drill operators and on-site supervisors who shall be assigned to the project. The Contractor shall assign a field supervisor with experience on at least three (3) projects of similar scope to this project, completed over the past five (5) years. The on-site foreman and drill rig operator(s) must have completed three
(3) projects within the last five (5) years involving permanent ground anchors of similar capacity as required on this project.

The Contractor shall assign a field supervisor with experience on at least three (3)

projects involving the construction of permanent ground anchors completed over the last five (5) years. The Contractor may not use consultants or manufacturer's representatives in order to meet the requirements of this section.

Work shall not be started on any permanent ground anchors nor materials ordered until approval of the Contractor's qualifications are given. The Department may suspend the ground anchor work if the Contractor substitutes unqualified personnel for approved personnel during construction. If work is suspended due to the substitution of unqualified personnel, the Contractor shall be fully liable for additional costs resulting from the suspension of work and no adjustments to contract time resulting from suspension will be allowed.

Design Calculations and Shop Drawings. At least five weeks before work is to begin, the Contractor shall submit to the Engineer for review and approval complete shop plans and design calculations prepared and sealed by an Illinois Licensed Professional Engineer, describing the permanent ground anchor system or systems intended for use.

The shop drawings shall include the following:

(1) A ground anchor schedule giving:

(a) Ground anchor number.
(b) Ground anchor design load.
(c) Type and size of bar tendon.
(d) Minimum total anchor length.
(e) Minimum bond length.
(f) Minimum bar tendon length.
(g) Minimum unbonded length.

(2) A drawing of the ground anchor and the corrosion protection system, including details for the following:

(a) Spacers separating elements of tendon and their location.
(b) Centralizers and their location.
(c) Unbonded length corrosion protection system.
(d) Bond length corrosion protection system.
(e) Anchorage head assembly and trumpet.
(f) Anchorage cover corrosion protection system.
(g) Drilled or formed hole size.
(h) Level of each stage of grouting.
(i) Any revisions to structure details necessary to accommodate the ground anchor system intended for use.

(3) The grout mix design and procedures for placing the grout.

The design calculations shall include (as a minimum) the following:

(1) Geotechnical design computations that describe how the ground anchor bonded

lengths were designed.
(2) Applicable code requirements and design reference literature used in the geotechnical and structural computations.
(3) Design criteria including minimum grout compressive strength, ground/grout bond values, and assumptions for each soil strata.

No materials shall be ordered and no work on ground anchors shall begin until shop plans have

been approved in writing by the Engineer. Such approval shall not relieve the Contractor of any responsibility under the contract for the successful completion of the work.

MATERIALS:

Prestressing Steel. Ground anchor tendons shall consist of single or multiple elements of one of the following prestressing steels:

1) Uncoated, seven-wire, low relaxation strands, conforming to ASTM A416 (A416M) including Supplementary Requirement S1
2) Indented, seven-wire strands, conforming to ASTM A886 (A886M).
3) Epoxy coated, seven-wire low relaxation strands, conforming to ASTM A882 (A882M).
4) Ultimate strength threadbars conforming to ASTM A722
5) Ultimate strength threadbars conforming to ASTM A706

Prestressing Steel Couplers. Prestressing steel couplers shall be capable of developing 95 percent of the minimum specified ultimate tensile strength of the prestressing steel.

Grout. The grout shall consist of a neat cement or sand cement mixture. Anchor grout shall have a minimum 28-day compressive strength of 4000 psi.

Cement: Cement shall be Type I, II or III portland cement conforming to Section 1001 of the Standard Specifications. Cement used for grouting shall be fresh and shall not contain any lumps or other indications of hydration or "pack set."

Fine Aggregate: If sand/cement grout is used, sand shall conform to the requirements for fine aggregates according to Section 1003 of the Standard Specifications.

Admixtures. Admixtures may be used in the grout subject to the approval of the Engineer. Expansive admixtures may only be added to the grout used for filing sealed encapsulations, trumpets, anchorage head assemblies and covers. Accelerators shall not be used.

Water: Water for mixing grout shall be according to Section 1002 of the Standard Specifications.

Steel Elements. Anchorage head assemblies, including bearing and wedge plates, shall be fabricated from steel conforming to AASHTO M270 (M270M) Grade 36 (250).

Trumpets used to provide a transition from the anchorage head assembly to the unbonded length corrosion protection shall be fabricated from a steel pipe or tube conforming to the requirements of ASTM A53 (A53M) for pipe or ASTM A500 (A500M) for tubing. Minimum wall thickness shall be 0.20 inch (5 mm).

Anchorage covers used to enclose exposed anchorages shall be fabricated from steel, or steel pipe, steel tube conforming to the requirement of AASHTO M270 (M270M) Grade 36 (250) for steel, ASTM A53 (A53M) for pipe, and ASTM A500 (A500M) for tubing. Minimum thickness shall be 0.10 inch (2.5 mm).

Corrosion Protection Elements. Corrosion inhibiting grease shall conform to the requirements of the Post Tensioning Institute's "Specifications for Unbonded Single Strand Tendons," Section 3.2.5.

Ground anchor tendons or bars shall be fully protected over their full length with Class I corrosion protection (double corrosion protection). Encapsulation in the bond length shall be accomplished by using corrugated Ducor HDPE tubing, Dywidag double corrosion protection Type B, or an approved alternate. The minimum wall thickness shall be 30 mils. The annular space between the corrugated tube and rod shall be filled with neat cement grout containing admixtures to control bleed of water from the grout. Details of protection from the anchorage hardware to the unbonded length corrosion protection shall be provided by the contractor. A trumpet shall be used with a watertight connection to the anchor head components. Steel anchor head components are to be hot-dip galvanized.

Sheaths: Sheaths for ground anchor bar shall conform to the AASHTO LRFD Bridge Construction Specifications. Sheath for unbounded section of strands shall be filled with corrosion inhibiting grease

Miscellaneous Elements. The bondbreaker for a tendon shall consist of smooth plastic tube or pipe that is resistant to aging by ultra-violet light and that is capable of withstanding abrasion, impact and bending during handling and installation.

Spacers for separation of elements of a multi-element tendon shall permit the free flow of grout. They shall be fabricated from plastic, steel or material which is not detrimental to the prestressing steel. Wood shall not be used.

Centralizers shall be fabricated from plastic, steel or material which is not detrimental to either the prestressing steel or any element of the tendon corrosion protection. Wood shall not be used.

FABRICATION:

Tendons for ground anchors may be either shop or field fabricated from materials conforming to this specification’s requirements. Tendons shall be fabricated as shown on the approved shop plans.

Bond Length and Tendon Bond Length. The Contractor shall determine the bond length

necessary to satisfy the factored design force requirements. The minimum bond length and tendon length shall be as shown on the plans.

Spacers shall be placed along the tendon bond length of multi-element tendons so that the prestressing steel will bond to the grout. They shall be located at 10 ft (3 m) maximum centers with the upper one located a maximum of 5 ft (1.5 m) from the top of the tendon bond length and the lower one located a maximum of 5 ft (1.5 m) from the bottom of the tendon bond length.

Centralizers shall be able to maintain the position of the tendon so that a minimum of 0.75 inches (19 mm) of grout cover is obtained on the tendons at all locations along the tendons. They shall be located at 5 ft (1.5 m) maximum centers with the lower one located 1 ft (305 mm) from the bottom of the bond length. Centralizers are not required on tendons installed utilizing a hollowstem auger if it is grouted through the auger and the drill hole is maintained full of a stiff grout 9- inch (230 mm) slump or less during extraction of the auger, or when installed utilizing a pressure injection system in coarse grained soils using grout pressures greater than 150 psi (1035 kPa).

Encapsulation Protected Ground Anchor Tendon. The tendon bond length shall be encapsulated by a grout-filled corrugated plastic or deformed steel tube, or by a fusion-bonded epoxy coating. The tendon can be grouted inside the encapsulation prior to inserting the tendon in the drill hole or after the tendon has been placed in the drill hole. Punching holes in the encapsulation and allowing the grout to flow from the encapsulation to the drill hole, or vice versa, will not be permitted. The tendon shall be centralized within the encapsulation and the tube sized to provide an average of 0.20 inch (5 mm) of grout cover for the prestressing steel. The anchorage device of tendons protected with fusion-bonded epoxy shall be electrically isolated from the structure.

Unbonded Length. The unbonded length of the tendon shall be a minimum of 15 ft (4.6 m) or as indicated on the plans. If the sheath provided is not a smooth tube, then a separate bondbreaker must be provided to prevent the tendon from bonding to the anchor grout surrounding the unbonded length.

Anchorage and Trumpet. Non-restressable anchorages may be used unless restressable anchorages are designated on the plans.

The trumpet shall be welded to the bearing plate. The trumpet shall have an inside diameter at least 1/4 inch (6 mm) larger than the hole in the bearing plate. The trumpet shall be long enough to accommodate movements of the structure during testing and stressing. For strand tendons with encapsulation over the unbonded length, the trumpet shall be long enough to enable the tendons to make a transition from the diameter of the tendon in the unbonded length to the diameter of the tendon at the anchorage head assembly without damaging the encapsulation. Trumpets shall be filled with grout and have a temporary seal provided between the trumpet and the unbonded length corrosion protection.

Tendon Storage and Handling. Tendons shall be stored and handled in such a manner as to avoid damage or corrosion. Damage to tendon prestressing steel as a result of abrasions, cuts, nicks, welds and weld splatter will be cause for rejection by the Engineer. Grounding of welding leads to the prestressing steel is not permitted. Prior to

inserting a tendon into the drilled hole, its corrosion protection elements shall be examined for damage. Any damage found shall be repaired in a manner approved by the Engineer.

INSTALLATION REQUIREMENTS:

Drilling. The Contractor shall select the method of drilling in such as manner as to prevent loss of ground above the drilled hole that may be detrimental to the adjacent roadway and underground structures. Casing for anchor holes, if used, shall be removed, unless permitted by the Engineer to be left in place. Excessive amounts of water shall not be used in the drilling operation. Inclination and alignment shall be within plus or minus 3 degrees of the planned angle at the anchorage head assembly.

Tendon Insertion. The tendon shall be inserted into the drilled hole to the desired depth without undue stress or difficulty. When the tendon cannot be completely inserted it shall be removed and the drill hole cleaned or redrilled to permit insertion. Partially inserted tendons shall not be driven or forced into the hole.

Grouting. The grouting equipment shall produce a grout free of lumps and undispersed cement. A positive displacement grout pump shall be used. The pump shall be equipped with a pressure gauge to monitor grout pressures. The pressure gauge shall be capable of measuring pressures of at least 150 psi (1035 kPa) or twice the actual grout pressures used, whichever is greater. The grouting equipment shall be sized to enable the grout to be pumped in one continuous operation. The mixer shall be capable of continuously agitating the grout.

The grout shall be injected from the lowest point of the drilled hole. The grout may be pumped through grout tubes, casing, hollow-stem augers or drill rods. The grout may be placed before or after insertion of the tendon. The quantity of the grout and the grout pressures shall be recorded. The grout pressures and grout takes shall be controlled to prevent excessive heave of the ground or fracturing of rock formations.

Except where indicated below, the grout above the top of the bond length may be placed at the same time as the bond length grout, but it shall not be placed under pressure. The grout at the top of the drill hole shall stop 6 inches (150 mm) from the back of the trumpet.

If the ground anchor is installed in a fine-grained soil using a drilled hole larger than 6 inches (150 mm) in diameter, then the grout above the top of the bond length shall be placed after the ground anchor has been load tested. The entire drill hole may be grouted at the same time if it can be demonstrated that the ground anchor system does not derive a significant portion of its load resistance from the soil above the bond length portion of the ground anchor.
Upon completion of grouting, the grout tube may remain in the drill hole provided it is filled with grout.

After grouting, the tendon shall not be loaded for a minimum of three days.

Trumpet and Anchorage. The corrosion protection surrounding the unbonded length of the tendon shall extend into the trumpet a minimum of 6 inches (150 mm) beyond the bottom seal in the trumpet.

The corrosion protection surrounding the unbonded length of the tendon shall not contact the bearing plate or the anchorage head assembly during load testing or stressing.

The trumpet shall be completely filled with corrosion inhibiting grout. The grout shall be placed after the ground anchor has been load tested and locked off at the design load. The Contractor shall demonstrate that the procedures selected for placement of grout will produce a completely filled trumpet and anchorage head assembly.

Anchorages not encased in concrete wall fascia shall be covered with a corrosion inhibiting grout- filled steel enclosure.

TESTING AND STRESSING

Each ground anchor shall be load tested by the Contractor in the presence of the Engineer. No load greater than 10 percent of the service design load may be applied to the ground anchor prior to load testing. The test load shall be simultaneously applied to the entire tendon.

The first two (2) anchors of each level should be installed and performance tested successfully before drilling any other anchors at that level. In the event that one or both anchors fail the performance test, the Contractor shall re-evaluate the installation procedure and take necessary corrective action. In addition, the first two (2) anchors installed after the Contractor takes necessary corrective action shall be performance tested. The above process shall be repeated until these anchors pass the performance test.

The Contractor shall follow the same installation procedures that are used on the two (2) successful performance test anchors

Testing Equipment. Two dial gauges or Vernier scales capable of measuring displacements to 0.01 inch (25 microns) shall be used to measure ground anchor movement on either side of the jack from two independent points. They shall have adequate travel so total ground anchor movement can be measured without resetting the devices.

A hydraulic jack and pump shall be used to apply the test load. The jack and a calibrated pressure gauge shall be used to measure the applied load. The pressure gauge shall be graduated in 100 psi (690 kPa) increments or less. When the theoretical elastic elongation of the total anchor length at the maximum test load exceeds the ram travel of the jack, the procedure for recycling the jack ram shall be included in the working drawings. Each increment of test load shall be applied in one minute or less.

A calibrated reference pressure gauge shall be available at the site. The reference gauge shall be calibrated with the test jack and pressure gauge.

An electrical resistance load cell and readout shall be provided when performing a creep test.

The stressing equipment shall be placed over the ground anchor tendon in such a manner that the jack, bearing plates, load cell and stressing anchorage are axially aligned with the tendon and the tendon is centered within the equipment.

Performance Test. Five percent of the ground anchors or a minimum of three ground anchors, whichever is greater shall be performance tested according to the following procedures. The Engineer shall select the ground anchors to be performance tested. The remaining anchors shall be tested according to the proof test procedures.

The performance test shall be made by incrementally loading and unloading the ground anchor according to the following schedule unless a different maximum test load and schedule are indicated on the plans. The load shall be raised from one increment to another immediately after recording the ground anchor movement. The ground anchor movement, on either side of the jack, shall be measured and recorded to the nearest 0.001 inch (25 micron) with respect to the independent fixed reference points at the alignment load and at each load increment. The load shall be monitored with a pressure gauge. The reference pressure gauge shall be placed in series with the pressure gauge during each performance test. If the load determined by the reference pressure gauge and the load determined by the pressure gauge differ by more than 10 percent, the jack, pressure gauge and reference pressure gauge shall be recalibrated. At load increments other than the maximum test load, the load shall be held just long enough to obtain the movement reading.

Performance Test Schedule

Load	Load (Continued)
AL	AL
0.25DL*	0.25DL
AL	0.50DL
0.25DL	0.75DL
0.50DL*	1.00DL
AL	1.20DL*
0.25DL	AL
0.50DL	0.25DL
0.75DL*	0.50DL
AL	0.75DL
0.25DL	1.00DL
0.50DL	1.20DL
0.75DL	1.33DL*
1.00DL*	(Max. test load)
	Reduce to lock-off load
	(1.00DL)

Where: AL = Alignment Load
DL = Service Design Load for ground anchor
* = Graph required

The maximum test load in a performance test shall be held for 10 minutes. The jack shall be repumped as necessary in order to maintain a constant load. The load hold period shall start as soon as the maximum test load is applied and the ground anchor movement shall be measured and recorded at 1, 2, 3, 4, 5, 6 and 10 minutes. If the ground anchor movements between 1 minute and 10 minutes exceed 0.04 inch (1 mm), the maximum test load shall be held for an additional 50 minutes. If the load hold is extended, the ground anchor movement shall be recorded at 15, 20, 25, 30, 45 and 60 minutes.

A graph shall be constructed showing a plot of ground anchor movement versus load for each load increment marked with an asterisk (*) in the performance test schedule and a plot of the residual ground anchor movement of the tendon at each alignment load versus the highest previously applied load. Graph format shall be approved by the Engineer prior to use.

Proof Test. The proof test shall be performed by incrementally loading the ground anchor according to the following schedule. The load shall be raised from one increment to another immediately after recording the ground anchor movement. The ground anchor movement, on either side of the jack, shall be measured and recorded to the nearest 0.001 inch (25 micron) with respect to the independent fixed reference points at the alignment load and at each increment of load. The load shall be monitored with a pressure gauge. At load increments other than the maximum test load, the load shall be held just long enough to obtain the movement reading.

Proof Test Schedule

Load	Load (Continued)
AL	1.00FL (Test Load, minimum 10-minute hold)
0.25FL	AL (Optional)
0.50FL	Reduce to lock-off load
(1.00DL) 0.75FL	

Where: AL = Alignment Load
FL = Greatest Factored Load for ground anchor

The maximum test load in a proof test shall be held for 10 minutes. The jack shall be repumped as necessary in order to maintain a constant load. The load hold period shall start as soon as the maximum test load is applied and the ground anchor movement shall be measured and recorded at 1, 2, 3, 4, 5, 6 and 10 minutes. If the ground anchor movement between 1 minute and 10 minutes exceeds 0.04 inch (1 mm), the maximum test load shall be held for an additional 50 minutes. If the load hold is extended, the ground anchor movement shall be recorded at 15, 20, 25, 30, 45 and 60 minutes. A graph shall be constructed showing a plot of ground anchor movement versus load for each load increment in the proof test.

Creep Test. Creep tests shall be performed only if required by the plans. The Engineer shall select the ground anchor(s) to be creep tested.

The creep test shall be made by incrementally loading and unloading the ground anchor according to the performance test schedule used. At the end of each loading cycle, the load shall be held constant for the observation period indicated in the creep test schedule below unless a different maximum test load is indicated on the shop drawings. The times for reading and recording the ground anchor movement during each observation period shall be 1, 2, 3, 4, 5, 6, 10, 15, 20, 25,
30, 45, 60, 75, 90, 100, 120, 150, 180, 210, 240, 270 and 300 minutes as appropriate. Each load hold period shall start as soon as the test load is applied. In a creep test the pressure gauge and reference pressure gauge will be used to measure the applied load, and the load cell will be used to monitor small changes of load during a constant load hold period. The jack shall be repumped as necessary in order to maintain a constant load.

Creep Test Schedule

Load	Observation Period (minutes)
AL	
0.25DL	10
0.50DL	30
0.75DL	30
1.00DL	45
1.20DL	60
1.33DL	300

A graph shall be constructed showing a plot of the ground anchor movement and the residual movement measured in a creep test as described for the performance test. Also, a graph shall be constructed showing a plot of the ground creep movement for each load hold as a function of the logarithm of time.

Ground Anchor Load Test Acceptance Criteria. A performance-tested or proof-tested ground anchor with a 10-minute load hold is acceptable if the:

(1) Ground anchor resists the maximum test load with less than 0.04 inch (1 mm) of movement between 1 minute and 10 minutes; and

(2) Total movement at the maximum test load exceeds 80 percent of the theoretical elastic elongation of the unbonded length.

A performance-tested or proof-tested ground anchor with a 60-minute load hold or a creep tested ground anchor is acceptable if the:

(1) Ground anchor resists the maximum test load with a creep rate that does not exceed
0.08 inch (2 mm) in the last log cycle of time; and

(2) Total movement at the maximum test load exceeds 80 percent of the theoretical elastic elongation of the unbonded length.

If the total movement of the ground anchor at the maximum test load does not exceed 80 percent of the theoretical elastic elongation of the unbonded length, the ground anchor shall be replaced at the Contractor's expense.

A ground anchor which has a creep rate greater than 0.08 inch (2 mm) per log cycle of time can be incorporated into the structure at a design load equal to one-half of its failure load. The failure load is the load resisted by the ground anchor after the load has been allowed to stabilize for 10 minutes.

When a ground anchor fails, the Contractor shall modify the design and/or the installation

procedures. These modifications may include, but are not limited to, installing a replacement ground anchor, reducing the design load by increasing the number of ground anchors, modifying the installation methods, increasing the bond length or changing the ground anchor type. Any modification which requires changes to the structure shall be approved by the Engineer. Any modifications of design or construction procedures shall be without additional cost to the Department and without extension of contract time.

Retesting of a ground anchor will not be permitted, except that regrouted ground anchors may be retested each time they are regrouted.

Lock Off. Upon successful completion of the load testing, the ground anchor load shall be reduced to the service design load indicated on the plans and transferred to the anchorage device. After transferring the load and prior to removing the jack, a lift-off load reading shall be made. The lift-off load shall be within 5 percent of the specified lock-off load. If the load is not within 5 percent of the specified lock-off load, the anchorage shall be reset and another lift-off load reading shall be made. This process shall be repeated until the desired lock-off load is obtained.

Method of Measurement. This work will be measured per each permanent ground anchor, installed according to the plans or as approved by the Engineer, and passing the testing program(s) required in this Special Provision.

Basis of Payment. This work will be paid for at the contract unit price EACH for PERMANENT GROUND ANCHORS and shall be compensation in full for designing, furnishing, installing and testing the permanent ground anchors and anchorage head assemblies.

ALLOWANCE FOR LAUNCH

ALLOWANCE FOR PARKING LOT

Description. This pay item is to be used as an allowance for unforeseen costs during construction. Two separate allowances will exist, one for the parking lot work and one for the launch. Both allowances are predetermined by the City and will be fixed in the bid documents.

Measurement and Payment. The pay item will be measured by unit in which cause each unit is a dollar. Fixed dollar amounts have been placed into the contract.

TREE/SHRUB REMOVAL AND PROTECTION, CARE OF EXISTING PLANT MATERIAL

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 diameter are irreparably damaged or destroyed, the Contractor shall replace these trees with trees 2-inches in diameter, 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.

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.
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 with 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.

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 of 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 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.

Method of Measurement: The contract unit price for TREE REMOVAL AND TREE PROTECTION FENCING AND TREE ROOT PRUNING shall include all materials and labor necessary to install tree protection measures as shown on the plans, including all materials, labor, and equipment required to complete this work.

Basis of Payment: TREE REMOVAL will be paid at the unit price per each. Furnishing and installing TREE PROTECTION FENCING will be paid at the unit price per each tree designated to received tree protection fencing. TREE ROOT PRUNING will be paid for at the contract unit price per lump sum for TREE ROOT PRUNING.

LANDSCAPE MAINTENANCE CONTRACT – 3 YEARS

The (Landscape Contractor name) will be responsible for funding and implementing a three-year monitoring and management plan for establishing native vegetation within the City of Evanston Ladd Launch site area, including areas surrounding and within the landscaped parking lot and North Shore Channel embankment. Please refer to the attached landscape plan which identifies the limits of the area covered by this document.

Compliance & Final Acceptance of Planting
The maintenance and monitoring period will last for three (3) years or until acceptance of the restoration and enhancement areas by the City of Evanston. If after three (3) years, the area has not reached acceptance, meetings shall be held to determine the future course of action. It is likely that in such a case that the maintenance and monitoring period will be extended. All permits, licenses, and fees associated with any work under this contract are the responsibility of the Landscape Contractor, unless otherwise noted.

Requirements

1. The Landscape Contractor shall demonstrate qualifications to implement the monitoring and management plan. The Landscape Contractor shall demonstrate at least 10 years of successful relevant experience implementing similar landscape management plans and a minimum of three municipal or park district client references.

2. The Landscape Contractor shall notify the City of Evanston upon completion of the specified landscape installations and seeding.

3. The City of Evanston, or their agent, shall inspect the plantings upon completion of all maintenance procedures and notify the Landscape Contractor of any required remedial actions.

4. Plantings shall meet the following minimum annual performance criteria. Areas which do not meet annual establishment standards as confirmed by the City of Evanston shall be replanted and/or managed at no additional expense to the City of Evanston.

    a) First full growing season:
        - 90% cover of cover crop established.
        - At least 25% of vegetation cover/coverage per community (e.g., Shoreline Zone Mix, Upland Slope Mix, Pollinator Garden Mix, Short Prairie for Dry Soils Mix, etc.) shall be native, non-invasive species or as otherwise authorized by the Landscape Contractor (e.g., via email).
        - Invasive species control measures approved in the plan.

b) Second full growing season:
   - At least 50% of vegetation cover/coverage shall be native, non-invasive species.
   - Invasive species control measures approved in the plan.

c) Third season:
   - At least 80% of vegetation cover/coverage per community (e.g., Shoreline Zone Mix, Upland Slope Mix, Pollinator Garden Mix, Short Prairie for Dry Soils Mix, etc shall be native, non-invasive species.
   - None of the three most dominant species may be non-native or invasive.
   - Non-native species shall constitute no more than 25% relative aerial coverage (individually or cumulatively).
   - Invasive species control measures approved in the plan or as otherwise authorized by Landscape Contractor (e.g., via email).
   - Each landscape area will meet or exceed its original nFQI at the end of the monitoring period.
   - There shall be no more than 10 percent cover by non-native woody vegetation.

d) Invasive and non-native species, and non-native woody plant species not specified as part of the planting plan, shall be controlled by appropriate management practices. Invasive species for the purposes of this manual shall include, but not be limited too, the following:

Alfalfa & Black Medick	(Medicago spp.)
American Silverberry	(*Elaeagnus commutata*)
Ash-Leaf Maple	(*Acer negundo*)
Asian Bittersweet	(*Celastrus orbiculatus*)
Black Swallow-Wort	(*Vincetoxicum nigrum*)
Garden Bird's-Foot-Trefoil	(*Lotus corniculatus*)
Black Locust	(*Robinia pseudoacacia*)
Bradford Pear	*(Pyrus calleryana*)
Brittle Waternymph	(*Najas minor)*
Bull Thistle	(*Cirsium vulgare*)
Lesser Burdock	(*Arctium minus*)
Canadian Goldenrod	(*Solidago canadensis*)
Canadian Thistle	(*Cirsium arvense*)
Cattail species	(Typha spp.)
Chinese Yam	(*Discorea oppositifolia*)
Chinese Silver Grass	(*Miscanthus sinensis*)
Clover – Yellow and White	(Trifolium spp.)
Common Reed	(*Phragmites australis*)
Common Water-Hyacinth	(*Eichhornia crassipes*)
Crack Willow	(*Salix fragilis)*
Creeping-Jenny	(*Lysimachia nummularia*)

Crown Vetch	(*Securigera varia*)
Curly Pondweed	(*Potamageton crispus*)
Eurasian-Buttercup	*(Ficaria verna*)
Eurasian Water-Milfoil	*(Myriophyllum spicatum*)
European Barberry	(*Berberis vulgaris*)
European Buckthorn	(*Rhamnus cathartica)*
Fir	(Abies spp.)
Garlic-Mustard	*(Alliaria petiolata*)
Giant Hogweed	(*Heracleum mantegazzianum)*
Glossy False Buckthorn	(*Frangula alnus*)
Greater Flowering-Rush	(*Butomus umbellatus*)
Hedge-Parsley	(*Torilis spp.)*
Japanese Barberry	(*Berberis thunbergii)*
Japanese Bristle Grass	(*Setaria faberi)*
Japanese Honeysuckle	(*Lonicera japonica)*
Japanese Hop	(*Humulus japonica)*
Japanese-Knotweed	(*Reynoutria japonica*)
Japanese Stilt Grass	(*Microstegium vimineum*)
Jetbead	(*Rhodotypos scandens)*
Kentucky Blue Grass	(Poa pratensis)
Kudzu	(*Puereria montana*)
Leafy Spurge	(*Euphorbia esula)*
Littleleaf Linden	(*Tilia cordata*)
Morrow's Honeysuckle	(*Lonicera morrowii*)
Mother-of-the-Evening	(*Hesperis matronalis)*
Nodding Plumeless-Thistle	*(Carduus nutans)*
Norway Maple	(Acer platanoides)
Pines	(Pinus spp.)
Privet	(*Ligustrum spp.)*
Purple Loosestrife	(*Lythrum salicaria)*
Ragweed	*(Ambrosia spp.)*
Rambler Rose	(*Rosa multiflora*)
Reed Canary Grass	(*Phalaris arundinacea*)
Reed Manna Grass	(*Glyceria maxima)*
Russian Olive	(*Elaeagnus angustifolia*)
Sandbar Willow	(*Salix interior)*
Seaside Goldenrod	(*Solidago sempevirens*)
Showy Fly-Honeysuckle	(*Lonicera x bella)*
Spotted knapweed	(*Centaurea stoebe subsp. micranthos*)
Spruce	(Picea spp.)
Tall Goldenrod	(*Solidago altissima)*
Teasel	(*Dipsacus spp.)*
Tree-of-Heaven	(*Ailanthus altissima*)
Twinsisters	(*Lonicera tatarica*)
Watercress	*(Nasturtium officinale*)
Water-lettuce	(*Pistia stratiotes*)

Wild Parsnip	(*Pastinaca sativa*)
Winged Spindletree	(*Euonymus alatus*)
Yellow Sweet-Clover	(*Melilotus officinalis)*

5. Semi-annual monitoring shall be performed during each year of the three-year monitoring period and until final acceptance by the City of Evanston. Springtime monitoring shall occur in late May/June; fall monitoring shall occur in August, September, or early October. Monitoring will involve meander surveys, and photo-documentation of the landscaped parking lot area and the North Shore Channel embankment. Meander survey methodology will involve a review of at least 20 percent of each vegetative community location (i.e. Shoreline Zone Mix, Upland Slope Mix, Pollinator Garden Mix, Short Prairie for Dry Soils Mix, etc.) to take representative photographs and identify the following:

a. All plant species (native and non-native) in each zone,
b. The three most dominant species within each planting zone,
c. The approximate percent ground cover by native species per zone,
d. The percent ground cover by non-native or invasive species per zone,
e. Erosion and sedimentation problems,
f. Water level or drainage problems,
g. Observations on specific management strategies necessary to achieve acceptance requirements.

6. Annual monitoring reports shall be submitted to the City of Evanston by February 28th of the following year. The report will contain a location map, a summary of annual monitoring observations, and a composite (spring/fall monitoring data) floristic assessment printout for the designated landscape areas. The report shall include representative photographs of each FQA sample location.

The report shall describe any deficiencies, or issues related to soil erosion and sediment control, weed coverage, or other identified issues. The report shall include remedial actions to be taken to address any identified deficiencies. Particular attention will be given to the progress of the vegetation at the end of the second full growing season, as the relative success of the plantings may be reasonably predicted at that time. The report shall describe expected work effort for the following year, including vegetation management tasks and any other identified remedial tasks.

7. Should the performance criteria not be met within the allotted time, the City of Evanston shall require that the area be replanted and/or a remedial action plan be submitted for approval at no additional expense to the City. A revised compliance report shall be submitted by the Landscape Contractor with follow-up inspection by the City of Evanston and shall demonstrate compliance with the performance criteria as a condition of release project sign off.

Basis of Payment. This work will be paid for at the contract unit price per lump sum for LANDSCAPE MAINTENANCE CONTRACT – 3 YEARS.

LANDSCAPE ARCHITECTURAL SPECIFICAITONS

List of landscape and architectural specifications:

SECTION	03 11 16	ARCHITECTURAL CONCRETE FORMLINERS	L - 1
SECTION	04 40 20	LIMESTONE OUTCROPINGS AND SEATING	L - 6
SECTION	04 42 12	SIGN ASSEMBLIES	L - 10
SECTION	05 52 13	RAILING SYSTEM	L - 19
SECTION	09 33 00	STAINING CONCRETE STRUCTURES	L - 27
SECTION	09 96 23	ANTI-GRAFFITI COATING	L - 29
SECTION	32 31 13	CHAIN LINK FENCE	L - 31
SECTION	32 91 00	SOILS	L - 35
SECTION	32 92 19	SEEDING	L - 40
SECTION	32 93 00	PLANTS	L - 51

EVANSTON LADD LAUNCH NATIVE VEGETATION PERFORMANCE STANDARDS AND SPECIFICATIONS

SECTION 03 11 16

ARCHITECTURAL CONCRETE FORMLINERS AND CONCRETE STAMPS

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Reusable, elastomeric formliners for texturing architectural concrete with standard patterns.
B. Reusable, plastic stamps for texturing architectural concrete with standard patterns.
C. Form liner accessories of fasteners, sealants, rustication and backup strips, form release agents and sealers as scheduled or required.

1.2 RELATED SECTIONS

A. Civil and structural engineering specifications

1.3 REFERENCES

A. American Concrete Institute (ACI):
   1. ACI 117 - Standard Tolerances for Concrete Construction and Materials.
   2. ACI 301 - Specifications for Structural Concrete.
   3. ACI 303R - Guide to Cast-in-Place Architectural Concrete.
   4. ACI 309 - CH. 7, Recommended Practice for Consolidation of Concrete.
   5. ACI 347 - CH. 5, Recommended Practice for Concrete Formwork
B. ASTM International (ASTM):
   1. ASTM D256: Standard Test Methods for Determining the Izod Pendulum Impact Resistance of Plastics.
   2. ASTM D412: Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
   3. ASTM D570: Standard Test Method for Water Absorption of Plastics.
   4. ASTM D624: Standard Test Method for Tear Strength of Conventional Vulcanized Rubber and Thermoplastic Elastomers.
   5. ASTM D638: Standard Test Method for Tensile Properties of Plastics.
   6. ASTM D648: Standard Test Method for Deflection Temperature of Plastics Under Flexural Load in the Edgewise Position.
   7. ASTM D790: Standard Test Methods for Flexural Properties of Unreinforced and Reinforced Plastics and Electrical Insulating Materials.
   8. ASTM D792: Standard Test Methods for Density and Specific Gravity (Relative Density) of Plastics by Displacement.
   9. ASTM D785: Standard Test Method for Rockwell Hardness of Plastics and Electrical Insulating Materials.
   10. ASTM D1238: Standard Test Method for Melt Flow Rates of Thermoplastics by Extrusion Plastometer.
   11. ASTM D1938: Standard Test Method for Tear-Propagation Resistance (Trouser Tear) of Plastic Film and Thin Sheeting by a Single-Tear Method.
   12. ASTM D2240: Standard Test Method for Rubber Property - Durometer Hardness.

1.4 SUBMITTALS

A. Submit under provisions of Section 01 30 00 – Administrative Requirements.
B. Product Data: Manufacturer's data sheets on each product to be used, including:
   1. Short form specification sheet showing formliner name and pattern number.
   2. Storage and handling requirements and recommendations.

3. Preparation instructions and recommendations.
4. Installation procedures.

C. Shop Drawings: Complete details of materials and installation, including but not limited to the following.
   a. Formliner Patterns.
   b. Formliner sheet sizes.
   c. Joint locations.
   d. Stamp Patterns.

D. Samples: 24 inches by 24 inches of each pattern depicting textures and patterns.

E. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

F. Compliance Certification by form release agent manufacturer for local regulations controlling VOC's.

1.5 QUALITY ASSURANCE

A. Manufacturer Qualifications: A minimum of 3 years' manufacturing experience with form liners like those required for this Project.

B. Installer Qualifications: A minimum of 3 years' experience with form liners like those required for this Project.

C. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
   1. The mock-up panel shall accurately demonstrate the specified formliner textures, patterns, and conditions (corners, false joints, etc.) expected in the completed work.
   2. Include concrete mix, forming system, form release agents, placement rate, form pressures, joint sealing, vibrating, and stripping practices. The exact procedures used in the full-scale construction of the concrete must also be used during the construction of the mock-up.
   3. Demonstrate patching and repair procedures for spawled concrete, and voids caused by honeycombing or bug holes.
   4. Architect/Engineer must approve the texture, pattern, color, and workmanship of the mock- up panel prior to the beginning of concrete construction. Do not proceed with remaining work until workmanship, installation and operation are approved by Architect/Engineer.
   5. Mock-up panel must remain on-site for comparison during concrete construction or erection.
   6. The installer or precast manufacturer shall be responsible for the removal and disposal of the mock-up panel following completion of the project.

1.6 DELIVERY, STORAGE, AND HANDLING

A. Inspect the materials upon delivery to ensure that specified products have been received. If there are any discrepancies upon inspection, the manufacturer must be immediately notified. Do not use damaged products.

B. Deliver, store and handle materials and products in strict compliance with manufacturer's instructions and recommendations.

C. When not in use, store products indoors or in a cool dry place covered with black polyethylene sheeting until ready for installation. Cover form liners to protect from water, oil, dirt and UV exposure.

D. Store materials within absolute limits for temperature and humidity recommended by manufacturer. Liquid materials shall be stored in temperatures not exceeding 140 degrees F (60 degrees C) or falling below 32 degrees F (0 degrees C). Protect from damage.

1.7 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Ashlar Pattern

1. Acceptable Manufacturer: Scott System, which is located at: 109 General Fellows Road, Greenwich, NY 12834. Tel: (518) 383-0500
Email: info@scottsystem.com Web: www.scottsystem.com

B. Animal Track Stamps

1. Acceptable Manufacturer: Deco-Crete Supply, which is located at: 11411 Williamson Rd. Blue Ash, OH 45241, Tel: (513) 572-2939,

Email: onlinesupport@deco-cretesupply.com;

Web: https://www.deco-cretesupply.com

2.2 MATERIALS

A. Reusable, elastomeric formliners for texturing architectural concrete with standard patterns.
1. Pattern and Texture: Scott System #167C 1-1/4" ASHLAR STONE
2. Properties:
i. Hardness, Shore A ASTM D2240: 65 – 70 A
ii. Tensile Strength, ASTM D412: 1525 psi
iii. Tear Strength, ASTM D624: 143 pli
iv. Ter Strength, ASTM D1938: 40 pli
v. Elongation, ASTM D412 - percent: 330%
vi. Color: Mid-Gray

B. Reusable, plastic stamps for texturing architectural concrete with standard patterns.
1. Pattern and Texture: Deco-Crete Animal Stamps
2. Models:

A. Coyote Tracks: https://www.deco-cretesupply.com/products/animal-tracks/coyote-tracks
B. Long-Tailed Weasel Tracks: https://www.deco-cretesupply.com/products/animal-tracks/long-tailed-weasel-animal-tracks
C. Raccoon Tracks: https://www.deco-cretesupply.com/products/animal-tracks/raccoon-animal-tracks
D. Great Horned Owl Tracks: https://www.deco-cretesupply.com/products/animal-tracks/great-horned-owl

2.2 ACCESSORIES

A. Form Release Agents:

1. Scott Lease 440.

2. Cressett 880.

PART 3 EXECUTION

3.1 FORM LINER PREPARATION

A. Verify lines and levels of formwork and form liner patterns are within allowable tolerances.
B. On multiple use liners, clean liner before each use. Do not use damaged liner when continued use or repair would diminish the aesthetics of the work.
C. Apply release agent according to manufacturer's directions. Schedule concrete pour immediately after application of release agent to avoid precipitation, dust, and debris.

3.2 FORM LINER INSTALLATION

A. Install units within manufacturer's recommended tolerances. Comply with manufacturer's installation instructions and approved submittals. Refer to manufacturer's Application Guide for proper procedures for installing formliners.
B. Store and use form liner panels at temperatures between 40 degrees F and 140 degrees F.
C. Seal formliner joints, rustication/chamfer joints, and tie holes to prevent cement paste from bleeding.
D. Provide solid backing at formliner joints where unsupported by formwork to prevent deflection.
E. Provide openings, offsets, keyways, recesses, chamfers, blocking, and screeds as required to achieve architectural concrete textured finish.
F. Install backing as required to prevent deflection of the formliner due to form pressures.

3.3 FORM LINER MAINTENANCE

A. For applications with reusable formliners, comply with requirements of paragraph Delivery Storage and Handling when handling and storing units between uses. Prevent matrix build-up on the formliner surface. Excess release agent shall be removed before the form and liner is put back into service.
B. Storage of form liner shall be out of direct sunlight and in temperatures below 140 degrees F. Store flat (not rolled) to avoid elastomeric sheet "set".

3.4 CONCRETE STAMP INSTALLATION

A. Apply concrete stamps per manufacturer’s instruction and as noted below.

B. Stamps shall be placed on fresh concrete and shall be timed to receive the correct imprint.

C. Concrete is generally ready to stamped when it is in a plastic-like state, typically around a few hours after pouring.

D. The concrete can be tested for readiness by setting one’s hand on the concrete without sand or concrete sticking to one’s hand. When this is the condition of the concrete, the concrete surfacing is ready to be stamped.

E. Apply concrete stamps as indicated on the drawings and as directed in the field.

Method of Measurement: The contract unit price for ARCHITECTURAL CONCRETE FORMLINER AND CONCRETE STAMPS shall include transportation, assembly and all labor necessary to install as recommended by the manufacturer and as shown on the plans, including all materials, labor, and equipment required to complete this work.

Basis of Payment: Furnishing and installing ARCHITECTURAL CONCRETE FORMLINER will be paid for at the contract unit price per square foot for ARCHITECTURAL CONCRETE FORMLINER. CONCRETE STAMPS will be paid for at the contract unit price per each for each reusable concrete stamp purchased and installed.

SECTION 04 40 20
LIMESTONE BOULDER SEATING AND LIMESTONE BLOCK BENCHES

PART 1 – GENERAL

This work shall consist of transporting, assembling and installing stone outcroppings and seating as specified herein, as shown on the plans, and as directed by the Engineer.

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This section includes the following:
   a. Limestone boulder seating
   b. Limestone block benches

1.3 SUBMITTALS

A. Product Data: For each variety of stone, stone accessory, and other manufactured product specified.
   1. For stone varieties proposed for use on Project, include data on physical properties required by referenced ASTM standards.

B. Photographs of Stone Samples for Verification: Provide representative photographs indicating the size, finish and character of the proposed stone materials. Photographs should include measuring devices in the frame to determine the relative sizes of stone elements.

C. Qualification Data: For firms and persons specified in the "Quality Assurance" Article to demonstrate their capabilities and experience. Include lists of completed projects with project names and addresses, names and addresses of architects and owners, and other information specified.

D. Samples
   a. Submit 3 samples, 6”x6” size for color
   b. Submit copy of Quality Assurance and Procedure Program

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Engage an experienced installer who has completed stone outcropping installations similar in material, design, and extent to that indicated for this Project and with a record of successful in-service performance.

B. Source Limitations for Stone: Obtain stone from a single quarry with resources to provide materials of consistent quality in appearance and physical properties without delaying the work.

C. Mockups: Before proceeding with construction of masonry walls, construct a sample outcropping section measuring 10’ length for approval by the Resident Engineer and City staff. If approved, the mockup may become an article of the work.

1.5 DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to Project site in undamaged condition.

B. Store and handle stone and related materials to prevent deterioration or damage due to moisture, temperature changes, contaminants, corrosion, breaking, chipping, or other causes.

C. Store cementitious materials on elevated platforms, under cover, and in a dry location. Do not use cementitious materials that have become damp.

D. Store aggregates where grading and other required characteristics can be maintained and contamination avoided.

E. Deliver preblended, dry mortar mix in moisture-resistant containers designed for lifting and emptying into dispensing silo. Store preblended, dry mortar mix in delivery containers on elevated platforms, under cover, and in a dry location or in a metal dispensing silo with weatherproof cover.

1.6 PROJECT CONDITIONS

A. Stain Prevention: Prevent mortar, and soil from staining the face of masonry to be left exposed or painted. Immediately remove mortar and soil that come in contact with outcropping stone.
   1. Protect base of outcroppings from rain-splashed mud and from mortar splatter by coverings spread on ground and over outcropping surface.

B. Cold-Weather Requirements: Do not use frozen materials or materials mixed or coated with ice or frost. Do not build on frozen substrates. Remove and replace unit masonry damaged by frost or by freezing conditions. Comply with cold-weather construction requirements contained in ACI 530.1/ASCE 6/TMS 602.
   1. Cold-Weather Cleaning: Use liquid cleaning methods only when air temperature is 40 deg F (4 deg C) and above and will remain so until masonry has dried, but not less than 7 days after completing cleaning.

C. Hot-Weather Requirements: Protect unit masonry work when temperature and humidity conditions produce excessive evaporation of water from mortar. Provide artificial shade and wind breaks and use cooled materials as required.
   1. When ambient temperature exceeds 100 deg F (38 deg C), or 90 deg F (32 deg C) with a wind velocity greater than 8 mph (13 km/h), do not spread mortar beds more than 48 inches (1200 mm) ahead of masonry. Set stone outcropping units within one minute of spreading mortar.

PART 2 – PRODUCTS

2.1 STONE

A. Varieties and Sources: Subject to compliance with requirements, provide stone of the following variety and from the following source:
   1. Distributed by: Bomberek Flagstone, 620 Sandall Pl, Joliet, IL, 60433, 630.257.0686
      a. TYPE: Quarried stone with machine-cut faces, Limestone, or other locally sourced stone
      b. LIMESTONE BOULDER SEATING SIZE RANGE: 24” wd x 36” wd x 18” ht
      c. LIMESTONE BLOCK BENCH SIZE RANGE: 24” wd x 6’-0” lg x 18” ht

2.2 MORTAR MIXES

A. General: Do not use admixtures, including pigments, air-entraining agents, accelerators, retarders, water-repellent agents, antifreeze compounds, or other admixtures, unless otherwise indicated.
   1. Do not use calcium chloride in mortar.
   2. Add cold-weather admixture (if used) at the same rate for all mortar, regardless of weather conditions, to ensure that mortar color is consistent.
      a. Mortar for unit masonry: Comply with ASTM C 270

2.3 MASONRY CLEANERS

A. Proprietary Acidic Cleaner: Manufacturer's standard-strength cleaner designed for removing mortar stains and other new construction stains from new stone outcroppings without discoloring or damaging outcropping surfaces. Use product expressly approved for intended use by cleaner manufacturer and manufacturer of masonry units being cleaned.

PART 3 – EXECUTION

3.1 EXAMINATION

A. Examine subgrade for any hidden voids, obstructions or foreign matter.

B. Ensure footings and bases are true and level and swept clean of obstructions.

3.2 PREPARATION

A. Clean stone surfaces that have become dirty or stained by removing soil, stains, and foreign materials before setting. Clean stone by thoroughly scrubbing with fiber brushes and then drenching with clear water. Use only mild cleaning compounds that contain no caustic or harsh materials or abrasives.

B. Provide 6 inches min. depth stone aggregate base, compacted 95% at least 4 inches wider than width of wall where concrete footings do not exist.

C. Lay 1/3 of the first outcropping stone course below surrounding grade and backfill to sides with planting soil mix as indicated on the drawings.

3.3 SETTING OUTCROPPING STONE

A. General: Install outcropping stones in sizes and shapes as indicated on the Drawings.
   1. For limestone, comply with recommendations of ILI's "Indiana Limestone Handbook."

B. Set outcropping stones to comply with requirements indicated for finish and to match approved samples and mockups.
   1. Finish
      a. Execute outcropping stone by skilled masons and/or landscape contractors experienced with the kind and form of stone and installation method indicated.
      b. Employ skilled stone fitters at the Project site to do necessary field cutting as stone is set. Use cold chisels and hammers to cut stone where necessary. Produce cuts as outlined in finishes, with edges eased slightly to prevent snipping.
      c. Arrange stones for good fit, in pattern indicated, with joint widths within tolerances indicated.
      d. Maintain mortar joints not less than ¼” and not more than ¾”
      e. Fill voids in centers of columns and walls with mortar
      f. Arrange stones for uniformity of appearance, with color and size variations uniformly dispersed for an evenly blended appearance.

3.4 EXCESS MATERIALS AND WASTE

A. Excess Stone: Excess materials shall be hauled away and legally disposed of.

Method of Measurement: The contract unit price for LIMESTONE BOULDER SEATING AND LIMESTONE BLOCK BENCHES shall include transportation, assembly and all labor necessary to install as recommended by the distributor and as shown on the plans, including all materials, labor, and equipment required to complete this work.

Basis of Payment: Furnishing and installing LIMESTONE BOULDER SEATING AND LIMESTONE BLOCK BENCHES will be paid for at the contract unit price per each for LIMESTONE BOULDER SEATING AND LIMESTONE BLOCK BENCHES.

SECTION 04 42 12

SIGN ASSEMBLIES

GENERAL

1.1 SECTION INCLUDES

A. This work shall consist of the furnishing, transportation, assembly, and installation of SIGN ASSEMBLIES in accordance with the contract documents and as directed by the Architect

1. Rules and Regulations Sign
2. Interpretive Sign
3. Animal Interpretive Sign

1.2 RELATED SECTIONS

A. 32 13 13 Concrete Paving and Curbing

1.3 PERFORMANCE REQUIREMENTS

A. Structural Performance: Provide post and panel signs capable of withstanding the effects of gravity loads and the following loads and stresses within limits and under conditions indicated, determined according to ASCE 7, "Minimum Design Loads for Buildings and Other Structures":

B. Thermal Movements: Provide post and panel signs that allow for thermal movements resulting from the following maximum change (range) in ambient and surface temperatures by preventing buck- ling, opening of joints, overstressing of components, failure of connections, and other detrimental effects. Base engineering calculation on surface temperatures of materials due to both solar heat gain and nighttime-sky heat loss.

1. Temperature Change (Range): 120 deg F, ambient; 180 deg F, material surfaces.

1.4 SUBMITTALS

A. Submittals: in accordance with Submittal Procedures

B. Product Data: For each type of product indicated. Include construction details, material descriptions, dimensions of individual components and profiles, and finishes. Include manufacturer's written instructions for maintaining and cleaning sign surfaces.

C. Shop Drawings: Show fabrication and installation details for post and panel signs.

1. Include plans, elevations, and at least 3/4-inch scale sections of typical members and other components and construction details. Show anchors, reinforcement, accessories, layout, and installation details.
2. Include message list, with details of wording and lettering lay- out, at least half size. Include full-size details of graphics.
3. Provide Graphic layouts for each sign location and its associated message. Minimum scale: 1” = 1’ – 0”

D. Samples for Verification: For 3 sets of each type of product indicated, of size below:

1. Aluminum Post: For each form, finish, and color, on 6-inch-long sections.
2. Aluminum Sheet: Squares of sheet at least 6 inches by 6 inches.
3. Paint Swatches: For each painted color, provide a 4” by 4” inch aluminum sheet. Clearly indicate on the back the color specification, date and submittal number.
4. Reflective Vinyl Sheet: 8 by 10 inches for each color required.
5. Examples of all graphic image process, including materials, methods, colors and finishes, for maps, patterns, imagery, letters, numbers and other graphic devices.

E. The contractors bid shall include costs for a complete sign fabrication and construction including but not limited to, mobilization, product data, shop drawings, mock-ups, samples.

1.5 QUALITY ASSURANCE

A. Installer Qualifications: An authorized representative of sign manufacturer for installation and maintenance of units required for this Project

1. Installer shall be capable of providing replacement message panels within 10 working days of receipt of order.

B. Source Limitations: Obtain each type of post and panel sign through one source from a single manufacturer.

C. Product Options: Drawings indicate size, profiles, and dimensional requirements of post and panel signs and are based on the specific type and model indicated.

1. Do not modify intended aesthetic effects, as judged solely by Designer, except with Designer’s approval. If modifications are proposed, submit comprehensive explanatory data to Designer for review.
2. Suggested Modifications shall not increase cost or schedule of project.

1.6 DELIVERY, STORAGE AND HANDLING

A. Deliver post and panel signs in protective covering and crating to protect sign components and surfaces against damage.

B. Coordinate delivery time so signs can be installed within 24 hours of receipt at Project site.

1.7 COORDINATION

A. Coordinate installation of anchorages for post and panel signs. Furnish setting drawings, templates, and directions for installing anchorages and other items that are to be embedded in concrete. Deliver such items to Project site in time for installation.

B. Coordinate delivery time so signs can be installed within 24 hours of receipt at Project site.

1.8 WARRANTY

A. Warranty Period: 10 years from date of Substantial Completion.

1. The post, panel, footers, sign faces, materials and fasteners shall be free of defects, including. but not limited to the following; scaling, peeling, fading, warping, vinyl shrinking, and corrosion.

MATERIALS

2.2 RULES AND REGULATIONS SIGN

A. Basis of Design: custom as indicated on the project drawings

B. Manufactured by: Parvin Clauss Sign Company, or approved equal

BNewton@ParvinClauss.com
http://www.parvinclauss.com/
(630) 510-2020 x3018
165 Tubeway Drive
Carol Stream, IL

2.3 INTERPRETIVE SIGN

A. Basis of Design: custom as indicated on the project drawings

B. Manufactured by: Parvin Clauss Sign Company, or approved equal

BNewton@ParvinClauss.com
http://www.parvinclauss.com/
(630) 510-2020 x3018
165 Tubeway Drive
Carol Stream, IL

2.4 ANIMAL INTERPRETIVE SIGN

A. Basis of Design: Designed Nature Signs or custom as indicated on the project drawings

B. Manufactured by: Vacker Sign, or approved equal, www.vackersign.com

C. Contractor shall provide custom animal interpretive signs based on the approved City of Evanston sign copy. Approved City of Evanston sign copy is attached to this specification. Approved high resolution City of Evanston sign graphics are available in vector formats to the contractor.

2.5 STANDARD POLE ASSEMBLES: POLE, POLE CAP

A. POLES:

1. 3” Diameter Smooth Aluminium Pole
2. Finish: Powder Coated Black
3. Size: See Drawings

B. POST CAP

1. Flat
2. Finish: Powder Coated Black

2.6 MATERIALS

A. Aluminum Sheet: ASTM B 209, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with at least the strength and durability properties of alloy 5005-H15.

B. Aluminum Extrusions: ASTM B 221, alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, and with at least the strength and durability properties of alloy 6063-T5.

C. Vinyl Film: Engineer Grade reflective vinyl film, as produced by 3M Corporation, with pressure-sensitive adhesive backing, suitable for exterior applications.

D. Steel: Steel material shall conform to ASTM A595.

2.7 ACCESSORIES

A. Fasteners, Brackets, and Decorative Components: Use concealed fasteners fabricated from metals that are noncorrosive to sign material and mounting surface. Where fasteners are exposed, use tamper resistant fasteners.

B. Anchors and Inserts: Use stainless-steel or hot-dip galvanized anchors and inserts. Use torque-controlled expansion-bolt devices for drilled-in-place anchors. Furnish inserts, as required, to be set into concrete.

2.8 CAST-IN-PLACE-CONCRETE FOOTING

A. This material is specified elsewhere in the Project Manual

2.9 FABRICATION, GENERAL

A. General: Provide post and panel signs of configurations indicated.

1. Welded Connections: Comply with AWS standards for recommended practices in shop welding. Provide welds behind finished surfaces without distortion or discoloration of exposed side. Clean exposed welded surfaces of welding flux and dress exposed and contact surfaces.
2. Mill joints to tight, hairline fit. Form joints exposed to weather to exclude water penetration.
3. Preassemble signs in the shop to greatest extent possible. Disassemble signs only as necessary for shipping and handling limitations. Clearly mark units for reassembly and installation, in location not exposed to view after final assembly.
4. Conceal fasteners if possible; otherwise, locate fasteners where they will be inconspicuous.

B. POSTS

1. General: Fabricate posts to lengths required for mounting method indicated.
   a) Direct bury: Post to be cast-in-place concrete footing. Shop drawings shall be provided by fabricator for footing detail.

C. SIGN PANELS

1. General: Provide smooth sign panel surfaces constructed to remain flat under installed conditions within a tolerance of plus or minus 1/16 inch measured diagonally from corner to corner.
2. Coordinate dimensions and attachment methods to produce message panels with closely fitting joints. Align edges and surfaces with one another in the relationship indicated.
3. Increase metal thickness or reinforce with concealed stiffeners or backing materials as needed to produce surfaces without distortion, buckles, warp, or other surface deformations.
4. Continuously weld joints and seams, unless other methods are indicated; grind, fill, and dress welds to produce smooth, flush, exposed surfaces with welds invisible after final finishing.

5. All signs to have removable panels to accommodate panel replacements.
6. Unframed Single-Sheet Panels: Provide unframed single-sheet sign panels with edges mechanically and smoothly finished.
    a) Panel Material: 0.125 (1/8”) thick aluminum sheet
    b) Panel Finish: Surface painted, utilizing Matthew polyurethane paint’s or equal
    c) Panel Coating: Matthews Clearcoat, Anti-Graffiti Protectant
    d) Edge Condition: Square cut.
    e) Corner Condition: As indicated on Drawings
    f) Form: Bend aluminum sheet at angle indicated on drawings
    g) Removable Panel Condition: As indicated on Drawings
        1) Provide tamper-resistant hardware for removable panels

GRAPHICS

7. Surface-Applied Copy and Background: Provide engineer grade reflective vinyl film with pressure-sensitive adhesive backing. Apply copy to exposed face of sign panel.

D. ALUMINIUM FINISHES

1. Comply with NAAMM's "Metal Finishes Manual for Architectural and Metal Products" for recommendations for applying and designating finishes.
2. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.
3. Baked-Enamel Finish: AA-C12C42R1x (Chemical Finish: cleaned with inhibited chemicals; Chemical Fin-ish: acid-chromate-fluoride-phosphate conversion coating; Organic Coating: as specified below). Apply baked enamel complying with paint manufacturer's written instructions for cleaning, conversion coating, and painting.
    a) Organic Coating: Thermosetting, modified-acrylic enamel primer/topcoat system complying with AAMA 2603 except with a minimum dry film thickness of 1.5 mils, medium gloss.
    b) Clear Coating: All exposed surfaces shall have a Mathews Polyurethane Clear Coat Protectant that provides scratch resistance, abrasion resistance, weather resistance and UV inhibitors.
4. Paint Color: As indicated on drawings, PMS colors as specified are to be matched according to the numbers specified form the PANTONE Color Selector. Paint to have a satin finish.

E. STEEL FINISHES

1. All fabricated steel surfaces shall be electrostatically powder-coated with TGIC polyester powder coatings. Products are fully cleaned and pretreated, preheated and coated while hot to fill crevices and build coating film. Coated parts are fully cured to coating
2. Powder coating color shall be black.

EXECUTION

3.2 INSTALLATION

A. Excavation: In firm, undisturbed or compacted soil, drill or (using a post-hole digger) hand-excavate holes for each post to minimum diameter recommended by sign manufacturer, but at least four times the largest post cross-section.

1. Excavate footing depths approximately 48 inches below finished grade.

B. Install signs level, plumb, and at height indicated, with surfaces free from distortion or other defects in appearance.

C. Fabricator/Installer is responsible for contacting the utility companies prior to any digging. It is the responsibility of the fabricator/ installer to coordinate all calls, utility checks and footer production so that it will not delay the installation of the sign program.

D. Installer shall coordinate sequencing, excavation, delivery, installation and clean-up with all related construction projects. Installer shall backfill and fine grade all disturbed landscape areas so as to provide a seamless transition in grade between new and existing landscape conditions.

E. Installer representative will be present at all field surveys and site markings prior to installation. As part of a team including the City of Evanston, representatives of the design teams, the installer representative responsibilities will include;

1. Measuring and marking out (spray paint) final sign location number and placement
2. Recording measurements of sign placement from nearest intersection
3. Record all message, sign type and location revisions, additions or subtractions that effect the production or installation of the sign program.

3.3 CLEANING

A. At completion of installation, clean soiled surfaces of sign units according to manufacturer's written instructions.

B. Contractor shall keep the project site free from accumulation of waste materials and debris generated by his operation, by removing debris at least once a day. Equipment shall not be left on site without prior approval of construction office.

C. Upon completion of work, debris and equipment are to be removed from the site leaving the area clean.

3.4 FINAL SHOP DRAWING SUBMITTAL

A. Upon approval of shop drawings, the manufacturer shall provide final bound shop drawing submittal in both a paper and PDF format.

Approved City of Evanston sign copy

Canoe Launch Interpretive Sign Copy

WELCOME TO THE LADD ARBORETUM CANOE LAUNCH!

The North Shore Channel is part of a historic water system linking neighborhoods, parks, and natural areas throughout Evanston. The Ladd Arboretum Canoe Launch offers a unique vantage point on the Channel—an urban waterway that supports a rich mix of birds, fish, mammals, and native plants.

The North Shore Channel was constructed between 1907 and 1910 along the path of a historic drainage ditch that once cut through the marshy landscape here. Over the past century, the Channel has transformed from a utilitarian waterway into an increasingly vibrant natural corridor. Today, improved water quality, native shoreline plantings, and ongoing stewardship efforts support thriving habitat along its banks.

As you explore the waterway, you may see Great Blue Herons hunting in the shallows, turtles basking on logs, bass darting through underwater vegetation, and coyotes or foxes using the green spaces as travel routes. The Channel's restored shoreline and connected parklands create an essential refuge for wildlife moving through the urban landscape.

Just like the Ecology Center next door, this space encourages curiosity, outdoor discovery, and stewardship. Whether you're paddling, birdwatching, or simply enjoying the peaceful flow of the Channel, you are part of a community helping care for this vital urban ecosystem.

Canoe Launch Interpretive Animal Sign Copy
Note: high resolution graphics for each sign are available in vector format to the contractor.

1. GREAT BLUE HERON

"Migrants of the North Shore Channel"

A Seasonal Traveler
Great Blue Herons are one of the largest and most recognizable birds along the North Shore Channel. Though some stay year-round, many migrate each spring and fall, following the Mississippi Flyway—one of North America's major bird migration routes. The Canal provides an essential rest stop, offering quiet banks, shallow waters, and steady food sources.

Fishing Experts
Herons hunt patiently along the shoreline, striking with speed and accuracy at fish, frogs, and aquatic insects. Their presence is a sign of healthy habitat and balanced ecosystems.

You Can Help Protect Their Pathway
• Give herons plenty of space
• Support clean-water efforts to maintain healthy fish populations

A Migration Oasis

This human-made waterway has become a vital urban refuge. Each migration season, keep an eye out for these elegant, long-legged visitors resting and refueling right here in Evanston.

2. LARGEMOUTH BASS

"A Water Quality Success Story"

A Native Predator Thriving in Urban Waters
The Largemouth Bass is one of the most familiar freshwater fish in Illinois and an important indicator of water quality. Bass rely on oxygen-rich water, stable habitat, and abundant food—all conditions the North Shore Channel has been gradually regaining through restoration efforts.

Why Water Quality Matters
Good water quality supports a full food web: aquatic insects → small fish → predatory species like bass. Improvements to stormwater management, reductions in pollution, and the return of native plants are helping the Canal support healthier fish communities.

How You Can Help
• Prevent litter from entering storm drains
• Participate in local cleanup and restoration days
• Respect shoreline vegetation—native plants keep water clean

Healthy Water, Healthy Fish
Seeing Largemouth Bass in the Channel is a promising sign that urban waterways can recover when communities commit to stewardship.

3. COYOTE

"Travelers of the Urban Wildlife Corridor"

Adapting to City Life
Coyotes are intelligent and highly adaptable mammals that use the green space along the North Shore Channel as a wildlife corridor—safe passage between larger natural areas. These corridors are essential for movement, hunting, raising pups, and maintaining healthy populations.

Living Alongside Coyotes
Coyotes help control rodent populations and play a vital role in urban ecosystems. While sightings may be common, coyotes usually keep their distance from people.

Leave No Trace in Urban Nature
• Never feed wildlife—directly or indirectly
• Secure trash and remove outdoor food sources
• Give coyotes space and keep pets close
• Stay on paved paths to protect habitat

A Shared Pathway

The Canal links people, parks, and neighborhoods—but it also links wildlife. Respecting this shared space helps keep Evanston's urban ecosystem thriving.

4. WATER WILLOW & LIZARD'S TAIL

"Shoreline Stewards of the North Shore Channel"

Native Plants That Shape Habitat
Water Willow and Lizard's Tail are two native wetland plants that stabilize the Canal's shoreline and create rich habitat for fish, turtles, insects, and birds. Their roots hold soil in place, while their stems and leaves offer shelter and spawning grounds.

Benefits for Wildlife
• Water Willow forms underwater thickets where young fish hide
• Lizard's Tail's fragrant blooms attract pollinators
• Both plants help filter runoff, improving water clarity and quality

Stewardship in Action
Restoring native shoreline vegetation is essential to improving the health of the North Shore Channel. Community groups and volunteers plant, monitor, and maintain these species to strengthen habitat along this urban waterway.

How You Can Support Native Shorelines
• Avoid disturbing planted areas
• Reduce pollutants that enter storm drains
• Join local stewardship days to help care for the Canal's edges

A Living Shoreline
These plants show how small species can make a big difference—creating cleaner water, stronger habitat, and a more resilient ecosystem for Evanston.

Method of Measurement: The contract unit price for POST MOUNTED SIGNS – RULES AND INTERPRETIVE and POST MOUNTED SIGNS – ANIMAL INTERPRETATION shall include all materials and labor necessary to install sign structures as shown on the plans, including all materials, labor, and equipment required to complete this work.

Basis of Payment: Furnishing and installing POST MOUNTED SIGNS – RULES AND INTERPRETIVE and POST MOUNTED SIGNS – ANIMAL INTERPRETATION will be paid for at the contract unit price per each for POST MOUNTED SIGNS – RULES AND INTERPRETIVE and POST MOUNTED SIGNS – ANIMAL INTERPRETATION.

SECTION 05 52 13
RAILING SYSTEM

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Aluminum Pipe and Tube Railing

B. Free-standing railings at steps and ramps

C. Kayak-Canoe Railing

D. Railing System

E. Railing system with handrail

1.2 RELATED SECTIONS

A. Civil and Structural Engineering specifications

1.3 REFERENCES

A. ANSI A1264.1 - Safety Requirements for Workplace Floor and Wall Openings, Stairs, and Railing Systems.

B. ASTM B 211 - Standard Specification for Aluminum and Aluminum-Alloy Bar, Rod, Wire.

C. ASTM B 247 - Standard Specification for Aluminum and Aluminum Die Forgings, Hand Forgings and rolled Ring Forgings.

D. ASTM B 429 - Standard Specification for Aluminum-Alloy Extruded Structural Pipe and Tube.

E. ASTM E 935 - Standard Test Methods for Permanent Metal Railing Systems and Rails for Buildings.

1.4 DESIGN / PERFORMANCE REQUIREMENTS

A. Comply with requirements of building authorities having jurisdiction in Project location and the following:

1. Handrail Standard: ANSI A1264.1

2. Occupational Safety and Health Administration - 29 CFR 1910.23 - Guarding floor and wall openings.

B. Structural Performance: Engineer, fabricate, and install handrails, guardrails, and railing systems to withstand, when tested per ASTM E 935, loadings required by applicable building and safety codes but not less than the following:

1. Design Loads: Design to the following requirements. Concentrated and uniform loading need not be applied simultaneously.

2. Uniform load: 50 pounds per foot (74.3 kg/m) applied at the top in any direction.

3. Concentrated load: 200 pounds (90.6 kg) applied at the top in any direction.

1.5 SUBMITTALS

A. Submit under provisions of Division 01 Specifications – Administrative Requirements, for submittal procedures

B. Product Data: Manufacturer's data sheets on each product to be used, including:

1. Preparation instructions and recommendations.

2. Details of material and construction.

3. Storage and handling requirements and recommendations.

4. Installation methods and requirements.

C. Shop Drawings: Submit shop drawings for fabrication and installation of pipe and tube railings. Include plans, elevations and detail sections for all specified railings. Indicate materials, methods, finishes and types of joinery, fasteners, anchorages and accessory items.

D. Load Tests: Submit test results from ASTM E 935 conducted on the manufacturer's supplied system indicating compliance with required structural loading.

E. Selection Samples: For each finish product specified, two complete sets of color charts representing manufacturer's full range of available colors and patterns.

F. Manufacturer's Certificates: Certify products meet or exceed specified requirements.

G. Closeout Submittals: Provide manufacturer's maintenance instructions that include recommendations for periodic cleaning and maintenance of all components.

1.6 QUALITY ASSURANCE

A. Manufacturer Qualifications: Minimum 3 years documented experience producing systems specified in this section.

B. Mock-Up: Provide a mock-up for evaluation of surface preparation techniques and application workmanship.

1. Finish areas designated by Landscape Architect.

2. Do not proceed with remaining work until workmanship, color, and sheen are approved by Landscape Architect.

3. Refinish mock-up area as required to produce acceptable work.

4. Accepted mock-ups shall be comparison standard for remaining Work

1.7 DELIVERY, STORAGE, AND HANDLING

A. Store products in manufacturer's unopened, properly labeled, original packaging until ready for installation.

B. Store components to avoid damage from moisture, abrasion, and other construction activities.

C. Keep handling to a minimum. Exercise caution to avoid damage to factory applied finishes.

1.8 SEQUENCING

A. Ensure that products of this section are supplied to affected trades in time to prevent interruption of construction progress.

1.9 PROJECT CONDITIONS

A. Maintain environmental conditions (temperature, humidity, and ventilation) within limits recommended by manufacturer for optimum results. Do not install products under environmental conditions outside manufacturer's absolute limits.

B. Field Measurements: Take measurements of actual dimensions where necessary for fit without gaps. Indicate measurements on shop drawings.

PART 2 PRODUCTS

2.1 MANUFACTURERS

A. Manufacturer: Superior Aluminum Products, Inc.; 555 E. Main St., P. O. Box 430, Russia, OH 45363. Phone: 937-526-4065. Fax: 937-526-3904. Email: infor@superioraluminum.com. Web: www.superioraluminum.com.

1. Product: Series 5P Aluminum Pipe Picket Railing as indicated on the drawings

B. Substitutions: Not permitted.

C. Requests for substitutions will be considered in accordance with provisions of Section 01 6000 - Product Requirements.

2.2 HORIZONTAL PIPE RAILINGS

A. Pipe Picket Railing Series 5P: 1-1/2 inch Schedule 40 (3.81 cm) pipe with 1.9 inch (4.83 cm) outside diameter run between posts and utilizes concealed fasteners. Pickets are 3/4 inch (1.9 cm) round pipe spaced at 4.5 inch (11.43 cm) on center and run between the top and bottom rail utilizing concealed fasteners. Neither horizontal or vertical components shall be fastened via welding. Top rail shall be continuous through the full length of the system.

B. Horizontal Pipe Rail

1. Pipe: 1-1/2 inch (3.81 cm) Schedule 40 pipe with 1.9 inch (4.83 cm) outside diameter runs between posts and utilizes concealed fasteners.

2. Top rail shall be continuous through the full length of the system.

C. Round posts

1. Post: 1-1/2 inch Schedule 40 pipe (3.81 cm) with 1.9 inch (4.83 cm) outside diameter with reinforcement rebar inserts

D. Vertical Pickets

1. Pipe: 3/4 inch (1.9 cm) round pipe outside diameter runs between top pipe rail and bottom pipe rail utilizing a tight-in-fit

E. Height:

1. As indicated on the Drawings

F. Design

1. Straight Rail Design: As indicated
2. Step Rail Design: As indicated
3. Toe-Plate Design: As indicated
4. Radius Design: As indicated
5. As indicated on the Drawing

G. Component Parts:

1. Provide all connecting components and fittings as required.

H. Base: Size to fit the posts specified

1. As indicated on the Drawings.

2.3 Hand Rail: Series 5H Mounted Hand Rail:

A. Pipe: 1-1/2 inch (3.81 cm) Schedule 40 pipe with 1.9 inch (4.83 cm) outside diameter.

B. Handrail to run continuously throughout the whole length of handrail system.

C. Mount to wall, railing, or other structure by utilizing mounting plates.

D. No components shall be fastened via welding.

E. Handrail will be installed at a height of 34 – 38 inches above ramp surface.

F. Clearance of a minimum 1 ½" shall exist between the wall or post surface and the handrail.

G. Top and bottoms of handrail sections that stop at a landing, the handrail shall extend 12 in horizontally beyond the top riser and 12 in. horizontally beyond the bottom tread.

H. Handrail shall be continuous, without interruption by newel posts or other

obstructions.

I. Handrails shall return to a wall, guard or walking surface

2.4 Gates

A. Provide swinging gates of type and size indicated on the Drawings. Equip gates with manufacturer's standard as required for complete functional operation.

1. Construction:

a. Frame: Welded frame fabricated from post, top rail and bottom rail material.

b. Infill: Match the railing design and configuration.

2. Size: As shown on the drawings

B. Hardware:

1. Hinges: Size and type as determined by manufacturer.

a. Minimum of two hinges per leaf

2. Latch (to be determined during shop drawing review):

a. Lock Latch

b. Magna Latch

2.5 RAILING MATERIALS

A. Rail, Post and Pickets: Aluminum extrusions; alloy and temper 6063-T4 or 6063-T6 for rail, posts, and pickets.

1. Pipe: ASTM B 429.

B. Base Flanges, Anchors, and railing accessories: ASTM B 247.

1. Bases cast from manufacturer's standard A-356-T6, 535, or 713 aluminum alloys or solid extruded 6063 aluminum alloy stock.

2. Base flanges and railing accessories cast from manufacturer's standard 319, A-356, A-356-T6, 535, or 713 aluminum alloys.

3. Anchorages: Provide anchorage for fastening and complying with applicable Federal standards. All fasteners used in the system shall be aluminum or stainless steel.

C. Fasteners: Provide anchorage for fastening and complying with applicable Federal standards. Fasteners used in the system shall be aluminum or stainless steel.

D. Grout: Non-shrink Portland cement-based hydraulic grout, mixed and applied in accordance with manufacturer's instructions; gypsum-based material is not acceptable. Provide formulation that is resistant to erosion from water exposure

without needing protection by a sealer or waterproof coating and recommended by manufacturer for exterior use.

2.6 FINISH

A. Satin Anodized Finish (silver appearance):

1. 60 Minute: Architectural Class I, AA-M12-C21-A41

2.7 FABRICATION

A. Tolerances: Verify dimensions on site prior to shop fabrication for proper connection to building structure or substrate.

B. Components or railing sections shall be fabricated to exact measurements specified through Drawings and field dimensions.

C. Components or railing sections shall be fabricated at the manufacturing facility in largest practical site delivery sizes.

D. Pipe cuts shall be square and accurate for minimum joint-gap. Cuts shall be clean and free of chamfer, from deburring, nicks and burrs.

E. Railings angled horizontally, machine castings to proper angle.

F. Fabricate railing system to meet step railing requirements; riser and tread dimensions of the steps.

G. Posts grouted in concrete to have one nominal 1/4 inch (6.0 mm) nominal diameter weep hole, 1/2 inch (12.0 mm) nominal above post collar, in the plane of the rail

H. Provide components required for anchorage of framing. Fabricate anchors and related components of material and finish as required, or as specifically noted.

PART 3 EXECUTION

3.1 EXAMINATION

A. Do not begin installation until substrates have been properly prepared. Fully review the supporting structure and substrate to verify a structurally sound base for anchoring railing system.

B. If substrate preparation is the responsibility of another installer, notify Architect of unsatisfactory preparation before proceeding.

3.2 PREPARATION

A. Clean surfaces thoroughly prior to installation.

B. Ensure that adjacent surfaces, structures, and finishes are protected from damage by construction activities of this section.

C. Use wood blocks and padding to prevent damage to railing members and fittings during erection.

D. Prepare surfaces using the methods recommended by the manufacturer for achieving the best result for the substrate under the project conditions.

3.3 INSTALLATION

A. Install in accordance with manufacturer's instructions.

B. Install components plumb and inline, accurately fitted, free of distortion or defects and securely anchored to building structure and/or substrate.

C. Provide grounds, clips, backing materials, adhesives, brackets, anchors, and accessories necessary for a complete installation.

D. Expansion Bolt Mounting: Anchor through base plates to concrete substrate.

E. Sleeve Mounting:

1. Arrange for casting of sleeves or core drill into concrete to provide holes for railing uprights.

2. After setting, fill holes with hydraulic grout; brace members until grout is cured.

F. Connect railing components in accordance with manufacturer’s instructions applicable to the specified system. Tighten all fasteners so that completed railing is rigid and free of play at joints and component attachments.

G. Gates:

1. Install gates and adjust hardware for smooth operation.

2. After installation, test gate. Open and close a minimum of five times. Correct any deficiencies and adjust.

H. Expansion Joints: Provide expansion joints for continuous spans in excess of 40 feet (12.0 m). Construct joints by deleting structural adhesive from one end of the spliced joint so that it is free to move in or out of the pipe. If a joint is provided every 30 feet (9.0 m), the width of the gap should allow 1/8 inch (3.0 m) expansion for each 40 degrees F (22 degrees C) of expected temperature rise.

3.4 ERECTION TOLERANCES

A. Install railings plumb and level, securely fastened, with vertical members plumb.

1. Maximum variation from plumb: 1/4 inch (6.0 mm).

2. Maximum misalignment from true position: 1/4 inch (6.0 mm).

3. Maximum misalignment between adjacent separated members: 1/8 inch (3.0 mm).

3.5 CLEANING

A. Remove dust or other foreign matter from component surfaces; clean finishes in accordance with AAMA 609 and AAMA 610-02.

3.6 PROTECTION

A. Protect installed products until completion of project.

B. Touch-up, repair or replace damaged products before Substantial Completion.

Method of Measurement: The contract unit price for RAILING SYSTEM, RAILING SYSTEM WITH HANDRAIL, AND CANOE/KAYAK RAILING shall include all materials and labor necessary to install plants as shown on the plans, including all materials, labor, and equipment required to complete this work.

Basis of Payment: Furnishing and installing RAILING SYSTEM, , RAILING SYSTEM WITH HANDRAIL, AND CANOE/KAYAK RAILING will be paid for at the contract unit price per linear foot.

SECTION 09 33 00
STAINING CONCRETE STRUCTURES

Description: This work shall consist of staining permanently exposed surfaces of designated concrete structures. Staining concrete structures shall be applied to the following exposed concrete surfaces:

1. Retaining Wall Stone Pattern Formliner
2. ~~Retaining Wall Animal Stamps~~

The stain for all formliner areas shall match the color indicated below and as applied to concrete structures as indicated in the Contract Documents:

Specified color: TO BE DETERMINED or equal as defined by Increte Stone Essence Semi-Transparent Stain, Euclid Chamical, www.euclidchemical.com. The color shall be selected from one of the manufacturer's standard color offerings.

Submittals: The contractor shall provide a range of standard colors for Owner review and selection.

Materials: The stain shall be water based and shall create a surface finish that is breathable (allowing water vapor transmission), and that resists deterioration from water, acid, alkali, fungi, sunlight and/or weathering. The stain shall be odor free and V.O.C. compliant. The stain shall meet the requirements for weathering resistance of 2000 hours accelerated exposure.

Qualifications of Stain Applicator: The concrete stain applicator shall have a minimum of five (5) years demonstrated experience in concrete stain applications. The installer shall submit evidence of appropriate experience, job listings and project photographs from previous work.

Sample Panel: Upon receipt of notification of the style of form liner to be used, the Contractor shall submit a proposed procedure for obtaining the simulated finish using the approved architectural form liner style and stain - see the special provision for ARCHITECTURAL CONCRETE FORMLINERS. The procedure shall include plans and details for the form liner pattern and dimensions, and be submitted for the Engineer's approval no later than 30 calendar days following the date of notification of approval of the form liner style type. If such plans and details are not satisfactory to the Engineer and Owner, the Contractor shall make any changes as may be required by the Engineer or Owner at no additional cost.

Upon approval of the form liner plans and details, the Contractor shall submit a 3' by 3' (minimum) sample concrete panel of the simulated finish to include staining. The sample panel shall be delivered and positioned on the job site at a location to be determined by the Engineer. The following sample panels shall be provided:

1. Retaining Wall Stone Pattern Formliner

General: The surfaces to be stained shall be structurally sound, clean, dry, and fully cured. The concrete shall be at least 30 days old prior to applying the stain. Curing agents shall be removed a minimum of 14 days prior to staining to allow the concrete to dry out.

Temperature and relative humidity conditions shall meet the manufacturer's application instructions. Do not apply the stain under rainy conditions or within three days after surfaces become wet from rainfall or other moisture. Do not apply when the weather is foggy or overcast.

The concrete surface shall be cleaned prior to ~~the~~ applying the stain materials. The methods and materials used for cleaning the substrate shall be as recommended by the manufacturer of the stain. The Contractor shall ensure that the surface is free of latency, dirt, dust, grease, efflorescence, paint, or other foreign material. The Contractor shall not use sandblasting as a cleaning method. The preferred method to remove latency is pressure washing with water, at a minimum 3000 psi (3-4 gal/min), using fan nozzle.

The nozzle should be positioned perpendicular to and at a distance of 1-2 feet from the concrete surface. The cleaned surface shall be free of blemishes, discoloration, surface voids and unnatural form marks.

The stain shall be thoroughly mixed according to the manufacturer's directions using an air-driven or other explosion-proof power mixer. Mix all containers thoroughly prior to application. Do not thin the material. Materials shall be applied at the rate as recommended by the manufacturer. Absorption rates may be increased or decreased depending upon the surface texture and porosity of the substrate so as to achieve even staining.

The stain shall be applied using a color blend of 3 colors maximum. The intent is to simulate natural stone materials. The stain shall be applied using a sponge or similar application to simulate a natural stone with varied color appearances.

A test area of ten square feet shall be prepared and the stain applied to the surface to verify the surface preparation, adhesion and color. Once the Engineer has approved the results from the test area the application of the stain to the rest of the exposed surfaces may be completed.

Take precautions to ensure that workers and work areas are adequately protected from fire and health hazards resulting from handling, mixing and application of materials. Furnish all the necessary equipment to complete the work. Provide drop cloths and other forms of protection necessary to protect all adjoining work and surfaces to render them completely free of overspray and splash from the concrete stain work. Any surfaces, which have been damaged or splattered, shall be cleaned, restored, or replaced to the satisfaction of the Engineer.

Schedule the color stain application with earthwork and back-filling of any wall areas making sure that all simulated stone texture that might fall below grade is colored prior to back-filling. Delay adjacent plantings until color application is completed. Coordinate work to permit coloring applications without interference from other trades. Where exposed soil or pavement is adjacent which may spatter dirt or soil from rainfall, or where surface may be subject to over-spray from other processes, provide temporary cover of completed work.

Method of Measurement: The exposed surfaces stained, will be measured in place and the area computed in square feet.

Basis of Payment: This work will be paid for at the contract unit price per square feet for STAINING CONCRETE STRUCTURES. The unit price shall include all equipment, materials and labor required to stain the exposed concrete surfaces.

SECTION 09 96 23
ANTI-GRAFFITI COATING

This section specifies the requirements for applying a non-sacrificial, matte gloss, anti-graffiti protective coating over stained concrete surfaces as noted in the contract documents.

PRODUCT
Anti-graffiti coating shall be a water based coating system, including primer, sealer or densifier coats as recommended by the manufacturer. The final coat of the system shall be a urethane-based sealant in accordance with the requirements of Materials I.M. 491.23, which provides an invisible, non-sacrificial penetrating barrier. Coating shall dry as a matte or satin finish. A high gloss finish is unacceptable. The application of the coating product shall not result in yellowing or color change to the surface.

The anti-graffiti coating shall be a low volatile organic content (VOC) material, with a VOC less than 600 grams/liter. The coating shall be resistant to weather, humidity, abrasion, acid, alkali, salt spray, ultra-violet rays, and petroleum products and shall allow vapor transmission when tested in accordance with ASTM E 96.

The coating shall have the capability of having all types of paints and graffiti materials completely removed without damaging the surfaces to which the coating is applied. Removal of graffiti shall not result in “shadowing” of the base surface upon removal of graffiti. Manufacturer recommended cleaning products for removal of graffiti shall be non-toxic and biodegradable.

SUBMITTALS
Submittals shall be coordinated with the concrete wall formliner and stain submittals. The Contractor shall provide Product Data Sheets, along with Material Safety Data Sheets (MSDS) for the coating products including thinners and cleaning agents. The information submitted shall also include information verifying compliance to VOC limitations as outlined above.

Provide written application instructions from the manufacturer, which shall include recommended application equipment, application methods and rates, surface preparation requirements and other applicable manufacturer's recommendations.

SURFACE PREPARATION
Surfaces to be coated shall be clean, dry, and free of oil, dirt, grease, form release agent, efflorescence or any other coating, which may inhibit penetration and adhesion of anti-graffiti coating. If surface requires cleaning prior to applying anti-graffiti coating, clean surface in accordance with manufacturer’s recommendations.

APPLICATION
All exposed faces of retaining walls shall receive the graffiti coating finish. Application shall be by means of brush, roller or sprayer in accordance with the manufacturer’s recommendations. The number of coats applied shall be in accordance with the manufacturer’s recommendations. Coating material shall not be diluted in any way.

1. Spray Application.
   A low-pressure setting of approximately 40 pounds per square inch shall be used to avoid atomization of coating material. Spray equipment shall be fitted with fan tip, stainless steel or brass fittings and gaskets suitable for solvent solutions.

2. Brush and Roller Application.
   Utilize nylon or other synthetic material resistant to solvent solutions. Apply sufficient product to thoroughly saturate the surface. Avoid excessive overlapping and take care to brush out runs and drips to avoid build-up.

INSPECTION
The Engineer will inspect installed retaining walls with formliner and stain as a complete installation to verify that it is in accordance with the requirements of this section. The Contractor shall facilitate this inspection as required, including providing the Engineer with advance notice of scheduled work, allowing ample time for the inspections and access to the work.

METHOD OF MEASUREMENT
ANTI-GRAFFITI COATING installation will be measured in place per square foot.

BASIS OF PAYMENT
For the number of square feet of ANTI-GRAFFITI COATING shown on the plans, the Contractor will be paid the contract unit price per square foot. This payment shall be full compensation for all labor, materials, equipment, services, and incidentals necessary to perform the work of this section.

SECTION 32 31 13
CHAIN LINK FENCE

PART 1 GENERAL

1.1 RELATED DOCUMENTS

A. DIVISION 01 - GENERAL REQUIREMENTS: Drawings, quality, product and performance requirements, general and supplemental conditions apply as applicable to the project and project documents.

1.2 SUMMARY

A. This Section includes industrial/commercial chain link fence and gates specifications:
   1. Polymer coated steel chain link fabric
   2. Polymer coated galvanized steel framework and fittings
   3. Installation

1.3 REFERENCES

A. ASTM F552 Standard Terminology Relating to Chain Link Fencing

B. ASTM F567 Standard Practice for Installation of Chain Link Fence

C. ASTM F626 Specification for Fence Fittings

D. ASTM F900 Specification for Industrial and Commercial Swing Gates

E. ASTM F934 Specification for Standard Colors for Polymer-Coated Chain Link

F. ASTM F1043 Specification for Strength and Protective Coatings of Steel Industrial Chain Link Fence Framework

1.4 SUBMITTALS

A. Shop drawings: Site plan showing layout of fence location with dimensions, location of gates and opening size, cleared area, elevation of fence, gates, footings and details of attachments. Comply with the provisions of Section 01 33 23.

B. Material samples: When required, provide representative samples of chain link fabric, framework and fittings.

C. Specification Changes: May not be made after the date of bid.

PART 2 PRODUCTS

2.1 FABRIC

A. General: Provide fence fabric manufactured from wire meeting the requirements of ASTM A 817. Use No. 9 gauge wire woven in a 2 inch mesh. Construct knuckled selvedge at the top and bottom of the fabric. Provide products as indicated on the drawings.

B. PVC-coated Fabric: Comply with ASTM F 668, Class 2b.

1. Apply PVC coating to zinc or aluminum-coated wire prior to weaving fabric.

2. PVC coating color black, complying with ASTM F 934.

2.2 ROUND STEEL PIPE FENCE FRAMEWORK

A. Round steel pipe, rail and braces: Schedule 40 standard weight pipe, in accordance with ASTM F1083, 1.8 oz/ ft² hot dip galvanized zinc exterior and 1.8 oz/ft² hot dip galvanized zinc interior coating.
Regular Grade: Minimum steel yield strength 30,000 psi

B. Typical post and rail size for normal Commercial / Industrial applications

Post Use	**Fence Height**		
	48” and under (nominal diameter)	48” to 96” (nominal diameter)	Greater than 96” (nominal diameter)
Line Post	2”	2 1/2"	3”
Terminal Post*	2 1/2"	3”	4”
Top/intermediate Rail Braces	1 1/4"	1 1/4"	1 1/4"
Gate Post	Refer to contract documents and ASTM F 900		
*Includes corner, angle, end, and pull posts.			

C. Polymer coated posts, rails, braces shall have a PVC coating fused and adhered to the exterior zinc coating of the galvanized pipe in accordance with ASTM F1043. The minimum thickness of the PVC coating shall be 10-mils. Color black per ASTM F934.

D. Ensure all posts, rails, and braces provided for a given section of fence have similar coatings and shapes.
E. Provide caps for all posts. Comply with ASTM F 626.

2.3 FITTINGS

A. Comply with ASTM F 626.

B. Provide attachments to connect braces to posts by fittings that will hold both post and brace rigidly.

C. Provide 3/8 inch diameter round steel diagonal tension rods with an appropriate commercial means for tightening. Provide a locknut or other device to hold the tightening device in place.

D. Provide a suitable sleeve or coupling device, recommended by the manufacturer, to connect sections of top rail and provide for expansion and contraction.

E. Use stretcher (tension) bars of the size specified in ASTM F 626 with suitable bands for attaching fabric to corner, end, or gate posts.

F. Polymer Coated Color Fittings: In compliance with ASTM F626, minimum coating thickness 0.006 in. fused and adhered to the zinc coated fittings. Match color to fence system

2.4 TIE WIRE and HOG RINGS

A. Basic commercial- specify 9 gauge core aluminum alloy ties and hog rings per ASTM F626.
B. Polymer-coated, match the coating, class and color to that of the chain link

2.5 CONCRETE

Concrete for post footings shall have a 28-day compressive strength of 2,500 psi and comply with Concrete Specification.

PART 3 EXECUTION

3.1 CLEARING FENCE LINE

Clearing: Surveying, clearing, grubbing, grading and removal of debris for the fence line or any required clear areas adjacent to the fence is not included in the earthwork contractor's contract and is the responsibility of the fence contractor. The contract drawings indicate the extent of the area to be cleared and grubbed.

3.2 FRAMEWORK INSTALLATION

A. Posts: See Contract Documents. Line posts installed at intervals not exceeding 10 ft. on center.

B. Top rail: When specified, install 21 ft. lengths of rail continuous thru the line post or barb arm loop top. Splice rail using top rail sleeves minimum 6 in. long. Rail shall be secured to the terminal post by a brace band and rail end. Bottom rail or intermediate rail shall be field cut and secured to the line posts using boulevard clamps or brace band with rail end.

C. Terminal posts: End, corner, pull and gate posts shall be braced and trussed for fence 6 ft. and higher and for fences 5 ft. in height not having a top rail. The horizontal brace truss rod shall be installed in accordance with ASTM F567.

3.3 CHAIN LINK FABRIC INSTALLATION

Chain Link Fabric: Install fabric to outside of the framework maintaining a ground clearance of no more than 2 inches. Attach fabric to the terminal post by threading the tension bar through the fabric; secure the tension bar to the terminal post with tension bands and 5/16 in. carriage bolts spaced no greater than 12 inches on center. Small mesh fabric less than 1 in. attach to terminal post by sandwiching the mesh between the post and a vertical 2 in. wide by 3/16 in. galvanized steel strap using carriage bolts, bolted thru the bar, mesh and post spaced 15 in. on center.
Chain link fabric to be stretched taut free of sag. Fabric to be secured to the line post with tie wires spaced no greater than 12 inches on center and to horizontal rail spaced no greater than18 inches on center. Aluminum alloy tie wire shall be installed following ASTM F567: Wrap the tie around the post or rail and attached to a fabric wire picket on each side of the post or rail by twisting the tie wire around the fabric wire picket two full turns, cut off excess wire and bend over to prevent injury. Secure the fabric to the tension wire by crimping hogs rings around a fabric wire picket and tension wire.

3.4 NUTS AND BOLTS

Bolts: Carriage bolts used for fittings shall be installed with the head on the secure side of the fence. All bolts shall be peened over to prevent removal of the nut.

3.5 CLEAN UP

Clean Up: The area of the fence line shall be left neat and free of any debris caused by the installation of the fence.

Method of Measurement: The contract unit price for CHAIN LINK FENCE shall include all materials and labor necessary to install CHAIN LINK FENCE as shown on the plans, including all materials, labor, and equipment required to complete this work.

Basis of Payment: Furnishing and installing CHAIN LINK FENCE will be paid for at the contract unit price per linear foot for CHAIN LINK FENCE.

SECTION 32 9100
SOILS

PART 1 GENERAL

1.1 SUMMARY

A. Section Includes:
1. pH Adjusters.
2. Soil Conditioners.
3. Fertilizer.
4. Pesticides.
5. Application of topsoil.
5. Landscape grading.

B. Related Documents: The Contract Documents, as defined in Section 01110 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other documents.

C. Related Sections:
1. Clearing and Grubbing
2. Grading and Shaping Special
2. Plants

1.2 SUBMITTALS

A. Section 01 33 00 - Submittal Requirements: Procedures for submittals.
1. Product Data: Manufacturer's data including installation and storage instructions for each product specified.
2. Assurance/Control Submittals:
a. Pesticide Control Plan: Proposed sequence of pesticide work. Include common name, chemical composition, formulation, concentration, rate and method of application, for all products furnished; and names of state certified applicator(s), in the appropriate category.
b. Test Reports: Topsoil composition, in duplicate.
c. Certifications: In duplicate.
d. Certification: Certify that topsoil, peat, lime, aluminum sulfate perlite and vermiculite conforms with requirements specified.
e. Field Reports: Pesticide application, in duplicate.
f. Qualification Documentation: Pesticide applicator documentation of experience indicating compliance with specified qualification requirements.

1.3 QUALITY ASSURANCE

A. Applicator Qualification: Applicator specializing in performing Work of this Section with minimum 5 years documented experience.
1. Pesticide applicator; state certified, using procedures, materials and equipment of type required for Work.

B. Regulatory Requirements: Conform to applicable requirements of the Local and State Department of Agriculture Extension Service of the state in which the project is located.

1.4 DELIVERY, STORAGE AND HANDLING

A. Section 01600 - Product Requirements: Transport, handle, store, and protect Products.

B. Deliver materials to job site in unopened containers bearing manufacturer's name and content identification, Environmental Protection Agency (EPA) registration number and manufacturer's registered uses.

C. Store materials as recommended by manufacturer.

1.5 PROJECT CONDITIONS OR SITE CONDITIONS

A. Environmental Requirements:
1. Protection of Personnel Property: Apply pesticides so damage will not result to personnel or property from wither direct spray of drifting of chemicals both on and off site.
2. Disposal of Excess Chemicals and Containers: In accordance with Federal, State laws and local rules and regulations.

PART 2 PRODUCTS

2.1 TOPSOIL

A. Topsoil defined in this section may be used in all areas to be seeded. For topsoil specification to be used in landscape beds see landscape specifications.

B. All on-site topsoil shall be free from large timbers, brush, or stones larger than 1" in diameter or other litter and waste products. It shall be a loamy mixture having at least 90% passing the number 10 sieve.

C. Topsoil shall be free from extraneous material and shall comply with the following requirements:

1. It shall contain not less than one percent (1%) nor more than ten percent (10%) organic matter as determined by the test for organic matter in accordance with AASHTO 194.
2. It shall contain not less than 12 percent nor more than 50 percent clay as determined in accordance with AASHTO T 88.
3. The sand content shall not exceed 55 percent as determined in accordance with AASHTO T 88.
4. The pH shall not be lower than 6.0 nor higher than 8.0. The pH shall be determined with an acceptable pH meter, on that portion of the sample passing the No. 10 sieve, in accordance with the "Suggested Methods of Test for Hydrogen Ion Concentration (pH) of Soils" included in the procedures for Testing Soils, issued December 1964, by the American Society for Testing and Materials.

2.2 PLANTING SOIL MIX
1. As specified on the drawings and Section 32 93 00 Plants.

2.3 pH ADJUSTERS

A. Lime:
1. Commercial grade ground limestone containing not less than 50 percent of total oxides. Natural limestone containing not less than 85% of total carbonates.
2. Gradation: Minimum 50 percent passing 100-mesh sieve and 90 percent passing 10-mesh sieve.

B. Ferrous Sulfate: Commercial grade.

2.4 SOIL CONDITIONERS

A. Use singly or in combinations required to meet requirements for topsoil.

B. Soil Conditioners: Nontoxic to plants.

C. Peat
1. Reedsedge peat derived from a freshwater site and conforming to ASTM D 2607 as modified herein.
2. Shred and granulate peat to pass 1/2 inch mesh screen and condition in storage pile for minimum six months after excavation.

C. Sand: Clean and free of materials harmful to plants.

D. Perlite: Horticultural grade for planters.

E. Vermiculite: Horticultural grade for planters.

F. Rotted Manure:
1. Well rotted horse or cattle manure containing maximum 25 percent by volume of straw, sawdust, or other bedding materials; free of stones, sticks and soil.

G. Composted Wood Derivatives:
1. Ground bark, sawdust, or other wood waste material free of stones, sticks, and soil stabilized with nitrogen having the following properties:
   a. Particle Size: Minimum percent by weight passing:

No. 4 mesh screen	95 percent
No. 8 mesh screen	80 percent

   b. Nitrogen Content: Minimum percent based on dry weight:

Redwood Sawdust	0.5 percent
Fir Sawdust	0.7 percent
Fir or Pine Bark	1.0 percent

H. Calcined Clay:
1. Granular particles produced from montmorillonite clay calcined to minimum temperature or 1200 degrees F to the following graduation:
   a. Minimum 90 percent passing 8-mesh screen.
   b. 99 percent retained on 60-mesh screen.
   c. Maximum 2 percent passing 100-mesh screen.
2. Bulk Density: 40 pounds maximum per cubic foot.

2.5 FERTILIZER

~~A. No inorganic fertilizers shall be used.~~

A. Herbicides shall be compliant with City of Evanston ordinance 20-R-10. Per City of Evanston ordinance, none of the following pesticides shall be applied to the project:

a. Those classified by the United States Environmental Protection Agency (US EPA) as known, probable, likely, possible, or suspected carcinogens;

b. Those classified by US EPA as Toxicity Category I and Toxicity Category II pesticides under 40 CFR 156.62 and 156.64; or

c. Chemicals known by the State of California to cause cancer or reproductive toxicity as published on the Proposition 65 (*Safe Drinking Water and Toxic Enforcement Act of 1986*) list pursuant to Title 27 of the *California Code of Regulations*.

2.6 PESTICIDES

A. No pesticides shall be used.

PART 3 EXECUTION

3.1 EXAMINATION

A. Section 01 77 00 - Execution Requirements: Verification of existing conditions before starting work.

B. Verification of Conditions: Verify that field measurements, surfaces, and conditions are as required, and ready to receive Work.

C. Report in writing to Contracting Officer prevailing conditions that will adversely affect satisfactory execution of the Work of this Section. Do not proceed with Work until unsatisfactory conditions have been corrected.

D. By beginning Work, Contractor accepts conditions and assumes responsibility for correcting unsuitable conditions encountered at no additional cost to the Owner.

3.2 PREPARATION

A. Subgrade:
1. After areas required to be landscaped have been brought to required subgrade, thoroughly till to minimum depth of 6 inches by scarifying, disking, harrowing, or other approved methods.

2. Remove debris and stones larger than one inch in any dimension remaining on surface after tillage.

3.3 TOPSOIL APPLICATION

A. Immediately prior to placing topsoil, scarify subgrade to a 2 inch depth for bonding of topsoil with subsoil.

B. Lawns: Spread topsoil evenly to a minimum depth of 4 inches. Do not spread topsoil when frozen or excessively wet or dry.

C. Plant Beds: Till to minimum depth of 6 inches. Spread peat uniformly over bed to minimum depth of 4 inches and thoroughly incorporate into existing soil to a minimum depth of 6 inches to obtain a uniform and well pulverized soil mix. During tillage operations remove all sticks, stones, roots, and other objectionable materials, Bring plant beds to a smooth and even surface conforming to established grades.

D. Plant Beds: Excavate existing soil in plant beds to minimum depth of 4 inches and replace with planting soil mixture. Bring plant beds to smooth and even surface conforming to established grades.

E. Correct irregularities in finished surfaces to eliminate depressions.

F. Protect finished topsoil areas from damage by vehicular or pedestrian traffic.

3.4 FERTILIZER, pH ADJUSTERS, AND SOIL CONDITIONERS

~~A. No inorganic fertilizer, pH Adjusters nor soil conditioners shall be used.~~

B. Herbicides shall be compliant with City of Evanston ordinance 20-R-10. Per City of Evanston ordinance, none of the following pesticides shall be applied to the project:

d. Those classified by the United States Environmental Protection Agency (US EPA) as known, probable, likely, possible, or suspected carcinogens;

e. Those classified by US EPA as Toxicity Category I and Toxicity Category II pesticides under 40 CFR 156.62 and 156.64; or

f. Chemicals known by the State of California to cause cancer or reproductive toxicity as published on the Proposition 65 (*Safe Drinking Water and Toxic Enforcement Act of 1986*) list pursuant to Title 27 of the *California Code of Regulations*.

B.

Method of Measurement: The contract unit price for TOPSOIL, 4" and PLANTING SOIL MIX shall include all materials and labor necessary to install soils as shown on the plans, including all materials, labor, and equipment required to complete this work.

Basis of Payment: Furnishing and installing TOPSOIL, 4" and PLANTING SOIL MIX will be paid for at the contract unit price per cubic yard for TOPSOIL and PLANTING SOIL MIX.

SECTION 32 9219
SEEDING

PART 1 GENERAL

1.1 DESCRIPTION

A. The work under this section consists of the revegetation with seeded vegetation at the project areas as indicated on the plans. Contractor shall furnish all labor, materials, equipment, tools, and transportation required to complete the work and shall perform all operations in connection with and reasonably incidental to establishing, maintaining, and warranting the reseeded areas.

B. All work shall be completed in accordance with these specifications, the drawings and contract documents, and in a manner consistent with accepted horticultural practices. All permits, licenses, and fees associated with any work under this contract are the responsibility of the contractor, unless otherwise noted.

D. Related Documents: The Contract Documents, as defined in Section 01110 - Summary of Work, apply to the Work of this Section. Additional requirements and information necessary to complete the Work of this Section may be found in other documents.

1.2 RELATED SECTIONS

A. Civil Engineering Specifications
~~B. Soils – Section 32 9100~~
C. Plants – Section 32 9300

1.3 REFERENCES

A. Association of Official Seed Analysts (AOSA).

1.4 SUBMITTALS

A. Contractor shall be required to submit statements of guarantee and/or certifications from vendors who supply seed, mulches, tackifiers, and fertilizers.

B. Contractor shall furnish a signed statement certifying that the seed furnished is from a lot that has been tested by a recognized laboratory for seed testing within six (6) months prior to the date of delivery.

C. Seed container labels shall be submitted at the completion of the project.

D. Contractor shall submit the manufacturer's guaranteed chemical analysis, name, trade name, trademark, and conformance to state law for all fertilizers and herbicides.

~~E. Submit compost sample for approval.~~

1.5 DELIVERY, STORAGE, AND HANDLING

A. All materials shall be furnished in original manufacturers shipping bags or containers and remain in these bags or containers until they are used. All materials shall be stored in a manner that will prevent them from coming into contact with precipitation, surface water, or any other contaminating substance.

B. Fertilizer: It shall be delivered in original, unopened containers, unless provisions are made and approved for bulk deliveries to the site of the work.

C. Herbicide: It shall be delivered in original, unopened containers, unless provisions are made and approved for bulk deliveries to the site of the work. All herbicides will be stored in a manner that satisfies local, State and Federal Guidelines for Herbicide Storage.

PART 2 PRODUCTS

2.1 GENERAL

A. All materials used shall be new and without flaws or defects of any type and shall be the best of their class and kind. Seeds shall be prepared for sale during the year of installation.

B. All materials and equipment furnished shall be free of noxious weeds including, but not limited to Russian knapweed, diffuse knapweed, Canada thistle, field bindweed, Johnsongrass, leafy spurge, kochia, or any state-listed noxious weed species.

C. Any materials that have become wet, moldy, or otherwise damaged in transit or in storage shall not be used.

2.2 SEED

A. Seed shall be only that which is specified by Landscape Architect. All seed shall be mixed by a wholesale seed supplier in order to obtain the specified mixture and application rate required by Landscape Architect. No species substitutions shall be permitted without prior approval of the Landscape Architect.

B. Specified Seed Mixes available from the nurseries indicated on the plans.

C. All seed shall conform to all current State and Federal regulations and shall be subject to the testing provisions of the Association of Official Seed Analysts.

D. All seed and seed mixes shall be furnished in bags or containers clearly labeled to show the name and address of the supplier, the common, scientific, and variety name(s) of the seed(s), the lot number, point of origin, net weight, percent of weed content, and the guaranteed percentage of purity and germination.

E. All seed shall be guaranteed for purity and germination, free of noxious weed seed and supplied on a Pure Live Seed (PLS) basis.

2.5 HYDROMULCH

~~A. Shall be cellulose or wood fiber based and shall be applied at 1,000 (one-thousand) pounds per acre.~~ Shall not be used.

2.6 ORGANIC TACKIFIER / BINDER

A. Shall be organic/ non petroleum based and shall be applied at the manufacturer's recommended rate / acre.

2.7 EROSION CONTROL NETTING, BLANKETS, MATS, FABRICS

A. Erosion control blankets shall be used to stabilize land disturbed areas and shall be:
   a. EroNet S75 Erosion Control Blanket provided by North American Green, www.nagreen.com

2.8 WATER

A. All water used on the PROJECT shall be free of any substances harmful to plant germination and growth or to the environment in general. Contractor shall be responsible for furnishing and applying water that meets these requirements. Contractor shall submit laboratory analysis of off-site water to be used on the project to ensure the quality of the water. Refer to the Hydrant Permit Specification for on-site water usage.

2.9 TOPSOIL

A. Topsoil shall meet the requirements of the project documents and specifications for lawn seed mix.
B. Topsoil shall not be used at native seed mixes. Install native seed at prepared construction soil areas.

~~2.10 ORGANIC COMPOST (SOIL AMENDMENT)~~

~~A. For use as a component for seed establishment use a well decomposed, stable, weed free organic matter source, derived from agricultural food, or industrial residuals' biosolids (treated sewage sludge); yard trimmings, or source-separated or mixed solid waste. The product shall contain no substances toxic to plants and shall be reasonably free (less than one percent [<1%] by dry weight) of man-made foreign matter. Compost shall be processed at sustained high heat so that any weed seeds contained within it shall no longer be viable and it shall possess no objectionable odors and shall not resemble the raw material from which it was derived.~~

~~B. Compost shall have the following characteristics:~~
~~a. pH range: 5.5 – 8.0~~
~~b. Moisture Content: 35% - 55%~~
~~c. Particle size: Pass through 1-inch screen or smaller.~~
~~d. Stability: Stable to highly stable, providing nutrients for plant growth.~~
~~e. Maturity / Growth Screening: Demonstrate ability to enhance plant growth.~~
~~f. Soluble Salt Concentrations: 2.5 dS (mmhos/cm) or less preferred.~~
~~g. Organic Matter Content: 30% - 70%~~
~~h. Suggested Source: Midwest Trading, 48W805 IL-64, Maple Park, IL 6015, or approved equal~~

2.11 SEED

~~A.~~ The specified species and Pure Live Seed amounts per acre shall be used. ~~Seed shall be the last item to be placed into the tank and shall not remain in the hydro-seeder more than 4 hours. If legume inoculant is required, shall be added to the tank with the seed.~~ Refer to the seed mixes specified on the drawings.

2.12 EQUIPMENT

A. A truck or trailer mounted hydraulic seeder shall be used with sufficient mixing capacity, pressure, and or hose to evenly apply the mulch, fertilizer, tackifier, and seed to all specified areas and as directed by the Engineer.
B. A tracked piece of equipment, preferably a crawler tractor (bulldozer) shall be used to prepare a seedbed. Slopes greater than (steeper) 4:1 shall be tracked perpendicular to the slope and each track shall meet or overlap slightly the adjacent track. On slopes less than 4:1 back blading may be used to prepare the soil to receive the seed under this specification.

2.13 HYDROSEEDING

A. ~~Hydro-mulch, either cellulose fiber or processed straw, shall be used and applied at a net dry rate of 1,500 pounds per acre. Mix the cellulose fiber with water to attain a mixture with a maximum of 50 pounds cellulose fiber per 100 gallons of water. Use the seed mixture stated in the Drawings and/or Special Condition. Apply agriculture lime or rock dust at 1 ton/acre and fertilizer at 0.35 tons/acre of an 18-46-60 mixture made from 500 lbs of 18-46-0 and 200 lbs 0-0-60 fertilizers.~~ Shall not be used.

PART 3 EXECUTION

3.1 GENERAL

A. Contractor's Site Responsibilities: It shall be the responsibility of Contractor to locate and protect all utilities, structures, roadways, parking areas, fences, survey markers, and existing vegetation (such as, trees and shrubs) on all work sites. Any damage caused by Contractor or Subcontractors shall be immediately repaired or corrected by Contractor at no expense to Owner.

B. Timing of the Work: Seeding shall be completed as soon as practical after the completion of final grading. Contractor shall coordinate the actual start of the seeding operation with Engineer or Landscape Architect. Seeding shall not occur between September 15 and April 15, unless otherwise approved by the Owner.

C. Notice to Proceed: Contractor shall inform Landscape Architect when they are ready to commence permanent revegetation. Upon agreement with Contractor's preparation for this work, the Contractor shall receive Notice to Proceed.

D. Performance of the work: All work is to be performed by personnel thoroughly familiar with proper and accepted methods for soil preparation, herbicide applications, fertilizing, seeding, and mulching. All work is to be performed under the direct supervision of Contractor's superintendent, who shall be thoroughly familiar with the provisions of this Contract.

E. Project Monitoring: Contractor shall notify Landscape Architect prior to the commencement of any work under this section. Landscape Architect shall monitor the progress of the work throughout the contract period, and shall assist in determining where soils samples, as required, are to be collected.

3.2 SOIL / SEEDBED PREPARATION / SOIL AMENDMENTS

A. All ripping and tilling operations shall be done in a direction which follows the natural contour of the land on slopes of three to one (3:1) or less. Soils on slopes greater than three to one (3:1) shall be prepared for planting in a manner specified by Landscape Architect. Any irregularities in the ground surface resulting from soil preparation operations shall be corrected and sloped to drain.

B. Limit subgrade preparation to areas that shall be planted in the immediate future.

C. Prior to spreading salvaged ~~topsoil~~ soil and seeding, thoroughly till or rip to a depth of twelve (12) inches all areas compacted by access, staging, or construction traffic. Till all remaining areas to a depth of six (6) inches. The soils shall be worked until no clods greater than two (2) inches in diameter remain, unless directed otherwise by Landscape Architect. Remove rocks and other objects three (3) inches or greater in any dimension.

D. Spread ~~topsoil~~ soil to depth required to meet grades and elevations shown on drawings after light rolling and natural settlement.

E. Either mix soils with soil amendments and fertilizers before spreading or apply soil amendments or fertilizers on surface of spread ~~topsoil~~ soil and till thoroughly into top four (4) inches before planting. Mix soil amendments at the rate that is indicated on the project documents. Delay mixing fertilizer if planting does not follow placing of planting soil within a few days.

~~F. Organic Compost:~~

~~a. Organic Compost Soil Amendment shall be applied at a rate of three (3) cubic yards per one-thousand (1,000) square feet or as shown on the drawings.~~

G. Prior to seeding, grade the areas to be seeded to a smooth, even surface with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades. Soils shall meet grades and elevations shown on drawings after light rolling and natural settlement. Limit fine grading to areas that can be planted in the immediate future.

H. Moisten prepared areas to be seeded prior to planting when soils are dry. Water thoroughly and allow surface to dry before seeding. Do not create muddy conditions. Restore prepared areas if eroded or disturbed after fine grading and before planting.

3.3 SEEDING

A. General: Landscape Architect shall be on site during seeding operations to review labeled seed containers and confirm they match the approved submittals.

~~B. Hydroseeding and Hydromulching:~~

~~a. Seed shall be hydroseeded and hydromulched throughout the project area.~~

~~i. Include mulch in the mix to ensure that the slurry comes out of the hydroseeder at a rate that supports optimal coverage.~~

~~ii. Install seed after rainfall, not before. Seed and mulch stick better on moist soil, and moisture will be captured under the mulch. Mulch needs time to settle before it rains.~~

~~iii. The tackifier binds the seed and mulch to the soil surface, keeping them in place so they do not blow or wash away.~~

~~iv. Increase the seeding rate by 25% to compensate for the seed that could become damaged after moving through the hydroseeder.~~

~~v. On steep slopes, embed the seed by using a more concentrated stream and holding the hydroseeder gun at a sharper angle.~~

~~vi. The two-pass method – seed applied first, followed by hydromulch – may be considered to maximize more seed in direct contact with the soil.~~

C. Drill seeding

a. All seed is to be drilled one-quarter (1/4) inch to one-half (1/2 inch) into the soil at the specified pure live seed (PLS) per acre rate with a mechanical grass drill with depth bands and an agitator in the seed box. Rows shall be spaced not more than seven (7) inches apart. Contractor shall drill one-half (1/2) of the required PLS per acre in one compass direction, and then drill the remaining half of the required PLS per acre in a direction ninety degrees (90°) to the first half.

b. Following drill seeding of all areas, the forb patch seed mix and the grass/shrub patch seed mix should be broadcast in the areas specified on the drawings. All forb and grass/shrub patch areas shall be both drill seeded with the appropriate upland or riparian mix as specified on the drawings and then immediately broadcast with the appropriate forb or grass/shrub patch seed mix prior to mulch application.

D. Broadcast Seeding:

a. Some portions of project areas may be inaccessible to a drill. In these areas, which shall be agreed upon by contractor and engineer or landscape architect, seed shall be uniformly broadcast at twice the specified PLS per acre and covered with soil to a depth of one-quarter (1/4) inch to one-half (1/2) inch by hand raking or harrowing by some other means acceptable to engineer or landscape architect.

b. Broadcast seeding shall be accomplished using hand-operated “cyclone-type” seeders or rotary broadcast equipment attached to construction or revegetation machinery. All machinery shall be equipped with metering devices. Broadcasting by hand shall be acceptable on small, isolated sites. Prior to hand broadcast seeding, divide the seed required into two portions. Apply the first half of the seed and then follow up by applying the second portion to ensure complete coverage by seed. When broadcast seeding, passes shall be made over each site to be seeded in a manner to ensure an even distribution of seed. When using hopper type equipment, seed shall be frequently mixed within the hopper to discourage seed settling and uneven planting distribution of species.

c. Broadcast seeding shall take place immediately following the completion of final seedbed preparation techniques and upon inspection and approval of engineer. Broadcast seeding should not be conducted when wind velocities would prohibit even seed distribution.

E. Seed mix with Cover Crop and Mycorrhizal Inoculant:

a. Install seed mix with cover crop and mycorrhizal inoculant as specified on the drawings and below:

SEED MIX with Cover Crop and Mycorrhizal Inoculant	
Spring Planting	
Low Profile Prairie Seed Mix (Dry-Mesic Soils)	
Mycorrhizal Inoculant (RTI Myco Bio Boost) @ 40 lbs per acre	
Seed Oats (Avena sativa) @ 40 lbs per acre	
Fall Planting	
Low Profile Prairie Seed Mix (Dry-Mesic Soils)	
Mycorrhizal Inoculant (RTI Myco Bio Boost) @ 40 lbs per acre	
REGREEN @ 50 lbs per acre	

3.4 FERTILIZATION

A. Upon inspection by the qualified landscape installer, a broad spectrum or targeted herbicide treatment shall be determined, depending on species present at the embankment area. Any fertilizers used for the project shall be applied and mixed with the soil as specified in the project documents. In some instances, as directed by Landscape Architect, fertilizers shall be spread evenly on the surface of the soil rather than tilled into the top four (4) inches.

3.5 MULCHING

~~A. Hydromulch shall be installed as part of the hydroseed application described above.~~ Straw mulch shall be applied immediately after seeding has been completed with a mechanical spreader at a rate not less than one and one-half (1-1/2) tons per acre, and not more than two (2) tons per acre. Straw mulch shall then be anchored to the soil with a standard commercial crimper which shall crimp the

fiber four (4) inches or more into the soil. Failure to apply designated mulch at the specified rate may result in the engineer requiring the contractor to remobilize and complete the specified work at no additional cost to the owner.

3.6 HERBICIDE / CHEMICAL APPLICATIONS

A. All noxious weed growth on the site shall be controlled by the Contractor during the construction period and until the final inspection by spot application of herbicides which have been pre-approved by the Landscape Architect. Spot application of herbicides means detailed application of only the targeted weed species by wand or wick with a backpack applicator. No herbicides shall be permitted for general application (broadcast) during a time when it would cause detrimental impact to germination or establishment of the seeded grasses.

B. Herbicides or other chemicals, if required, shall be applied using well-maintained spraying equipment by individuals working for Contractor who are appropriately licensed by any State and/or Federal agency having jurisdiction over such applications. It shall be the responsibility of Contractor to be knowledgeable of any and all current laws and regulations pertaining to herbicide and other chemical applications, and to advise Landscape Architect immediately if any requests for these applications made by Landscape Architect are inappropriate as they pertain to these laws and regulations. Herbicide application shall be conducted by trained weed control personnel who also can recognize the targeted weed species.

C. Herbicides and other chemicals shall not be applied during periods when wind or other physical conditions cause the herbicides or chemicals to be transported a distance of more than five (5) feet from the immediate area where they are being placed. It shall be the responsibility of Contractor to stop work immediately and to notify Landscape Architect if any weather or other physical condition exists which would make the application of herbicides or other chemicals inappropriate.

D. All herbicides or other chemicals used (except solid fertilizers) shall be applied at a rate and strength, and by the method recommended by the manufacturer of the product being used. Failure to properly apply herbicides (spot treatment) may result in the Landscape Architect requiring the Contractor to reseed the damaged area at no cost to the Owner.

E. Herbicides shall be compliant with City of Evanston ordinance 20-R-10. Per City of Evanston ordinance, none of the following pesticides shall be applied to the project:

   a. Those classified by the United States Environmental Protection Agency (US EPA) as known, probable, likely, possible, or suspected carcinogens;

   b. Those classified by US EPA as Toxicity Category I and Toxicity Category II pesticides under 40 CFR 156.62 and 156.64; or

   c. Chemicals known by the State of California to cause cancer or reproductive toxicity as published on the Proposition 65 (*Safe Drinking Water and Toxic Enforcement Act of 1986*) list pursuant to Title 27 of the *California Code of Regulations*.

3.7 EROSION CONTROL NETTING, BLANKETS, MATS, FABRICS

~~A. Refer to hydroseed and hydromulch applications described above,~~

B. Slopes over three to 1 (3:1), concave areas on slopes, drainage swales, areas along the edges of hard surfaces (trails and roads), and any other areas which may rill, shall be mulched with jute netting or other erosion control fabric as specified. These fabrics shall be installed only after the installation area is graded smooth. All clods or rocks shall be removed from the area, so that the fabric will lie flat

on the surface of the soil and not bridge over it. The edges of the fabric shall be secured by two- (2-) foot wooden stakes installed two (2) feet on center along all edges and seams. Seams shall overlap one (1) foot and the body of the fabric shall be further secured to the soil surface on three- (3-) foot centers. The fabric shall not be stretched tight.

3.8 FIELD QUALITY CONTROL

A. Final Acceptance:
   a. When Work has been completed for the Project, the Contractor and Landscape Architect shall inspect the site together and determine the total area of the work, and whether or not the work is complete and has been done in accordance with the Project Documents and Specifications. If mutual agreement cannot be reached on these issues, the determinations made by Landscape Architect shall be final. Deficiencies in the work, if any, shall be noted and a checklist of these deficiencies given to Contractor by the Landscape Architect. The Contractor shall immediately correct any deficiencies listed on the checklist at no cost to Owner.

   b. When all checklist items are completed to the satisfaction of Landscape Architect, Landscape Architect shall issue a Certificate of Final Acceptance. Contractor shall then submit these items for payment to Owner based on the original project Bid prices and any Change Orders which have been agreed to and signed by both parties.

3.9 CLEANING

A. All work sites shall be kept clean and free from all debris. At the conclusion of Work at any site, Contractor shall remove and haul from the site all excess materials, debris, and equipment. Any damage (for example, damaged fencing, damaged pavements, excessive tire furrows, mud tracked onto pavement) resulting from Contractor's activities shall be repaired by Contractor to Landscape Architect's satisfaction at no expense to the Owner.

PIZZO Habitat Restoration

PIZZO Native Plant Nursery

(815) 495-2300 HabitatRestoration.com (815) 981-8000 PizzoNursery.com

Low Profile Prairie Seed Mix (Dry-Mesic Soils)

MIX STATISTICS

Base Mix Without Supplemental Plugs	
Average Mix Height (ft)	2.5
Median Mix Height (ft)	3
Species Heights (# of Occurrences in Mix)	1.5' (1), 2' (15), 3' (11), 4' (10), 5' (2)
Number of Native Species in Mix	34
Native FQI	34.8
Native Mean C Value	5.8
Native Mean W Value	2.8
Seeds per Square Foot	313

Mix Description: Pizzo Native Plant Nursery LLC's Low Profile Prairie Seed Mix is designed for sunny areas that remain mesic-dry for most of the growing season. This mix is composed of a diverse collection of shorter-profile prairie grass and wildflower species, and is ideal for areas where taller vegetation is not appropriate. This mix averages 2.6' in height by seed count with over 56% of the mix composed of wildflowers that will provide an array of blooms from April through October. When installed and maintained correctly this mix will typically begin flowering in it's second growing season, starting with the yellow blooms of annual Partridge Pea and biennial Black-Eyed Susan, with additional more colorful permanent species appearing in years 3-5.

Grasses, Sedges, & Rushes

CODE	SCIENTIFIC NAME	COMMON NAME	C-VALUE	W-VALUE	WETNESS	HEIGHT		BLOOM COLOR	BLOOM TIME							SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
						Min-Max	Typical		A	M	J	J	A	S	O				by Weight	by Seed Count
BOUCUR	*Bouteloua curtipendula*	Side-oats Grama	8	5	UPL	1.5-2.5'	2	N/A								6,000	320	20	28.64%	14.10%
ELYCAN	*Elymus canadensis*	Canada Wild Rye	4	3	FACU	3-5'	5	N/A								5,200	32	2	5.73%	1.22%
SCHSCO	*Schizachyrium scoparium*	Little Bluestem	5	3	FACU	2-3'	3	N/A								15,000	96	6	17.18%	10.58%
SPOHET	*Sporobolus heterolepis*	Prairie Dropseed	10	3	FACU	1-3'	2	N/A								16,000	96	6	17.18%	11.28%
																Grass/Sedge Subtotals		34	65.11%	37.18%

Wildflowers

CODE	SCIENTIFIC NAME	COMMON NAME	C-VALUE	W-VALUE	WETNESS	HEIGHT		BLOOM COLOR	BLOOM TIME							SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX	
						Min-Max	Typical		A	M	J	J	A	S	O				by Weight	by Seed Count
ALLCER	*Allium cernuum*	Nodding Onion	7	3	FACU	1-2'	1.5	Purple								7,600	6	0.375	0.54%	0.33%
AMOCAN	*Amorpha canescens*	Lead Plant	9	5	UPL	1-3.5'	3	Purple								16,000	4	0.25	0.36%	0.47%
ASCTUB	*Asclepias tuberosa*	Butterfly Weed	7	5	UPL	1-2.5'	2	Orange								4,300	32	2	2.86%	1.01%
BAPALB	*Baptisia alba*	White Wild Indigo	8	3	FACU	3-6'	4	White								1,700	5	0.3125	0.45%	0.06%
CHAFAS	*Chamaecrista fasciculata*	Partridge Pea	5	3	FACU	6"-2'	2	Yellow								2,700	16	1	2.86%	0.32%
CORPAL	*Coreopsis palmata*	Prairie Coreopsis	6	5	UPL	1-2.5'	2	Yellow								10,000	8	0.5	0.72%	0.59%
DALPUR	*Dalea purpurea*	Purple Prairie Clover	9	5	UPL	1-3'	2	Purple								18,000	16	1	1.43%	2.12%
ECHPAL	*Echinacea pallida*	Pale Purple Coneflower	8	5	UPL	2-3'	3	Purple								5,200	32	2	2.86%	1.22%
ECHPUR	*Echinacea purpurea*	Purple Coneflower	3	5	UPL	2-5'	4	Purple								6,600	12	0.75	1.07%	0.58%
ERYYUC	*Eryngium yuccifolium*	Rattlesnake Master	9	0	FAC	2-5'	4	White								7,500	8	0.5	0.72%	0.44%
EUPCOR	*Euphorbia corollata*	Flowering Spurge	2	5	UPL	1-3'	3	White								8,000	8	0.5	0.72%	0.47%
HELHEL	*Heliopsis helianthoides*	Early Sunflower	5	3	FACU	3-5'	5	Yellow								6,300	16	1	1.43%	0.74%
LESCAP	*Lespedeza capitata*	Round-headed Bush Clover	4	3	FACU	2-5'	4	Green								8,000	8	0.5	0.72%	0.47%
LIAASP	*Liatris aspera*	Button Blazing Star	6	5	UPL	2-5'	3	Purple								16,000	6	0.375	0.54%	0.71%
LIAPYC	*Liatris pycnostachya*	Prairie Blazing Star	8	0	FAC	2-4'	4	Purple								11,000	8	0.5	0.72%	0.65%
MONFIS	*Monarda fistulosa*	Wild Bergamot	4	3	FACU	2.5-4'	4	Purple								70,000	4	0.25	0.36%	2.06%
PARINT	*Parthenium integrifolium*	Wild Quinine	8	5	UPL	2-3.5'	3	White								7,000	8	0.5	1.43%	0.41%
PENDIG	*Penstemon digitalis*	Foxglove Beardtongue	4	0	FAC	2-3'	3	White								130,000	4	0.25	0.36%	3.82%
PYCTEN	*Pycnanthemum tenuifolium*	Slender Mountain Mint	7	0	FAC	1-3'	2	White								378,000	0.5	0.03125	0.04%	1.39%
RATPIN	*Ratibida pinnata*	Yellow Coneflower	4	5	UPL	2-4'	4	Yellow								30,000	8	0.5	0.72%	1.76%
RUDFUL	*Rudbeckia fulgida*	Orange Coneflower	8	-5	OBL	2-4'	3	Orange								31,000	8	0.5	0.72%	1.82%
RUDHIR	*Rudbeckia hirta*	Black-eyed Susan	1	3	FACU	2-3'	2	Yellow								92,000	16	1	2.86%	10.81%
SOLJUN	*Solidago juncea*	Early Goldenrod	5	5	UPL	1-3'	3	Yellow								290,000	1	0.0625	0.09%	2.13%
SOLRIG	*Solidago rigida*	Stiff Goldenrod	4	3	FACU	2-5'	4	Yellow								41,000	2	0.125	0.18%	0.60%
SYMERI	*Symphyotrichum ericoides*	Heath Aster	5	3	FACU	1-3'	2	White								200,000	16	1	0.18%	23.50%
SYMLAE	*Symphyotrichum laeve*	Smooth Blue Aster	9	3	FACU	1.5-3'	3	Blue								55,000	2	0.125	0.18%	0.81%
SYMNOV	*Symphyotrichum novae-angliae*	New England Aster	4	-3	FACW	3-5'	4	Purple								66,000	1	0.0625	0.09%	0.48%
TRAOHI	*Tradescantia ohiensis*	Ohio Spiderwort	2	3	FACU	2-4'	3	Blue								8,000	16	1	1.43%	0.94%
VERSTR	*Verbena stricta*	Hoary Vervain	4	5	UPL	1-3'	2	Blue								28,000	4	0.25	0.36%	0.82%
ZIZAUR	*Zizia aurea*	Golden Alexanders	7	0	FAC	1-2.5'	2	Yellow								11,000	16	1	2.86%	1.29%
																Wildflower Subtotals		18.22	34.89%	62.82%
																Mix TOTALS		52.22	100.00%	100.00%

SEED MIX with Cover Crop and Mycorrhizal Inoculant	
Spring Planting	
Low Profile Prairie Seed Mix (Dry-Mesic Soils)	
Mycorrhizal Inoculant (RTI Myco Bio Boost) @ 40 lbs	
Seed Oats (Avena sativa) @ 40 lbs	

Fall Planting	
Low Profile Prairie Seed Mix (Dry-Mesic Soils)	
Mycorrhizal Inoculant (RTI Myco Bio Boost) @ 40 lbs	
REGREEN @ 50 lbs	

ROLLMAX™
ROLLED EROSION CONTROL

Specification Sheet
EroNet™ S75® Erosion Control Blanket



DESCRIPTION

The short-term single net erosion control blanket shall be a machine-produced mat of 100% agricultural straw with a functional longevity of up to 12 months. (NOTE: functional longevity may vary depending upon climatic conditions, soil, geographical location, and elevation). The blanket shall be of consistent thickness with the straw evenly distributed over the entire area of the mat. The blanket shall be covered on the top side with a lightweight photodegradable polypropylene netting having an approximate 0.50 x 0.50 in. (1.27 x 1.27 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches [5-12.5 cm] from the edge) as an overlap guide for adjacent mats.

The S75 shall meet Type 2.C specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17

Material Content		
Matrix	100% Straw Fiber	0.5 lbs/sq yd (0.27 kg/sm)
Netting	Top side only, lightweight photodegradable	1.5 lb/1000 sq ft (0.73 kg/100 sm)
Thread	Degradable	

Standard Roll Sizes			
Width	**6.67 ft (2.03 m)**	8.0 ft (2.4 m)	16 ft (4.87 m)
Length	108 ft (32.92 m)	112 ft (34.14 m)	112 ft (34.14 m)
Weight ± 10%	**40 lbs (18.14 kg)**	50 lbs (22.68 kg)	**100 lbs (45.36 kg)**
Area	80 sq yd (66.9 sm)	100 sq yd (83.61 sm)	200 sq yd (167.22 sm)

Index Property	Test Method	Typical
Thickness	ASTM D6525	0.28 in. (7 mm)
Resiliency	ECTC Guidelines	**78.8%**
Water Absorbency	**ASTM D1117**	**301%**
Mass/Unit Area	ASTM D6475	9.76 oz/sy (332 g/sm)
Swell	ECTC Guidelines	15%
Smolder Resistance	**ECTC Guidelines**	**Yes**
Stiffness	**ASTM D1388**	**6.31 oz-in**
Light Penetration	ASTM D6567	6.0%
Tensile Strength - MD	**ASTM D6818**	**122.4 lbs/ft (1.81 kN/m)**
Elongation - MD	**ASTM D6818**	**36.1%**
Tensile Strength - TD	**ASTM D6818**	**79.2 lbs/ft (1.17 kN/m)**
Elongation - TD	**ASTM D6818**	**26.8%**
Biomass Improvement	**ASTM D7322**	**301%**

Design Permissible Shear Stress	
Unvegetated Shear Stress	**1.55 psf (74 Pa)**
Unvegetated Velocity	**5.00 fps (1.52 m/s)**

Slope Design Data: C Factors			
	Slope Gradients (S)		
Slope Length (L)	≤ 3:1	3:1 – 2:1	≥ 2:1
≤ 20 ft (6 m)	0.029	N/A	N/A
20-50 ft	0.11	N/A	N/A
≥ 50 ft (15.2 m)	0.19	N/A	N/A

NTPEP Large-Scale Slope Testing
ASTM D6459 - C-factor = 0.012

Roughness Coefficients – Unveg.	
Flow Depth	Manning's n
≤ 0.50 ft (0.15 m)	0.055
0.50 – 2.0 ft	0.055-0.021
≥ 2.0 ft (0.60 m)	0.021

NORTH AMERICAN GREEN®

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Evansville, IN 47725

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SEE

Method of Measurement: The contract unit price for SEED MIX AND BLANKET shall include all materials and labor necessary to install tree protection measures as shown on the plans, including all materials, labor, and equipment required to complete this work.

Basis of Payment: Furnishing and installing SEED MIX AND BLANKET will be paid for at the contract unit price per square foot for SEED MIX AND BLANKET.

SECTION 32 93 00
PLANTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification sections, apply to this section.

1.2 SUMMARY

A. Provide all labor, materials and equipment as necessary to complete all work as indicated on the Drawings and specified herein.

B. Contractor shall obtain and submit copies of all necessary related city and environmental permits (e.g. irrigation – water department permits; use of city hydrants - city hydrant permit, etc.).

C. This Section includes:

1. Plants

    a. Trees
    b. Woody Shrubs
    c. Perennials and Grasses
    d. Bulbs
    e. Groundcovers

2. Tree stabilization.
3. Tree-watering devices.
4. Planting Soil
5. Mulch
6. Compost
7. Miscellaneous Products

D. Related Sections:

1. 01 56 39 - Tree and Plant Protection
2. 32 91 00 – Soils
3. 32 92 00 – Lawns and Grasses

1.3 DEFINITIONS

A. Backfill: The earth used to replace or the act of replacing earth in an excavation.

B. Balled and Burlapped Stock: Plants dug with firm, natural balls of earth in which they were grown, with a ball size not less than diameter and depth recommended by ANSI Z60.1 for type

and size of plant required; wrapped with burlap, tied, rigidly supported, and drum laced with twine with the root flare visible at the surface of the ball as recommended by ANSI Z60.1.

C. Container-Grown Stock: Healthy, vigorous, well-rooted plants grown in a container, with a well-established root system reaching sides of container and maintaining a firm ball when removed from container. Container shall be rigid enough to hold ball shape and protect root mass during shipping and be sized according to ANSI Z60.1 for type and size of plant required.

D. Finish Grade: Elevation of finished surface of planting soil.

E. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. Pesticides include insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. They also include substances or mixtures intended for use as a plant regulator, defoliant, or desiccant. Some sources classify herbicides separately from pesticides.

F. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. Pests include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.

G. Planting Area: Areas to be planted.

H. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth.

I. Plant; Plants; Plant Material: These terms refer to vegetation in general, including trees, shrubs, vines, ground covers, ornamental grasses, bulbs, corms, tubers, or herbaceous vegetation.

J. Root Flare: Also called "trunk flare." The area at the base of the plant's stem or trunk where the stem or trunk broadens to form roots; the area of transition between the root system and the stem or trunk.

K. Stem Girdling Roots: Roots that encircle the stems (trunks) of trees below the soil surface.

L. Subgrade: The surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.

1.4 PREINSTALLATION MEETINGS

A. Preinstallation Conference: Conduct conference at Project site. Contractor to take photos of the existing vegetation to remain.

1.5 ACTION SUBMITTALS

A. Product Data: For each type of product.

1. Plant Materials: Include quantities, sizes, quality, and sources for plant materials.
2. Plant Photographs: Include color photographs in digital format of each required species and size of plant material as it will be furnished to Project. Take photographs from an angle depicting true size and condition of the typical plant to be furnished. Include a scale rod or other measuring device in each photograph. For species where more than 20 plants are required, include a minimum of three photographs showing the average plant, the best quality plant, and the worst quality plant to be furnished. Identify each

photograph with the full scientific name of the plant, plant size, and name of the growing nursery.

B. Samples for Verification: For each of the following:

1. Mulch: 1-pint (0.5-L) volume of each organic mulch required; in sealed plastic bags labeled with composition of materials by percentage of weight and source of mulch. Each Sample shall be typical of the lot of material to be furnished; provide an accurate representation of color, texture, and organic makeup.

1.6 INFORMATIONAL SUBMITTALS

A. Qualification Data: For landscape Installer. Include list of similar projects completed by Installer demonstrating Installer's capabilities and experience. Include project names, addresses, and year completed, and include names and addresses of owners' contact persons.

1. Submit qualification data for pesticide applier including state licensure for substances restricted by law.

B. Product Certificates: For each type of manufactured product, from manufacturer, and complying with the following:

1. Manufacturer's certified analysis of standard products.
2. Analysis of other materials by a recognized laboratory made according to methods established by the Association of Official Analytical Chemists, where applicable.
3. Submit MSDS/SDS documentation to Owner for all fertilizers, lime, herbicides and pesticides.

C. Pesticides and Herbicides: Product label and manufacturer's application instructions specific to Project. Submit MSDS/SDS documentation to Owner.

D. Sample Warranty: For special warranty.

1.7 CLOSEOUT SUBMITTALS

A. Maintenance Data: Recommended procedures to be established by Owner for maintenance of plants during a calendar year. Submit before expiration of required maintenance periods.

1.8 QUALITY ASSURANCE

A. Installer Qualifications: A qualified landscape installer whose work has resulted in successful establishment of plants.

1. Professional Membership: Installer shall be a member in good standing of either the Professional Landcare Network or the American Nursery and Landscape Association.
2. Experience: Three years' experience in landscape installation in addition to requirements in Section 014000 "Quality Requirements."
3. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
4. Personnel Certifications: Installer's field supervisor shall have certification in one of the following categories from the Professional Landcare Network:

a. Landscape Industry Certified Technician - Exterior.
b. Landscape Industry Certified Interior.
c. Landscape Industry Certified Horticultural Technician.

5. Pesticide Applicator: State licensed, commercial.

B. Provide quality, size, genus, species, and variety of plants indicated, complying with applicable requirements in ANSI Z60.1.

1. Selection of plants purchased under allowances is made by Owner's Representative, who tags plants at their place of growth before they are prepared for transplanting.

C. Measurements: Measure according to ANSI Z60.1. Do not prune to obtain required sizes.

1. Trees and Shrubs: Measure with branches and trunks or canes in their normal position. Take height measurements from or near the top of the root flare for field-grown stock and container-grown stock. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip to tip. Take caliper measurements 6 inches (150 mm) above the root flare for trees up to 4-inch (100-mm) caliper size, and 12 inches (300 mm) above the root flare for larger sizes.
2. Other Plants: Measure with stems, petioles, and foliage in their normal position.

1.9 DELIVERY, STORAGE, AND HANDLING

A. Packaged Materials: Deliver packaged materials in original, unopened containers showing weight, certified analysis, name and address of manufacturer, and indication of compliance with state and Federal laws if applicable.

B. Bulk Materials:

1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
2. Provide erosion-control measures to prevent erosion or displacement of bulk materials; discharge of soil-bearing water runoff; and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
3. Accompany each delivery of bulk materials with appropriate certificates.

C. Do not prune trees and shrubs before delivery. Protect bark, branches, and root systems from sun scald, drying, wind burn, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as to destroy their natural shape. Provide protective covering of plants during shipping and delivery. Do not drop plants during delivery and handling.

D. Handle planting stock by root ball.

E. Store bulbs, corms, and tubers in a dry place at 60 to 65 deg F (16 to 18 deg C) until planting.

F. Apply antidesiccant to trees and shrubs using power spray to provide an adequate film over trunks (before wrapping), branches, stems, twigs, and foliage to protect during digging, handling, and transportation.

1. If deciduous trees or shrubs are moved in full leaf, spray with antidesiccant at nursery before moving and again two weeks after planting.

G. Wrap trees and shrubs with burlap fabric over trunks, branches, stems, twigs, and foliage to protect from wind and other damage during digging, handling, and transportation.

H. Deliver plants after preparations for planting have been completed and install immediately. If planting is delayed more than six hours after delivery, set plants and trees in their appropriate aspect (sun, filtered sun, or shade), protect from weather and mechanical damage, and keep roots moist.

1. Set balled stock on ground and cover ball with soil, peat moss, sawdust, or other acceptable material.
2. Do not remove container-grown stock from containers before time of planting.
3. Water root systems of plants stored on-site deeply and thoroughly with a fine-mist spray. Water as often as necessary to maintain root systems in a moist, but not overly wet condition.

1.10 FIELD CONDITIONS

A. Field Measurements: Verify actual grade elevations, service and utility locations, irrigation system components, and dimensions of plantings and construction contiguous with new plantings by field measurements before proceeding with planting work.

B. Planting Restrictions: Plant during one of the following periods. Coordinate planting periods with maintenance periods to provide required maintenance from date of Substantial Completion.

1. Spring Planting: March 15 – May 15.
2. Fall Planting: September 15 – November 15.

C. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions and warranty requirements.

1.11 WARRANTY

A. Special Warranty: Installer agrees to repair or replace plantings and accessories that fail in materials, workmanship, or growth within specified warranty period.

1. Failures include, but are not limited to, the following:

a. Death and unsatisfactory growth, except for defects resulting from abuse, lack of adequate maintenance, or neglect by Owner.
b. Structural failures including plantings falling or blowing over.

2. Warranty Periods: From date of Substantial Completion.

a. Trees, Shrubs, Vines, and Ornamental Grasses: 12 months.
b. Ground Covers, Biennials, Perennials, and Other Plants: 12 months.

3. Include the following remedial actions as a minimum:

a. Immediately remove dead plants and replace unless required to plant in the succeeding planting season.

b. Replace plants that are more than 25 percent dead or in an unhealthy condition at end of warranty period.
c. A limit of one replacement of each plant is required except for losses or replacements due to failure to comply with requirements.
d. Provide extended warranty for period equal to original warranty period, for replaced plant material.

PART 2 - PRODUCTS

2.1 PLANT MATERIAL

A. General: Furnish nursery-grown plants true to genus, species, variety, cultivar, stem form, shearing, and other features indicated in Plant List, Plant Schedule, or Plant Legend indicated on Drawings and complying with ANSI Z60.1; and with healthy root systems developed by transplanting or root pruning. Provide well-shaped, fully branched, healthy, vigorous stock, densely foliated when in leaf and free of disease, pests, eggs, larvae, and defects such as knots, sun scald, injuries, abrasions, and disfigurement.

1. Trees with damaged, crooked, or multiple leaders; tight vertical branches where bark is squeezed between two branches or between branch and trunk ("included bark"); crossing trunks; cut-off limbs more than 3/4 inch (19 mm) in diameter; or with stem girdling roots are unacceptable.
2. Collected Stock: Do not use plants harvested from the wild, from native stands, from an established landscape planting, or not grown in a nursery unless otherwise indicated.

B. Provide plants of sizes, grades, and ball or container sizes complying with ANSI Z60.1 for types and form of plants required. Plants of a larger size may be used if acceptable to Owner's Representative, with a proportionate increase in size of roots or balls.

C. Root-Ball Depth: Furnish trees and shrubs with root balls measured from top of root ball, which begins at root flare according to ANSI Z60.1. Root flare shall be visible before planting.

D. Labeling: Label at least one plant of each variety, size, and caliper with a securely attached, waterproof tag bearing legible designation of common name and full scientific name, including genus and species. Include nomenclature for hybrid, variety, or cultivar, if applicable for the plant.

2.2 SOIL AMENDMENT MATERIALS

A. ~~No inorganic fertilizers shall be used.~~ Peat, composts and other soil additives shall be used to counteract soil deficiencies as recommended by the soil test analysis.

B. Peat for soil mix: A natural residue of native type formed by decomposition of reed peat or sedge peat, by not peat moss, from a fresh water site, conditioned in storage piles after excavation for at least six months, including one freezing and one thawing period, and when delivered from storage piles shall contain between 35% and 65% moisture by weight, shall be free from lumps, sticks, stones, weedy roots, or other foreign matter. Organic matter shall be not less than 90% on a dry weight basis (samples dried at 110 degrees Centigrade). Ash on dry basis shall be not more than 20%, shall be low in content of woody material and iron.

C. Superphosphate: Soluble mixture of treated minerals; 20% available phosphoric acid.

D. Lime: Natural limestone containing not less than 85% of total carbonates, ground so that not less than 90% passes a 10-mesh sieve and not less than 50% passes a 100-mesh.

E. Sand: Clean, washed sand, free of toxic materials.

F. Sulfur: In a form generally accepted for landscape use, granular as specified by the Engineer, according to the soil test recommendations.

G. Water: Clean, fresh and free of substances or matter, which could inhibit vigorous growth of plants.

2.3 PLANTING SOIL MIX

A. Topsoil Mixture (5 parts) for the Tree, Shrub, Perennials and Groundcover Planting: Materials thoroughly mixed by hand or rotary mixer in the following proportions by volume: three (3) parts topsoil; one (1) part peat; one (1) part sand.

~~B. Topsoil Mixture (6 parts) for Perennials and Groundcovers: Three (3) parts imported topsoil; one(1) part sand and two (2) parts decomposed mushroom compost.~~

Topsoil Mixtures have a true pH value of 6.0 – 6.5. Contractor shall amend the topsoil mix as necessary, at his own expense, to bring the proper pH range, by mixing with limestone or sulfur as required by soil analysis.

Compacted Topsoil and Planting Mix thickness at the following areas:

1. Shrub Beds: (18”) eighteen inches.

2. Perennial and Groundcover Beds: (12") twelve inches.

3. Tree Pits: (6”) six inches below tree ball and (24”) twenty-four inches around tree ball circumference.

2.4 MULCHES

A. Organic Mulch: Free from deleterious materials and suitable as a top dressing of trees and shrubs, consisting of one of the following:

B. Retain appropriate materials in "Type" Subparagraph below.

1. Type 1: Shredded hardwood.

a. Retain "Size Range" Subparagraph below if retaining any of first three options in "Type" Subparagraph above; revise to suit Project.
b. Size Range: 3 inches (76 mm) maximum, 1/2-inch (13 mm) minimum.
c. Color: Brown

2. Type 2: Composted mulch with pine bark fines

2.5 PESTICIDES

A. Pesticides ~~shall not be used.~~ shall be compliant with City of Evanston ordinance 20-R-10. Per City of Evanston ordinance, none of the following pesticides shall be applied to the project:

a. Those classified by the United States Environmental Protection Agency (US EPA) as known, probable, likely, possible, or suspected carcinogens;

b. Those classified by US EPA as Toxicity Category I and Toxicity Category II pesticides under 40 CFR 156.62 and 156.64; or

c. Chemicals known by the State of California to cause cancer or reproductive toxicity as published on the Proposition 65 (*Safe Drinking Water and Toxic Enforcement Act of 1986*) list pursuant to Title 27 of the *California Code of Regulations*.

2.6 TREE-STABILIZATION MATERIALS

A. Trunk-Stabilization Materials:

1. Only use trunk stabilizers if required by site conditions
2. Retain first seven subparagraphs below for nonproprietary devices. Insert provisions for painting the stakes if required.
3. Upright and Guy Stakes: Rough-sawn, sound, new hardwood, free of knots, holes, cross grain, and other defects, 2-by-2-inch nominal (38-by-38-mm actual) by length indicated, pointed at one end.
4. Guys and Tie Wires: ASTM A 641/A 641M, Class 1, galvanized-steel wire, two-strand, twisted, 0.106 inch (2.7 mm) in diameter.

2.7 MISCELLANEOUS PRODUCTS

A. Wood Pressure-Preservative Treatment: AWPA U1, Use Category UC4a; acceptable to authorities having jurisdiction, and containing no arsenic or chromium.

B. Antidesiccant: Water-insoluble emulsion, permeable moisture retarder, film forming, for trees and shrubs. Deliver in original, sealed, and fully labeled containers and mix according to manufacturer's written instructions.

C. Burlap: Non-synthetic, biodegradable.

D. Filter Fabric

1. Lightweight nonwoven geotextile
2. AASHTO Class 3 Nonwovens

E. Drainage Stone

1. Gravel base shall meet the requirements of IDOT Stand Specifications Section 1004: Coarse Aggregates.

a. Gradation: CA-9

PART 3 - EXECUTION

3.1 EXAMINATION

A. Examine areas to receive plants, with Installer present, for compliance with requirements and conditions affecting installation and performance of the Work.

1. Verify that no foreign or deleterious material or liquid such as paint, paint washout, concrete slurry, concrete layers or chunks, cement, plaster, oils, gasoline, diesel fuel, paint thinner, turpentine, tar, roofing compound, or acid has been deposited in soil within a planting area.
2. Verify that plants and vehicles loaded with plants can travel to planting locations with adequate overhead clearance.
3. Suspend planting operations during periods of excessive soil moisture until the moisture content reaches acceptable levels to attain the required results.
4. Uniformly moisten excessively dry soil that is not workable, or which is dusty.

B. If contamination by foreign or deleterious material or liquid is present in soil within a planting area, remove the soil and contamination as directed by Owner's Representative and replace with new planting soil.

C. Proceed with installation only after unsatisfactory conditions have been corrected.

3.2 PREPARATION

A. Protect structures, utilities, sidewalks, pavements, and other facilities and turf areas and existing plants from damage caused by planting operations.

B. Install erosion-control measures to prevent erosion or displacement of soils and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways.

C. Lay out individual tree and shrub locations and areas for multiple plantings. Stake locations, outline areas, adjust locations when requested, and obtain Owner's Representative's acceptance of layout before excavating or planting. Make minor adjustments as required.

D. Lay out plants at locations directed by Owner's Representative. Stake locations of individual trees and shrubs and outline areas for multiple plantings.

3.3 PLANTING AREA ESTABLISHMENT

A. Loosen subgrade of planting areas to a minimum depth of 6 inches (150 mm). Remove stones larger than 1 inch (25 mm) in any dimension and sticks, roots, rubbish, and other extraneous matter and legally dispose of them off Owner's property.

1. Spread topsoil, apply soil amendments and fertilizer on surface, and thoroughly blend planting soil.

a. Delay mixing fertilizer with planting soil if planting will not proceed within a few days.

2. Spread planting soil to a depth of 6 inches (150 mm) but not less than required to meet finish grades after natural settlement. Do not spread if planting soil or subgrade is frozen, muddy, or excessively wet.

    a. Spread approximately one-half the thickness of planting soil over loosened subgrade. Mix thoroughly into top 2 inches (50 mm) of subgrade. Spread remainder of planting soil.

B. Finish Grading: Grade planting areas to a smooth, uniform surface plane with loose, uniformly fine texture. Roll and rake, remove ridges, and fill depressions to meet finish grades.

C. Before planting, obtain Landscape Owner's Representative's acceptance of finish grading; restore planting areas if eroded or otherwise disturbed after finish grading.

3.4 EXCAVATION FOR TREES AND SHRUBS

A. Planting Pits and Trenches: Excavate circular planting pits.

1. Excavate planting pits with sides sloping inward at a 45-degree angle. Excavations with vertical sides are unacceptable. Trim perimeter of bottom leaving center area of bottom raised slightly to support root ball and assist in drainage away from center. Do not further disturb base. Ensure that root ball will sit on undisturbed base soil to prevent settling. Scarify sides of planting pit smeared or smoothed during excavation.
2. Excavate approximately three times as wide as ball diameter for balled and burlapped and container-grown stock.
3. Excavate at least 12 inches (300 mm) wider than root spread and deep enough to accommodate vertical roots for bare-root stock.
4. Do not excavate deeper than depth of the root ball, measured from the root flare to the bottom of the root ball.
5. If area under the plant was initially dug too deep, add soil to raise it to the correct level and thoroughly tamp the added soil to prevent settling.
6. Maintain angles of repose of adjacent materials to ensure stability. Do not excavate subgrades of adjacent paving, structures, hardscapes, or other new or existing improvements.
7. Maintain supervision of excavations during working hours.
8. Keep excavations covered or otherwise protected when unattended by Installer's personnel.
9. If drain tile is indicated on Drawings or required under planting areas, excavate to top of porous backfill over tile.

B. Backfill Soil: Subsoil and topsoil removed from excavations may be used as backfill soil unless otherwise indicated.

C. Obstructions: Notify Owner's Representative if unexpected rock or obstructions detrimental to trees or shrubs are encountered in excavations.

1. Hardpan Layer: Drill 6-inch- (150-mm-) diameter holes, 24 inches (600 mm) apart, into free-draining strata or to a depth of 10 feet (3 m), whichever is less, and backfill with free-draining material.

D. Drainage: Notify Owner's Representative if subsoil conditions evidence unexpected water seepage or retention in tree or shrub planting pits.

E. Fill excavations with water and allow to percolate away before positioning trees and shrubs.

3.5 TREE AND SHRUB PLANTING

A. Inspection: At time of planting, verify that root flare is visible at top of root ball according to ANSI Z60.1. If root flare is not visible, remove soil in a level manner from the root ball to where the top-most root emerges from the trunk. After soil removal to expose the root flare, verify that root ball still meets size requirements.

B. Roots: Remove stem girdling roots and kinked roots. Remove injured roots by cutting cleanly; do not break.

C. Balled and Burlapped Stock: Set each plant plumb and in center of planting pit or trench with root flare 2 inches (50 mm) above adjacent finish grades.

1. Backfill: Planting soil. For trees, use excavated soil for backfill.
2. After placing some backfill around root ball to stabilize plant, carefully cut and remove burlap, rope, and wire baskets from tops of root balls and from sides, but do not remove from under root balls. Remove pallets, if any, before setting. Do not use planting stock if root ball is cracked or broken before or during planting operation.
3. Backfill around root ball in layers, tamping to settle soil and eliminate voids and air pockets. When planting pit is approximately one-half filled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed.
4. Place planting tablets equally distributed around each planting pit when pit is approximately one-half filled. Place tablets beside the root ball about 1 inch (25 mm) from root tips; do not place tablets in bottom of the hole.

    a. Quantity: Two per plant.

5. Continue backfilling process. Water again after placing and tamping final layer of soil.

D. Container-Grown Stock: Set each plant plumb and in center of planting pit or trench with root flare 1 inch (25 mm) above adjacent finish grades.

1. Backfill: Planting soil.
2. Carefully remove root ball from container without damaging root ball or plant.
3. Backfill around root ball in layers, tamping to settle soil and eliminate voids and air pockets. When planting pit is approximately one-half filled, water thoroughly before placing remainder of backfill. Repeat watering until no more water is absorbed.
4. Place planting tablets equally distributed around each planting pit when pit is approximately one-half filled. Place tablets beside the root ball about 1 inch (25 mm) from root tips; do not place tablets in bottom of the hole.

    a. Quantity: Two per plant.

5. Continue backfilling process. Water again after placing and tamping final layer of soil.

E. Slopes: When planting on slopes, set the plant so the root flare on the uphill side is flush with the surrounding soil on the slope; the edge of the root ball on the downhill side will be above the surrounding soil. Apply enough soil to cover the downhill side of the root ball. See detail on plans.

3.6 TREE AND SHRUB PRUNING

A. Remove only dead, dying, or broken branches. Do not prune for shape.

B. Prune, thin, and shape trees and shrubs as directed by Owner's Representative.

C. Prune, thin, and shape trees and shrubs according to standard professional horticultural and arboricultural practices. Unless otherwise indicated by Owner's Representative, do not cut tree leaders; remove only injured, dying, or dead branches from trees and shrubs; and prune to retain natural character.

D. Do not apply pruning paint to wounds.

3.7 TREE STABILIZATION

A. Trunk Stabilization by Upright Staking and Tying: Install trunk stabilization as follows unless otherwise indicated:

1. Upright Staking and Tying: Stake trees of 2- through 5-inch (50- through 125-mm) caliper. Stake trees of less than 2-inch (50-mm) caliper only as required to prevent wind tip out. Use a minimum of two stakes of length required to penetrate at least 18 inches (450 mm) below bottom of backfilled excavation and to extend to the dimension indicated on Drawings above grade. Set vertical stakes and space to avoid penetrating root balls or root masses.
2. Upright Staking and Tying: Stake trees with two stakes for trees up to 12 feet (3.6 m) high and 2-1/2 inches (63 mm) or less in caliper; three stakes for trees less than 14 feet (4.2 m) high and up to 4 inches (100 mm) in caliper. Space stakes equally around trees.
3. Support trees with bands of flexible ties at contact points with tree trunk. Allow enough slack to avoid rigid restraint of tree.
4. Support trees with two strands of tie wire, connected to the brass grommets of tree-tie webbing at contact points with tree trunk. Allow enough slack to avoid rigid restraint of tree.

3.8 GROUND COVER AND PLANT PLANTING

A. Set out and space ground cover and plants other than trees, shrubs, and vines as indicated on Drawings in even rows with triangular spacing.

B. Use planting soil for backfill.

C. Dig holes large enough to allow spreading of roots.

D. For rooted cutting plants supplied in flats, plant each in a manner that minimally disturbs the root system but to a depth not less than two nodes.

E. Work soil around roots to eliminate air pockets and leave a slight saucer indentation around plants to hold water.

F. Water thoroughly after planting, taking care not to cover plant crowns with wet soil.

G. Protect plants from hot sun and wind; remove protection if plants show evidence of recovery from transplanting shock.

3.9 PLANTING AREA MULCHING

A. Mulch backfilled surfaces of planting areas and other areas indicated.

1. Trees in Meadow Areas: Apply organic mulch ring of 3-inch (75-mm) average thickness, with 36-inch (900-mm) radius around trunks or stems. Do not place mulch within 3 inches (75 mm) of trunks or stems.
2. Organic Mulch in Planting Areas: Apply 2-inch (50-mm) average thickness of organic mulch over whole surface of planting area, and finish level with adjacent finish grades. Do not place mulch within 6 inches (150 mm) of trunks or stems.

3.10 PLANT MAINTENANCE

A. Maintain plantings by pruning, cultivating, watering, weeding, fertilizing, mulching, restoring planting saucers, adjusting and repairing tree-stabilization devices, resetting to proper grades or vertical position, and performing other operations as required to establish healthy, viable plantings.

B. Fill in, as necessary, soil subsidence that may occur because of settling or other processes. Replace mulch materials damaged or lost in areas of subsidence.

C. Apply treatments as required to keep plant materials, planted areas, and soils free of pests and pathogens or disease. Use integrated pest management practices when possible to minimize use of pesticides and reduce hazards. Treatments include physical controls such as hosing off foliage, mechanical controls such as traps, and biological control agents.

3.11 PESTICIDE APPLICATION

~~A. No pesticides shall be used.~~

B. Pesticides shall be compliant with City of Evanston ordinance 20-R-10. Per City of Evanston ordinance, none of the following pesticides shall be applied to the project:

d. Those classified by the United States Environmental Protection Agency (US EPA) as known, probable, likely, possible, or suspected carcinogens;

e. Those classified by US EPA as Toxicity Category I and Toxicity Category II pesticides under 40 CFR 156.62 and 156.64; or

f. Chemicals known by the State of California to cause cancer or reproductive toxicity as published on the Proposition 65 (*Safe Drinking Water and Toxic Enforcement Act of 1986*) list pursuant to Title 27 of the *California Code of Regulations*.

3.12 REPAIR AND REPLACEMENT

A. General: Repair or replace existing or new trees and other plants that are damaged by construction operations, in a manner approved by Owner's Representative.

1. Submit details of proposed pruning and repairs.
2. Perform repairs of damaged trunks, branches, and roots within 24 hours, if approved.
3. Replace trees and other plants that cannot be repaired and restored to full-growth status, as determined by Owner's Representative.

B. Remove and replace trees that are more than 25 percent dead or in an unhealthy condition before the end of the corrections period or are damaged during construction operations that Owner's Representative determines are incapable of restoring to normal growth pattern. Replacement trees shall be of same size and species.

3.13 CLEANING AND PROTECTION

A. During planting, keep adjacent paving and construction clean and work area in an orderly condition. Clean wheels of vehicles before leaving site to avoid tracking soil onto roads, walks, or other paved areas.

B. Remove surplus soil and waste material including excess subsoil, unsuitable soil, trash, and debris and legally dispose of them off Owner's property.

C. Protect plants from damage due to landscape operations and operations of other contractors and trades. Maintain protection during installation and maintenance periods. Treat, repair, or replace damaged plantings.

D. After installation and before Substantial Completion, remove nursery tags, nursery stakes, tie tape, labels, wire, burlap, and other debris from plant material, planting areas, and Project site.

E. At time of Substantial Completion, verify that tree-watering devices are in good working order and leave them in place. Replace improperly functioning devices.

3.14 MAINTENANCE SERVICE

A. Maintenance Service for Trees and Shrubs: Provide maintenance by skilled employees of landscape Installer. Maintain as required in "Plant Maintenance" Article. Begin maintenance immediately after plants are installed and continue until plantings are acceptably healthy and well established, but for not less than maintenance period below:

1. Maintenance Period: 12 months from date of Substantial Completion.

B. Maintenance Service for Ground Cover and Other Plants: Provide maintenance by skilled employees of landscape Installer. Maintain as required in "Plant Maintenance" Article. Begin maintenance immediately after plants are installed and continue until plantings are acceptably healthy and well established, but for not less than maintenance period below:

1. Maintenance Period: Six months or through the end of the next growing season, whichever is longer, from date of Substantial Completion.

Method of Measurement: The contract unit price for TREE TRANSPLANT, SHADE TREES, UNDERSTORY TREES, DECIDUOUS SHRUBS, PERENNIALS / GROUNDCOVER, PLANTING SOIL MIX AND SHREDDED HARDWOOD BARK MULCH shall include all materials and labor necessary to install plants as shown on the plans, including all materials, labor, and equipment required to complete this work.

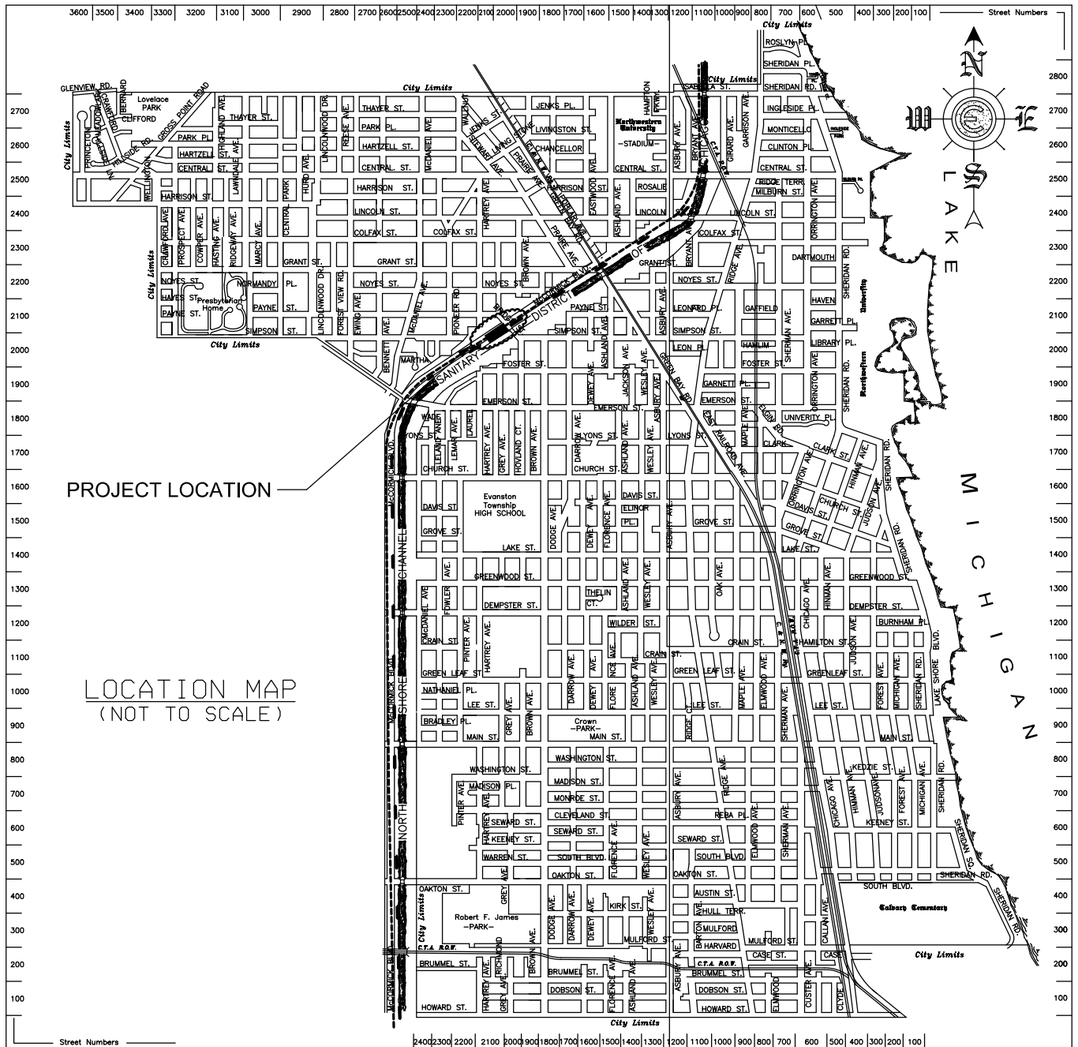
Basis of Payment: Furnishing and installing TREE TRANSPLANT, SHADE TREES, UNDERSTORY TREES, DECIDUOUS SHRUBS, PERENNIALS / GROUNDCOVER will be paid for at the contract unit price per each for each plant. Furnishing and installing PLANTING SOL MIX AND SHREDDED AHRDWOOD BARK MULCH will be paid for at the contract unit price per cubic yard.

STATE OF ILLINOIS
COOK COUNTY
CITY OF EVANSTON
LADD ARBORETUM LAUNCH PROJECT
Bid No: 26-54

CITY	COUNTY	NO. OF SHEETS	SHEET NO.
EVANSTON	COOK	54	1

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4. BENCHMARK ALIGNMENT AND TIES
5. TYPICAL SECTIONS
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7. STAGING PLAN
8. SOIL EROSION AND SEDIMENT CONTROL PROTECTION PLAN
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10. CIVIL REMOVAL PLAN
11. CIVIL PROPOSED PLAN
12. GRADING PLAN
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18-31. STRUCTURAL PLANS
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LOCATION MAP
(NOT TO SCALE)

ENGINEER
MAJID MOBASSERI
ILLINOIS REGISTRATION No. 081-005058
EXPIRATION DATE: 11/2027

11/12/2026
DATE
ENGINEER
MARTIN MICHALOWICZ
ILLINOIS REGISTRATION No. 062-059502
EXPIRATION DATE: 11/2027

THE FOLLOWING FLOOD PROTECTION AREAS ARE NOT LOCATED WITHIN 100 FEET OF THE DEVELOPMENT, FLOODPLAIN, WETLANDS, AND RIPARIAN ENVIRONMENT.

MARTIN MICHALOWICZ, PE

Contact the Metropolitan Water Reclamation District of Greater Chicago 2 days before starting work.

P (708) 588-4055
E WMOJobStart@mwrd.org

FOR UNDERGROUND UTILITY INFORMATION AND LOCATIONS, CALL
J.U.L.I.E
TOLL FREE
TELEPHONE No. 1-800-892-0123

11/3/2026
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GENERAL NOTES

1. PRIOR TO THE START OF THE CONSTRUCTION OPERATIONS, THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH UTILITY COMPANIES. THE LOCATION OF PUBLIC OR PRIVATE UTILITIES SHOWN ON THE PLANS ARE APPROXIMATE AND THE CITY DOES NOT GUARANTEE THEIR ACCURACY. THE CONTRACTOR WILL BE REQUIRED TO ASCERTAIN THE EXACT LOCATION OF SUCH UTILITIES AND WITH THE SPECIAL PROVISIONS AND ARTICLE 107.30 OF THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CONTACTING THE OWNERS OF ALL EXISTING UTILITIES SO THAT THEIR FACILITIES MAY BE LOCATED AND ADJUSTED OR MOVED.

2. BEFORE STARTING ANY EXCAVATION, THE CONTRACTOR MUST CALL "JULIE" AT 1-800-892-0123 FOR FIELD LOCATIONS OF BURIED ELECTRIC, TELEPHONE. GAS, WATER, SEWER, AND CABLE TELEVISION FACILITIES. (48 HOURS NOTICE REQUIRED) CONTRACTOR MUST CALL CITY OF EVANSTON FACILITIES MANAGEMENT AT 847-866-2916 TO LOCATE PARK RELATED UTILITIES.

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL ABOVE AND BELOW GROUND UTILITIES EVEN THOUGH THEY MAY NOT BE SHOWN ON THE PLANS. ANY UTILITY THAT IS DAMAGED DURING THE CONSTRUCTION SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE ENGINEER OF THE CITY. THIS WORK SHALL BE AT THE EXPENSE OF THE CONTRACTOR.

4. UNLESS AUTHORIZED BY THE ENGINEER, ALL EXISTING ACCESS POINTS SHALL BE MAINTAINED AT ALL TIMES BY CONTRACTOR.

5. DURING THE CONSTRUCTION, THE CONTRACTOR WILL BE REQUIRED, AT HIS EXPENSE, TO HAVE AVAILABLE A WATER TRUCK OR SIMILAR EQUIPMENT TO CONTROL DUST. IF NECESSARY, THE CONTRACTOR SHALL BE REQUIRED TO CONTROL DUST DURING NON-WORKING HOURS

6. ALL EXCESS MATERIAL (BROKEN CONCRETE, CULVERT PIPE, WASTE ROADWAY EXCAVATION, SURPLUS MATERIAL FROM SEWER TRENCHES, ETC.) SHALL BE LEGALLY DISPOSED OF OUTSIDE THE LIMITS OF THE PROJECT. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO SELECT DUMP SITES AND OBTAIN PERMISSION AND ALL NECESSARY PERMITS.

7. THE CONTRACTOR SHALL GIVE NOTICES AND COMPLY WITH APPLICABLE LAWS, ORDINANCES, RULES, REGULATIONS AND LAWFUL ORDERS OF ALL PUBLIC AUTHORITIES BEARING ON SAFETY OF PERSONS OR PROPERTY OR THEIR PROTECTION FROM DAMAGE, INJURY OR LOSS.

8. THE CONTRACTOR SHALL COORDINATE CONSTRUCTION ACTIVITIES WITH ANY OTHER PROJECTS WITHIN THE AREA THAT ARE UNDER CONSTRUCTION AT THE SAME TIME.

EROSION CONTROL GENERAL NOTES:

1. ALL SEDIMENT AND EROSION CONTROL MEASURES WILL BE INSTALLED PER IDOT STANDARD 280001 IN ACCORDANCE WITH SECTION 280 OF THE STANDARD SPECIFICATIONS ALL CONSTRUCTION ACTIVITIES WILL BE IN ACCORDANCE WITH THE NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM STORM WATER PERMITS ILR10 AND ILR40.

2. THE CONTRACTOR SHALL SUBMIT A DETAILED EROSION CONTROL SCHEDULE FOR APPROVAL.

3. SEDIMENT AND EROSION CONTROL DEVICES SHALL BE FUNCTIONAL BEFORE THE PROJECT SITE IS OTHERWISE DISTURBED.

4. ALL DISTURBED AREAS SHALL BE SEEDED OR SODDED AS SOON AS PRACTICAL AFTER CONSTRUCTION ACTIVITIES IN THAT AREA HAVE CONCLUDED, ALL ERODIBLE/ BARE AREAS SHALL BE SEEDED EVERY 7 DAYS WITH TEMPORARY EROSION CONTROL SEEDING IF A TOPSOIL STOCKPILE IS TO REMAIN IN PLACE FOR MORE THAN THREE DAYS, EROSION CONTROL MEASURES WILL BE PROVIDED AND INCLUDED IN COST OF EROSION CONTROL COMPLETE.

5. STOCKPILES AND MATERIAL STORAGE ARE PROHIBITED IN SPECIAL MANAGEMENT AREAS INCLUDING WETLANDS, WETLAND BUFFERS, AND FLOOD PLAINS. LOCATION OF STOCKPILE MUST BE APPROVED BY THE ENGINEER AND HAVE PROPER EROSION CONTROL MEASURES.

6. WATER PUMPED OR OTHERWISE DISCHARGED FROM THE SITE DURING CONSTRUCTION DEWATERING SHALL BE FILTERED TO THE SATISFACTION OF THE ENGINEER.

7. WHEN TEMPORARY DRAINAGE IS ESTABLISHED, EROSION CONTROL MEASURES MAY BE REQUIRED BY THE ENGINEER.

8. ACCESS DRIVES, PARKING AREAS OF SUFFICIENT WIDTH AND LENGTH, AND VEHICLE WASH DOWN FACILITIES IF NECESSARY, SHALL BE PROVIDED TO PREVENT SOIL FROM BEING TRACKED ONTO PUBLIC OR PRIVATE ROADWAYS. ANY SOIL REACHING A PUBLIC OR PRIVATE ROADWAY SHALL BE REMOVED BEFORE THE END OF EACH WORKDAY AND AS NEEDED OR AS DIRECTED BY THE ENGINEER.

9. CLEANING OF VEHICLES AND EQUIPMENT, INCLUDING CONCRETE MIXERS, SHALL BE PERFORMED IN A MANNER TO REDUCE THE AMOUNTS OF POLLUTANTS TRIBUTARY TO STORM SEWERS AND OPEN WATERS TO THE MAXIMUM EXTENT PRACTICAL.

10. ALL NECESSARY MEASURES SHALL BE TAKEN TO CONTAIN ANY FUEL OR POLLUTION RUNOFF. LEAKING EQUIPMENT OR SUPPLIES SHALL BE IMMEDIATELY REPAIRED OR REMOVED FROM THE SITE.

11. SEDIMENT COLLECTED DURING CONSTRUCTION BY THE VARIOUS TEMPORARY EROSION CONTROL SYSTEMS SHALL BE DISPOSED OF ON A REGULAR BASIS. SEDIMENT SHALL BE REMOVED FROM EROSION CONTROL SYSTEMS WHEN THE HEIGHT OF SEDIMENT EXCEEDS ONE-HALF OF THE HEIGHT OF FILTER DEVICE.

12. ALL EROSION CONTROL MEASURES SHALL BE KEPT OPERATIONAL AND MAINTAINED CONTINUOUSLY THROUGHOUT THE PERIOD OF LAND DISTURBANCE UNTIL PERMANENT SEDIMENT AND EROSION CONTROL MEASURES ARE OPERATIONAL.

13. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN 30 DAYS AFTER FINAL STABILIZATION IS ACHIEVED.

14. THE CONTRACTOR SHALL INSPECT EROSION CONTROL MEASURES PERIODICALLY AND WITHIN 24 HOURS OF ANY STORM EXCEEDING ½ INCH PRECIPITATION. DAMAGED AND INEFFECTIVE EROSION CONTROL MEASURES SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR WITHIN 24 HOURS. EROSION CONTROL SYSTEMS REPLACED DUE TO SEDIMENT LOADING WILL BE INCLUDED IN CONTRACT COST.

15. THE COST OF REMOVING SEDIMENT OR REPAIRING EROSION CONTROL SYSTEMS SHALL BE INCLUDED IN THE CONTRACT.

16. SEE PERMITS AND BID BOOK FOR ADDITIONAL REQUIREMENTS.

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

teska
627 Grove Street, Evanston, Illinois 60201
Tel 847.869.2015 Fax 847.869.2059

client / owner
City of Evanston

project name
LADD ARBORETUM LAUNCH

project address
ECOLOGY CENTER
2024 N. McCormick Blvd.
Evanston, Illinois 60201

seal / signature

owner
City of Evanston
909 Davis Street
Evanston, Illinois 60201
p 847.448.4311

Engineer
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9575 West Higgins Road Suite 600
Rosemont, Illinois 60018
p 847.823.0500

landscape architect of record
TESKA ASSOCIATES, INC.
627 Grove Street
Evanston, IL. 60201
p 847.869.2015 f 847.869.2059

BID SET
November 12, 2026

issue / revision	date	description
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issue date
November 12, 2026

sheet name
General Notes

sheet number
NOT-01

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MWRD GENERAL NOTES

A. REFERENCED SPECIFICATIONS

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPLICABLE SECTIONS OF THE FOLLOWING, EXCEPT AS MODIFIED HEREIN OR ON THE PLANS:
   * STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (LATEST EDITION), BY THE ILLINOIS DEPARTMENT OF TRANSPORTATION (IDOT SS) FOR ALL IMPROVEMENTS EXCEPT SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS, LATEST EDITION (SSWS) FOR SANITARY SEWER AND WATER MAIN CONSTRUCTION;
   * CITY OF EVANSTON MUNICIPAL CODE;
   * THE METROPOLITAN WATER RECLAMATION DISTRICT OF GREATER CHICAGO (MWRD) WATERSHED MANAGEMENT ORDINANCE AND TECHNICAL GUIDANCE MANUAL;
   * IN CASE OF CONFLICT BETWEEN THE APPLICABLE ORDINANCES NOTED, THE MORE STRINGENT SHALL TAKE PRECEDENCE AND SHALL CONTROL ALL CONSTRUCTION.

B. NOTIFICATIONS

1. THE MWRD LOCAL SEWER SYSTEMS SECTION FIELD OFFICE MUST BE NOTIFIED AT LEAST TWO (2) WORKING DAYS PRIOR TO THE COMMENCEMENT OF ANY WORK (CALL 708-588-4055).

2. THE CITY OF EVANSTON ENGINEERING DEPARTMENT AND PUBLIC MUST BE NOTIFIED AT LEAST 24 HOURS PRIOR TO THE START OF CONSTRUCTION AND PRIOR TO EACH PHASE OF WORK. CONTRACTOR SHALL DETERMINE ITEMS REQUIRING INSPECTION PRIOR TO START OF CONSTRUCTION OR EACH WORK PHASE.

3. THE CONTRACTOR SHALL NOTIFY ALL UTILITY COMPANIES PRIOR TO BEGINNING CONSTRUCTION FOR THE EXACT LOCATIONS OF UTILITIES AND FOR THEIR PROTECTION DURING CONSTRUCTION. IF EXISTING UTILITIES ARE ENCOUNTERED THAT CONFLICT IN LOCATION WITH NEW CONSTRUCTION, IMMEDIATELY NOTIFY THE ENGINEER SO THAT THE CONFLICT CAN BE RESOLVED. CALL J.U.L.I.E. AT 1-800-892-0123.

C. GENERAL NOTES

1. ALL ELEVATIONS SHOWN ON PLANS REFERENCE THE CITY OF EVANSTON REFERENCE DATUM.

2. MWRD, THE MUNICIPALITY AND THE OWNER OR OWNER'S REPRESENTATIVE SHALL HAVE THE AUTHORITY TO INSPECT, APPROVE, AND REJECT THE CONSTRUCTION IMPROVEMENTS.

3. THE CONTRACTOR(S) SHALL INDEMNIFY THE OWNER, ENGINEER, MUNICIPALITY, MWRD, AND THEIR AGENTS, ETC., FROM ALL LIABILITY INVOLVED WITH THE CONSTRUCTION, INSTALLATION, OR TESTING OF THIS WORK ON THE PROJECT.

4. THE PROPOSED IMPROVEMENTS MUST BE CONSTRUCTED IN ACCORDANCE WITH THE ENGINEERING PLANS AS APPROVED BY MWRD AND THE MUNICIPALITY UNLESS CHANGES ARE APPROVED BY MWRD, THE MUNICIPALITY, OR AUTHORIZED AGENT. THE CONSTRUCTION DETAILS, AS PRESENTED ON THE PLANS, MUST BE FOLLOWED. PROPER CONSTRUCTION TECHNIQUES MUST BE FOLLOWED ON THE IMPROVEMENTS INDICATED ON THE PLANS.

5. THE LOCATION OF VARIOUS UNDERGROUND UTILITIES WHICH ARE SHOWN ON THE PLANS ARE FOR INFORMATION ONLY AND REPRESENT THE BEST KNOWLEDGE OF THE ENGINEER. VERIFY LOCATIONS AND ELEVATIONS PRIOR TO BEGINNING THE CONSTRUCTION OPERATIONS.

6. ANY EXISTING PAVEMENT, SIDEWALK, DRIVEWAY, ETC., DAMAGED DURING CONSTRUCTION OPERATIONS AND NOT CALLED FOR TO BE REMOVED SHALL BE REPLACED AT THE EXPENSE OF THE CONTRACTOR.

7. MATERIAL AND COMPACTION TESTING SHALL BE PERFORMED IN ACCORDANCE WITH THE REQUIREMENTS OF THE MUNICIPALITY, MWRD, AND OWNER.

8. THE UNDERGROUND CONTRACTOR SHALL MAKE ALL NECESSARY ARRANGEMENTS TO NOTIFY ALL INSPECTION AGENCIES.

9. ALL NEW AND EXISTING UTILITY STRUCTURES ON SITE AND IN AREAS DISTURBED DURING CONSTRUCTION SHALL BE ADJUSTED TO FINISH GRADE PRIOR TO FINAL INSPECTION.

10. RECORD DRAWINGS SHALL BE KEPT BY THE CONTRACTOR AND SUBMITTED TO THE ENGINEER AS SOON AS UNDERGROUND IMPROVEMENTS ARE COMPLETED. FINAL PAYMENTS TO THE CONTRACTOR SHALL BE HELD UNTIL THEY ARE RECEIVED. ANY CHANGES IN LENGTH, LOCATION OR ALIGNMENT SHALL BE SHOWN IN RED. ALL WYES OR BENDS SHALL BE LOCATED FROM THE DOWNSTREAM MANHOLE. ALL VALVES, B-BOXES, TEES OR BENDS SHALL BE TIED TO A FIRE HYDRANT.

11. ALL DISTRICT FACILITIES MUST BE PROTECTED AND 24-HOUR ACCESS MAINTAINED.

12. THE CONTRACTOR IS REQUIRED TO MAINTAIN 24 HR/7 DAYS PER WEEK ACCESS FOR DISTRICT PERSONNEL TO MWRD DROP SHAFT DURING THE PROPOSED CONSTRUCTION WORK.

13. THE CONTRACTOR SHALL CONTACT AND COORDINATE ALL WORK WITH MWRD PRIOR TO CONSTRUCTION MOBILIZATION.

D. SANITARY SEWER

1. THE CONTRACTOR SHALL TAKE MEASURES TO PREVENT ANY POLLUTED WATER, SUCH AS GROUND AND SURFACE WATER, FROM ENTERING THE EXISTING SANITARY SEWERS.

2. A WATER-TIGHT PLUG SHALL BE INSTALLED IN THE DOWNSTREAM SEWER PIPE AT THE POINT OF SEWER CONNECTION PRIOR TO COMMENCING ANY SEWER CONSTRUCTION. THE PLUG SHALL REMAIN IN PLACE UNTIL REMOVAL IS AUTHORIZED BY THE MUNICIPALITY AND/OR MWRD AFTER THE SEWERS HAVE BEEN TESTED AND ACCEPTED.

3. DISCHARGING ANY UNPOLLUTED WATER INTO THE SANITARY SEWER SYSTEM FOR THE PURPOSE OF SEWER FLUSHING OF LINES FOR THE DEFLECTION TEST SHALL BE PROHIBITED WITHOUT PRIOR APPROVAL FROM THE MUNICIPALITY OR MWRD.

4. ALL SANITARY SEWER CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS FOR WATER AND SEWER MAIN CONSTRUCTION IN ILLINOIS (LATEST EDITION).

5. ALL FLOOR DRAINS SHALL DISCHARGE TO THE SANITARY SEWER SYSTEM.

6. ALL DOWNSPOUTS AND FOOTING DRAINS SHALL DISCHARGE TO THE STORM SEWER SYSTEM.

7. ALL SANITARY SEWER PIPE MATERIALS AND JOINTS (AND STORM SEWER PIPE MATERIALS AND JOINTS IN A COMBINED SEWER AREA) SHALL CONFORM TO THE FOLLOWING:

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
VITRIFIED CLAY PIPE	ASTM C-700	ASTM C-425
REINFORCED CONCRETE SEWER PIPE	ASTM C-76	ASTM C-443
CAST IRON SOIL PIPE	ASTM A-74	ASTM C-564
DUCTILE IRON PIPE	ANSI A21.51	ANSI A21.11
POLYVINYL CHLORIDE (PVC) PIPE 6-INCH TO 15-INCH DIAMETER SDR 26 18-INCH TO 27-INCH DIAMETER F/DY=46	 ASTM D-3034 ASTM F-679	 ASTM D-3212 ASTM D-3212
HIGH DENSITY POLYETHYLENE (HDPE)	ASTM D-3350 ASTM D-3035	ASTM D-3261, F-2620 (HEAT FUSION) ASTM D-3212, F-477 (GASKETED)
WATER MAIN QUALITY PVC 4-INCH TO 36-INCH 4-INCH TO 12-INCH 14-INCH TO 48-INCH	 ASTM D-2241 AWWA C900 AWWA C905	 ASTM D-3139 ASTM D-3139 ASTM D-3139

THE FOLLOWING MATERIALS ARE ALLOWED ON A QUALIFIED BASIS SUBJECT TO DISTRICT REVIEW AND APPROVAL PRIOR TO PERMIT ISSUANCE. A SPECIAL CONDITION WILL BE ADDED TO THE PERMIT WHEN THE PIPE MATERIAL BELOW IS USED FOR SEWER CONSTRUCTION OR A CONNECTION IS MADE.

PIPE MATERIAL	PIPE SPECIFICATIONS	JOINT SPECIFICATIONS
POLYPROPYLENE (PP) PIPE		
12-INCH TO 24-INCH DOUBLE WALL	ASTM F-2736	D-3212, F-477
30-INCH TO 60-INCH TRIPLE WALL	ASTM F-2764	D-3212, F-477

8. ALL SANITARY SEWER CONSTRUCTION (AND STORM SEWER CONSTRUCTION IN COMBINED SEWER AREAS), REQUIRES STONE BEDDING WITH STONE ¼ " TO 1" IN SIZE, WITH MINIMUM BEDDING THICKNESS EQUAL TO ¼ THE OUTSIDE DIAMETER OF THE SEWER PIPE, BUT NOT LESS THAN FOUR (4) INCHES NOR MORE THAN EIGHT (8) INCHES. MATERIAL SHALL BE CA-7, CA-11 OR CA-13 AND SHALL BE EXTENDED AT LEAST 12" ABOVE THE TOP OF THE PIPE WHEN USING PVC.

9. NON-SHEAR FLEXIBLE-TYPE COUPLINGS SHALL BE USED IN THE CONNECTION OF SEWER PIPES OF DISSIMILAR PIPE MATERIALS.

10. ALL MANHOLES SHALL BE PROVIDED WITH BOLTED, WATERTIGHT COVERS. SANITARY LIDS SHALL BE CONSTRUCTED WITH A CONCEALED PICKHOLE AND WATERTIGHT GASKET WITH THE WORD "SANITARY" CAST INTO THE LID.

11. WHEN CONNECTING TO AN EXISTING SEWER MAIN BY MEANS OTHER THAN AN EXISTING WYE, TEE, OR AN EXISTING MANHOLE, ONE OF THE FOLLOWING METHODS SHALL BE USED:
    a) A CIRCULAR SAW-CUT OF SEWER MAIN BY PROPER TOOLS ("SHEWER-TAP" MACHINE OR SIMILAR) AND PROPER INSTALLATION OF HUBWYE SADDLE OR HUB-TEE SADDLE.
    b) REMOVE AN ENTIRE SECTION OF PIPE (BREAKING ONLY THE TOP OF ONE BELL) AND REPLACE WITH A WYE OR TEE BRANCH SECTION.
    c) WITH PIPE CUTTER, NEATLY AND ACCURATELY CUT OUT DESIRED LENGTH OF PIPE FOR INSERTION OF PROPER FITTING, USING "BAND SEAL" OR SIMILAR COUPLINGS TO HOLD IT FIRMLY IN PLACE.

12. WHENEVER A SANITARY/COMBINED SEWER CROSSES UNDER A WATERMAIN, THE MINIMUM VERTICAL DISTANCE FROM THE TOP OF THE SEWER TO THE BOTTOM OF THE WATERMAIN SHALL BE 18 INCHES. FURTHERMORE, A MINIMUM HORIZONTAL DISTANCE OF 10 FEET BETWEEN SANITARY/COMBINED SEWERS AND WATERMAINS SHALL BE MAINTAINED UNLESS: THE SEWER IS LAID IN A SEPARATE TRENCH, KEEPING A MINIMUM 18" VERTICAL SEPARATION; OR THE SEWER IS LAID IN THE SAME TRENCH WITH THE WATERMAIN LOCATED AT THE OPPOSITE SIDE ON A BENCH OF UNDISTURBED EARTH, KEEPING A MINIMUM 18" VERTICAL SEPARATION. IF EITHER THE VERTICAL OR HORIZONTAL DISTANCES DESCRIBED CANNOT BE MAINTAINED, OR THE SEWER CROSSES ABOVE THE WATER MAIN, THE SEWER SHALL BE CONSTRUCTED TO WATER MAIN STANDARDS OR IT SHALL BE ENCASED WITH A WATER MAIN QUALITY CARRIER PIPE WITH THE ENDS SEALED.

13. ALL EXISTING SEPTIC SYSTEMS SHALL BE ABANDONED. ABANDONED TANKS SHALL BE FILLED WITH GRANULAR MATERIAL OR REMOVED.

14. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE A MINIMUM INSIDE DIAMETER OF 48 INCHES, AND SHALL BE CAST IN PLACE OR PRE-CAST REINFORCED CONCRETE.

15. ALL SANITARY MANHOLES, (AND STORM MANHOLES IN COMBINED SEWER AREAS), SHALL HAVE PRECAST "RUBBER BOOTS" THAT CONFORM TO ASTM C-923 FOR ALL PIPE CONNECTIONS. PRECAST SECTIONS SHALL CONSIST OF MODIFIED GROOVE TONGUE AND RUBBER GASKET TYPE JOINTS.

16. ALL ABANDONED SANITARY SEWERS SHALL BE PLUGGED AT BOTH ENDS WITH AT LEAST 2 FEET LONG NON-SHRINK CONCRETE OR MORTAR PLUG.

17. EXCEPT FOR FOUNDATION/FOOTING DRAINS PROVIDED TO PROTECT BUILDINGS, OR PERFORATED PIPES ASSOCIATED WITH VOLUME CONTROL FACILITIES, DRAIN TILES/FIELD TILES/UNDERDRAINS/PERFORATED PIPES ARE NOT ALLOWED TO BE CONNECTED TO OR TRIBUTARY TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS IN COMBINED SEWER AREAS. CONSTRUCTION OF NEW FACILITIES OF THIS TYPE IS PROHIBITED; AND ALL EXISTING DRAIN TILES AND PERFORATED PIPES ENCOUNTERED WITHIN THE PROJECT AREA SHALL BE PLUGGED OR REMOVED, AND SHALL NOT BE CONNECTED TO COMBINED SEWERS, SANITARY SEWERS, OR STORM SEWERS TRIBUTARY TO COMBINED SEWERS.

18. A BACKFLOW PREVENTER IS REQUIRED FOR ALL DETENTION BASINS TRIBUTARY TO COMBINED SEWERS. REQUIRED BACKFLOW PREVENTERS SHALL BE INSPECTED AND EXERCISED ANNUALLY BY THE PROPERTY OWNER TO ENSURE PROPER OPERATION, AND ANY NECESSARY MAINTENANCES SHALL BE PERFORMED TO ENSURE FUNCTIONALITY. IN THE EVENT OF A SEWER SURCHARGE INTO AN OPEN DETENTION BASIN TRIBUTARY TO COMBINED SEWERS, THE PERMITTEE SHALL ENSURE THAT CLEAN UP AND WASH OUT OF SEWAGE TAKES PLACE WITHIN 48 HOURS OF THE STORM EVENT.

E. EROSION AND SEDIMENT CONTROL

1. THE CONTRACTOR SHALL INSTALL THE EROSION AND SEDIMENT CONTROL DEVICES AS SHOWN ON THE APPROVED EROSION AND SEDIMENT CONTROL PLAN.

2. EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE FUNCTIONAL PRIOR TO HYDROLOGIC DISTURBANCE OF THE SITE.

3. ALL DESIGN CRITERIA, SPECIFICATIONS, AND INSTALLATION OF EROSION AND SEDIMENT CONTROL PRACTICES SHALL BE IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL.

4. A COPY OF THE APPROVED EROSION AND SEDIMENT CONTROL PLAN SHALL BE MAINTAINED ON THE SITE AT ALL TIMES.

5. INSPECTIONS AND DOCUMENTATION SHALL BE PERFORMED, AT A MINIMUM:
   a) UPON COMPLETION OF INITIAL EROSION AND SEDIMENT CONTROL MEASURES, PRIOR TO ANY SOIL DISTURBANCE.
   b) ONCE EVERY SEVEN (7) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT WITH GREATER THAN 0.5 INCH OF RAINFALL OR LIQUID EQUIVALENT PRECIPITATION.

6. SOIL DISTURBANCE SHALL BE CONDUCTED IN SUCH A MANNER AS TO MINIMIZE EROSION. IF STRIPPING, CLEARING, GRADING, OR LANDSCAPING ARE TO BE DONE IN PHASES, THE CO-PERMITTEE SHALL PLAN FOR APPROPRIATE SOIL EROSION AND SEDIMENT CONTROL MEASURES.

7. A STABILIZED MAT OF CRUSHED STONE MEETING THE STANDARDS OF THE ILLINOIS URBAN MANUAL SHALL BE INSTALLED AT ANY POINT WHERE TRAFFIC WILL BE ENTERING OR LEAVING A CONSTRUCTION SITE. SEDIMENT OR SOIL REACHING AN IMPROVED PUBLIC RIGHT-OF-WAY, STREET, ALLEY OR PARKING AREA SHALL BE REMOVED BY SCRAPING OR STREET CLEANING AS ACCUMULATIONS WARRANT AND TRANSPORTED TO A CONTROLLED SEDIMENT DISPOSAL AREA.

8. CONCRETE WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE ILLINOIS URBAN MANUAL AND SHALL BE INSTALLED PRIOR TO ANY ON SITE CONSTRUCTION ACTIVITIES INVOLVING CONCRETE.

9. MORTAR WASHOUT FACILITIES SHALL BE CONSTRUCTED IN ADDITION TO CONCRETE WASHOUT FACILITIES FOR ANY BRICK AND MORTAR BUILDING ENVELOPE CONSTRUCTION ACTIVITIES.

10. TEMPORARY DIVERSIONS SHALL BE CONSTRUCTED AS NECESSARY TO DIRECT ALL RUNOFF FROM HYDROLOGICALLY DISTURBED AREAS TO AN APPROPRIATE SEDIMENT TRAP OR BASIN. VOLUME CONTROL FACILITIES SHALL NOT BE USED AS TEMPORARY SEDIMENT BASINS.

11. DISTURBED AREAS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED SHALL BE STABILIZED WITH TEMPORARY OR PERMANENT MEASURES WITHIN SEVEN (7) DAYS.

12. ALL FLOOD PROTECTION AREAS AND VOLUME CONTROL FACILITIES SHALL, AT A MINIMUM, BE PROTECTED WITH A DOUBLE-ROW OF SILT FENCE (OR EQUIVALENT).

13. VOLUME CONTROL FACILITIES SHALL NOT BE CONSTRUCTED UNTIL ALL OF THE CONTRIBUTING DRAINAGE AREA HAS BEEN STABILIZED.

14. SOIL STOCKPILES SHALL, AT A MINIMUM, BE PROTECTED WITH PERIMETER SEDIMENT CONTROLS. SOIL STOCKPILES SHALL NOT BE PLACED IN FLOOD PROTECTION AREAS OR THEIR BUFFERS.

15. EARTHEN EMBANKMENT SIDE SLOPES SHALL BE STABILIZED WITH APPROPRIATE EROSION CONTROL BLANKET.

16. STORM SEWERS THAT ARE OR WILL BE FUNCTIONING DURING CONSTRUCTION SHALL BE PROTECTED BY APPROPRIATE SEDIMENT CONTROL MEASURES.

17. THE CONTRACTOR SHALL EITHER REMOVE OR REPLACE ANY EXISTING DRAIN TILES AND INCORPORATE THEM INTO THE DRAINAGE PLAN FOR THE DEVELOPMENT. DRAIN TILES CANNOT BE TRIBUTARY TO A SANITARY OR COMBINED SEWER. DRAIN TILES ALLOWED IN COMBINED SEWER AREA FOR GREEN INFRASTRUCTURE PRACTICES.

18. IF DEWATERING SERVICES ARE USED, ADJOINING PROPERTIES AND DISCHARGE LOCATIONS SHALL BE PROTECTED FROM EROSION AND SEDIMENTATION. DEWATERING SYSTEMS SHOULD BE INSPECTED DAILY DURING OPERATIONAL PERIODS. THE SITE INSPECTOR MUST BE PRESENT AT THE COMMENCEMENT OF DEWATERING ACTIVITIES.

19. THE CONTRCTOR SHALL BE RESPONSIBLE FOR TRENCH DEWATERING AND EXCAVATION FOR THE INSTALLATION OF SANITARY SEWERS, STORM SEWERS, WATERMAINS AS WELL AS THEIR SERVICES AND OTHER APPURTENANCES. ANY TRENCH DEWATERING, WHICH CONTAINS SEDIMENT SHALL PASS THROUGH A SEDIMENT SETTLING POND OR EQUALLY EFFECTIVE SEDIMENT CONTROL DEVICE. ALTERNATIVES MAY INCLUDE DEWATERING INTO A SUMP PIT, FILTER BAG OR EXISTING VEGETATED UPSLOPE AREA. SEDIMENT LADEN WATERS SHALL NOT BE DISCHARGE TO WATERWAYS, FLOOD PROTECTION AREAS OR THE COMBINED SEWER SYSTEM.

20. ALL PERMANENT EROSION CONTROL PRACTICES SHALL BE INITIATED WITHIN SEVEN (7) DAYS FOLLOWING THE COMPLETION OF SOIL DISTURBING ACTIVITIES.

21. ALL EROSION AND SEDIMENT CONTROL MEASURES SHALL BE MAINTAINED AND REPAIRED AS NEEDED ON A YEAR-ROUND BASIS DURING CONSTRUCTION AND ANY PERIODS OF CONSTRUCTION SHUTDOWN UNTIL PERMANENT STABILIZATION IS ACHIEVED.

22. ALL TEMPORARY EROSION AND SEDIMENT CONTROL MEASURES SHALL BE REMOVED WITHIN THIRTY (30) DAYS AFTER PERMANENT SITE STABILIZATION.

23. THE EROSION AND SEDIMENT CONTROL MEASURES SHOWN ON THE PLANS ARE THE MINIMUM REQUIREMENTS. ADDITIONAL MEASURES MAY BE REQUIRED, AS DIRECTED BY THE ENGINEER, SITE INSPECTOR, OR MWRD.

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BID SET
November 12, 2026

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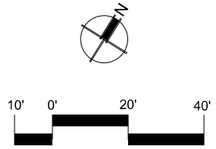
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sheet name
General Notes

sheet number
NOT-02

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LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE THE COMPILATION OF FIELD LOCATIONS AND UTILITY ATLASES



	ELEVATION BENCHMARKS DATUM:CITY OF EVANSTON DATUM	
NO.	DESCRIPTION	ELEV.
BM 39	CITY OF EVANSTON BM #39 ROD WITH CAP	597.08
	ON NORTH SIDE OF SIMPSON ST. APPROX.	
	±75' WEST OF DODGE AV.	
OSBM	SQUARE CUT ON NORTHWEST CORNER OF WALL	604.10
23-1	ON SOUTHWEST SIDE OF BRIDGE OF BRIDGE	
	ST. OVER NORTH SHORE CHANNEL	
OSBM	TAG BOLT OF HYDRANT AT SOUTHEAST	601.28
23-2	CORNER MCCORMICK BLVD. & BRIDGE ST.	
OSBM	SQUARE CUT ON NORTHEAST CORNER OF	599.17
23-3	TRAFFIC HANDHOLE ON SE SIDE OF	
	MCCORMICK BLVD. APPROX. ±300' SOUTH OF	
	BRIDGE ST.	

UTILITY NOTES:

LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE THE COMPILATION OF FIELD LOCATIONS AND THE FOLLOWING UTILITY ATLASES PROVIDED BY THE UTILITY

-CITY OF EVANSTON: WATER ATLAS (GIS)
-DATA RECEIVED: 05/05/2023

-CITY OF EVANSTON: STORM ATLAS (GIS)
-DATA RECEIVED: 05/05/2023

-CITY OF EVANSTON: SANITARY ATLAS (GIS)
-DATA RECEIVED: 05/05/2023

LOCATIONS OF EXISTING UTILITIES SHOWN HEREON ARE THE COMPILATION OF FIELD LOCATIONS AND UTILITY ATLASES

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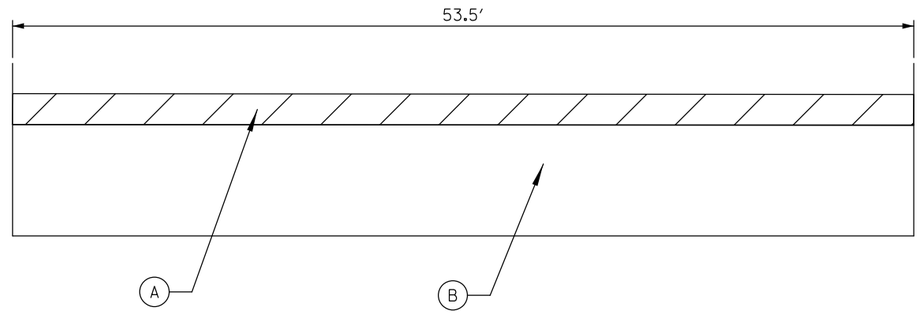
sheet name
Benchmark, Alignment and Ties Sheet

sheet number
ATB-01

LEGEND

(A) – HOT MIX ASPHALT SURFACE REMOVAL,
3.5" TO 4.5" DEPTH
PAID FOR AS HOT MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH.

(B) – EXISTING GRANULAR BASE COURSE - 7" DEPTH



EXISTING PARKING LOT - TYPICAL SECTION

N.T.S.

LEGEND

(1) – AGGREGATE BASE COURSE 12" DEPTH, CA-7, WASHED FREE OF FINES

(2) – AGGREGATE BASE COURSE 2" & VARIES (INCIDENTAL TO CONCRETE CURB AND GUTTER)

(3) – CONCRETE RIBBON, PCC PAVEMENT 8" DEPTH PAID FOR AS CONCRETE GUTTER (SPECIAL)

(4) – AGGREGATE BASE COURSE 3-3/8" DEPTH, CA-7, WASHED FREE OF FINES

(5) – GEOTECHNICAL FABRIC FOR GROUND STABILIZATION

(6) – 1-1/2" DEPTH CA-16 BASE COURSE (WASHED AND FREE OF FINES)

(7) – 3-1/8 " BRICK PAVERS, PERMEABLE

(8) – CA-16 JOINT MATERIAL (WASHED AND FREE OF FINES) (INCIDENTAL TO PERMEABLE PAVERS)

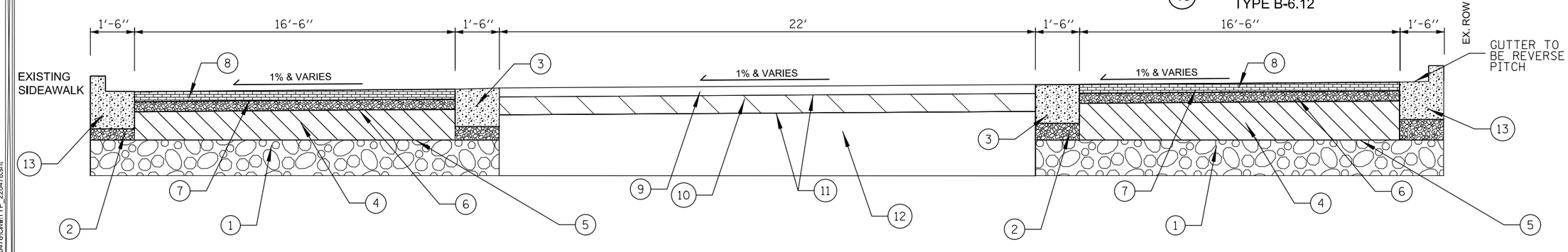
(9) – HMA SURFACE COURSE, MIX "D", N50, 1.5"

(10) – HMA BINDER COURSE, IL-19.0 N50, 2.5"

(11) – BITUMINOUS MATERIALS (TACK COAT)

(12) – EXISTING BASE COURSE

(13) – COMB. CONCRETE CURB AND GUTTER, TYPE B-6.12



PROPOSED PARKING LOT - TYPICAL SECTION

N.T.S.

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MEK	JM	MLM

issue date
November 12, 2026

sheet name
Typical Section

sheet number
TYP-01

SUMMARY OF QUANTITIES

S.P.	CODE NUMBER	ITEM	UNIT	PARKING LOT	LAUNCH	TOTAL QUANTITY
	20200100	EARTH EXCAVATION	CU YD	33	840	873
	20201200	REMOVAL AND DISPOSAL OF UNSUITABLE MATERIAL	CU YD	4	199	203
	20400100	BORROW EXCAVATION	CU YD	0	550	550
	20900110	POROUS GRANULAR BACKFILL	CU YD	0	1150	1150
	21001000	GEOTECHNICAL FABRIC FOR GROUND STABILIZATION	SQ YD	860	0	860
	35101500	AGGREGATE BASE COURSE, TYPE B	CU YD	429	0	429
	40600290	BITUMINOUS MATERIALS (TACK COAT)	POUND	58	0	58
	40603080	HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50	TON	120	0	120
	40603535	POLYMERIZED HOT-MIX ASPHALT SURFACE COURSE, MIX "D", N50	TON	72	0	72
	42300500	PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 9 INCH	SQ YD	60	0	60
	42400200	PORTLAND CEMENT CONCRETE SIDEWALK 5 INCH	SQ FT	2925	0	2925
	42400800	DETECTABLE WARNINGS	SQ FT	45	0	45
	44000100	PAVEMENT REMOVAL	SQ YD	1100	0	1100
	44000200	DRIVEWAY PAVEMENT REMOVAL	SQ YD	60	0	60
	44000500	COMBINATION CURB AND GUTTER REMOVAL	FOOT	1025	0	1025
	44200934	CLASS B PATCHES, TYPE II, 8 INCH	SQ YD	18	0	18
	50200100	STRUCTURE EXCAVATION	CU YD	0	1034	1034
	50201121	COFFERDAM (TYPE 2) (LOCATION - 1)	EACH	0	1	1
	50300225	CONCRETE STRUCTURES	CU YD	0	455	455
	50300300	PROTECTIVE COAT	SQ YD	0	761	761
	50500505	STUD SHEAR CONNECTORS	EACH	0	1035	1035
	50800205	REINFORCEMENT BARS, EPOXY COATED	POUND	0	54600	54600
	51201400	FURNISHING STEEL PILES HP10X42	FOOT	0	1285	1285
	51202305	DRIVING PILES	FOOT	0	1285	1285
	52200015	PERMANENT SHEET PILING	SQ FT	0	18325	18325
	59100100	GEOCOMPOSITE WALL DRAIN	SQ YD	0	130	130
	60146304	PIPE UNDERDRAINS FOR STRUCTURES 4"	FOOT	0	345	345
	60200405	CATCH BASINS, TYPE A, 4'-DIAMETER, TYPE 4 FRAME AND GRATE	EACH	1	0	1
	60406000	FRAMES AND LIDS, TYPE 1, OPEN LID	EACH	2	0	2
	60406100	FRAMES AND LIDS, TYPE 1, CLOSED LID	EACH	4	0	4
	60603800	COMBINATION CONCRETE CURB AND GUTTER, TYPE B-6.12	FOOT	1030	0	1030
	67100100	MOBILIZATION	L SUM	1	1	2
	72000100	SIGN PANEL - TYPE 1	SQ FT	4	0	4
	72900100	METAL POST - TYPE A	FOOT	4	0	4
	78000100	THERMOPLASTIC PAVEMENT MARKING - LETTERS AND SYMBOLS	SQ FT	44	0	44
	78000200	THERMOPLASTIC PAVEMENT MARKING - LINE 4"	FOOT	1200	0	1200
	80400100	ELECTRIC SERVICE INSTALLATION	EACH	1	1	2
*	80400200	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1	1	2
	81028200	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	38	38	76
	81028220	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	230	230	460
	81028390	UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	0	215	215
	81028730	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.	FOOT	255	1055	1310
	81400730	HANDHOLE, COMPOSITE CONCRETE	EACH	0	5	5
	81702110	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	805	1325	2130
	81702130	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	0	1350	1350
	81702180	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 3/0	FOOT	128	128	256
	81702210	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C 300MCM	FOOT	928	928	1856
	82500370	LIGHTING CONTROLLER, BASE MOUNTED, 240VOLT, 200AMP	EACH	1	1	2
	83600200	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	21	0	21

S.P.	CODE NUMBER	ITEM	UNIT	PARKING LOT	LAUNCH	TOTAL QUANTITY
*	X0321809	PERMANENT GROUND ANCHOR	EACH	0	18	18
*	X0326862	STRUCTURES TO BE ADJUSTED	EACH	2	0	2
*	X1400088	POWER PEDESTALS	EACH	0	3	3
*	X1400397	RECEPTACLE OUTLET	EACH	0	2	2
*	X1700066	POTHOLING	EACH	1	1	2
*	X3510416	AGGREGATE BASE COURSE, TYPE CA-16	TON	75	0	75
*	X4240440	PORTLAND CEMENT CONCRETE SIDEWALK 6 INCH (SPECIAL)	SQ FT	0	2130	2130
*	X4401198	HOT-MIX ASPHALT SURFACE REMOVAL, VARIABLE DEPTH	SQ YD	2100	0	2100
*	X6062400	CONCRETE GUTTER (SPECIAL)	FOOT	420	0	420
*	X6640104	FENCE REMOVAL	FOOT	0	325	325
*	X7010216	TRAFFIC CONTROL AND PROTECTION, (SPECIAL)	L SUM	1	0	1
*	X8000002	EV CHARGING STATION, COMPLETE	L SUM	0	1	1
*	X8040310	ELECTRICAL SERVICE DISCONNECT	EACH	1	1	2
*	X8140105	HANDHOLE (SPECIAL)	EACH	0	1	1
*	X8250500	LIGHTING UNIT COMPLETE (SPECIAL)	EACH	2	0	2
*	XX007259	SIGN AND POST REMOVAL	EACH	3	0	3
*	XX009395	BRICK PAVERS, PERMEABLE	SQ FT	7700	0	7700
*	Z0013798	CONSTRUCTION LAYOUT	L SUM	1	1	2
*		ALLOWANCE FOR LAUNCH	UNIT	0	1	1
*		ALLOWANCE FOR PARKING LOT	UNIT	1	0	1
*		ARCHITECTURAL CONCRETE FORMLINER	SQ FT	0	2930	2930
*		ARCHITECTURAL CONCRETE GRAFFITI COATING	SQ FT	0	2930	2930
*		ARCHITECTURAL CONCRETE STAINING	SQ FT	0	2930	2930
*		CANOE/KAYAK RAILING	FOOT	0	47	47
*		CHAIN LINK FENCE	FOOT	0	12	12
*		CONCRETE STAMPS - ANIMAL TRACKS	EACH	0	4	4
*		DECIDUOUS SHRUBS	EACH	0	30	30
*		DEICER	EACH	0	3	3
*		EROSION CONTROL COMPLETE	LSUM	1	1	2
*		FLOATING DOCK LAUNCH	LSUM	0	1	1
*		LANDSCAPE MAINTENANCE CONTRACT - 3 YEARS	LSUM	0	1	1
*		LIMESTONE BLOCK BENCHES	EACH	0	5	5
*		LIMESTONE BOULDER SEATING	EACH	0	6	6
*		PERENNIALS/GROUNDCOVER	EACH	0	292	292
*		PLANTING SOIL MIX	CU YD	160	720	880
*		POST MOUNTED SIGNS - ANIMAL INTERPRETATION	EACH	0	4	4
*		POST MOUNTED SIGNS - RULES AND INTERPRETIVE	EACH	0	2	2
*		RAILING SYSTEM	FOOT	0	518	518
*		RAILING SYSTEM WITH HANDRAIL	FOOT	0	64	64
*		SEED MIX AND BLANKET	SQ FT	2760	12662	15422
*		SHADE TREES	EACH	8	2	10
*		SHREDDED HARDWOOD BARK MULCH	CU YD	26	118	144
*		TOPSOIL, 4"	CU YD	7	0	7
*		TREE PROTECTION FENCING	EACH	0	4	4
*		TREE REMOVAL	EACH	1	29	30
*		TREE ROOT PRUNING	LSUM	0	1	1
*		TREE TRANSPLANT	EACH	0	1	1
*		UNDERSTORY TREES	EACH	0	14	14

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City of Evanston

project name
LADD ARBORETUM
LAUNCH

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Issue / revision	date	description
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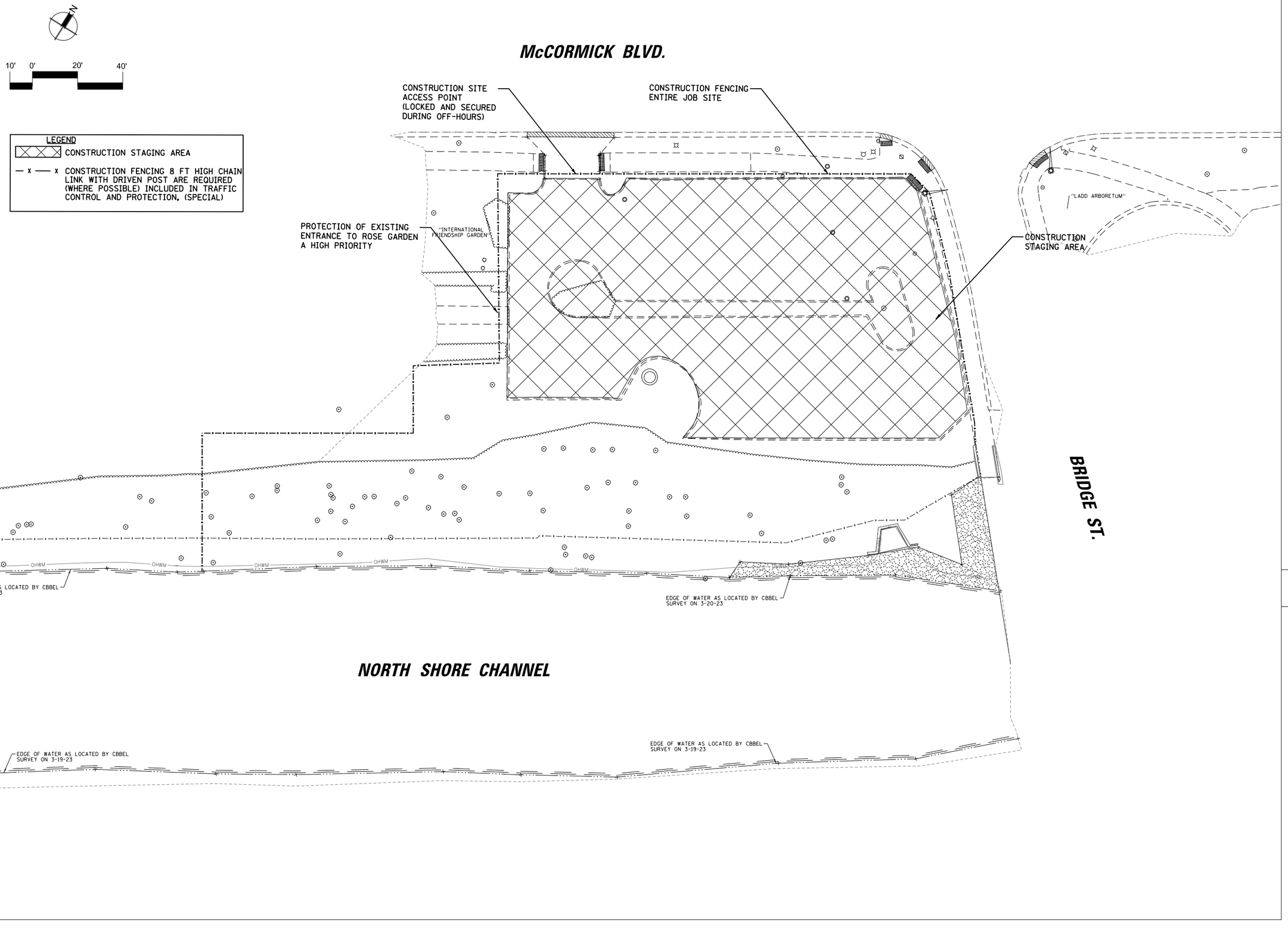
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November 12, 2026

sheet name
Summary of Quantities

sheet number
SOQ-01

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issue date
November 12, 2026

sheet name
Staging Plan

sheet number
STG-01

LEGEND

CONCRETE WASHOUT

CONSTRUCTION FENCING

SC — SILT CURTAIN

IF — INLET FILTER

10' 0' 20' 40'

STABLIZED CONSTRUCTION ENTRANCE

TEMPOARARY CONSTRUCTION FENCE

CONCRETE WASHOUT

COFFERDAM

SILT CURTAIN

CB 816
RIM=598.92
INV NW 12" RCP=595.46
TOP OF WATER=595.46

VV 104
RIM=599.11
TOP NW/SE 12" DIP=591.71
(24" ATLAS)

CB 103
RIM=598.42
INV NE 8" DIP=595.02
CONNECTION PER ATLAS
INV SE 8" DIP=595.03

MH 110
RIM=599.89
TOP NW/SE 2" COPPER=595.04
(4" ATLAS)

STM 105
RIM=599.09
INV N 48" RCP=582.54
INV NE 12" RCP=592.59
INV SE 64"=582.54

MWRD (ATLAS)
NOT LOCATED

CB 109
RIM=599.44
INV NE 12" DIP=595.60
INV SW 12" DIP=595.67
TOP OF WATER=595.60

CB 2029
RIM=599.38
INV W 8" RCP=595.08
TOP OF WATER=595.08
BTM=592.88

M.W.R.D. 4'-6" SEWER

STM 106
RIM=598.95
INV NE 12" DIP=594.57
INV NW/SE 54"=582.45
SW CONNECTION PER ATLAS

CB 114
RIM=598.77
INV NE 12" RCP=595.67
INV SE 12" RCP=596.07
INV SW 12" RCP=595.65

CB 108
RIM=598.98
INV SW 12" RCP=596.05

MWRD (ATLAS)
NOT LOCATED

30" M.W.R.D. SEWER

CB 107
RIM=598.74
INV W 12" RCP=596.04

INL 102
RIM=598.28
INV SW 8" DIP=595.08

EVANSTON CONDUIT

4" PVC CULVERT
INV=579.33

54" RCP CULVERT
INV=582.69

STEEL CASING

60" N.W.C. WATERMAIN

24" N.W.C.

M.W.R.D. 22'-0" DIA. TUNNEL

RCN ASTOUND

CTV

SCHEDULE OF CONSTRUCTION ACTIVITIES

TASK 1	TASK 2	TASK 3	TASK 4	TASK 5
INSTALL TEMPORARY EROSION AND SEDIMENT CONTROL PRACTICES	SITE PREPARATION EARTHWORK/EXCAVATION	INSTALLATION OF UTILITIES/VOLUME CONTROL FACILITIES	DISPOSAL OF CONSTRUCTION WASTE	REMOVAL OF TEMPORARY SOIL EROSION AND SEDIMENT CONTROL MEASURES
← MAINTENANCE OF SOIL EROSION AND SEDIMENT CONTROL PRACTICIES →				

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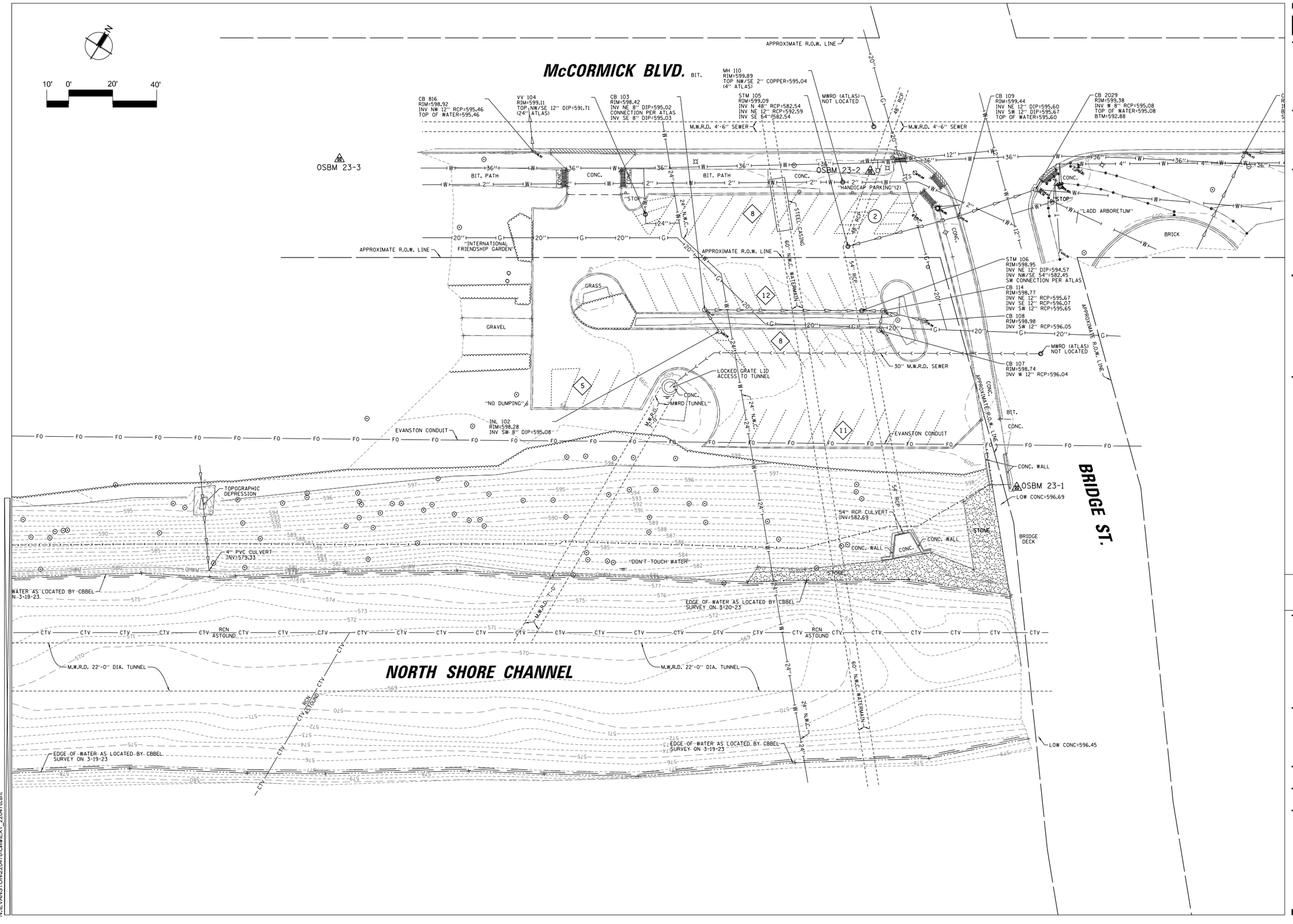
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issue date
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sheet name
Soil Erosion and Sediment Control Protection Plan

sheet number
SESC-01



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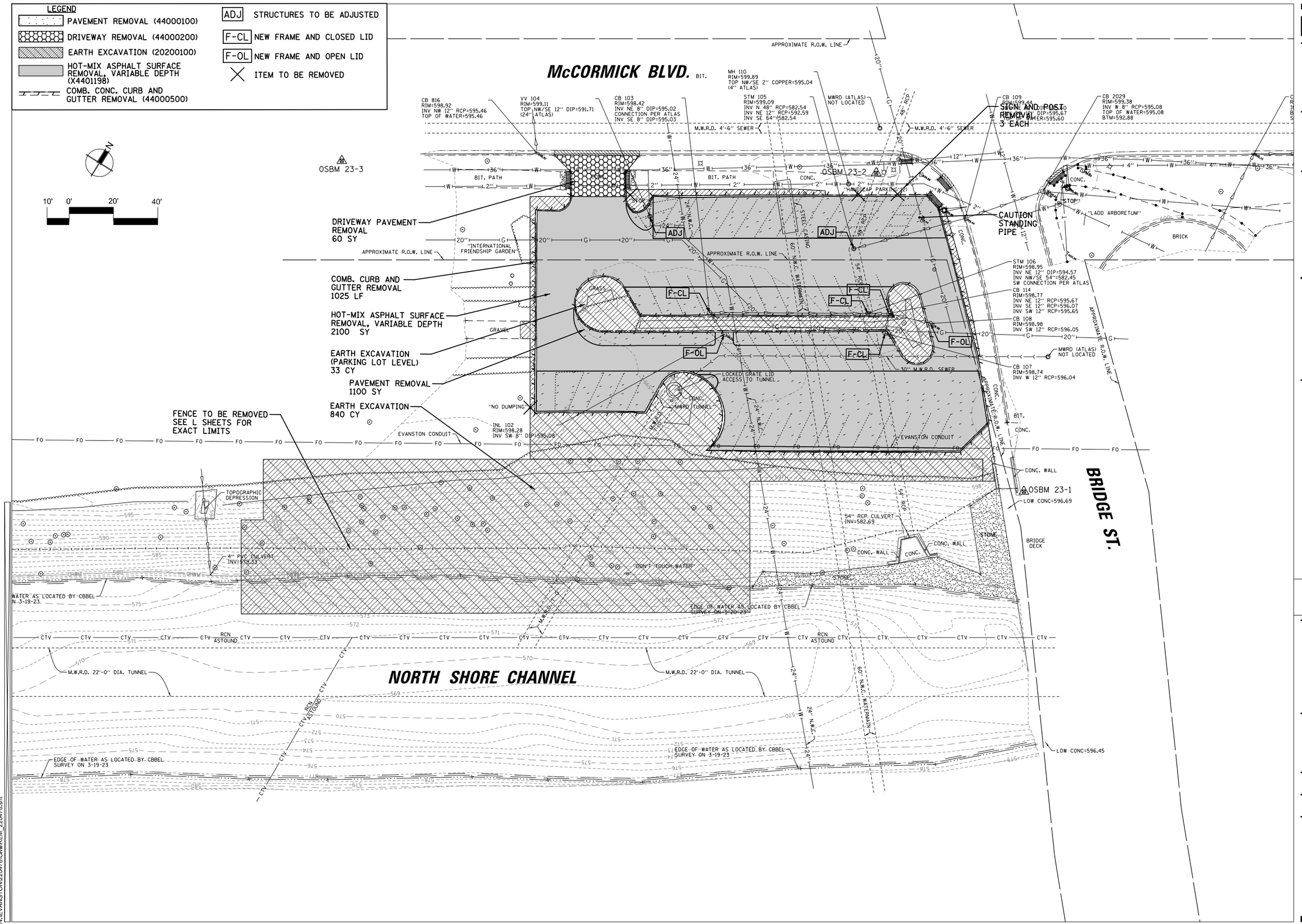
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sheet name
Existing Condition Plans

sheet number
EXT-01

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issue date
November 12, 2026

sheet name
Removal Plans

sheet number
REM-01

LEGEND

- HOT-MIX ASPHALT SURFACE COURSE, MIX "D", IL-9.5, N50 1-1/2" (40603535)
  HOT-MIX ASPHALT BINDER COURSE, IL-19.0, N50 2-3/4" (40603080)
- PORTLAND CEMENT CONCRETE SIDEWALK, 5 INCH (42400200)
- PORTLAND CEMENT CONCRETE DRIVEWAY PAVEMENT, 9 INCH (42300500)
- BRICK PAVERS, PERMEABLE (XX009395)
- DETECTABLE WARNINGS (42400800)

NOTE
ALL INLETS AND CATCH BASINS TO HAVE INLET FILTERS.

10' 0' 20' 40'

PORTLAND CEMENT CONCRETE DRIVEWAY 9 INCH
60 SY

THERMO PAVEMENT MARKING - L&S
31 SF

CONCRETE CURB GUTTER (SPECIAL)
420 LF (ENTIRE SHEET)

EX. CATCH BASIN TO BE ADJUSTED WITH NEW FRAME AND LID

COMB. CONCRETE CURB AND GUTTER B-6.12
1030 LF (ENTIRE SHEET)

DETECTABLE WARNINGS WITH DEPRESSED CURB
15 SF

HOT-MIX ASPHALT PAVEMENT SECTION
7700 SF

BRICK PAVERS, PERMEABLE (ENTIRE SHEET)
7700 SF

PORTLND CEMENT CONCRETE SIDEWALK, - 5 INCH
2925 SF

HAND DIGGING NEAR THE EXISTING FIBER OPTIC LINE (EXTRA CAUTION IS TO BE TAKEN)

2 ADA SIGNS AND POSTS

DEPRESSED CURB FOR ADA ACCESS

THERMO PAVEMENT MARKING - L&S
13 SF

THERMO PAVEMENT MARKING - 4"
1200 LF

EX. CATCH BASIN TO BE ADJUSTED WITH NEW FRAME AND LID

CATCH BASIN, TY A, 4' DIA.
TY 4 F&G
RIM = 599.44
INV = 595.92

ADA SIGN AND POST
2 EACH

DETECTABLE WARNINGS WITH DEPRESSED CURB
30 SF

EROSION CONTROL BLANKET TO BE INSTALL AS PART OF LANDSCAPING INSTALLATION

SEE STRUCTURAL SHEETS FOR RAMP AND RETAINWALL DETAILS

STORAGE CONTAINERS PROVIDED BY OTHERS

SEE FLOATING DOCK SHEETS

DE-ICER
3 EACH

McCORMICK BLVD.

BRIDGE ST.

NORTH SHORE CHANNEL

NOTES:

1. THE MWRD SHALL HAVE 24 HOUR A DAY UNRESTRICTED ACCESS TO ALL MWRD STRUCTURES/SEWERS/FACILITIES.
2. NO DEBRIS SHALL ENTER MWRD STRUCTURES/SEWERS/FACILITIES/ WATERWAYS.
3. ALL ACCESS HATCHES/MANHOLE COVERS ON MWRD STRUCTURES/ MANHOLES WITHIN THE PROJECT AREA SHALL NOT BE BURIED/ COVERED.

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Proposed Plans

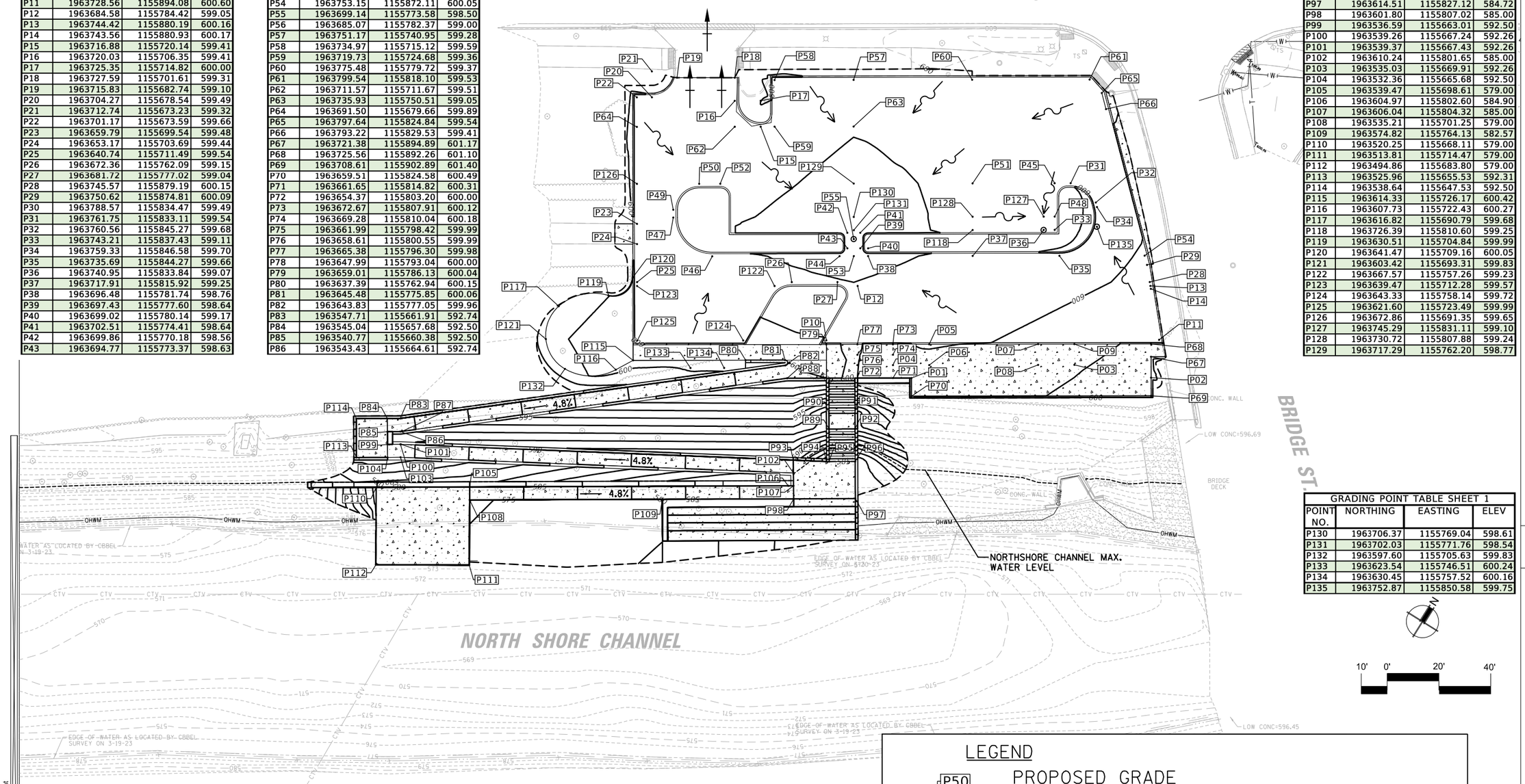
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PRO-01

GRADING POINT TABLE SHEET 1			
POINT NO.	NORTHING	EASTING	ELEV
P01	1963665.44	1155820.86	600.38
P02	1963714.54	1155899.17	601.29
P03	1963703.08	1155871.47	600.94
P04	1963665.89	1155812.16	600.24
P05	1963680.10	1155819.77	599.88
P06	1963673.31	1155824.04	600.38
P07	1963702.42	1155855.36	600.31
P08	1963695.64	1155859.61	600.80
P09	1963709.85	1155867.22	600.82
P10	1963660.36	1155785.31	599.52
P11	1963728.56	1155894.08	600.60
P12	1963684.58	1155784.42	599.05
P13	1963744.42	1155880.19	600.16
P14	1963743.56	1155880.93	600.17
P15	1963716.88	1155720.14	599.41
P16	1963720.03	1155706.35	599.41
P17	1963725.35	1155714.82	600.00
P18	1963727.59	1155701.61	599.31
P19	1963715.83	1155682.74	599.10
P20	1963704.27	1155678.54	599.49
P21	1963712.74	1155673.23	599.32
P22	1963701.17	1155673.59	599.66
P23	1963659.79	1155699.54	599.48
P24	1963653.17	1155703.69	599.44
P25	1963640.74	1155711.49	599.54
P26	1963672.36	1155762.09	599.15
P27	1963681.72	1155777.02	599.04
P28	1963745.57	1155879.19	600.15
P29	1963750.62	1155874.81	600.09
P30	1963788.57	1155834.47	599.49
P31	1963761.75	1155833.11	599.54
P32	1963760.56	1155845.27	599.68
P33	1963743.21	1155837.43	599.11
P34	1963759.33	1155846.58	599.70
P35	1963735.69	1155844.27	599.66
P36	1963740.95	1155833.84	599.07
P37	1963717.91	1155815.92	599.25
P38	1963696.48	1155781.74	598.76
P39	1963697.43	1155777.60	598.64
P40	1963699.02	1155780.14	599.17
P41	1963702.51	1155774.41	598.64
P42	1963699.86	1155770.18	598.56
P43	1963694.77	1155773.37	598.63

GRADING POINT TABLE SHEET 1			
POINT NO.	NORTHING	EASTING	ELEV
P44	1963690.64	1155772.42	598.75
P45	1963758.46	1155827.87	599.48
P46	1963664.54	1155730.79	599.20
P47	1963669.28	1155710.11	599.36
P48	1963747.55	1155834.71	599.14
P49	1963671.82	1155708.52	599.39
P50	1963685.61	1155711.68	599.40
P51	1963741.64	1155801.04	599.19
P52	1963689.93	1155718.58	599.31
P53	1963693.56	1155777.07	598.70
P54	1963753.15	1155872.11	600.05
P55	1963699.14	1155773.58	598.50
P56	1963685.07	1155782.37	599.00
P57	1963751.17	1155740.95	599.28
P58	1963734.97	1155715.12	599.59
P59	1963719.73	1155724.68	599.36
P60	1963775.48	1155779.72	599.37
P61	1963799.54	1155818.10	599.53
P62	1963711.57	1155711.67	599.51
P63	1963735.93	1155750.51	599.05
P64	1963691.50	1155679.66	599.89
P65	1963797.64	1155824.84	599.54
P66	1963793.22	1155829.53	599.41
P67	1963721.38	1155894.89	601.17
P68	1963725.56	1155892.26	601.10
P69	1963708.61	1155902.89	601.40
P70	1963659.51	1155824.58	600.49
P71	1963661.65	1155814.82	600.31
P72	1963654.37	1155803.20	600.00
P73	1963672.67	1155807.91	600.12
P74	1963669.28	1155810.04	600.18
P75	1963661.99	1155798.42	599.99
P76	1963658.61	1155800.55	599.99
P77	1963665.38	1155796.30	599.98
P78	1963647.99	1155793.04	600.00
P79	1963659.01	1155786.13	600.04
P80	1963637.39	1155762.94	600.15
P81	1963645.48	1155775.85	600.06
P82	1963643.83	1155777.05	599.96
P83	1963547.71	1155661.91	592.74
P84	1963545.04	1155657.68	592.50
P85	1963540.77	1155660.38	592.50
P86	1963543.43	1155664.61	592.74

GRADING POINT TABLE SHEET 1			
POINT NO.	NORTHING	EASTING	ELEV
P87	1963543.86	1155665.12	592.74
P88	1963639.98	1155780.26	599.96
P89	1963631.91	1155804.32	592.50
P90	1963637.02	1155801.12	592.50
P91	1963642.34	1155809.62	592.50
P92	1963637.26	1155812.82	592.50
P93	1963614.41	1155798.99	585.00
P94	1963620.73	1155810.16	585.00
P95	1963621.27	1155811.00	585.00
P96	1963626.62	1155819.51	585.00
P97	1963614.51	1155827.12	584.72
P98	1963601.80	1155807.02	585.00
P99	1963536.59	1155663.01	592.50
P100	1963539.26	1155667.24	592.26
P101	1963539.37	1155667.43	592.26
P102	1963610.24	1155801.65	585.00
P103	1963535.03	1155669.91	592.26
P104	1963532.36	1155665.68	592.50
P105	1963539.47	1155698.61	579.00
P106	1963604.97	1155802.60	584.90
P107	1963606.04	1155804.32	585.00
P108	1963535.21	1155701.25	579.00
P109	1963574.82	1155764.13	582.57
P110	1963520.25	1155668.11	579.00
P111	1963513.81	1155714.47	579.00
P112	1963494.86	1155683.80	579.00
P113	1963525.96	1155655.53	592.31
P114	1963538.64	1155647.53	592.50
P115	1963614.33	1155726.17	600.42
P116	1963607.73	1155722.43	600.27
P117	1963616.82	1155690.79	599.68
P118	1963726.39	1155810.60	599.25
P119	1963630.51	1155704.84	599.99
P120	1963641.47	1155709.16	600.05
P121	1963603.42	1155693.31	599.83
P122	1963667.57	1155757.26	599.23
P123	1963639.47	1155712.28	599.57
P124	1963643.33	1155758.14	599.72
P125	1963621.60	1155723.49	599.99
P126	1963672.86	1155691.35	599.65
P127	1963745.29	1155831.11	599.10
P128	1963730.72	1155807.88	599.24
P129	1963717.29	1155762.20	598.77

GRADING POINT TABLE SHEET 1			
POINT NO.	NORTHING	EASTING	ELEV
P130	1963706.37	1155769.04	598.61
P131	1963702.03	1155771.76	598.54
P132	1963597.60	1155705.63	599.83
P133	1963623.54	1155746.51	600.24
P134	1963630.45	1155757.52	600.16
P135	1963752.87	1155850.58	599.75



LEGEND

- P50 — PROPOSED GRADE (SEE TABLE FOR DATA)
- DRAINAGE FLOW LINE
- 100-YEAR OVERLAND FLOW ROUTE
- NORTHSHORE CHANNEL MAXIMUM WATER LEVEL

10' 0' 20' 40'

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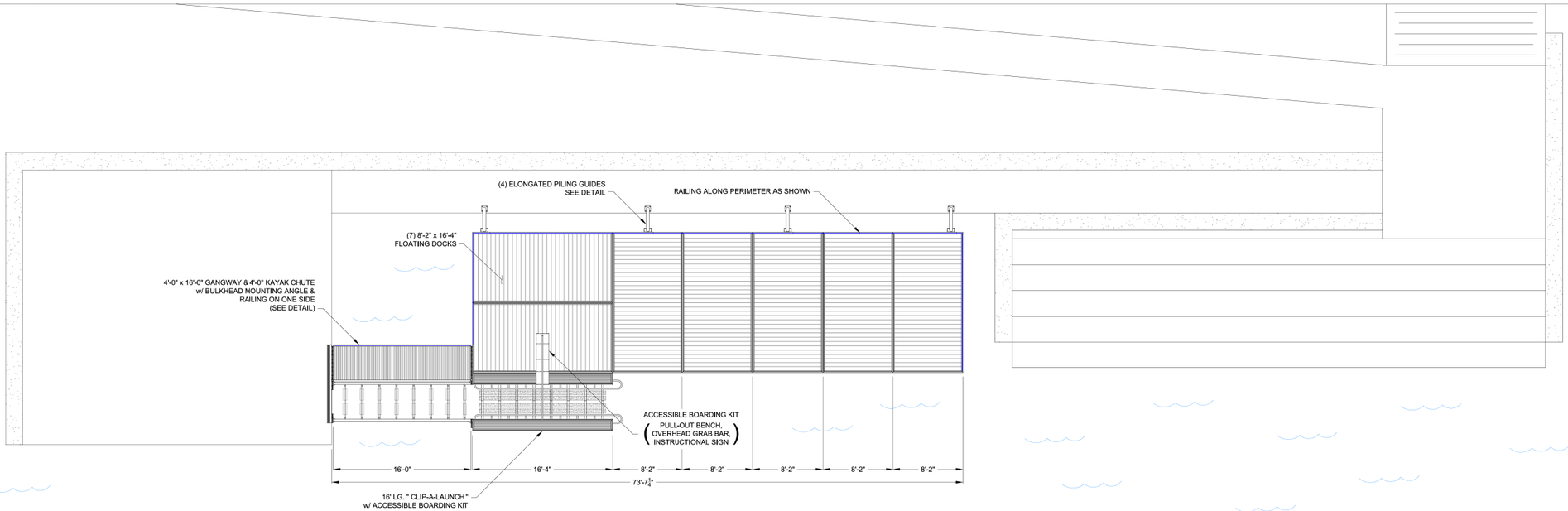
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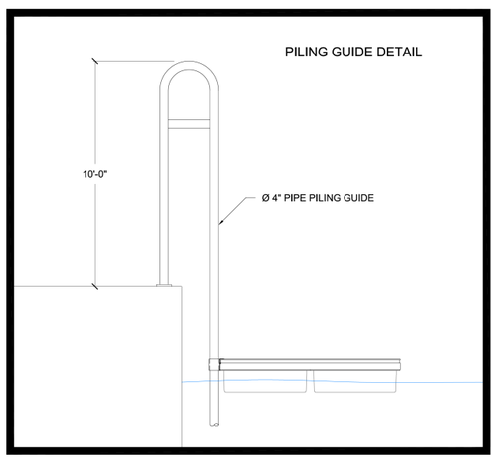
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November 12, 2026

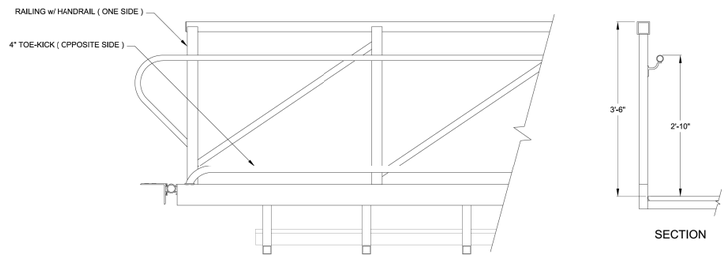
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Grading Plans

sheet number
GRA-01

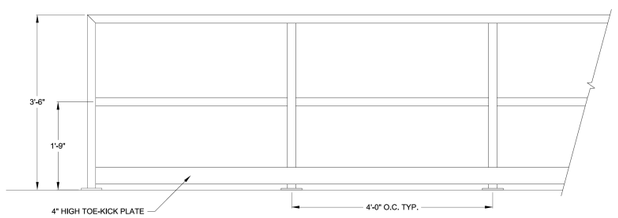
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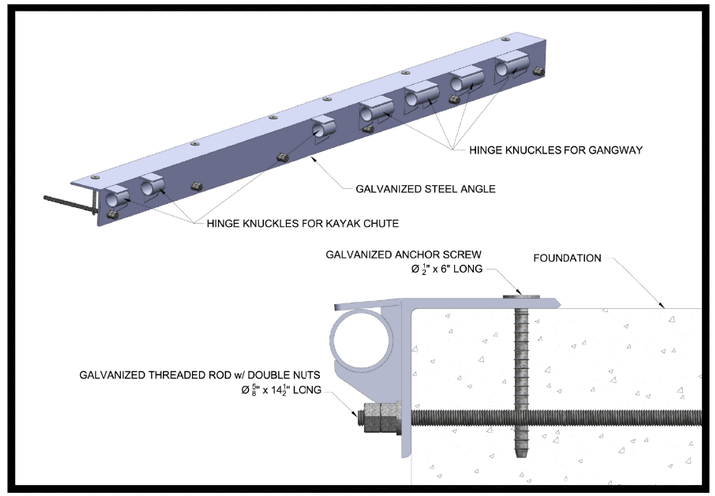




GANGWAY ELEVATION



SAFETY RAILING DETAIL



DRAWN BY SAB	DATE 9/27/2026	BOARDSAFE Board-Safe 604 Crisscross Road Fleetwood, PA 19522	
DETAILED BY SAB	DATE 9/27/2026		
MFG. APPROVAL	DATE	MATERIAL Aluminum	DESCRIPTION ADAPTIVE KAYAK LAUNCH FLOATING DOCK SYSTEM LADD ARBORETUM LAUNCH EVANSTON, IL
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE ENGLISH ☑ METRIC ☐	THIRD ANGLE PROJECTION	CONFIDENTIAL PROPERTY OF BOARDSAFE DOCKS, NOT TO BE DISCLOSED TO OTHERS, REPRODUCED OR USED FOR ANY PURPOSES EXCEPT AS AUTHORIZED IN WRITING BY AN AUTHORIZED OFFICAL OF BOARDSAFE, IT MUST BE RETURNED TO BOARDSAFE ON DEMAND, ON COMPLETION OF ORDER, OR OTHER PURPOSE FOR WHICH IT IS LENT.	SIZE D DRAWING NO. / FILE NAME A-40800.dwg
UNLESS OTHERWISE SPECIFIED TOLERANCES ARE .xx ± .02 .xxx ± .010 .xxxx ± .0010 ANGLES ± 2°		© 2024 Northeast Product & Services, Inc. All rights reserved. This drawing is protected by U.S. and International copyright laws. Reproduction and distribution of this drawing without written permission of the Northeast Products and Services, Inc. (BoardSafe Docks) is strictly prohibited.	SCALE NONE SHEET 1.2 REV 5

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November 12, 2026

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Floating Dock Detail

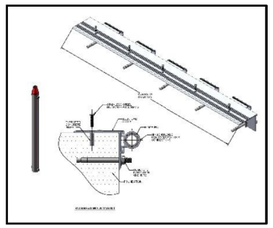
sheet number
DET-01

11/10/2026
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Bulkhead Mounting Angle Kit:

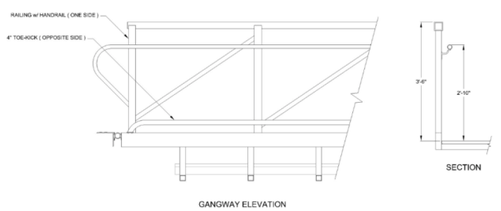
- For attachment of gangway to bulkhead.
- Steel angle with integrated attachment of hinges.
- Hinges are to be mechanically attached
- 1 ¼” schedule 40 pipe hinge pins with stainless steel hardware





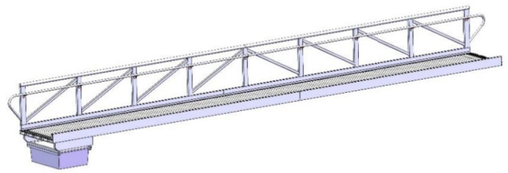
Gangway:

- All framing components to be Marine Grade 6061 or 6063 Aluminum.
- All fasteners are to be stainless steel.
- Flotation is to be plastic encapsulated foam.
- Supplemental flotation is required to be added to the bottom of the gangway to provide a freeboard of 16” to 18” (with no live load present)
- Structural Truss Railing to be located on gangway side.
- Railing to be located at a minimum height of 42-inches.
- An intermediate handrail is to be located at 34-inches.
- Decking to be 12-inch wide, raised rib, knurled aluminum, welded in place.



GANGWAY ELEVATION

SECTION



- Integrated hinges are to be located at the top and bottom of the gangway. Hinges are to be mechanically attached; welded connections will not be permitted. 1 ¼” schedule 40 stainless steel pipe hinge pins with stainless steel hardware
- A 4-inch toe kick should be provided on both sides of gangway.

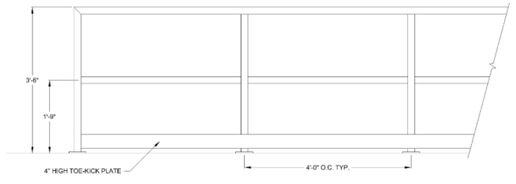
Kayak Chute:

- All framing components to be Marine Grade 6061 or 6063 Aluminum.
- Supplemental flotation is required to be added to the bottom of the chute to provide a freeboard of 16” to 18” (with no live load present)
- Flotation at end of chute is plastic encapsulated foam.
- Structural Truss Railing to be located on gangway side
- Slide pads running the full length of the structure will be composite decking, matching the dock surface.



Handrail:

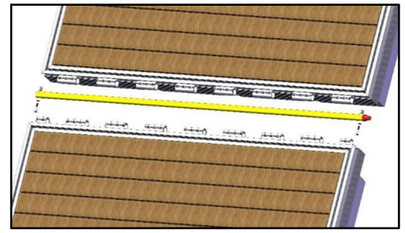
- Fabricated from marine-grade 6061-T6 or 6063-T5 aluminum alloy.
- Includes a continuous top rail at 3'-6" and an intermediate mid-rail at 1'-9", with vertical posts spaced at 5'-0".
- Each section is supplied with stainless steel mounting hardware for connection to the dock structure.
- An integrated aluminum toe kick is included.
- Priced per linear foot.



SAFETY RAILING DETAIL

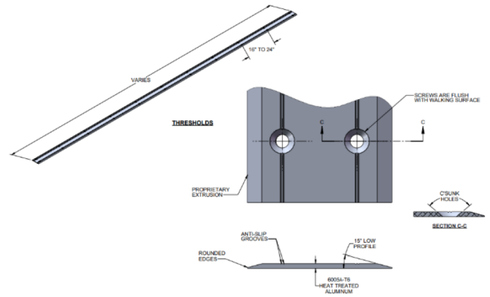
Dock-to-Dock Hinge Attachment:

- A hinge connection is to be provided between the floating dock for attachment to the gangway.
- The hinges are to be slid in the slot on the side of the 50 series dock frame.



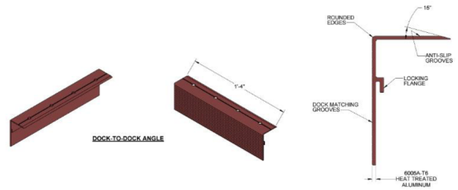
Dock-to-Dock Threshold Strip:

- A flat aluminum threshold strip is used to attach dock sections together.
- The strip is to be held in place by a stainless-steel bolted connection through the strip and into hex nuts located in the top track of the 50 series extrusion.



Mending Plates:

- Installed on the vertical face of the docks.
- Attachment is made to the vertical face and into hex nuts located in the top track of the 50 series extrusion.



Rub Rail and Corner Guard:

- The rub rail system including corner bumper guards is a continuous, impact-absorbing protective barrier mounted horizontally along the perimeter of the floating dock.



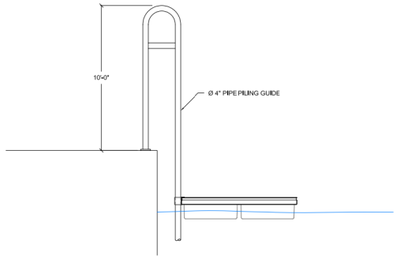
“D” Style Rub Rail



Corner Bumper Guard

Pipe Piling Guide:

- External pile guide is bolted to the mainframe on the exterior of a floating dock. The location of the pile guide can easily be adjusted by loosening the hardware and sliding the guide to a new position.
- Custom dimensions can be provided based on site specific piling requirements.
- Internal rollers available upon request.
- These same size pile guides may be used as internal pile guides.



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issue date
November 12, 2026

sheet name
Floating Dock Detail

sheet number
DET-02

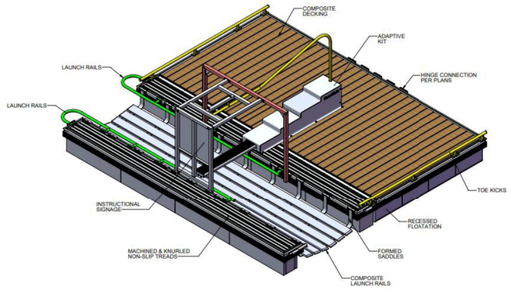
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Floating Docks:



- 16” freeboard with no live load present
- 2.5” draft depth with no live load present
- 50-Series Dock Frame
  - Rectangular aluminum extrusion
  - Measures 6.06” high by 3.77” wide
  - Weight of 3.69lb/lineal foot
  - Track in top of extrusion allows for bolting accessories to the top perimeter of dock.
  - Channel on side of dock to allow for the attachment of “D” style rub rail.
  - Dock frame, showing top track, side channel and “D” style rub rail
- All framing components are Marine Grade 6061 or 6063 Aluminum.
- All fasteners are stainless steel.
- All flotation is plastic encapsulated foam.
- Decking is Gray Composite with a span rating of 24” on center
  - 5/4” x 6” nominal sizing
  - Fiberglass reinforced HDPE
- Decking is attached using the ***TimberStrong*** fastening system, meaning there are no fasteners in the deck surface.
  - Fastener is mechanically attached to each corresponding deck board, per ***TimberStrong*** specifications
  - Attachment at each joist is with one #10 stainless steel, self-tapping screw, placed through the ***TimberStrong*** fastener and into the corresponding joist

Kayak Launch With Adaptive Boarding Kit:



- 16-inch freeboard with no live load present.
- All framing components are Marine Grade 6061 or 6063 Aluminum.
- All fasteners are stainless steel.
- All flotation is plastic encapsulated foam.
- Decking is 12-inch wide, raised rib, knurled aluminum, welded in place.
- Slide pads in cradle are composite decking.
- **Adaptive Boarding Kit:**
  - All framing components are Marine Grade 6061 or 6063 Aluminum.
  - All fasteners are stainless steel.
  - Kayak roll cage.
  - Overhead grab bar.
  - Informational instruction sign.
  - 4-tiered boarding bench with retractable seat.
  - Hand straps suspended from roll cage.

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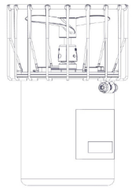
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issue date
November 12, 2026

sheet name
Floating Dock Detail

sheet number
DET-03

3400HD DE-ICER



OVERVIEW

- Complete package includes:
  - Motor unit
  - 20' mooring lines
  - UL, CSA & NEC approved underwater-rated cable
- Total package Listed by ETL to UL/CSA standards
- Saltwater compatible
- Packaged for convenient shipping

MOTOR UNIT

- 3/4HP, operating voltage range of 208-240Vac, single phase
- 1750 RPM
- Oil cooled
- Continuous duty rated
- 17mm top and bottom bearings
- Thermal overload protection
- Fully utilized heavy-duty carbon ceramic mechanical seal
- Series 300 Austentic stainless steel can
- Engineering grade thermoplastic domed top
- Sacrificial anode installed on 316 stainless steel shaft
- Custom engineered UV-resistant thermoplastic 2-blade propeller
- Coated stainless steel cage

OPTIONAL C-220 CONTROL PANEL

- UL Type 3R/4X thermoplastic enclosure
- 20-Amp breaker
- GFCI protection with 5ma trip level
- 24-hour mechanical aerator timer
- Surge protector

POWER CABLE

- UL, CSA & NEC approved underwater rated cable
- 3 wire (L, N, G)
- Quick Disconnect standard on 12 AWG & larger cords, optional on cords with smaller gauge
- Stainless steel strain relief on 12 AWG & larger cords
- Optional flex sleeving for entire cord length
- Quick Disconnect and stainless steel strain relief included on 12AWG & larger cords

MOUNT OPTIONS

- Universal Dock Mount
  - Complete 300-series stainless steel construction
  - Multiple angling options
  - User supplies 1" pipe, up to 10' long
- Industrial Dock Mount
  - Complete 300-series stainless steel construction
  - Multiple angling options
  - User supplies 1.5" pipe, up to 10' long

3400HD DE-ICER

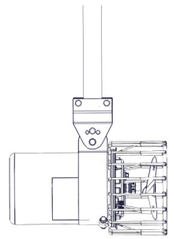
OVERVIEW

HP	Voltage / Phase / Hz	Running Amps	Lock Rotor Amps	Thrust (lbs.)	Min. Depth of Operation (ft.)
3/4	208-240V / 1 / 60	3.1	9	37	4

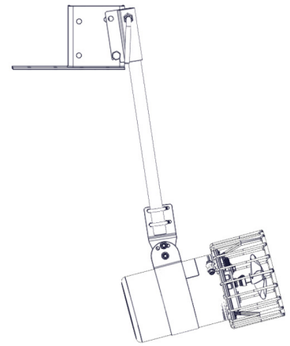
NOTE De-icer will operate in less depth but may cause bottom disturbance.

MODEL SPECIFICATIONS

Model	Cord Length (ft.)	Cord Gauge
3400HD050	50	14/3
3400HD100	100	14/3
3400HD150	150	12/3
3400HD200	200	12/3
3400HD250	250	12/3
3400HD300	300	12/3
3400HD400	400	12/3
3400HD500	500	12/3

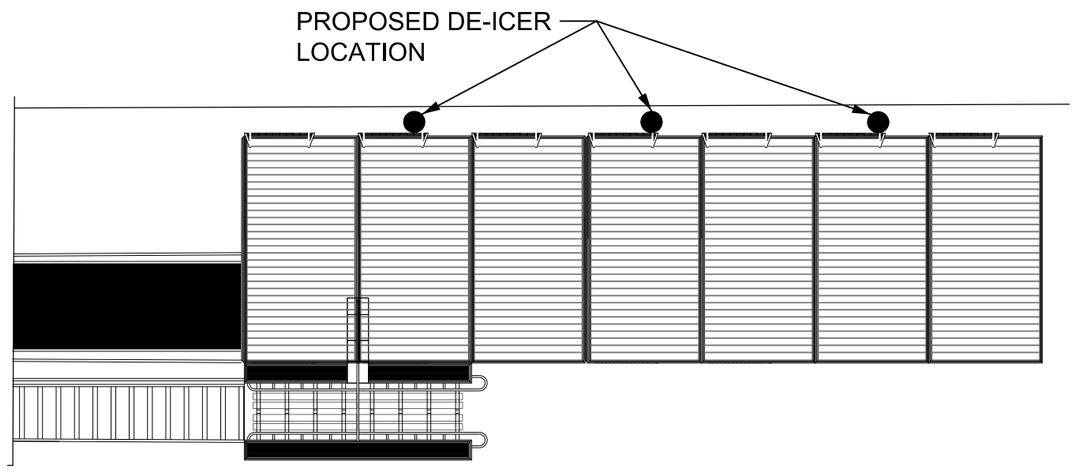


Shown with Industrial Mount



Shown with Universal Mount

Kasco
800 Deere Rd. Prescott, WI 54021 | 715.262.4488 | support@kascomarine.com | kascomarine.com
3400HD DE-ICER CUT SHEET



DE–ICER SYSTEM

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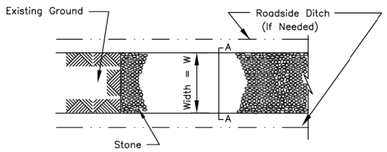
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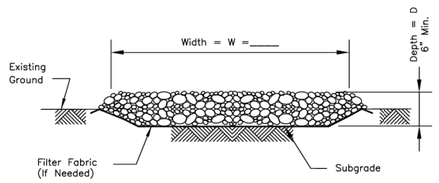
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CONSTRUCTION ROAD STABILIZATION



PLAN VIEW



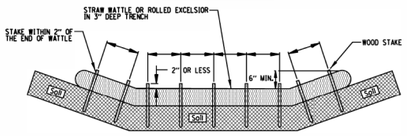
SECTION A–A

NOTES:
1. Filter fabric shall meet the requirements of material specification 592 GEOTEXTILE, Table 1 or 2, Class I, II or IV and shall be placed over the cleared area prior to the placing of rock.
2. Stone shall meet one of the following IDOT coarse aggregate gradations, CA–1, CA–2, CA–3, or CA–4 and be placed according to construction specification 25 ROCKFILL using placement Method 1 and Class III compaction.
3. See plans for construction road location, D and W dimensions.
4. Minimum width is 14 feet for one–way traffic and 20 feet for two–way traffic. Two–way traffic widths shall be increased a minimum of 4 feet for trailer traffic. Depending on the type of vehicle or equipment, speed, loads, climatic and other conditions under which vehicles and equipment operate an increase in the minimum widths may be required.
5. Roadway shall follow the contour of the natural terrain to the extent possible.

REFERENCE		STANDARD DWG. NO.
Project	NRCS Natural Resources Conservation Service	IL-506
Designed _____ Date _____		SHEET 1 OF 1
Checked _____ Date _____		DATE 1-29-99
Approved _____ Date _____		

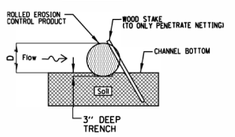
ROLLED EROSION CONTROL PRODUCTS

STAKING PATTERN GUIDE



NOTES:
1. OVERLAP MINIMUM IS THE DIAMETER OF THE ROLL.
2. 4' SPACING FOR WATTLES.
3. 2' SPACING FOR ROLLED EXCELSIOR.
4. OR SPACE ACCORDING TO MANUFACTURER'S SPECIFICATIONS.

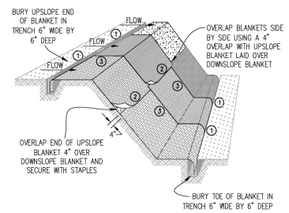
STAKE DETAIL

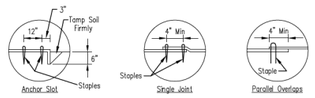


NOTES:
1. DRAWINGS ARE NOT TO SCALE.
2. ENDS OF WATTLES OR ROLLED EXCELSIOR SHALL BE TURNED AT LEAST 6" UPSLOPE.
3. RECOMMENDED STAKES ARE 1 1/8" WIDE x 1 1/8" THICK x 30" LONG.
4. STAKES SHALL NOT EXTEND ABOVE THE STRAW WATTLE MORE THAN 2".
5. SPACING: THE TOE OF THE UPSTREAM DITCH CHECK SHALL CREATE A HORIZONTAL LINE WITH THE TOP OF THE DOWNSTREAM DITCH CHECK.

REFERENCE		STANDARD DWG. NO.
Project _____		IUM-514
Designed _____ Date _____		SHEET 1 OF 1
Checked _____ Date _____		DATE 08-2-2019
Approved _____ Date _____		

AUTOCAD2006





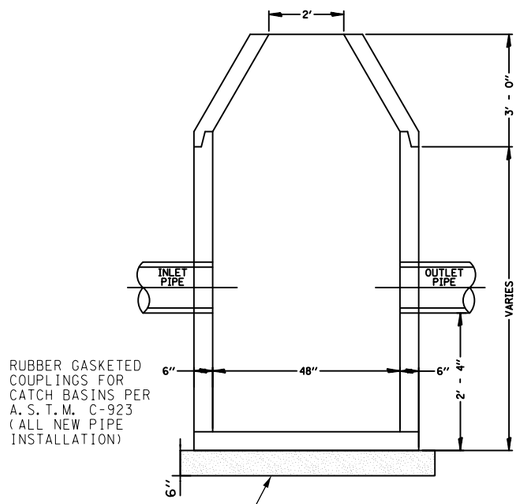
DETAIL 1 DETAIL 2 DETAIL 3



STAPLE DETAIL PUSH PIN DETAIL

NOTES:
1. Staples shall be placed in a diamond pattern at 2 per s.y. for sticked blankets. Non–sticked shall use 4 staples per s.y. of material. This equates to 200 staples with sticked blanket and 400 staples with non–sticked blanket per 100 s.y. of material.
2. Staple or push pin lengths shall be selected based on soil type and conditions. (minimum staple length is 6")
3. Erosion control material shall be placed in contact with the soil over a prepared seedbed.
4. All anchor slots shall be stapled at approximately 12" intervals.

	EROSION CONTROL BLANKET INSTALLATION DETAILS	Designed _____ Date _____
		Drawn E. JOHNSON 11/08
		Checked _____
		Approved _____

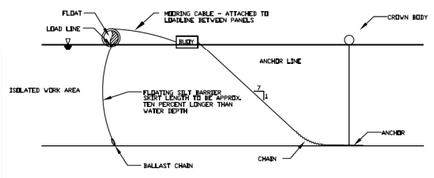


RUBBER GASKETED COUPLINGS FOR CATCH BASINS PER A.S.T.M. C-923 (ALL NEW PIPE INSTALLATION)

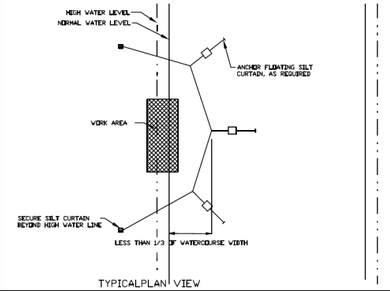
CATCH BASIN

N.T.S.

FLOATING SILT CURTAIN - TYPICAL LAYOUT



TYPICAL COMPONENTS / ANCHORAGE SYSTEM

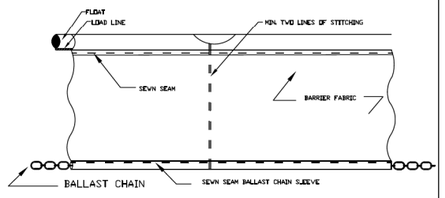


TYPICALPLAN VIEW

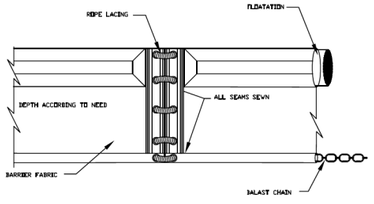
Maximum flow for waterbody shall be less than 5fps.
Isolated work area shall not exceed more than 1/3 stream width.
Silt curtain shall be placed parallel to stream flow.

REFERENCE		STANDARD DWG. NO.
Project _____		IUM-617A
Designed _____ Date _____		SHEET 1 OF 1
Checked _____ Date _____		DATE 1-06-2012
Approved _____ Date _____		

FLOATING SILT CURTAIN - PANEL CONNECTORS



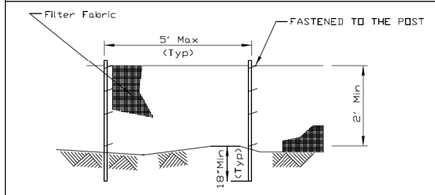
SEWN SEAM



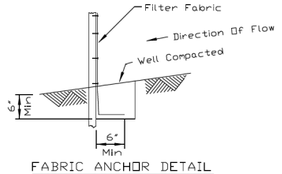
GROMMETED HOLES WITH ROPE LACING

REFERENCE		STANDARD DWG. NO.
Project _____		IUM-617B
Designed _____ Date _____		SHEET 1 OF 1
Checked _____ Date _____		DATE 1-6-2012
Approved _____ Date _____		

SILT FENCE PLAN



ELEVATION



FABRIC ANCHOR DETAIL

NOTES:
1. Temporary sediment fence shall be installed prior to any grading work in the area to be protected. They shall be maintained throughout the construction period and removed in conjunction with the final grading and site stabilization.
2. Filter fabric shall meet the requirements of material specification 592 Geotextile Table 1, Class 2.
3. Fence posts shall be either standard steel post or wood post 2" X 2" nominal.

REFERENCE		STANDARD DWG. NO.
Project _____		IUM-620A
Designed _____ Date _____		SHEET 1 OF 2
Checked _____ Date _____		DATE 04-15-2021
Approved _____ Date _____		

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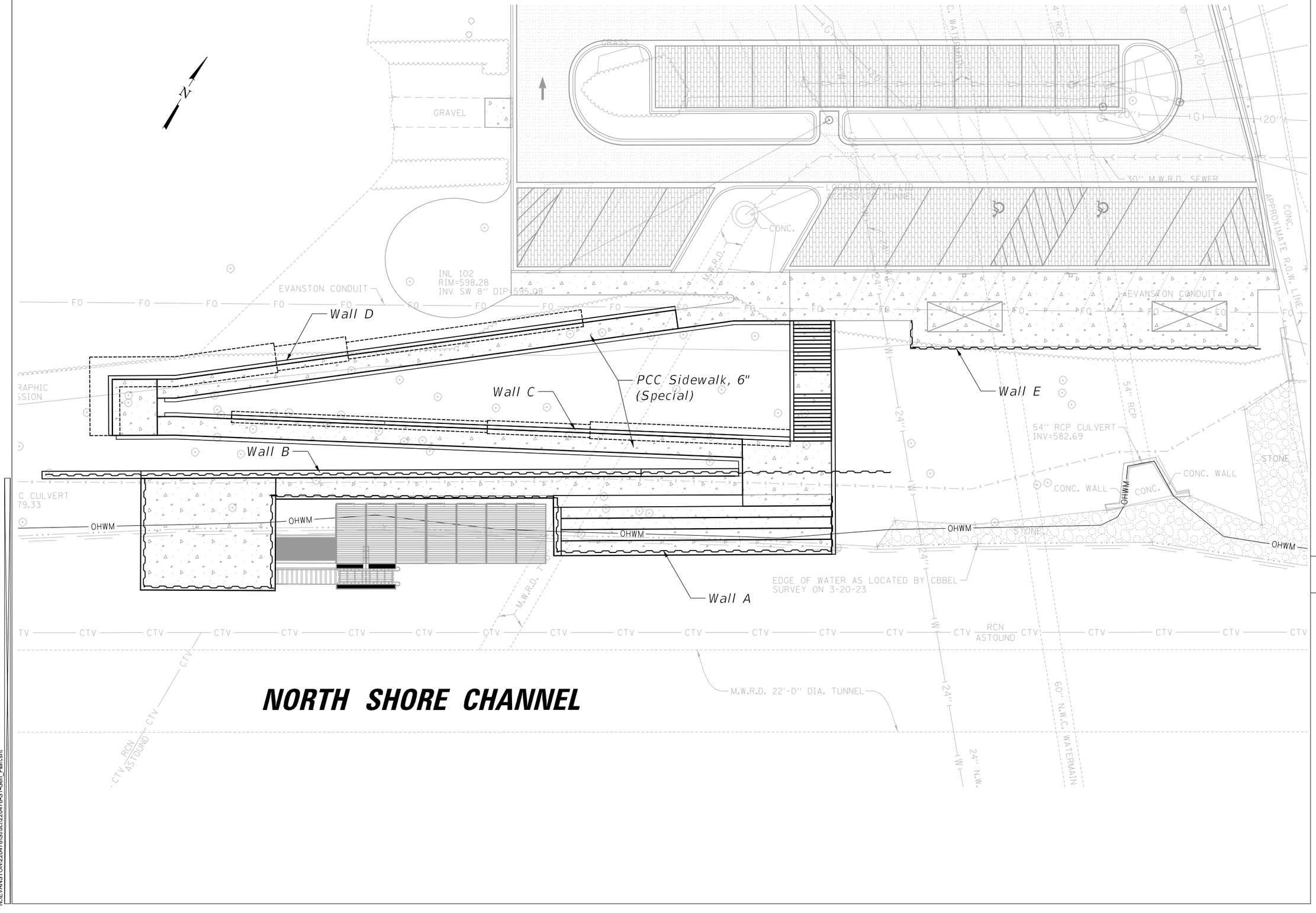
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Details

sheet number
DET-05

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Structural
General Plan

sheet number
S-01

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GENERAL NOTES

1.) All structural steel shall be AASHTO M 270 Grade 50 or ASTM A36 as applicable and in accordance with Section 1006 of the Standard Specifications.

2.) No field welding is permitted except as specified in the contract documents.

3.) All reinforcement bars shall be epoxy coated and shall be in accordance with Section 508 of the Standard Specifications. Reinforcement shall have a minimum concrete cover of 2" unless otherwise noted.

4.) Protective coating shall be applied to the exposed faces of the concrete structures.

5.) Shear studs shall be inaccordance with Section 505 of the Standard Specifications.

6.) All curb adjacent to PCC Sidewalk 6", Special shall be included in the cost of the PCC Sidewalk item.

7.) Permanent steel sheet piling shall meet the requirements of ASTM A572 Gr 50. Permanent steel sheet piling shall have a required section modulus of 30.2 in^3/ft.

8.) If Contractor elects to use larger Permanent Sheet Piling size, sheet pile concrete cap size shall increase as requirement to fit wall. New size shall be approved by Engineer and provided at no additional cost to the contract. The design load of Tieback Anchors shall be 22 kip. See Wall B Elevation for Anchor Spacing.

9.) Backfill shall be placed behind the wall after the concrete has been poured and falsework removed. See Article 502.10 of the Standard Specifications.

10.) Exploratory excavation shall be performed to locate existing utilities within the project area limit and shall be included in the cost of Permanent Sheet Piling or Driving Piles.

11.) Protection and restoration of existing property is the responsibility of the Contractor and vibration levels caused by equipment used to install Permanent Sheet Piling shall be selected to minimize the potential for damage to nearby structures.

12.) All concrete work shall be in accordance with Section 503 of the Standard Specifications.

13.) Concrete structures calculated based on sheet piling size PZ27. If larger Permanent Sheet Pile is used, sheet pile concrete cap size shall increase as required to fit wall. New size shall be appoved by the engineer and all concrete, reinforcement, and sheeting shall be provided at no additional cost to the contract.

14.) Contractor shall submit reinforcement shop drawings for concrete walls, slabs, and caps at least 2 weeks prior to the start of construction. Drawings shall be approved by Engineer prior to order.

15.) Piling shall be done in accordance with Section 512 and Section 1006.05 of the Standard Specifications.

16.) The Contractor shall be required to submit a proposed construction procedure to be reviewed and approved by the Engineer prior to beginning construction.

17.) Proposed wall formliner shall meet the requirements shown in the Architectual drawings. A mock up of the selected pattern shall be made for approval. The formliner pattern shall be approved by the City prior to construction.

18.) Concrete needed to fill formliner relief will not be paid for but will be included in the cost of Concrete Structures.

19.) A concrete joint layout plan shall be provided by the Contractor to the Engineer for review and approval prior to pouring concrete.

INDEX OF SHEET

S-1 Structural General Plan
S-2 General Notes and Bill of Materials
S-3 Foundation Plan
S-4 Structural Grading Plan
S-5 Typical Cross Sections
S-6 Sections and Details (Sheet 1 of 3)
S-7 Sections and Details (Sheet 2 of 3)
S-8 Sections and Details (Sheet 3 of 3)
S-9 General Plan and Elevation - Wall A (Sheet 1 of 2)
S-10 General Plan and Elevation - Wall A (Sheet 2 of 2)
S-11 General Plan and Elevation - Wall B
S-12 General Plan and Elevation - Wall C
S-13 General Plan and Elevation - Wall D
S-14 HP Pile Details
S-15 Soil Borings

TOTAL BILL OF MATERIAL

ITEM	UNIT	TOTAL
Removal and Disposal of Unsuitable Material	Cu Yd	115
Porous Granular Backfill	Cu Yd	1,150
Structure Excavation	Cu Yd	1,035
Concrete Structures	Cu Yd	455
Stud Shear Connectors	Each	1,035
Reinforcement Bars, Epoxy Coated	Pound	54,600
Furnishing Steel Piles, HP 10x42	Foot	1,285
Driving Piles	Foot	1,285
Permanent Sheet Piling	Sq Ft	18,325
Portland Cement Concrete Sidewalk, 6" (Special)	Sq Ft	2,130
Permanent Ground Anchor	Each	18
Geocomposite Wall Drain	Sq Yd	130
Pipe Underdrain for Structures, 4"	Foot	345

Note: Bill of Materials is approximate and for bidding purposes. Final dimensions to be taken in the field.

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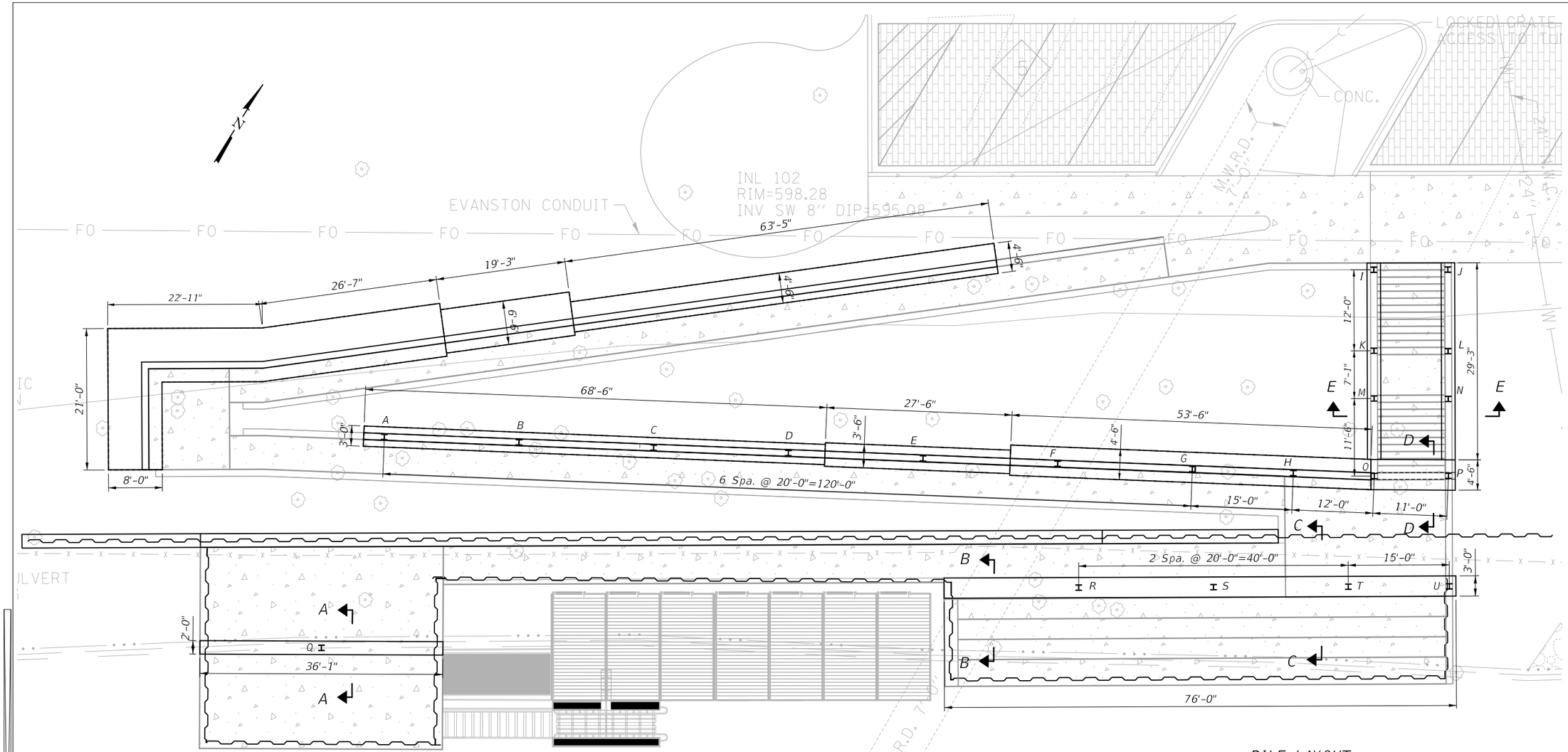
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General Notes and Bill of Materials

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FOUNDATION PLAN

Note: See Sheet S-08 for Section Details

PILE LAYOUT

Pile Designation	Pile Size	Northing	Easting	Tip Elevation
A	HP 10x42	1963548.59	1155682.59	518
B	HP 10x42	1963558.50	1155699.96	518
C	HP 10x42	1963568.41	1155717.34	518
D	HP 10x42	1963578.32	1155734.71	518
E	HP 10x42	1963588.23	1155752.08	518
F	HP 10x42	1963598.14	1155769.45	518
G	HP 10x42	1963608.05	1155786.83	518
H	HP 10x42	1963615.48	1155799.86	524
I	HP 10x42	1963647.41	1155793.99	537
J	HP 10x42	1963653.26	1155803.31	537
K	HP 10x42	1963637.23	1155800.38	537
L	HP 10x42	1963643.00	1155809.75	537
M	HP 10x42	1963631.23	1155804.15	537
N	HP 10x42	1963637.00	1155813.52	537
O	HP 10x42	1963621.48	1155810.28	537
P	HP 10x42	1963627.34	1155819.59	537
Q	HP 10x42	1963517.10	1155691.25	518
R	HP 10x42	1963584.20	1155781.84	512
S	HP 10x42	1963594.85	1155798.77	518
T	HP 10x42	1963605.50	1155815.70	512
U	HP 10x42	1963613.49	1155828.40	532

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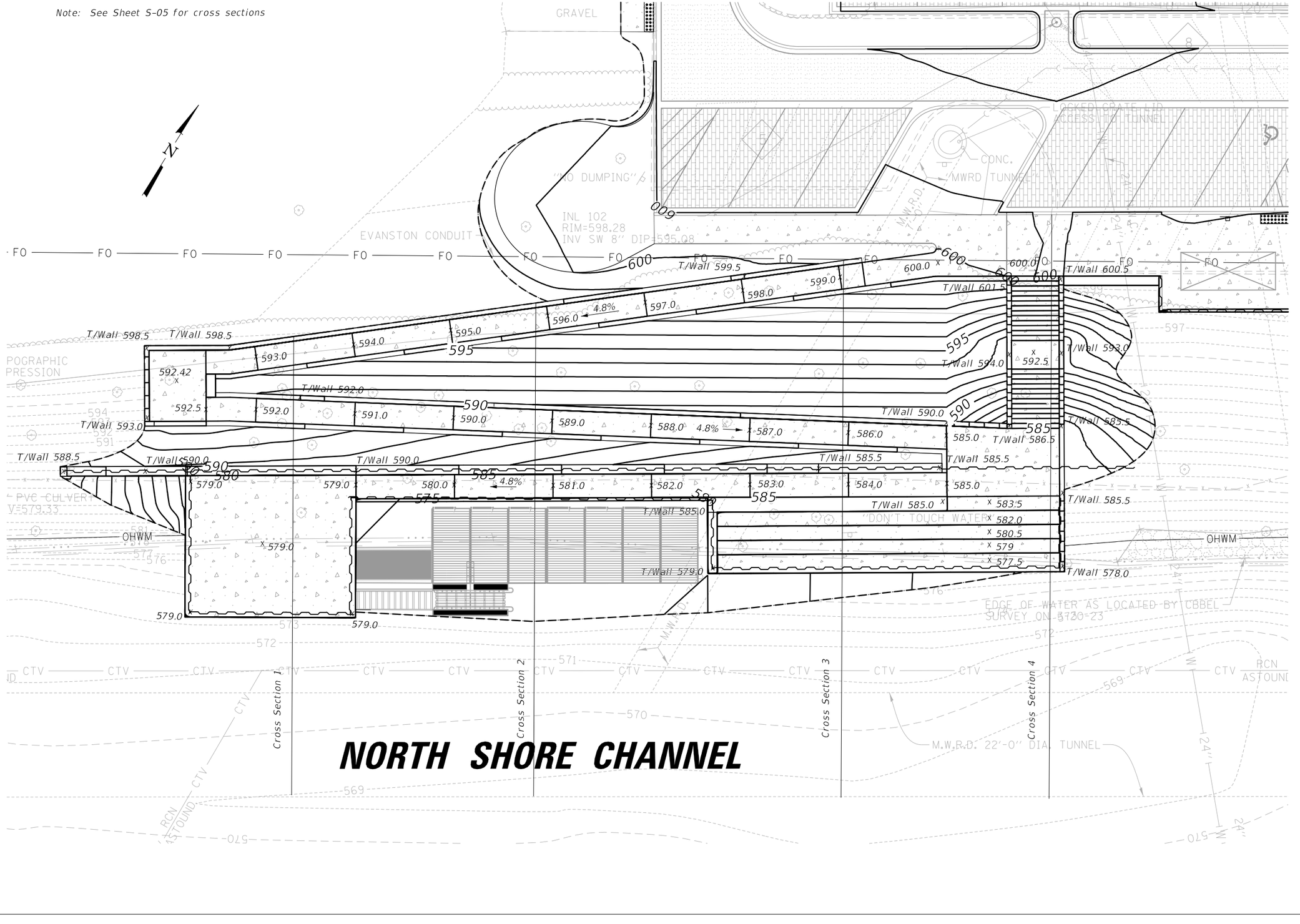
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Foundation Plan

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Note: See Sheet S-05 for cross sections



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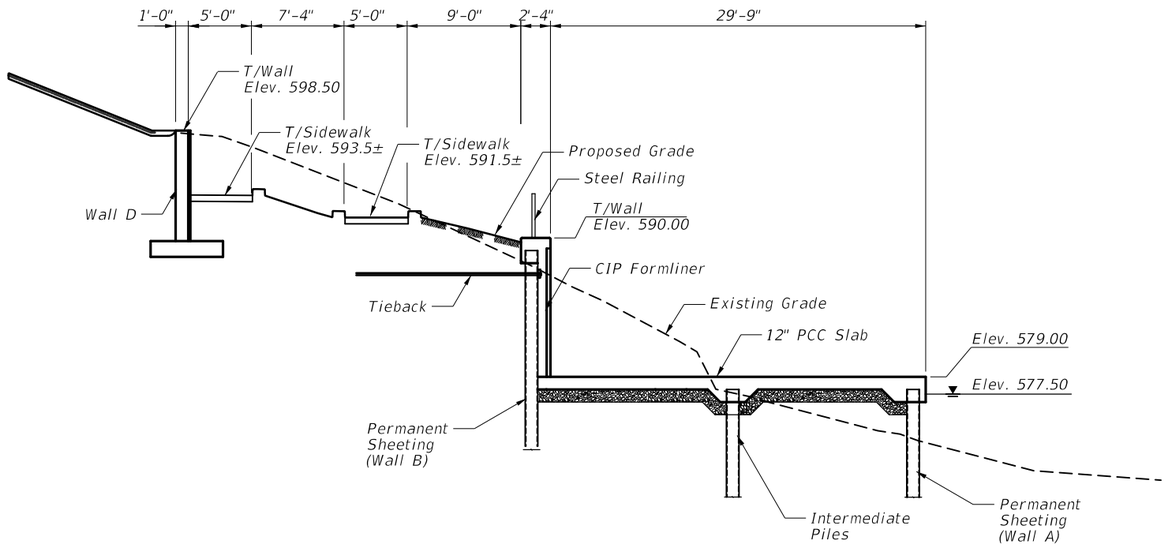
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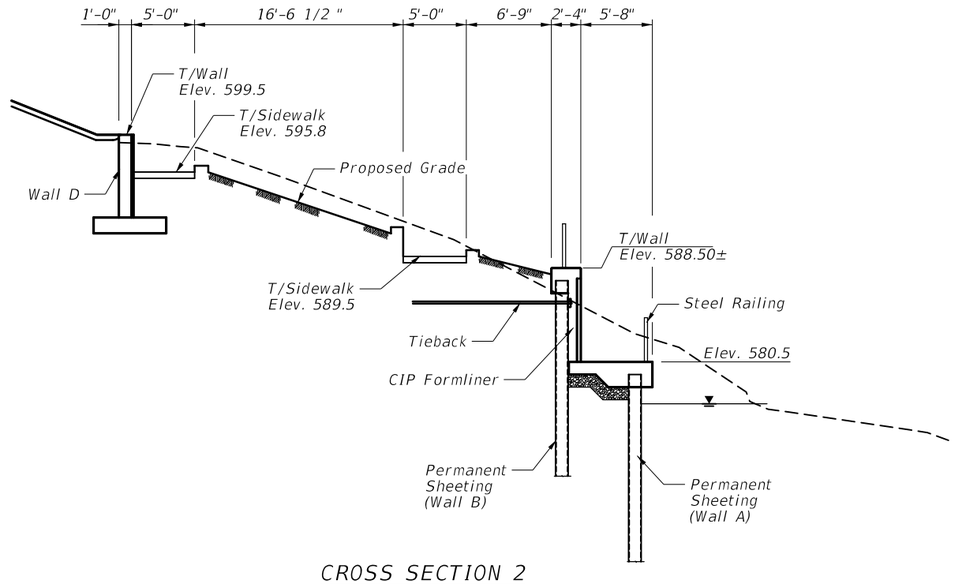
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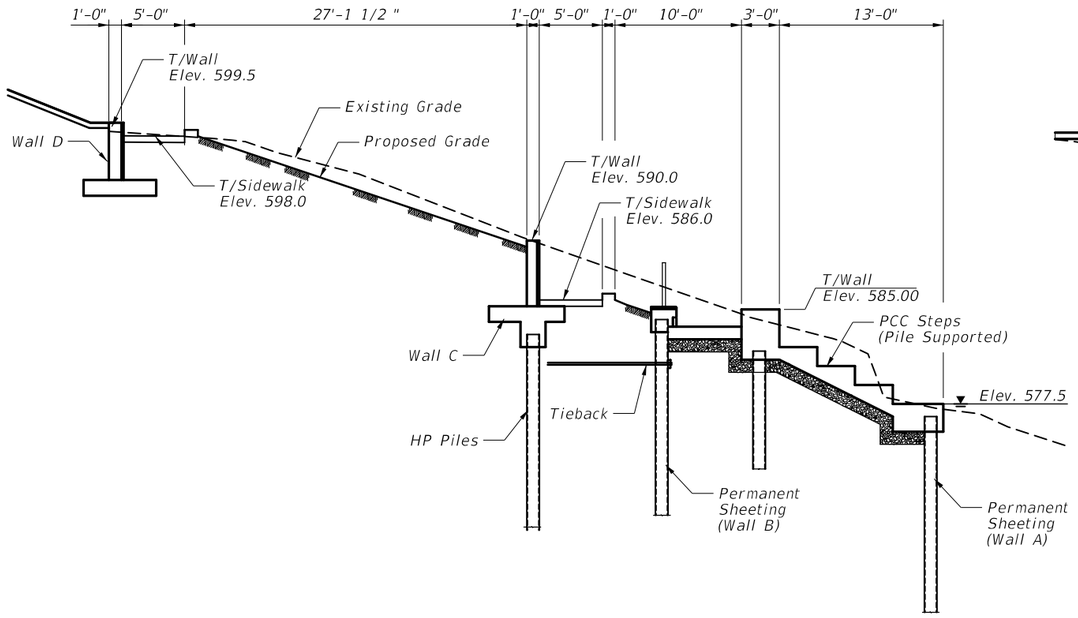
CROSS SECTION 1

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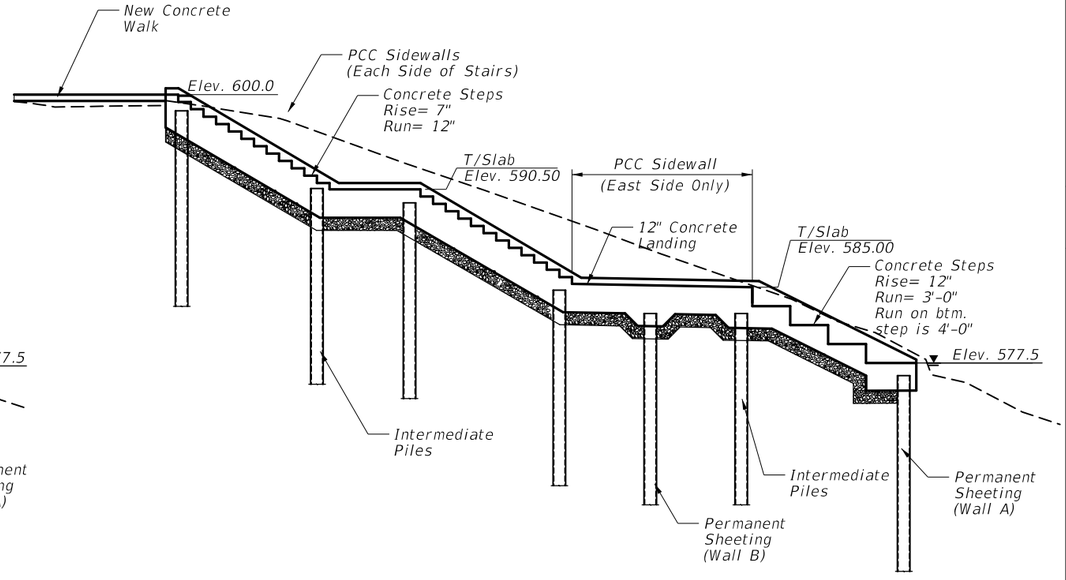
CROSS SECTION 2

(Looking North)



CROSS SECTION 3

(Looking North)



CROSS SECTION 4

(Looking North)

NOTE:

For Cross Sections Locations, See Sheet S-04.

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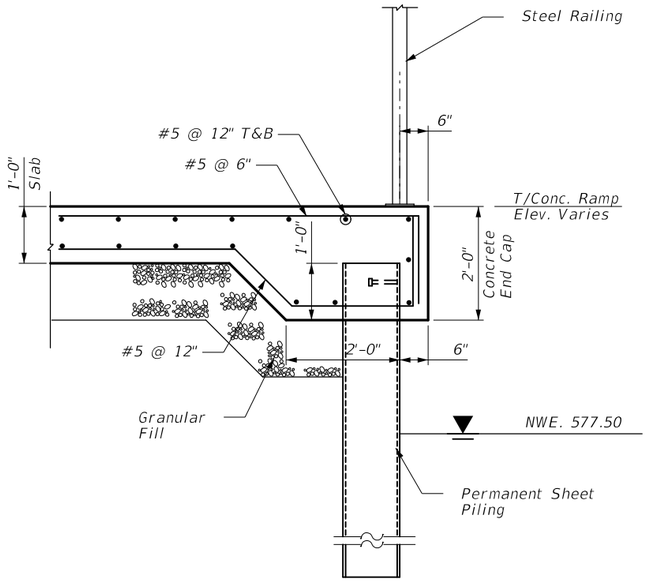
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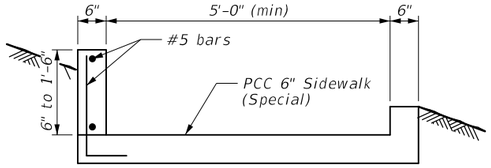
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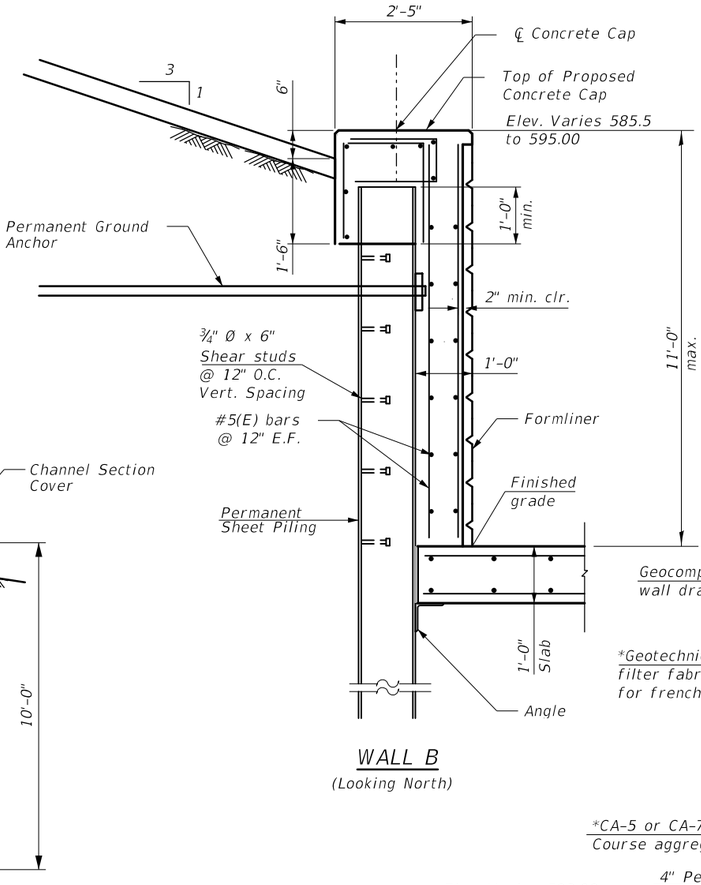
WALL A

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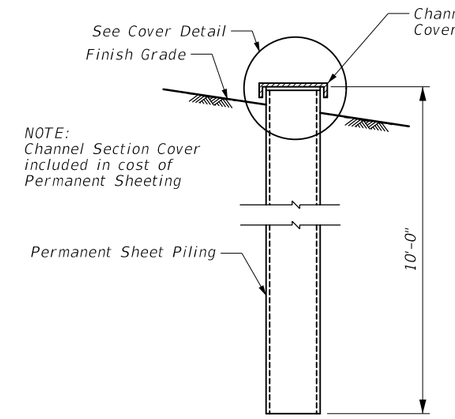
PCC SIDEWALK 6" (SPECIAL)

(Adjacent to Wall D)



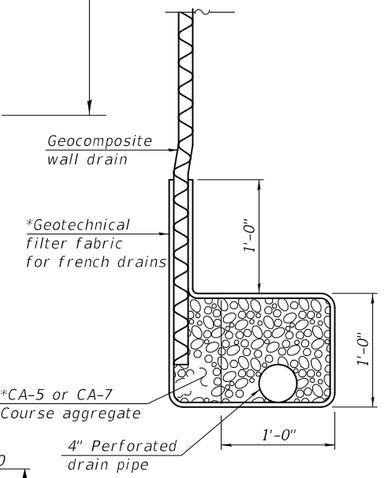
WALL B

(Looking North)



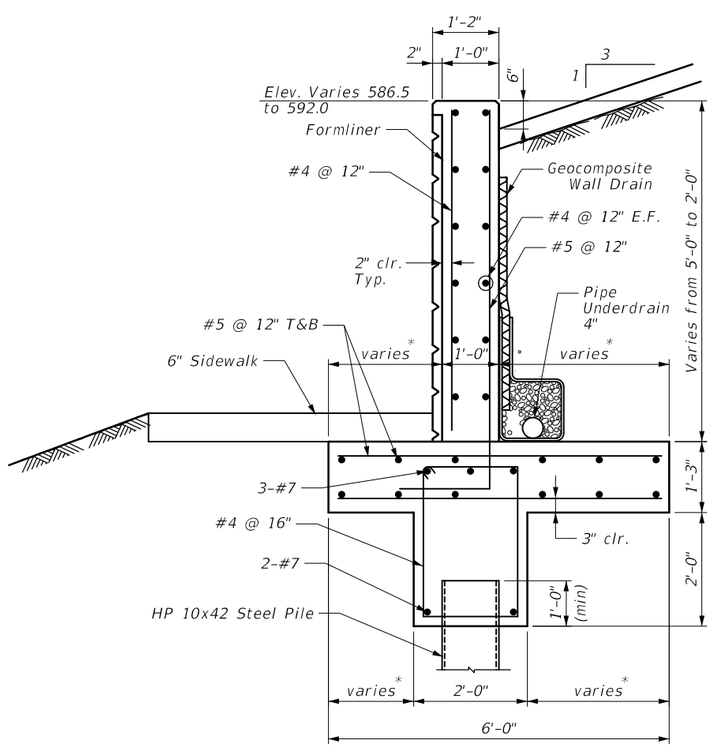
WALL E

(Looking North)



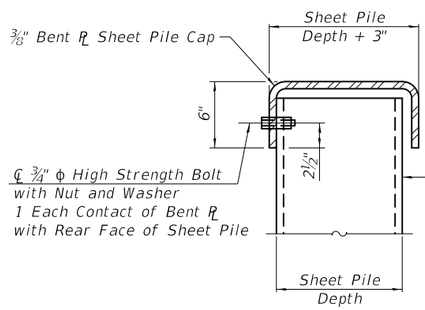
PIPE UNDERDRAIN DETAIL

* Included in the cost of Pipe Underdrain for Structures, 4"



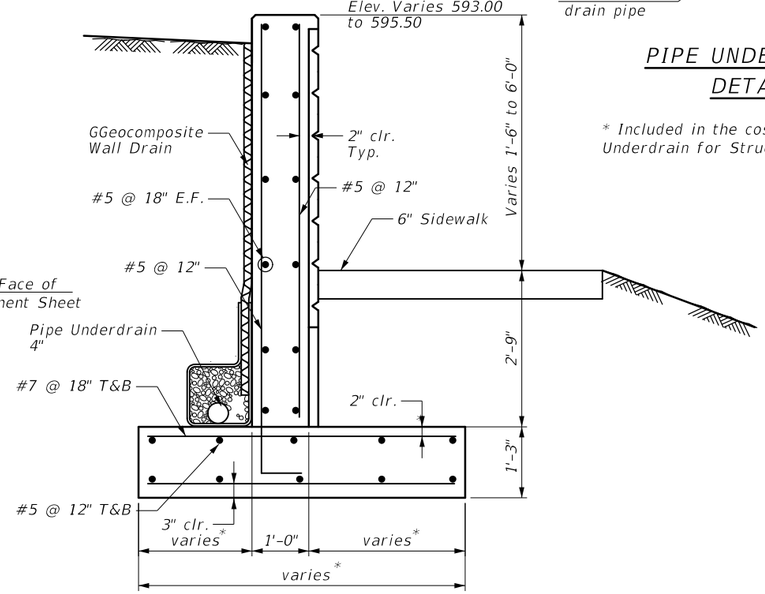
WALL C

(Looking South)



COVER DETAIL

*See foundation plan for footing widths



WALL D

(Looking North)

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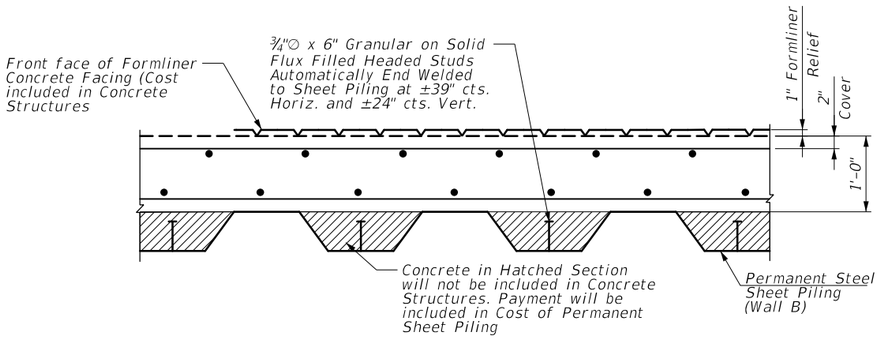
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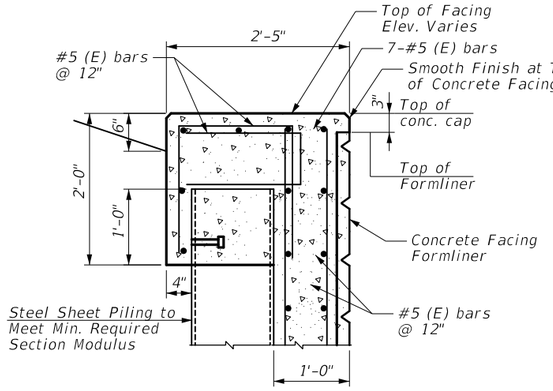
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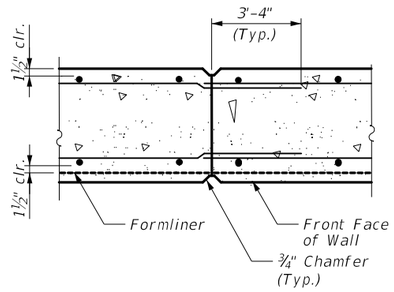


CONCRETE FACING DETAIL



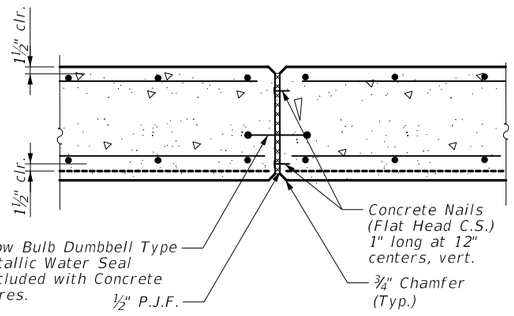
CONCRETE CAP DETAIL

(not to Scale)

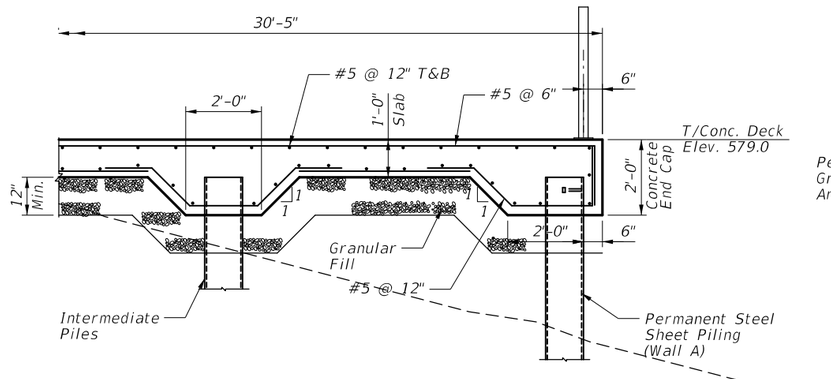


CONSTRUCTION JOINT DETAIL

Max joint spacing = 30'-0"
Locate joint at interlock

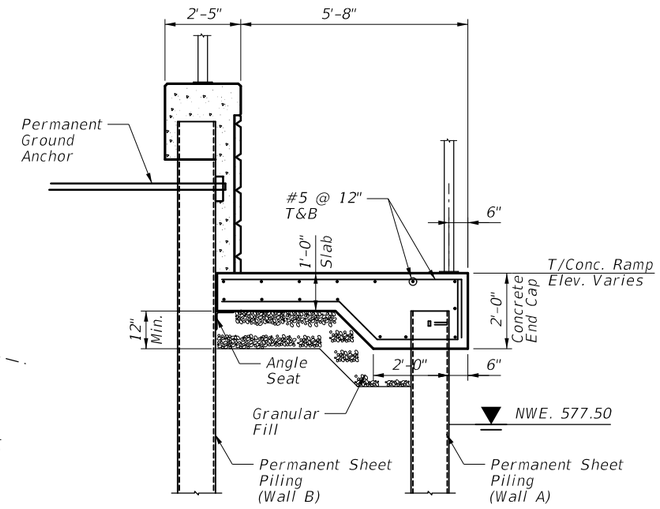


EXPANSION JOINT DETAIL



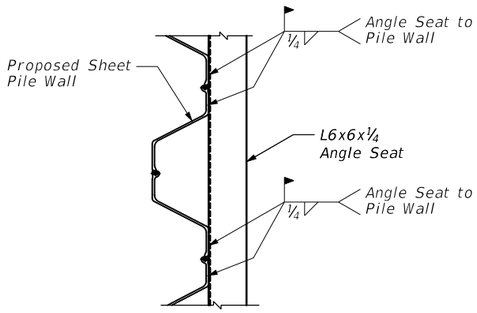
DETAIL

(CROSS SECTION 1)

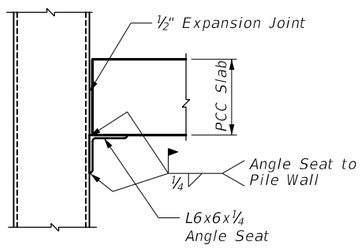


DETAIL

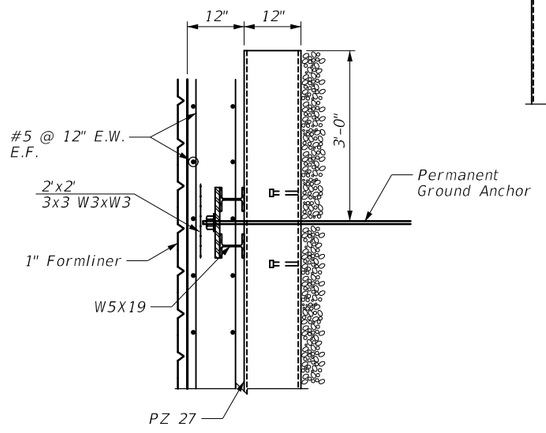
(CROSS SECTION 2)



ANGLE SEAT PLAN VIEW DETAIL



ANGLE SEAT ELEVATION VIEW DETAIL



PERMANENT GROUND ANCHOR DETAIL

NOTE: Supply and installation of steel angle to be included in Cost of Permanent Sheet Piling.

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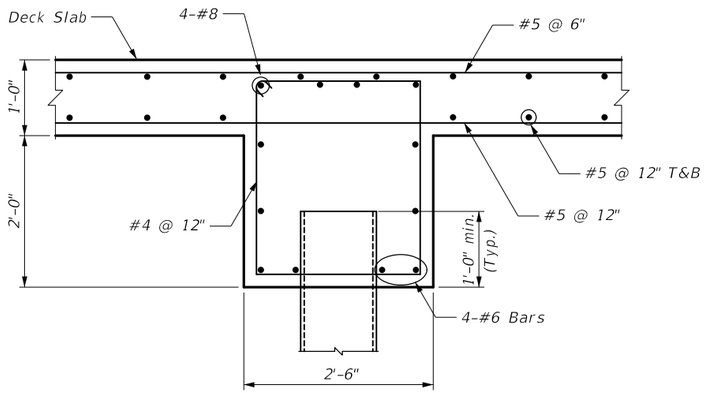
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MEK	JM	MLM

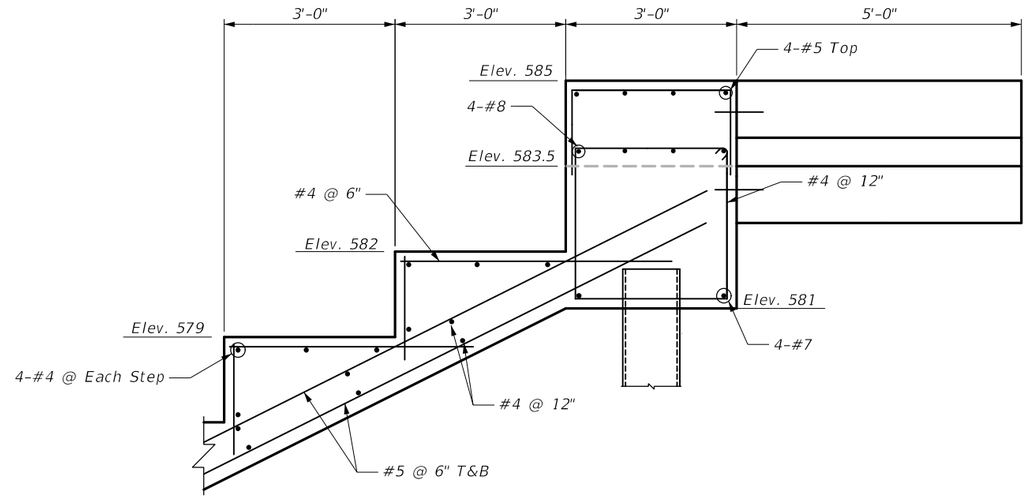
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sheet name
Structural Details (2 of 3)

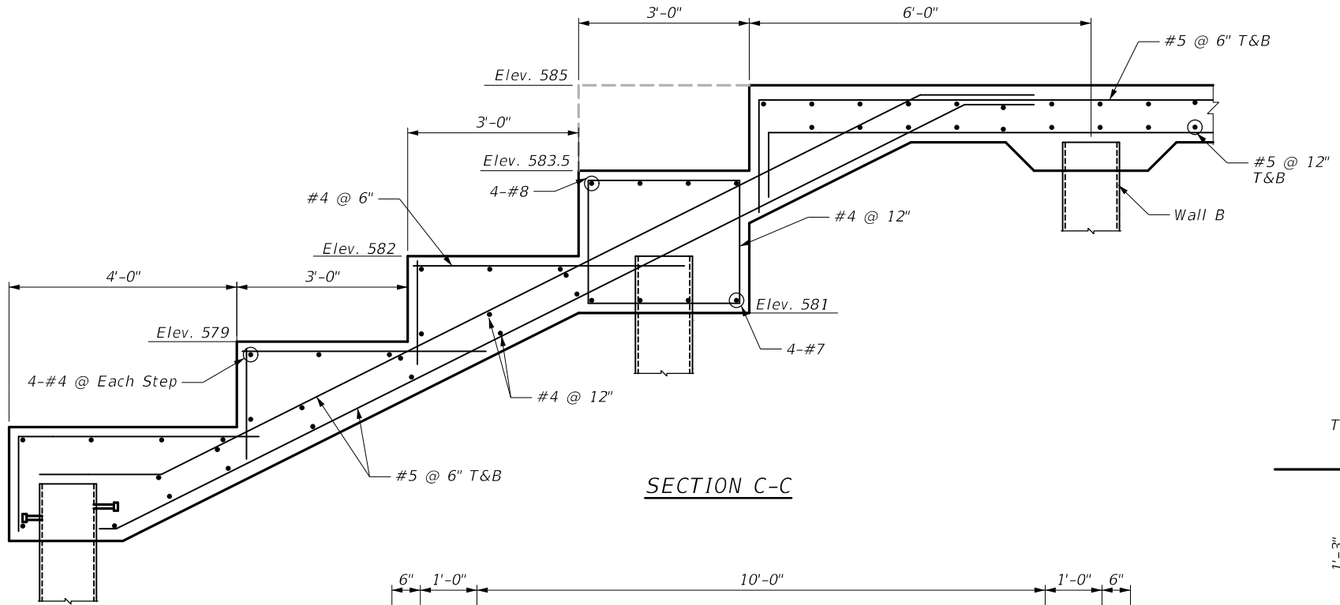
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S-07



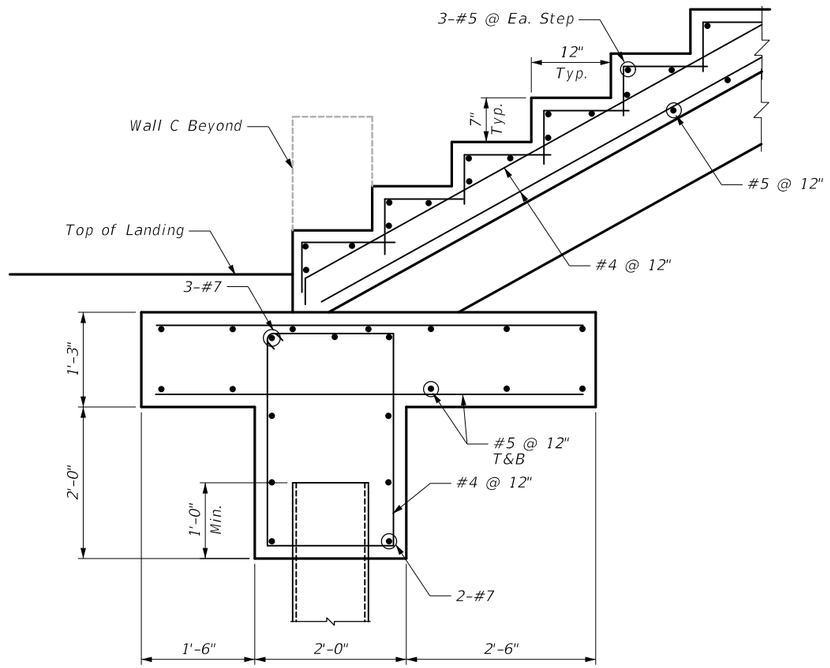
SECTION A-A



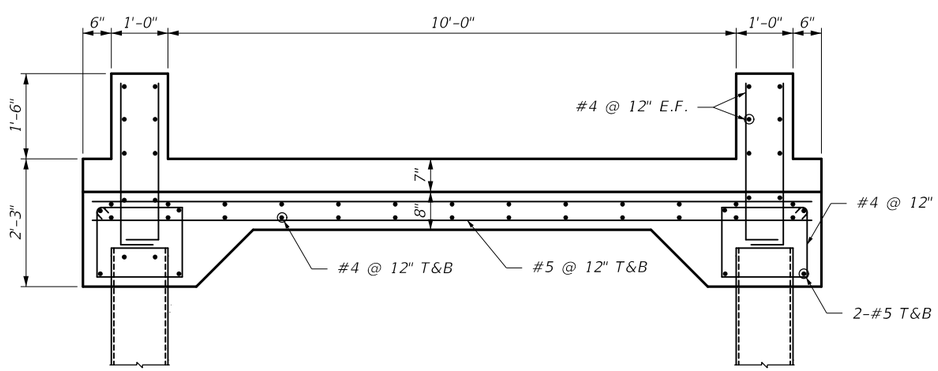
SECTION B-B



SECTION C-C



SECTION D-D



SECTION E-E

NOTE:
For Location of Sections, See Sheet S-03.

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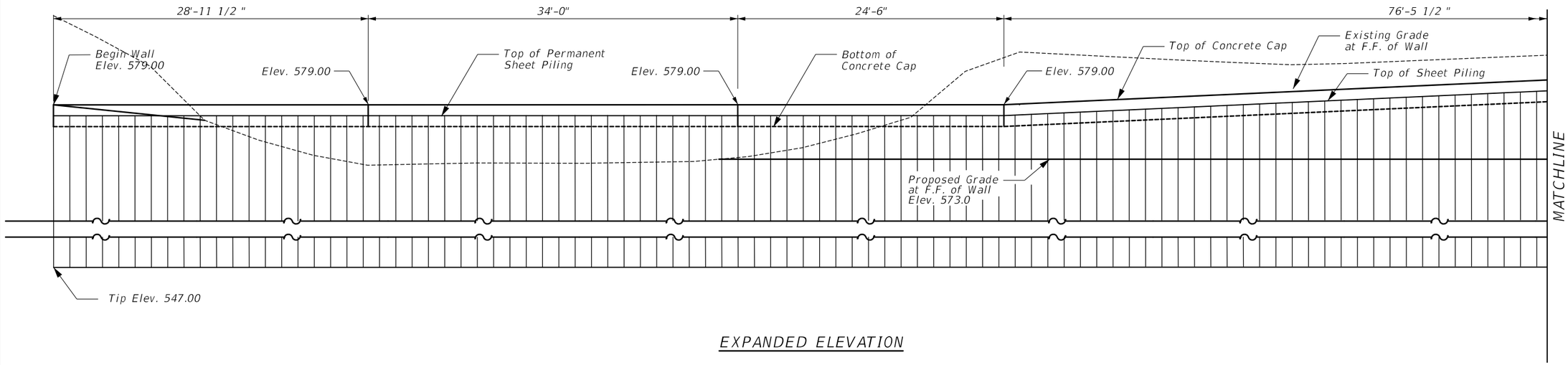
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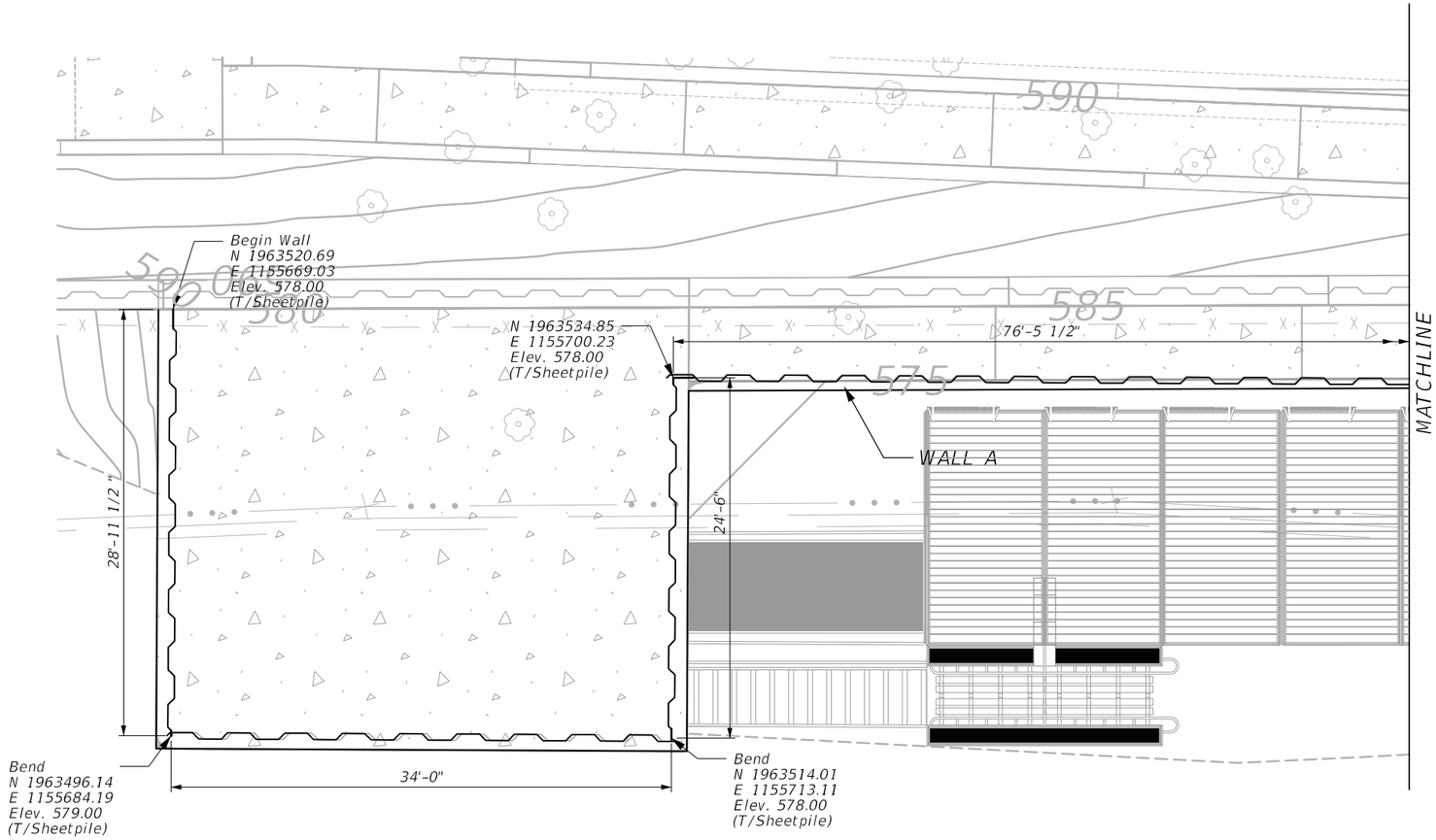
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November 12, 2026

sheet name
Structure Details (3 of 3)

sheet number
S-08



EXPANDED ELEVATION



PLAN

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November 12, 2026

issue / revision	date	description

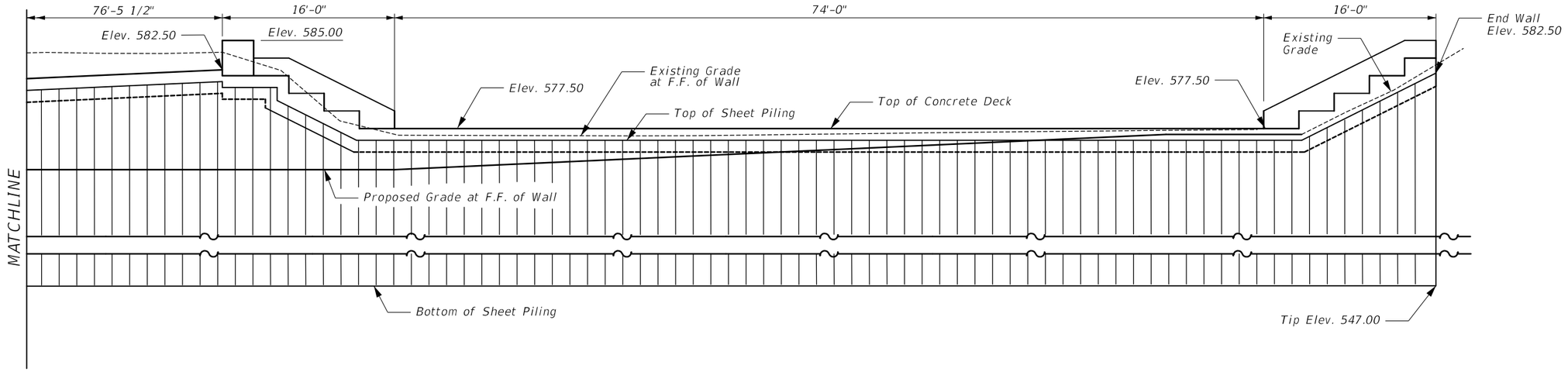
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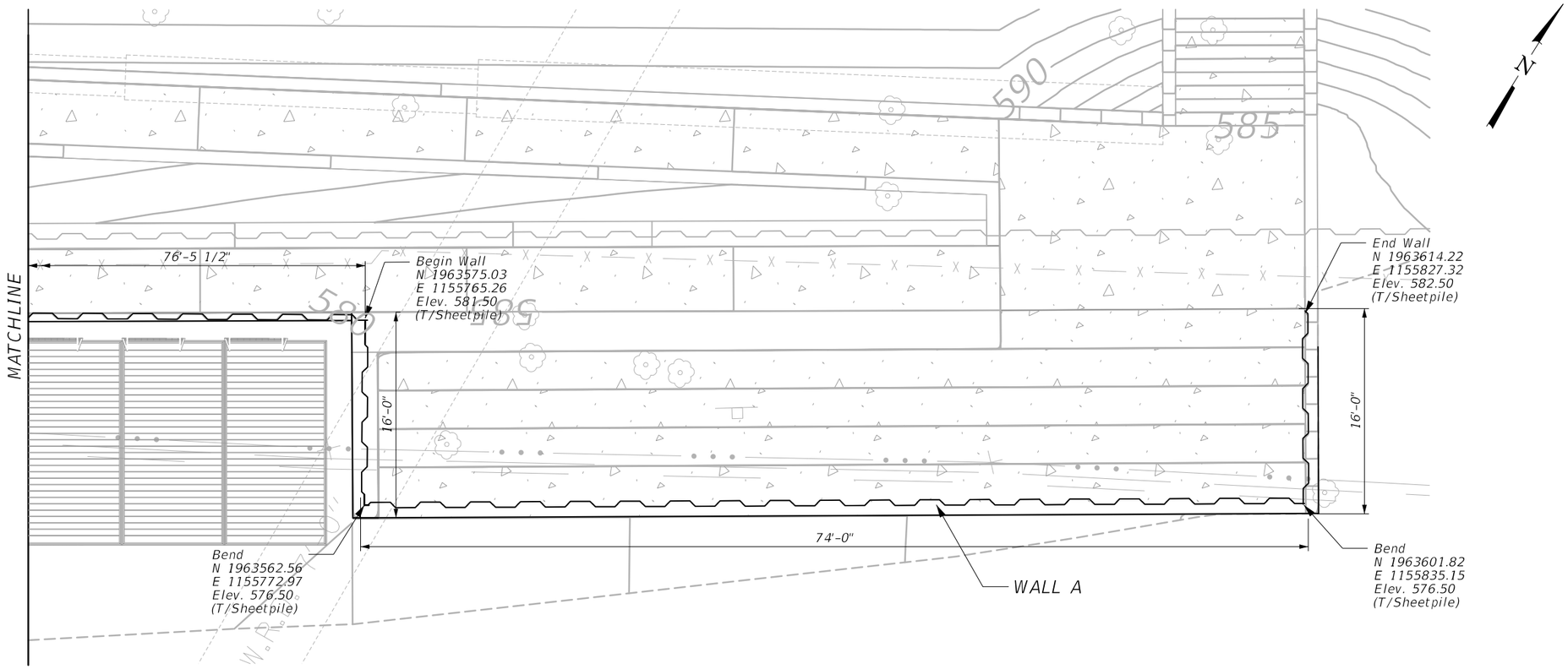
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General Plan and Elevation

sheet number
S-09

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EXPANDED ELEVATION



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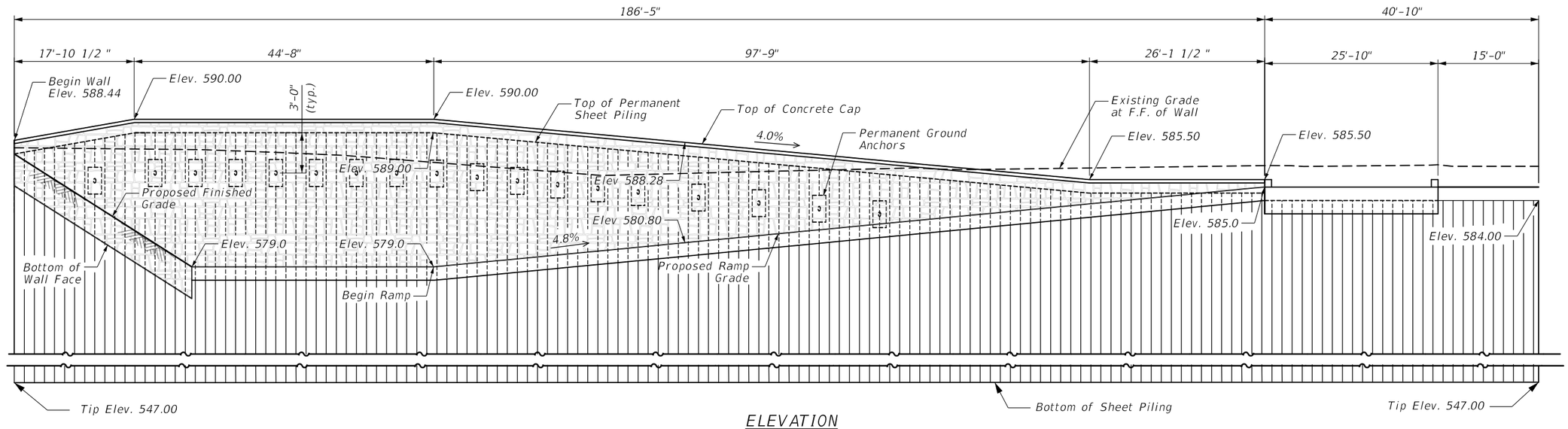
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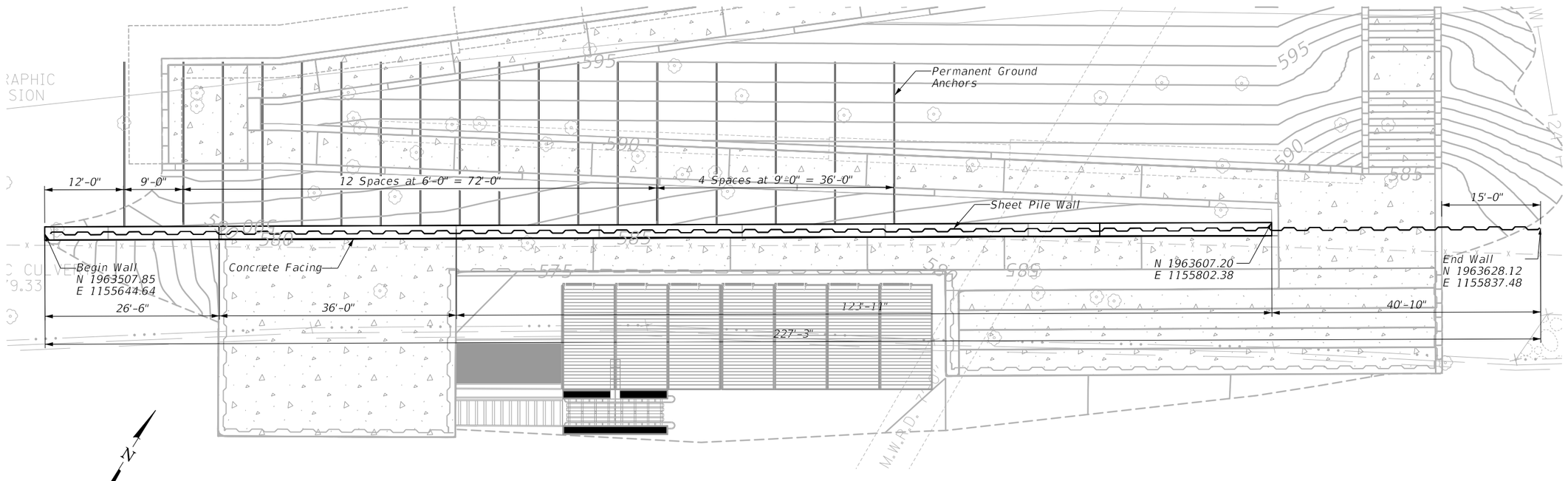
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General Plan and Elevation

sheet number
S-10

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ELEVATION



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issue / revision	date	description

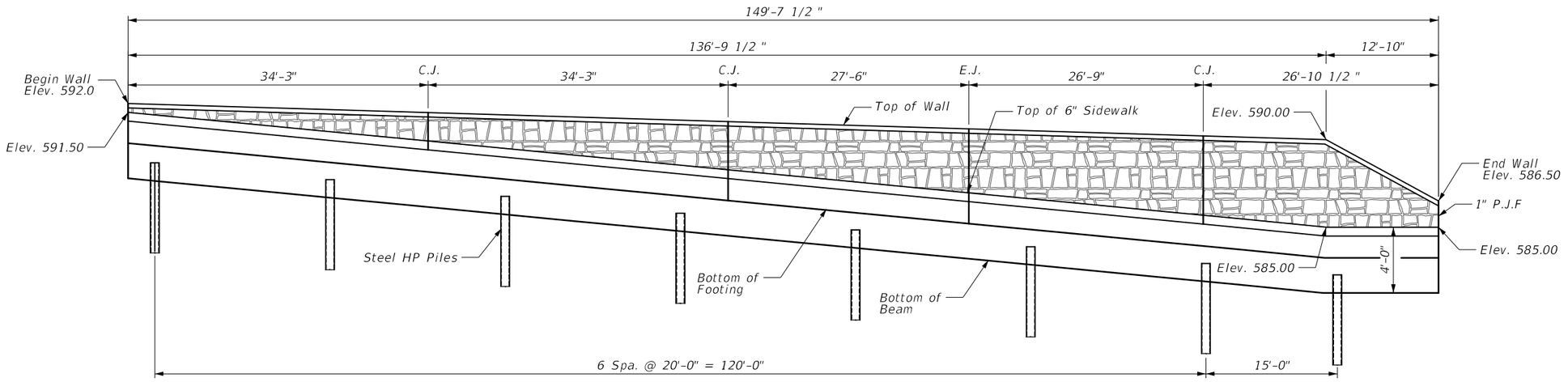
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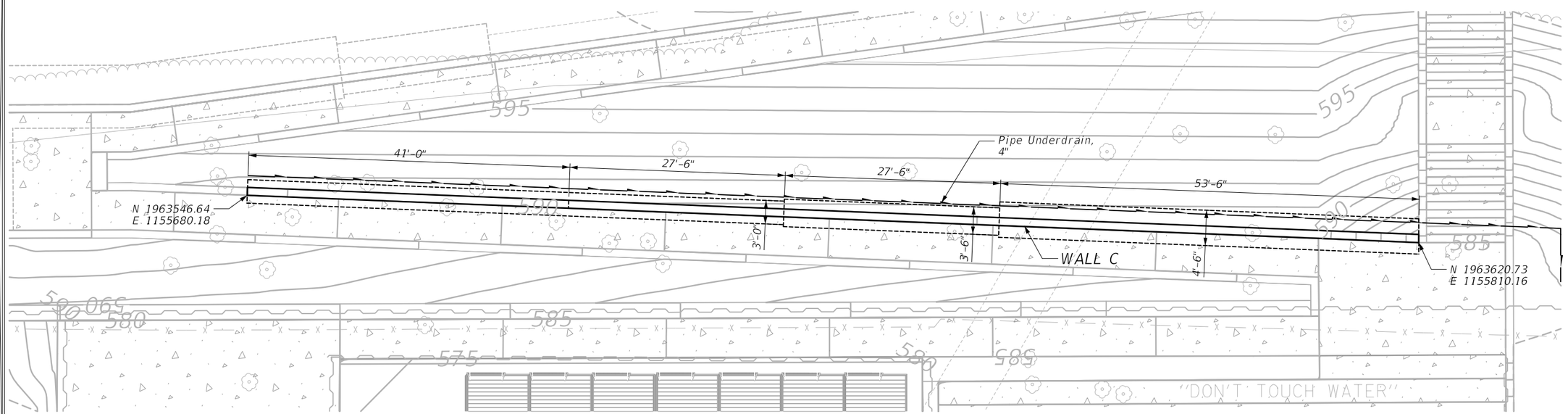
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General Plan and Elevation

sheet number
S-11

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ELEVATION



PLAN

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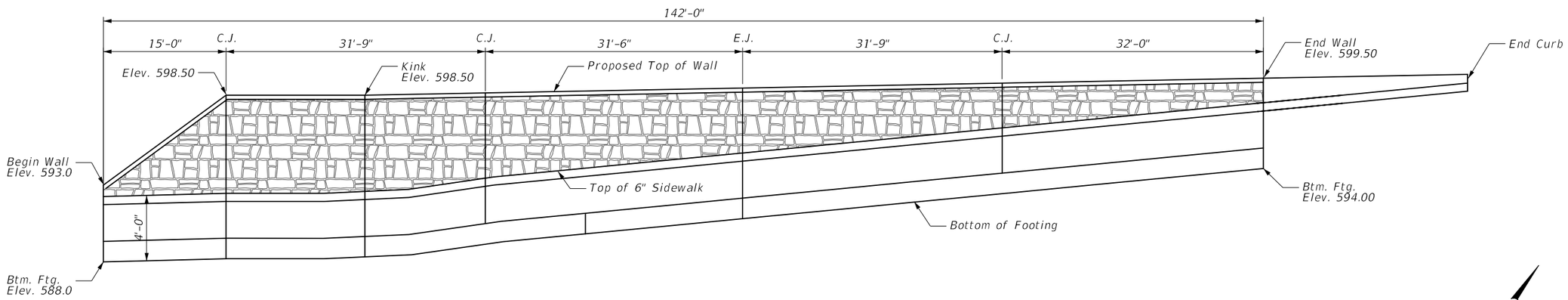
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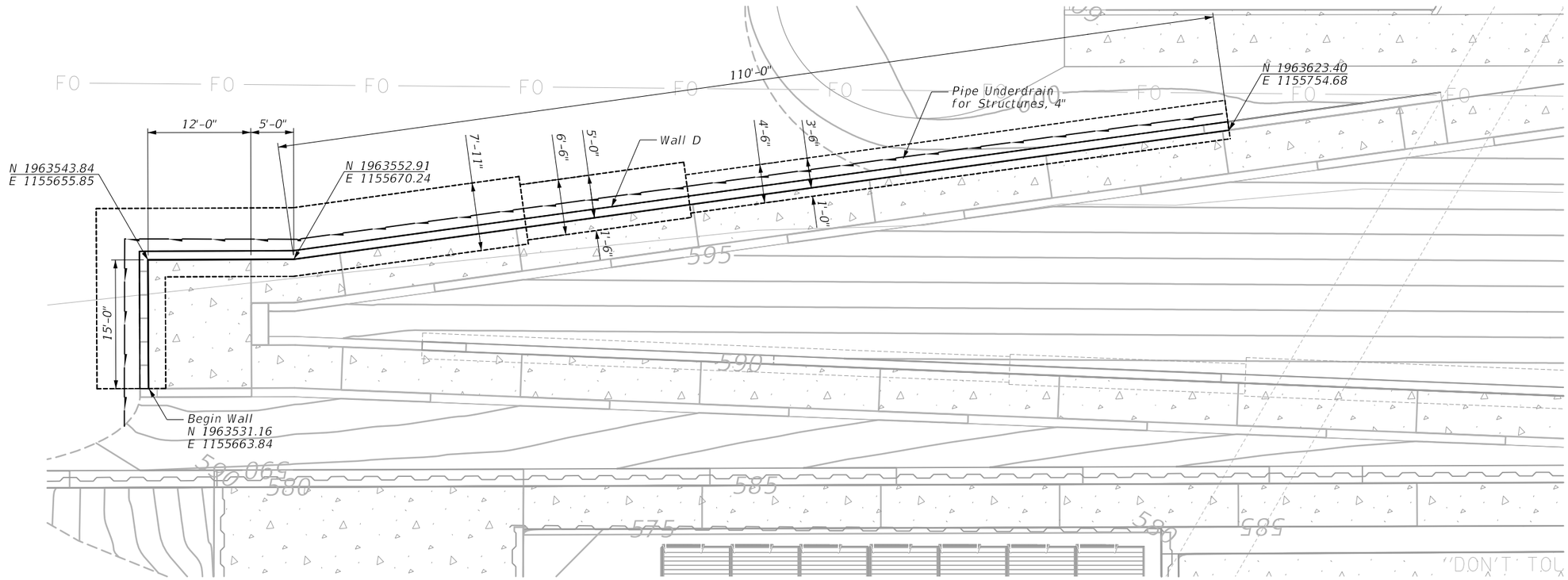
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November 12, 2026

sheet name
Proposed Wall C
General Plan and Elevation

sheet number
S-12



ELEVATION



PLAN

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issue / revision	date	description

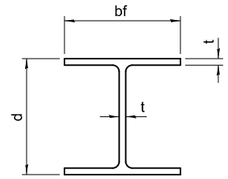
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sheet name
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General Plan and Elevation

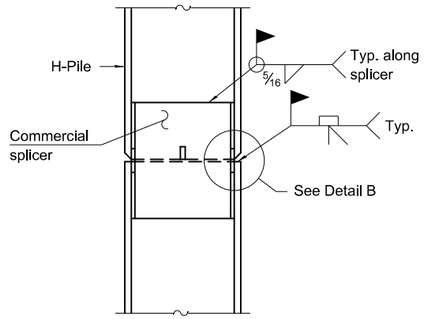
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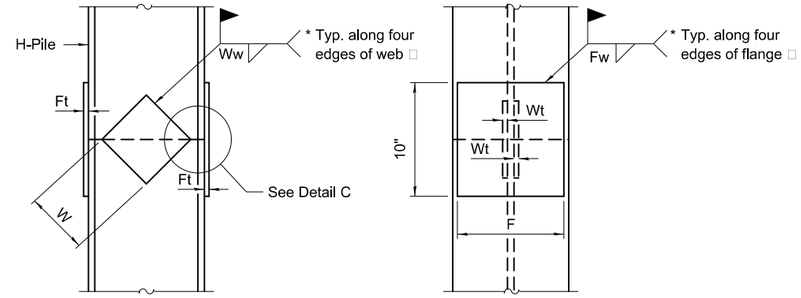


STEEL PILE TABLE

Designation	Depth d	Flange width bf	Web and Flange thickness t	Encasement diameter A
HP 18x181	18	18	1	36"
x157	17 3/4"	17 7/8"	7/8"	36"
x135	17 1/2"	17 3/4"	3/4"	36"
HP 16x183	16 1/2"	16 1/2"	1 1/8"	36"
x162	16 1/4"	16 1/8"	1"	36"
x141	16	16	7/8"	36"
x121	15 3/4"	15 7/8"	3/4"	36"
HP 14x117	14 1/4"	14 7/8"	13/16"	30"
x102	14"	14 3/4"	11/16"	30"
x89	13 7/8"	14 3/4"	5/8"	30"
x73	13 5/8"	14 5/8"	1/2"	30"
HP 12x84	12 1/4"	12 1/4"	11/16"	24"
x74	12 1/8"	12 1/4"	5/8"	24"
x63	12"	12 1/8"	1/2"	24"
x53	11 3/4"	12"	7/16"	24"
HP 10x57	10"	10 1/4"	9/16"	24"
x42	9 3/4"	10 1/8"	7/16"	24"
HP 8x36	8"	8 1/8"	7/16"	18"

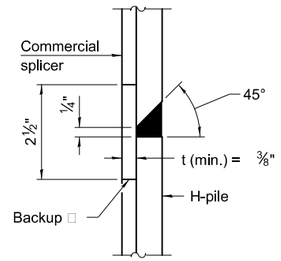


ELEVATION

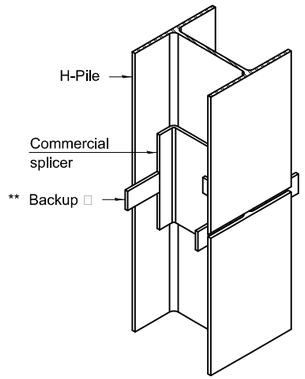


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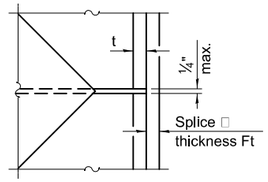
END VIEW



DETAIL B

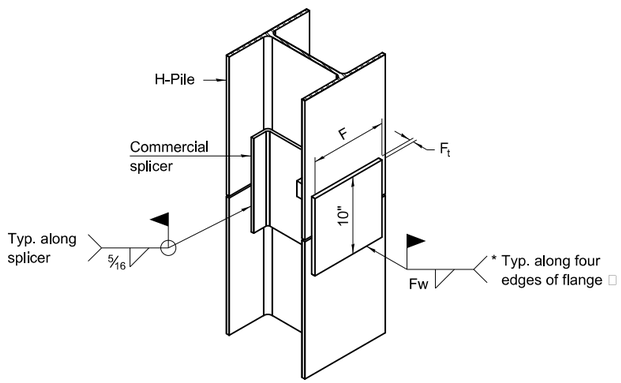


ISOMETRIC VIEW



DETAIL C

WELDED COMMERCIAL SPLICE



ISOMETRIC VIEW

WELDED COMMERCIAL SPLICE ALTERNATE

* Interrupt welds 1/4" from end of web and/or each flange.

** Remove portions of backup □'s that extend outside the flanges.

*** Weld size per pile shoe manufacturer (5/16" min.).

Designation	F	Ft	Fw	W	Wt	Ww
HP 18x181	15 1/2"	1 1/2"	1"	9 1/2"	7/8"	3/4"
x157	15 1/4"	1 1/4"	1"	9 1/2"	7/8"	3/4"
x135	15 1/4"	1 1/4"	1"	9 1/2"	7/8"	3/4"
HP 16x183	13 3/4"	1 1/2"	1"	8 1/4"	7/8"	3/4"
x162	13 1/2"	1 1/2"	1"	8 1/4"	3/4"	5/8"
x141	13 1/2"	1 1/4"	7/8"	8 1/4"	3/4"	5/8"
x121	13 1/2"	1 1/4"	7/8"	8 1/4"	3/4"	5/8"
HP 14x117	12 1/2"	1 1/4"	7/8"	7 3/4"	5/8"	1/2"
x102	12 1/2"	1"	3/4"	7 3/4"	5/8"	1/2"
x89	12 1/2"	7/8"	11/16"	7 3/4"	5/8"	1/2"
x73	12 1/2"	3/4"	9/16"	7 3/4"	5/8"	1/2"
HP 12x84	10"	1"	11/16"	6 1/2"	5/8"	1/2"
x74	10"	7/8"	11/16"	6 1/2"	5/8"	1/2"
x63	10"	3/4"	1/2"	6 1/2"	1/2"	3/8"
x53	10"	3/4"	1/2"	6 1/2"	1/2"	3/8"
HP 10x57	8"	7/8"	9/16"	5 1/4"	1/2"	3/8"
x42	8"	3/4"	9/16"	5 1/4"	1/2"	3/8"
HP 8x36	6 3/4"	5/8"	7/16"	4"	1/2"	3/8"

WELDED PLATE FIELD SPLICE

Note:
The steel H-piles shall be according to AASHTO M270 Grade 50.

F-HP

4-4-2025

11/3/2026
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BID SET
November 12, 2026

Issue / revision	date	description
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issue date
November 12, 2026

sheet name
HP Pile Details

sheet number
S-14

PROJECT **Ladd Arboretum Canoe Launch, SWC McCormick Blvd. & Bridge St., Evanston, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 820 Davis Street, Evanston, IL**

BORING **1** DATE STARTED **11-29-23** DATE COMPLETED **11-29-23** JOB **L-96,350**

ELEVATIONS
GROUND SURFACE **599.0**
END OF BORING **519.0**

WATER LEVEL OBSERVATIONS
▼ WHILE DRILLING **13.0 '**
▽ AT END OF BORING **N/A - Rotary Wash**
▼ 24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.7	598.3	FILL - Black clayey TOPSOIL (OL)
1	SS		4	28.1	2.5*	95	3.0	596.0	FILL - Dark brown silty CLAY, little sand, trace organic, moist (CL/CH)
2	SS		7	19.8					Loose brown and gray clayey SILT, trace to little sand, moist (ML)
3	SS		6	22.1			8.0	591.0	
4	SS		6	32.4	1.37 1.25*		10.5	588.5	Stiff brown and gray silty CLAY, trace sand, moist to very moist (CL)
5	SS		2	41.3	0.5*				
6	SS		2	29.4	0.63 0.5*		16.0	583.0	▼ Soft to medium stiff brown and gray silty CLAY, trace sand, very moist (CL)
	VANE		--	--	Fv=0.20				
7	ST		PUSH	26.6	0.40 Tv= 0.15	98			
	VANE		--	--	Fv=0.23				
8	SS		WOH	21.0	0.25*				Soft to medium stiff gray silty CLAY, trace sand and gravel, very moist (CL)
	VANE		--	--	Fv=0.28				
9	SS		1	18.4	0.35 0.5*				
	VANE		--	--	Fv=0.33				
10	SS		2	25.1	0.5*				
11	SS		7	22.7	0.42 0.5*				

WOH = Weight of Hammer

Tv = Torvane Shear Test (Su in tsf)
Fv = Field Vane Shear Test (Su in tsf)

DISTANCE BELOW SURFACE IN FEET

TSC 96350.GPJ TSC_ALL.GDT 8/22/24

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Ladd Arboretum Canoe Launch, SWC McCormick Blvd. & Bridge St., Evanston, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 820 Davis Street, Evanston, IL**

BORING **1** DATE STARTED **11-29-23** DATE COMPLETED **11-29-23** JOB **L-96,350**

ELEVATIONS
GROUND SURFACE **599.0**
END OF BORING **519.0**

WATER LEVEL OBSERVATIONS
▼ WHILE DRILLING **13.0 '**
▽ AT END OF BORING **N/A - Rotary Wash**
▼ 24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
12	SS		6	21.3	0.5*				Soft to medium stiff gray silty CLAY, trace sand and gravel, very moist (CL)
13	SS		7	19.5	0.42 0.5*				
14	SS		8	18.4	1.0*		52.0	547.0	
15	SS		9	18.9	0.97 1.0*				Medium stiff to stiff gray silty CLAY, little sand, trace gravel, very moist to moist (CL)
16	SS		10	18.2	1.5*				* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.
17	SS		19	14.6	2.43 2.5*		67.0	532.0	Very stiff gray silty CLAY, little sand, trace gravel, moist (CL)
18	SS		49	9.9	4.5+*		72.0	527.0	Hard gray silty CLAY, little to some sand and gravel, moist (CL)
19	SS		67	9.6	4.5+*				End of Boring at 80.0'

DISTANCE BELOW SURFACE IN FEET

TSC 96350.GPJ TSC_ALL.GDT 8/22/24

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **New Canoe Launch, SWC McCormick Blvd. & Bridge St., Evanston, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 W. Higgins Rd., Rosemont, IL**

BORING **2** DATE STARTED **7-13-23** DATE COMPLETED **7-13-23** JOB **L-95,869**

ELEVATIONS
GROUND SURFACE **599.5**
END OF BORING **574.5**

WATER LEVEL OBSERVATIONS
▼ WHILE DRILLING **10.5 '**
▽ AT END OF BORING **10.0 '**
▼ 24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.8	598.7	FILL - Black clayey TOPSOIL (OL)
1	SS		6	23.0	3.0*	102	3.0	596.5	FILL - Brown and gray silty CLAY, little sand, trace gravel, moist (CL)
2	SS		6	20.6	1.5*				Stiff brown silty CLAY, little sand, trace gravel, moist to very moist (CL)
3	SS		6	20.3			5.5	594.0	Loose brown and gray clayey SILT, trace sand, moist (ML)
4	SS		7	25.0	2.96 2.5*		8.0	591.5	Very stiff brown and gray silty CLAY, little sand, trace gravel, moist (CL)
5	SS		2	34.6	0.5*		10.5	589.0	▽ ▼
6	SS		2	35.6	0.5*				Medium stiff to soft gray silty CLAY, trace sand, very moist (CL)
7	SS		2	25.2	0.25*				
8	SS		2	28.5	0.25*		17.0	582.5	Soft gray silty CLAY, trace sand and gravel, very moist (CL)

End of Boring at 25.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

TSC 96869.GPJ TSC_ALL.GDT 8/22/24

DRILL RIG NO. **262**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Ladd Arboretum Canoe Launch, SWC McCormick Blvd. & Bridge St., Evanston, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 820 Davis Street, Evanston, IL**

BORING **3** DATE STARTED **11-30-23** DATE COMPLETED **11-30-23** JOB **L-96,350**

ELEVATIONS
GROUND SURFACE **599.0**
END OF BORING **514.0**

WATER LEVEL OBSERVATIONS
▼ WHILE DRILLING **10.5 '**
▽ AT END OF BORING **N/A - Rotary Wash**
▼ 24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.7	598.3	FILL - Black clayey TOPSOIL (OL)
1	SS		10	15.8	4.5+*	115	3.0	596.0	FILL - Brown and gray silty CLAY, little sand and gravel, trace glass pieces, moist (CL)
2	SS		6	26.4	2.0*		5.5	593.5	Stiff to very stiff brown and gray silty CLAY, little sand, moist (CL)
3	SS		4	21.3	2.69 2.75*				Very stiff brown and gray silty CLAY, little sand, trace gravel, moist (CL)
4	SS		3	24.5	2.01 2.25*		10.5	588.5	▽ ▼
5	SS		3	41.0	0.25*				Soft gray silty CLAY, trace sand, very moist (CL)
6	SS		2	31.1	0.5*		13.0	586.0	
	VANE		--	--	Fv=0.23				
7	ST		PUSH	40.1	0.60 Tv= 0.25	80			Soft to medium stiff gray silty CLAY, trace sand, very moist (CL)
	VANE		--	--	Fv=0.26				
8	ST		PUSH	25.1	0.40 Tv= 0.25	99	22.0	577.0	
	VANE		--	--	Fv=0.25				
9	ST		PUSH	22.3	0.40 Tv= 0.25	107			Soft to medium stiff gray silty CLAY, trace sand and gravel, very moist (CL)
	VANE		--	--	Fv=0.33				
10	SS		3	19.4	0.5*				
11	SS		6	19.1	0.5*				

WOH = Weight of Hammer

Tv = Torvane Shear Test (Su in tsf)
Fv = Field Vane Shear Test (Su in tsf)

DISTANCE BELOW SURFACE IN FEET

TSC 96350.GPJ TSC_ALL.GDT 8/22/24

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Ladd Arboretum Canoe Launch, SWC McCormick Blvd. & Bridge St., Evanston, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 820 Davis Street, Evanston, IL**

BORING **3** DATE STARTED **11-30-23** DATE COMPLETED **11-30-23** JOB **L-96,350**

ELEVATIONS
GROUND SURFACE **599.0**
END OF BORING **514.0**

WATER LEVEL OBSERVATIONS
▼ WHILE DRILLING **10.5 '**
▽ AT END OF BORING **N/A - Rotary Wash**
▼ 24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
12	SS		10	16.2	1.0*		42.0	557.0	Soft to medium stiff gray silty CLAY, trace sand and gravel, very moist (CL)
13	SS		6	23.6	0.70 0.75*				
14	SS		7	22.0	0.63 0.75*				Stiff to medium stiff gray silty CLAY, little sand, trace gravel, very moist (CL)
15	SS		7	21.4	0.75*				
16	SS		10	24.1	0.70 0.75*		67.0	532.0	
17	SS		21	14.6	3.0*				Very stiff gray silty CLAY, little sand and gravel, moist (CL)
18	SS		25	14.3	3.09 3.0*		77.0	522.0	
19	SS		57	9.9	4.5+*				Hard gray silty CLAY, little to some sand and gravel, moist (CL)

DISTANCE BELOW SURFACE IN FEET

TSC 96350.GPJ TSC_ALL.GDT 8/22/24

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Ladd Arboretum Canoe Launch, SWC McCormick Blvd. & Bridge St., Evanston, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 820 Davis Street, Evanston, IL**

BORING **3** DATE STARTED **11-30-23** DATE COMPLETED **11-30-23** JOB **L-96,350**

ELEVATIONS
GROUND SURFACE **599.0**
END OF BORING **514.0**

WATER LEVEL OBSERVATIONS
▼ WHILE DRILLING **10.5 '**
▽ AT END OF BORING **N/A - Rotary Wash**
▼ 24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γDRY	DEPTH	ELEV.	SOIL DESCRIPTIONS
20	SS		79	6.3	4.5+*				Hard gray silty CLAY, little to some sand and gravel, moist (CL)

End of Boring at 85.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

TSC 96350.GPJ TSC_ALL.GDT 8/22/24

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

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City of Evanston

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LAUNCH

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issue date
November 12, 2026

sheet name
Boring Logs

sheet number
S-15

11/3/2026
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LIGHTING/ELECTRICAL GENERAL NOTES

1. THE CONTRACTOR SHALL BE LICENSED TO PERFORM WORK WITH THE OWNER AND OBTAIN THE REQUIRED PERMITS FROM THE BUILDING DEPARTMENT AND SHALL BE RESPONSIBLE FOR OBTAINING/RETAINING THE REQUIRED INSURANCE AND BONDS BEFORE THE START OF WORK. ANY COST FOR THE LICENSING, BONDS OR INSURANCE SHALL BE INCLUDED IN THE ENTIRE COST OF THE CONTRACT.

2. THE EXACT LOCATIONS OF ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR BEFORE THE INSTALLATION OF ANY COMPONENTS OF THE LIGHTING SYSTEM. FOR THE LOCATIONS OF THE UTILITIES, CALL JULIE TOLL FREE AT (800) 892-0123 AND EVANSTON FACILITIES MANAGEMENT AT (847) 866-2974.

3. BEFORE INSTALLING LIGHT STANDARDS NEAR OVERHEAD AND UNDERGROUND ELECTRIC UTILITIES, CONTRACTOR SHALL CALL COM ED FOR LOCATION APPROVAL AND MINIMUM CLEARANCE REQUIREMENTS.

4. THE WORK PERFORMED UNDER THIS CONTRACT SHALL IN NO WAY INTERFERE WITH THE NORMAL OPERATION OF ANY EXISTING UTILITY SERVICE. THE CONTRACTOR SHALL FURNISH ALL NECESSARY ITEMS OF EQUIPMENT REQUIRED TO MAINTAIN SUCH NORMAL OPERATION AT NO ADDITIONAL COST TO THE OWNER. THE COST ASSOCIATED FOR THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE COST OF THE CONTRACT, AND NO ADDITIONAL COMPENSATION SHALL BE AWARDED.

5. ALL DISTURBED AREAS WHERE RESTORATION IS NOT COVERED BY APPLICABLE SECTIONS OF THE SPECIAL PROVISIONS MUST BE RESTORED TO THE SATISFACTION OF THE OWNER. THE WORK WILL BE CONSIDERED INCLUDED IN THE COST THE CONTRACT. SEPARATE PAYMENT WILL NOT BE MADE.

6. THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY AS WELL AS SUPERVISION/DIRECTION AND MEANS/METHODS OF CONSTRUCTION.

7. ALL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE FOLLOWING SPECIFICATIONS, WHICH ARE
HEREBY MADE A PART HEREOF:

   A. "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", AS PREPARED BY IDOT

   B. THE NATIONAL ELECTRICAL CODE

   C. MUNICIPAL CODES AND STANDARDS

8. NO MATERIALS SHALL BE DELIVERED TO THE JOB SITE UNTIL ALL PERTINENT EQUIPMENT SUBMITTALS HAVE BEEN REVIEWED BY THE ENGINEER.

9. THE CONTRACTOR SHALL LABEL ALL WIRES WITH WIRE MARKERS INDICATING THE CIRCUIT ID IN EVERY POLE BASE, HAND HOLE AND SPLICE/CONNECTION POINT. WIRE MARKERS SHALL BE WHITE NYLON WITH INTEGRAL
MECHANICAL FASTENER WITH MINIMUM ¾" X 1" WRITEABLE AREA.

10. ALL UNDERGROUND WIRING SHALL BE XLP-TYPE USE, EXTRA ABRASION RESISTANCE, 600 VOLTS, INSTALLED IN SCH 40 HDPE CONDUIT A MINIMUM 30 INCHES BELOW FINISH GRADE.

11. ALL UNDERGROUND CONDUIT SHALL BE INSTALLED BY HORIZONTAL DIRECTIONAL DRILLING (HDD) TRENCHLESS METHOD. LOCATIONS WHERE TRENCHING AND/OR HAND DIGGING ARE REQUIRED SHALL BE REVIEWED BY THE ENGINEER.

12. TO MAINTAIN THE STRUCTURAL INTEGRITY OF LIGHT POLES WITH LUMINAIRE ARMS, THEY SHALL NOT BE ERECTED AND LEFT TO STAND WITHOUT LUMINAIRES.

13. ALL LIGHT POLE HANDHOLES SHALL FACE AWAY FROM VEHICULAR TRAFFIC.

14. NO POLES SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED AND HAVE BEEN REVIEWED BY THE ENGINEER.

15. THE LIGHT POLE LOCATIONS SHALL COMPLY WITH THE MINIMUM CLEAR WIDTH FOR AN ACCESSIBLE ROUTE FOR SIDEWALKS PER CURRENT AMERICAN WITH DISABILITIES ACT (ADA) REQUIREMENTS, BDE CHAPTER 17-4.04, AND PUBLIC RIGHT-OF-WAY ACCESSIBILITY GUIDELINES (PROWAG) R301.3.1.

16. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF THE TOP OF FOUNDATION ELEVATION WITH THE FINISH GRADE.

17. EQUIPMENT GROUND CONDUCTORS SHALL BE SPLICED AND BONDED AT EACH LIGHT POLE OR OTHER PIECE OF EQUIPMENT.

18. THE CONTRACTOR SHALL STAKE ALL LIGHT POLE AND PROPOSED EQUIPMENT LOCATIONS PRIOR TO REQUESTING A JULIE LOCATE. UPON LIGHT POLE LOCATIONS BEING STAKED, THE CONTRACTOR SHALL SCHEDULE A MEETING FOR EXAMINATION AND CONFIRMATION OF LIGHT POLE LOCATIONS WITH THE CITY AND ENGINEER.

19. THE ELECTRICAL CONTRACTOR SHALL FURNISH TWO SETS OF FULL SIZE RECORD DRAWINGS (HARD COPY, CAD AND PDF) TO THE ENGINEER UPON COMPLETION OF THE LIGHTING AND ELECTRICAL IMPROVEMENTS. THE DRAWINGS SHALL SHOW THE INSTALLED LOCATIONS OF ALL LIGHT POLES, UNDERGROUND CONDUITS/WIRING, HANDHOLES, JUNCTION BOXES AND CONTROLLER CABINETS. THE DRAWINGS WILL BE REVIEWED BY THE ENGINEER.

20. UPON COMPLETION OF THE PROPOSED LIGHTING IMPROVEMENTS, THE CONTRACTOR SHALL PERFORM ELECTRICAL TESTING AND VERIFY THAT THE INSTALLATION COMPLIES WITH THE LATEST EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION IN ILLINOIS. ALL ELECTRICAL TESTING SHALL BE PERFORMED IN THE PRESENCE OF THE ENGINEER.

21. THE CONTRACT DRAWINGS AND SPECIFICATIONS ARE NOT INTENDED TO SHOW EVERY AND ALL DETAILS OF WORK TO BE PERFORMED OR EQUIPMENT TO BE SUPPLIED. THE INTENT OF THE CONTRACT DRAWINGS IS TO ILLUSTRATE THE CONCEPTUAL DESIGN AND LAYOUT. THE CONTRACTOR SHALL BE KNOWLEDGEABLE AND REGULARLY ENGAGED IN THE TYPE OF WORK DESCRIBED BY THESE CONTRACT DRAWINGS AND SPECIFICATIONS AND SHALL BE RESPONSIBLE FOR UNDERSTANDING THEIR INTENT. ANY WORK TO BE PERFORMED OR ITEM OF EQUIPMENT SUPPLIED WHICH IS NOT SPECIFICALLY CALLED FOR BY THESE CONTRACT DRAWINGS AND SPECIFICATIONS, BUT WHICH IS NECESSARY TO PROVIDE A COMPLETE AND SUCCESSFUL WORKING SYSTEM SHALL BE INCLUDED IN THE CONTRACTOR'S SCOPE OF WORK AT NO ADDITIONAL COST TO THE OWNER.

22. ALL REMOVAL OR EXCAVATION ITEMS BEING DISPOSED OF AT AN UNCONTAMINATED SOIL FILL OPERATION OR CLEAN CONSTRUCTION AND DEMOLITION DEBRIS (CCDD) FILL SITE SHALL MEET THE REQUIREMENTS OF PUBLIC ACT 96-1416. ALL COSTS ASSOCIATED WITH MEETING THESE REQUIREMENTS SHALL BE INCLUDED IN CONTRACT. THESE COSTS SHALL INCLUDE BUT ARE NOT LIMITED TO ALL REQUIRED TESTING, LAB ANALYSIS, CERTIFICATION BY A LICENSED PROFESSIONAL ENGINEER, AND STATE OR LOCAL TIPPING FEES.

23. CONTRACTOR SHALL BE RESPONSIBLE FOR TIMELY NOTIFICATION AND ALL COORDINATION WITH COMED FOR THE NEW ELECTRIC SERVICE FOR THE PROPOSED LIGHTING/ELECTRICAL CONTROLLER.

LIGHTING/ELECTRICAL BILL OF MATERIALS

	DESCRIPTION	UNIT	QUANTITY
•	ELECTRIC SERVICE INSTALLATION	EACH	1
•	ELECTRIC UTILITY SERVICE CONNECTION	L SUM	1
	UNDERGROUND CONDUIT, GALVANIZED STEEL, 2" DIA.	FOOT	75
	UNDERGROUND CONDUIT, GALVANIZED STEEL, 3" DIA.	FOOT	460
	UNDERGROUND CONDUIT, PVC, 4" DIA.	FOOT	215
	UNDERGROUND CONDUIT, COILABLE NONMETALLIC CONDUIT, 1 1/4" DIA.	FOOT	1310
	HANDHOLE, COMPOSITE CONCRETE	EACH	5
	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 10	FOOT	2145
	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 6	FOOT	1350
	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 3/0	FOOT	255
	ELECTRIC CABLE IN CONDUIT, 600V (XLP-TYPE USE) 1/C NO. 300MCM	FOOT	1855
	LIGHTING CONTROLLER, BASE MOUNTED, 240VOLT 200AMP	EACH	1
	LIGHT POLE FOUNDATION, 24" DIAMETER	FOOT	21
•	POWER PEDESTALS	EACH	3
•	RECEPTACLE OUTLET	EACH	2
•	POTHOLING	EACH	2
•	EV CHARGING STATION, COMPLETE	L SUM	1
•	ELECTRICAL SERVICE DISCONNECT	EACH	1
•	HANDHOLE (SPECIAL)	EACH	1
•	LIGHTING UNIT COMPLETE (SPECIAL)	EACH	2

• SEE SPECIAL PROVISION

CAUTION!
NOTE TO CONTRACTOR:

THE CONTRACTOR IS SPECIFICALLY CAUTIONED TO THE LOCATION AND/OR ELEVATION OF EXISTING AND PROPOSED UTILITIES AND/OR STRUCTURES AS SHOWN ON THESE DRAWINGS. THE INFORMATION IS NOT TO BE RELIED ON AS BEING EXACT OR COMPLETE. THE CONTRACTOR MUST CALL THE LOCAL UTILITY LOCATION CENTER AT LEAST 72 HOURS BEFORE ANY EXCAVATION TO REQUEST EXACT FIELD LOCATIONS OF THE UTILITIES. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INFORM ENGINEER OF ANY EXISTING UTILITIES WHICH CONFLICT WITH THE PROPOSED IMPROVEMENTS.

THE CITY OF EVANSTON WILL OWN AND MAINTAIN THE PROPOSED LIGHTING/ELECTRICAL SYSTEM

ABBREVIATIONS

A	AMPS
ATS	ATTACHED TO STRUCTURE
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CNC	COILABLE NON-METALLIC CONDUIT
CT	CURRENT TRANSFORMER
DA	DAVIT ARM
DIA	DIAMETER
EIS	EMBEDDED IN STRUCTURE
EX	EXISTING
FT	FOOT
FOC	FACE OF CURB
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
HDPE	HIGH DENSITY POLYETHYLENE
HH	HAND HOLE
HID	HIGH INTENSITY DISCHARGE
HPS	HIGH PRESSURE SODIUM
JB	JUNCTION BOX
KW	KILOWATTS
LED	LIGHT EMITTING DIODE
MA	MAST ARM
MH	MOUNTING HEIGHT
NTS	NOT TO SCALE
PVC	POLYVINYL CHLORIDE
RGS	RIGID GALVANIZED STEEL CONDUIT
ROW	RIGHT OF WAY
SS	STAINLESS STEEL
STA	STATION
XFMR	TRANSFORMER
UD	UNIT DUCT
V	VOLTS
W	WATTS
WR	WEATHER RESISTANT

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City of Evanston

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LADD ARBORETUM LAUNCH

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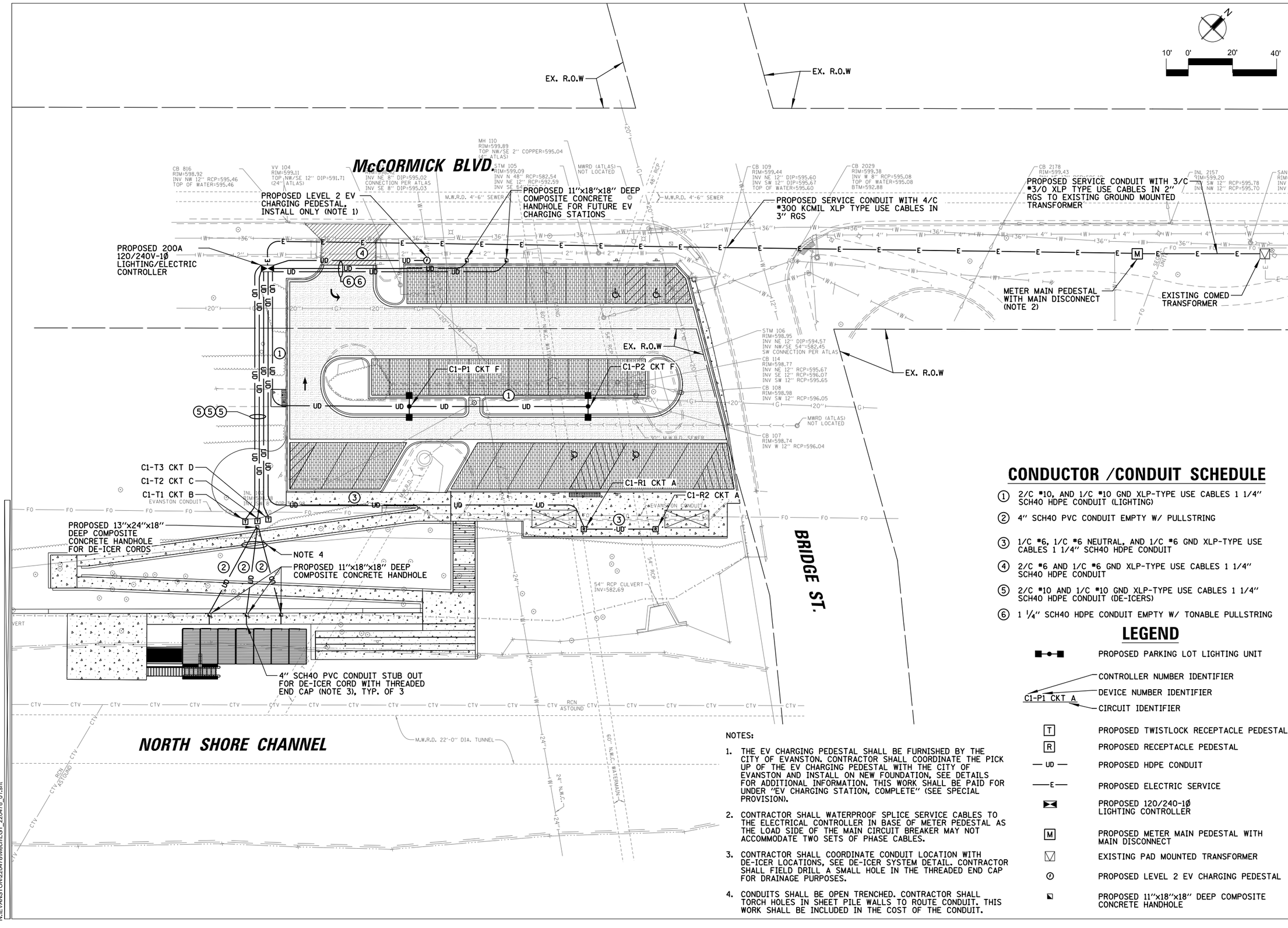
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issue date
November 12, 2026

sheet name
LIGHTING/ELECTRICAL GENERAL NOTES AND BILL OF MATERIALS

sheet number
E-01

11/3/2026
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CONDUCTOR /CONDUIT SCHEDULE

1. 2/C #10, AND 1/C #10 GND XLP-TYPE USE CABLES 1 1/4" SCH40 HDPE CONDUIT (LIGHTING)
2. 4" SCH40 PVC CONDUIT EMPTY W/ PULLSTRING
3. 1/C #6, 1/C #6 NEUTRAL, AND 1/C #6 GND XLP-TYPE USE CABLES 1 1/4" SCH40 HDPE CONDUIT
4. 2/C #6 AND 1/C #6 GND XLP-TYPE USE CABLES 1 1/4" SCH40 HDPE CONDUIT
5. 2/C #10 AND 1/C #10 GND XLP-TYPE USE CABLES 1 1/4" SCH40 HDPE CONDUIT (DE-ICERS)
6. 1 1/4" SCH40 HDPE CONDUIT EMPTY W/ TONABLE PULLSTRING

LEGEND

- PROPOSED PARKING LOT LIGHTING UNIT
- CONTROLLER NUMBER IDENTIFIER
- DEVICE NUMBER IDENTIFIER (C1-P1 CKT A)
- CIRCUIT IDENTIFIER
- [T] PROPOSED TWISTLOCK RECEPTACLE PEDESTAL
- [R] PROPOSED RECEPTACLE PEDESTAL
- — UD — PROPOSED HDPE CONDUIT
- —E— PROPOSED ELECTRIC SERVICE
- PROPOSED 120/240-1Ø LIGHTING CONTROLLER
- [M] PROPOSED METER MAIN PEDESTAL WITH MAIN DISCONNECT
- EXISTING PAD MOUNTED TRANSFORMER
- PROPOSED LEVEL 2 EV CHARGING PEDESTAL
- PROPOSED 11"x18"x18" DEEP COMPOSITE CONCRETE HANDHOLE

NOTES:

1. THE EV CHARGING PEDESTAL SHALL BE FURNISHED BY THE CITY OF EVANSTON. CONTRACTOR SHALL COORDINATE THE PICK UP OF THE EV CHARGING PEDESTAL WITH THE CITY OF EVANSTON AND INSTALL ON NEW FOUNDATION, SEE DETAILS FOR ADDITIONAL INFORMATION. THIS WORK SHALL BE PAID FOR UNDER "EV CHARGING STATION, COMPLETE" (SEE SPECIAL PROVISION).
2. CONTRACTOR SHALL WATERPROOF SPLICE SERVICE CABLES TO THE ELECTRICAL CONTROLLER IN BASE OF METER PEDESTAL AS THE LOAD SIDE OF THE MAIN CIRCUIT BREAKER MAY NOT ACCOMMODATE TWO SETS OF PHASE CABLES.
3. CONTRACTOR SHALL COORDINATE CONDUIT LOCATION WITH DE-ICER LOCATIONS, SEE DE-ICER SYSTEM DETAIL. CONTRACTOR SHALL FIELD DRILL A SMALL HOLE IN THE THREADED END CAP FOR DRAINAGE PURPOSES.
4. CONDUITS SHALL BE OPEN TRENCHED. CONTRACTOR SHALL TORCH HOLES IN SHEET PILE WALLS TO ROUTE CONDUIT. THIS WORK SHALL BE INCLUDED IN THE COST OF THE CONDUIT.

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PROPOSED LIGHTING/ ELECTRICAL PLAN

sheet number
E-02

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	ITEM	SPECIFICATION	MFG./MODEL NO. OR APPROVED EQUAL
1	MAIN CIRCUIT BREAKER	200 AMPERE, 2P, 240V SERVICE RATING, 14KAIC	EATON NO. ED2220L
2	LAMP HOLDER CIRCUIT BREAKER	20 AMPERE, 1P, 120V RATING, 14KAIC	EATON NO. EHD1020
3	PHOTOELECTRIC CONTROL CIRCUIT BREAKER	15 AMPERE, 1P, 120V RATING, 14KAIC	EATON NO. EHD1015
4	AUXILIARY RELAY	120 V OPERATED DPDT 60 HZ COIL 2 NO & 2 NC CONTACTS	MAGNECRAFT NO. 389 FXBXC1 - 120A
5	CABINET RECEPTACLE AND BOX	COMMERCIAL GRADE GFCI 20A/120V, MOUNTED IN A WEATHERPROOF CAST ALUMINUM SINGLE GANG BOX WITH WEATHERPROOF COVER	RECEPTACLE: LEVITON NO. 8899, BOX: APPLETON NO. WSM150 COVER: APPLETON NO. WHG1
6	CABINET LIGHT	5 WATT LED STRIP LIGHT, 60K HOUR RATING, 65K COLOR TEMPERATURE, DOOR SWITCH CONTROLLED, FASTENED TO TOP OF CABINET	PENTAIR NO. LEDA1S35
7	CONTACTOR	200 AMPERE, 2P, 120V COIL, MECHANICALLY HELD	SQUARE D NO. 8903 SV01 V02
8	BRANCH LINE CIRCUIT BREAKERS	(2) 20A, 2P, 240V RATING, 14KAIC	EATON NO. EHD2020
9	POWER DISTRIBUTION BLOCK	600 VOLT, INSULATED, SIZE AS REQ'D, 14KAIC	MARATHON
10	SERVICE CABLES	3-600V (XLP-TYPE USE) NO. #3/0	N/A
11	LAMP HOLDER WIRE	2-600V XLP NO. 12	N/A
12	CONTROL WIRE	2-600V XLP NO. 12	N/A
13	SURGE ARRESTOR	10 K AMPERE RATING	SQUARE D NO. SDSA 1175
14	PHOTOELECTRIC CONTROL WIRE	3-600V XLP NO. 12	N/A
15	DOOR SWITCH	20A/120V, DOOR MOUNTED SNAP ACTION TYPE PLUNGER SWITCH	OMRON NO. A-20GQ-K
16	HAND-AUTO-OFF CONTROL SWITCH	20A, 3 POS. MTD IN CAST ALUM. ENCLOSURE	SQUARE D NO. 9001 KYK 111
17	PHOTOCELL	120V, MTD. ON CABINET, DELAY TYPE, SPST-NC	FISHER PIERCE NO. FPFA-105M
18	TERMINAL BLOCK	3 TERMINAL, SCREW TYPE, MAX. #10 WIRE SIZE	CINCH NO. 3-142
19	CIRCUIT BREAKER DIST. BLOCKS	30A, 600V, 10 KAIC - WIRE RANGE: LINE SIDE LUG (1) #2/0-#14 AWG, LOAD SIDE LUGS (2) #4-#14 AWG	MARATHON
20	BRANCH LINE CIRCUIT BREAKERS	(1) 20A, 1P, 120V RATING, 14KAIC	EATON NO. EHD1020
21	DE-ICER CIRCUIT BREAKERS	(3) 20A, 2P, 240V RATING, 10KAIC, GFCI	EATON NO. GFCB2020
22	EV CHARGER CIRCUIT BREAKERS	(3) 50A, 2P, 240V RATING, 14KAIC	EATON NO. EHD2050

NOTES:

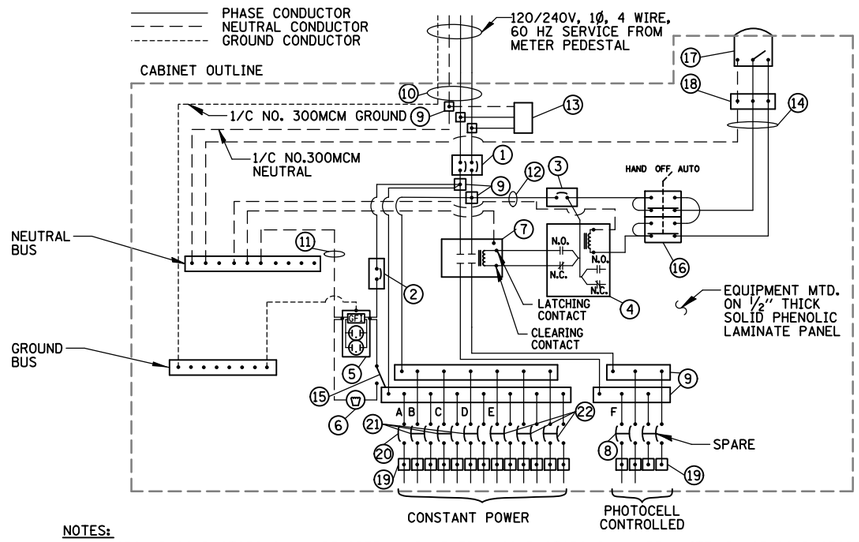
1. ALL ITEMS LISTED IN LIGHTING CONTROLLER COMPONENT SCHEDULE SHALL BE CONSIDERED INCIDENTAL TO THE PRICE BID FOR "LIGHTING CONTROLLER, BASE MOUNTED, 240 VOLT, 200 AMP" INCLUDING CABINET AND FOUNDATION.
2. THE LIGHTING CONTROLLER TOGETHER WITH ALL OF ITS COMPONENTS SHALL BE UL LISTED AS AN "ENCLOSED INDUSTRIAL CONTROL PANEL" UNDER UL508A.
3. CONNECTION OF SURGE ARRESTOR TO LINE SIDE OF MAIN CIRCUIT BREAKER SHALL NOT BE "DOUBLE LUGGED."
4. THE MAIN CIRCUIT BREAKER SHALL BE LABELED "SERVICE DISCONNECT".
5. ALL SWITCHES AND CONTROLS SHALL BE IDENTIFIED USING TWO COLOR ENGRAVED NAMEPLATES.
6. THE PANEL MANUFACTURER SHALL LABEL THE CABINET WITH THE APPROPRIATE ARC FLASH WARNING AND PERSONNEL PROTECTION EQUIPMENT REQUIRED FOR SERVICING.
7. ALL EXPOSED BUS BARS SHALL BE INSULATED.
8. ALL WIRING SHALL BE COPPER.

LIGHTING CONTROLLER COMPONENT SCHEDULE

LIGHTING /ELECTRICAL CONTROLLER CIRCUIT LOADS

CIRCUIT ID	WIRE COLOR	PARKING LOT LUMINAIRE		EVENT RECEPTACLE		DOCK DE-ICER		LEVEL 2 EV CHARGING PEDESTAL		TOTAL CIRCUIT LOAD	
		QTY.	LOAD/FIXT. (WATTS)	QTY.	LOAD/FIXT. (WATTS)	QTY.	LOAD/FIXT. (WATTS)	QTY.	LOAD/FIXT. (WATTS)	(WATTS)	AMPS (VOLTS)
A	B	-	68 W	2	960 W	-	744 W	-	9600 W	1920 W	16.0 A (120V)
B	R	-	68 W	-	960 W	1	744 W	-	9600 W	744 W	3.1 A (240V)
C	B	-	68 W	-	960 W	1	744 W	-	9600 W	744 W	3.1 A (240V)
D	R	-	68 W	-	960 W	1	744 W	-	9600 W	744 W	3.1 A (240V)
E	B	-	68 W	-	960 W	-	744 W	1	9600 W	9600 W	40.0 A (240V)
F	R	4	68 W	-	960 W	-	744 W	-	9600 W	272 W	1.1 A (240V)
TOTAL	-	4	N/A	2	N/A	3	N/A	1	N/A	14024 W	58.4 A (240V)

WIRE COLORS
R=RED
B=BLACK
W=WHITE
G-GREEN

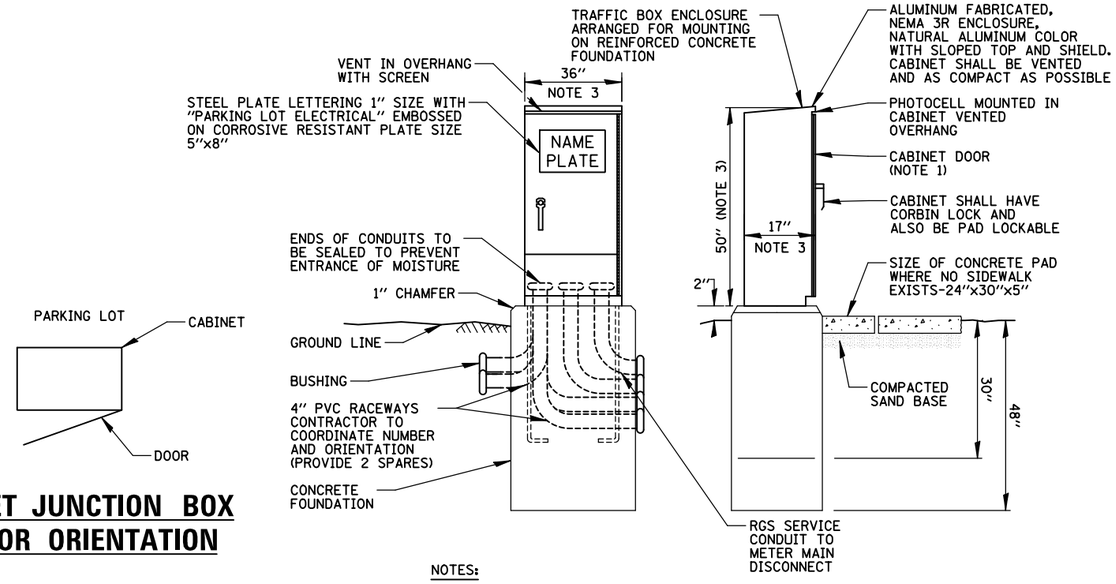


NOTES:

1. ALL GROUND CONDUCTORS SHALL BE GREEN AND NEUTRAL CONDUCTORS SHALL BE WHITE. PHASE CONDUCTORS SHALL BE COLOR CODED IN ACCORDANCE WITH SECTION 1066.02 OF THE STANDARD SPECIFICATIONS. CONTRACTOR SHALL ONLY USE SOLID COLOR CODED INSULATIONS. COLOR STRIPPING OF PHASE CONDUCTORS SHALL NOT BE ALLOWED.
2. IN ADDITION TO THE TERMINATIONS SHOWN, THE NEUTRAL AND GROUND BUS BARS SHALL EACH ACCOMMODATE A MINIMUM OF 8 ADDITIONAL TERMINATIONS (#2-#14).
3. IN ADDITION TO THE TERMINATIONS SHOWN, THE POWER DISTRIBUTION BLOCKS ON THE LOAD SIDE OF THE MAIN BREAKER SHALL EACH ACCOMMODATE A MINIMUM OF 4 ADDITIONAL TERMINATIONS (#2-#14).

LIGHTING CONTROLLER WIRING DETAIL

N.T.S.



CABINET JUNCTION BOX & DOOR ORIENTATION

N.T.S.

NOTES:

1. SEE CABINET JUNCTION BOX AND DOOR ORIENTATION DETAIL FOR BOX AND DOOR ORIENTATION.
2. ALL ITEMS SHOWN ABOVE (INCLUDING FOUNDATION) SHALL BE INCLUDED IN THE PRICE BID FOR "LIGHTING CONTROLLER, BASE MOUNTED, 240VOLT, 200 AMP", EXCEPT FOR THE SERVICE CONDUIT WHICH WILL BE PAID FOR SEPARATELY.
3. CABINET DIMENSIONS SHOWN ARE APPROXIMATE, CABINET SHALL BE AS COMPACT AS POSSIBLE, CONTRACTOR TO COORDINATE.

LIGHTING CONTROLLER CABINET AND FOUNDATION

N.T.S.

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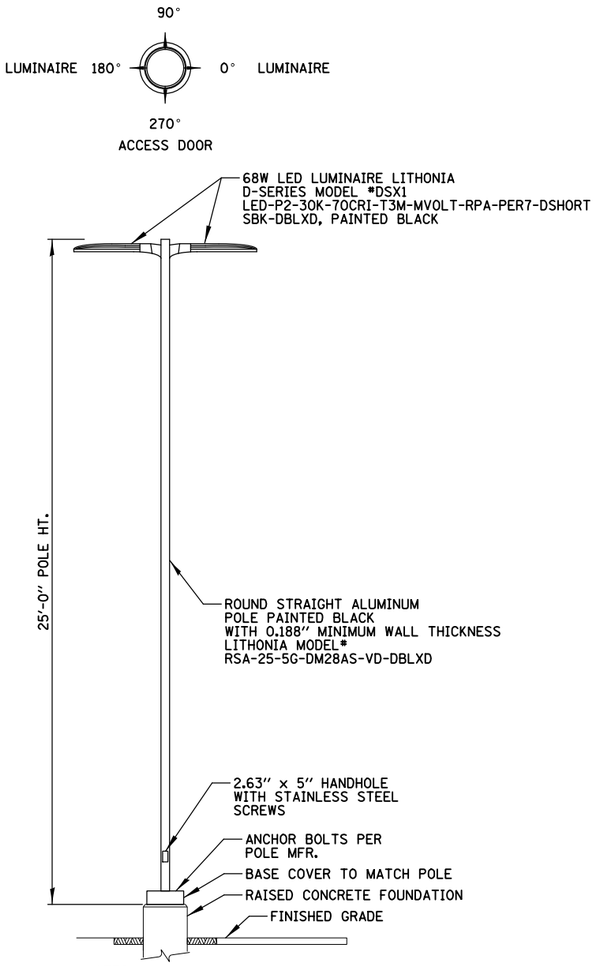
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LIGHTING/ELECTRICAL DETAILS

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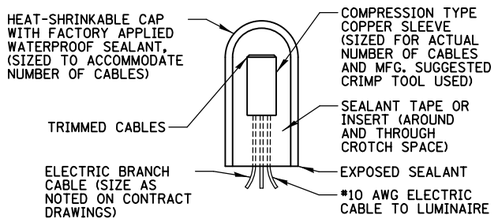


NOTES:

1. PAID FOR UNDER "LIGHTING UNIT COMPLETE (SPECIAL)", SEE SPECIAL PROVISION.

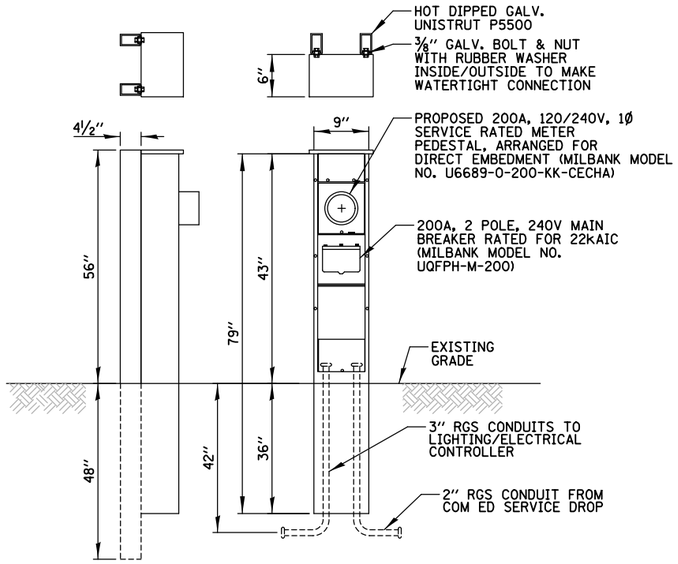
PARKING LOT LIGHTING UNIT

N.T.S.



SPLICING ELECTRIC CABLE

N.T.S.

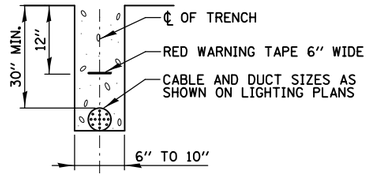


NOTES:

1. ALL CIRCUIT BREAKERS SHALL HAVE LOCKABLE COVERS.
2. THE SERVICE METER PEDESTAL, GROUND ROD/WIRING AND UNISTRUT SHALL BE INCLUDED IN THE PRICE BID FOR "ELECTRICAL SERVICE DISCONNECT" (SEE SPECIAL PROVISION). CONDUIT AND WIRING FROM THE METER PEDESTAL TO THE LIGHTING CONTROLLER AND SERVICE DROP SHALL BE PAID FOR SEPARATELY.

SERVICE METER PEDESTAL DETAIL

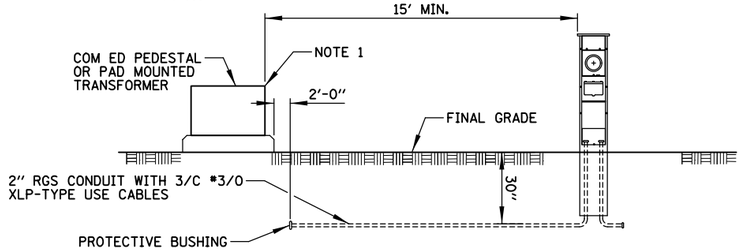
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TRENCH CROSS SECTION

ELECTRIC CONDUIT INSTALLATION

N.T.S.

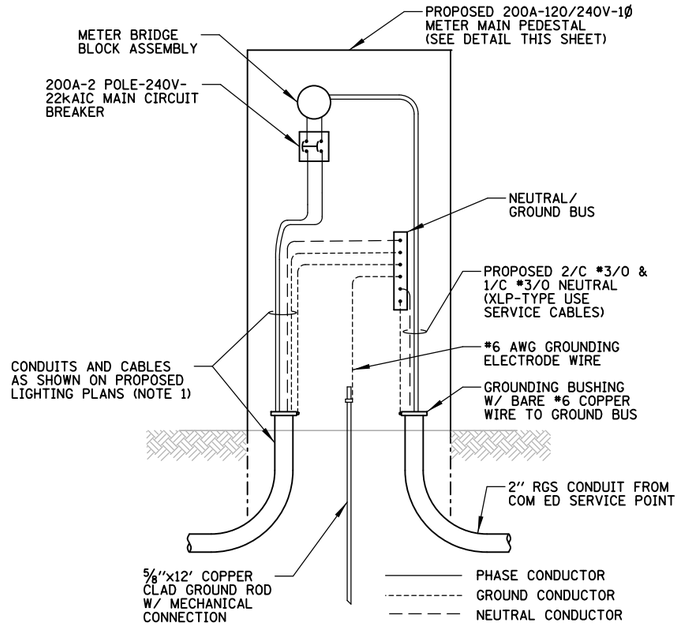


NOTES:

1. INSTALL SERVICE CONDUIT UP TO 2' AWAY FROM PEDESTAL/TRANSFORMER WITH PROTECTIVE BUSHING ON END OF CONDUIT. PROVIDE ADEQUATE SLACK CABLE COILED UP FOR COM ED TO CONNECT. CONTRACTOR TO SCHEDULE & COORDINATE ALL WORK WITH COM ED PRIOR TO PERFORMING WORK.
2. THE HORIZONTAL SERVICE CONDUIT & WIRE FROM THE PEDESTAL/TRANSFORMER TO THE METER MAIN DISCONNECT PAID FOR SEPARATELY.

ELECTRIC SERVICE UNDERGROUND CONNECTION TO PEDESTAL/TRANSFORMER

N.T.S.



NOTES:

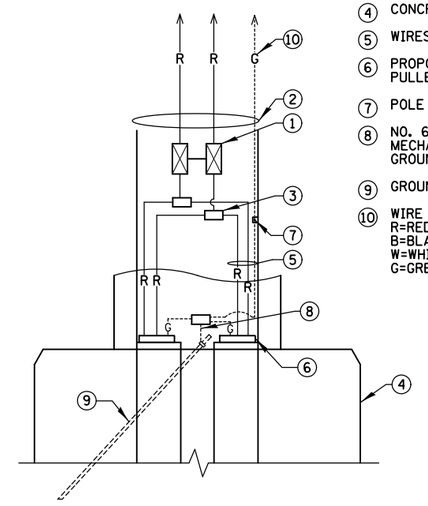
1. CONTRACTOR SHALL WATERPROOF SPLICE CABLES IN BASE OF METER PEDESTAL TO CREATE TWO SETS OF FEEDER CABLES TO LIGHTING / ELECTRICAL CONTROLLER.

SERVICE METER WIRING DIAGRAM

N.T.S.

PHASE CONDUCTOR
GROUND CONDUCTOR
NEUTRAL CONDUCTOR

TO 240V LUMINAIRE(S)



1. 5A FUSE 2-POLE BREAKAWAY FUSE HOLDER & INSULATING BOOTS
2. #10 XLP-TYPE USE POLE WIRES COLOR TO MATCH BRANCH WIRING
3. MULTIPLE COMPRESSION FITTINGS (SPLICE), TYP.
4. CONCRETE FOUNDATION
5. WIRES AS SHOWN ON PLANS
6. PROPOSED LIGHTING DUCT PULLED THROUGH PVC RACEWAY
7. POLE GROUND LUG
8. NO. 6 GROUND WIRE MECHANICALLY CLAMPED TO GROUND ROD
9. GROUND ROD
10. WIRE COLOR
    R=RED
    B=BLACK
    W=WHITE
    G=GREEN

LIGHT POLE HANDHOLE WIRING DIAGRAM

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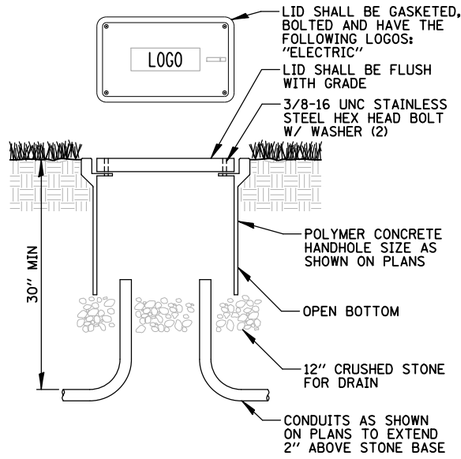
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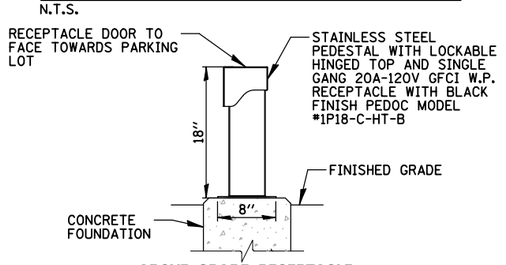
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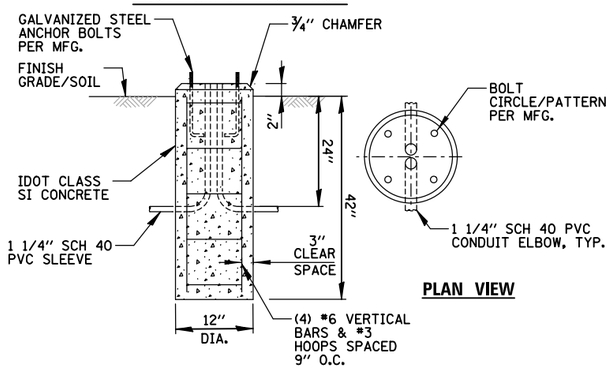
NOTES:

1. NO SPLICING ALLOWED IN HANDHOLE.
2. POLYMER CONCRETE HANDHOLE AND LID SHALL BE GREY.
3. BOX & LID SHALL MEET/EXCEED ANSI TIER 15 LOADING REQUIREMENTS, AND BE TESTED IN ACCORDANCE WITH THE LATEST EDITION OF THE ANSI/SCTE 77 "SPECIFICATION FOR UNDERGROUND ENCLOSURE INTEGRITY", AND THE PROVISIONS OF PARAGRAPHS 5.2.3 AND 5.2.4 OF WESTERN UNDERGROUND COMMITTEE GUIDE 3.6.
4. 11"x18"x18" PAID FOR UNDER "HANDHOLE, COMPOSITE CONCRETE" AND 13"x24"x18" PAID FOR UNDER "HANDHOLE (SPECIAL)", SEE SPECIAL PROVISION.

POLYMER CONCRETE HANDHOLE
N.T.S.



ABOVE GRADE RECEPTACLE



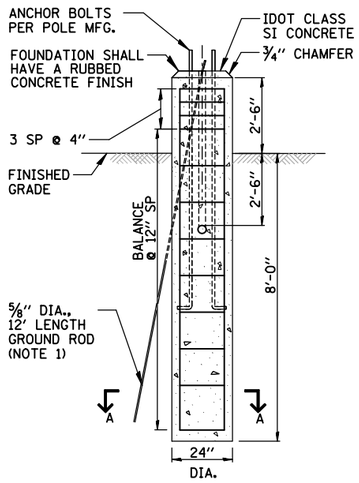
PLAN VIEW

ABOVE GRADE RECEPTACLE FOUNDATION DETAIL

NOTES:

1. CONTRACTOR SHALL COORDINATE SIZE AND ORIENTATION OF BOLT CIRCLE WITH MANUFACTURER.
2. THIS WORK PAID FOR UNDER "RECEPTACLE OUTLET" (SEE SPECIAL PROVISION).

POWER PEDESTALS
N.T.S.

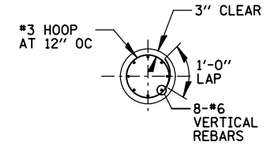


PARKING LOT LIGHT POLE

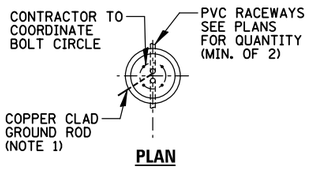
NOTES:

1. GROUND ROD SHALL BE CAST INTO CONCRETE FOUNDATION WITH 8 FEET IN CONTACT WITH SOIL.
2. FOUNDATIONS SHALL BE VIBRATED IN ACCORDANCE WITH IDOT STANDARD PRACTICES.
3. ALL ABOVE ITEMS INCLUDING CONCRETE, REINFORCEMENT, RACEWAYS, GROUND ROD AND FORM WORK SHALL BE INCLUDED IN THE LIGHT POLE FOUNDATION PAY ITEM.
4. FOUNDATION DEPTH IS BASED ON COHESIVE SOIL ALONG THE LENGTH OF THE SHAFT, WITH AN AVERAGE UNCONFINED COMPRESSIVE STRENGTH(Qu)>1.0 TON/SF). SOIL STRENGTH SHALL BE VERIFIED BY BORING DATA PRIOR TO CONSTRUCTION, OR WITH TESTING DURING FOUNDATION DRILLING. THE OWNER'S REPRESENTATIVE SHALL BE CONTACTED FOR A REVISED DESIGN IF OTHER CONDITIONS ARE ENCOUNTERED.
5. THE REBAR CAGE SHALL NOT BE WELDED.
6. PAID FOR UNDER "LIGHT POLE FOUNDATION, 24" DIAMETER".

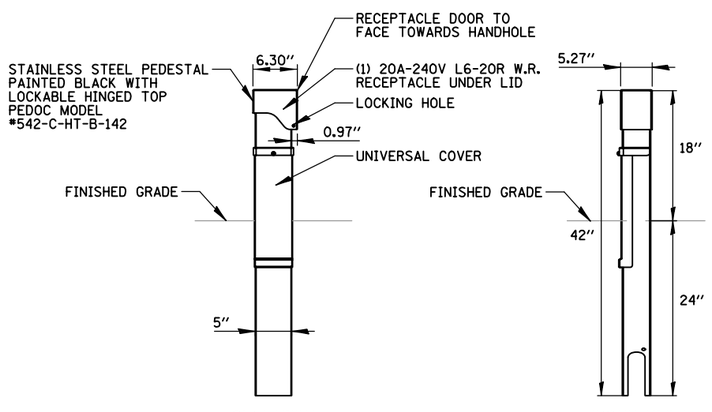
CONCRETE FOUNDATION DETAIL
N.T.S.



SECTION A–A



PLAN



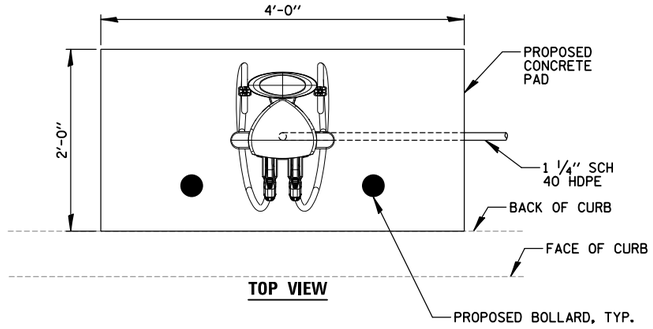
SIDE VIEW

FRONT VIEW

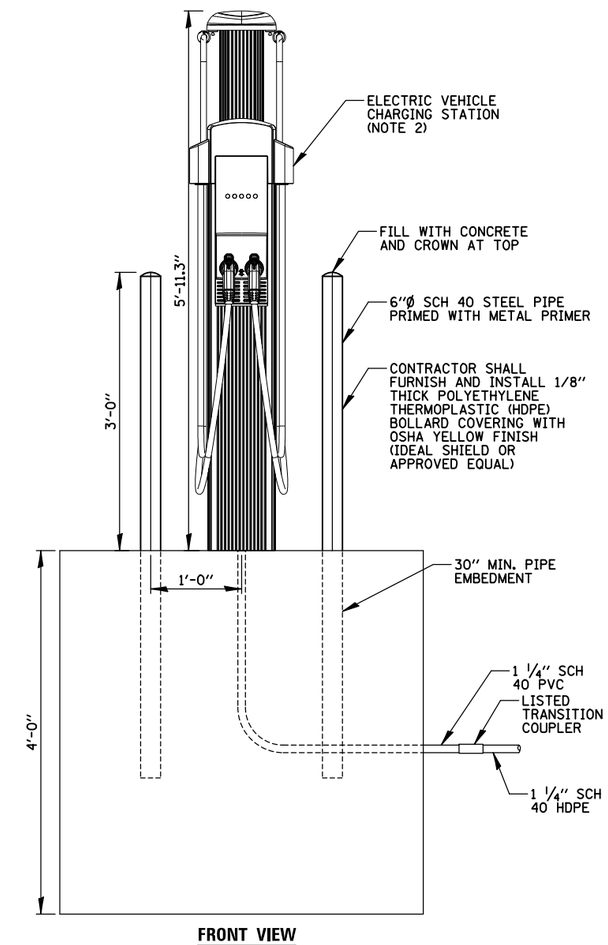
NOTES:

1. THIS WORK PAID FOR UNDER "POWER PEDESTALS" (SEE SPECIAL PROVISION).

TWISTLOCK DE-ICER RECEPTACLE
N.T.S.



TOP VIEW



FRONT VIEW

NOTES:

1. CONTRACTOR TO COORDINATE BOLT CIRCLE AND ANCHOR BOLTS WITH CHARGING STATION MANUFACTURER.
2. ELECTRIC VEHICLE CHARGING STATION TO BE PURCHASED BY THE CITY. CONTRACTOR SHALL COORDINATE PICK UP WITH THE CITY AND INSTALL.
3. ALL WORK SHALL BE PAID FOR UNDER "EV CHARGING STATION, COMPLETE" (SEE SPECIAL PROVISIONS).

ELECTRIC VEHICLE CHARGING STATION
N.T.S.

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November 12, 2026

sheet name
LIGHTING/ELECTRICAL DETAILS

sheet number
E-05

11/3/2026
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Service Application:
Commercial & Industrial Load Information

Form to be completed by Qualified Electrical Professional

DATE
9/23/25
PROJECT NAME
Ladd Boat Launch
SWITCH NAME
Meter Disconnect Pedestal

SECTION 1: Site & Building Information

Project Name:	Project Type:	Date of Submittal:	
Ladd Boat Launch	Civil & Electrical	9/23/25	
Site Address:	**City:**	**State:**	**ZIP Code:**
2020 McCormick Blvd.	Evanston	IL	60201
Requested Service:	**Unit Type (if applicable):**		
◉ Permanent ○ Temporary	○ Residential ○ Commercial		
Hours of Normal Operation:	**Total Sq Feet this SWBD Services:**	**Total Bldg Sq Feet:**	**# of Units:**
Start: ○ AM ○ PM End: ○ AM ○ PM ☑ 24-hour			

SECTION 2: Equipment & Voltage

Preferred Service Equipment Type:

☑ Underground ☐ Overhead ☐ Vault/High-rise ☐ Outdoor Lighting

Service Voltage:

☑ 120/240V 1-phase 3-wire ☐ 120/240V 3-phase 4-wire ☐ 120/208V 3-phase 4-wire ☐ 277/480V 3-phase 4-wire

☐ 480V 3-phase 3-wire (B-phase grounded, not allowed in Chicago) ☐ 480V 3-phase 3-wire (ungrounded, req. special equipment & approval)

☐ 4kV ☐ 12kV ☐ 34kV ☐ Other:

SECTION 3: Switch Information (if more than one, please attach the following information per switch)

Switch Name (point for ComEd connection):		Double-ended SWBD (Y/N):	Tot. # of Identical SWBDs for ComEd Connections:
Meter Disconnect Pedestal		N	1
Switch Location, if known:	**Switch Size (amps):**	**Size of Conductor:**	**Size of Conduit:**
Parkway near Ecology Center	200	3/0	2
Switch Rating (%):	**Number of Secondary Sets:**	**Conductor Material:** ◉ CU ○ AL	
80	1		

Is your system designed to withstand common grid transients, which can include but are not limited to voltage sags, spikes, or momentary outages?

◉ YES ○ NO

(Continued)

COMED CONTACT: LARRY SHANK
(847)-921-7629
(Larry.Shank@comed.com)

Commercial & Industrial Project Information

DATE
9/23/25
PROJECT NAME
Ladd Boat Launch
SWITCH NAME
Meter Disconnect Pedestal

SECTION 1: Site Information

Project Name:		Contact Name:		
Ladd Boat Launch Parking Lot		Rich Jezierny		
Contact Email:		**Contact Phone Number:**		
rjezierny@cbbel.com		224-234-0069		
Site Address:		**City:**	**State:**	**ZIP Code:**
2020 McCormick Blvd.		Evanston	IL	60201
Electrical Permit #:	**Date of Groundbreaking:**	**Total Number of Switches (Points of Service):**		
	Spring 2026	1		
Date ComEd Can Begin Work:	**Preferred Service Date:**	**Total Number of Meters Requested:**		
Summer 2026	Summer 2026	1		

SECTION 2: Business Information

Legal Name of Entity (Electric Consumer):	Tax I.D.:	Existing ComEd Account #:
City of Evanston		9003347074

☐ Corporation ☐ Partnership ☐ Sole Proprietor ☑ Other: Municipality

SECTION 3: Switch Information (if more than one, please attach the following information per switch)

Property Owner:	Property Owner Phone:
City of Evanston	847-448-4311
Building Owner:	**Building Owner Phone:**
Building Manager:	**Building Manager Phone:**

SECTION 4: Mailing Address for Contracts

Company:	Email:	Phone:	Fax:	
City of Evanston		847-448-4311		
Address:		**City:**	**State:**	**ZIP Code:**
909 Davis Street		Evanston	IL	60201

SECTION 5: Mailing Address for Electric Bills

Company:	Email:	Phone:	Fax:	
City of Evanston		847-448-4311		
Address:		**City:**	**State:**	**ZIP Code:**
909 Davis Street		Evanston	IL	60201

(Continued)

ELECTRICAL SERVICE APPLICATION

FOR INFORMATIONAL PURPOSES ONLY

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
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teska
627 Grove Street, Evanston, Illinois 60201
Tel 847.869.2015 Fax 847.869.2059

client / owner
City of Evanston

project name
LADD ARBORETUM LAUNCH

project address
ECOLOGY CENTER
2024 N. McCormick Blvd.
Evanston, Illinois 60201

seal / signature

owner
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BID SET
November 12, 2026

Issue / revision	date	description
1		
2		
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issue date
November 12, 2026

sheet name
LIGHTING/ELECTRICAL DETAILS

sheet number
E-06

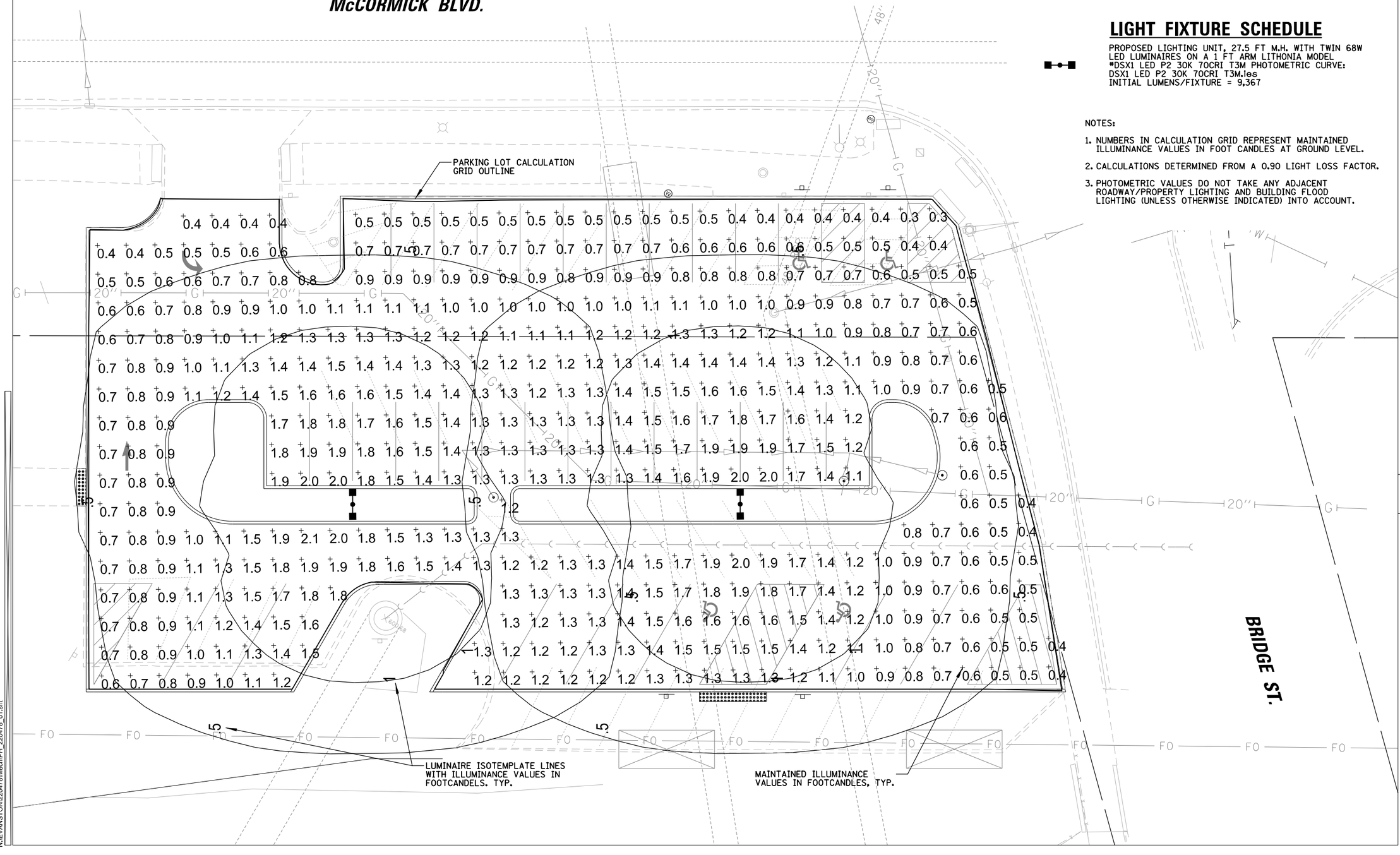
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PHOTOMETRIC PLAN
FOR INFORMATION ONLY

PROPOSED PARKING LOT LIGHT LEVELS*	ILLUMINANCE (FC)			
	E(avg)	E(min)	E(max)	E(avg)/E(min)
CITY REQUIRED ILLUMINANCE LEVELS**	1.0	N/A	N/A	5.0
PROPOSED PARKING LOT LIGHTING LEVELS	1.06	0.3	2.1	3.53

• PARKING LOT LIGHT LEVEL CALCULATION GRID INCLUDES ONLY PARKING LOT GRID OUTLINED IN BOLD.
•• REQUIRED VALUES FOR PARKING LOT FOR PARKING LOT LIGHTING LEVELS CITY OF EVANSTON STREET LIGHT MASTER PLAN SECTION 3.2 "CITY OF EVANSTON DESIGN AND LIGHTING LEVEL RECOMMENDATIONS".

5' 0' 10' 20'



LIGHT FIXTURE SCHEDULE

PROPOSED LIGHTING UNIT, 27.5 FT M.H. WITH TWIN 68W LED LUMINAIRES ON A 1 FT ARM LITHONIA MODEL
*DSX1 LED P2 30K 70CRI T3M PHOTOMETRIC CURVE:
DSX1 LED P2 30K 70CRI T3M.ies
INITIAL LUMENS/FIXTURE = 9,367

NOTES:

1. NUMBERS IN CALCULATION GRID REPRESENT MAINTAINED ILLUMINANCE VALUES IN FOOT CANDLES AT GROUND LEVEL.
2. CALCULATIONS DETERMINED FROM A 0.90 LIGHT LOSS FACTOR.
3. PHOTOMETRIC VALUES DO NOT TAKE ANY ADJACENT ROADWAY/PROPERTY LIGHTING AND BUILDING FLOOD LIGHTING (UNLESS OTHERWISE INDICATED) INTO ACCOUNT.

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client / owner
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project name
LADD ARBORETUM LAUNCH

project address
ECOLOGY CENTER
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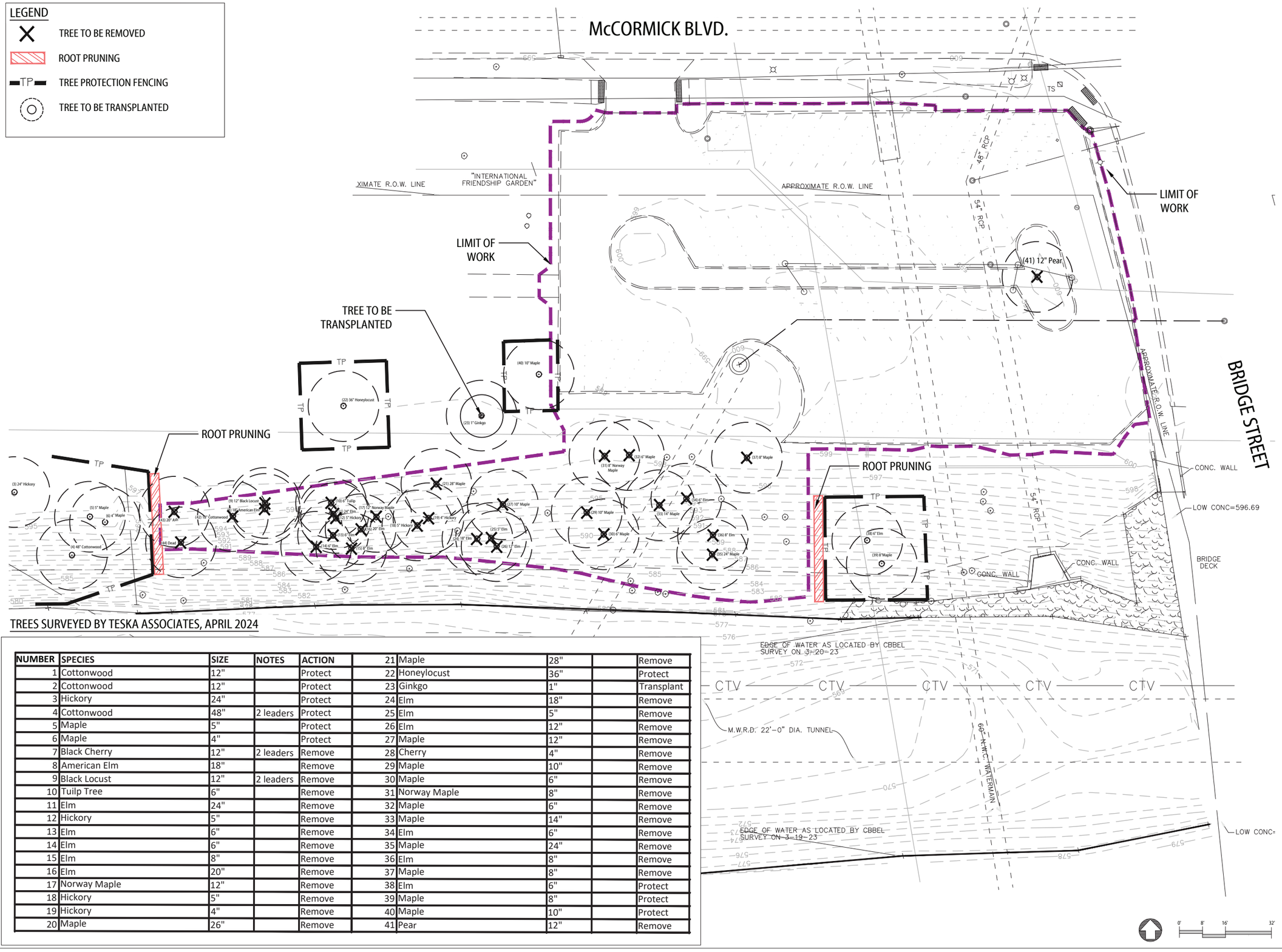
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Photometric Plan

sheet number
PH-01

11/3/2026
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LEGEND

- TREE TO BE REMOVED
- ROOT PRUNING
- TP — TREE PROTECTION FENCING
- TREE TO BE TRANSPLANTED



TREES SURVEYED BY TESKA ASSOCIATES, APRIL 2024

NUMBER	SPECIES	SIZE	NOTES	ACTION
1	Cottonwood	12"		Protect
2	Cottonwood	12"		Protect
3	Hickory	24"		Protect
4	Cottonwood	48"	2 leaders	Protect
5	Maple	5"		Protect
6	Maple	4"		Protect
7	Black Cherry	12"	2 leaders	Remove
8	American Elm	18"		Remove
9	Black Locust	12"	2 leaders	Remove
10	Tuilp Tree	6"		Remove
11	Elm	24"		Remove
12	Hickory	5"		Remove
13	Elm	6"		Remove
14	Elm	6"		Remove
15	Elm	8"		Remove
16	Elm	20"		Remove
17	Norway Maple	12"		Remove
18	Hickory	5"		Remove
19	Hickory	4"		Remove
20	Maple	26"		Remove
21	Maple	28"		Remove
22	Honeylocust	36"		Protect
23	Ginkgo	1"		Transplant
24	Elm	18"		Remove
25	Elm	5"		Remove
26	Elm	12"		Remove
27	Maple	12"		Remove
28	Cherry	4"		Remove
29	Maple	10"		Remove
30	Maple	6"		Remove
31	Norway Maple	8"		Remove
32	Maple	6"		Remove
33	Maple	14"		Remove
34	Elm	6"		Remove
35	Maple	24"		Remove
36	Elm	8"		Remove
37	Maple	8"		Remove
38	Elm	6"		Protect
39	Maple	8"		Protect
40	Maple	10"		Protect
41	Pear	12"		Remove

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November 12, 2026

sheet name
TREE PROTECTION & REMOVALS

sheet number
L-1

LEGEND

- PERMEABLE UNIT PAVERS
- ASPHALT PAVEMENT, SEE CIVIL ENGINEERING SHEETS
- CAST IN PLACE CONCRETE RETAINING WALL WITH FORMLINER
- LIMESTONE BLOCK BENCHES
- LIMESTONE BOULDER SEATING
- WELCOME AND RULES + REGULATION SIGN
- ANIMAL INTERPRETIVE SIGN (SEE L-7)

McCORMICK BLVD.

BRIDGE STREET

BIKE PATH

"INTERNATIONAL FRIENDSHIP GARDEN"

"HANDICAP PARKING"(2)

"STOP"

"NO DUMPING"

"MWRD TUNNEL"

APPROXIMATE R.O.W. LINE

PARKING LOT & CURB, SEE CIVIL ENGINEERING PLANS, TYP.

ENLARGEMENT PERMEABLE PAVING PATTERN (3-4 / L-12)

6" HT. CONCRETE CURB SEE CIVIL ENGINEERING PLANS, TYP.

PERMEABLE PAVING PATTERN (3-4 / L-12)

STORAGE CONTAINERS (BY OTHERS)

ENLARGEMENT (3 / L-4)

RAILING SYSTEM MOUNTED TO RETAINING WALL, 42" HT. (EMBEDDED MOUNTING) SEE CIVIL ENGINEERING PLANS, TYP.

LIMESTONE BOULDER SEATING (2 / L-10)

ANIMAL INTERPRETIVE SIGN, TYP

ENLARGEMENT (4 / L-4)

CAST IN PLACE CONCRETE RETAINING WALL WITH FORMLINER, SEE CIVIL ENGINEERING PLANS, TYP. (1-2 / L-12)

WALL D

LIMESTONE BLOCK BENCH, INSTALLED ON COMPACTED GRAVEL (1 / L-10)

EXISTING CHAIN-LINK FENCE TO BE PARTIALLY REMOVED TO ACCOMMODATE NEW FENCE AS SHOWN

ENLARGEMENT (1 / L-4)

LIMESTONE BLOCK BENCHES, (2) INSTALLED ON COMPACTED GRAVEL (1 / L-10)

WALL C

LIMESTONE BLOCK BENCHES, (2) INSTALLED ON COMPACTED GRAVEL (1 / L-10)

WELCOME AND RULES + REGULATIONS SIGN (1-2-3 / L-9)

RAILING SYSTEM AND GATE MOUNTED TO RETAINING WALL, 42" HT SEE ENGINEERING PLANS FOR RETAINING WALL (EMBEDDED MOUNTING) (2 / L-11)

NEW CHAIN-LINK FENCE INSTALLED IN LANDSCAPE, 4' HT. (3 / L-10)

RAILING SYSTEM MOUNTED TO RETAINING WALL, 42" HT (EMBEDDED MOUNTING) (2 / L-11)

WALL B

RAILING SYSTEM MOUNTED TO RETAINING WALL, 42" HT (EMBEDDED MOUNTING) (2 / L-11)

ENLARGEMENT (5 / L-4)

CANOE/KAYAK DOCKING AND RAILING SYSTEM, SEE ENGINEERING PLANS FOR DETAILS , TYP.

RAILING SYSTEM MOUNTED TO CONCRETE PAVEMENT, 42" HT (EMBEDDED MOUNTING) (2 / L-11)

RAILING SYSTEM WITH HANDRAIL MOUNTED TO RETAINING WALL, 42" HT (EMBEDDED MOUNTING) (3 / L-11)

RAILING SYSTEM WITH HANDRAIL MOUNTED TO RETAINING WALL, 42" HT (EMBEDDED MOUNTING) (3 / L-11)

CONCRETE STEPS AND RETAINING WALLS, SEE CIVIL ENGINEERING PLANS, TYP.

CANOE/KAYAK RAIL, MOUNTED TO RETAINING WALL, 34" HT (4 / L-11)

RAILING SYSTEM WITH HANDRAIL MOUNTED TO RETAINING WALL, 42" HT (EMBEDDED MOUNTING) (3 / L-11)

ENLARGEMENT (2 / L-4)

TERRACED CONCRETE STEPS AND RETAINING WALLS SEE CIVIL ENGINEERING PLANS, TYP.

EXISTING CHAIN-LINK FENCE TO BE REMOVED

SHORE CHANNEL

0' 8' 16' 32'

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project name
LADD ARBORETUM LAUNCH

project address
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seal / signature

owner
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issue / revision	date	description

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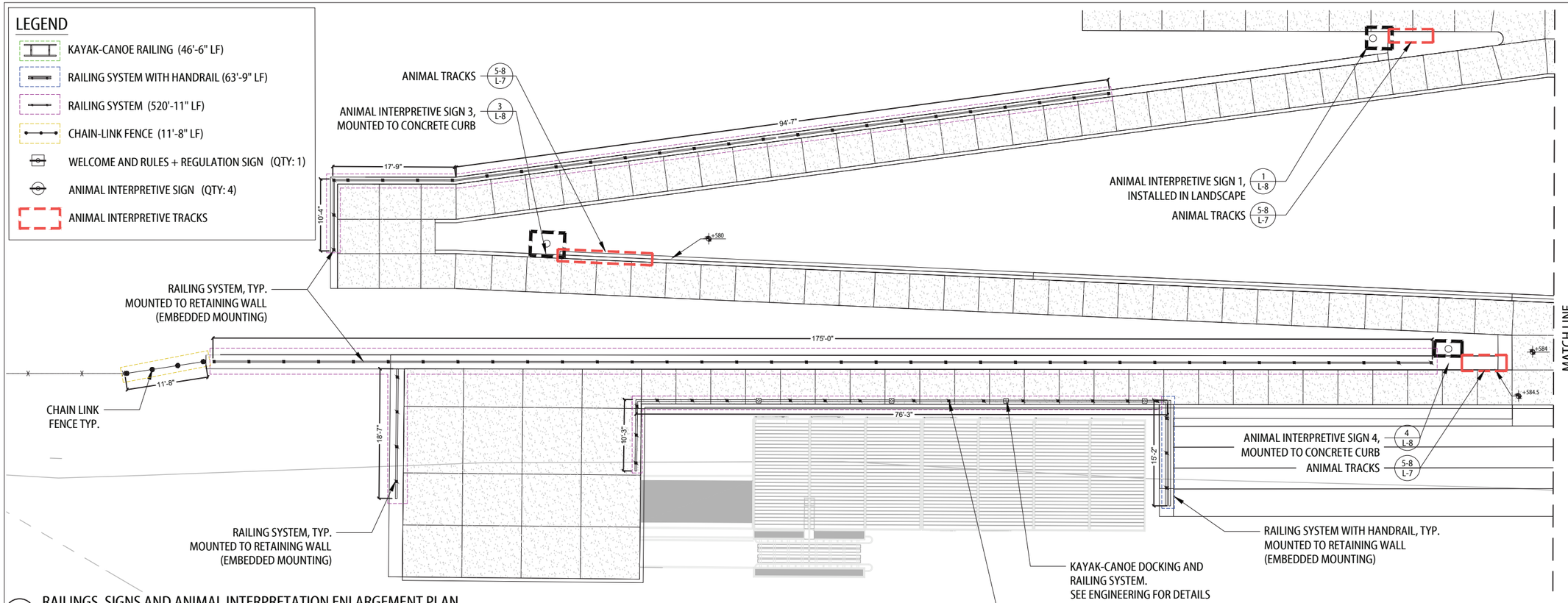
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November 12, 2026

sheet name
HARDSCAPE & FURNISHINGS PLAN

sheet number
L-2

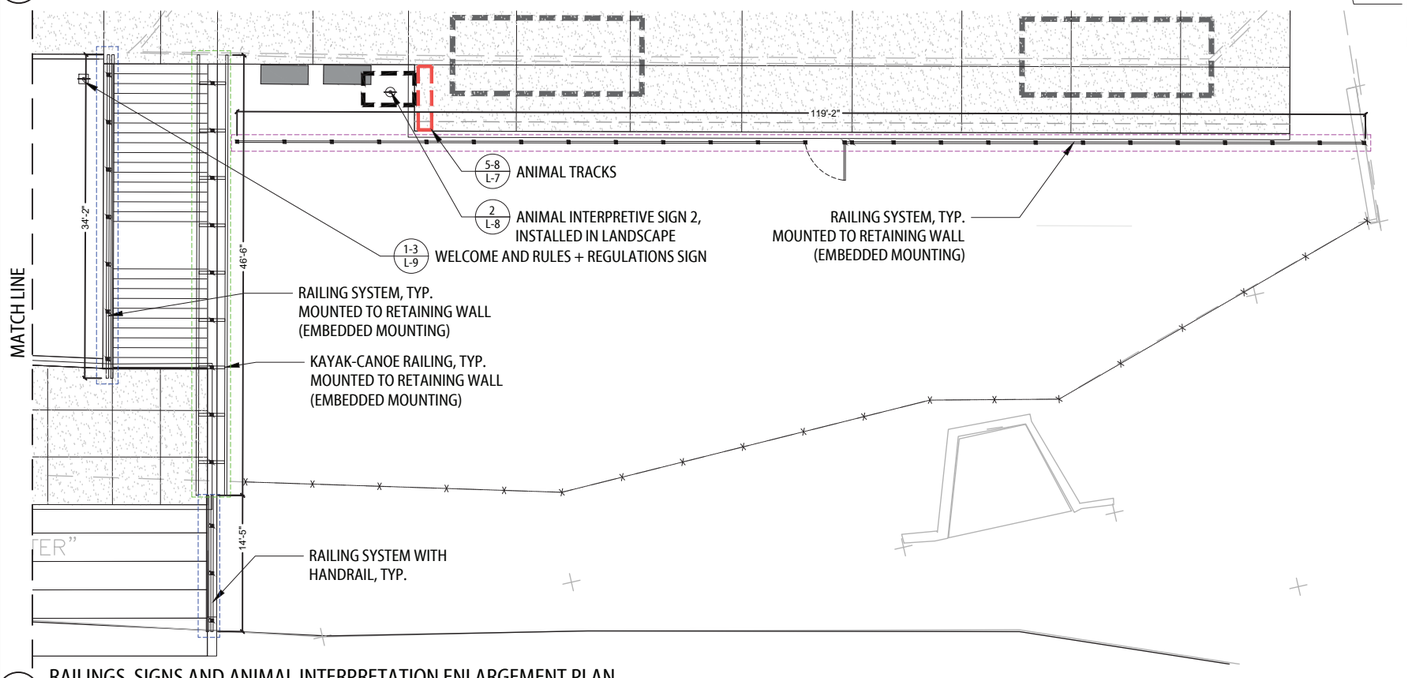
LEGEND

- KAYAK-CANOE RAILING (46'-6" LF)
- RAILING SYSTEM WITH HANDRAIL (63'-9" LF)
- RAILING SYSTEM (520'-11" LF)
- CHAIN-LINK FENCE (11'-8" LF)
- WELCOME AND RULES + REGULATION SIGN (QTY: 1)
- ANIMAL INTERPRETIVE SIGN (QTY: 4)
- ANIMAL INTERPRETIVE TRACKS



1 RAILINGS, SIGNS AND ANIMAL INTERPRETATION ENLARGEMENT PLAN

SCALE: NTS



2 RAILINGS, SIGNS AND ANIMAL INTERPRETATION ENLARGEMENT PLAN

SCALE: NTS

0' 5' 10' 20'

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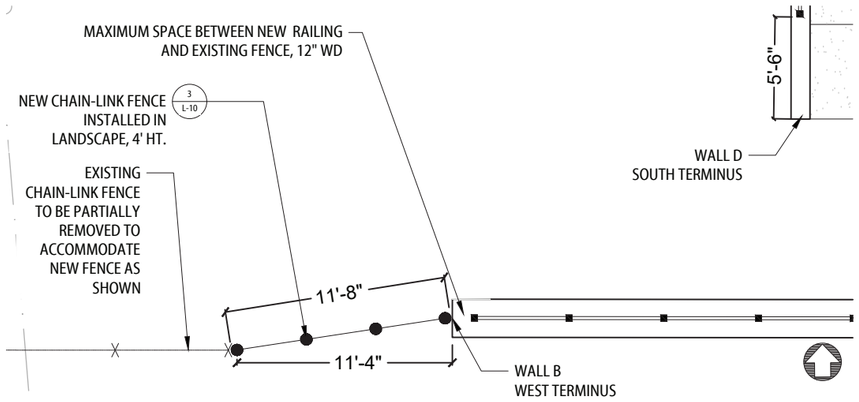
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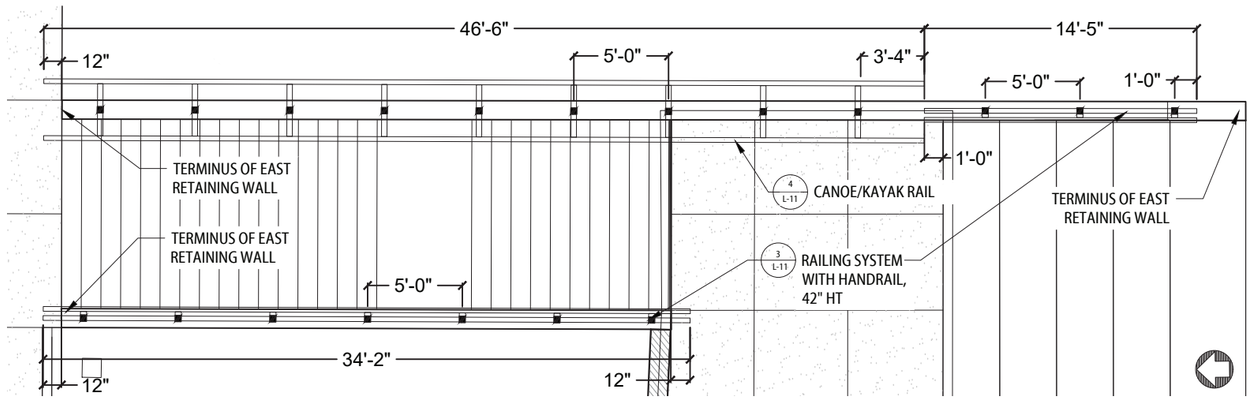
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RAILINGS, SIGNAGE AND ANIMAL INTERPRETATION PLAN

sheet number
L-3



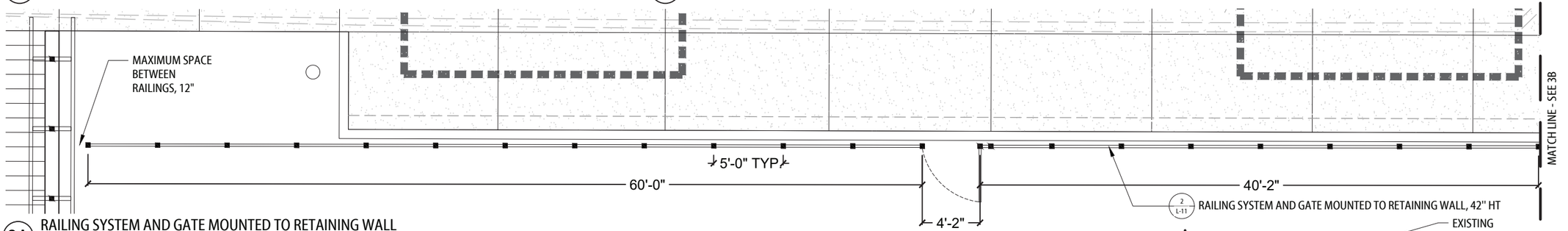
1 NEW CHAIN-LINK FENCE ENLARGEMENT

SCALE: 3" = 1'-0"



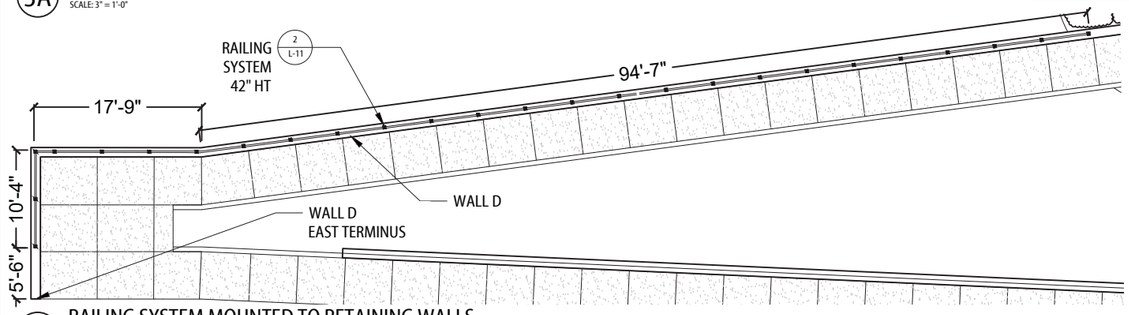
2 RAILING SYSTEM WITH HANDRAIL AND KAYAK/ CANOE RAIL ENLARGEMENT

SCALE: 3" = 1'-0"



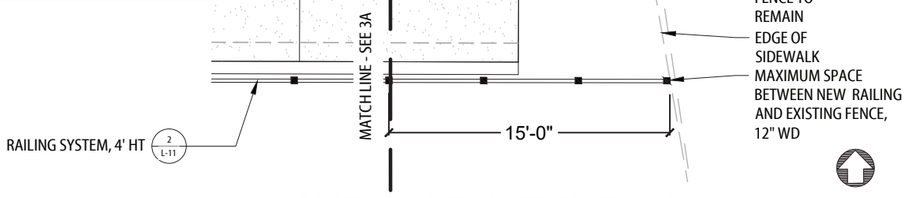
3A RAILING SYSTEM AND GATE MOUNTED TO RETAINING WALL

SCALE: 3" = 1'-0"



4 RAILING SYSTEM MOUNTED TO RETAINING WALLS

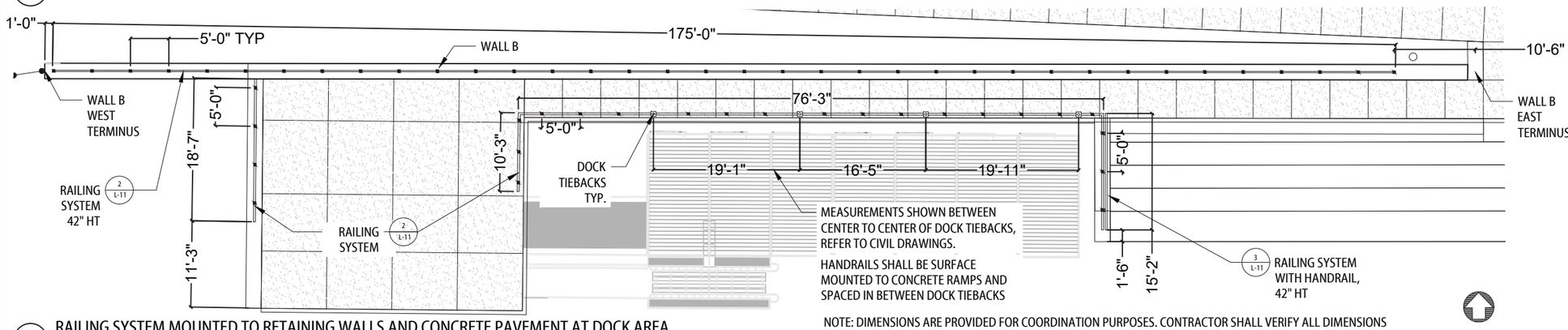
SCALE: 1 1/2" = 1'-0"



3B RAILING SYSTEM AND GATE MOUNTED TO RETAINING WALL

SCALE: 3" = 1'-0"

NOTE: DIMENSIONS ARE PROVIDED FOR COORDINATION. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS AND PROVIDE SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION AND INSTALLATION.



5 RAILING SYSTEM MOUNTED TO RETAINING WALLS AND CONCRETE PAVEMENT AT DOCK AREA

SCALE: 1 1/2" = 1'-0"

NOTE: DIMENSIONS ARE PROVIDED FOR COORDINATION PURPOSES. CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND PROVIDE DIMENSIONED SHOP DRAWINGS FOR REVIEW PRIOR TO FABRICATION AND INSTALLATION.

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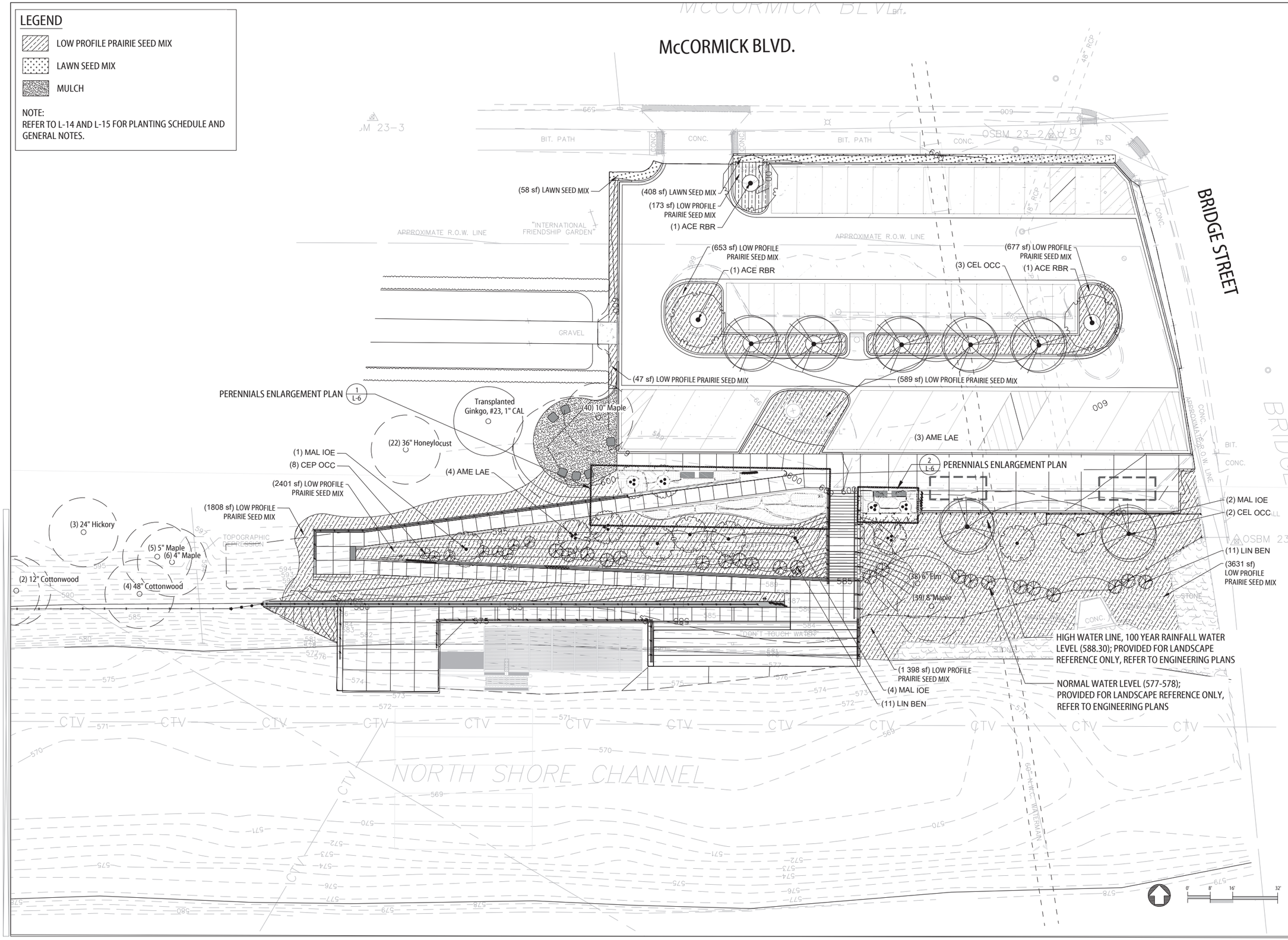
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RAILING ENLARGEMENTS

sheet number
L-4

LEGEND

- LOW PROFILE PRAIRIE SEED MIX
- LAWN SEED MIX
- MULCH

NOTE:
REFER TO L-14 AND L-15 FOR PLANTING SCHEDULE AND GENERAL NOTES.



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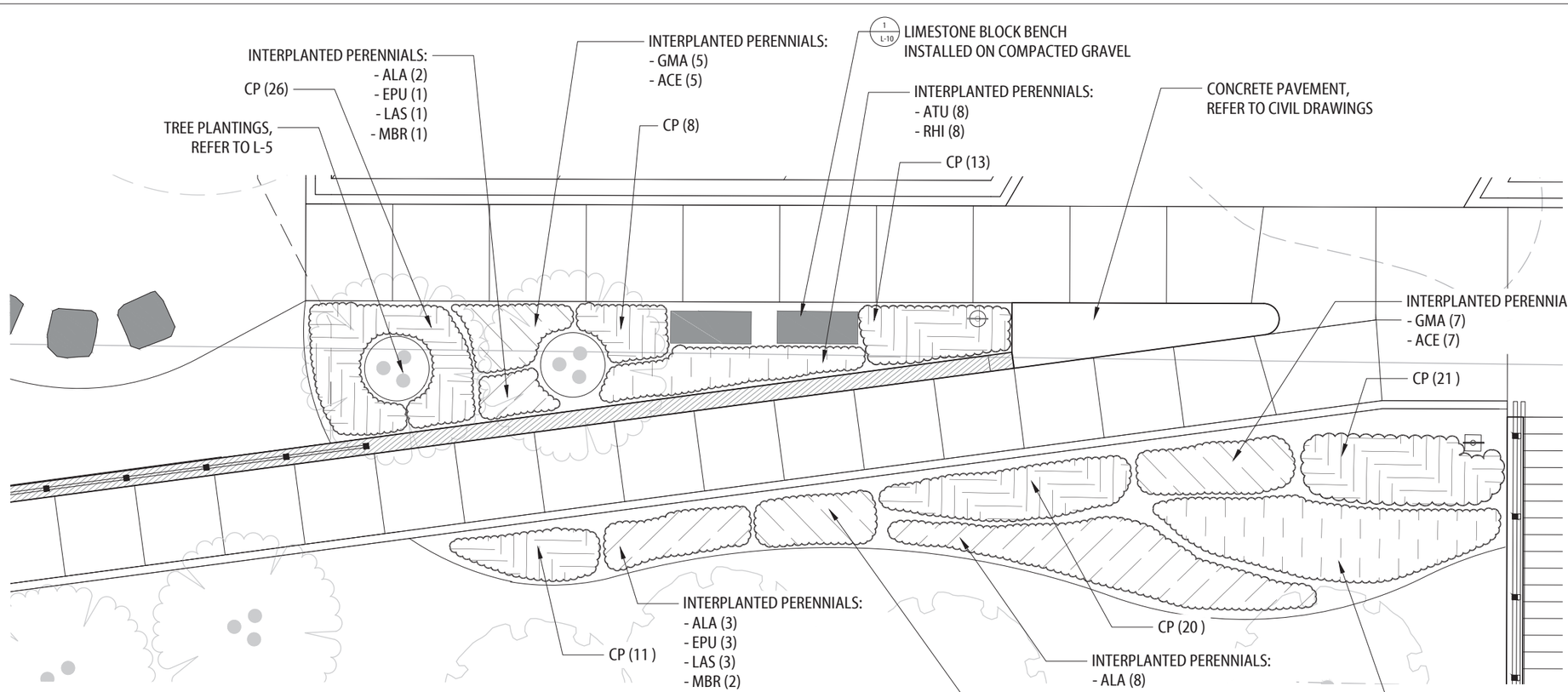
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issue date
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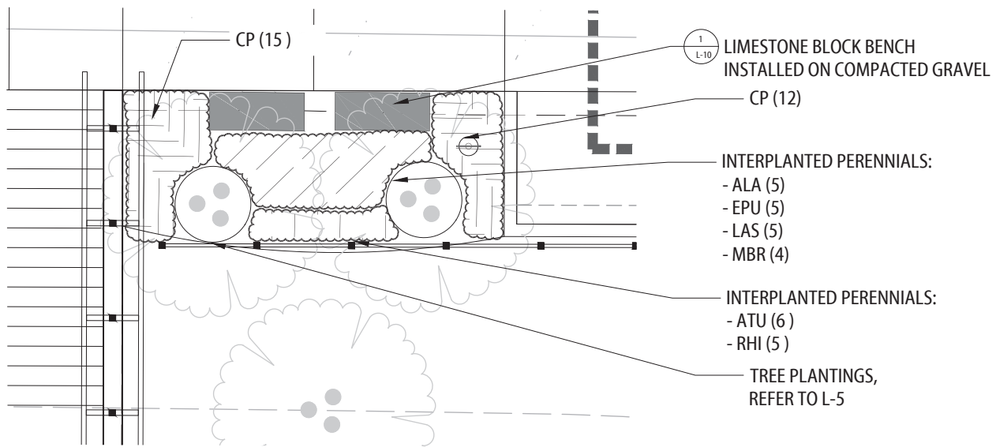
sheet name
PLANTING PLAN

sheet number
L-5



1 PERENNIALS ENLARGEMENT PLANTING PLAN

SCALE: 1" = 16'-0"



2 PERENNIALS ENLARGEMENT PLANTING PLAN

SCALE: 3" = 1'-0"

PLANT SCHEDULE

CODE	BOTANICAL / COMMON NAME	SIZE	CONTAINER	SPACING
PERENNIALS				
CP	Carex pennsylvania/ Pennsylvania Sedge	1 gal.	CG	18" O.C.
ATU	Asclepias tuberosa / Butterfly Weed	1 gal.	CG	18" O.C.
ACE	Allium cernuum/ Nodding Wild Onion	1 gal.	CG	18" O.C.
ALA	Aster laevis/ Smooth Blue Aster	1 gal.	CG	18" O.C.
EPU	Echinacea purpurea/ Pale Purple Coneflower	1 gal.	CG	18" O.C.
GMA	Geranium maculatum/ Geranium	1 gal.	CG	18" O.C.
LAS	Liatris aspera/ Rough Blazing Star	1 gal.	CG	18" O.C.
MRB	Monarda bradburiana/ Bradbury's Bee Balm	1 gal.	CG	18" O.C.
RHI	Rudbeckia hirta/ Black Eyed Susan	1 gal.	CG	18" O.C.

REFER TO SHEET L-15 FOR MASTER PLANT SCHEDULE AND QUANTITIES

CHRISTOPHER B. BURKE ENGINEERING, LTD.
9575 W. Higgins Road, Suite 600
Rosemont, Illinois 60018
(847) 823-0500

teska
627 Grove Street, Evanston, Illinois 60201
Tel 847.869.2015 Fax 847.869.2059

client / owner
City of Evanston

project name
LADD ARBORETUM LAUNCH

project address
ECOLOGY CENTER
2024 N. McCormick Blvd.
Evanston, Illinois 60201

seal / signature

owner
CITY OF EVANSTON
909 DAVIS STREET
EVANSTON, IL 60201

Engineer
Christopher B. Burke
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Rosemont, Illinois 60018
p 847.823.0500

landscape architect of record
TESKA ASSOCIATES, INC.
627 Grove St #2
Evanston, IL 60201
p 847.869.2015 f 869.2059

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November 12, 2026

issue / revision	date	description

pm	la	cad
JM	LC/GD	LC/GD

issue date
November 12, 2026

sheet name
PLANTING PLAN ENLARGEMENTS

sheet number
L-6

NOTE: CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF INTERPRETIVE SIGN PANELS AND ANIMAL TRACK CONCRETE STAMPS FOR REVIEW AND APPROVAL PRIOR TO FABRICATION AND INSTALLATION.
INTERPRETIVE SIGN PANELS SHOWN BELOW ARE PROVIDED FOR REFERENCE. REFER TO SPECIFICATIONS FOR CITY APPROVED INTERPRETIVE SIGN CONTENT. HIGH RESOLUTION GRAPHICS ARE AVAILABLE FOR CONTRACTOR USE.
ANIMAL TRACKS DECORATIVE CONCRETE STAMPS SHALL BE FIELD LOCATED BY THE LANDSCAPE ARCHITECT / ENGINEER.



ANIMAL INTERPRETATION SIGN

MANUFACTURER:	VACKER SIGN
WEBSITE:	WWW.VACKERSIGN.COM
MODEL:	DESIGNED NATURE SIGN- RACOON
SIZE:	18" X 24"
INSTALLATION:	POST MOUNTED INTO LANDSCAPE BEHIND WALL

1 ANIMAL INTERPRETIVE SIGN 1
SCALE: NTS



ANIMAL INTERPRETATION SIGN

MANUFACTURER:	VACKER SIGN
WEBSITE:	WWW.VACKERSIGN.COM
MODEL:	DESIGNED NATURE SIGN- BALD EAGLE
SIZE:	18" X 24"
INSTALLATION:	POST MOUNTED INTO LANDSCAPE BEHIND WALL

2 ANIMAL INTERPRETIVE SIGN 2
SCALE: NTS



ANIMAL INTERPRETATION SIGN

MANUFACTURER:	VACKER SIGN
WEBSITE:	WWW.VACKERSIGN.COM
MODEL:	DESIGNED NATURE SIGN- RED FOX
SIZE:	18" X 24"
INSTALLATION:	POST MOUNTED INTO LANDSCAPE BEHIND WALL

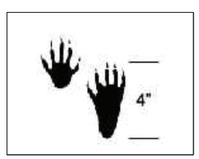
3 ANIMAL INTERPRETIVE SIGN 3
SCALE: NTS



ANIMAL INTERPRETATION SIGN

MANUFACTURER:	VACKER SIGN
WEBSITE:	WWW.VACKERSIGN.COM
MODEL:	DESIGNED NATURE SIGN- GREAT HORNED OWL
SIZE:	18" X 24"
INSTALLATION:	POST MOUNTED INTO LANDSCAPE BEHIND WALL

4 ANIMAL INTERPRETIVE SIGN 4
SCALE: NTS



CONCRETE STAMP

MANUFACTURER:	MATCRETE
WEBSITE:	WWW.MATCRETE.COM
MODEL:	RACCOON
SIZE:	4"

INSTALL PER MANUFACTURER'S RECOMMENDATIONS

5 ANIMAL TRACK 1
SCALE: NTS

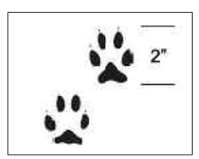


CONCRETE STAMP

MANUFACTURER:	MATCRETE
WEBSITE:	WWW.MATCRETE.COM
MODEL:	LONG-TAILED WEASEL
SIZE:	1"

INSTALL PER MANUFACTURER'S RECOMMENDATIONS

6 ANIMAL TRACK 2
SCALE: NTS

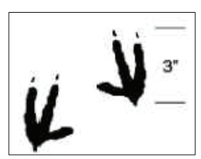


CONCRETE STAMP

MANUFACTURER:	MATCRETE
WEBSITE:	WWW.MATCRETE.COM
MODEL:	RED FOX
SIZE:	2"

INSTALL PER MANUFACTURER'S RECOMMENDATIONS

7 ANIMAL TRACK 3
SCALE: NTS



CONCRETE STAMP

MANUFACTURER:	MATCRETE
WEBSITE:	WWW.MATCRETE.COM
MODEL:	GREAT HORNED OWL
SIZE:	3"

INSTALL PER MANUFACTURER'S RECOMMENDATIONS

8 ANIMAL TRACK 4
SCALE: NTS

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teska
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Tel 847.869.2015 Fax 847.869.2059

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project name
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landscape architect of record
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November 12, 2026

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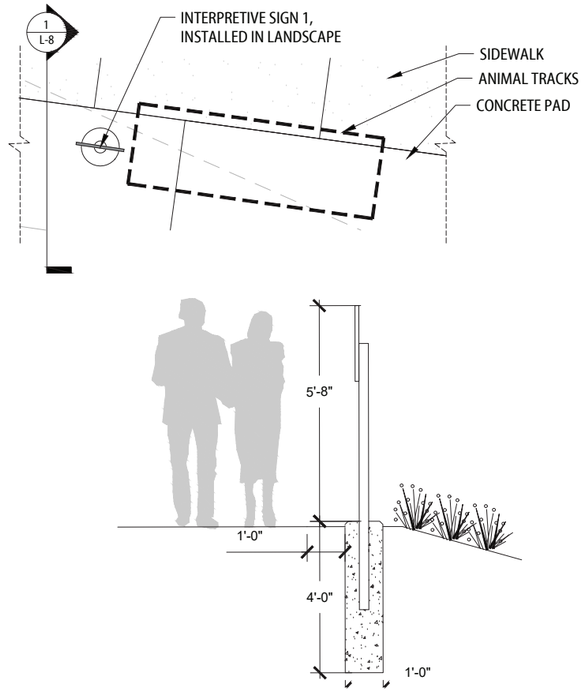
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JM	LC/GD	LC/GD

issue date
November 12, 2026

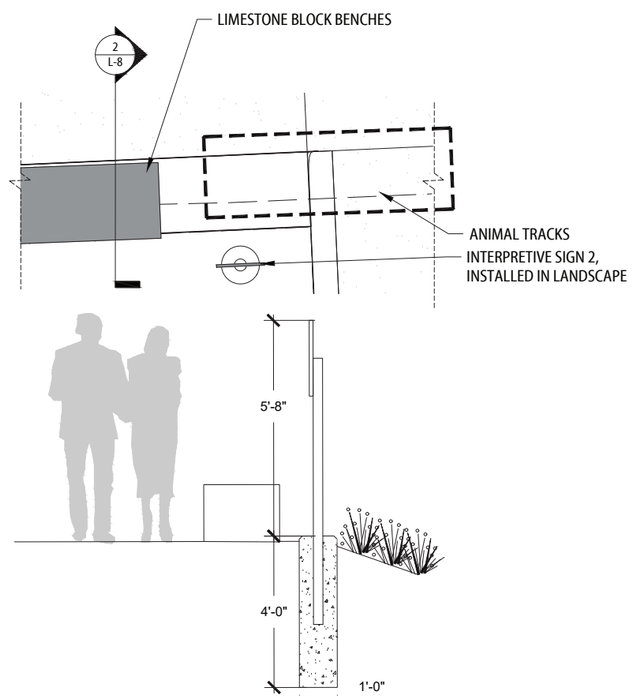
sheet name
ANIMAL SIGNS AND ANIMAL TRACKS DETAILS

sheet number
L-7

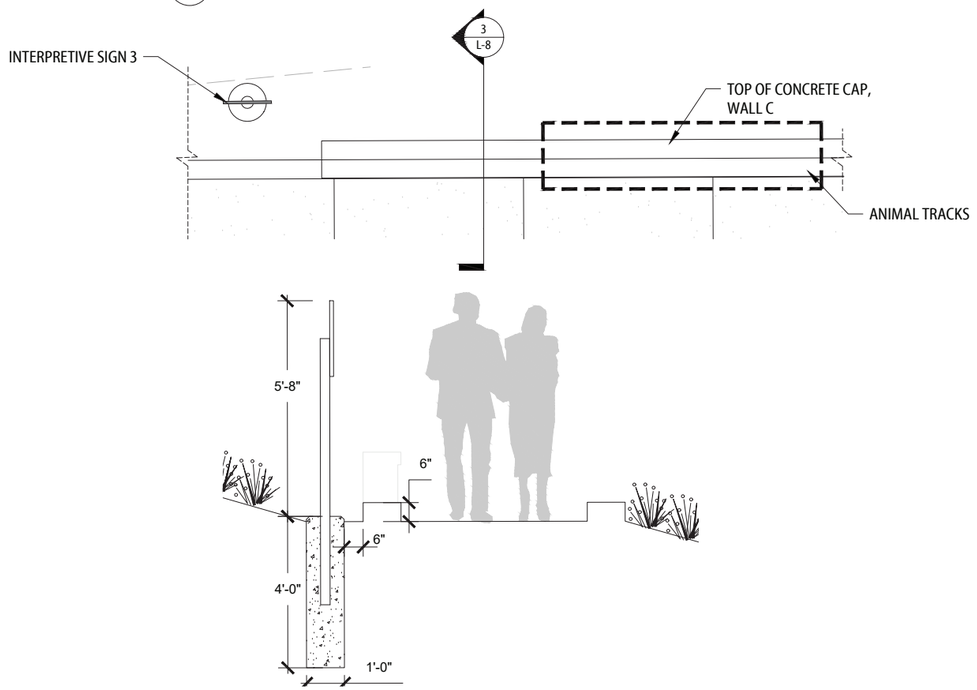
NOTE: DIMENSIONS ARE PROVIDED FOR COORDINATION. VERIFY ALL DIMENSIONS IN THE FIELD AND PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL.



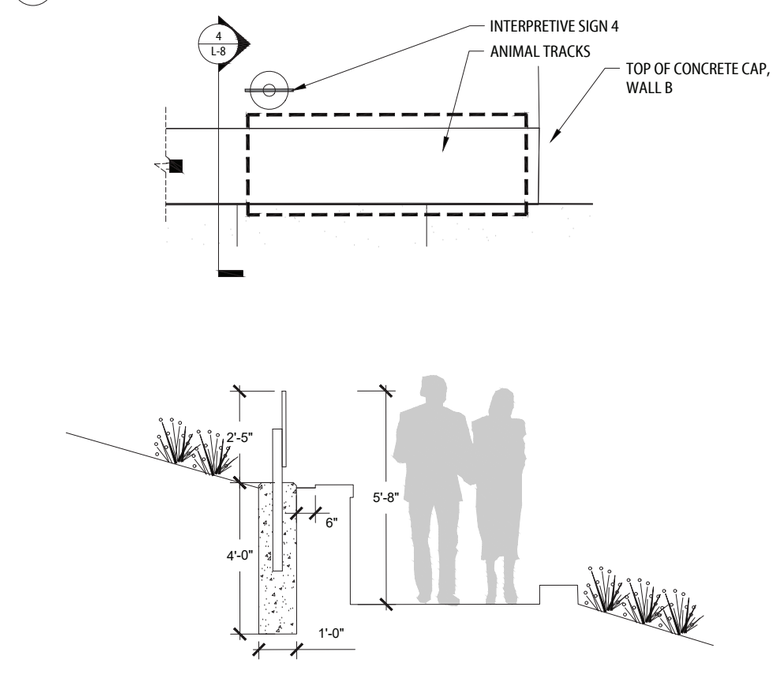
1 ANIMAL INTERPRETIVE SIGN 1 - INSTALLED IN LANDSCAPE
SCALE: NTS



2 ANIMAL INTERPRETIVE SIGN 2 - INSTALLED IN LANDSCAPE
SCALE: NTS



3 ANIMAL INTERPRETIVE SIGN 3 - INSTALLED IN LANDSCAPE
SCALE: NTS



4 ANIMAL INTERPRETIVE SIGN 4 - INSTALLED IN LANDSCAPE
SCALE: NTS

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issue date
November 12, 2026

sheet name
ANIMAL SIGNS ELEVATIONS

sheet number
L-8



1 RULES AND REGULATIONS SIGN

SCALE: NTS

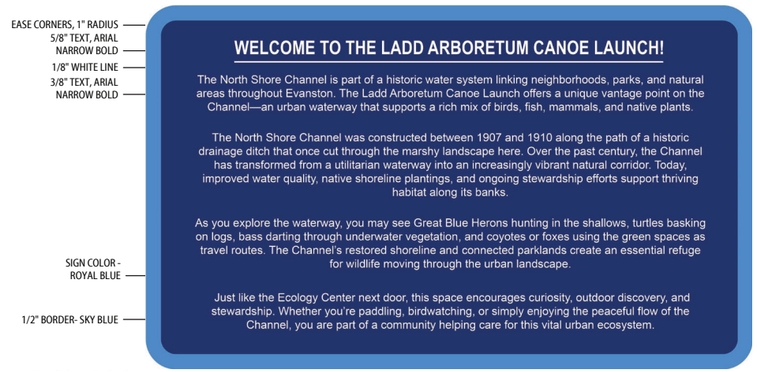
SIGNAGE
TO BE MANUFACTURED BY PARVIN CLAUSS OR APPROVED EQUAL.

BNewton@ParvinClauss.com
http://www.parvinclauss.com/
(630) 510-2020 x3018
165 Tubeway Drive
Carol Stream, IL

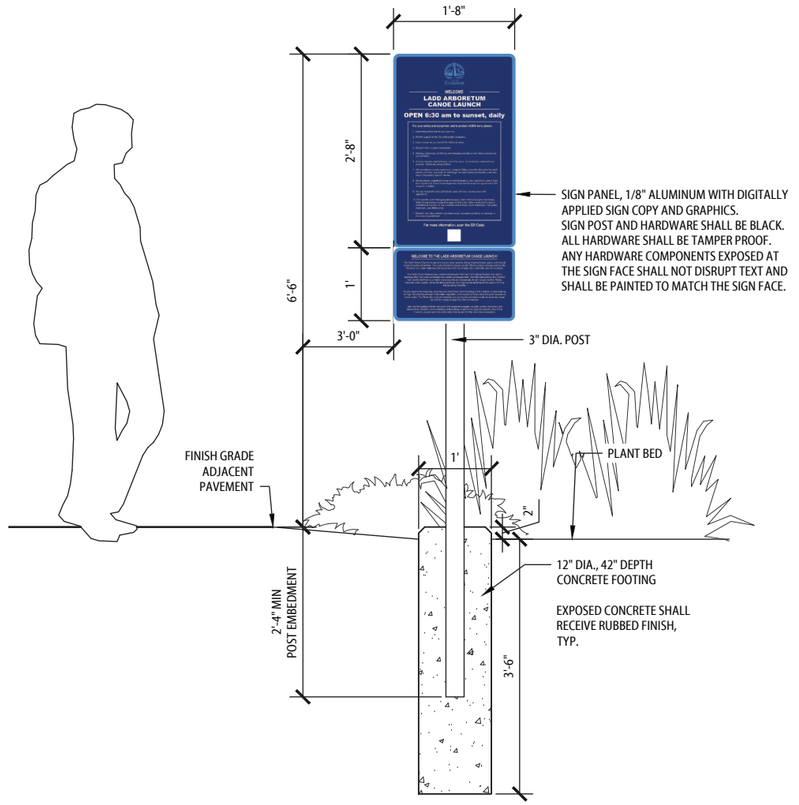
COLORS
DARK BLUE BACKGROUND: ROYAL BLUE PANTONE 648
LIGHT BLUE LOGO AND BORDER: SKY BLUE PANTONE 279
TEXT AND GRAPHICS: WHITE

MANUFACTURER TO PROVIDE COLOR CHIPS FOR REVIEW AND APPROVAL
MANUFACTURER TO PROVIDE SHOP DRAWINGS
MANUFACTURER TO PROVIDE 12x12 INCH FULL SCALE SAMPLE FOR REVIEW AND APPROVAL

LOGO FILE AND FINAL TEXT COPY TO BY PROVIDED BY CITY
VECTOR ARTWORK WILL BE PROVIDED TO THE CONTRACTOR



3 WELCOME SIGN



2 TYPICAL SIGN INSTALLATION DETAIL

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Rosemont, Illinois 60018
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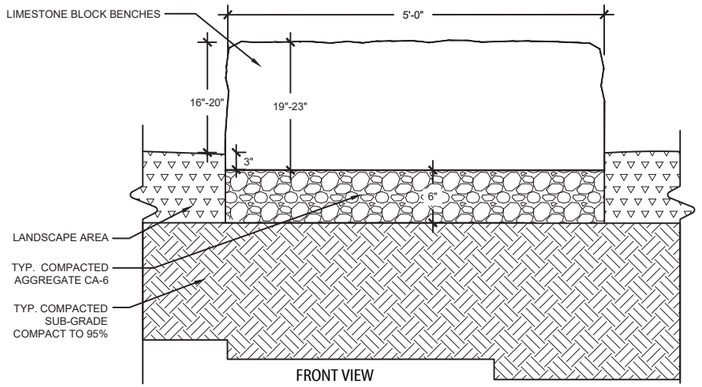
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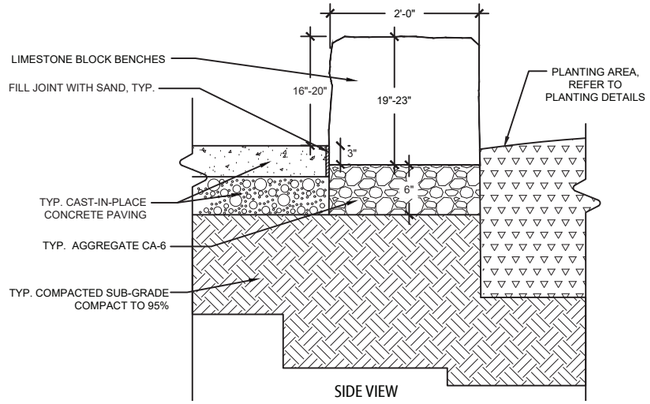
sheet name
SIGN DETAILS

sheet number
L-9

LIMESTONE BENCHES SHALL BE INSTALLED ON LEVEL GRADE.

***NOTE**: LANDSCAPE ARCHITECT TO FIELD VERIFY AND APPROVE LIMESTONE BLOCK BENCHES SHOWN ON PLANS.





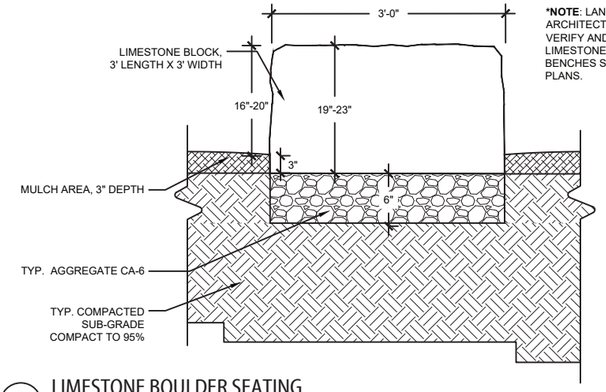


REFERENCE IMAGE: LIMESTONE BLOCK BENCH

1 LIMESTONE BLOCK BENCH

SCALE: NTS

LIMESTONE BOULDER SEATING SHALL BE INSTALLED ON LEVEL GRADE.



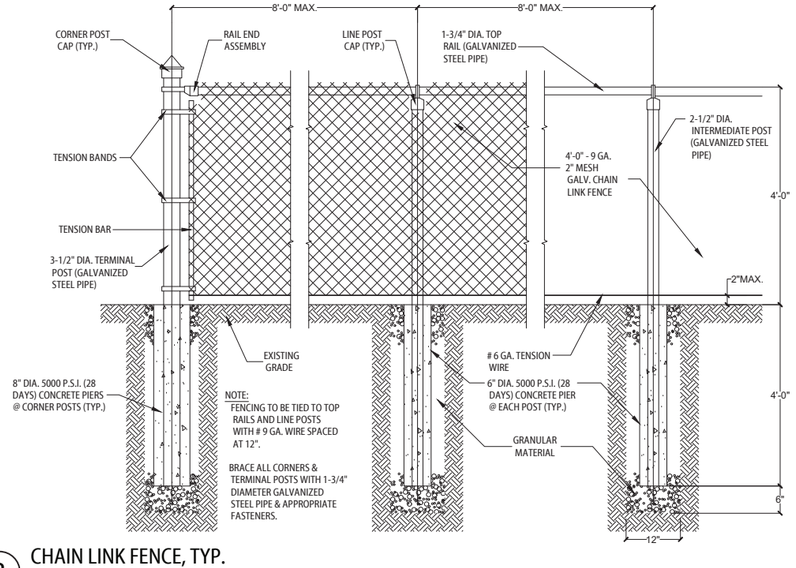
***NOTE**: LANDSCAPE ARCHITECT TO FIELD VERIFY AND APPROVE LIMESTONE BLOCK BENCHES SHOWN ON PLANS.



REFERENCE IMAGE: LIMESTONE BOULDER SEATING

2 LIMESTONE BOULDER SEATING

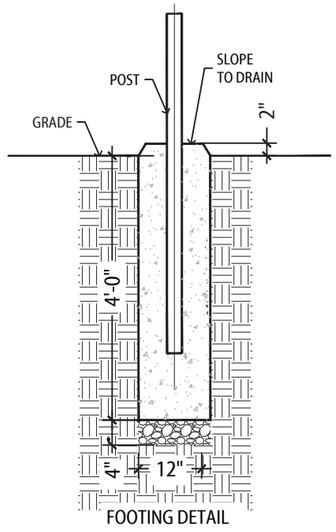
SCALE: NTS



MANUFACTURER:	**SPECIFICATION:**
Ameristar Fence*	Model: GalvOnAll™
Tulsa, OK	**Chain link Fence Framework**
P: 888 321-8724	Color: Galvanized
*or approved equal	Height: 4' ht.

3 CHAIN LINK FENCE, TYP.

SCALE: NTS



FOOTING DETAIL

CHRISTOPHER B. BURKE ENGINEERING, LTD.
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teska
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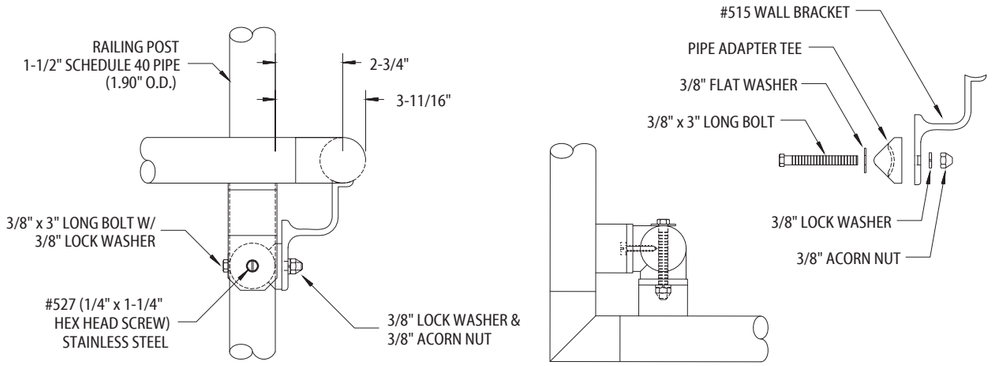
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issue date
November 12, 2026

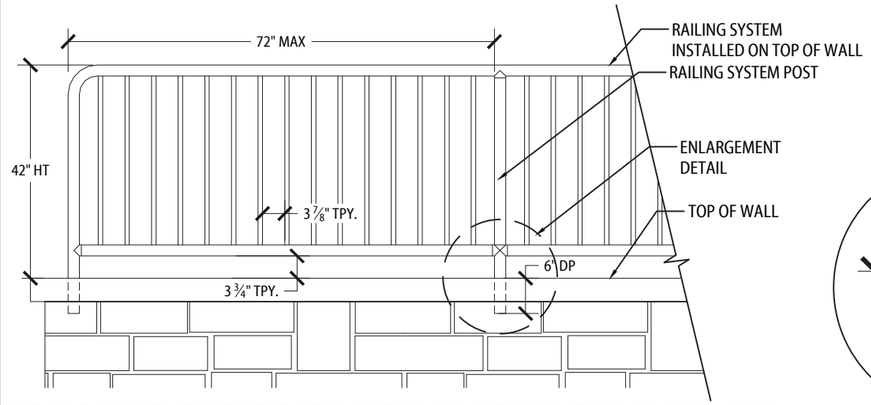
sheet name
FURNISHING DETAILS

sheet number
L-10



1 WALL BRACKET WITH PIPE ADAPTER AND HARDWARE (CORNER) DETAILS

SCALE: NTS



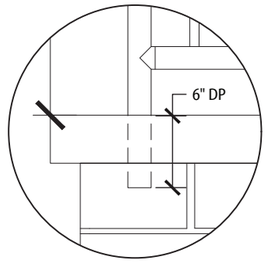
FOR ALL RAILING POST EMBEDDED INTO CONCRETE. FILL GAPS WITH EPOXY, COLOR TO MATCH CONCRETE WALL. SUBMIT COLOR SAMPLES FOR REVIEW.

2 RAILING SYSTEM EMBEDDED MOUNTING PER PLANS

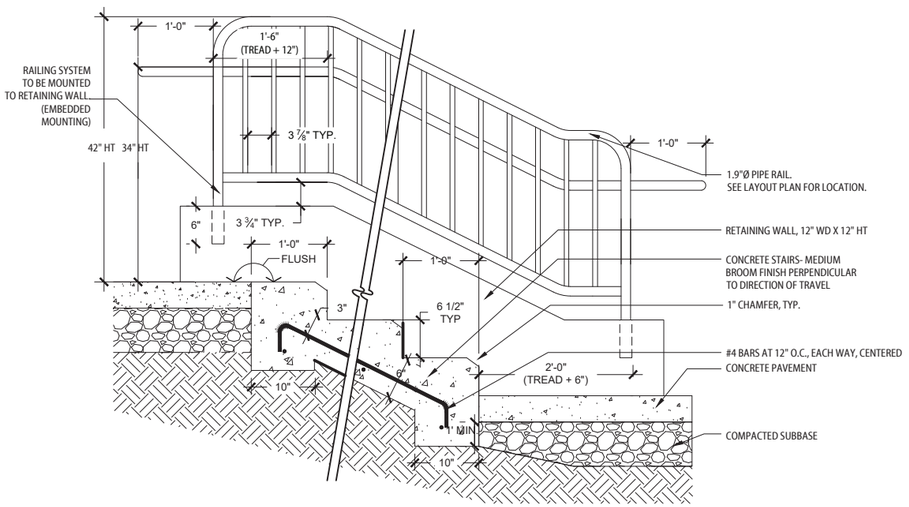
SCALE: NTS

MANUFACTURER:	SPECIFICATION:
Superior Aluminum Products* Russia, OH P: 937 526-4065 *or approved equal	Series 5P 2-Line Pipe Picket Railing System Color: Galvanized Aluminum Height: 42" ht.

CONTRACTOR SHALL PROVIDE STAMPED STRUCTURAL ENGINEERING SHOP DRAWINGS FOR REVIEW.



EMBEDDED MOUNTING
APPLICATION
ENLARGEMENT DETAIL



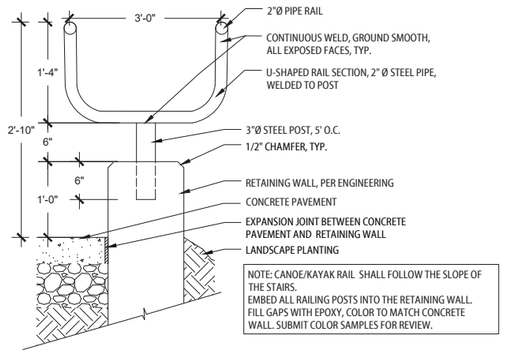
3 RAILING SYSTEM WITH HANDRAIL

SCALE: NTS



MANUFACTURER:	SPECIFICATION:
Superior Aluminum Products* Russia, OH P: 937 526-4065 *or approved equal	Series 5P 2-Line Pipe Picket Railing System with handrail Color: Galvanized aluminum Height: 42" ht.

CONTRACTOR SHALL PROVIDE STAMPED STRUCTURAL ENGINEERING SHOP DRAWINGS FOR REVIEW.



NOTE: CANOE/KAYAK RAIL SHALL FOLLOW THE SLOPE OF THE STAIRS.
EMBED ALL RAILING POSTS INTO THE RETAINING WALL.
FILL GAPS WITH EPOXY, COLOR TO MATCH CONCRETE WALL. SUBMIT COLOR SAMPLES FOR REVIEW.

4 CANOE/KAYAK RAIL

SCALE: NTS

**A STAINLESS STEEL RIVET NUT (#529) AND A 1/4" x 1-1/4" S.S. SCREW (#526) ARE USED ON ALL TEE OR ANGLE TEE LOCATIONS THAT ATTACH TO JUST THE PIPE, AT ANY DEGREE.

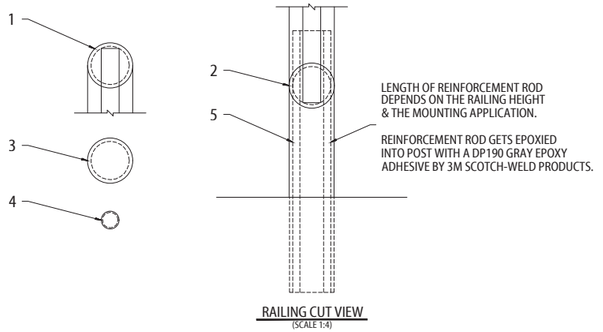
NOTE: A STAINLESS STEEL RIVET NUT CAN NOT BE USED AT ANY LOCATION THAT WILL BE MOUTING INTO A PORTION OF THE PIPE THAT IS FITTED WITH A REINFORCEMENT ROD.

NOTE: A 1/4" x 1" S.S. SCREW (#527) IS USED ON ALL TEE LOCATIONS MOUNTING TO A PORTION OF THE PIPE THAT IS FITTED WITH A REINFORCEMENT ROD.

**A THRU BOLT (#524) AND A LOCKNUT (#525) ARE USED FOR ALL #502 & #504 ANGLE TEES THAT MOUNT OPPOSITE OF EACH OTHER AT 12 DEGREES OR LESS.

SERIES 5P 2-LINE PIPE PICKET RAILING SYSTEM

1	TOP RAIL (1-1/2" SCHEDULE 40 PIPE W/ A 1.9" O.D. x 0.145" WALL)	6063-T6
	*EXCEPT WHERE THERE ARE FORMED BENDS	6063-T4
2	BOTTOM RAIL (1-1/2" SCHEDULE 40 PIPE W/ A 1.9" O.D. x 0.145" WALL)	6063-T6
	*EXCEPT WHERE THERE ARE FORMED BENDS	6063-T4
3	POST (1-1/2" SCHEDULE 40 PIPE W/ A 1.9" O.D. x 0.145" WALL)	6063-T6
4	PICKET (3/4" O.D. x 0.050" WALL) *FACTORY ASSEMBLED WITH A TIGHT DRIVE-IN FIT TO THE TOP & BOTTOM RAILS TO ASSURE SQUARENESS & RIGIDITY	6063-T6
5	HOLLOW REINFORCEMENT ROD	6061-T6



RAILING CUT VIEW
(SCALE 1:4)



REFERENCE IMAGE:
CANOE/KAYAK RAILING

MANUFACTURER:
WAGNER RAILINGS MILWAUKEE, WI 888 243 6914 RAILING TYPE: GALVANIZED ALUMINUM

CONTRACTOR SHALL PROVIDE STAMPED STRUCTURAL ENGINEERING SHOP DRAWINGS FOR REVIEW.

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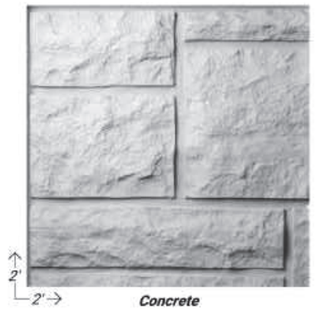
pm	la	cad
JM	LC/GD	LC/GD

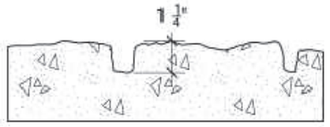
issue date
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sheet name
FURNISHING
DETAILS

sheet number
L-11

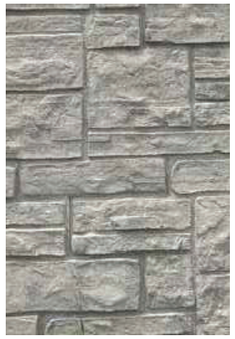
SCOTT SYSTEM #167C
1 ¼" ASHLAR STONE



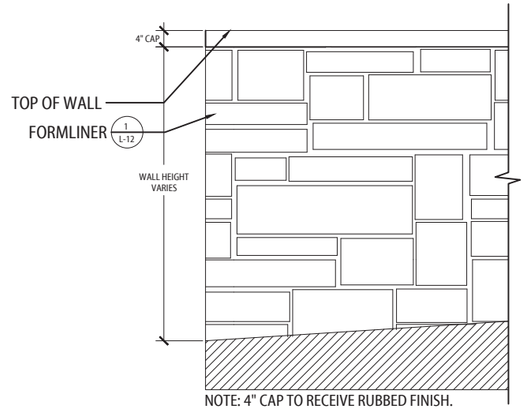


FORMLINER	
MANUFACTURER:	SCOTT SYSTEM
WEBSITE:	https://www.scottsystem.com/
MODEL:	#167C 1 ¼" ASHLAR STONE

NOTES:
1. PROVIDE SHOP DRAWINGS FOR REVIEW AND APPROVAL
2. INSTALL ACCORDING TO MANUFACTURER'S INSTALLATION INSTRUCTIONS.
3. WALLS SHALL RECEIVE CONCRETE STAIN. STAIN COLOR SHALL BE A BUFF/GRAY BLEND, PROVIDE COLOR SAMPLES AND MOCKUPS FOR REVIEW PER THE PROJECT SPECIFICATIONS.

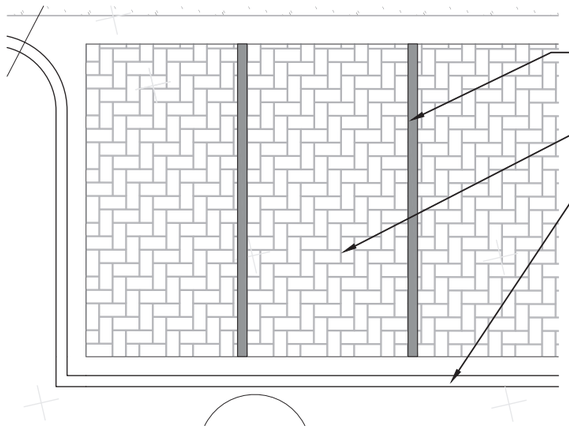


1 FORMLINER - WALL TEXTURE



NOTE: 4" CAP TO RECEIVE RUBBED FINISH.

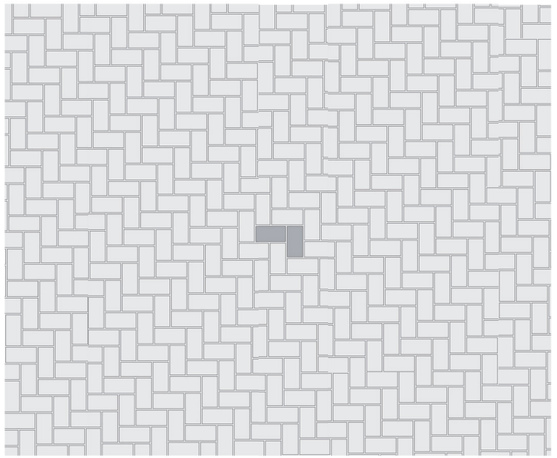
2 TOP OF WALL - ENLARGEMENT DETAIL



3 PERMEABLE PAVING PATTERN
SCALE: NTS

ECO-PRIORA™
PATTERN E

5 x 10" Herringbone



Shaded area represents repeatable pattern.

NOTE: Some patterns may not necessarily reflect the percentages of stone sizes within a particular bundle configuration. In some cases you may have extras in one or more of the sizes. This must be accounted for in your planning and design.

UNILOCK PAVERS & WALLS

4 PERMEABLE UNIT PAVERS
SCALE: NTS

REFER TO CIVIL DRAWINGS FOR PAVING INSTALLATION DETAIL.

COLOR SHOWN: BEECHWOOD
FINAL COLOR SELECTION SHALL BE DETERMINED BY THE CITY UPON SAMPLE REVIEW



PERMEABLE UNIT PAVERS	
MANUFACTURER:	UNILOCK
WEBSITE:	https://unilock.com/permeable-pavers/
MODEL:	ECO-PRIORA
COLOR:	BUFF / TAN
RATING:	VEHICULAR USE

NOTES:
1. INSTALL ACCORDING TO MANUFACTURER INSTALLATION INSTRUCTIONS.
2. CONTRACTOR TO PROVIDE PRODUCT DATA AND COLOR SAMPLES PRIOR TO FABRICATION.

PERMEABLE PAVER AGGREGATE	
MANUFACTURER:	KAFKA
WEBSITE:	https://KAFKAGRANITE.COM
TYPE:	PERMEABLE PAVER GRIT
COLOR:	TO BE SELECTED BY CITY, BASED ON MANUFACTURER'S STANDARD OFFERINGS

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sheet name
HARDSCAPE DETAILS

sheet number
L-12

NOTES:

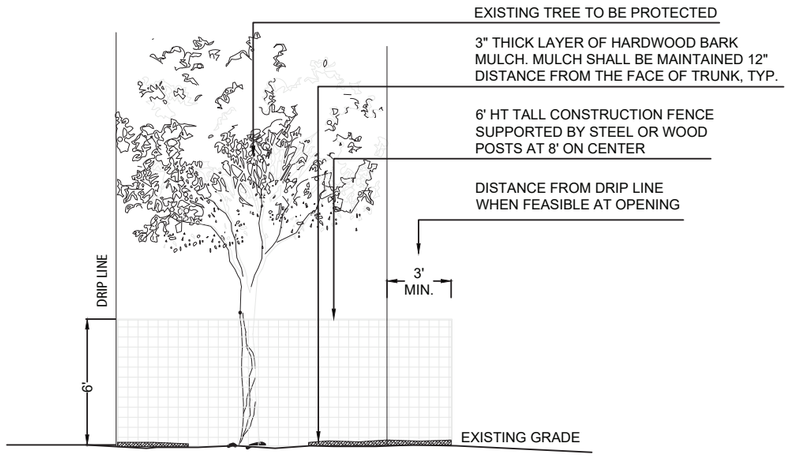
1. THE PURPOSE OF TREE PROTECTION FENCING IS TO MINIMIZE CONSTRUCTION ACTIVITIES WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES TO REMAIN.

2. PROTECTIVE TREE FENCING MUST BE WIRE MESH OR WELDED WIRE FENCING (CHAIN LINK), 6' HIGH WITH STEEL OR WOODEN POSTS INSTALLED AND SPACED NOT MORE THAN 8' APART.

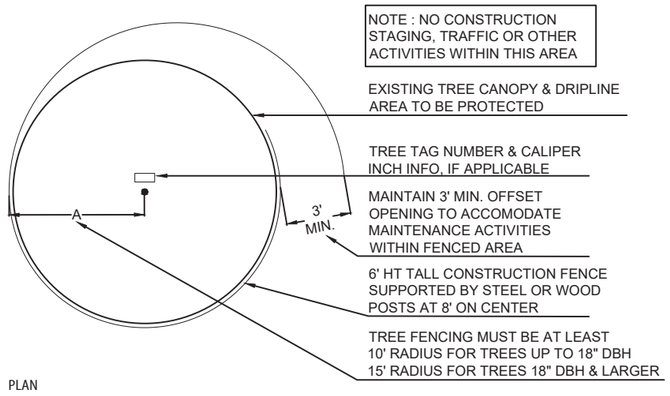
3. PROTECTIVE TREE FENCING MUST EXTEND TO THE DRIPLINE OF THE TREE (WHICH CAN BE ESTIMATED AT 1 FOOT FOR EVERY 1 INCH OF DBH) BUT IN NO CASE SHALL FENCING BE:

LESS OF A RADIUS OF 10' FROM TREES UP TO 18" DBH
LESS OF A RADIUS OF 15' FROM TREES 18" IN DBH AND LARGER

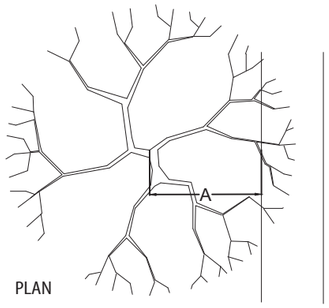
4. PROTECTIVE TREE FENCING MUST REMAIN INTACT FOR THE ENTIRE DURATION OF THE CONSTRUCTION PROJECT AND MAY NOT BE MOVED OR REMOVED FOR ANY REASON WITHOUT VILLAGE APPROVAL ONLY.



1 TREE PROTECTION FENCING
SCALE: NTS



PLAN



PLAN

NOTES:

1. THE PURPOSE OF ROOT PRUNING IS TO MAXIMIZE TREE HEALTH FOR TREES WHICH MAY BE IMPACTED BY CONSTRUCTION EQUIPMENT.

2. ROOT PRUNING MUST BE PERFORMED BY A CERTIFIED ARBORIST PRIOR TO EXCAVATION ACTIVITIES.

3. ROOT PRUNING MUST BE PERFORMED AS FAR FROM THE PROTECTED TREE AS POSSIBLE BUT STILL BE EFFECTIVE IN PROTECTING FROM EXCAVATION ACTIVITIES.

4. INSTALL ORANGE PLASTIC MESH TREE BARRIER WITH REBAR SUPPORTS AT POINT OF PRUNING AND CONTINUE COMPLETELY AROUND TREE, PROTECTING THE AREA WITHIN THE DRIP LINE (EXTENT OF OUTER BRANCHES).

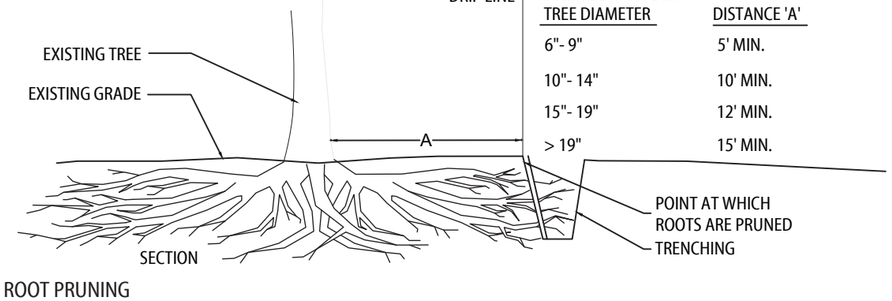
5. CUTS ARE TO BE MADE CLEANLY WITH A SHARP ROOT PRUNING TOOL SUCH AS A DOSCO OR VERMEER ROOT PRUNER. CUTTING OR PRUNING OF ROOTS 2" IN DIAMETER OR LARGER IS PROHIBITED.

6. ROOT PRUNING MUST BE TO A DEPTH OF 18-24 INCHES BELOW GRADE.

7. HAND DIGGING IS REQUIRED IF EXCAVATION OCCURS WITHIN THE DRIPLINE OF THE TREE

8. IF EXCAVATION CAUSES PRUNED ROOTS OVER 1.5" IN DIAMETER TO REMAIN EXPOSED FOR MORE THAN 24 HOURS, ROOTS ON THE TREE SIDE MUST BE KEPT MOIST.

9.TREE DIAMETER IS MEASURED AT BREAST HEIGHT (DBH).



2 ROOT PRUNING
SCALE: NTS

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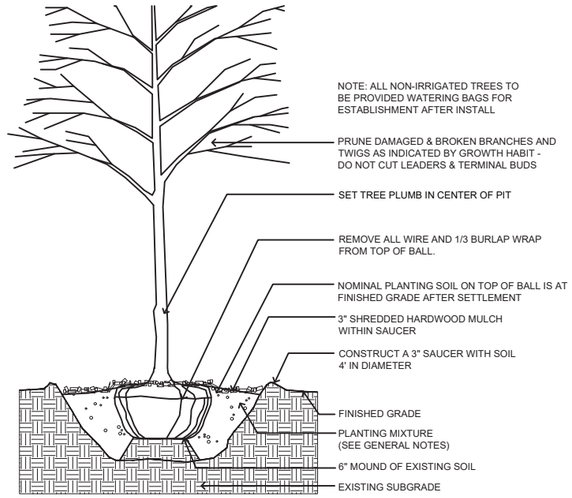
issue / revision	date	description

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JM	LC/GD	LC/GD

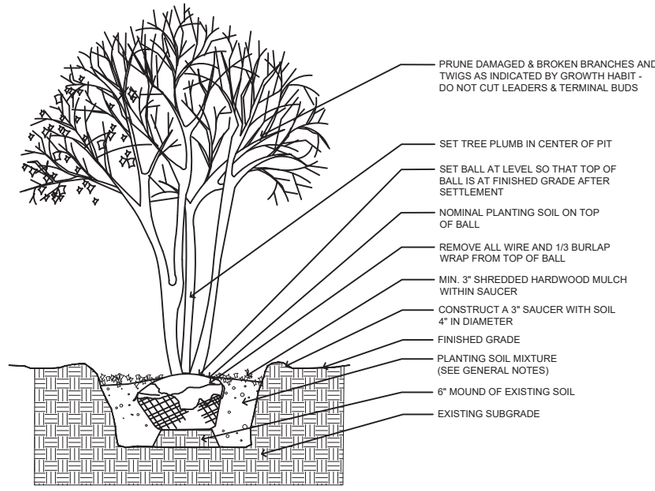
issue date
November 12, 2026

sheet name
TREE PROTECTION DETAILS

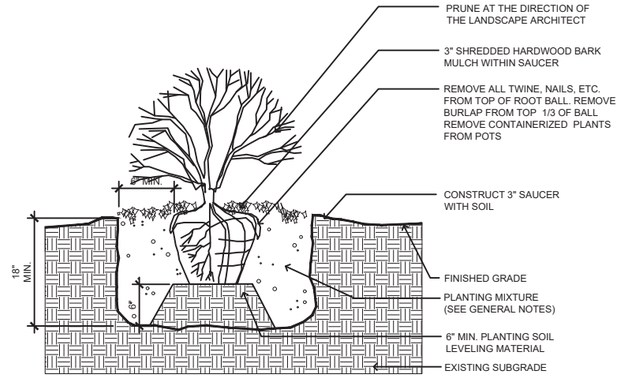
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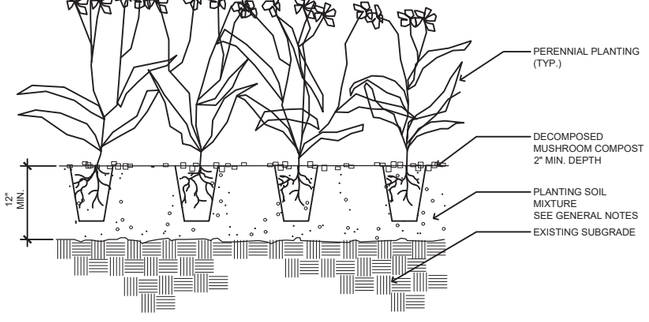
1 TYP. DECIDUOUS TREE PLANTING DETAIL
SCALE: NTS

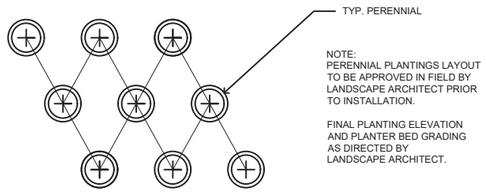


2 TYP. ORNAMENTAL TREE PLANTING DETAIL
SCALE: NTS



3 TYP. SHRUB PLANTING DETAIL
SCALE: NTS





4 TYP. PERENNIAL PLANTING DETAIL
SCALE: NTS

PLANTING GENERAL NOTES

1. PLANTING NOTES APPLY TO THE ENTIRE PROJECT AREA.
2. REFER TO THE SPECIFICATIONS FOR ITEMS RELATED TO TREE PROTECTION AND NEW LANDSCAPE INSTALLATIONS.
3. ALL PLANTINGS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED IN KIND.
4. PLANT MATERIAL SIZES SHOWN ON PLANT SCHEDULE ARE MINIMUM ACCEPTABLE SIZES. ALL PLANT MATERIAL SHALL BE OF SPECIMEN QUALITY. NO 'PARK GRADE' MATERIAL WILL BE ACCEPTED.
5. ALL PLANT MATERIAL SHALL BE OBTAINED FROM AN APPROVED NORTHERN ILLINOIS NURSERY WITH HEAVY CLAY SOILS.
6. ALL PLANT MATERIAL SHALL CONFORM TO AMERICAN STANDARD FOR NURSERY STOCK AS SPONSORED BY THE AMERICAN ASSOCIATION OF NURSERYMEN AND APPROVED BY THE AMERICAN NATIONAL STANDARDS INSTITUTE, INC. (ANSI)
7. IF SPECIFIED SPECIES AND/ OR QUALITY OF PLANTS ARE NOT AVAILABLE AT THE TIME OF ORDERING, THE LANDSCAPE ARCHITECT, AT HIS/HER DISCRETION, MAY SUBSTITUTE SIMILAR PLANTS WITH THE SAME WHOLESALE VALUE.
8. ALL PLANTS TO BE BALLED IN BURLAP (B&B) OR CONTAINER GROWN (CG) AS SPECIFIED IN PLANT SCHEDULE. ALL NYLON/PLASTIC/BURLAP ROOT WRAPPING MATERIAL SHALL BE REMOVED. WIRE BASKETS TO BE REMOVED UNLESS OTHERWISE SPECIFIED.
9. SOIL TO BE USED FOR THE PLANTING MEDIUM FOR THE PROJECT SHALL BE FERTILE, WELL-DRAINED, OF UNIFORM QUALITY, FREE OF STONES OVER 1" IN DIAMETER, STICKS, OILS, CHEMICALS, PLASTER, CONCRETE AND OTHER DELETERIOUS MATERIAL.
10. THE OWNER AND/OR LANDSCAPE ARCHITECT RESERVES THE RIGHT TO REJECT ANY PLANT MATERIAL IN POOR CONDITION/FORM OR NOT INSTALLED ACCORDING TO 'BEST MANAGEMENT PRACTICE' TECHNIQUES.
11. THE LANDSCAPE CONTRACTOR SHALL PREPARE PLANTING BEDS BY ADDING SOIL AMENDMENTS TO TOPSOIL MIX IN THE FOLLOWING QUANTITIES: TOPSOIL MIX FOR TREES, SHRUBS, & PERENNIALS SHALL BE THREE (3) PARTS TOPSOIL, ONE (1) PART PEAT, AND ONE (1) PART SAND.
12. ALL WOODY PLANTINGS AND PERENNIAL PLANTS TO RECEIVE 3" DEPTH SHREDDED HARDWOOD BARK MULCH. REFER TO SPECIFICATIONS.
13. CONTRACTOR SHALL WATER PLANTS IMMEDIATELY AFTER PLANTING. FLOODING PLANTS TWICE DURING FIRST TWENTY-FOUR HOURS AFTER PLANTING.
14. GUARANTEE SPECIFICATIONS ARE AS FOLLOWS: THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A BONDED WRITTEN ONE-YEAR WARRANTY AGREEMENT BEGINNING ON THE DATE OF FINAL PROJECT COMPLETION. THIS AGREEMENT SHALL PROVIDE FOR THE REPLACEMENT OF DEAD OR DYING PLANT MATERIAL. THE CONTRACTOR SHALL PROVIDE THE OWNER WITH A TYPEWRITTEN LIST OF SPECIFIC MAINTENANCE INSTRUCTIONS FOR EACH TYPE OF PLANT INSTALLED WITH THE WRITTEN AGREEMENT AND BOND.

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sheet name
PLANTING DETAILS & NOTES

sheet number
L-14

PLANT_SCHEDULE

SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	CONTAINER	SPACING
TREES						
	ACE RBR	3	Acer rubrum / Red Maple	3" Cal.	B&B	AS SHOWN
	CEL OCC	7	Celtis occidentalis / Common Hackberry	3" Cal.	B&B	AS SHOWN
ORNAMENTAL TREE						
	AME LAE	7	Amelanchier laevis / Allegheny Serviceberry	6` ht. multi-stem	B&B	AS SHOWN
	MAL IOE	7	Malus ioensis / Prairie Crabapple	6` ht.	B&B	AS SHOWN
SYMBOL	CODE	QTY	BOTANICAL / COMMON NAME	SIZE	CONTAINER	SPACING
SHRUBS						
	CEP OCC	8	Cephalanthus occidentalis / Buttonbush	24" ht.	CG	As Shown
	LIN BEN	22	Lindera benzoin / Spicebush	36" ht.	CG	As Shown
PERENNIALS & ORNAMENTAL GRASSES						
	CP	126	Carex pennsylvania/ Pennsylvania Sedge	1 gal.	CG	18" O.C.
	ATU	30	Asclepias tuberosa / Butterfly Weed	1 gal.	CG	18" O.C.
	ACE	23	Allium cernuum/ Nodding Wild Onion	1 gal.	CG	18" O.C.
	ALA	18	Aster laevis/ Smooth Blue Aster	1 gal.	CG	18" O.C.
	EPU	17	Echinacea purpurea/ Pale Purple Coneflower	1 gal.	CG	18" O.C.
	GMA	17	Geranium maculatum/ Geranium	1 gal.	CG	18" O.C.
	LAS	17	Liatris aspera/ Rough Blazing Star	1 gal.	CG	18" O.C.
	MRB	15	Monarda bradburiana/ Bradbury's Bee Balm	1 gal.	CG	18" O.C.
	RHI	29	Rudbeckia hirta/ Black Eyed Susan	1 gal.	CG	18" O.C.
SEED MIX						
	LOW PROFILE PRAIRIE SEED MIX	11 528 sf	LOW PROFILE PRAIRIE SEED MIX	seed		
	LAWN SEED MIX	466 sf	LAWN SEED MIX	seed		

NURSERY NOTES:

PLANT MATERIALS SHALL BE OBTAINED FROM NURSERIES THAT USE NO INSECTICIDES OR NEONICOTINOIDS. RECOMMENDED PLANT NURSERIES FOLLOW BELOW:

- PIZZO pizzonursery.com
- CARDNO (NOW PART OF STANTEC) stantec.com/en/services/native-plant-nursery
- POSSIBILITY PLACE possibilityplace.com
- PRAIRIE MOON prairiemoon.com
- PLEASANT PRAIRIE NURSERY pleasantprairienursery.com

LOW PROFILE PRAIRIE SEED MIX

PIZZO Habitat Restoration — (815) 495-2300 HabitatRestoration.com

PIZZO Native Plant Nursery — (815) 981-8000 PizzoNursery.com

Low Profile Prairie Seed Mix (Dry-Mesic Soils)

MIX STATISTICS

Base Mix Without Supplemental Plugs

Average Mix Height (ft)	2.5
Median Mix Height (ft)	3
Species Heights (# of Occurrences in Mix)	1.5' (1), 2' (15), 3' (11), 4' (10), 5' (2)
Number of Native Species in Mix	34
Native FQI	34.8
Native Mean C Value	5.8
Native Mean W Value	2.8
Seeds per Square Foot	313

Mix Description: Pizzo Native Plant Nursery LLC's Low Profile Prairie Seed Mix is designed for sunny areas that remain mesic-dry for most of the growing season. This mix is composed of a diverse collection of shorter-profile prairie grass and wildflower species, and is ideal for areas where taller vegetation is not appropriate. This mix averages 2.6' in height by seed count with over 56% of the mix composed of wildflowers that will provide an array of blooms from April through October. When installed and maintained correctly this mix will typically begin flowering in it's second growing season, starting with the yellow blooms of annual Partridge Pea and biennial Black-Eyed Susan, with additional more colorful permanent species appearing in years 3-5.

Grasses, Sedges, & Rushes

CODE	SCIENTIFIC NAME	COMMON NAME	C-VALUE	W-VALUE	WETNESS	HEIGHT Min-Max	HEIGHT Typical	BLOOM COLOR	BLOOM TIME A	M	J	J	A	S	O	SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX by Weight	% OF MIX by Seed Count	Total Seeds
BOUCUR	*Bouteloua curtipendula*	Side-oats Grama	8	5	UPL	1.5-2.5'	2	N/A								6,000	320	20	28.64%	14.10%	1,920,000
ELYCAN	*Elymus canadensis*	Canada Wild Rye	4	3	FACU	3-5'	5	N/A								5,200	32	2	5.73%	1.22%	166,400
SCHSCO	*Schizachyrium scoparium*	Little Bluestem	5	3	FACU	2-3'	3	N/A								15,000	96	6	17.18%	10.58%	1,440,000
SPOHET	*Sporobolus heterolepis*	Prairie Dropseed	10	3	FACU	1-3'	2	N/A								16,000	96	6	17.18%	11.28%	1,536,000
																Grass/Sedge Subtotals		**34**	**65.11%**	**37.18%**	5,062,400

Wildflowers

CODE	SCIENTIFIC NAME	COMMON NAME	C-VALUE	W-VALUE	WETNESS	HEIGHT Min-Max	HEIGHT Typical	BLOOM COLOR	BLOOM TIME A	M	J	J	A	S	O	SEEDS/OZ	OZ/ACRE	LB/ACRE	% OF MIX by Weight	% OF MIX by Seed Count	
ALLCER	*Allium cernuum*	Nodding Onion	7	3	FACU	1-2'	1.5	Purple								7,600	6	0.375	0.54%	0.33%	45,600
AMOCAN	*Amorpha canescens*	Lead Plant	9	5	UPL	1-3.5'	3	Purple								16,000	4	0.25	0.36%	0.47%	64,000
ASCTUB	*Asclepias tuberosa*	Butterfly Weed	7	5	UPL	1-2.5'	2	Orange								4,300	32	2	2.86%	1.01%	137,600
BAPALB	*Baptisia alba*	White Wild Indigo	8	3	FACU	3-6'	4	White								1,700	5	0.3125	0.45%	0.06%	8,500
CHAFAS	*Chamaecrista fasciculata*	Partridge Pea	5	3	FACU	6"-2'	2	Yellow								2,700	16	1	2.86%	0.32%	43,200
CORPAL	*Coreopsis palmata*	Prairie Coreopsis	6	5	UPL	1-2.5'	2	Yellow								10,000	8	0.5	0.72%	0.59%	80,000
DALPUR	*Dalea purpurea*	Purple Prairie Clover	9	5	UPL	1-3'	2	Purple								18,000	16	1	1.43%	2.12%	288,000
ECHPAL	*Echinacea pallida*	Pale Purple Coneflower	8	5	UPL	2-3'	3	Purple								5,200	32	2	2.86%	1.22%	166,400
ECHPUR	*Echinacea purpurea*	Purple Coneflower	3	5	UPL	2-5'	4	Purple								6,600	12	0.75	1.07%	0.58%	79,200
ERYYUC	*Eryngium yuccifolium*	Rattlesnake Master	9	0	FAC	2-5'	4	White								7,500	8	0.5	0.72%	0.44%	60,000
EUPCOR	*Euphorbia corollata*	Flowering Spurge	2	5	UPL	1-3'	3	White								8,000	8	0.5	0.72%	0.47%	64,000
HELHEL	*Heliopsis helianthoides*	Early Sunflower	5	3	FACU	3-5'	5	Yellow								6,300	16	1	1.43%	0.74%	100,800
LESCAP	*Lespedeza capitata*	Round-headed Bush Clover	4	3	FACU	2-5'	4	Green								8,000	8	0.5	0.72%	0.47%	64,000
LIAASP	*Liatris aspera*	Button Blazing Star	6	5	UPL	2-5'	3	Purple								16,000	6	0.375	0.54%	0.71%	96,000
LIAPYC	*Liatris pycnostachya*	Prairie Blazing Star	8	0	FAC	2-4'	4	Purple								11,000	8	0.5	0.72%	0.65%	88,000
MONFIS	*Monarda fistulosa*	Wild Bergamot	4	3	FACU	2.5-4'	4	Purple								70,000	4	0.25	0.36%	2.06%	280,000
PARINT	*Parthenium integrifolium*	Wild Quinine	8	5	UPL	2-3.5'	3	White								7,000	8	0.5	1.43%	0.41%	56,000
PENDIG	*Penstemon digitalis*	Foxglove Beardtongue	4	0	FAC	2-3'	3	White								130,000	4	0.25	0.36%	3.82%	520,000
PYCTEN	*Pycnanthemum tenuifolium*	Slender Mountain Mint	7	0	FAC	1-3'	2	White								378,000	0.5	0.03125	0.04%	1.39%	189,000
RATPIN	*Ratibida pinnata*	Yellow Coneflower	4	5	UPL	2-4'	4	Yellow								30,000	8	0.5	0.72%	1.76%	240,000
RUDFUL	*Rudbeckia fulgida*	Orange Coneflower	8	-5	OBL	2-4'	3	Orange								31,000	8	0.5	0.72%	1.82%	248,000
RUDHIR	*Rudbeckia hirta*	Black-eyed Susan	1	3	FACU	2-3'	2	Yellow								92,000	16	1	2.86%	10.81%	1,472,000
SOLJUN	*Solidago juncea*	Early Goldenrod	5	5	UPL	1-3'	3	Yellow								290,000	1	0.0625	0.09%	2.13%	290,000
SOLRIG	*Solidago rigida*	Stiff Goldenrod	4	3	FACU	2-5'	4	Yellow								41,000	2	0.125	0.18%	0.60%	82,000
SYMERI	*Symphyotrichum ericoides*	Heath Aster	5	3	FACU	1-3'	2	White								200,000	16	1	0.18%	23.50%	3,200,000
SYMLAE	*Symphyotrichum laeve*	Smooth Blue Aster	9	3	FACU	1.5-3'	3	Blue								55,000	2	0.125	0.18%	0.81%	110,000
SYMNOV	*Symphyotrichum novae-angiae*	New England Aster	4	-3	FACW	3-5'	4	Purple								66,000	1	0.0625	0.09%	0.48%	66,000
TRAOHI	*Tradescantia ohiensis*	Ohio Spiderwort	2	3	FACU	2-4'	3	Blue								8,000	16	1	1.43%	0.94%	128,000
VERSTR	*Verbena stricta*	Hoary Vervain	4	5	UPL	1-3'	2	Blue								28,000	4	0.25	0.36%	0.82%	112,000
ZIZAUR	*Zizia aurea*	Golden Alexanders	7	0	FAC	1-2.5'	2	Yellow								11,000	16	1	2.86%	1.29%	176,000
																Wildflower Subtotals		**18.22**	**34.89%**	**62.82%**	8,554,300
																Mix TOTALS		**52.22**	**100.00%**	**100.00%**	13,616,700
																					313

SEED MIX with Cover Crop and Mycorrhizal Inoculant	
Spring Planting	
Low Profile Prairie Seed Mix (Dry-Mesic Soils)	
Mycorrhizal Inoculant (RTI Myco Bio Boost) @ 40 lbs	
Seed Oats (Avena sativa) @ 40 lbs	

Fall Planting	
Low Profile Prairie Seed Mix (Dry-Mesic Soils)	
Mycorrhizal Inoculant (RTI Myco Bio Boost) @ 40 lbs	
REGREEN @ 50 lbs	

LAWN SEED MIX

IDOT Class 1B Low Maintenance Lawn Mixture

NATIONAL SEED / CONSERV FS SEED

Fine Leaf Turf-Type Fescue	150 lbs. / acre
Perennial Ryegrass	20 lbs. / acre
Red Top	10 lbs. / acre
Creeping Red Fescue	20 lbs. / acre
	200 lbs. / acre

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BID SET
November 12, 2026

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3		
4		
5		
6		

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sheet name
PLANT SCHEDULE & GENERAL NOTES

sheet number
L-15

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Geotechnical & Environmental Engineering

Construction Materials Engineering & Testing

Laboratory Testing of Soils, Concrete & Asphalt

Geo-Environmental Drilling & Sampling

July 23, 2025
L-96,350A

Report of Soils Exploration

Ladd Arboretum Canoe Launch

SWC McCormick Blvd & Bridge St.

Evanston, Illinois

Prepared For:

Christopher B. Burke Engineering
820 Davis Street, Suite 520
Evanston, IL 60201

GEOTECHNICAL GROUP

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II. APPENDIX

July 23, 2025
L-96,350A

REPORT OF SOILS EXPLORATION
LADD ARBORETUM CANOE LAUNCH
SWC McCORMICK BLVD. & BRIDGE ST.
EVANSTON, ILLINOIS

1.0 INTRODUCTION

This report presents the results of a soils exploration performed for the proposed Ladd Arboretum Canoe Launch in Evanston, Illinois. These geotechnical engineering services are being provided in accordance with Testing Service Corporation (TSC) Proposal No. 71,548 dated August 4, 2023 and the attached General Conditions, incorporated herein by reference. A subsurface exploration was previously performed for the proposed Ladd Arboretum Canoe Launch under TSC Project No. L-95,869; the results of Borings 1 - 3 and Cores 1 and 2 are incorporated herein.

The project site is located on the southwest corner (SWC) of McCormick Boulevard and Bridge Street, with the North Shore Channel along the southeastern property limit. It consists of an existing parking lot with an embankment, covered in trees and bushes, on the southeast side that extends down to North Shore Channel. The parking lot is about 22 feet above the water level of the channel. The existing embankment slope is relatively steep with sections as steep as 2H:1V. Ground surface elevations at the borings were at approximate Elevation 599, with the normal water level (NWL) in the North Shore Channel at about Elevation 577.

Current plans call for the construction of a canoe/kayak launch. It is to consist of a concrete ramp that extends down the embankment to a floating dock within the North Shore Channel. A concrete stairway is also planned along the northeast side of the project site. The ramp will be about 5 feet wide and will zig-zag down the embankment, with concrete landing pads at each turn. At the bottom of the ramp, near the water's edge, will be a concrete pad/storage area that will be attached to a floating dock using a

floating walkway. It is understood that plans also include reconfiguring the existing parking lot to accommodate the new canoe launch.

Based on the original soil borings drilled for this project, relatively loose silt and soft clay soils were found within the embankment and extended to the boring completion depths of 25 feet below existing grade. A global stability was run on the existing embankment. Due to the steepness of the existing embankment as well as the low strength soils, the existing embankment is at or near the angle of repose, i.e., the slope has a low factor of safety against long-term global failure which is on the order of 1.0 (near incipient failure). Therefore, Borings 1 and 2 were extended deeper in order to provide recommendations.

The boring plan shows the current retaining wall layout which displays the need for five (5) different retaining wall sections (named A - E) along portions of the ramp which will require cuts into the embankment. The exposed wall heights were estimated to be between 1 to 8 feet tall based on the plans provided and the existing topographic survey of the embankment. Walls A and B are to likely consist of sheet piles due to the low strength soils. Walls C, D and E are to consist of segmental block walls that are comprised of Redi-Rock or similar blocks.

2.0 FIELD INVESTIGATION AND LABORATORY TESTING

Three (3) soil borings and two (2) pavement cores were performed as part of this subsurface exploration. Borings 1 - 3 were originally extended 25 feet below existing grade. As part of the most recent soil exploration, Borings 1 and 3 were extended 80 and 85 feet below existing grade, respectively.

Borings 1 - 3 were drilled along the top of the North Shore Channel embankment, i.e. the closest area accessible to conventional drilling equipment. The boring locations were laid out in the field by TSC. Ground surface elevations at the boring locations were also acquired by TSC using a Trimble R8S GNSS receiver, being rounded to the nearest 0.5 foot. A Boring Location Plan is enclosed showing the drilling layout, being plotted on the current retaining wall layout overlying a recent aerial photograph of the property.

The pavement cores taken within the existing parking lot were obtained using a 4" outer diameter core barrel with an impregnated diamond matrix bit. The underlying granular base course materials were then hand-augered to determine their thickness and composition.

The borings were drilled and samples tested in accordance with the current recommended American Society for Testing and Materials Specifications. Soil sampling was performed at 2½-foot intervals to 15 feet in depth and at 5-foot intervals thereafter. Most of the samples were taken in conjunction with the Standard Penetration Test (SPT), for which driving resistance to a 2" split-spoon sampler (N-value in blows per foot) provides an indication of the relative density of granular materials and consistency of cohesive soils. As part of the most recent soil exploration, thin-walled tube samples were occasionally collected of the soft clay soils. In order to supplement the laboratory information, field vane shear tests were also performed in relatively soft clay soils in Borings 1 and 3.

Water level observations were originally taken during and following completion of drilling operations in Borings 1 - 3 and are shown on the boring logs. It should be understood that rotary wash drilling methods were used when extending Borings 1 and 3 below a depth of 15 feet, precluding groundwater observations of significant value.

All soil samples were examined in the laboratory to verify field descriptions and to classify them in accordance with the Unified Soil Classification System. Laboratory testing included water content determinations for all cohesive and intermediate (silt or loamy) soil types. An estimate of unconfined compressive strength was obtained for all cohesive materials using a calibrated pocket penetrometer (Qp), with actual measurements of unconfined strength (Qu) performed on representative samples of inorganic native clays. In addition, Torvane shear tests (Tv) were performed on the thin-walled tube samples of relatively soft clays, estimate of undrained shear strength, in tons per square foot (tsf). Dry unit weight tests were also run on specimens of clay fill as well as the thin-walled tube samples.

Reference is made to the boring logs in the Appendix of this report which indicates subsurface stratigraphy and soil descriptions, water level observations and results of field and laboratory tests, including results of field vane shear (Fv) tests in tons per square foot. Definitions of descriptive terminology are also included. While strata changes are shown as a definite line on the logs, the actual transition between subsurface layers is likely to be more gradual. Fluctuations in the groundwater level may also occur due

to variations in nearby land use, precipitation (short-term and seasonal) as well as rises or drops in North Shore Channel or other nearby surface water features, i.e. water levels at a future date may be higher or lower than those recorded at the time of drilling.

3.0 DISCUSSION OF TEST DATA

3.1 Pavement Cores

Cores 1 and 2 were taken in the existing parking lot on the SWC of McCormick Boulevard and Bridge Street. It is understood that the parking lot is to be rehabilitated and/or reconstructed in connection with the Ladd Arboretum Canoe Launch project. Results of the two (2) pavement cores are summarized in the following table, i.e., pavement and base course total thicknesses are given.

SUMMARY OF CORE RESULTS

Core No.	Bituminous Concrete Thickness* (in)	Base Course Thickness** (in)
1	4½	7
2	3½	6

* Total asphalt thicknesses rounded to the nearest ¼ inch.

** Base course thicknesses rounded to the nearest 1 inch.

The cores revealed the presence of 3½ to 4½ inches of Hot Mix Asphalt (bituminous concrete) overlying 6 to 7 inches of granular base course materials. Examination of the core samples revealed that the asphalt sections were typically comprised of a bituminous surface course and a binder layer. The base course materials below the bituminous concrete materials were described as crushed limestone trace fines.

3.2 Soil Borings

Surficial topsoil fill was 8 to 10 inches thick at the boring locations. Silty clay fill materials were then encountered in all the borings and extended approximately 3 feet below existing grade. Samples of the cohesive fill had water contents in the range of 16 to 28 percent, dry unit weights of 95 to 115 pounds per cubic foot (pcf) and pocket penetrometer readings (i.e. estimates of unconfined compressive strength) of 2.5 to 4.5+ tons per square foot (tsf).

Loose clayey silt deposits were found directly underlying the existing fill materials in B-1 and below a stiffer clay layer in B-2. The intermediate materials in both borings extended to about 8 feet below existing grade. They exhibited SPT N-values of 6 to 7 blows per foot (bpf).

Stiff to very stiff silty clay soils were otherwise found in the upper 10 feet of the borings. They had unconfined compressive strengths ranging from 1.25 to 3.0 tsf. Water contents typically varied from 21 to 26 percent, being up to 32 percent in B-1.

Relatively soft and/or very moist silty clay soils were then encountered in the borings, extending to depths of 52 and 42 feet below existing grade in Borings 1 and 3, respectively, and to the completion depth of 25 feet in B-2. These cohesive soils exhibited unconfined compressive strengths/pocket penetrometer readings in the range of 0.25 to 0.6 tsf. Thin-walled tube samples taken in the soft clays revealed unconfined compressive strengths in the range of about 0.4 to 0.6 tsf and Torvane readings (estimates of undrained shear strength) between 0.30 and 0.52 tsf. Field vane shear (Fv) tests performed in these cohesive soils revealed undrained shear strengths ranging from 0.20 to 0.33 tsf. Water contents were typically in the range of 18 to 30 percent and as high as 35 to 41 percent in the upper 15 feet.

Medium stiff to very stiff silty clay soils were found below the relatively soft clay soils in Borings 1 and 3, extending about 72 and 77 feet deep, respectively. These cohesive soils exhibited unconfined compressive strengths/pocket penetrometer readings in the range of 0.6 to 3.0 tsf. Water contents varied from 15 to 24 percent.

Hard silty clay (“hardpan”) soils were found underlying the medium stiff to very stiff silty clay soils in Borings 1 and 3, extending to completion depths of 80 and 85 feet below existing grade, respectively. The silty clay hardpan materials had water contents of 9 to 10 percent and unconfined compressive strengths of 4.5+ tsf, the upper limit of the pocket penetrometer device.

Free water was initially encountered at depths of 10 to 13 feet below existing grade in Borings 1 - 3. Upon completion of drilling operations, the water level in B-2 had generally remained constant. Borings 1 and 3 had drilling water introduced into the boreholes below a depth of 15 feet as part of rotary wash drilling operations, making subsequent water level readings of dubious value.

4.0 ANALYSIS AND RECOMMENDATIONS

4.1 General Overview

Current plans call for the construction of a canoe/kayak launch. Borings 1 - 3 were drilled for the proposed ramp and retaining walls to be constructed along the embankment in connection with the canoe/kayak launch. Plans show the ramp zig-zagging down the embankment with concrete landing pads at each turn and a concrete pad/storage area near the water's edge of the North Shore Channel. Based on the plans provided and the existing topographic survey of the embankment, the ramp will require cuts of up to 10 feet into the embankment. Current plans call for retaining walls to be constructed along portions of the new ramp as well as the landing pads, stairway and along the water's edge. Five (5) different retaining wall sections (known as Walls A - E) are planned in connection with the canoe launch. Walls A and B are to likely consist of sheet piles due to the low strength soils. Walls C, D and E are to consist of segmental block walls that are comprised of Redi-Rock or similar blocks.

In connection with the block retaining walls, the Contractor must either brace the sides of the excavations or slope them back in accordance with current OSHA requirements to prevent excavation instability. In this regard, all excavations should comply with the requirements of OSHA 29CFR, Part 1926, Subpart P, "Excavations" and its appendices as well as any other applicable codes. This document states that excavation safety is the responsibility of the Contractor. It should be noted that it is not the Engineer's responsibility to enforce these requirements.

4.2 Wall A

Wall A is planned to wrap around the outside edge of the canoe launch along the water's edge for about 273 lf. The top of wall is tentatively set at between Elevations 579 and 585, i.e. near the proposed surface of the concrete ramp and Landing Pads 1 and 2. The bottom of the exposed wall will generally be between Elevations 572 and 578. Soft clay soils with unconfined compressive strengths of 0.6 tsf or less were encountered at and below these elevations in Borings 1 - 3. The soft clay soils are not recommended for modular block wall support.

It is recommended that Wall A consist of permanent sheet piling. Soil parameters that may be used for the development of lateral earth pressure diagrams for the sheet pile wall design are provided under

Section 4.8 Sheet Pile Wall Parameters. As part of the sheet pile design consideration should be given to extending sheet piles deep enough to protect the slope from erosion.

4.3 Wall B

Wall B will be constructed parallel to the canal, extending about 182 lf. The wall will be situated part-way up to slope generally extending from Landing Pad 1 and 3 on the southwest end and terminating at Landing Pad 2 on the northeast end. The top of wall is tentatively set at Elevation 586.5. The bottom of the exposed wall will be between Elevations 579 and 585, i.e. the top of the proposed concrete ramp and Landing Pads 1 and 2. The exposed wall heights are estimated to be between 1.5 to 7.5 feet, being the highest in the area of Landing Pad 1. Therefore, cuts of up to 9.5 feet into the embankment would be needed to install a modular block wall.

Borings 1 - 3 revealed soft clay soils with unconfined compressive strengths of 0.6 tsf or less at and below Wall B bearing levels. The soft clay soils are not recommended for modular block wall support. Based on the soils as well as the cuts required, temporary sheeting would be needed as part of construction. Therefore, consideration is being given to using permanent sheet piling with tie backs for Wall B. Soil parameters that may be used for the development of lateral earth pressure diagrams for the sheet pile design are provided under Section 4.8 Sheet Pile Wall Parameters.

The existing embankment is at or near the angle of repose, i.e., the slope has a low factor of safety against long-term global failure which is on the order of 1.0 (near incipient failure). It is understood that the sheet pile wall for Wall B will also be extended deep enough in order to increase the factor of safety of the slope in the area of the new canoe launch. The global stability analysis performed for the steepest cross-section of the existing embankment slope where a new canoe launch is to be constructed is provided below under Section 4.8 Global Stability Analysis.

4.4 Wall C

Wall C will generally parallel the canal extending southwest for about 82 lf from the proposed concrete stairway on the northeast side of the project site. The top of wall is tentatively set at Elevation 590. The exposed wall heights are estimated to be between 1 to 5 feet, being the highest near Landing Pad 2.

Plans call for Wall C to consist of segmental blocks comprised of Redi-Rock or similar blocks. The block wall will bear about 2 feet below finished grade or between Elevations 583 and 587. Therefor cuts of 3 to 7 feet into the embankment are anticipated for construction of Wall C. Soft clay soils were encountered at and below approximate Elevation 589 in Borings 2 and 3, i.e. at and below the bottom of wall elevations. The soft clay soils are not recommended for modular block wall support. Therefore consideration is being given to supporting the block wall on a concrete foundation with steel piles (H-pile or pipe pile). The estimated pile lengths are provided under Section 4.10 Estimated Pile Lengths.

4.5 Wall D

Wall D is the northern most wall closest to the top of the embankment. It will generally parallel the canal extending for about 146 lf, with 16 lf extending perpendicular to the canal at Landing Pad 3. The top of wall is tentatively set at Elevation 598. The bottom of the exposed wall will follow the ramp between Elevations 592 to 596, with exposed wall heights estimated to be between 4 to 8 feet, being the highest near Landing Pad 3. Plans call for Wall D to consist of segmental blocks comprised of Redi-Rock or similar blocks. The block wall will bear about 2 feet below finished grade or between Elevations 590 and 594. This will require a cut of up to 10 feet into the embankment at Landing Pad 3.

Borings 1 and 2 were drilled in the area of Wall D. Loose silt deposits were found between Elevations 591 and 596 in Borings 1 and 2, at or near the approximate retaining wall bearing level. It should be noted that these silt materials are considered moisture sensitive i.e. can experience a loss of stability when subjected to groundwater seepage or rainfall as well as being prone to instability under the traffic of construction equipment. It is recommended that undercuts of 1 to 2 feet be performed where intermediate materials are exposed at leveling pad grade, they should be removed and replaced with structural backfill. Retaining wall overexcavations are then backfilled and the retaining wall constructed at design elevations in accordance with the recommended procedures below.

Stiff silty clay soils were encountered in B-1 at the approximate bearing level of the block wall, i.e. near Landing Pad 3. The clay soils had moderate unconfined compressive strengths of about 1.25 tsf at a high water content of 32 percent. These clay soils will likely become unstable when exposed by excavation. Undercuts of 2 feet will generally be required based on field observations. The overexcavations are then typically backfilled in accordance with the following recommended procedures. These cohesive soils are

normally considered suitable for a maximum net allowable bearing pressure of 2500 psf. However, given that they were found overlying soft clay soils a lower bearing pressure of 1500 psf is recommended. The 1500 psf bearing value should be suitable for the block retaining wall.

The base of the retaining wall undercut should exceed wall foundation by at least 12 inches along each side. Replacement materials should consist of crushed stone, crushed gravel or recycled concrete between ¼ to 3 inches in size and containing no fines; IDOT gradations CA-1 and CA-7 meet these criteria. This "structural" fill should be spread in maximum 12-inch layers loose thickness, each lift to be densified using vibratory compaction equipment or by tamping with a backhoe bucket. As previously stated above, soft clay soils were found below approximate Elevation 589. Retaining walls constructed on crushed stone or crushed gravel backfill should also be proportioned for a maximum net allowable bearing pressure of 1500 pounds per square foot (psf).

4.6 Wall E

Wall E is to consist of the sidewalls that are planned along most of the proposed stairway down the slope to Landing Pad 2 on the northeast side of the project. It is understood that the top of wall will likely match existing grade of the embankment. The bottom of the exposed wall will follow the stairway between Elevations 585 to 600, with exposed wall heights estimated to be between 1 to 5 feet, being the highest at Landing Pad 2.

Plans call for Wall E to consist of segmental blocks comprised of Redi-Rock or similar blocks. The block wall will bear about 2 feet below finished grade or the top of the concrete stairway. Boring 3 was drilled in the area of Wall E. Soft clay soils were encountered at and below approximate Elevation 588.5 in B-3, i.e. at and below the bottom of wall elevations in most cases. The soft clay soils are not recommended for direct support of the modular block wall support. Therefore consideration is being given to supporting the block wall on a concrete foundation with steel piles (H-pile or pipe pile). The estimated pile lengths are provided under Section 4.10 Estimated Pile Lengths.

4.7 Ramp Construction

Borings 1 - 3 were also drilled for the proposed ramp to be constructed along embankment in connection with canoe/kayak launch. Plans show the ramp zig-zaging down the embankment with concrete Landing Pads 2 and 3 at each turn and a concrete pad/storage area (Landing Pad 1) near the water's edge. Based on plans provided and the existing topographic survey of the embankment, the ramp will require cuts of up to 8 feet into the embankment.

Loose silt deposits were found between Elevation 591 and 596 in Borings 1 and 2, i.e. the upper section of the ramp. These intermediate materials are marginally suitable for the proposed concrete ramp. They are also considered moisture sensitive i.e. can experience a loss of stability when subjected to groundwater seepage or rainfall as well as being prone to instability under the traffic of heavy construction equipment. The silt materials are also often classified as frost susceptible per IDOT guidelines on gradation and plasticity. Where intermediate materials are exposed at the ramp subgrade level, undercuts of 1 to 2 feet should be anticipated and the use of geotextile stabilization fabric and coarse granular materials. This would create a stable base for construction of the concrete ramp. The coarse aggregate may consist of crushed stone or gravel between about 1/4 to 4 inches in size and containing no fines; IDOT gradations CA-1 and CA-7 meet these criteria.

Relatively soft and/or very moist clay soils were found below a depth of 10 feet or approximate Elevation 589 in the borings. These soft clay soils are not considered suitable for direct support of the new ramp, with long-term settlement also being a concern. If only minor settlement can be tolerated then the use of a steel piles or ground improvement method consisting of installing aggregate piers would be recommended to support the concrete ramp.

However, if some settlement of the ramp can be tolerated with the understanding that the ramp may need to be fixed periodically (i.e. uneven settlement and/or cracks in the concrete) the following recommendations may be considered. It is recommended that undercut depths on the order of 2 feet be performed where soft clay soils are encountered at the subgrade level, i.e. below approximate Elevation 588. A filter fabric and geogrid materials should be placed at the base of the undercut and backfilled with coarse granular materials. This would create a stable base for construction of the concrete ramp. The

coarse aggregate may consist of crushed stone or gravel between about 1/4 to 4 inches in size and containing no fines; IDOT gradations CA-1 and CA-7 meet these criteria.

It is understood that Landing Pad 1 and ramp up to Landing Pad 2 is to be supported by Wall A on 3 sides and supported on steel angle shelf attached to Wall B. Consideration is being given to also installing steel piles (H-pile or pipe pile) to help support the Landing Pads 1 and 2 given their size as well as the stairs. The estimated pile lengths are provided under Section 4.10 Estimated Pile Lengths.

4.8 Global Stability Analyses

Global stability analyses were performed for the steepest cross-section of the existing embankment slope where a new canoe launch is to be constructed, i.e. the southwest end of the project site. The stability analyses were run using Slide2 Modeler (Build 9.0) computer program by Rocscience Inc. The Bishop method (i.e. circular failure) and long-term condition were utilized for the global stability analyses. In connection with material properties, effective stress parameters were used for the long-term condition (i.e. most critical case), based on our experience running consolidated-undrained triaxial compression tests on similar cohesive soil types in the area and published correlations with SPT N-values for granular materials.

4.8.1 Existing Slope

A global stability analysis was performed to evaluate the overall or global stability of the existing embankment, i.e. the stability of the existing slope against a deep-seated failure. The global stability analysis resulted in a factor of safety on the order of 1.0. Therefore, the existing slope in the area of the proposed canoe launch is likely at or near incipient failure. The result of the global stability analysis can be seen on the computer-generated Figure 1 included in the Appendix. Figure 1 shows the geometry of the existing slope, soil stratigraphy based on B-1 performed at the site, material properties, the fifty (50) most critical slip surfaces and associated factor of safety.

Given the very low factor of safety (FOS = 1.0) of the existing slope, it is recommended that slope protection be installed in the area of the new canoe launch. In our opinion, sheet piles are likely the most economical option to increase the factor of safety of the slope. A ground improvement method consisting of installing aggregate piers may be considered but is likely a more expensive option.

4.8.2 Proposed Canoe Launch with Sheet Pile Walls

An additional global stability analysis was performed for the proposed construction including the installation of sheet piles wall as planned. For the analyses it was assumed that the sheet pile retaining wall designer (i.e. Structural Engineer) would be responsible for the internal stability of the wall as well as other external stability failure modes so that a failure can not occur through the wall. Therefore, all failure surfaces were forced to extend below the retaining wall. The slope stability cross-section was created using drawings provided by Christopher B. Burke Engineering, Ltd. It is understood that the sheet pile wall for Wall B will also be extended deep enough in order to increase the factor of safety of the slope in the area of the new canoe launch.

The IDOT Geotechnical Manual recommends a minimum FOS of 1.5 for the global stability of embankments with retaining walls. The depth of the sheet pile for Wall B was increased until a minimum FOS of 1.5 for the long term case was reached. Based on the slope stability analysis it is recommended that the sheet piles be extended to at least Elevation 547. The result of the global stability analysis can be seen on the computer-generated Figure 2 included in the Appendix. Figure 2 shows the geometry of the existing slope, proposed construction, soil stratigraphy based on B-1 performed at the site, material properties, the fifty (50) most critical slip surfaces and associated factor of safety.

4.9 Sheet Pile Wall Parameters

Steel sheet piles are planned in connection with retaining Walls A and B due to the low strength soils found in Borings 1 - 3 below a depth of about Elevation 589 as well as constructability issues anticipated in connection with cutting into the existing slope. Summarized in the following table are the soil parameters that may be used for the development of lateral earth pressure diagrams for the sheet pile design. The table includes the various soil types found in the borings, differentiated by the soil strength and/or consistency. The unit weight is provided for each soil type along with the effective cohesion intercept (C') and the angle of internal friction (ϕ') for the drained or undrained state. The active and passive earth pressure coefficients are also provided. It is estimated that the actual phreatic surface is at or near approximate Elevation 589. Effective stress analysis would require utilizing moist unit weight values above this level and buoyant unit weights below it. It is also recommended that passive resistance to the frost depth (3.5 feet below final grade) be disregarded.

Elevation (feet)	Soil Type	Unit Weight (pcf) *	Undrained Shear Strength		Drained Shear Strength		Active Earth Pressure Coeff. (Ka)	Passive Earth Pressure Coeff. (Kp)
			Cohesion C (psf)	Angle of Friction ϕ (degrees)	Cohesion C' (psf)	Angle of Friction ϕ' (degrees)		
Boring 1								
598.3 - 596.0	Fill - silty Clay	120	500	0	25	26	0.39	2.56
596.0 - 591.0	Loose clayey Silt	120	0	28	0	28	0.36	2.77
591.0 - 588.5	Stiff silty Clay	128	1250	0	100	26	0.39	2.56
588.5 - 583.0	Soft/Med. stiff silty Clay	61	500	0	50	24	0.42	2.37
583.0 - 573.0	Soft silty Clay	59	400	0	25	24	0.42	2.37
573.0 - 547.0	Soft/Med. stiff silty Clay	61	600	0	50	25	0.41	2.46
547.0 - 537.0	Medium stiff silty Clay	63	1000	0	75	26	0.39	2.56
537.0 - 532.0	Stiff silty Clay	66	1500	0	100	27	0.38	2.66
532.0 - 527.0	Very stiff silty Clay	68	2500	0	150	28	0.36	2.77
527.0 - 519.0	Hard silty Clay	72	4500	0	300	32	0.31	3.25
Boring 2								
598.5 - 596.5	Fill - silty Clay	125	1000	0	50	26	0.39	2.56
596.5 - 594.0	Stiff silty Clay	128	1500	0	100	26	0.39	2.56
594.0 - 591.5	Loose clayey Silt	120	0	28	0	28	0.36	2.77
591.5 - 589.0	Very stiff silty Clay	130	2000	0	125	27	0.38	2.66
589.0 - 582.5	Soft/Med. stiff silty Clay	61	500	0	50	25	0.41	2.46
582.5 - 574.5	Soft silty Clay	58	250	0	25	24	0.42	2.37
Boring 3								
598.5 - 596.0	Fill - Silty Clay	130	1500	0	100	28	0.36	2.77
596.0 - 588.5	Very stiff silty Clay	130	2000	0	125	27	0.38	2.66
588.5 - 586.0	Soft silty Clay	58	250	0	0	24	0.42	2.37
586.0 - 557.0	Soft/Med. stiff silty Clay	61	500	0	50	25	0.41	2.46
557.0 - 532.0	Medium stiff silty Clay	63	750	0	75	26	0.39	2.56
532.0 - 522.0	Very stiff silty Clay	68	3000	0	150	28	0.36	2.77
522.0 - 514.0	Hard silty Clay	73	4000	0	300	32	0.31	3.25

* Total/Buoyant unit weight above and below the groundwater level, respectively.
C, C' Cohesion Intercept in pounds per square foot (psf).
φ, φ' Angle of Internal Friction in degrees.

4.10 Estimated Pile Lengths

Consideration may be given to supporting Walls C and E on steel H-piles (HP) or pipe piles. Five (5) pile sections have been evaluated in connection with these walls, i.e. 12" diameter MS and 14" diameter MS with 0.25-inch wall thicknesses, Steel HP 10x42, 12x53 and 14x73. The estimated pile lengths for supporting the block retaining walls are summarized in the following tables using the Modified IDOT static method. The estimated pile lengths include 1.0 foot of embedment into the pile cap.

The estimated pile lengths in the following tables are being provided for contract estimates. It should be noted that piles which are not driven to refusal are more difficult to predict the length pile required to achieve the Ultimate Bearing Capacity or Nominal Required Bearing for ASD or LRFD, respectively. The actual pile lengths should be determined during installation based on resistance to driving criteria. It is recommended that at least one test pile be driven at each substructure prior to ordering piles for production driving. The test piles are normally driven to 110 percent of the Net Allowable Bearing Capacity/Allowable Resistance Available shown on the plans. It is also recommended that piles that have been driven to their full furnished length and have not reached but are within 85% of the full nominal required bearing should be left for a minimum of 24 hours to allow soil set-up to occur. This allows excess pore water pressures to dissipate and reconsolidation of the soil around the pile to occur, over time resulting in an increase in pile capacity.

The driving equipment should be selected so that the piles can be driven to the required capacity (Ultimate Required Bearing or Nominal Required Bearing) at an adequate final penetration resistance and without inducing pile stresses that exceed allowable values. A wave equation analysis may be performed to further evaluate pile driveability which is to ultimately be confirmed during the driving of test piles. Dynamic pile testing may also be performed during test pile driving operations to more accurately assess the capacity being achieved by the piles (nominal driven bearing) and to establish the driving criteria.

4.10.1 Allowable Stress Design (ASD)

Allowable stress design (ASD) criteria stipulates that when steel piles are used as friction piles, that they be driven to a Ultimate Bearing Capacity which is 3.0 times greater than the Allowable Bearing Capacity used for design.

Boring 3 Walls C, E & Landing Pad 2		**Ultimate Bearing Capacity (kips)**				
		105	**150**	**210**	**300**	**360**
Pile Designation Bottom Pile Cap Elev. = 583		**Net Allowable Bearing Capacity (kips) ***				
		35	**50**	**70**	**100**	**120**
HP 10x42	Length (ft)*	54	62	67	#	#
	Elevation**	530	522	517		
HP 12x53	Length (ft)*	52	57	62	72	#
	Elevation**	532	527	522	512	
HP 14x73	Length (ft)*	47	52	60	66	72
	Elevation**	537	532	524	518	512
Metal Shell 12" ϕ w/ 0.25" walls	Length (ft)*	47	55	62	70	#
	Elevation**	537	529	522	514	
Metal Shell 14" ϕ w/ 0.25" walls	Length (ft)*	42	52	62	65	70
	Elevation**	542	532	522	519	514

Boring 1 Landing Pad 1		**Ultimate Bearing Capacity (kips)**			
		105	**150**	**210**	**291**
Pile Designation Bottom Pile Cap Elev. = 577		**Net Allowable Bearing Capacity (kips) ***			
		35	**50**	**70**	**97**
HP 10x42	Length (ft)*	49	54	66	#
	Elevation**	529	524	512	
HP 12x53	Length (ft)*	46	51	59	#
	Elevation**	532	527	519	
HP 14x73	Length (ft)*	41	47	51	59
	Elevation**	537	531	527	519
Metal Shell 12" ϕ w/ 0.25" walls	Length (ft)*	44	50	51	62
	Elevation**	534	528	527	516
Metal Shell 14" ϕ w/ 0.25" walls	Length (ft)*	41	46	51	59
	Elevation**	537	532	527	519

* Net Allowable Bearing Capacity was computed using a factor of safety of 3.0.

** Length/Elevation for estimated pile length includes 1.0 foot embedment into the abutment pile cap, being rounded to the nearest foot.

\# Soil boring not extended deep enough in order to provide pile length/depth.

4.10.2 Load and Resistance Factor Design (LRFD)

They have been prepared in connection with Design Guide 3.10.1, LRFD Geotechnical Pile Design Procedure and AGMU Memo 10.2 (Geotechnical Pile Design). The estimated pile lengths include 1.0 foot of embedment into the abutment pile cap.

Boring 3 Walls C, E & Landing Pad 2		**Nominal Required Bearing - R_N (kips)**				
		105	**150**	**210**	**300**	**360**
Pile Designation Bottom Pile Cap Elev. = 583		**Factored Resistance Available - R_F (kips) ***				
		58	**82**	**115**	**165**	**198**
HP 10x42	Length (ft)*	54	62	67	#	#
	Elevation**	530	522	517		
HP 12x53	Length (ft)*	52	57	62	72	#
	Elevation**	532	527	522	512	
HP 14x73	Length (ft)*	47	52	60	66	72
	Elevation**	537	532	524	518	512
Metal Shell 12" ϕ w/ 0.25" walls	Length (ft)*	47	55	62	69	#
	Elevation**	537	529	522	515	
Metal Shell 14" ϕ w/ 0.25" walls	Length (ft)*	42	52	62	65	70
	Elevation**	542	532	522	519	514

* Factored Resistance Available computed using a geotechnical resistance factor of 0.55.

** Length/Elevation for estimated pile length includes 1.0 foot embedment into the abutment pile cap, being rounded to the nearest foot.

\# Soil boring not extended deep enough in order to provide pile length/depth.

Boring 1 Landing Pad 1		**Nominal Required Bearing - R_N (kips)**			
		105	**150**	**210**	**291**
Pile Designation Bottom Pile Cap Elev. = 577		**Factored Resistance Available - R_F (kips) ***			
		58	**82**	**115**	**160**
HP 10x42	Length (ft)*	49	54	66	#
	Elevation**	529	524	512	
HP 12x53	Length (ft)*	46	51	59	#
	Elevation**	532	527	519	
HP 14x73	Length (ft)*	41	47	51	59
	Elevation**	537	531	527	519
Metal Shell 12" ϕ w/ 0.25" walls	Length (ft)*	44	50	51	62
	Elevation**	534	528	527	516
Metal Shell 14" ϕ w/ 0.25" walls	Length (ft)*	41	46	51	59
	Elevation**	537	532	527	519

* Factored Resistance Available computed using a geotechnical resistance factor of 0.55.

** Length/Elevation for estimated pile length includes 1.0 foot embedment into the abutment pile cap, being rounded to the nearest foot.

5.0 CLOSURE

It is recommended that testing services be provided by Testing Service Corporation personnel during foundation construction, so that the bearing capacity of the soils at undercut and foundation levels can be verified. In addition, adequacy of building materials, demolition backfill operation, stripping and undercutting, fill placement and compaction as well as slab-on-grade and pavement construction should be observed and tested for compliance with the recommended procedures and specifications.

The analyses and recommendations submitted in this report are based upon the data obtained from the twenty-four (24) additional soil borings and six (6) original borings performed at the locations indicated on the Boring Location Plan. This report does not reflect any variations which may occur between these borings or elsewhere on the site, the nature and extent of which may not become evident until during the course of construction. If variations are then identified, recommendations contained in this report should be re-evaluated after performing on-site observations.

Please call if there are any questions in regard to this matter or if we may be of further service.

Respectfully submitted,

TESTING SERVICE CORPORATION

Timothy R. Peceniak, P.E.
Project Engineer
Registered Professional Engineer
Illinois No. 062-061269

TIMOTHY R. PECENIAK
062-061269
REGISTERED
PROFESSIONAL
ENGINEER
STATE OF ILLINOIS

Alfredo J. Bermudez, P.E.
Senior Geotechnical Engineer

TRP:AJB:trp
Enc.

APPENDIX

GENERAL CONDITIONS

PAVEMENT CORE RESULTS

FIELD VANE SHEAR RESULTS

GLOBAL STABILITY ANALYSES (2)

UNIFIED CLASSIFICATION CHART

LEGEND FOR BORING LOGS

BORING LOGS (3)

BORING LOCATION PLAN

GENERAL CONDITIONS

Geotechnical and Construction Services

TESTING SERVICE CORPORATION

1. PARTIES AND SCOPE OF WORK: If Client is ordering the services on behalf of another, Client represents and warrants that Client is the duly authorized agent of said party for the purpose of ordering and directing said services, and in such case the term "Client" shall also include the principal for whom the services are being performed. Prices quoted and charged by TSC for its services are predicated on the conditions and the allocations of risks and obligations expressed in these General Conditions. Unless otherwise stated in writing, Client assumes sole responsibility for determining whether the quantity and the nature of the services ordered by Client are adequate and sufficient for Client's intended purpose. Unless otherwise expressly assumed in writing, TSC's services are provided exclusively for client. TSC shall have no duty or obligation other than those duties and obligations expressly set forth in this Agreement. TSC shall have no duty to any third party. Client shall communicate these General Conditions to each and every party to whom the Client transmits any report prepared by TSC. Ordering services from TSC shall constitute acceptance of TSC's proposal and these General Conditions.

2. SCHEDULING OF SERVICES: The services set forth in this Agreement will be accomplished in a timely and workmanlike manner. If TSC is required to delay any part of its services to accommodate the requests or requirements of Client, regulatory agencies, or third parties, or due to any cause beyond its reasonable control, Client agrees to pay such additional charges, if any, as may be applicable.

3. ACCESS TO SITE: TSC shall take reasonable measures and precautions to minimize damage to the site and any improvements located thereon as a result of its services or the use of its equipment; however, TSC has not included in its fee the cost of restoration of damage which may occur. If Client desires or requires TSC to restore the site to its former condition, TSC will, upon written request, perform such additional work as is necessary to do so and Client agrees to pay to TSC the cost thereof plus TSC's normal markup for overhead and profit.

4. CLIENT'S DUTY TO NOTIFY ENGINEER: Client represents and warrants that Client has advised TSC of any known or suspected hazardous materials, utility lines and underground structures at any site at which TSC is to perform services under this Agreement. Unless otherwise agreed in writing, TSC's responsibility with respect to underground utility locations is to contact the Illinois Joint Utility Locating Information for Excavators for the location of public, but not private, utilities.

5. DISCOVERY OF POLLUTANTS: TSC's services shall not include investigation for hazardous materials as defined by the Resource Conservation Recovery Act, 42 U.S.C.§ 6901, et, seq., as amended ("RCRA") or by any state or Federal statute or regulation. In the event that hazardous materials are discovered and identified by TSC, TSC's sole duty shall be to notify Client.

6. MONITORING: If this Agreement includes testing construction materials or observing any aspect of construction of improvements, Client's construction personnel will verify that the pad is properly located and sized to meet Client's projected building loads. Client shall cause all tests and inspections of the site, materials and work to be timely and properly performed in accordance with the plans, specifications, contract documents, and TSC's recommendations. No claims for loss, damage or injury shall be brought against TSC unless all tests and inspections have been so performed and unless TSC's recommendations have been followed.

TSC's services shall not include determining or implementing the means, methods, techniques or procedures of work done by the contractor(s) being monitored or whose work is being tested. TSC's services shall not include the authority to accept or reject work or to in any manner supervise the work of any contractor. TSC's services or failure to perform same shall not in any way operate or excuse any contractor from the performance of its work in accordance with its contract. "Contractor" as used herein shall include subcontractors, suppliers, architects, engineers and construction managers.

Information obtained from borings, observations and analyses of sample materials shall be reported in formats considered appropriate by TSC unless directed otherwise by Client. Such information is considered evidence, but any inference or conclusion based thereon is, necessarily, an opinion also based on engineering judgment and shall not be construed as a representation of fact. Subsurface conditions may not be uniform throughout an entire site and ground water levels may fluctuate due to climatic and other variations. Construction materials may vary from the samples taken. Unless otherwise agreed in writing, the procedures employed by TSC are not designed to detect intentional concealment or misrepresentation of facts by others.

7. DOCUMENTS AND SAMPLES: Client is granted an exclusive license to use findings and reports prepared and issued by TSC and any sub-consultants pursuant to this Agreement for the purpose set forth in TSC's proposal provided that TSC has received payment in full for its services. TSC and, if applicable, its sub-consultant, retain all copyright and ownership interests in the reports, boring logs, maps, field data, field notes, laboratory test data and similar documents, and the ownership and freedom to use all data generated by it for any purpose. Unless otherwise agreed in writing, test specimens or samples will be disposed immediately upon completion of the test. All drilling samples or specimens will be disposed sixty (60) days after submission of TSC's report.

8. TERMINATION: TSC's obligation to provide services may be terminated by either party upon (7) seven days prior written notice. In the event of termination of TSC's services, TSC shall be compensated by Client for all services performed up to and including the termination date, including reimbursable expenses. The terms and conditions of these General Conditions shall survive the termination of TSC's obligation to provide services.

9. PAYMENT: Client shall be invoiced periodically for services performed. Client agrees to pay each invoice within thirty (30) days of its receipt. Client further agrees to pay interest on all amounts invoiced and not paid or objected to in writing for valid cause within sixty (60) days at the rate of twelve (12%) per annum (or the maximum interest rate permitted by applicable law, whichever is the lesser) until paid and TSC's costs of collection of such accounts, including court costs and reasonable attorney's fees.

10. WARRANTY: TSC's professional services will be performed, its findings obtained and its reports prepared in accordance with these General Conditions and with generally accepted principles and practices. In performing its professional services, TSC will use that degree of care and skill ordinarily exercised under similar circumstances by members of its profession. In performing physical work in pursuit of its professional services, TSC will use that degree of care and skill ordinarily used under similar circumstances. This warranty is in lieu of all other warranties or representations, either express or implied. Statements made in TSC reports are opinions based upon engineering judgment and are not to be construed as representations of fact.

Should TSC or any of its employees be found to have been negligent in performing professional services or to have made and breached any express or implied warranty, representation or contract, Client, all parties claiming through Client and all parties claiming to have in any way relied upon TSC's services or work agree that the maximum aggregate amount of damages for which TSC, its officers, employees and agents shall be liable is limited to $50,000 or the total amount of the fee paid to TSC for its services performed with respect to the project, whichever amount is greater.

In the event Client is unwilling or unable to limit the damages for which TSC may be liable in accordance with the provisions set forth in the preceding paragraph, upon written request of Client received within five days of Client's acceptance of TSC's proposal together with payment of an additional fee in the amount of 5% of TSC's estimated cost for its services (to be adjusted to 5% of the amount actually billed by TSC for its services on the project at time of completion), the limit on damages shall be increased to $500,000 or the amount of TSC's fee, whichever is the greater. This charge is not to be construed as being a charge for insurance of any type, but is increased consideration for the exposure to an award of greater damages.

11. INDEMNITY: Subject to the provisions set forth herein, TSC and Client hereby agree to indemnify and hold harmless each other and their respective shareholders, directors, officers, partners, employees, agents, subsidiaries and division (and each of their heirs, successors, and assigns) from any and all claims, demands, liabilities, suits, causes of action, judgments, costs and expenses, including reasonable attorneys' fees, arising, or allegedly arising, from personal injury, including death, property damage, including loss of use thereof, due in any manner to the negligence of either of them or their agents or employees or independent contractors. In the event both TSC and Client are found to be negligent or at fault, then any liability shall be apportioned between them pursuant to their pro rata share of negligence or fault. TSC and Client further agree that their liability to any third party shall, to the extent permitted by law, be several and not joint. The liability of TSC under this provision shall not exceed the policy limits of insurance carried by TSC. Neither TSC nor Client shall be bound under this indemnity agreement to liability determined in a proceeding in which it did not participate represented by its own independent counsel. The indemnities provided hereunder shall not terminate upon the termination or expiration of this Agreement, but may be modified to the extent of any waiver of subrogation agreed to by TSC and paid for by Client.

12. SUBPOENAS: TSC's employees shall not be retained as expert witnesses except by separate, written agreement. Client agrees to pay TSC pursuant to TSC's then current fee schedule for any TSC employee(s) subpoenaed by any party as an occurrence witness as a result of TSC's services.

13. OTHER AGREEMENTS: TSC shall not be bound by any provision or agreement (i) requiring or providing for arbitration of disputes or controversies arising out of this Agreement or its performance, (ii) wherein TSC waives any rights to a mechanics lien or surety bond claim; (iii) that conditions TSC's right to receive payment for its services upon payment to Client by any third party or (iv) that requires TSC to indemnify any party beyond its own negligence These General Conditions are notice, where required, that TSC shall file a lien whenever necessary to collect past due amounts. This Agreement contains the entire understanding between the parties. Unless expressly accepted by TSC in writing prior to delivery of TSC's services, Client shall not add any conditions or impose conditions which are in conflict with those contained herein, and no such additional or conflicting terms shall be binding upon TSC. The unenforceability or invalidity of any provision or provisions shall not render any other provision or provisions unenforceable or invalid. This Agreement shall be construed and enforced in accordance with the laws of the State of Illinois. In the event of a dispute arising out of or relating to the performance of this Agreement, the breach thereof or TSC's services, the parties agree to try in good faith to settle the dispute by mediation under the Construction Industry Mediation Rules of the American Arbitration Association as a condition precedent to filing any demand for arbitration, or any petition or complaint with any court. Paragraph headings are for convenience only and shall not be construed as limiting the meaning of the provisions contained in these General Conditions.

PAVEMENT CORE RESULTS

(Each component of pavement section listed from top down.)

C-1	4.6"	Bituminous Surface Course
	2.8"	Bituminous Binder Course
	4½"	Total Pavement Thickness
	7"	Crushed Stone Base Course (1.5" Max, trace fines)
C-2	1.9"	Bituminous Surface Course
	1.7"	Bituminous Binder Course
	3½"	Total Pavement Thickness
	6"	Crushed Stone Base Course (1.5" Max, trace fines)

TESTING SERVICE CORPORATION
457 East Gundersen Drive
Carol Stream, Illinois

TSC Job No. L-96,350

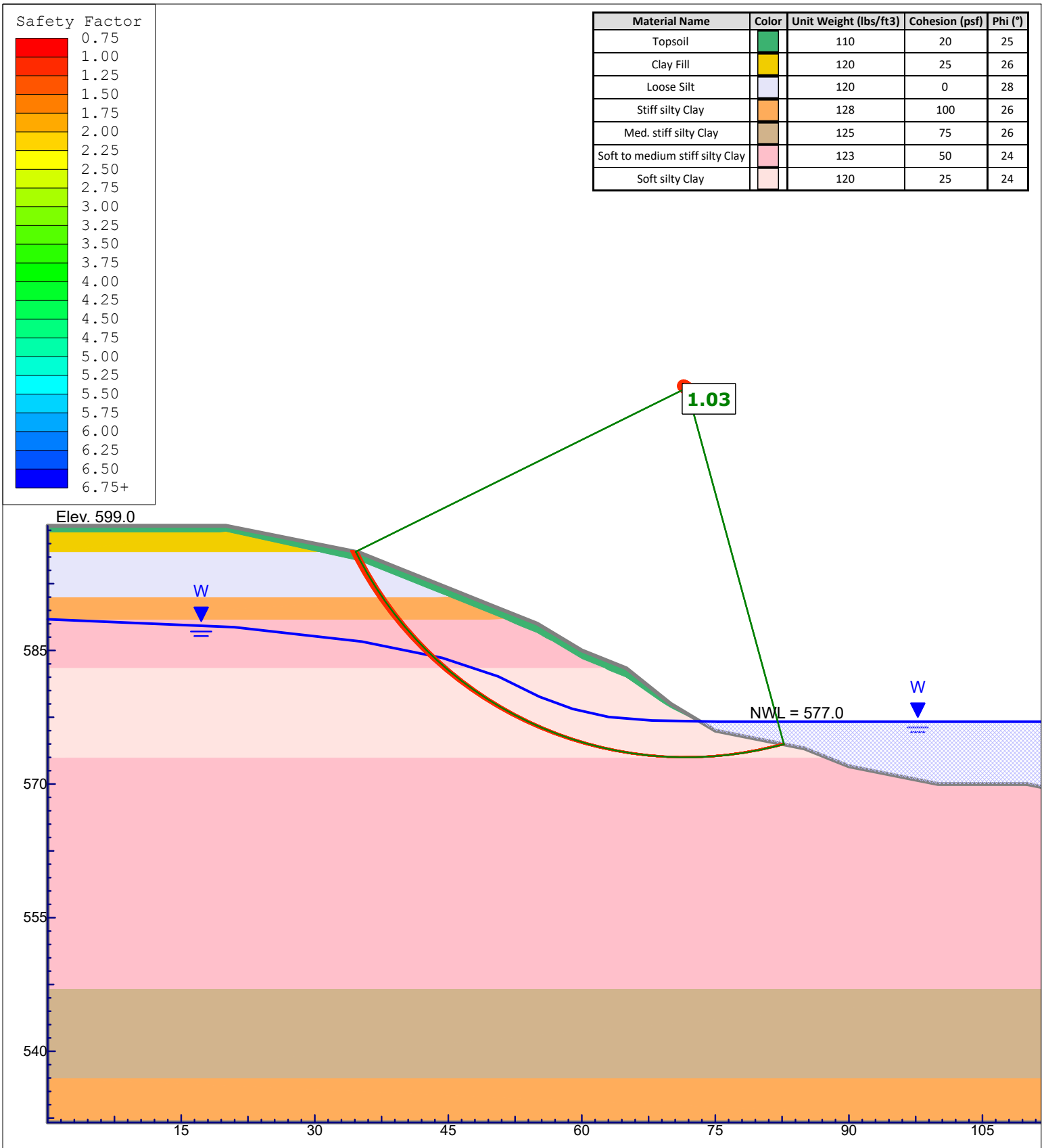
Client: Christopher B. Burke Engineering, Ltd.
820 Davis Street Suite 520
Evanston, IL 60201

Project: Sheet Pile Wall
Ladd Arboretum Canoe Launch
SWC McCormick Blvd & Bridge St.
Evanston, Illinois

FIELD VANE SHEAR RESULTS

Boring No.	Approximate Vane Tip Depth (Feet)	Approximate Vane Tip Elevation	Peak Su		Remolded Su		Sensitivity
			psf	tsf	psf	tsf	
1	17.0	582.0	404	0.20	218	0.11	1.9
1	22.0	577.0	466	0.23	187	0.09	2.5
1	27.0	572.0	559	0.28	280	0.14	2.0
1	32.0	567.0	614	0.31	319	0.16	1.9
3	17.0	582.0	466	0.23	218	0.11	2.1
3	22.0	577.0	528	0.26	280	0.14	1.9
3	27.0	572.0	497	0.25	218	0.11	2.3
3	32.0	567.0	653	0.33	311	0.16	2.1

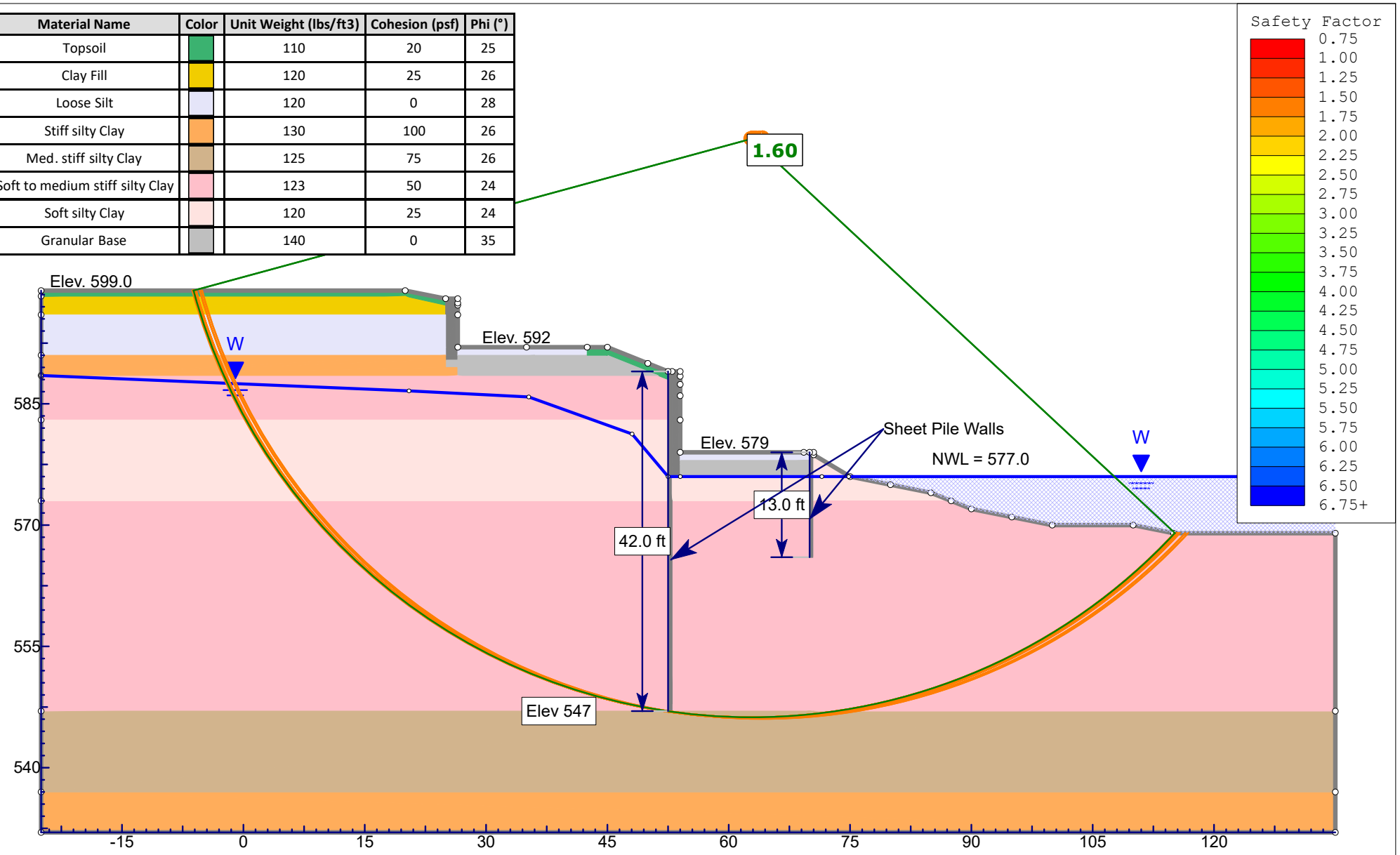
Material Name	Color	Unit Weight (lbs/ft3)	Cohesion (psf)	Phi (°)
Topsoil		110	20	25
Clay Fill		120	25	26
Loose Silt		120	0	28
Stiff silty Clay		128	100	26
Med. stiff silty Clay		125	75	26
Soft to medium stiff silty Clay		123	50	24
Soft silty Clay		120	25	24



Testing Service Corp.
457 E. Gundersen Dr.
Carol Stream, IL 60188

Project: Figure 1: Global Stability Cross Section A-A			
Project Location: New Canoe Launch SWC McCormick Blvd. & Bridge St. Evanston, Illinois		Drawn By: TRP Scale: 1:175	Global Stability Analysis Method: Bishop (Circular) Long-Term
Date: 1/2/2024	Slide v8.0	Boring (s): B-1	TSC Job No.: L-96,350

Material Name	Color	Unit Weight (lbs/ft3)	Cohesion (psf)	Phi (°)
Topsoil		110	20	25
Clay Fill		120	25	26
Loose Silt		120	0	28
Stiff silty Clay		130	100	26
Med. stiff silty Clay		125	75	26
Soft to medium stiff silty Clay		123	50	24
Soft silty Clay		120	25	24
Granular Base		140	0	35



TSC

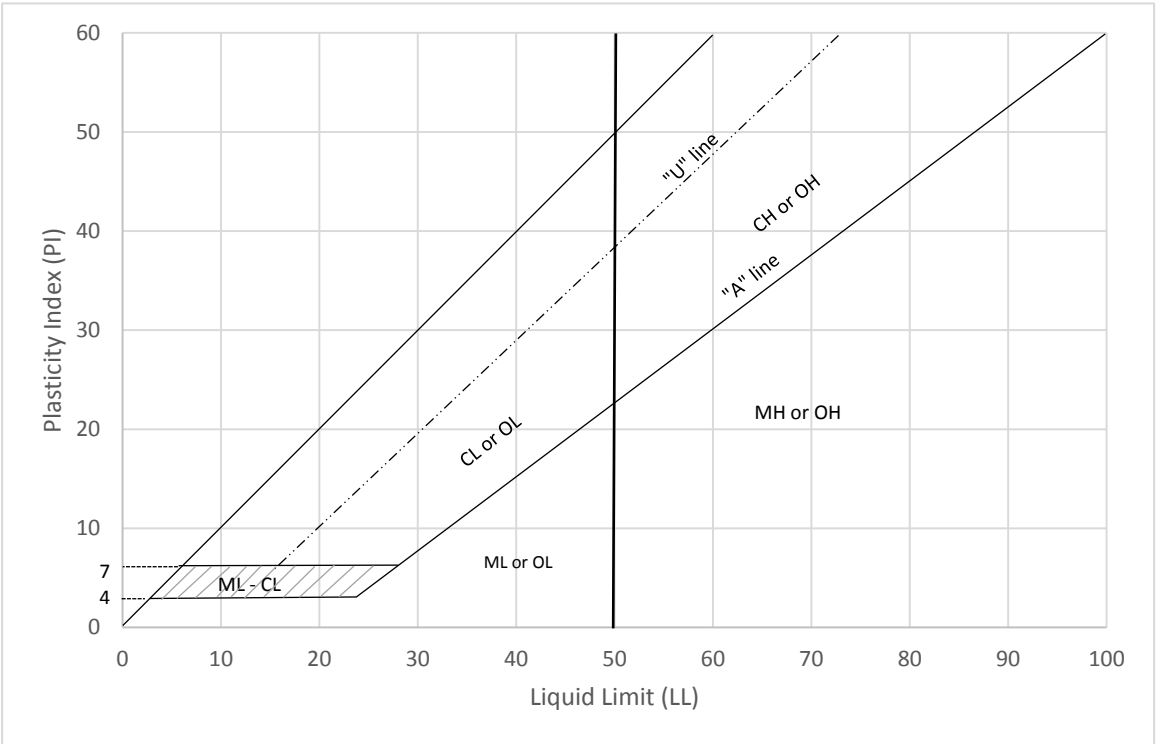
Testing Service Corp.
457 E. Gundersen Dr.
Carol Stream, IL 60188

Project	Figure 2: Global Stability Cross Section A-A		
Project Location	New Canoe Launch SWC McCormick Blvd. & Bridge St. Evanston, Illinois	*Drawn By* TRP *Scale* 1:200	*Global Stability Analysis Method* Bishop (Circular) Long-Term
Date 9/3/2024	Slide v8.0	*Boring (s)* B-1	*TSC Job No.* L-96,350

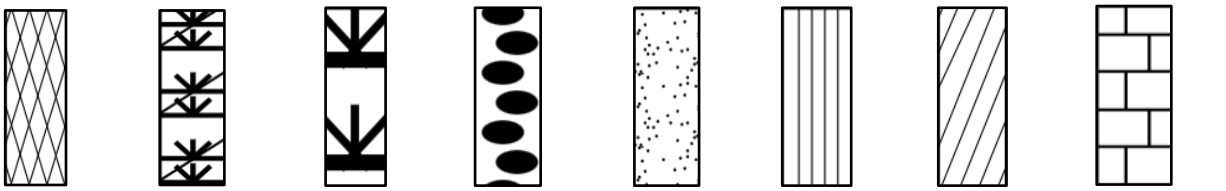
Testing Service Corporation
Unified Classification Chart

CRITERIA FOR ASSIGNING GROUP SYMBOLS AND GROUP NAMES USING LABORATORY TEST [o]				SOIL CLASSIFICATION	
				Group Symbol	GROUP NAME [b]
COARSE - GRAINED SOILS more than 50% retained on No. 200 sieve	GRAVELS More than 50% of coarse fraction retained on No. 4 sieve	CLEAN GRAVELS less than 5% fines [c]	$C_u \geq 4$ and $1 \leq C_C \leq 3$ [e]	GW	Well-graded gravel [f]
			$C_u < 4$ and/or $1 > C_C > 3$ [e]	GP	Poorly-graded gravel [f]
		GRAVELS WITH FINES more than 12% fines [c]	Fines classify as ML or MH	GM	Silty gravel [f, g, h]
			Fines classify as CL or CH	GC	Clayey gravel [f, g, h]
	SANDS 50% or more of coarse fraction passes No. 4 sieve	CLEAN SANDS less than 5% fines [d]	$C_u \geq 6$ and $1 \leq C_C \leq 3$ [e]	SW	Well-graded sand [l]
			$C_u < 6$ and/or $1 > C_C > 3$ [e]	SP	Poorly-graded sand [l]
		SANDS WITH FINES more than 12% fines [d]	Fines classify as ML or MH	SM	Silty sand [g, h, f]
			Fines classify as CL or CH	SC	Clayey sand [g, h, f]
FINE - GRAINED SOILS 50% or more passed the No. 200 sieve	SILTS & CLAYS Liquid limit less than 50%	Inorganic	PI > 7 or plots on or above "A" line j	CL	Lean clay [k, l, m]
			PI < 4 or plots below "A" line j	ML	Silt [k, l, m]
		Organic	$\frac{\text{Liquid limit – oven dried}}{\text{Liquid limit – not dried}} < 0.75$	OL	Organic clay [k, l, m, n] Organic silt [k, l, m, o]
	SILTS & CLAYS Liquid limit 50% or more	Inorganic	PI plots on or above "A" line	CH	Fat clay [k, l, m]
			PI plots below "A" line	MH	Elastic silt [k, l, m]
		Organic	$\frac{\text{Liquid limit – oven dried}}{\text{Liquid limit – not dried}} < 0.75$	OH	Organic clay [k, l, m, p] Organic silt [k, l, m, q]
Highly organic soils		Primarily organic matter, dark in color, and organic odor		PT	Peat

a. Based on the material passing the 3-inch (75-mm) sieve.
b. If field sample contained cobbles and/or boulders, add "with cobbles and/or boulders" to group name
c. Gravels with 5 to 12% fines required dual symbols
GW-GM well graded gravel with silt
GW-GC well graded gravel with clay
GP-GM poorly graded gravel with silt
GP-GC poorly graded gravel with clay
d. Sands with 5 to 12% fines require dual symbols
SW-SM well graded sand with silt
SW-SC well graded sand with clay
SP-SM poorly graded sand with silt
SP-SC poorly graded sand with clay
e. $C_u = D_{60}/D_{10}$ $C_C = \frac{(D_{30})^2}{D_{10} \times D_{60}}$
f. If soils contains ≥ 15% sand, add "with sand" to group name.
g. If fines classify as CL-ML, use dual symbol GC-GM, SC-SM
h. If fines are organic, add "with organic fines" to group name
i. If soils contains ≥ 15% gravel, add "with gravel" to group name
j. If Atterberg Limits plot in hatched area, soil is a CL – ML, silty clay
k. If soils contains 15 to 29% plus No. 200, add "with sand" or "with gravel" whichever is predominant
l. If soil contains ≥ 30% plus No. 200, predominantly sand, add "sandy" to group name.
m. If soils contains ≥ 30% plus No. 200, predominantly gravel, add "gravelly" to group name
n. PI ≥ 4 and plots on or above "A" line
o. PI ≥ 4 and plots below "A" line
p. PI plots on or above "A" line
q. PI plots below "A" line



LEGEND FOR BORING LOGS



FILL TOPSOIL PEAT GRAVEL SAND SILT CLAY LIMESTONE/ DOLOMITE

SAMPLE TYPE

SS	=	Split-Spoon
ST	=	Thin-Walled Tube
A	=	Auger
MC	=	Macro-Core (Geoprobe)
RC	=	Rock Core

WATER LEVEL OBSERVATIONS

▼	While Drilling
▽	End of Boring
▼	24 Hours

FIELD AND LABORATORY TEST DATA

N	=	Standard Penetration Resistance in Blows per Foot (bpf)
WC	=	In-Situ Water Content (%)
Qu	=	Unconfined Compressive Strength in Tons per Square Foot (tsf)
Qp	=	Pocket Penetrometer Reading: Maximum Value = 4.5 tsf
γ_{dry}	=	Dry Unit Weight in Pounds per Cubic Foot (pcf)

SOIL DESCRIPTIONS:

MATERIAL	PARTICLE SIZE RANGE
BOULDER	Over 12 inches
COBBLE	12 inches to 3 inches
Large GRAVEL	3 inches to ¾ inch
Small GRAVEL	¾ inch to No. 4 Sieve
Coarse SAND	No. 4 Sieve to No. 10 Sieve
Medium SAND	No. 10 Sieve to No. 40 Sieve
Fine SAND	No. 40 Sieve to No. 200 Sieve
SILT and CLAY	Passing No. 200 Sieve

COHESIVE SOILS

CONSISTENCY	Qu (tsf)
Very Soft	Less than 0.25
Soft	0.25 to 0.5
Medium Stiff	0.5 to 1.0
Stiff	1.0 to 2.0
Very Stiff	2.0 to 4.0
Hard	4.0 and over

COHESIONLESS SOILS

RELATIVE DENSITY	N (bpf)
Very Loose	0 – 3
Loose	4 – 9
Medium Dense	10 – 29
Dense	30 – 49
Very Dense	50 and over

MODIFYING TERM	PERCENT BY WEIGHT
Trace	1 – 10
Little	10 – 20
Some	20 – 35

PROJECT **Ladd Arboretum Canoe Launch, SWC McCormick Blvd. & Bridge St., Evanston, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 820 Davis Street, Evanston, IL**

BORING **1** DATE STARTED **11-29-23** DATE COMPLETED **11-29-23** JOB **L-96,350**

ELEVATIONS

GROUND SURFACE **599.0**

END OF BORING **519.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **13.0 '**

AT END OF BORING **N/A - Rotary Wash**

24 HOURS

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.7	598.3	FILL - Black clayey TOPSOIL (OL)
	1	SS	4	28.1	2.5*	95			FILL - Dark brown silty CLAY, little sand, trace organic, moist (CL/CH)
							3.0	596.0	
	2	SS	7	19.8					Loose brown and gray clayey SILT, trace to little sand, moist (ML)
	3	SS	6	22.1					
							8.0	591.0	
	4	SS	6	32.4	1.37 1.25*				Stiff brown and gray silty CLAY, trace sand, moist to very moist (CL)
							10.5	588.5	
	5	SS	2	41.3	0.5*				Soft to medium stiff brown and gray silty CLAY, trace sand, very moist (CL)
	6	SS	2	29.4	0.63 0.5*				
							16.0	583.0	
		VANE	--	--	Fv=0.20				
	7	ST	PUSH	26.6	0.40 Tv= 0.15	98			
		VANE	--	--	Fv=0.23				
	8	SS	WOH	21.0	0.25*				
		VANE	--	--	Fv=0.28				Soft to medium stiff gray silty CLAY, trace sand and gravel, very moist (CL)
	9	SS	1	18.4	0.35 0.5*				
		VANE	--	--	Fv=0.31				
	10	SS	2	25.1	0.5*				
	11	SS	7	22.7	0.42 0.5*				

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25 30 35 40

WOH = Weight of Hammer

Tv = Torvane Shear Test (Su in tsf)
Fv = Field Vane Shear Test (Su in tsf)

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 96350.GPJ TSC_ALL.GDT 10/22/24

PROJECT **Ladd Arboretum Canoe Launch, SWC McCormick Blvd. & Bridge St., Evanston, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 820 Davis Street, Evanston, IL**

BORING **1** DATE STARTED **11-29-23** DATE COMPLETED **11-29-23** JOB **L-96,350**

ELEVATIONS

GROUND SURFACE **599.0**

END OF BORING **519.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **13.0 '**

AT END OF BORING **N/A - Rotary Wash**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
12	SS		6	21.3	0.5*				Soft to medium stiff gray silty CLAY, trace sand and gravel, very moist (CL)
13	SS		7	19.5	0.42 0.5*				
							52.0	547.0	
14	SS		8	18.4	1.0*				Medium stiff to stiff gray silty CLAY, little sand, trace gravel, very moist to moist (CL)
15	SS		9	18.9	0.97 1.0*				
16	SS		10	18.2	1.5*				* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.
							67.0	532.0	
17	SS		19	14.6	2.43 2.5*				Very stiff gray silty CLAY, little sand, trace gravel, moist (CL)
							72.0	527.0	
18	SS		49	9.9	4.5+*				Hard gray silty CLAY, little to some sand and gravel, moist (CL)
19	SS		67	9.6	4.5+*				

DISTANCE BELOW SURFACE IN FEET

40 45 50 55 60 65 70 75 80

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

End of Boring at 80.0'

TSC 96350.GPJ TSC_ALL.GDT 10/22/24

PROJECT **New Canoe Launch, SWC McCormick Blvd. & Bridge St., Evanston, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 9575 W. Higgins Rd., Rosemont, IL**

BORING **2** DATE STARTED **7-13-23** DATE COMPLETED **7-13-23** JOB **L-95,869**

ELEVATIONS

GROUND SURFACE **599.5**

END OF BORING **574.5**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **10.5 '**

AT END OF BORING **10.0 '**

24 HOURS

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.8	598.7	FILL - Black clayey TOPSOIL (OL)
	1	SS	6	23.0	3.0*	102			FILL - Brown and gray silty CLAY, little sand, trace gravel, moist (CL)
							3.0	596.5	
	2	SS	6	20.6	1.5*				Stiff brown silty CLAY, little sand, trace gravel, moist to very moist (CL)
							5.5	594.0	
	3	SS	6	20.3					Loose brown and gray clayey SILT, trace sand, moist (ML)
							8.0	591.5	
	4	SS	7	25.0	2.96 2.5*				Very stiff brown and gray silty CLAY, little sand, trace gravel, moist (CL)
							10.5	589.0	
	5	SS	2	34.6	0.5*				Soft gray silty CLAY, trace sand, very moist (CL)
	6	SS	2	35.6	0.5*				
							17.0	582.5	
	7	SS	2	25.2	0.25*				Very soft gray silty CLAY, trace sand and gravel, very moist (CL)
	8	SS	2	28.5	0.25*				
									End of Boring at 25.0'

* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25 30

DRILL RIG NO. **262**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

PROJECT **Ladd Arboretum Canoe Launch, SWC McCormick Blvd. & Bridge St., Evanston, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 820 Davis Street, Evanston, IL**

BORING **3** DATE STARTED **11-30-23** DATE COMPLETED **11-30-23** JOB **L-96,350**

ELEVATIONS

GROUND SURFACE **599.0**

END OF BORING **514.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **10.5 '**

AT END OF BORING **N/A - Rotary Wash**

24 HOURS

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
							0.7	598.3	FILL - Black clayey TOPSOIL (OL)
	1	SS	10	15.8	4.5+*	115			FILL - Brown and gray silty CLAY, little sand and gravel, trace glass pieces, moist (CL)
							3.0	596.0	
	2	SS	6	26.4	2.0*				Stiff to very stiff brown and gray silty CLAY, little sand, moist (CL)
							5.5	593.5	
	3	SS	4	21.3	2.69 2.75*				Very stiff brown and gray silty CLAY, little sand, trace gravel, moist (CL)
	4	SS	3	24.5	2.01 2.25*				
							10.5	588.5	
	5	SS	3	41.0	0.25*				Soft gray silty CLAY, trace sand, very moist (CL)
							13.0	586.0	
	6	SS	2	31.1	0.5*				Soft to medium stiff gray silty CLAY, trace sand, very moist (CL)
	--	VANE	--	--	Fv=0.23				
	7	ST	PUSH	40.1	0.60 Tv= 0.25	80			
		VANE	--	--	Fv=0.26				
							22.0	577.0	
	8	ST	PUSH	25.1	0.40 Tv= 0.25	99			
		VANE	--	--	Fv=0.25				
	9	ST	PUSH	22.3	0.40 Tv= 0.25	107			Soft to medium stiff gray silty CLAY, trace sand and gravel, very moist (CL)
		VANE	--	--	Fv=0.33				
	10	SS	3	19.4	0.5*				
	11	SS	6	19.1	0.5*				Tv = Torvane Shear Test (Su in tsf) Fv = Field Vane Shear Test (Su in tsf)

DISTANCE BELOW SURFACE IN FEET

0 5 10 15 20 25 30 35 40

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 96350.GPJ TSC_ALL.GDT 10/23/24

PROJECT **Ladd Arboretum Canoe Launch, SWC McCormick Blvd. & Bridge St., Evanston, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 820 Davis Street, Evanston, IL**

BORING **3** DATE STARTED **11-30-23** DATE COMPLETED **11-30-23** JOB **L-96,350**

ELEVATIONS

GROUND SURFACE **599.0**

END OF BORING **514.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **10.5 '**

AT END OF BORING **N/A - Rotary Wash**

24 HOURS

SAMPLE NO.	SAMPLE TYPE	LENGTH RECOVERY	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
									Soft to medium stiff gray silty CLAY, trace sand and gravel, very moist (CL)
							42.0	557.0	
12	SS		10	16.2	1.0*				Stiff to medium stiff gray silty CLAY, little sand, trace gravel, very moist (CL)
13	SS		6	23.6	0.70 0.75*				
14	SS		7	22.0	0.63 0.75*				
15	SS		7	21.4	0.75*				
16	SS		10	24.1	0.70 0.75*				
							67.0	532.0	
17	SS		21	14.6	3.0*				Very stiff gray silty CLAY, little sand and gravel, moist (CL)
18	SS		25	14.3	3.09 3.0*				
							77.0	522.0	
19	SS		57	9.9	4.5+*				Hard gray silty CLAY, little to some sand and gravel, moist (CL)

DISTANCE BELOW SURFACE IN FEET

40 45 50 55 60 65 70 75 80

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.

TSC 96350.GPJ TSC_ALL.GDT 10/23/24

PROJECT **Ladd Arboretum Canoe Launch, SWC McCormick Blvd. & Bridge St., Evanston, IL**

CLIENT **Christopher B. Burke Engineering, Ltd., 820 Davis Street, Evanston, IL**

BORING **3** DATE STARTED **11-30-23** DATE COMPLETED **11-30-23** JOB **L-96,350**

ELEVATIONS

GROUND SURFACE **599.0**

END OF BORING **514.0**

WATER LEVEL OBSERVATIONS

WHILE DRILLING **10.5 '**

AT END OF BORING **N/A - Rotary Wash**

24 HOURS

LENGTH RECOVERY	SAMPLE NO.	SAMPLE TYPE	N	WC	Qu	γ_{DRY}	DEPTH	ELEV.	SOIL DESCRIPTIONS
80									Hard gray silty CLAY, little to some sand and gravel, moist (CL)
	20	SS	79	9.3	4.5+*				
85									End of Boring at 85.0'
									* Approximate unconfined compressive strength based on measurements with a calibrated pocket penetrometer.
90									
95									
100									
105									
110									
115									
120									

DISTANCE BELOW SURFACE IN FEET

TSC 96350.GPJ TSC_ALL.GDT 10/23/24

DRILL RIG NO. **315**

Division lines between deposits represent approximate boundaries between soil types; in-situ, the transition may be gradual.



NOTE:

GROUND SURFACE ELEVATIONS AT THE BORINGS WERE ACQUIRED BY TSC USING A TRIMBLE R8S GNSS RECEIVER, BEING ROUNDED TO THE NEAREST 0.5 FOOT.

LEGEND

SOIL LOCATION

CORE LOCATION

BORING LOCATION PLAN
LADD ARBORETUM CANOE LAUNCH
SWC MCCORMICK BOULEVARD & BRIDGE STREET
EVANSTON, ILLINOIS

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188

DRAWN BY:	FFE
CHECKED BY:	TRP
JOB NO. :	L-96,350
DATE:	10-22-24

PAGE NO.

1 OF 1

TESTING SERVICE CORPORATION

Corporate Office

360 South Main Place, Carol Stream, IL 60188-2404
630.462.2600

August 18, 2023

Ms. Sherry Sporina
Christopher B. Burke Engineering, Ltd.
9575 West Higgins Road, Suite 600
Rosemont, IL 60018-4920

RE: L – 95,870
Potentially Impacted Property Evaluation for LPC-663 Form
New Canoe Launch and Parking Lot
SWC McCormick Boulevard and Bridge Street
Evanston, IL

Dear Ms. Sporina:

Testing Service Corporation (TSC) has completed a Potentially Impacted Property (PIP) Evaluation, soil sampling, and laboratory analyses for the above captioned project. The general scope of work was presented in TSC's proposal number 69,594 dated 09/08/2022. The General Conditions document which accompanied the proposal also applies to this report. TSC was requested to evaluate site soil conditions for the disposal of construction spoils at a Clean Construction & Demolition Debris (CCDD) or Uncontaminated Soil Fill Operation (USFO) facility.

Uncontaminated soil including uncontaminated soil mixed with clean construction or demolition debris (CCDD) accepted at a CCDD fill operation must be certified to be uncontaminated soil in accordance with Section 22.51(f)(2)(B) of the Environmental Protection Act [415 ILCS 5/22.51(f)(2)(B)]. Uncontaminated soil accepted at an uncontaminated soil fill operation (USFO) must be certified to be uncontaminated soil in accordance with Section 22.51a(d)(2)(B) of the Environmental Protection Act [415 ILCS 5/22.51a(d)(2)(B). These certifications must be made by a licensed professional engineer or geologist (PE/PG) using the Form LPC-663 when the soil is removed from a site which is determined by the PE/PG to be a "Potentially Impacted Property" (PIP) based on review of readily ascertainable property history, environmental databases and site reconnaissance. Uncontaminated soil from a site which is not identified as a PIP by the PE/PG may be certified by either the source site owner or operator using LPC-662 with pH analysis only.

Source Site

The source site ("Site") is a proposed canoe launch that is part of Ladd Arboretum in a residential area of Evanston, IL. The activity that is generating the soil for disposal is construction of the canoe launch and reconstruction of the adjoining parking lot.

Records Review

In accordance with Illinois Administrative Code 35 Part 1100, on behalf of the Site owner, TSC evaluated the historical uses of the Site to identify potential contamination sources, both from the Site and adjoining properties, which may cause the Site to be considered a PIP.

TSC researched the history of the property by reviewing historical topographic maps dating back to 1899 and aerial photographs dating back to 1938. Based on this information, the surrounding area of the Site had been developed with a residential subdivision to either side of the North Shore Channel since at least after 1912. Several buildings were constructed along the north side of the channel after 1939. They were replaced by the arboretum after 1952, at which time the surrounding subdivision was also completed, as was the building across the channel to the south. The Site property underwent improvements after 1972. The building across the channel to the south expanded after 1988. The Site and surrounding properties then remain as described to the present.

TSC reviewed the online electronic Illinois Environmental Protection Agency Document Explorer website for the Site and nearby vicinity. This website is utilized in identifying potential contamination sources, both at the Site and from adjoining properties, which may cause the Site to be considered a PIP. TSC's review did not indicate any contamination sources utilizing this method.

Site Reconnaissance

On July 13, 2023, TSC conducted a reconnaissance of the Site and adjoining properties for the purpose of identifying indications of the use or disposal of hazardous substances or petroleum products. The Site is part of an arboretum in a residential area consistent with information reviewed on topographic maps, aerial photographs, and the EDR environmental database report. No indications of staining, unnaturally stressed vegetation or areas conspicuously absent of vegetation were noted at the Site. No evidence of aboveground storage tanks or of vent or fill pipes suggesting the presence of underground storage tanks were identified at the Site areas to be excavated. No indication of petroleum sheen was identified. No indications of solid waste or drum storage were noted at the Site. No suspect PCB containing equipment or hazardous waste generation was identified on Site. No evidence of the use or release of hazardous substances or petroleum products was identified at the Site in or affecting areas that are to be excavated. No additional sources of potential impact from the Site or adjacent properties were identified. The current status of the surrounding properties is also consistent with the information reviewed and none of the above conditions were noted at their locations within a zone of influence to the Site. No additional sources of potential impact from the Site or adjacent properties were identified.

Due to the proximity of the Site to the North Shore Channel, the Site was identified as a Potentially Impacted Property. The collection of soil samples and analysis were performed to evaluate the soil for the full MAC list.

Soil Sampling & Analytical Testing

On July 13, 2023, TSC, in conjunction with a geotechnical investigation, performed three soil borings (B-1 through B-3) within the footprint of the proposed construction. The boring locations are indicated on the attached Boring Location Plan.

Soil at the Site consists generally of silty clay with little sand and gravel. The soil samples were screened using a Mini-RAE 3000 photo-ionization detector (PID), which did not detect any readings exceeding background conditions. No visual or odorous signs of impact were noted in the samples. Samples B-1/S-2 from 3.5-5 feet below ground surface (bgs) and B-3/S-1 from 1-2.5 feet bgs were selected as being representative of the soil to be removed from the Site. The samples were placed in laboratory supplied jars and 5035 preserved vials. The samples were then transported to the analytical laboratory in a cooler on ice using standard chain of custody procedures for analysis of the full MAC list.

The analytical results are presented in the First Environmental Laboratories, Inc. analytical report dated August 1, 2023. The analytical report indicates that no Volatile Organic Compounds (VOCs), soluble chloride, total cyanide, soluble fluoride, soluble nitrate + nitrite (as N), soluble sulfate, or herbicides were detected in the samples at the laboratory reporting limits. For Semi-Volatile Organic Compounds (SVOCs), none were detected except benzo(a)pyrene and fluoranthene in B-1/S-2, and, bis(2-ethylhexyl) phthalate in both samples. For PCBs and pesticides, none were detected except 4, 4'-DDD and 4, 4'-DDE in sample B-1/S-2. Several of the total RCRA metals were detected in the samples at the laboratory reporting limits, at typical background levels, except for elevated chromium and iron in both samples. The pH values of 7.69 for sample B-1/S-2 and 7.99 for B-3/S-1 are within the required range of 6.25-9.0 units.

The analytical results were compared to the Maximum Allowable Concentrations of Chemical Constituents (MACs) listed in 35 IAC 1100 Subpart F. The analytical results obtained from the soil sample tested indicates that all analyzed parameters meet their respective MACs for disposal at a Metropolitan Statistical Area (MSA) CCDD/USFO facility, except for chromium and iron in both samples. Chromium was detected in B-1/S-2 at 21.7 mg/kg and in B-3/S-1 at 23.4 mg/kg, which both exceed the MAC for chromium of 21.0 mg/kg. Iron was detected in B-1/S-2 at 16,900 mg/kg and in B-3/S-1 at 19,600 mg/kg, which both exceed the MSA MAC for iron of 15,900 mg/kg.

In accordance with 35IAC1100.610(b)(3)(C) as an alternative to the MAC value, compliance verification may be determined by comparing soil sample extraction results by TCLP for chromium and iron to the respective TACO Class I Soil Component of the Groundwater Ingestion Exposure Route Objective in 35IAC742 Appendix B, Table A. TSC requested First Environmental Laboratories, Inc. to perform TCLP chromium and iron analysis on both samples. The analytical results are presented in the First Environmental Laboratories, Inc. analytical report dated August 8, 2023.

The TCLP chromium concentration of <0.005 mg/L for B-1/S-2 and B-3/S-1 does meet the TACO Class I Soil Component of the Groundwater Ingestion Exposure Route Objective of 0.1 mg/L for chromium, therefore, B-1/S-2 and B-3/S-1 do meet the MAC for chromium after TCLP analysis.

The TCLP iron concentration of <0.1 mg/L for B-1/S-2 and B-3/S-1 does meet the TACO Class I Soil Component of the Groundwater Ingestion Exposure Route Objective of 5 mg/L for iron, therefore, B-1/S-2 and B-3/S-1 do meet the MAC for iron after TCLP analysis.

The IEPA LPC-663 Form, Uncontaminated Soil Certification, signed by a Licensed Professional Geologist, along with the analytical report and chain of custody, has been completed for disposal of the soil from the source site, the portion of the Ladd Arboretum at the southwest corner of McCormick Boulevard and Bridge Street in Evanston, IL, as shown on last page of the attached EDR First Report.

TSC recommends the full report be forwarded to the CCDD/USFO facility selected for disposal. It is noted that the CCDD/USFO facility will make the determination on whether or not they will choose to accept the soil and may request additional analytical data. Additionally, the CCDD/USFO will screen each load of soil with a PID, which will determine the final acceptance of individual loads, regardless of the analytical results.

We appreciate the opportunity to be of service to you. Please contact us with any questions.

Respectfully,

TESTING SERVICE CORPORATION

Brian K. Walker, P.G. #196.000772
Environmental Department Manager

Prepared by:

Aaron J. Ulrey, P.G. #196.001390
Project Geologist

BKW:AJU:ljm

Enc: LPC-663 Form
Boring Location Plan
Analytical Reports and Chain of Custody
EDR First Report

Illinois Environmental Protection Agency

1021 North Grand Avenue East • P.O. Box 19276 • Springfield • Illinois • 62794-9276 • (217) 782-3397

Uncontaminated Soil Certification by Licensed Professional Engineer or Licensed Professional Geologist for Use of Uncontaminated Soil as Fill in a CCDD or Uncontaminated Soil Fill Operation LPC-663

Revised in accordance with 35 Ill. Adm. Code 1100, as amended by PCB R2012-009 (eff. Aug. 27, 2012)

This certification form is to be used by professional engineers and professional geologists to certify, pursuant to 35 Ill. Adm. Code 1100.205(a)(1)(B), that soil (i) is uncontaminated soil and (ii) is within a pH range of 6.26 to 9.0. If you have questions about this form, please telephone the Bureau of Land Permit Section at 217/524-3300.

This form may be completed online, saved locally, printed and signed, and submitted to prospective clean construction or demolition debris (CCDD) fill operations or uncontaminated soil fill operations.

I. Source Location Information

(Describe the location of the source of the uncontaminated soil)

Project Name: New Canoe Launch and Parking Lot Office Phone Number, if available: 847-823-0500

Physical Site Location (address, including number and street):
SWC McCormick Boulevard and Bridge Street

City: Evanston State: IL Zip Code: 60201

County: Cook Township: Evanston

Lat/Long of approximate center of site in decimal degrees (DD.ddddd) to five decimal places (e.g., 40.67890, -90.12345):

Latitude: 42.05607 (Decimal Degrees) Longitude: -87.70206 (-Decimal Degrees)

Identify how the lat/long data were determined:

○ GPS ○ Map Interpolation ○ Photo Interpolation ○ Survey ☑ Other

EDR First Report

IEPA Site Number(s), if assigned: BOL: None BOW: None BOA: None

Approximate Start Date (mm/dd/yyyy): Approximate End Date (mm/dd/yyyy):

Estimated Volume of debris (cu. Yd.):

II. Owner/Operator Information for Source Site

Site Owner

Name:
Street Address:
PO Box:
City: State:
Zip Code: Phone:
Contact:
Email, if available:

Site Operator

Name:
Street Address:
PO Box:
City: State:
Zip Code: Phone:
Contact:
Email, if available:

This Agency is authorized to require this information under Section 4 and Title X of the Environmental Protection Act (415 ILCS 5/4, 5/39). Failure to disclose this information may result in: a civil penalty of not to exceed $50,000 for the violation and an additional civil penalty of not to exceed $10,000 for each day during which the violation continues (415 ILCS 5/42). This form has been approved by the Forms Management Center.

L-95,870

Project Name: New Canoe Launch and Parking Lot Latitude: 42.05607 Longitude: - 87.70206

Uncontaminated Soil Certification

III. Basis for Certification and Attachments

For each item listed below, reference the attachments to this form that provide the required information.

a. A Description of the soil sample points and how they were determined to be sufficient in number and appropriately located 35 Ill. Adm. Code 1100.610(a)]:

See attached report. Review of historical aerial photos back to 1899 and topo maps to 1938 indicate the surrounding Site subdivision since before 1939. Site arboretum after 1952. Adjoining to North Shore Channel at least since after 1912. No other impacting properties identified. 3 soil borings performed.

b. Analytical soil testing results to show that soil chemical constituents comply with the maximum allowable concentrations established pursuant to 35 Ill. Adm. Code Part 1100, Subpart F and that the soil pH is within the range of 6.25 to 9.0,including the documentation of chain of custody control, a copy of the lab analysis; the accreditation status of the laboratory performing the analysis; and certification by an authorized agent of the laboratory that the analysis has been performed in accordance with the Agency's rules for the accreditation of environmental and the scope of the accreditation [35 Ill. Adm. Code 1100.201 (g), 1100.205(a), 1100.610]:

PID screening: no volatiles above background. Soil samples B-1/S-2 and B-3/S-1 representing site soil conditions, collected for analysis of Full MAC List. Lab Report 23-6071 analytical results verify soil meets MACs after TCLP chromium and iron. pH of 7.69 for B-1/S-2 and 7.99 for B-3/S-1 between 6.25 and 9.0, therefore, soils in those locations uncontaminated.

IV. Certification Statement, Signature and Seal of Licensed Professional Engineer or Licensed Professional Geologist

I, Aaron J. Ulrey (name of licensed professional engineer or geologist) certify under penalty of law that the information submitted, including but not limited to, all attachments and other information, is to the best of my knowledge and belief, true, accurate and complete. In accordance with the Environmental Protection Act [415 ILCS 5/22.51 or 22.51a] and 35 Ill. Adm. Code 1100.205(a), I certify that the soil from this site is uncontaminated soil. I also certify that the soil pH is within the range of 6.25 to 9.0. In addition, I certify that the soil has not been removed from the site as part of a cleanup or removal of contaminants. All necessary documentation is attached.

Any person who knowingly makes a false, fictitious, or fraudulent material statement, orally or in writing, to the Illinois EPA commits a Class 4 felony. A second or subsequent offense after conviction is a Class 3 felony. (415 ILCS 5/44(h))

Company Name:	Testing Service Corporation
Street Address:	360 South Main Place
City:	Carol Stream State: IL Zip Code: 60188
Phone:	630-784-4012

Aaron J. Ulrey
Printed Name:

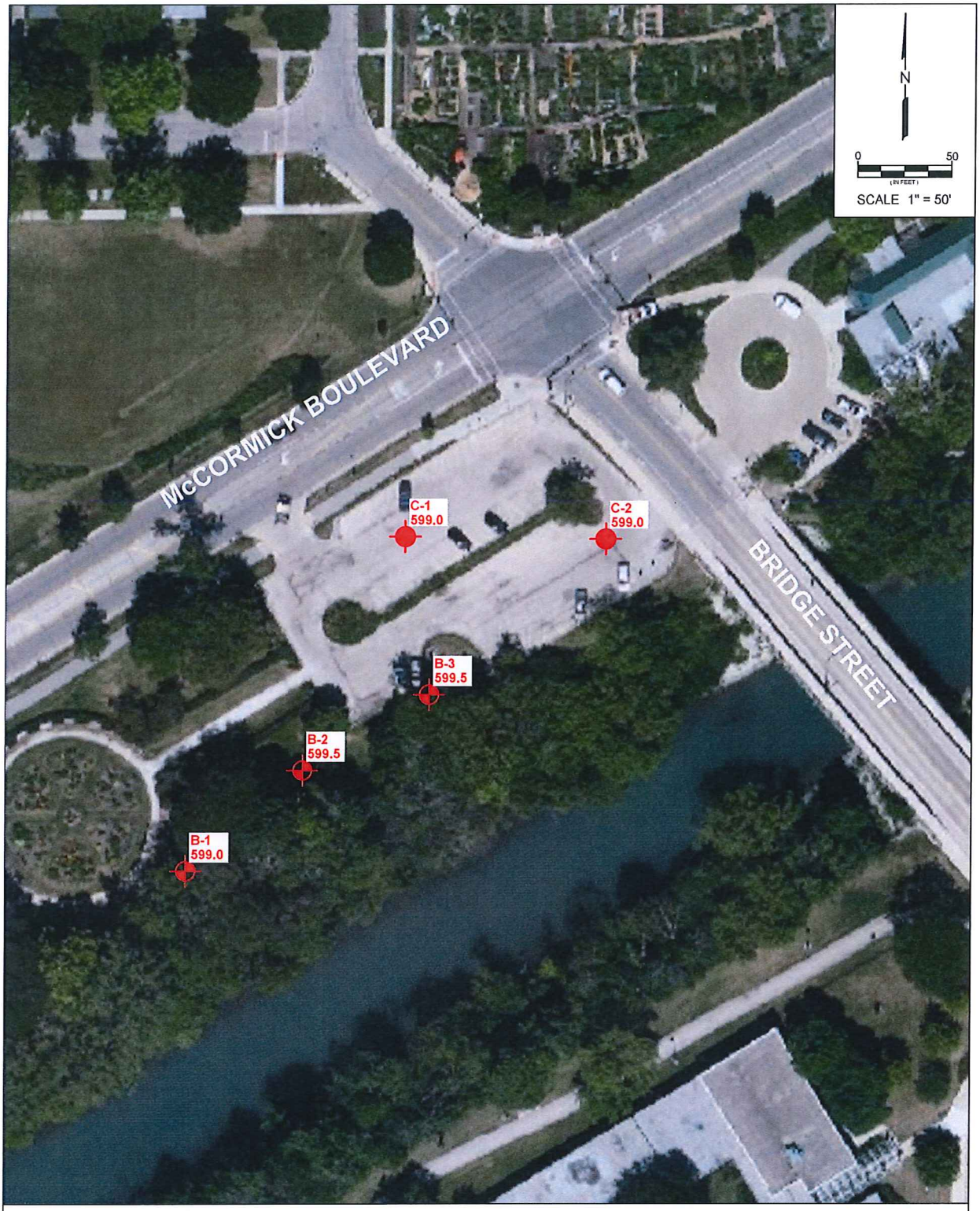
Licensed Professional Engineer or
Licensed Professional Geologist Signature:

8-18-2023
Date:

AARON JON ULREY
196.001390
REGISTERED
PROFESSIONAL
GEOLOGIST
STATE OF ILLINOIS

P.E. or L.P.G. Seal:

L-95,870



NOTE: GROUND SURFACE ELEVATIONS AT THE BORINGS WERE ACQUIRED BY TSC USING A TRIMBLE R8S GNSS RECEIVER, BEING ROUNDED TO THE NEAREST 0.5 FOOT.

LEGEND

SOIL BORING LOCATION

CORE LOCATION

BORING LOCATION PLAN
NEW CANOE LAUNCH & PARKING LOT
SWC MCCORMICK BOULEVARD & BRIDGE STREET
EVANSTON, ILLINOIS

TESTING SERVICE CORPORATION
457 EAST GUNDERSEN DRIVE
CAROL STREAM, ILLINOIS 60188

DRAWN BY:	FFE
CHECKED BY:	TRP
JOB NO. :	L - 95,870
DATE:	06-26-23

PAGE NO.
1 OF 1

First Environmental Laboratories, Inc

IL ELAP / NELAC Certification # 100292

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August 01, 2023

Mr. Aaron Ulrey
TESTING SERVICE CORP.
360 S. Main Place
Carol Stream, IL 60188

Project ID: 95870 - Canoe Launch Evanston
First Environmental File ID: 23-6071
Date Received: July 14, 2023

Dear Mr. Aaron Ulrey:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number:

1002922023-10: effective 03/07/2023 through 02/28/2024.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Joy Geraci
Project Manager

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Case Narrative

TESTING SERVICE CORP.

Lab File ID: **23-6071**

Project ID: **95870 - Canoe Launch Evanston**

Date Received: **July 14, 2023**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time Collected
23-6071-001	B-1/S-2	7/13/2023
23-6071-002	B-3/S-1	7/13/2023

Sample Batch Comments:

Time of sample collection was not provided.

The following analyses have been subcontracted to the indicated laboratory:

Analysis	Subcontractor:
Herbicides	*STAT ANALYSIS CORP. Chicago, IL*

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Case Narrative

TESTING SERVICE CORP.

Lab File ID: **23-6071**

Project ID: **95870 - Canoe Launch Evanston**

Date Received: **July 14, 2023**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
A	Method holding time is 15 minutes from collection. Lab analysis was performed as soon as possible.		
B	Analyte was found in the method blank.	L	LCS recovery outside control limits.
<	Analyte not detected at or above the reporting limit.	M	MS recovery outside control limits; LCS acceptable.
C	Sample received in an improper container for this test.	P	Chemical preservation pH adjusted in lab.
D	Surrogates diluted out; recovery not available.	Q	Result was determined by a GC/MS database search.
E	Estimated result; concentration exceeds calibration range.	S	Analysis was subcontracted to another laboratory.
G	Surrogate recovery outside control limits.	T	Result is less than three times the MDL value.
H	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
I	ICVS % rec outside 95-105% but within 90-110%		
J	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.

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Analytical Report

Client: TESTING SERVICE CORP.
Project ID: 95870 - Canoe Launch Evanston
Sample ID: B-1/S-2
Sample No: 23-6071-001

Date Collected: 07/13/23
Time Collected:
Date Received: 07/14/23
Date Reported: 08/01/23

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540G 2011**				
Analysis Date: 07/18/23				
Total Solids	81.55		%	
Chloride, Soluble **Method: 4500CL,C 2011**				
Analysis Date: 07/18/23				
Chloride, Soluble	< 50	50	mg/kg	N
Cyanide, Total **Method: 9010B/9014**				
Analysis Date: 07/20/23				
Cyanide, Total	< 0.10	0.10	mg/kg	
Fluoride, Soluble **Method: 4500F,C 2011**				
Analysis Date: 07/18/23				
Fluoride, Soluble	< 5.0	5.0	mg/kg	N
Nitrate + Nitrite (as N), Soluble **Method: NECiN07-0003**				
Analysis Date: 07/19/23				
Nitrate + Nitrite (as N), Soluble	< 10.0	10.0	mg/kg	N
pH @ 25°C, 1:2 **Method: 9045D**				
Analysis Date: 07/18/23 10:46				
pH @ 25°C, 1:2	7.69		Units	
Sulfate, Soluble **Method: 9038**				
Analysis Date: 07/20/23				
Sulfate, Soluble	< 150	150	mg/kg	N
Total Metals **Method: 6010C**		**Preparation Method 3050B**		
Analysis Date: 07/19/23		Preparation Date: 07/18/23		
Antimony	< 1.0	1.0	mg/kg	
Arsenic	5.6	1.0	mg/kg	
Barium	61.2	0.5	mg/kg	
Beryllium	< 0.5	0.5	mg/kg	
Boron	9.0	5.0	mg/kg	
Cadmium	0.6	0.5	mg/kg	
Calcium	64,300	50	mg/kg	
Chromium	21.7	0.5	mg/kg	
Cobalt	8.8	0.5	mg/kg	
Copper	54.3	0.5	mg/kg	
Iron	16,900	5.0	mg/kg	
Lead	74.3	0.5	mg/kg	
Magnesium	33,100	50	mg/kg	

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Analytical Report

Client: TESTING SERVICE CORP.
Project ID: 95870 - Canoe Launch Evanston
Sample ID: B-1/S-2
Sample No: 23-6071-001

Date Collected: 07/13/23
Time Collected:
Date Received: 07/14/23
Date Reported: 08/01/23

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Total Metals **Method: 6010C**		**Preparation Method 3050B**		
Analysis Date: 07/19/23		Preparation Date: 07/18/23		
Manganese	461	0.5	mg/kg	
Nickel	20.3	0.5	mg/kg	
Potassium	1,300	50	mg/kg	
Selenium	< 1.0	1.0	mg/kg	
Silver	1.1	0.2	mg/kg	
Sodium	144	50	mg/kg	
Thallium	< 1.0	1.0	mg/kg	
Vanadium	19.8	1.0	mg/kg	
Zinc	115	1.0	mg/kg	
Total Mercury **Method: 7471B**				
Analysis Date: 07/19/23				
Mercury	0.53	0.05	mg/kg	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 07/21/23				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
n-Butanol	< 1,000	1000	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
1,2-Dibromo-3-chloropropane	< 2.0	10.0	ug/kg	J J
Dibromochloromethane	< 5.0	5.0	ug/kg	
1,2-Dibromoethane (EDB)	< 5.0	5.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	

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Analytical Report

Client: TESTING SERVICE CORP.
Project ID: 95870 - Canoe Launch Evanston
Sample ID: B-1/S-2
Sample No: 23-6071-001

Date Collected: 07/13/23
Time Collected:
Date Received: 07/14/23
Date Reported: 08/01/23

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 07/21/23				
Methylene chloride	< 20.0	20.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
m&p-Xylene	< 5.0	5.0	ug/kg	
o-Xylene	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 07/19/23		Preparation Date: 07/17/23		
Anthracene	< 330	330	ug/kg	
Benzo(a)anthracene	< 330	330	ug/kg	
Benzo(a)pyrene	186	90	ug/kg	
Benzo(b)fluoranthene	< 330	330	ug/kg	
Benzo(k)fluoranthene	< 330	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
Chrysene	< 330	330	ug/kg	
Dibenzo(a,h)anthracene	< 90	90	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	

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Analytical Report

Client: TESTING SERVICE CORP.
Project ID: 95870 - Canoe Launch Evanston
Sample ID: B-1/S-2
Sample No: 23-6071-001

Date Collected: 07/13/23
Time Collected:
Date Received: 07/14/23
Date Reported: 08/01/23

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C** Analysis Date: 07/19/23		**Preparation Method 3540C** Preparation Date: 07/17/23		
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	2,590	330	ug/kg	
Fluoranthene	385	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	< 330	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	
2,4,5-Trichlorophenol	< 330	330	ug/kg	
2,4,6-Trichlorophenol	< 330	330	ug/kg	
Semi-Volatile Pesticides **Method: 8270C** Analysis Date: 07/19/23		**Preparation Method 3540C** Preparation Date: 07/17/23		
Alachlor	< 40	40	ug/kg	N
Atrazine	< 66	66	ug/kg	N
Simazine	< 40	40	ug/kg	N
Pesticides/PCBs **Method: 8081A/8082** Analysis Date: 07/25/23		**Preparation Method 3540C** Preparation Date: 07/17/23		
Aldrin	< 8.0	8.0	ug/kg	
Aroclor 1016	< 80.0	80.0	ug/kg	
Aroclor 1221	< 80.0	80.0	ug/kg	
Aroclor 1232	< 80.0	80.0	ug/kg	
Aroclor 1242	< 80.0	80.0	ug/kg	
Aroclor 1248	< 80.0	80.0	ug/kg	
Aroclor 1254	< 160	160	ug/kg	
Aroclor 1260	< 160	160	ug/kg	

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Analytical Report

Client: TESTING SERVICE CORP.
Project ID: 95870 - Canoe Launch Evanston
Sample ID: B-1/S-2
Sample No: 23-6071-001

Date Collected: 07/13/23
Time Collected:
Date Received: 07/14/23
Date Reported: 08/01/23

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Pesticides/PCBs **Method: 8081A/8082**		**Preparation Method 3540C**		
Analysis Date: 07/25/23		Preparation Date: 07/17/23		
alpha-BHC	< 2.0	2.0	ug/kg	
beta-BHC	< 8.0	8.0	ug/kg	
delta-BHC	< 8.0	8.0	ug/kg	
gamma-BHC (Lindane)	< 8.0	8.0	ug/kg	
alpha-Chlordane	< 80.0	80.0	ug/kg	
gamma-Chlordane	< 80.0	80.0	ug/kg	
4,4'-DDD	16.6	16.0	ug/kg	
4,4'-DDE	40.1	16.0	ug/kg	
4,4'-DDT	< 16.0	16.0	ug/kg	
Dieldrin	< 16.0	16.0	ug/kg	
Endosulfan I	< 8.0	8.0	ug/kg	
Endosulfan II	< 16.0	16.0	ug/kg	
Endosulfan sulfate	< 16.0	16.0	ug/kg	
Endrin	< 16.0	16.0	ug/kg	
Endrin aldehyde	< 16.0	16.0	ug/kg	
Endrin ketone	< 16.0	16.0	ug/kg	
Heptachlor	< 8.0	8.0	ug/kg	
Heptachlor epoxide	< 8.0	8.0	ug/kg	
Methoxychlor	< 80.0	80.0	ug/kg	
Toxaphene	< 160	160	ug/kg	
Herbicides **Method: 8321B**				
Analysis Date: 07/20/23				
Aldicarb	< 10	10	ug/kg	N S
Carbofuran	< 50	50	ug/kg	N S
Dalapon	< 100	100	ug/kg	S
2,4-Dichlorophenoxyacetic acid (2,4-D)	< 100	100	ug/kg	S
Dinoseb	< 100	100	ug/kg	S
Pentachlorophenol	< 20	20	ug/kg	N S
Picloram	< 100	100	ug/kg	N S
Silvex (2,4,5-TP)	< 100	100	ug/kg	S

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Analytical Report

Client: TESTING SERVICE CORP.
Project ID: 95870 - Canoe Launch Evanston
Sample ID: B-3/S-1
Sample No: 23-6071-002

Date Collected: 07/13/23
Time Collected:
Date Received: 07/14/23
Date Reported: 08/01/23

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Solids, Total **Method: 2540G 2011**				
Analysis Date: 07/18/23				
Total Solids	86.38		%	
Chloride, Soluble **Method: 4500CL,C 2011**				
Analysis Date: 07/18/23				
Chloride, Soluble	< 50	50	mg/kg	N
Cyanide, Total **Method: 9010B/9014**				
Analysis Date: 07/20/23				
Cyanide, Total	< 0.10	0.10	mg/kg	
Fluoride, Soluble **Method: 4500F,C 2011**				
Analysis Date: 07/18/23				
Fluoride, Soluble	< 5.0	5.0	mg/kg	N
Nitrate + Nitrite (as N), Soluble **Method: NECiN07-0003**				
Analysis Date: 07/19/23				
Nitrate + Nitrite (as N), Soluble	< 10.0	10.0	mg/kg	N
pH @ 25°C, 1:2 **Method: 9045D**				
Analysis Date: 07/18/23 10:46				
pH @ 25°C, 1:2	7.99		Units	
Sulfate, Soluble **Method: 9038**				
Analysis Date: 07/20/23				
Sulfate, Soluble	< 150	150	mg/kg	N
Total Metals **Method: 6010C**		**Preparation Method 3050B**		
Analysis Date: 07/19/23		Preparation Date: 07/18/23		
Antimony	< 1.0	1.0	mg/kg	
Arsenic	2.3	1.0	mg/kg	
Barium	70.7	0.5	mg/kg	
Beryllium	0.7	0.5	mg/kg	
Boron	< 5.0	5.0	mg/kg	
Cadmium	< 0.5	0.5	mg/kg	
Calcium	4,090	50	mg/kg	
Chromium	23.4	0.5	mg/kg	
Cobalt	10.4	0.5	mg/kg	
Copper	17.4	0.5	mg/kg	
Iron	19,600	5.0	mg/kg	
Lead	10.5	0.5	mg/kg	
Magnesium	5,340	50	mg/kg	

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Analytical Report

Client: TESTING SERVICE CORP.
Project ID: 95870 - Canoe Launch Evanston
Sample ID: B-3/S-1
Sample No: 23-6071-002

Date Collected: 07/13/23
Time Collected:
Date Received: 07/14/23
Date Reported: 08/01/23

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Total Metals **Method: 6010C**		**Preparation Method 3050B**		
Analysis Date: 07/19/23		Preparation Date: 07/18/23		
Manganese	201	0.5	mg/kg	
Nickel	27.4	0.5	mg/kg	
Potassium	1,520	50	mg/kg	
Selenium	< 1.0	1.0	mg/kg	
Silver	< 0.2	0.2	mg/kg	
Sodium	363	50	mg/kg	
Thallium	< 1.0	1.0	mg/kg	
Vanadium	27.3	1.0	mg/kg	
Zinc	49.3	1.0	mg/kg	
Total Mercury **Method: 7471B**				
Analysis Date: 07/19/23				
Mercury	< 0.05	0.05	mg/kg	
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 07/21/23				
Acetone	< 200	200	ug/kg	
Benzene	< 5.0	5.0	ug/kg	
Bromodichloromethane	< 5.0	5.0	ug/kg	
Bromoform	< 5.0	5.0	ug/kg	
Bromomethane	< 10.0	10.0	ug/kg	
n-Butanol	< 1,000	1000	ug/kg	
Carbon disulfide	< 5.0	5.0	ug/kg	
Carbon tetrachloride	< 5.0	5.0	ug/kg	
Chlorobenzene	< 5.0	5.0	ug/kg	
Chloroform	< 5.0	5.0	ug/kg	
1,2-Dibromo-3-chloropropane	< 2.0	10.0	ug/kg	J J
Dibromochloromethane	< 5.0	5.0	ug/kg	
1,2-Dibromoethane (EDB)	< 5.0	5.0	ug/kg	
1,1-Dichloroethane	< 5.0	5.0	ug/kg	
1,2-Dichloroethane	< 5.0	5.0	ug/kg	
1,1-Dichloroethene	< 5.0	5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	5.0	ug/kg	
1,2-Dichloropropane	< 5.0	5.0	ug/kg	
cis-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
trans-1,3-Dichloropropene	< 4.0	4.0	ug/kg	
Ethylbenzene	< 5.0	5.0	ug/kg	

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Analytical Report

Client:	TESTING SERVICE CORP.	**Date Collected:**	07/13/23
Project ID:	95870 - Canoe Launch Evanston	**Time Collected:**	
Sample ID:	B-3/S-1	**Date Received:**	07/14/23
Sample No:	23-6071-002	**Date Reported:**	08/01/23

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Volatile Organic Compounds **Method: 5035A/8260B**				
Analysis Date: 07/21/23				
Methylene chloride	< 20.0	20.0	ug/kg	
Methyl-tert-butylether (MTBE)	< 5.0	5.0	ug/kg	
Styrene	< 5.0	5.0	ug/kg	
Tetrachloroethene	< 5.0	5.0	ug/kg	
Toluene	< 5.0	5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	5.0	ug/kg	
Trichloroethene	< 5.0	5.0	ug/kg	
Vinyl acetate	< 10.0	10.0	ug/kg	
Vinyl chloride	< 10.0	10.0	ug/kg	
Xylene, Total	< 5.0	5.0	ug/kg	
m&p-Xylene	< 5.0	5.0	ug/kg	
o-Xylene	< 5.0	5.0	ug/kg	
Semi-Volatile Compounds **Method: 8270C**		**Preparation Method 3540C**		
Analysis Date: 07/19/23		Preparation Date: 07/17/23		
Anthracene	< 330	330	ug/kg	
Benzo(a)anthracene	< 330	330	ug/kg	
Benzo(a)pyrene	< 90	90	ug/kg	
Benzo(b)fluoranthene	< 330	330	ug/kg	
Benzo(k)fluoranthene	< 330	330	ug/kg	
Benzoic acid	< 330	330	ug/kg	
Butyl benzyl phthalate	< 330	330	ug/kg	
Carbazole	< 330	330	ug/kg	
4-Chloroaniline	< 330	330	ug/kg	
bis(2-Chloroethyl)ether	< 330	330	ug/kg	
2-Chlorophenol	< 330	330	ug/kg	
Chrysene	< 330	330	ug/kg	
Dibenzo(a,h)anthracene	< 90	90	ug/kg	
Di-n-butyl phthalate	< 330	330	ug/kg	
1,2-Dichlorobenzene	< 330	330	ug/kg	
1,4-Dichlorobenzene	< 330	330	ug/kg	
3,3'-Dichlorobenzidine	< 660	660	ug/kg	
2,4-Dichlorophenol	< 330	330	ug/kg	
Diethyl phthalate	< 330	330	ug/kg	
2,4-Dimethylphenol	< 330	330	ug/kg	
2,4-Dinitrophenol	< 1,600	1600	ug/kg	

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Analytical Report

Client: TESTING SERVICE CORP.
Project ID: 95870 - Canoe Launch Evanston
Sample ID: B-3/S-1
Sample No: 23-6071-002

Date Collected: 07/13/23
Time Collected:
Date Received: 07/14/23
Date Reported: 08/01/23

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Semi-Volatile Compounds **Method: 8270C** **Preparation Method 3540C**				
Analysis Date: 07/19/23 Preparation Date: 07/17/23				
2,4-Dinitrotoluene	< 250	250	ug/kg	
2,6-Dinitrotoluene	< 260	260	ug/kg	
Di-n-octylphthalate	< 330	330	ug/kg	
bis(2-Ethylhexyl)phthalate	6,030	330	ug/kg	
Fluoranthene	< 330	330	ug/kg	
Fluorene	< 330	330	ug/kg	
Hexachlorobenzene	< 330	330	ug/kg	
Hexachlorocyclopentadiene	< 330	330	ug/kg	
Hexachloroethane	< 330	330	ug/kg	
Indeno(1,2,3-cd)pyrene	< 330	330	ug/kg	
Isophorone	< 330	330	ug/kg	
2-Methylphenol	< 330	330	ug/kg	
Naphthalene	< 330	330	ug/kg	
Nitrobenzene	< 260	260	ug/kg	
n-Nitrosodiphenylamine	< 330	330	ug/kg	
n-Nitrosodi-n-propylamine	< 90	90	ug/kg	
Phenol	< 330	330	ug/kg	
Pyrene	< 330	330	ug/kg	
1,2,4-Trichlorobenzene	< 330	330	ug/kg	
2,4,5-Trichlorophenol	< 330	330	ug/kg	
2,4,6-Trichlorophenol	< 330	330	ug/kg	
Semi-Volatile Pesticides **Method: 8270C** **Preparation Method 3540C**				
Analysis Date: 07/19/23 Preparation Date: 07/17/23				
Alachlor	< 40	40	ug/kg	N
Atrazine	< 66	66	ug/kg	N
Simazine	< 40	40	ug/kg	N
Pesticides/PCBs **Method: 8081A/8082** **Preparation Method 3540C**				
Analysis Date: 07/25/23 Preparation Date: 07/17/23				
Aldrin	< 8.0	8.0	ug/kg	
Aroclor 1016	< 80.0	80.0	ug/kg	
Aroclor 1221	< 80.0	80.0	ug/kg	
Aroclor 1232	< 80.0	80.0	ug/kg	
Aroclor 1242	< 80.0	80.0	ug/kg	
Aroclor 1248	< 80.0	80.0	ug/kg	
Aroclor 1254	< 160	160	ug/kg	
Aroclor 1260	< 160	160	ug/kg	

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Analytical Report

Client: TESTING SERVICE CORP.
Project ID: 95870 - Canoe Launch Evanston
Sample ID: B-3/S-1
Sample No: 23-6071-002

Date Collected: 07/13/23
Time Collected:
Date Received: 07/14/23
Date Reported: 08/01/23

Results are reported on a dry weight basis.

Analyte	Result	R.L.	Units	Flags
Pesticides/PCBs **Method: 8081A/8082**		**Preparation Method 3540C**		
Analysis Date: 07/25/23		Preparation Date: 07/17/23		
alpha-BHC	< 2.0	2.0	ug/kg	
beta-BHC	< 8.0	8.0	ug/kg	
delta-BHC	< 8.0	8.0	ug/kg	
gamma-BHC (Lindane)	< 8.0	8.0	ug/kg	
alpha-Chlordane	< 80.0	80.0	ug/kg	
gamma-Chlordane	< 80.0	80.0	ug/kg	
4,4'-DDD	< 16.0	16.0	ug/kg	
4,4'-DDE	< 16.0	16.0	ug/kg	
4,4'-DDT	< 16.0	16.0	ug/kg	
Dieldrin	< 16.0	16.0	ug/kg	
Endosulfan I	< 8.0	8.0	ug/kg	
Endosulfan II	< 16.0	16.0	ug/kg	
Endosulfan sulfate	< 16.0	16.0	ug/kg	
Endrin	< 16.0	16.0	ug/kg	
Endrin aldehyde	< 16.0	16.0	ug/kg	
Endrin ketone	< 16.0	16.0	ug/kg	
Heptachlor	< 8.0	8.0	ug/kg	
Heptachlor epoxide	< 8.0	8.0	ug/kg	
Methoxychlor	< 80.0	80.0	ug/kg	
Toxaphene	< 160	160	ug/kg	
Herbicides **Method: 8321B**				
Analysis Date: 07/20/23				
Aldicarb	< 10	10	ug/kg	N S
Carbofuran	< 50	50	ug/kg	N S
Dalapon	< 100	100	ug/kg	S
2,4-Dichlorophenoxyacetic acid (2,4-D)	< 100	100	ug/kg	S
Dinoseb	< 100	100	ug/kg	S
Pentachlorophenol	< 20	20	ug/kg	N S
Picloram	< 100	100	ug/kg	N S
Silvex (2,4,5-TP)	< 100	100	ug/kg	S

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IEPA Certification #100292

CHAIN OF CUSTODY RECORD

Company Name: TSC
Street Address: 360 S Main Pl
City: Carol Stream State: IL Zip: 60188
Phone: e-mail: envdept@tsccorp.com
Send Report To: Aaron Ulrey
Sampled By: TSC

Project I.D.: ~~95869~~ AJU Canoe Launch Evanston
P.O. #: 95870

23-6071

Date/Time Taken	Sample Description	Matrix	Parameter(s): Full MAC List *	pH							Hold – Do Not Analyze	Comments	Lab I.D.
7-13-23	B-1/S-2	S	X	X									001
↓	B-3/S-1	S	X	X									002

FOR LAB USE ONLY:

Cooler Temperature: 0.1-6ºC Yes X No__ 3.7 ºC
Received within 6 hrs. of collection:_____
Ice Present: Yes X No__

LAB COURIER USE ONLY:

Sample Refrigerated: Yes__ No__
Refrigerator Temperature:_____ºC

Program: ☐ TACO/SRP ☐ CCDD ☐ NPDES ☐ LUST ☐ SDWA

***Matrix Code Key:** **S**-Soil **SL**-Sludge **DW**-Drinking Water **WW**-Wastewater **GW**-Groundwater **WIPE**-Wipe **O**-Other

Notes and Special Instructions: * Not Supplemental MAC

Relinquished By: DCB Date/Time 7-13-23 1700 Received By: Date/Time 7-13-23 1700
Relinquished By: Date/Time 7-14-23 1640 Received By: Date/Time 7/14/23 16:40

Rev. 6/19

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August 08, 2023

Mr. Aaron Ulrey
TESTING SERVICE CORP.
360 S. Main Place
Carol Stream, IL 60188

Project ID: 95870 - Canoe Launch Evanston
First Environmental File ID: 23-6686
Date Received: July 14, 2023

Dear Mr. Aaron Ulrey:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

All Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met unless otherwise noted. QA/QC documentation and raw data will remain on file for future reference. Our accreditation number is 100292 and our current certificate is number:

1002922023-10: effective 03/07/2023 through 02/28/2024.

I thank you for the opportunity to be of service to you and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data or need additional information, please contact me at (630) 778-1200.

Sincerely,

Joy Geraci
Project Manager

First Environmental Laboratories, Inc
IL ELAP / NELAC Certification # 100292
1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • FirstEnv.com

Case Narrative

TESTING SERVICE CORP.

Lab File ID: **23-6686**

Project ID: **95870 - Canoe Launch Evanston**

Date Received: **July 14, 2023**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The results in this report apply to the samples in the following table:

Laboratory Sample ID	Client Sample Identifier	Date/Time Collected
23-6686-001	B-1/S-2	7/13/2023
23-6686-002	B-3/S-1	7/13/2023

Sample Batch Comments:

Time of sample collection was not provided.

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Case Narrative

TESTING SERVICE CORP.

Lab File ID: **23-6686**

Project ID: **95870 - Canoe Launch Evanston**

Date Received: **July 14, 2023**

All quality control criteria, as outlined in the methods, have been met except as noted below or on the following analytical report.

The following is a definition of flags that may be used in this report:

Flag	Description	Flag	Description
A	Method holding time is 15 minutes from collection. Lab analysis was performed as soon as possible.		
B	Analyte was found in the method blank.	L	LCS recovery outside control limits.
<	Analyte not detected at or above the reporting limit.	M	MS recovery outside control limits; LCS acceptable.
C	Sample received in an improper container for this test.	P	Chemical preservation pH adjusted in lab.
D	Surrogates diluted out; recovery not available.	Q	Result was determined by a GC/MS database search.
E	Estimated result; concentration exceeds calibration range.	S	Analysis was subcontracted to another laboratory.
G	Surrogate recovery outside control limits.	T	Result is less than three times the MDL value.
H	Analysis or extraction holding time exceeded.	W	Reporting limit elevated due to sample matrix.
I	ICVS % rec outside 95-105% but within 90-110%		
J	Estimated result; concentration is less than routine RL but greater than MDL.	N	Analyte is not part of our NELAC accreditation or accreditation may not be available for this parameter.
RL	Routine Reporting Limit (Lowest amount that can be detected when routine weights/volumes are used without dilution.)	ND	Analyte was not detected using a library search routine; No calibration standard was analyzed.

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Analytical Report

Client:	TESTING SERVICE CORP.	**Date Collected:**	07/13/23
Project ID:	95870 - Canoe Launch Evanston	**Time Collected:**	
Sample ID:	B-1/S-2	**Date Received:**	07/14/23
Sample No:	23-6686-001	**Date Reported:**	08/08/23

Analyte		Result	R.L.	Units	Flags
TCLP Extraction	**Method: 1311**				
Analysis Date: 08/03/23					
TCLP Extraction		Complete			
TCLP Metals Method 1311	**Method: 6010C**		**Preparation Method 3010A**		
Analysis Date: 08/08/23			Preparation Date: 08/08/23		
Chromium		< 0.005	0.005	mg/L	
Iron		< 0.1	0.1	mg/L	

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Analytical Report

Client:	TESTING SERVICE CORP.	**Date Collected:**	07/13/23
Project ID:	95870 - Canoe Launch Evanston	**Time Collected:**	
Sample ID:	B-3/S-1	**Date Received:**	07/14/23
Sample No:	23-6686-002	**Date Reported:**	08/08/23

Analyte		Result	R.L.	Units	Flags
TCLP Extraction	**Method: 1311**				
Analysis Date: 08/03/23					
TCLP Extraction		Complete			
TCLP Metals Method 1311	**Method: 6010C**		**Preparation Method 3010A**		
Analysis Date: 08/08/23			Preparation Date: 08/08/23		
Chromium		< 0.005	0.005	mg/L	
Iron		< 0.1	0.1	mg/L	

CHAIN OF CUSTODY RECORD

Page 1 of 1 pgs

First Environmental Laboratories, Inc.

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Naperville, Illinois 60563
Phone: (630) 778-1200 • Fax: (630) 778-1233
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IEPA Certification #100292

Company Name: TSC
Street Address: 360 S Main Pl
City: Carol Stream State: IL Zip: 60188
Phone: e-mail: envdept@tsccorp.com
Send Report To: Aaron Ulrey
Sampled By: TSC

Project I.D.: ~~TSC~~ ADJ 75869 Grace Lawn Evanston
P.O. #: 95870

23-6071

Date/Time Taken	Sample Description	Matrix	Parameter(s) Fe/Mn/K List *	pH	TCLP Cr+Fe per Rev. 8 (1311)	Hold – Do Not Analyze	Comments	Lab I.D.
7-13-23	B-1/S-2	S	X	X	X		23-6686-001	001
"	B-3/S-1	S	X	X	X		-002	002

FOR LAB USE ONLY:
Cooler Temperature: 0.1-6ºC Yes X No 3.2 ºC
Received within 6 hrs. of collection:
Ice Present: Yes X No

LAB COURIER USE ONLY:
Sample Refrigerated: Yes No
Refrigerator Temperature: ºC

Program: ☐ TACO/SRP ☐ CCDD ☐ NPDES ☐ LUST ☐ SDWA

***Matrix Code Key:** **S**-Soil **SL**-Sludge **DW**-Drinking Water **WW**-Wastewater **GW**-Groundwater **WIPE**-Wipe **O**-Other

Notes and Special Instructions: * Not Supplemental MAC

Relinquished By: DCB Date/Time 7-13-23 1700 Received By: Date/Time 7-13-23 1700
Relinquished By: Date/Time 7-14-23 1640 Received By: Date/Time 7/14/23 16:40

Rev. 6/19

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%). This requirement is waived if the contract is partially or completely funded from a source other than funds belonging to the City, such as Federal, State, or other grants, and the other funding source mandates terms that are inconsistent with or supersede this Subsection (B).

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;

b. Whether the business entity's address or the address given on the federal and/or state income tax return is within Evanston; and

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:

CONTRACT.	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.
CONTRACTOR.	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.
DESK REVIEW.	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.
EMERGENCY WORK.	Work necessitated by an imminent threat to the property of the city or the health, safety, or welfare of its citizens.
GENERAL CONTRACTOR.	An entity that enters into a contract directly with the city. The general contractor may also be known as the prime contractor.
LOCAL RESIDENT DATABASE.	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.
NEW HIRE.	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.
ON SITE MONITORING.	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.
PUBLIC WORKS PROJECT.	Any construction, alteration, demolition, or repair work done under contract and paid for in whole or in part from City funds.
RESIDENT.	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.
SUBCONTRACT.	A contract that exists between the general contractor and a subcontractor or between subcontractors of any tier.
SUBCONTRACTOR.	An entity that enters into a contract with the general contractor or another subcontractor.

TIER.	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 journeyperson 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:

DISADVANTAGE-OWNED BUSINESS ENTERPRISE or DBE.	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.
EVANSTON-OWNED BUSINESS ENTERPRISE or EBE.	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).
MINORITY-OWNED BUSINESS ENTERPRISE or MBE.	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.
M/W/D/EBE GOALS.	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.
WOMEN-OWNED BUSINESS ENTERPRISE or WBE.	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 Subsection 1-17-1(D)(1) or a nearby business enterprise as defined in Subsection 1-17-1(E)(1).

1. *Definitions.* For the purposes of this Subsection, the following definitions apply:

APPRENTICESHIP TRAINING PROGRAM.	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 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.
BIDDER.	A contractor that submits a bid in response to a City of Evanston request for proposal.
COMMERCIALLY USEFUL FUNCTION.	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.
NEARBY BUSINESS ENTERPRISE ("NBE").	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.
PUBLIC WORKS CONTRACT.	Any construction, alteration, demolition, or repair work done under contract on City-owned property.
RELIABLE, RESPONSIVE AND ACCEPTABLE BIDDER.	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.

2. *Excessive Pass Through Prohibited.* Any bidder must directly perform at least twenty-five (25) percent 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 twenty-five thousand dollars ($25,000.00) 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 one thousand eight hundred (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. This requirement is waived if the contract is partially or completely funded from a source other than funds belonging to the City, such as Federal, State, or other grants, and the other funding source mandates terms that are inconsistent with or supersede this Subsection (E)3.(d).

   (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 or greater OSHA safety program. The contractor must submit copies of the employees' OSHA cards to the City prior to the project commencing.

5. *Nearby Business Enterprises.* In the absence of an Evanston business enterprise as required by Subsection 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 (3) percent. This requirement is waived if the contract is partially or completely funded from a source other than funds belonging to the City, such as Federal, State, or other grants, and the other funding source mandates terms that are inconsistent with or supersede this Subsection (E)(5).

   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;

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; and

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 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;

h. Compliance with the Federal Davis-Bacon Act and Related Acts, if applicable;

i. 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;

j. 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;

k. 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;

l. 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

m. 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 twenty-five thousand dollars ($25,000.00) 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 is subject to review pursuant to the Illinois Freedom of Information Act (5 ILCS 140/1 et seq.).

(F) Contractor Debarment, Suspension, and Prohibited Contracts.

1. *Definitions.* For the purposes of this Subsection, the following definitions apply:

CITY MANAGER.	The City of Evanston City Manager or his/her designee.
CONTRACTOR.	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.
DEBARMENT.	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 of 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 disbarment 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.

(Ord. No. 88-0-05; Ord. No. 89-0-08; Ord. No. 100-0-05; Ord. No. 50-0-10, §§ 2, 3, 10-25-2010; Ord. No. 8-O-12, (47-O-11(exh. A, § 1-17-1)), 1-23-2012; Ord. No. 60-O-14, §§ 2, 3, 10-13-2014; Ord. No. 18-O-18, § 1, 4-9-2018; Ord. No. 129-O-19, § 1, 11-11-2019; Ord. No. 125-O-21, § 1, 1-10-2022; Ord. No. 18-O-23, § 1, 3-13-2023; Ord. No. 62-O-23, § 1, 7-10-2023; Ord. No. 23-O-25, § 1, 5-27-2025; Ord. No. 1-O-26, § 1, 2-9-2026)

Editor's note(s)—Ord. No. 62-O-23, § 1, adopted July 10, 2023, changed the title of Section 1-17-1 from "Purchases of goods or services" to "Contracts with the City." The historical notation has been preserved for reference purposes.

Cook County Prevailing Wage Rates posted on 10/19/2026

						Overtime										
Trade Title	**Rg**	**Type**	**C**	**Base**	**Foreman**	**M-F**	**Sa**	**Su**	**Hol**	**H/W**	**Pension**	**Vac**	**Trng**	**Other Ins**	**Add OT 1.5x owed**	**Add OT 2.0x owed**
ASBESTOS ABT-GEN	All	ALL		53.00	54.00	1.5	1.5	2.0	2.0	19.86	18.34	0.00	0.91		0.00	0.00
ASBESTOS ABT-MEC	All	BLD		43.52	47.00	1.5	1.5	2.0	2.0	17.84	16.75	0.00	1.01		3.42	6.84
BOILERMAKER	All	BLD		62.06	67.64	2.0	2.0	2.0	2.0	7.07	27.81	0.00	3.69	2.72	0.00	40.50
BRICK MASON	All	BLD		54.81	60.29	1.5	1.5	2.0	2.0	14.74	25.51	0.00	1.59	0.00	13.05	17.40
CARPENTER	All	ALL		58.51	60.51	1.5	1.5	2.0	2.0	14.49	28.26	3.03	1.04		0.00	0.00
CEMENT MASON	All	ALL		57.10	60.60	2.0	1.5	2.0	2.0	18.50	24.00	0.00	1.25		2.50	5.00
CERAMIC TILE FINISHER	All	BLD		51.09	51.09	1.5	1.5	2.0	2.0	14.00	18.32	0.00	1.41	0.00	17.32	23.08
CERAMIC TILE LAYER	All	BLD		59.44	64.44	1.5	1.5	2.0	2.0	14.00	22.43	0.00	1.54	0.00	23.67	31.56
COMMUNICATION ELECTRICIAN	All	BLD		53.64	59.00	1.5	1.5	2.0	2.0	18.29	15.05	1.50	1.29	0.05	0.00	0.00
CONCRETE SPECIALIST	All	BLD		53.56	60.18	1.5	1.5	2.0	2.0	14.74	26.81	0.00	1.59	0.00	15.00	20.00
CONCRETE SPECIALIST WELDER	All	BLD		56.24	60.18	1.5	1.5	2.0	2.0	14.74	26.81	0.00	1.59	0.00	15.00	20.00
ELECTRIC PWR EQMT OP	All	ALL		67.18	73.73	1.5	1.5	2.0	2.0	12.99	23.34	0.00	3.69	0.00	0.00	0.00
ELECTRIC PWR GRNDMAN	All	ALL		52.40	73.73	1.5	1.5	2.0	2.0	10.13	18.20	0.00	2.87	0.00	0.00	0.00
ELECTRIC PWR LINEMAN	All	ALL		67.18	73.73	1.5	1.5	2.0	2.0	12.99	23.34	0.00	3.69	0.00	0.00	0.00
ELECTRICIAN	All	ALL		63.15	69.47	1.5	1.5	2.0	2.0	20.35	22.14	0.00	1.97	0.10	0.00	0.00
ELEVATOR CONSTRUCTOR	All	BLD		73.65	82.86	2.0	2.0	2.0	2.0	16.37	21.76	5.89	0.85		0.00	0.00
FENCE ERECTOR	All	ALL		53.73	56.73	1.5	1.5	2.0	2.0	14.79	19.77	0.00	1.00	0.00	0.00	0.00
GLAZIER	All	BLD		55.35	56.85	1.5	2.0	2.0	2.0	16.54	27.36	0.00	2.35	0.00	0.00	0.00
HEAT/FROST INSULATOR	All	BLD		58.02	61.50	1.5	1.5	2.0	2.0	17.84	20.05	0.00	1.01		5.07	10.14
IRON WORKER	All	ALL		64.19	67.69	2.0	2.0	2.0	2.0	19.80	28.60	0.00	0.44	0.00	0.00	0.00
LABORER	All	ALL		53.00	53.75	1.5	1.5	2.0	2.0	19.86	18.34	0.00	0.91		0.00	0.00
LATHER	All	ALL		58.51	60.51	1.5	1.5	2.0	2.0	14.49	28.26	3.03	1.04		0.00	0.00
MACHINIST	All	BLD		61.89	65.89	1.5	1.5	2.0	2.0	14.43	9.95	1.85	1.47		0.00	0.00
MARBLE FINISHER	All	ALL		41.74	56.44	1.5	1.5	2.0	2.0	14.74	22.81	0.00	1.01	0.00	9.00	12.00
MARBLE SETTER	All	BLD		53.75	59.13	1.5	1.5	2.0	2.0	14.74	24.78	0.00	1.27	0.00	11.96	15.94
MATERIAL TESTER I	All	ALL		43.00		1.5	1.5	2.0	2.0	19.86	18.34	0.00	0.91		0.00	0.00

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MATERIALS TESTER II	All	ALL		48.00		1.5	1.5	2.0	2.0	19.86	18.34	0.00	0.91		0.00	0.00
MILLWRIGHT	All	ALL		58.51	60.51	1.5	1.5	2.0	2.0	14.49	28.26	3.03	1.04		0.00	0.00
OPERATING ENGINEER	All	BLD	1	68.80	72.80	2.0	2.0	2.0	2.0	25.95	22.30	2.00	2.80	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	2	67.50	72.80	2.0	2.0	2.0	2.0	25.95	22.30	2.00	2.80	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	3	64.95	72.80	2.0	2.0	2.0	2.0	25.95	22.30	2.00	2.80	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	4	63.20	72.80	2.0	2.0	2.0	2.0	25.95	22.30	2.00	2.80	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	5	72.55	72.80	2.0	2.0	2.0	2.0	25.95	22.30	2.00	2.80	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	6	69.80	72.80	2.0	2.0	2.0	2.0	25.95	22.30	2.00	2.80	0.00	0.00	0.00
OPERATING ENGINEER	All	BLD	7	71.80	72.80	2.0	2.0	2.0	2.0	25.95	22.30	2.00	2.80	0.00	0.00	0.00
OPERATING ENGINEER	All	FLT	1	78.55	78.55	1.5	1.5	2.0	2.0	25.95	22.30	2.00	2.90	0.00	0.00	0.00
OPERATING ENGINEER	All	FLT	2	77.05	78.55	1.5	1.5	2.0	2.0	25.95	22.30	2.00	2.90		0.00	0.00
OPERATING ENGINEER	All	FLT	3	72.55	78.55	1.5	1.5	2.0	2.0	25.95	22.30	2.00	2.90	0.00	0.00	0.00
OPERATING ENGINEER	All	FLT	4	68.05	78.55	1.5	1.5	2.0	2.0	25.95	22.30	2.00	2.90	0.00	0.00	0.00
OPERATING ENGINEER	All	FLT	5	80.05	78.55	1.5	1.5	2.0	2.0	25.95	22.30	2.00	2.90	0.00	0.00	0.00
OPERATING ENGINEER	All	FLT	6	68.05	78.55	1.5	1.5	2.0	2.0	25.95	22.30	2.00	2.90	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	1	67.00	71.00	1.5	1.5	2.0	2.0	25.95	22.30	2.00	2.80	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	2	66.45	71.00	1.5	1.5	2.0	2.0	25.95	22.30	2.00	2.80	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	3	64.40	71.00	1.5	1.5	2.0	2.0	25.95	22.30	2.00	2.80	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	4	63.00	71.00	1.5	1.5	2.0	2.0	25.95	22.30	2.00	2.80	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	5	61.80	71.00	1.5	1.5	2.0	2.0	25.95	22.30	2.00	2.80	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	6	70.00	71.00	1.5	1.5	2.0	2.0	25.95	22.30	2.00	2.80	0.00	0.00	0.00
OPERATING ENGINEER	All	HWY	7	68.00	71.00	1.5	1.5	2.0	2.0	25.95	22.30	2.00	2.80	0.00	0.00	0.00
ORNAMENTAL IRON WORKER	All	ALL		61.36	65.36	2.0	2.0	2.0	2.0	15.36	28.70	0.00	2.40	0.00	0.00	0.00
PAINTER	All	ALL		56.30	63.34	1.5	1.5	1.5	2.0	16.86	18.24	0.00	1.86	0.00	0.00	0.00
PAINTER - SIGNS	All	BLD		48.16	54.11	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		58.51	60.51	1.5	1.5	2.0	2.0	14.49	28.26	3.03	1.04		0.00	0.00
PIPEFITTER	All	BLD		59.50	62.50	1.5	1.5	2.0	2.0	16.00	23.85	0.00	2.87	0.00	0.00	0.00
PLASTERER	All	BLD		54.98	58.28	1.5	1.5	2.0	2.0	18.50	22.10	0.00	1.25		0.00	0.00
PLUMBER	All	BLD		62.00	65.70	1.5	1.5	2.0	2.0	20.85	18.00	0.00	2.17		0.00	0.00

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ROOFER	All	BLD		53.75	58.75	1.5	1.5	2.0	2.0	12.95	18.19	0.00	1.14	0.00	0.00	0.00
SHEETMETAL WORKER	All	BLD		56.85	62.54	1.5	1.5	2.0	2.0	17.81	29.20	0.00	1.25	0.00	0.00	0.00
SIGN HANGER	All	BLD		38.40	41.47	1.5	1.5	2.0	2.0	8.85	5.10	0.00	0.00	0.00	0.00	0.00
SPRINKLER FITTER	All	BLD		65.45	68.20	1.5	1.5	2.0	2.0	16.45	20.95	0.00	1.20	0.00	0.00	0.00
STEEL ERECTOR	All	ALL		64.19	67.69	2.0	2.0	2.0	2.0	19.80	28.60	0.00	0.44	0.00	0.00	0.00
STONE MASON	All	BLD		54.81	60.29	1.5	1.5	2.0	2.0	14.74	25.51	0.00	1.59	0.00	13.05	17.40
SURVEY WORKER	All	BLD		60.00	61.00	1.5	1.5	2.0	2.0	20.50	14.95	0.00	1.59		0.00	0.00
SURVEY WORKER	All	HWY		60.00	61.00	2.0	2.0	1.5	1.5	20.50	14.95	0.00	1.59		0.00	0.00
TERRAZZO FINISHER	All	BLD		53.44	53.44	1.5	1.5	2.0	2.0	14.00	19.59	0.00	1.14	0.00	13.89	18.52
TERRAZZO MECHANIC	All	BLD		57.35	60.85	1.5	1.5	2.0	2.0	14.00	20.97	0.00	1.50	0.00	14.63	19.50
TRAFFIC SAFETY WORKER I	All	HWY		44.65	46.65	1.5	1.5	2.0	2.0	11.00	10.33	0.00	1.05	0.00	0.00	0.00
TRAFFIC SAFETY WORKER II	ALL	HWY		45.65	47.65	1.5	1.5	2.0	2.0	11.00	10.33	0.00	1.05	0.00	0.00	0.00
TRUCK DRIVER	E	ALL	1	47.55	48.20	1.5	1.5	2.0	2.0	13.50	16.34	0.00	0.35	0.00	0.00	0.00
TRUCK DRIVER	E	ALL	2	47.80	48.20	1.5	1.5	2.0	2.0	13.50	16.34	0.00	0.35	0.00	0.00	0.00
TRUCK DRIVER	E	ALL	3	48.00	48.20	1.5	1.5	2.0	2.0	13.50	16.34	0.00	0.35	0.00	0.00	0.00
TRUCK DRIVER	E	ALL	4	48.20	48.20	1.5	1.5	2.0	2.0	13.50	16.34	0.00	0.35	0.00	0.00	0.00
TRUCK DRIVER	W	ALL	1	46.23	46.78	1.5	1.5	2.0	2.0	12.70	17.11	0.00	0.35	0.00	0.00	0.00
TRUCK DRIVER	W	ALL	2	46.38	46.78	1.5	1.5	2.0	2.0	12.70	17.11	0.00	0.35	0.00	0.00	0.00
TRUCK DRIVER	W	ALL	3	46.58	46.78	1.5	1.5	2.0	2.0	12.70	17.11	0.00	0.35	0.00	0.00	0.00
TRUCK DRIVER	W	ALL	4	46.78	46.78	1.5	1.5	2.0	2.0	12.70	17.11	0.00	0.35	0.00	0.00	0.00
TUCKPOINTER	All	BLD		53.53	54.53	1.5	1.5	2.0	2.0	12.05	23.73	0.00	1.48	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

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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

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-

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

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.

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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 Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump

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

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

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 10/19/2026

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.

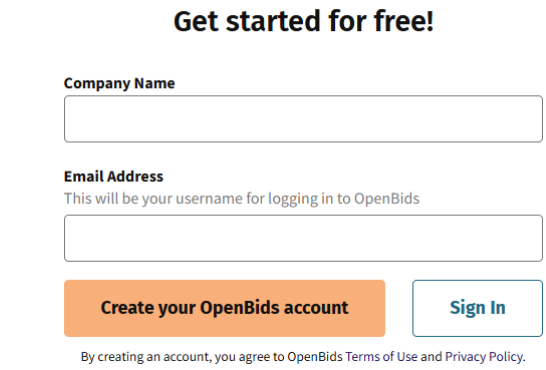
By registering for a complimentary account with Euna OpenBids, you get Instant Access to bids for City of Evanston. Your free Euna OpenBids account provides:

- **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

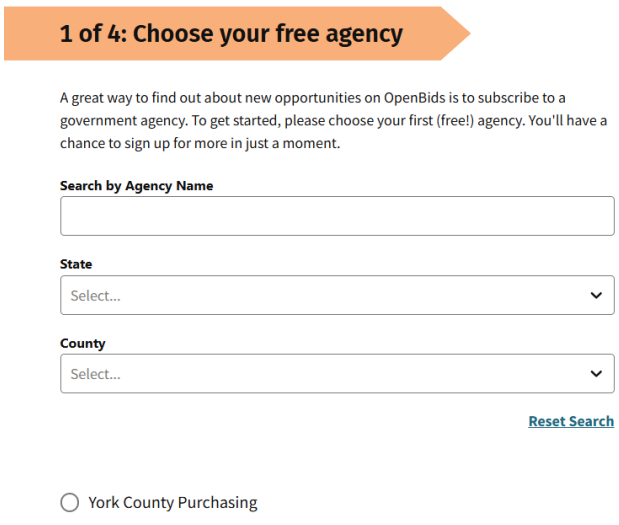
Go to
demandstar.com/registration



STEP 1

CHOOSE YOUR FREE AGENCY

Type "City of Evanston" in the Search Box, select the agency, then click "Next" .

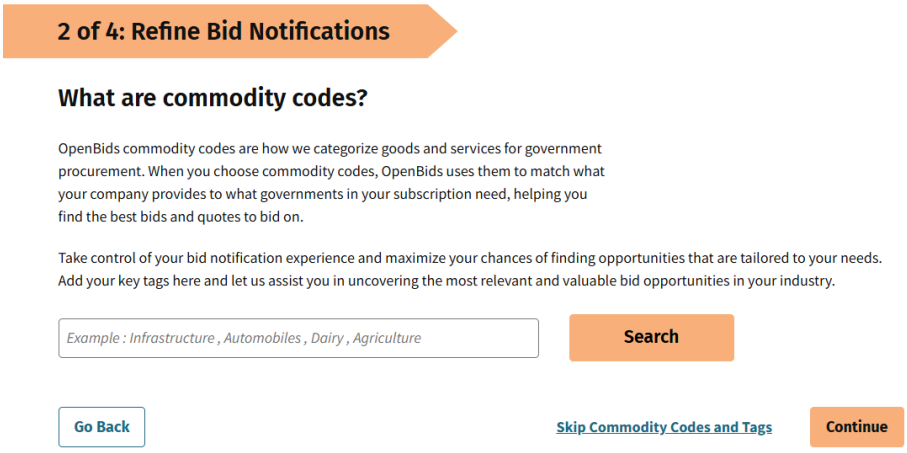


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STEP 2

CHOOSE COMMODITY CODES

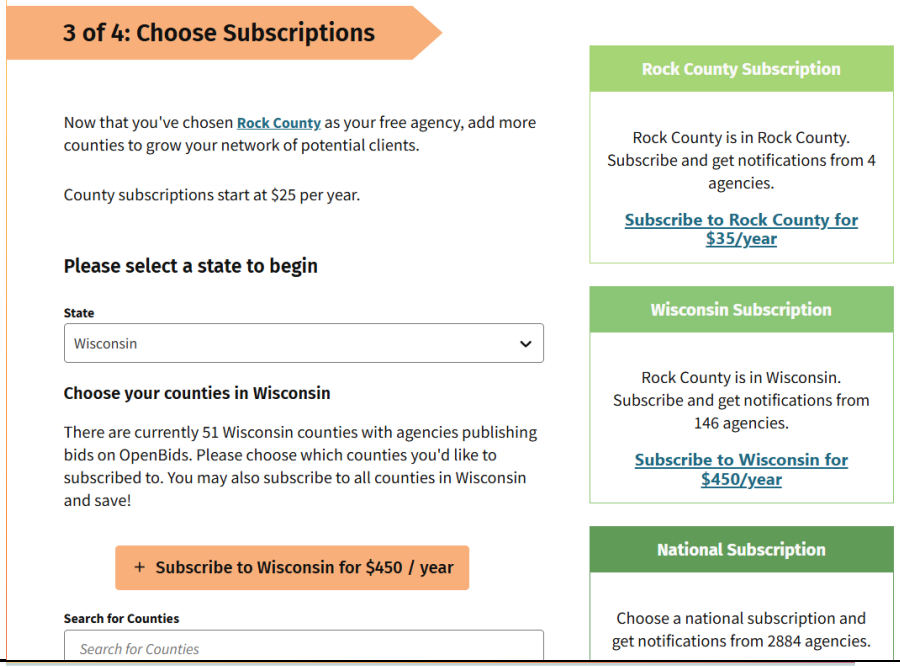
Get notifications – ones that are relevant to your business by describing what you offer via “commodity codes”



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.

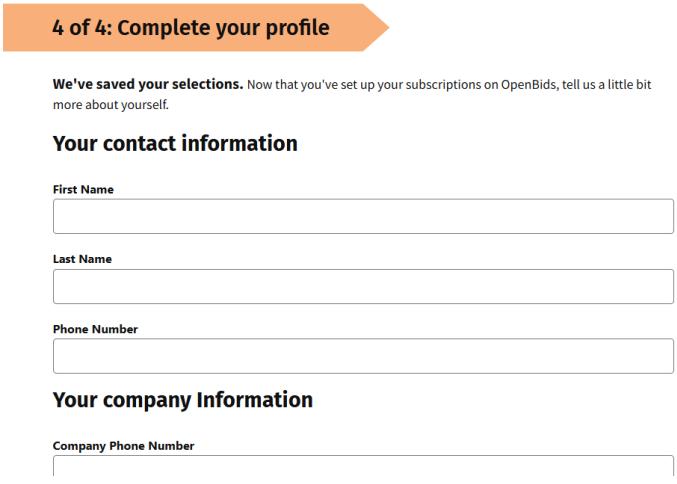


STEP 4

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!



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