

Universal Construction Company, Inc.

1615 Argentine Boulevard | Kansas City, KS 66105 | (913) 342-1150

Kansas City, KS. Public Schools/ USD 500 Wyandotte High School Improvements Construction Manager's Addendum B Date Issued: 2/29/2024

This Addendum shall amend any previously issued documents as indicated on this 1 page, and the below list of attachments. Bidders should acknowledge this Addendum on their Bid Form.

Attachments:

- 1) Replace in its entirety the "Owner's Documents ITB, Instructions, Attachment A, and Attachment B" per the attached consisting of 7 Pages.
- 2) Incite Design Studio's Addendum No. 2 consisting of 20 pages.

CM Clarifications

1) All questions and correspondence regarding this Bid should be submitted to the District's Contact as listed in the Owner's Documents – ITB, Instructions, Attachment A, and Attachment B.

Scope of Work Clarifications: Make Revisions to the Scopes of Work as indicated below.

- 1) CM.002400.033 SOW-033 Cast-In-Place Concrete revise as follows:
 - a) Add Paragraph 6.37 as follows: "Demo of Interior Concrete to accommodate new concrete including but not limited to D4/A1.95, Note D05 on A3/A1.90, Note D03 on C2/A1.92 and associated patching."
- 2) CM.002400.051 SOW-051 Steel revise as follows:
 - a) Revise Paragraph 6.3 In its entirety as follows: "Provide steel tubes where required".
 - b) Add Paragraph 6.11 as follows: "Provide all stainless-steel handrail as required."
- 3) CM.002400.061 SOW-061 Interior Demolition and General Trades revise as follows:
 - a) Revise Paragraph 6.10 in its entirety to read as follows: "Rework existing HM Frame to relocate mullions. The frame is preassembled and is required to be cut field welded/repaired to create new openings. If the frame cannot be reworked provide a new frame. Existing glass can be reused if it is able to be but field verify, if not provide new glass. Doors can be reused, but at least one door may need to be procured due to swing change."
 - b) Add Paragraph 6.15 as follows: "Provide stainless steel escutcheons where handrail brackets are removed from CMU Walls to cover holes. Field verify quantity as necessary."
 - c) Add Paragraph 7.5 as follows: "Demo of interior concrete per details D4/A1.95, Note D05 on A3/A1.90, Note D03 on C2/A1.92 is by others."
- 4) CM.002400.099 SOW-099 Painting
 - a) Add Paragraph 6.4 in its entirety as follows: "Paint the entire frame and all four doors indicated to be reworked." Anticipate the frame will be new. The frame is very tall over 20' field verify height as required.
- 5) CM.002400.310 SOW-310 Site Demo and Earthwork.
 - a) Add Paragraph 6.37 as follows: "At Front Entrance there is a piece of Granite that may need to be removed/cut flush to align with existing if this is the case this should be included in this Scope of Work. Reference attached pictures and or field verify as necessary."
- 6) CM.002400.321 SOW-321 Asphalt Paving
 - a) Revise Paragraph 6.7 as follows: Change the word "deduct" to "add"

<End of CM Addendum B>

www.universalconstruction.net

CM.000000.B 02/29/2024



KANSAS CITY KANSAS PUBLIC SCHOOLS / USD 500

PURCHASING OFFICE | 2010 N. 59th Street | ROOM 370 \ KANSAS CITY, KS 66104 Web Site: <u>www.kckps.org/purchasing</u>

WYANDOTTE HIGH SCHOOL RENOVATIONS					
BID NO:	24-010	ISSUE DATE:	2/15/2024		

Kansas City Kansas Public Schools will receive sealed bids, on this form at the Purchasing Office, 2010 N. 59th Street, Room 370, Kansas City, KS 66104 until **2:00PM**, **3/12/2024**, at which time bids received will be publicly opened and read, all in accordance with bid instructions, specifications and/or bid conditions attached hereto or as shown below.

Contact/Technical Contact:

Wayne Correll, 913-279-2270, Wayne.Correll@kckps.org

BID INSTRUCTIONS:

FAXED BIDS <u>WILL NOT</u> BE ACCEPTED / EMAILED BIDS <u>WILL NOT</u> BE ACCEPTED.

Per attached specifications listed in this invitation to bid. Bidders must specify unit price on services/rates/deliverables on the Bid Form or bid may be determined to be non-responsive.

- Pricing shall be FOB Kansas City, KS (All freight and fuel charges must be included in the bid price).
- Award will be to ONE Contractor per each Scope of Work.
- The District reserves the right to reject any or all bids, to waive any informalities, irregularities or technical defects in bids, and unless otherwise specified by the District to accept any item or groups of items in the bid, as may be in the best interest of the District.
- Time (days, weeks, etc.) required for delivery is a significant consideration with respect to this award process. The time required for delivery must be indicated in the space provided or your bid may be found non-responsive and may not be considered.
- Bid shall include copies of pertinent warranty information pertaining to the product or service offered. The bidder agrees that equipment furnished under any resultant purchase order issued by Kansas City Kansas Public Schools shall be covered by commercial warranties the contractor gives to any customer for such supplies. All warranty information and certificates shall be furnished and become the property of the District upon delivery and acceptance of said items and/or the contractor must honor services and all rights and remedies stated in the warranties.
- All items are new manufacture unless otherwise specifically stated in this bid.
- All products must have passed the first line quality standard as set by the manufacturer and no seconds, blemished articles or items having defective workmanship are included.
- Bid may not be considered if a service charge, minimum dollar or minimum quantity order is applied.
- The outcome of this bid will be posted on the District's Purchasing site <u>www.kckps.org/purchasing</u> under Awards Section and will include a bid tabulation/summary.
- Bidder shall acknowledge all addenda for this bid and include the form acknowledgements with their bid.

SUMMARY OF WORK:

It is the intent of the Kansas City Kansas Public Schools, Kansas City, Kansas to enter into an agreement for Site Improvements and Interior Renovations to Wyandotte High School. KCKPS reserves the right to increase or decrease the approximate amount at each site as needed.

Copies of the bid must be submitted in a sealed envelope with the Wyandotte High School Renovations on the envelope. Any bid form that does not include a separate dollar value for each item will be deemed non-responsive and will not be considered. Any proposal that lists, "\$0", or "no bid" in lieu of a dollar value will be deemed non-responsive and will not be considered.

All work will begin by June 3rd, 2024 and is to be completed prior to August 2nd, 2024.

PRE-BID MEETING A pre-bid meeting will be held: 2/28/2024 @ 1:00PM Wyandotte High School – Meet at NW Corner of East Parking Lot 2501 Minnesota Ave. Kansas City, Kansas 66102 Travel to various sites for "walk-thru" will follow the pre-bid meeting. Attendance is recommended, but not mandatory.

Bid Security

Bid Bond: Bid security shall be submitted with each bid in the amount of five percent (5%) of the bid amount. No bids may be withdrawn for a period of sixty (60) days after opening of bids. Owner reserves the right to reject any and all bids and to waive informalities and irregularities.

Payment & Performance Bond: Bidder agrees to furnish a Payment & Performance Bond, in the amount of 100% (one hundred percent) of total contract value after receipt of contract, if the project value exceeds \$100,000 per <u>KSA 60-1111</u>.

Prevailing Wage/Union

Prevailing Wage <u>IS NOT</u> required. There is <u>no union labor requirement</u> for this solicitation.

Time of Completion

Successful bidder shall begin the Work on receipt of the Notice to Proceed and shall complete the Work (Substantial Completion) no later than **August 2nd**, **2024**.

Liquidated Damages

Completion of this project before August 2nd, 2024 is imperative. At the District's sole discretion, liquidated damages in the amount of Actual Damages per calendar day will be assessed against the Contract if the project is not completed by the date indicated.

Clean-Up

The Contractor will keep the premises free from accumulations of debris and waste materials caused by its

employees in performance of the work. At completion of the project, Contractor shall remove all crating, packaging, waste and debris from the building and the site, and all tools, scaffolding and surplus materials, and shall leave the building and site "broom clean" or its equivalent.

Permits, Codes and Ordinances

Each Contractor shall file and pay for required permits affecting its work (if applicable). Each contractor shall conform to applicable codes and ordinances, including OSHA requirements.

Damage to District Property

Contractor at its own expense shall promptly remedy and repair all damages or loss to any property caused in whole or part by its employees, subcontractor(s), supplier or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable.

No Smoking: The District adheres to the mandatory "No Smoking" policy on school premises and/or at school functions. All bidders shall comply with this "No Smoking" policy.

INCLEMENT WEATHER OR EMERGENCY

IF THERE IS A BUILDING CLOSING THE DAY OF THE OPENING OF PROPOSALS DUE TO INCLEMENT WEATHER OR AN EMERGENCY, THE OPENING OF PROPOSALS WILL OCCUR AT 2:00PM (CENTRAL) THE NEXT BUSINESS DAY THE DISTRICT IS OPEN.

- 1. SCOPE: The following terms and conditions shall prevail unless otherwise modified by U.S.D. 500 within this bid document. U.S.D. 500 reserves the right to reject any bid which takes exception to these terms and conditions.
- 2. DEFINITIONS AS USED HEREIN:
 - a. The term "bid request" means a solicitation of a formal sealed bid.
 - b. The term "bid" means the price offered by the bidder.
 - c. The term "bidder" means the offeror or Contractor.
 - d. The term "U.S.D. 500" means Unified School District No. 500.
 - e. The term "Board of Education" or "BOE" means the governing body of Unified School District No.500
- 3. COMPLETING BID: Bids must be submitted ONLY on the form provided in this bid document. All information must be legible. Any and all corrections and /or erasures must be initialed. Each bid sheet must be signed by the authorized bidder and required information must be provided.
- 4. CONFIDENTIALITY OF BID INFORMATION: Each bid must be sealed and submitted in or under cover of the enclosed envelope to provide confidentiality of the bid information prior to the bid opening. Supporting documents and/or descriptive literature may be submitted with the bid or in a separate envelope marked "Literature for Bid (Number)." Do NOT indicate bid prices on literature. All bids and supporting bid documents become public information after the bid opening and are available for inspection by the general public in accordance with the Kansas Open Records Act.
- 5. ACCURACY OF BID: Each bid is publicly opened and is made part of the public record of U.S.D. 500. Therefore, it is necessary that any and all information presented is accurate and/or will be that by which the bidder will complete the contract. If there is a discrepancy between the unit price and extended total, the unit price will prevail.
- 6. SUBMISSION OF BID: Bids are to be sealed and submitted to the Purchasing Department Office, 2010 North 59th Street, Room 370, Kansas City, Kansas, 66104, prior to the date and time indicated on the cover sheet.
- 7. ADDENDA: All changes in connection with this bid will be issued by the Purchasing Office in the form of a written addendum. Signed acknowledgement of receipt of each addendum must be submitted with the bid.
- 8. LATE BIDS AND MODIFICATION OR WITHDRAWALS: Bids received after the deadline designated in this bid document shall not be considered and shall be returned unopened.
- 9. BIDS BINDING: All bids submitted shall be binding upon the bidder if accepted by U.S.D. 500 within sixty (60) calendar days after the bid opening.
- 10. EQUIVALENT BIDS: When brand or trade names are used in the bid invitation, it is for the purpose of item identification and to establish standards for quality, style and features. Bids on equivalent items of substantially the same quality, style and features are invited unless items are marked "No Substitute." Equivalent bids must be accompanied by descriptive literature and/ or samples may be required and shall be supplied at no charge to the school district.
- 11. NEW MATERIALS, SUPPLIES AND EQUIPMENT: Unless otherwise specified, all materials, supplies or equipment offered by a bidder shall be new, unused, of recent manufacture, first class in every respect, and suitable for their intended purpose. All equipment shall be assembled and fully serviced, ready for operation when delivered.
- 12. WARRANTY: Supplies or services furnished as a result of this bid shall be covered by the most favorable commercial warranties, expressed or implied, that the bidder and/or manufacturer gives to any customer. The rights and remedies provided herein are in addition to and do not limit any rights afforded to U.S.D. 500 by any other clause of this bid reserves the right to request from bidders a separate manufacturer certification of all statements made in the Proposal.
- 13. METHOD OF AWARD AND NOTIFICATION: Bids will be analyzed and the award made to the lowest and best, responsive and responsible bidder(s) whose bid conforms to the specifications and whose bid is considered to be the best value in the opinion of U.S.D. 500.
- 14. U.S.D. 500 reserves the right to reject any or all bids and any part of a bid: to waive informalities, technical defects, and minor irregularities in bids received: and to award the bid on an item by item basis by specified groups of items or to consider bids submitted on an "all or nothing "basis if the bid is clearly designed as such or when it is determined to be in the best interest of U.S.D. 500.
- 15. The signed bid shall be considered an offer on the part of the bidder: such offer shall be deemed accepted upon the issuance by U.S.D. 500 of a Purchase Order or other contractual document.
- 16. DELIVERY TERMS: All deliveries shall be F.O.B. Destination and all freight charges shall be included in the bid price.
- 17. DAMAGED AND/OR LATE SHIPMENTS: U.S.D 500 has no obligation to accept damaged shipments and reserves the right to return at the Contractor's expense damaged merchandise even though the damage was not apparent or discovered until after receipt of the items. The Contractor is responsible to notify U.S.D. 500 Purchasing Office of any late or delayed shipments. U.S.D. 500 reserves the right to cancel all or any part of an order if the shipment is not made as promised.
- 18. CREDIT TERMS: Bidder shall indicate all discounts for full and/or prompt payment. Discounts shall be considered as a cost factor in the determination of award, except discounts offered for payment within less than ten (10) calendar days. Discounts offered shall be computed from date of receipt of correct invoice or receipt and acceptance of products, whichever is later.
- 19. SELLER'S INVOICE: Invoices shall be prepared and submitted in duplicate to address shown on the Purchase Order. Invoices shall contain the following information: Purchase Order number, contract number, item number, description of supplies or services, sizes, unit of measure, quantity, unit price and extended totals.
- 20. TAX EXEMPT: U.S.D. 500 is exempt from Federal, State and local taxes by KS-FZLEKBLQ. Sites of all transactions under the order(s) that shall be derived from this bid request shall be deemed to have been accomplished within the State of Kansas.
- 21. SAFETY: All practices, materials, supplies and equipment shall comply with the federal Occupational Safety and Health Act, as well as any pertinent Federal, State and/or local safety or environmental codes.
- 22. DISCLAIMER OR LIABILITY: U.S.D. 500 will not hold harmless or indemnify any bidder for any liability whatsoever.
- 23. TERMINATION RIGHTS: KCKPS shall have the right to terminate/cancel the Agreement for its convenience and without penalty upon thirty (30) days prior written notice to the Contractor.

24. HOLD HARMLESS: The Contractor agrees to protect, defend, indemnify and hold the Board of Education, its officers, employees and agents fee and harmless from and against any and all losses, penalties, damages, settlements, costs, charges, professional fees or other expenses or liabilities or every kind and character arising out of or relating to any and all claims, liens, demands, obligations, actions, proceedings or causes of action of every kind and character in connection with or arising directly or indirectly out of this agreement and/or the performance hereof. Without limiting the generality of the foregoing, any and all such claims, etc., relating to personal injury, infringement of any patent trademark, copyright (or application for any thereof) or of any other tangible or intangible personal or property right, or actual or alleged violation of any applicable statute, ordinance, administrative order, rule or regulation, or decree of any court, shall be included in the indemnity hereunder. The Contractor further agrees to investigate, handle, respond to, provide defense for and defend any such claims, etc., at his/her sole expense and agrees to bear all other costs and expenses related thereto, even if such claim is groundless, false or fraudulent.

NO MUTUAL INDEMNIFICATION:

K.S.A.72-8201a: Contracts; indemnification or hold harmless provisions, void.

(a) It is the public policy of the state of Kansas that all contracts entered into by the board of education of a school district, or any officers or employees thereof acting on behalf of the board, provide that the school district and board of education shall be responsible solely for the district's or board's actions or failure to act under a contract.

(b) The board of education of a school district or any officers or employees thereof acting on behalf of the board shall not have the authority to enter into a contract under which the school district or board agrees to, or is required to, indemnify or hold harmless against damages, injury or death resulting from the actions or failure to act on the part of any party to a contract other than the board or district.

(c) The provisions of any contract entered into in violation of this section shall be contrary to the public policy of the state of Kansas and shall be void and unenforceable.

- 25. INSURANCE: Upon receipt of award, Contractor shall provide Certificate of Insurance as required within three (3) days after notification issued by the Purchasing Department.
 - A. The following general insurance requirements apply to any and all work under this contract by all Contractors and subcontractors of any tier.
 - (1) Any and all insurance required by this contract with each and any and all insurance required by this contract shall be maintained during the entire length of this contract, including any extensions thereto, and until all work has been completed to the satisfaction of the Kansas City Kansas Public Schools. Any and all insurance must be on an occurrence basis.
 - (2) No Contractor or subcontractor shall commence work under a contract until all insurance requirements contained within the solicitation have been complied with and until evidence of all insurance requirements in each and every contract with each and every subcontractor of any tier and shall require the same to comply with all such requirements.
 - (3) The Kansas City Kansas Public Schools shall be covered as an Additional Insured under any and all insurance required by this contract. Confirmation of this shall appear on all certificates of insurance and on any and all applicable policies. The title of the awarded contract shall also appear on any and all applicable policies.
 - (4) The Kansas City Kansas Public Schools shall be given no less than thirty (30) days' written notice of cancellation. The Kansas City Kansas Public Schools shall be given not less than thirty (30) days' prior written notice of material changes of any insurance required under this contract. The Kansas City Kansas Public Schools shall be given written notice of renewal of coverage not less than thirty (30) days prior to the expiration of any particular policy.
 - (5) Each and every agent shall warrant when signing the certificate of insurance that he is acting as an authorized representative on behalf of the companies affording insurance coverage under the contract and that he is licensed by the State of Kansas to conduct insurance business in the State of Kansas and that the companies affording insurance coverage are currently licensed by the State of Kansas and are currently in good standing with the Commissioner of Insurance for the State of Kansas.
 - (6) Any and all companies providing insurance required by this contract shall meet the minimum financial security requirements as set forth below. The rating for each company must be indicated on the certificate of insurance.

For all contracts, regardless of risk, companies providing insurance under this contract must have a current:

- (a) Best's Rating not less than A, and
- (b) Best's Financial Size Category not less than Class VII
 - (7) In the event the Contractor neglects, refuses, or fails to provide insurance required by the contract documents, or if such insurance is canceled for any reason, Kansas City Kansas Public Schools shall have the right, but not the duty, to procure the same, and the cost thereof shall be deducted from monies then due or thereafter to become due to the Contractor or Kansas City Kansas Public Schools shall have the right to cancel the contract.
- 8. Worker's Compensation and Employer's Liability Insurance

The Contractor shall procure and maintain Worker's Compensation and Employer's Liability Insurance in the following limits. Such insurance is to cover each and every employee who is or may be engaged in work under this contract.

Worker's Compensation	Statutory
Employer's Liability	
Bodily Injury by Accident	\$1,000,000 each accident
Bodily Injury by Disease	\$1,000,000 each employee
Bodily Injury by Disease	\$1,000,000 policy limit

- C. Comprehensive General Liability Insurance The Contractor shall procure and maintain Comprehensive Insurance in an amount not less than \$1,000,000 for bodily injury and property damage combined single limit. The following specific extensions of coverage shall be provided and indicated on the certificate of insurance:
- (1) Comprehensive Form
- (2) Contractual Insurance

- (3) Personal Injury
- (4) Broad Form Property Damage
- (5) Premises Operations
- (6) Completed Operations

This coverage shall cover the use of all equipment, hoists, and vehicles on the site(s) not covered by Automobile Liability under this contract. Policy coverage must be on an occurrence basis.

D. Automobile Liability Insurance

The Contractor shall procure and maintain Automobile Liability Insurance in an amount not less than \$1,000,000 for bodily injury and property damage combined single limit. The following extensions of coverage shall be provided and indicated on the certificate of insurance.

- (1) Comprehensive Form
- (2) Owned, Hired, Leased and non-owned vehicles

If the Contractor does not own any vehicles in the corporate name, non-owned vehicles coverage shall apply and must be endorsed on either the Contractor's personal automobile policy or the Comprehensive General Liability coverage required under this contract.

- E. Commercial Crime insurance (when applicable) The Contractor shall procure and maintain Commercial Crime/Fidelity insurance in an amount not less than \$1,000,000.00, including coverage for theft or loss of KCKPS property.
- 26. LAW GOVERNING: All contractual agreements shall be subject to, governed by, and construed according to the laws of the State of Kansas.
- 27. ANTI-DISCRIMINATION CLAUSE: No bidder on this request shall in any way, directly or indirectly, discriminate against any person because of age, race, color handicap, sex, national origin, or religious creed.
- 28. BID BOND/PERFORMANCE BOND (Applicable to Construction/Remodel/Repair Projects, Unless Waived by the District)
 - A. Each proposal must be accompanied by a certified or cashier's check, or a bid bond in the amount of five percent (5%) of the Contractor's total bid.
 - B. A Performance Bond and a Material and Labor Payment Bond in amounts equal to one hundred percent (100%) of the contract price shall be furnished by the successful bidder. Bonds shall be issued by a surety acceptable to the Board.
- 29. DISQUALIFICATION:
 - A. The Director of Purchasing may, at her/his sole discretion, disqualify a bidder for one or any combination of the following reasons:
 - 1. Bidder's product does not meet the specifications or bid conditions of the solicitation;
 - 2. Bidder's tendered bid is not received on the District's bid form;
 - 3. Bidder's tendered bid is not signed;
 - 4. Required bid bond is not furnished at time of bid opening;
 - 5. Failure to comply with bid instructions, terms and conditions that are judged to be essential to the competitive process and in the best interests of the District.
 - B. Disqualification of bidders on future bids may be considered for any one or combination of the following reasons:
 - 1. Refusal of the bidder to complete a contract or bid;
 - 2. Bidder's past history of late deliveries or partial/incomplete shipments,
 - 3. Bidder's products or services have proven unreliable, unworkable or have not accomplished the result requested in the District's specifications.
- 30. SUPPLIER DIVERSITY: The Kansas City Kansas Public Schools encourages supplier diversity and participation of MBE/WBE/DBE designated businesses. However, such participation will not result in any selection or scoring advantage in the bid evaluation process.

INCLEMENT WEATHER OR EMERGENCY

IF THERE IS A BUILDING CLOSING THE DAY OF THE OPENING OF PROPOSALS DUE TO INCLEMENT WEATHER OR AN EMERGENCY, THE OPENING OF PROPOSALS WILL OCCUR AT 2:00PM (CENTRAL) THE NEXT BUSINESS DAY THE DISTRICT IS OPEN.

ATTACHMENT B - CONTRACTUAL PROVISIONS ATTACHMENT

Important: This form contains mandatory contract provisions and must be attached to or incorporated in all copies of any contractual agreement. If it is attached to the vendor/contractor's standard contract form, then that form must be altered to contain the following provision:

"The Provisions found in Contractual Provisions Attachment (Form DA-146a, Rev. 06-12), which is attached hereto, are hereby incorporated in this contract and made a part thereof."

The parties agree that the following provisions are hereby incorporated into the contract to which it is attached and made a part thereof, said contract being the date of the Purchase Order issued.

- 1. <u>Terms Herein Controlling Provisions</u>: It is expressly agreed that the terms of each and every provision in this attachment shall prevail and control over the terms of any other conflicting provision in any other document relating to and a part of the contract in which this attachment is incorporated. Any terms that conflict or could be interpreted to conflict with this attachment are nullified.
- 2. Kansas Law and Venue: This contract shall be subject to, governed by, and construed according to the laws of the State of Kansas, and jurisdiction and venue of any suit in connection with this contract shall reside only in courts located in the State of Kansas.
- 3. Termination Due to Lack of Funding Appropriation: If, in the judgment of the Director of Accounts and Reports, Department of Administration, sufficient funds are not appropriated to continue the function performed in this agreement and for the payment of the charges hereunder, State may terminate this agreement at the end of its current fiscal year. State agrees to give written notice of termination to contractor at least thirty (30) days prior to the end of its current fiscal year, and shall give such notice for a greater period prior to the end of such fiscal year as may be provided in this contract, except that such notice shall not be required prior to ninety (90) days before the end of such fiscal year. Contractor shall have the right, at the end of such fiscal year, to take possession of any equipment provided State under the contract. State will pay to the contractor all regular contractual payments incurred through the end of such fiscal year, plus contractual charges incidental to the return of any such equipment. Upon termination of the agreement by State, title to any such equipment shall revert to contractor.
- 4. Disclaimer of Liability: No provision of this contract will be given effect that attempts to require the State of Kansas or its agencies to defend, hold harmless, or indemnify any contractor or third party for any acts or omissions. The liability of the State of Kansas is defined under the Kansas Tort Claims Act (K.S.A. 75-6101 etseq.).
- 5. Anti-Discrimination Clause: The contractor agrees: (a) to comply with the Kansas Act Against Discrimination (K.S.A. 44-1001 et seq.) and the Kansas Age Discrimination in Employment Act (K.S.A. 44-1111 et seq.) and the applicable provisions of the Americans With Disabilities Act (42 U.S.C. 12101 et seq.) (ADA) and to not discriminate against any person because of race, religion, color, sex, disability, national origin or ancestry, or age in the admission or access to, or treatment or employment in, its programs or activities; (b) to include in all solicitations or advertisements for employees, the phrase "equal opportunity employer"; (c) to comply with the reporting requirements set out at K.S.A. 44-1031 and K.S.A. 44-1116; (d) to include those provisions in every subcontract or purchase order so that they are binding upon such subcontractor or vendor; (e) that a failure to comply with the reporting requirements of (c) above or if the contractor is found guilty of any violation of such acts by the Kansas Human Rights Commission, such violation shall constitute a breach of contract and the contract may be cancelled, terminated or suspended, in whole or in part, by the contracting state agency or the Kansas Department of Administration; (f) if it is determined that the contract may be cancelled, terminated or suspended, in whole or in part, by the contract and the contract may be cancelled, terminated or suspended, in whole or in part, by the contract may be cancelled, terminated or suspended, in whole or in part, by the contract may be cancelled, terminated or suspended, in whole or in part, by the contract may be cancelled, terminated or suspended, in whole or in part, by the contract may be cancelled, terminated or suspended, in whole or in part, by the contract may be cancelled, terminated or suspended, in whole or in part, by the contract may be cancelled, terminated or suspended, in whole or in part, by the contract may be cancelled, terminated or suspended, in whole or in part, by the contract may be

Contractor agrees to comply with all applicable state and federal anti-discrimination laws.

The provisions of this paragraph number 5 (with the exception of those provisions relating to the ADA) are not applicable to a contractor who employs fewer than four employees during the term of such contract or whose contracts with the contracting State agency cumulatively total \$5,000 or less during the fiscal year of such agency.

- 6. Acceptance of Contract: This contract shall not be considered accepted, approved or otherwise effective until the statutorily required approvals and certifications have been given.
- 7. <u>Arbitration, Damages, Warranties</u>: Notwithstanding any language to the contrary, no interpretation of this contract shall find that the State or its agencies have agreed to binding arbitration, or the payment of damages or penalties. Further, the State of Kansas and its agencies do not agree to pay attorney fees, costs, or late payment charges beyond those available under the Kansas Prompt Payment Act (K.S.A. 75-6403), and no provision will be given effect that attempts to exclude, modify, disclaim or otherwise attempt to limit any damages available to the State of Kansas or its agencies at law, including but not limited to the implied warranties of merchantability and fitness for a particular purpose.
- 8. <u>Representative's Authority to Contract</u>: By signing this contract, the representative of the contractor thereby represents that such person is duly authorized by the contractor to execute this contract on behalf of the contractor and that the contractor agrees to be bound by the provisions thereof.
- 9. <u>Responsibility for Taxes</u>: The State of Kansas and its agencies shall not be responsible for, nor indemnify a contractor for, any federal, state or local taxes which may be imposed or levied upon the subject matter of thiscontract.
- 10. <u>Insurance</u>: The State of Kansas and its agencies shall not be required to purchase any insurance against loss or damage to property or any other subject matter relating to this contract, nor shall this contract require them to establish a "self-insurance" fund to protect against any such loss or damage. Subject to the provisions of the Kansas Tort Claims Act (K.S.A. 75-6101 et seq.), the contractor shall bear the risk of any loss or damage to any property in which the contractor holdstitle.
- 11. Information: No provision of this contract shall be construed as limiting the Legislative Division of Post Audit from having access to information pursuant to K.S.A. 46-1101 et seq.
- 12. The Eleventh Amendment: "The Eleventh Amendment is an inherent and incumbent protection with the State of Kansas and need not be reserved, but prudence requires the State to reiterate that nothing related to this contract shall be deemed a waiver of the Eleventh Amendment."
- 13. <u>Campaign Contributions / Lobbying</u>: Funds provided through a grant award or contract shall not be given or received in exchange for the making of a campaign contribution. No part of the funds provided through this contract shall be used to influence or attempt to influence an officer or employee of any State of Kansas agency or a member of the Legislature regarding any pending legislation or the awarding, extension, continuation, renewal, amendment or modification of any government contract, grant, loan, or cooperative agreement.



ADDENDUM No. 2

Project:Wyandotte High School RenovationDate02/28/2024Project Number24-304

iDS – incite Design Studio, LLC 7200 W. 75th Street Overland Park, KS 66204 (913) 381-4437

NOTICE TO BIDDERS: Amend the Project Manuals and Drawings to the above referenced project as follows:

DRAWINGS

GENERAL

ITEM NO. 1 - G1.00 – SHEET INDEX

- a. Add sheet C21
- b. Revise sheet numbers C22-C27.

<u>CIVIL</u>

ITEM NO. 2 - C01 – COVER SHEET

- a. A new sheet was added to the plan set.
- b. The quantities were updated for the new plans.

ITEM NO. 3 - C04 – DEMOLITION PLAN

a. The west portion of demolition work was removed from the plans.

ITEM NO. 4 - C06 – UTILITY PLAN

- a. The proposed storm sewer was removed from the plans.
- b. The light poles and bollards on the west side were removed from the plans.

ITEM NO. 5 - C08 – PAVING PLAN

- a. The west side of the parking lot was removed from the plans.
- b. The parking lot no longer has a drive through lane and the parking lot now dead ends.
- c. The western ADA stalls were moved to the east.

ITEM NO. 6 - C11 – GRADING PLAN

a. The grading was updated for the new parking layout.

ITEM NO. 7 - C13 – EROSION CONTROL PLAN

a. The erosion control plan was updated for the new parking layout.

ITEM NO. 8 - C19 – RETAINING WALL PLAN & GEN. NOTES – DOCK

a. A step in the retaining wall footing was added for the RCP.



- ITEM NO. 9 C21 RETAIN WALL DETAILS 2 DOCK
 - a. Add sheet in its entirety.
- ITEM NO. 10 C22 311000 SITE CLEARING
 - a. Revise sheet number.
- ITEM NO. 11 C23 312000 EARTH MOVING
 - a. Revise sheet number.
- ITEM NO. 12 C24 321216 ASPHALT PAVING
 - a. Revise sheet number
- ITEM NO. 13 C25 321313 CONCRETE PAVING
 - a. Revise sheet number.
- ITEM NO. 14 C26 321373 CONCRETE PAVING JOINT SEALANTS
 - a. Revise sheet number.
- ITEM NO. 15 C27 334100 STORM UTILITY DRAINAGE PIPING
 - a. Revise sheet number.
- ITEM NO. 16 L01 LANDSCAPE PLAN
 - a. The landscaping plan was updated for the new parking layout.
- ITEM NO. 17 E01 ELECTRICAL LIGHTING PHOTOMETRICS PLAN
 - a. Lighting on the west side was removed from the plans.
 - b. The photometrics were updated for the new parking lot layout.

ARCHITECTURAL

ITEM NO. 18 - AS1.00 - ARCHITECTURAL SITE PLAN - OVERALL

a. Remove portion of new parking lot for existing conditions to remain.

*If you have any questions about the release of this addendum, please contact:

Anthony Winkelmann (913) 381-4437 awinkelmann@incitedesignstudio.com

END OF ADDENDUM NO. 2

WYANDOTTE HIGH SCHOOL RENOVATION **UNIFIED PUBLIC SCHOOL DISTRICT #500**

PERMIT SET 1/31/2024

DRAWING INDEX

GENERAL	
G1.00	SHEET INDEX
G1.01	SYMBOLS & ABBREVIATIONS
G2.00	CODE PLAN
G3.00	SPECIFICATIONS
CIVIL	
C01	COVER SHEET
C02	EXISTING CONDITIONS PLAN
C03	EXISTING CONDITIONS PLAN - DOCK
C04	DEMOLITION PLAN
C05	DEMOLITION PLAN - DOCK
C06	UTILITY PLAN
C07	UTILITY PLAN - DOCK
C08	PAVING PLAN
C09	PAVING PLAN - DOCK
C10	JOINTING PLAN - DOCK
C11	GRADING PLAN
C12	GRADING PLAN - DOCK
C13	EROSION CONTROL PLAN
C14	EROSION CONTROL PLAN - DOCK
C15	UTILITY DETAILS
C16	PAVING DETAILS
C17	EROSION CONTROL DETAILS 1
C18	EROSION CONTROL DETAILS 2
C19	RETAINING WALL PLAN & GEN. NOTES - DOCK
C20	RETAINING WALL DETAILS - DOCKS
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1 C22 \int	311000 SITE CLEARING
(C23)	312000 EARTH MOVING
(C24)	321216 ASPHALT PAVING
C25	321313 CONCRETE PAVING
C26	321373 CONCRETE PAVING JOINT SEALANTS
(C27)	334100 STORM UTILITY DRAINAGE PIPING
L01	LANDSCAPE PLAN
L02	LANDSCAPE DETAILS & NOTES
E01	ELECTRICAL LIGHTING PHOTOMETRICS PLAN

ARCHITECTURAL

E0.00 E0.01 E0.02 E1.00

E1.10

E2.00

E2.10

E3.00

A C 1 10	
AS1.10	ENTRY RAMP AND DETAILS
AS1.00	ARCHITECTURAL SITE PLAN - OVERALL
A1.00	LOWER LEVEL FLOOR PLAN - OVERALL
A1.10	MAIN LEVEL FLOOR PLAN - OVERALL
A1.90	PAC LIFT AND DETAILS
A1.91	EAST STAIRS AND DETAILS
A1.92	GYM RAMP AND DETAILS
A1.93	SOUTH STAIRS AND DETAILS
A1.95	PAC MAIN LEVEL SEATING AND STAGE LIFT
A1.96	PAC BALCONY LEVEL SEATING ENLARGED PLAN
A1.97	GYM SEATING
ELECTRICAL	
E0.00	ELECTRICAL GENERAL NOTES, SYMBOLS AND SCHEDULES
E0.01	ELECTRICAL SHEET SPECIFICATIONS
E0.02	ELECTRICAL SHEET SPECIFICATIONS

LOWER LEVEL ELECTRICAL PLAN - OVERALL

MAIN LEVEL ELECTRICAL PLAN - OVERALL

LOWER LEVEL ENLARGED POWER PLANS

MAIN LEVEL ENLARGED POWER PLANS

ELECTRICAL PANEL SCHEDULES

ARCHITECT



INCITE DESIGN STUDIO, LLC 7200 WEST 75TH STREET **OVERLAND PARK, KS 66204** PHONE: 913-381-4437

5

CIVIL ENGINEER



MKEC ENGINEERING, INC. 11827 W 112TH STREET OVERLAND PARK, KS 66210 PHONE: 913-317-9390

MEP ENGINEER



RTM ENGINEERING CONSULTANTS 9225 INDIAN CREEK PKWY., SUITE 1075 **OVERLAND PARK, KS 66210** PHONE: 913-322-1400

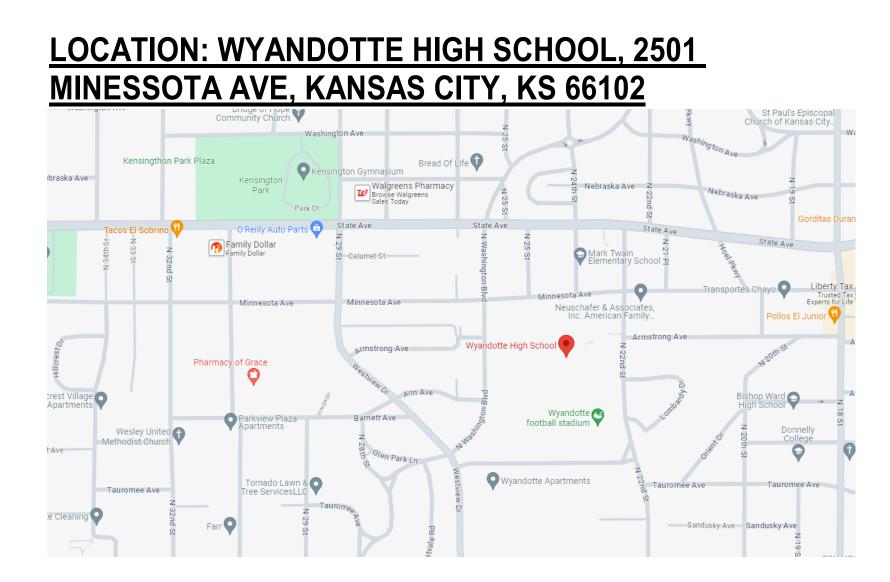
4

CONSTRUCTION MANAGER



UNIVERSAL CONSTRUCTION 1615 ARGENTINE BLVD KANSAS CITY, KS 66105 PHONE: 913-342-1150

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D	 Discrete Design Studio, architects building relationships Architect NCITE DESIGN STUDIO 7200 WEST 75TH STREET OVERLAND PARK, KS 66204 91.381.4437 Divi MKEC ENGINEERING, INC. 11827 W 112TH STREET OVERLAND PARK, KS 66210 91.3.17.9390 Mch., Plumb., Elec., Telecom. RTM ENGINEERING CONSULTANTS 925 INDIAN CREEK PKWY., SUITE 1075 OVERLAND PARK, KS 66210 91.3.22.1400 MIVERSAL CONSTRUCTION 1615 ARGENTINE BLVD KANSAS CITY, KS 66105 91.3.342.1150
С	Licensed Architect DUANE CASH License KS #7083 Cert. of Authority A-543 INCITE DESIGN STUDIO, LLC
	SCHOOL RENOVATION 2501 MINNESOTA AVENUE KANSAS CITY, KS Project Phase PERMIT SET
В	Project Number 24-304 Issue Date 1/31/2024
	Revision No. Description Date Issued
	1 ADD #2 02/28/2024
	Area Plan
A	Sheet Name SHEET INDEX
	Sheet Number
	in \bullet cite v. to provoke thought

1

GENERAL NOTES:

- 1. THE CONTRACTOR, PRIOR TO ANY EXCAVATION OR NEW CONSTRUCTION, SHALL HAVE UTILITIES FIELD LOCATED BY THE APPROPRIATE UTILITY COMPANY AND/OR CITY/COUNTY DEPARTMENT.
- 2. EXISTING UTILITIES AND THEIR LOCATION, AS SHOWN ON THESE PLANS, REPRESENTS THE BEST INFORMATION AVAILABLE TO THE ENGINEER. LOCATION INFORMATION HAS BEEN OBTAINED FROM THE VARIOUS UTILITY COMPANIES AND IS EITHER FROM COMPANY RECORD DRAWINGS OR COMPANY PROVIDED FIELD LOCATIONS. HOWEVER, ALL UTILITIES ACTUALLY EXISTING MAY NOT BE SHOWN. THE CONTRACTOR IS RESPONSIBLE FOR FIELD LOCATING ALL UTILITIES WHETHER THESE UTILITIES ARE SHOWN ON THE PLANS, NOT SHOWN ON THE PLANS, OR SHOWN INCORRECTLY. UTILITIES DAMAGED THROUGH THE FAILURE OF THE CONTRACTOR TO OBTAIN THE LOCATION OF THOSE UTILITIES SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT HIS EXPENSE. THE CONTRACTOR SHALL, PRIOR TO ANY EXCAVATION OR NEW CONSTRUCTION, HAVE ALL UTILITIES FIELD LOCATED BY THE APPROPRIATE UTILITY COMPANY, CITY OR COUNTY DEPARTMENT, OR ONE-CALL SERVICE.
- 3. THE SITE PLAN IS BASED ON A SURVEY OF THE SITE. CONDITIONS OF THE SITE AT THE TIME OF CONSTRUCTION MAY VARY FROM THE SURVEYED CONDITIONS. CONTRACTOR TO VERIFY EXISTING SITE CONDITIONS PRIOR TO CONSTRUCTION.
- 4. ALL MANHOLES, CATCH BASINS, UTILITY VALVES AND METER PITS SHALL BE ADJUSTED OR REBUILT TO GRADE AS REQUIRED.
- 5. NO CHANGES TO THE APPROVED CONSTRUCTION PLANS WILL BE PERMITTED WITHOUT PRIOR APPROVAL OF THE DESIGN ENGINEER.
- 6. IF BLASTING IS REQUIRED DURING CONSTRUCTION, THE CONTRACTOR SHALL CONTACT THE APPROPRIATE AGENCIES TO OBTAIN THE REQUIRED PERMITS. IF BLASTING IS ALLOWED, THE CONTRACTOR SHALL PERFORM BLASTING OPERATIONS ACCORDING TO STATE REGULATIONS AND LOCAL ORDINANCES.
- 7. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PRESERVING PROPERTY PINS. THE CONTRACTOR WILL BE REQUIRED TO RE-ESTABLISH ANY PROPERTY PINS WHICH ARE DAMAGED OR DESTROYED BY HIS CONSTRUCTION OPERATIONS. SUCH PINS SHALL BE RE-ESTABLISHED BY A LICENSED LAND SURVEYOR IN ACCORDANCE WITH STATE LAWS.
- 8. CONTRACTOR TO HAVE REGISTERED LAND SURVEYOR RESET SECTION CORNER MONUMENT IF DISTURBED DURING CONSTRUCTION.
- 9. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL QUANTITIES, DIMENSIONS, AND PLAN SCALES AND SHALL IMMEDIATELY NOTIFY THE OWNER/ENGINEER/ARCHITECT OF ANY SUCH DISCREPANCIES. ALL QUANTITIES, DIMENSIONS, AND PLAN SCALES PROVIDED ARE FOR GENERAL INFORMATION PURPOSES ONLY. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING ALL QUANTITIES NECESSARY FOR THE COMPLETION OF THE WORK AS DESCRIBED THE CONSTRUCTION DOCUMENTS. THE CONTRACTOR SHALL BE RESPONSIBLE TO PROVIDE THE WORK DESCRIBED IN THE CONSTRUCTION DOCUMENTS IRRESPECTIVE OF THE QUANTITIES, DIMENSIONS, AND PLAN SCALES NOTED, NOT NOTED, OR NOTED INCORRECTLY.
- 10. ANY CURB, GUTTER, SIDEWALKS, AND PAVING THAT IS DAMAGED IN EXCESS OF THE CONSTRUCTION SHOWN IN THIS PLAN SET SHALL BE REPLACED AT THE CONTRACTORS EXPENSE.
- 11. ALL REMOVALS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF PER APPLICABLE STANDARDS (UNLESS OTHERWISE NOTED).
- 12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING TRAFFIC CONTROL WHEN WORKING WITHIN THE PUBLIC RIGHT-OF-WAY. ALL SUCH TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL" AND/OR LOCAL JURISDICTION SPECIFICATIONS. THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING ALL TRAFFIC CONTROL DEVICES. THE CONTRACTOR SHALL ENSURE ALL TRAFFIC CONTROL DEVICES ARE CLEAN. PROPERLY VISIBLE, OPERATING CORRECTLY, AND LOCATED PROPERLY. THE CONTRACTOR SHALL IMMEDIATELY REPLACE ANY DAMAGED, DEFACED, OR INOPERABLE, OR MISSING TRAFFIC CONTROL DEVICES.
- 13. THE CONTRACTOR IS TO PROVIDE PERMANENT SEEDING, FERTILIZING, MULCHING OR SODDING OF ALL DISTURBED AREAS. THIS WORK TO BE DONE IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
- 14. ALL SITE WORK FOR THIS PROJECT IS CONSIDERED "UNCLASSIFIED." THE TERM "UNCLASSIFIED" EXCAVATION SHALL BE DEFINED AS MEANING THE SITE CONTRACTOR BEARS THE ENTIRE RISK OF THE SOIL QUANTITIES AND/OR TYPES (E.G. ROCK, CLAY, PEAT, SILT, SHALE, ETC.) ENCOUNTERED ABOVE THE BOTTOM OF REQUIRED EXCAVATIONS AND OVER-EXCAVATED / TREATED SOILS AREAS. ABOVE THE BOTTOM OF REQUIRED EXCAVATIONS, THE SITE CONTRACTOR SHALL BEAR THE ENTIRE COST OF SUCH ADDITIONAL WORK IN THE EVENT IT BECOMES NECESSARY FOR UNSUITABLE SOILS TO BE HANDLED, REMOVED FROM THE SITE, OR FOR SUITABLE FILL MATERIAL TO BE IMPORTED TO THE SITE. THIS DEFINITION OF "UNCLASSIFIED" SUPERSEDES ANY CONTRARY DEFINITIONS OR STATEMENTS WHICH MAY BE CONTAINED IN THE SPECIFICATIONS, PLANS, OR OTHER CONTRACT DOCUMENTS. THE UNCLASSIFIED SITE SHALL INCLUDE ALL WORK ABOVE THE BOTTOM OF REQUIRED EXCAVATIONS AND/OR REQUIRED SOIL REMEDIATION/REPLACEMENT.
- 15. PROPOSED CONTOURS SHOWN ON THESE PLANS ARE FINAL SURFACE CONTOURS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAKING ADJUSTMENTS FOR PAVEMENT THICKNESS, SUBGRADE THICKNESS, TOPSOIL, REMOVALS, ETC.

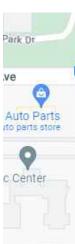
CONTACT INFORMATION

PROPERTY OWNER KANSAS CITY KANSAS PUBLIC SCHOOLS, USD #500 2010 N 59TH ST KANSAS CITY, KS 66104 (913) 551-3200

<u>ENGINEER</u> MKEC ENGINEERING, INC. 11827 W 112TH ST, SUITE 200 OVERLAND PARK, KS 66210 (913) 317-9390

<u>UTILITY</u> KANSAS ONE CALL 811 OR 1-800-DIG-SAFE

SUE Quality Levels				
<u>Utility</u>	Quality Level			
Storm Sewer	С			
Sanitary Sewer	С			
Electric	С			
Gas	С			
Water	С			
Telecommunication	С			
Other	С			





UTILITY CC

<u>WATER</u> KANSAS CITY BOARI 300 N. 65TH STRE KANSAS CITY, KS 6 (913) 573–9835 (913) 573–9854

ELECTRIC KANSAS CITY BOARI UTILITIES BOARD OF PUBLIC 6742 RIVERVIEW A KANSAS CITY, KS 6 (913) 573–9538

<u>TELEPHONE</u> AT&T SOUTHWEST 5400 FOXRIDGE DR MISSION, KS. 6620 (913) 676–1281

<u>GAS</u> KANSAS GAS SERVIO (913) 599-8953

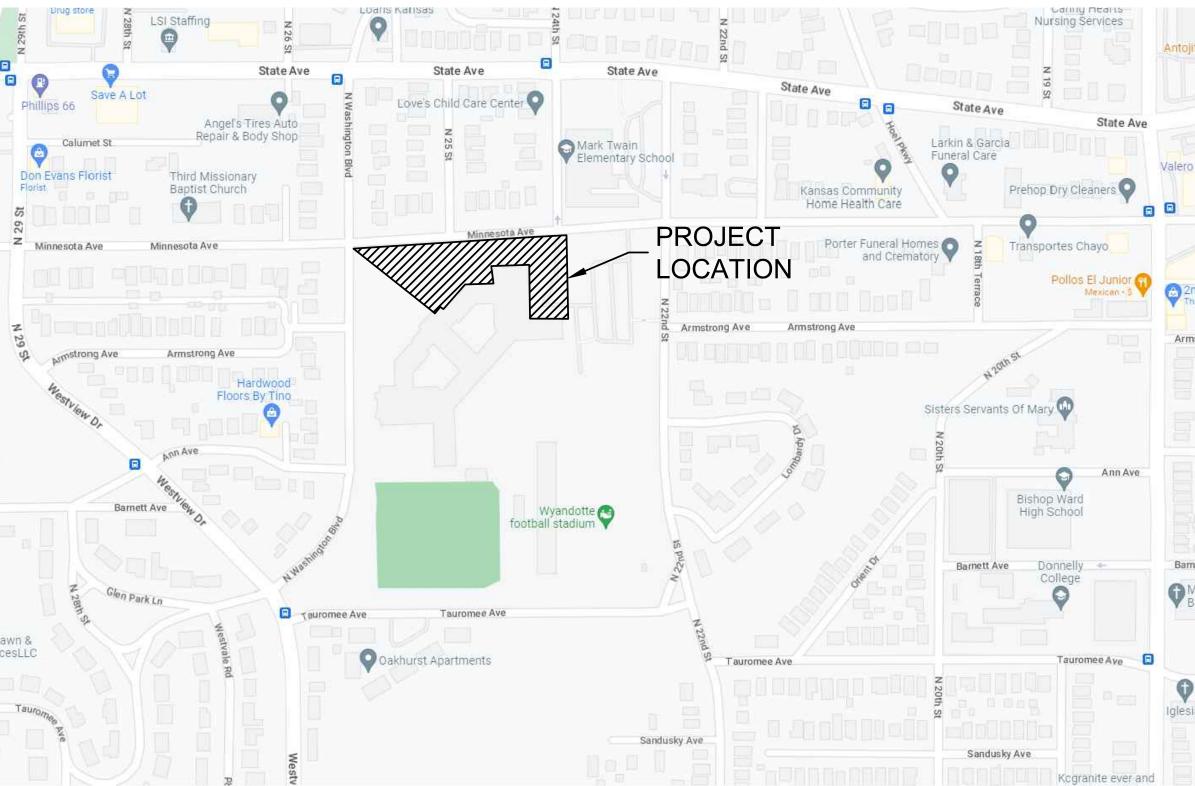
TIME WARNER CABL WALTER FERGUSON (816) 215-8858

UNIFIED GOVERNME SEWER MAINTENANC KEVIN SWEARENGIN (913) 573–1360

FINAL DEVELOPMENT PLANS/CONSTRUCTION DOCUMENTS FOR

WYANDOTTE HIGH SCHOOL IMPROVEMENTS

2501 MINNESOTA AVE. KANSAS CITY, KS 66102



LOCATION MAP

NTS

		NIS	
		Sheet List Table]
	Sheet Number	Sheet Title	1
	C01	COVER SHEET	1
	C02	EXISTING CONDITIONS PLAN	1
	C03	EXISTING CONDITIONS PLAN - DOCK	1
ONTACTS	C04	DEMOLITION PLAN	1
	C05	DEMOLITION PLAN - DOCK	1
RD OF PUBLIC UTILITIES	C06	UTILITY PLAN	1
REET 66102	C07	UTILITY PLAN - DOCK	1
	C08	PAVING PLAN	1
(FAX)	C09	PAVING PLAN - DOCK	1
RD OF PUBLIC	C10	JOINTING PLAN - DOCK	1
	C11	GRADING PLAN	1
C UTILITIES AVE	C12	GRADING PLAN - DOCK	1
66106	C13	EROSION CONTROL PLAN	1
	C14	EROSION CONTROL PLAN - DOCK	1
	C15	UTILITY DETAILS	1
DR., RM 500 02	C16	PAVING DETAILS	1
02	C17	EROSION CONTROL DETAILS 1	1
	C18	EROSION CONTROL DETAILS 2	1
VICE A	C19	RETAINING WALL PLAN & GEN. NOTES - DOCK	1
$\frac{1}{1}$	C20	RETAINING WALL DETAILS 1 - DOCK	
BLE	C21	RETAINING WALL DETAILS 2 - DOCK	\Box
N	C22	311000 - SITE CLEARING	\uparrow
	C23	312000-EARTH MOVING	1
<u>ENT</u> ICE	C24	321216-ASHPALT PAVING	1
Ν	C25	321313-CONCRETE PAVING	1
	C26	321373-CONCRETE PAVING JOINT SEALANTS	1
	C27	334100-STORM UTILITY DRAINAGE PIPING	1
	L01	LANDSCAPE PLAN	1
	L02	LANDSCAPE DETAILS & NOTES	1
			1

ELECTRICAL SITE PLAN

E01

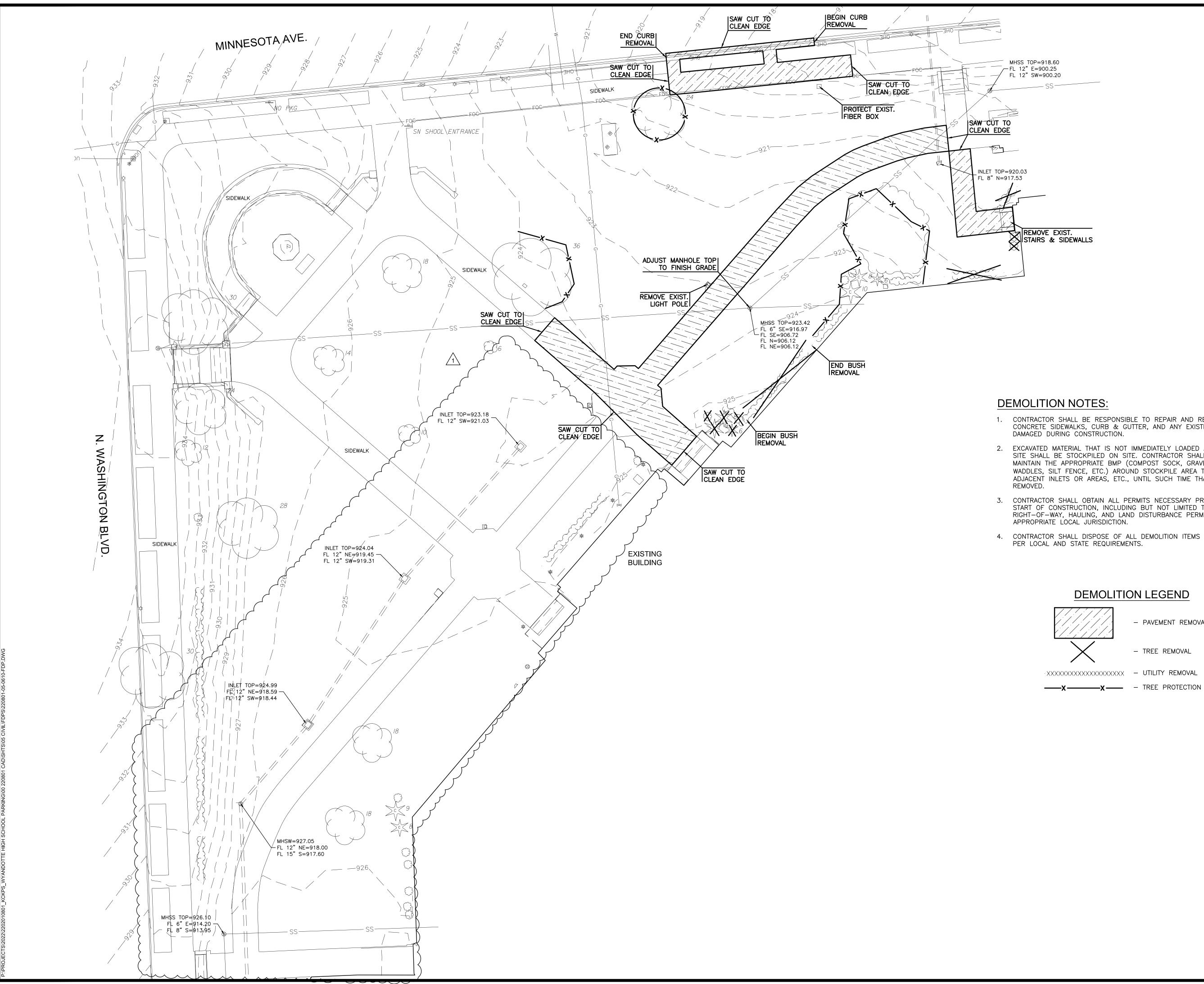
NOTES:

- 1. ALL WORK IN PUBLIC EASEMENT AND RIGHT EROSION WORK MUST COMPLY WITH THE LA TECHNICAL PROVISION & STANDARD DRAWIN SEWERS, OF THE UNIFIED GOVERNMENT OF COUNTY/KANSAS CITY, KANSAS. IF ANY OF CONFLICTS WITH THE TECHNICAL PROVISIONS FOR ROAD AND SEWERS, OF THE UNIFIED WYANDOTTE COUNTY/KANSAS CITY, KANSAS GOVERNMENT), THE UNIFIED GOVERNMENT OVERRIDE.
- 2. BASED ON PROVISIONS WITHIN THE UNIFIED DRAINAGE CRITERIA FOR PRIVATE DEVELOPM NOT BE REQUIRED DUE TO THE NET INCREA OF 5,271 SF.
- 3. UG STORM WATER ORDINANCE REQUIRES ST WHEN DEVELOPMENTS ARE 1.0 ACRES OR ON PAGE 4-6 OF THE 2009 BMP MARC M DEVELOPED SITE THAT MAINTAINS OR REDUC IMPERVIOUS AREA, WOULD NOT MEET THE I DEVELOPMENT AS STATED IN, APWA 5601.3 REQUIRE ADDITIONAL STORM WATER BMPs. INCREASE IN IMPERVIOUS AREA, STORM WAT PROVIDED.
- 4. CONTRACTOR TO CONTACT DIG SAFE (CALL UTILITIES PRIOR TO CONSTRUCTION.
- 5. WORK IN PUBLIC EASEMENTS AND RIGHT-O CONTROL SHALL COMPLY WITH THE LATEST TECHNICAL PROVISIONS & STANDARD DRAWI SEWERS, OF THE UNIFIED GOVERNMENT OF COUNTY/KANSAS CITY, KS.
- 6. CONTRACTOR SHALL OBTAIN APPLICABLE PU INCLUDING LAND DISTURBANCE, RIGHT-OF-TO CONSTRUCTION.

QUANTITIES:

- 1. TOTAL AREA OF LAND DISTURBANCE = 0.9
- 2. NET INCREASE IN IMPERVIOUS AREA = 13,
- 3. EARTHWORK QUANTITIES:
- 3.1. ESTIMATED CUT = 867 C.Y.
- 3.2. ESTIMATED FILL = 284 C.Y. (ADJ. 15% 3.3. ESTIMATED NET = 583 C.Y. (CUT)
- 4. EARTHWORK QUANTITIES ARE PROVIDED FOI CONTRACTOR SHALL BE RESPONSIBLE TO REQUIRED TO COMPLETE THE IMPROVEMEN PLANS, IRRESPECTIVE OF EARTHWORK QUAN

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		- POST / BOLLARD - FLAG POLE	
		- FENCE	MITHOUT THE EXPRESS CONSENT OF MKEO
nd C hvift s			
mstro	TR -	- TELEPHONE RISER	& IDEAS ARE THE EXCLUSIVE FROPERTY OF MACE ENGINEE INC. (MACE), AND MAY NOT BE USED OR REPRODUCED IN ANY WAY OP MENT PLANS/CONSTRUCTION DOCUMENTS FOR HIGH SCHOOL IMPROVEME MINDESOTA AVE. KANSAS CITY, KS 66102 MINNESOTA AVE. KANSAS CITY, KS 66102
		- UNDERGROUND TELEPHONE LINE	
		- OVERHEAD TELEPHONE LINE	AND MAY NOT BE USED OR REPRODUCED IN ANY IN DOCUMENTS FOF
		- CABLE TV RISER	
		- FIBER OPTICS INDICATOR SIGN	
		- UNDERGROUND CABLE TV LINE - UNDERGROUND FIBER OPTIC CABLE	
		- POWER POLE AND DEADMAN	
mett . Mac		- LIGHT POLE	
Mac Bapt	I	- ELECTRIC TRANSFORMER	
	- X	- SCHOOL ZONE SIGNAL LIGHT	
	TC -	- TRAFFIC CONTROL BOX	DNSTR MANS, KANS,
sia N	I	- TRAFFIC SIGNAL LIGHT POLE	
		- UNDERGROUND ELECTRIC LINE	
μ		- OVERHEAD ELECTRIC LINE - GAS METER	DPMENT PLANS/CONSTRUCTION DOCUME HIGH SCHOOL IMPRO MINNESOTA AVE. KANSAS CITY, KS 66102
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OVERNMENT OF (THE UNIFIED		- INLET	
TANDARDS SHALL	<u> </u>	- STORM WATER MANHOLE	
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ASE IN IMPERVIOUS AREA		- EXISTING STORM SEWER PIPE	
ORM WATER QUALITY		- PROPOSED STORM SEWER PIPE	
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DUE TO THE MINIMAL ER BMPs WILL NOT BE	u u	- FIRE HYDRANT	DRAWINGS AND THEIR CONCEPTIS, INCLUDING, BUT NOT LIMITED TO, ALL CON
	<u>^</u>	- WATER VALVE	R CON
811) TO AVOID DAMAGING	~	- WATER METER - MONITORING WELL	뿔 COVER SHEET 원
F—WAY AND FOR EROSION EDITION OF THE	~	- WATER METER VAULT	
NGS FOR ROADS AND WYANDOTTE	\checkmark	- WATER SPIGOT	PROJECT NO. 2202010801
		- WATER LINE	SCALE
BLIC WORKS PERMITS WAY, AND HAULING PRIOR	——————————————————————————————————————	- FIRE PROTECTION LINE	N/A
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$\langle \langle \rangle$			1         ADD #2         02.28.24           Vi         CITY COMMENTS         02.27.24
R INFORMATION ONLY. /ERIFY EARTHWORK			FINAL DEVELOPMENT PLANS     01.31.24       NO.     REVISION     DATE       SHEET NO.     C01
TS SHOWN ON THE NTITIES LISTED ABOVE.			SHEET NO.
			©2024



- 1. CONTRACTOR SHALL BE RESPONSIBLE TO REPAIR AND REPLACE EXISTING CONCRETE SIDEWALKS, CURB & GUTTER, AND ANY EXISTING PAVEMENT DAMAGED DURING CONSTRUCTION.
- 2. EXCAVATED MATERIAL THAT IS NOT IMMEDIATELY LOADED AND HAULED OFF SITE SHALL BE STOCKPILED ON SITE. CONTRACTOR SHALL PROVIDE AND MAINTAIN THE APPROPRIATE BMP (COMPOST SOCK, GRAVEL FILTER BAGS, WADDLES, SILT FENCE, ETC.) AROUND STOCKPILE AREA TO PROTECT ADJACENT INLETS OR AREAS, ETC., UNTIL SUCH TIME THAT STOCKPILE IS
- 3. CONTRACTOR SHALL OBTAIN ALL PERMITS NECESSARY PRIOR TO THE START OF CONSTRUCTION, INCLUDING BUT NOT LIMITED TO, RIGHT-OF-WAY, HAULING, AND LAND DISTURBANCE PERMITS WITH THE
- 4. CONTRACTOR SHALL DISPOSE OF ALL DEMOLITION ITEMS APPROPRIATELY PER LOCAL AND STATE REQUIREMENTS.
  - - PAVEMENT REMOVAL
    - TREE REMOVAL





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DOCUMENTS

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1"=20'

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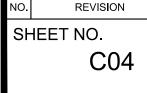
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DATE

WYANDOTTE HIGH SCHOOL IMPROVEMENTS	2501 MINNESOTA AVE. KANSAS CITY, KS 66102
MOLITION	I PLAN
	202010801 1"=20 с снескер
JLB	BSH

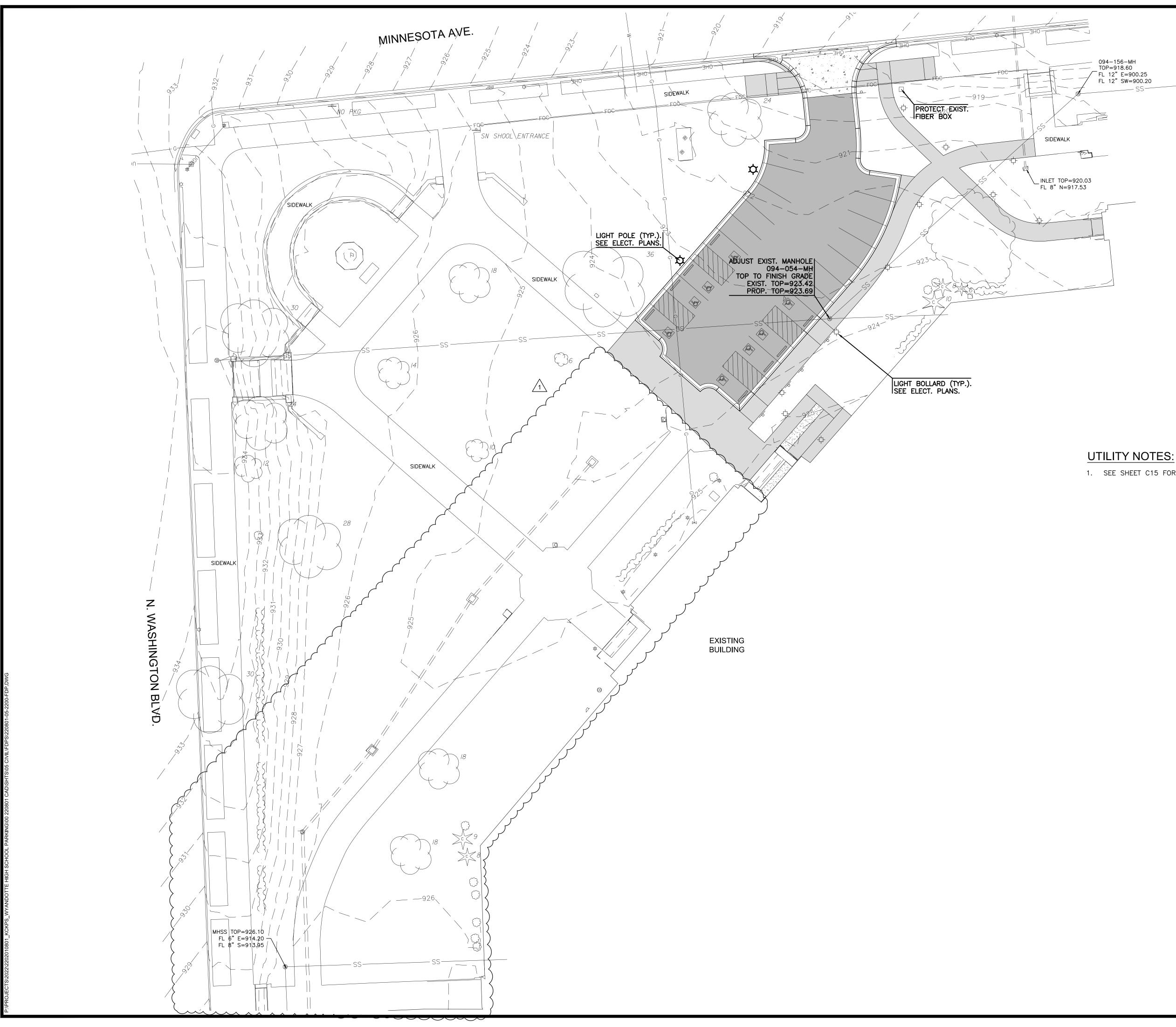
DEVELO FINAL DEN PROJECT N SCALE DRAWN SEK ADD #2 CITY COMMENTS



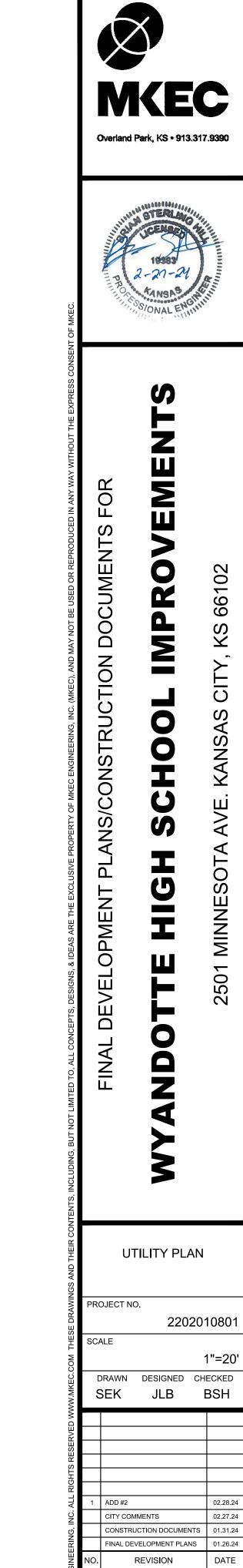
SCALE: 1"=20'

CONSTRUCTION DOCUMENTS

FINAL DEVELOPMENT PLANS 01.26.24

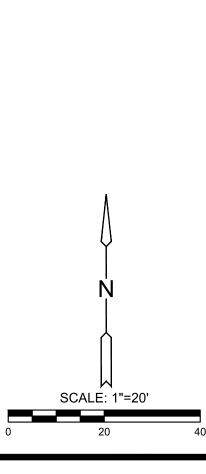


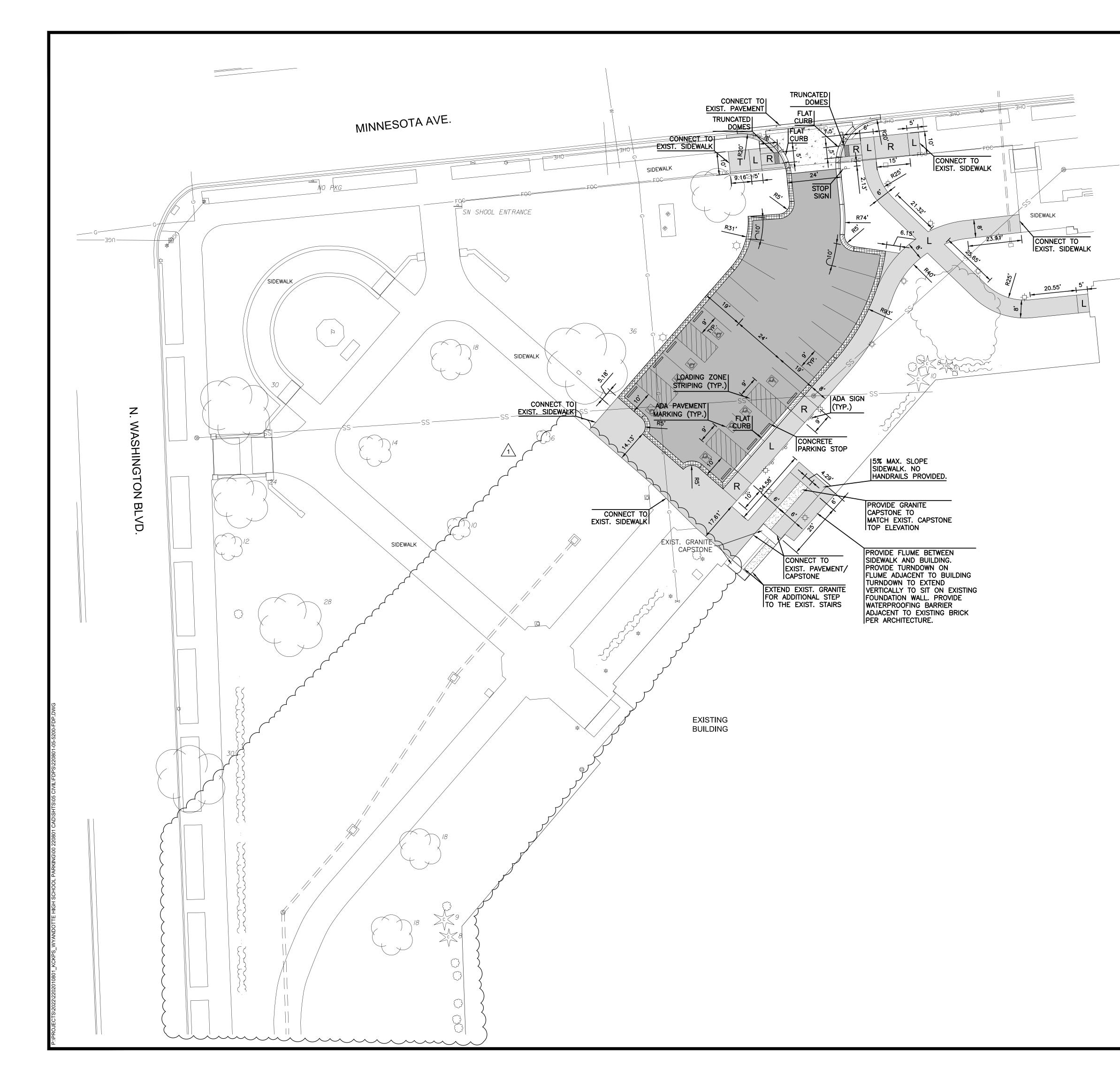
1. SEE SHEET C15 FOR UTILITY DETAILS.



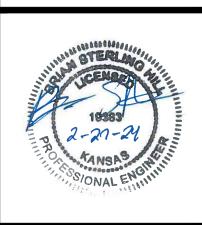
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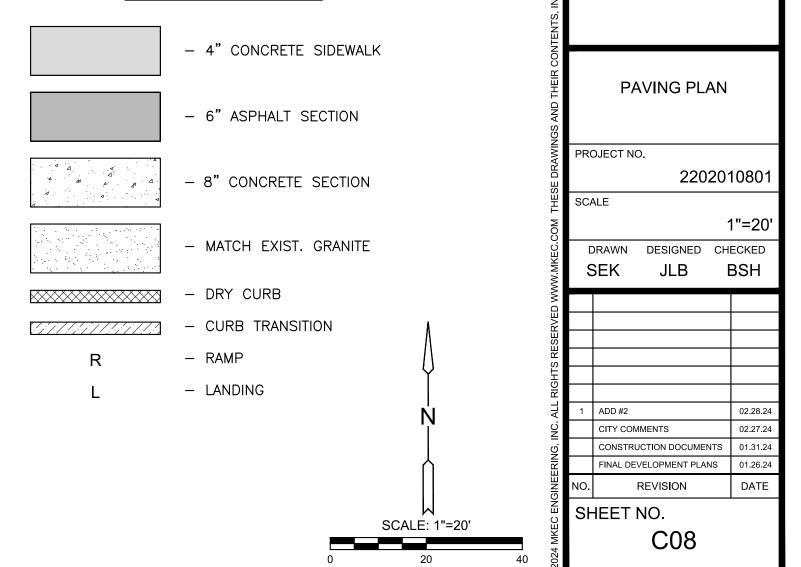
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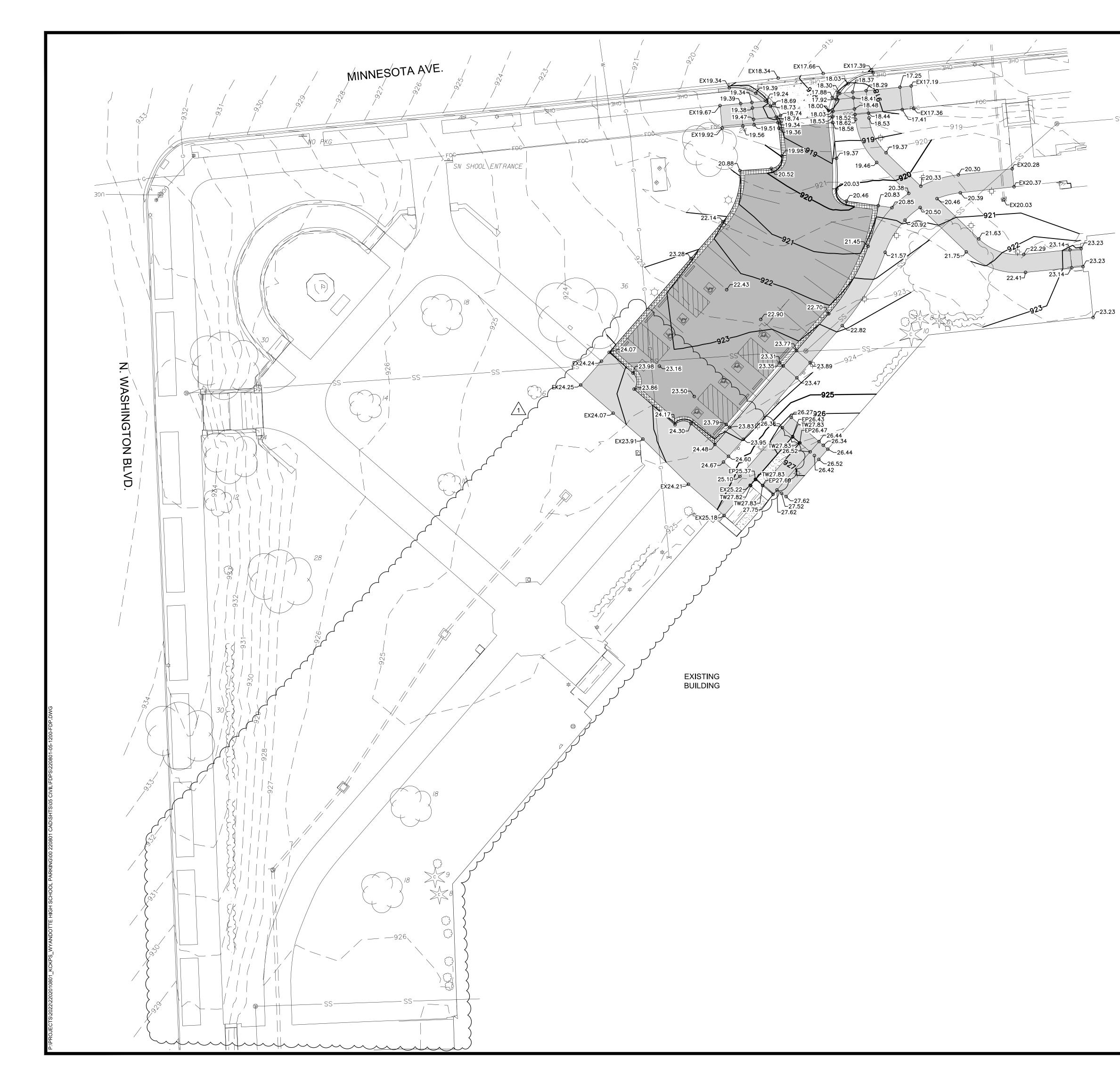
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# PAVING NOTES:

- 1. SEE SHEET C16 FOR PAVEMENT DETAILS.
- 2. ALL DIMENSIONS ARE TO BACK OF CURB.
- 3. INSTALL CONCRETE PARKING STOP ON ALL HANDICAP PARKING STALLS.
- 4. ALL PARKING STALLS ARE 9' X 19' UNLESS OTHERWISE NOTED.
- 5. ALL ASPHALT PARKING LOTS AND DRIVES SHALL CONFORM TO CURRENT APWA KC METRO CHAPTER SPECIFICATIONS WITH THICKNESS AND SUBGRADE PER GEOTECHNICAL REPORT RECOMMENDATIONS. RECYCLED CONTENT IS ALLOWED WITHIN THE APWA LIMITS.
- 6. PORTLAND CEMENT CONCRETE SHALL CONFORM WITH THE KANSAS CITY METRO MATERIALS BOARD MINIMUM 4000 PSI GRANITE MIX (KCMMB 4K).
- 7. ALL SIDEWALKS SHALL BE 4" UN-REINFORCED CONCRETE.
- 8. SIDEWALK RAMPS ON PRIVATE PROPERTY DO NOT REQUIRE 2' WIDE DETECTABLE WARNING STRIPS (TRUNCATED DOMES).
- 9. COMPACTED SUBGRADE AND AGGREGATE BASE UNDER PAVEMENTS SHALL EXTEND A MINIMUM OF 2' BEYOND THE EDGE OF PAVEMENT OR BACK OF CURB, WHICHEVER IS APPLICABLE.
- 10. PARKING STALL STRIPING SHALL BE 4" WHITE, 15 MILS MIN. THICKNESS.
- 11. HANDICAP PARKING STALL LOADING ZONE AND DIAGONAL STRIPING SHALL BE 4" WHITE, 2' O.C. @ 45° ANGLE, 15 MILS MIN. THICKNESS.
- 12. INSTALL HANDICAP PAVEMENT MARKING ON HANDICAP PARKING STALLS PER DETAIL ON SHEET C16.
- 13. ALL CURBS SHALL BE CG-1 UNLESS OTHERWISE NOTED.
- 14. 5' WIDE SIDEWALKS SHALL HAVE A MAXIMUM OF 5' CONTRACTION JOINT SPACING. 6' WIDE SIDEWALKS SHALL HAVE A MAXIMUM CONTRACTION JOINT SPACING OF 6'. 8' WIDE SIDEWALKS SHALL HAVE A MAXIMUM 4' CONTRACTION JOINT SPACING WITH A LONGITUDINAL CONTRACTION JOINT DOWN THE MIDDLE OF THE SIDEWALK.
- 15. CONTRACTOR SHALL BE RESPONSIBLE FOR REQUIRED TRAFFIC CONTROL NECESSARY ON SURROUNDING STREETS FOR CONSTRUCTION. TRAFFIC CONTROL SHALL COMPLY WITH THE LATEST EDITION OF MUTCD AND CITY SPECIFICATIONS.
- 16. ALL SIGNS SHALL CONFORM TO THE LATEST EDITION OF MUTCD. STOP SIGN: R1-1, 36"X36"

# PAVING LEGEND









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GRADING PLAN

DRAWN DESIGNED CHECKED SEK JLB BSH

2202010801

1"=20'

02.28.2

02.27.24

01.31

DATE

PROJECT NO.

ADD #2

SHEET NO.

CITY COMMENTS

CONSTRUCTION DOCUMENTS

REVISION

C11

FINAL DEVELOPMENT PLANS 01.26.24

SCALE

FOR

DOCUMENTS

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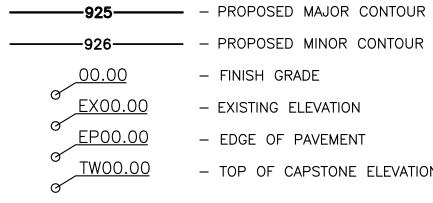
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FINAL

# **GRADING NOTES:**

- 1. ALL SPOT ELEVATIONS REPRESENT FINISHED GRADE.
- 2. ALL CURB SPOT ELEVATIONS ARE TOP OF CURB UNLESS OTHERWISE NOTED.
- 3. SATISFACTORY SOIL AND FILL MATERIAL SHALL BE PROVIDED PER THE GEOTECHNICAL REPORT. SEE GEOTECHNICAL REPORT FOR MAXIMUM FILL LIFT THICKNESS.
- 4. CLEAR AND GRUB IMPROVEMENT AREA. REMOVE ALL ORGANIC AND TOPSOIL MATERIAL REGARDLESS OF SIZE AND DEPTH. ALL CLEARED AND EXCESS MATERIAL SHALL BECOME CONTRACTORS PROPERTY AND SHALL BE REMOVED FROM THE PROJECT SITE.
- 5. THE CONTRACTOR SHALL BE RESPONSIBLE TO DETERMINE EARTHWORK QUANTITIES. ALL IMPORT AND EXPORT OF SOIL MATERIAL SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AT HIS EXPENSE.
- 6. NOTIFY TESTING AGENCY WHEN EXCAVATIONS HAVE REACHED REQUIRED SUBGRADE. SUBGRADE SHALL BE PREPARED AND COMPACTED PER THE GEOTECHNICAL REPORT.
- 7. IF GEOTECHNICAL ENGINEER DETERMINES THAT UNSATISFACTORY SOIL IS PRESENT, CONTINUE EXCAVATION AND REPLACE WITH COMPACTED BACKFILL OR FILL MATERIAL AS DIRECTED.
- 8. SEE EARTH WORK SPECIFICATIONS FOR COMPACTION & PROOF-ROLLING REQUIREMENTS.
- 9. RECONSTRUCT SUBGRADES DAMAGED BY FREEZING TEMPERATURE, FROST, RAIN, ACCUMULATED WATER, OR CONSTRUCTION ACTIVITIES, WITHOUT ADDITIONAL COMPENSATION.
- 10. COMPACTED SUBGRADE AND AGGREGATE BASE UNDER PAVEMENTS SHALL EXTEND A MINIMUM OF 2' BEYOND THE EDGE OF PAVEMENT OR BACK OF CURB, WHICHEVER IS APPLICABLE.
- 11. ALL EXCESS SOIL AND WASTE MATERIAL SHALL BECOME THE CONTRACTORS PROPERTY AND SHALL BE REMOVED FROM THE SITE.

# **GRADING LEGEND**

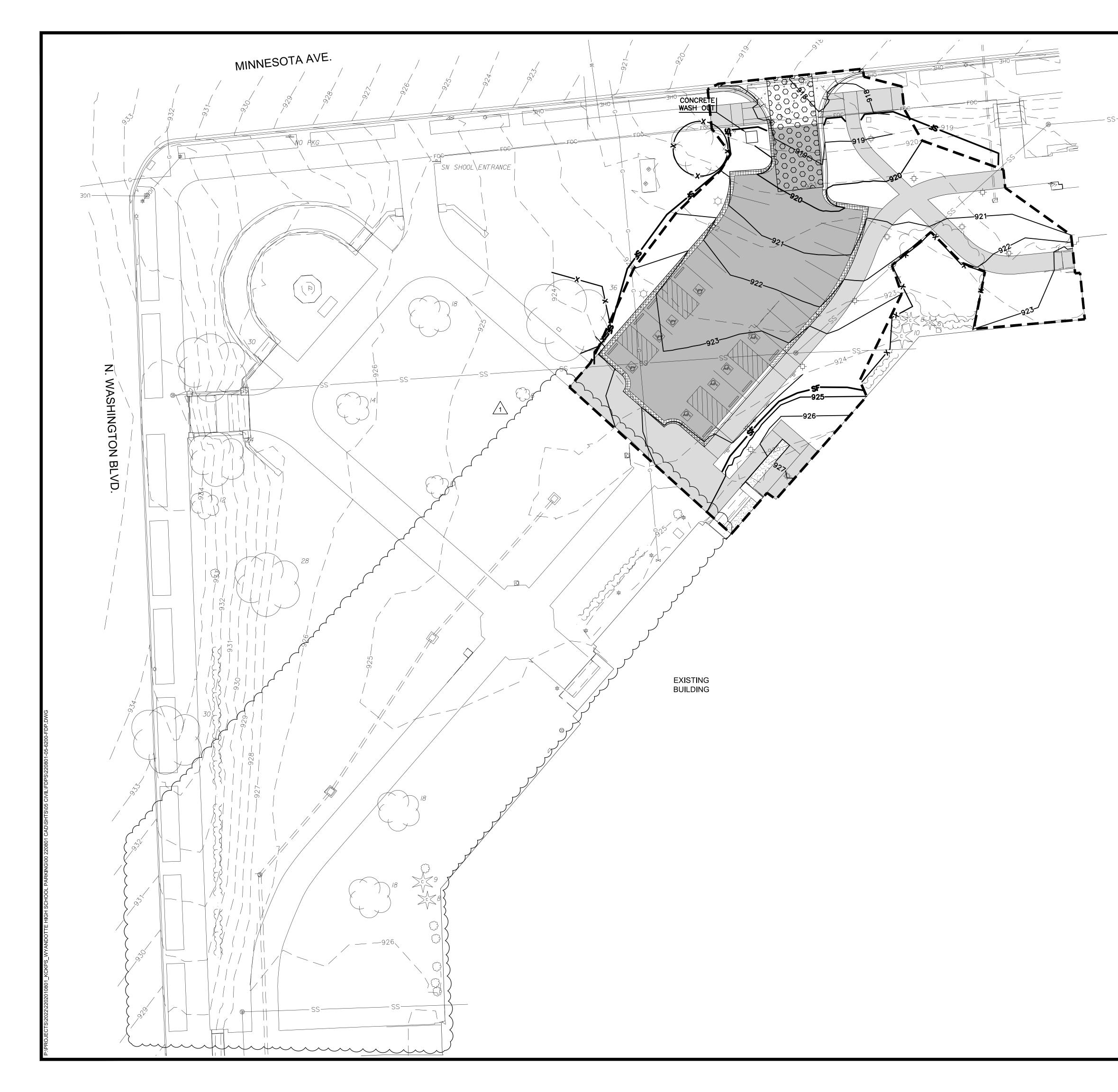


- – FINISH GRADE
  - EXISTING ELEVATION
  - EDGE OF PAVEMENT
  - TOP OF CAPSTONE ELEVATION

SCALE: 1"=20'

20

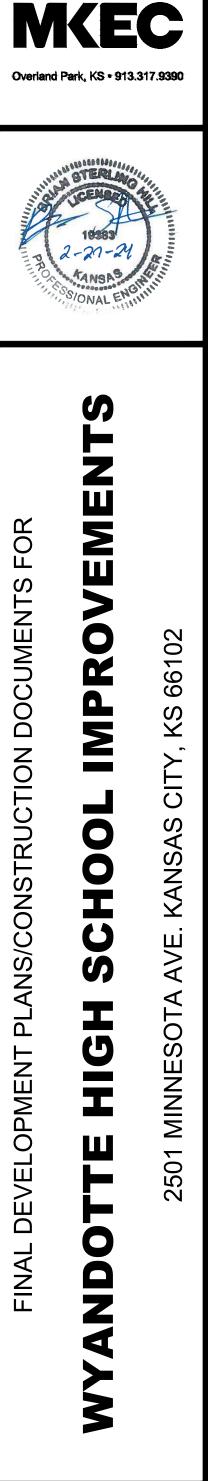
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# **EROSION CONTROL NOTES:**

- . ALL WORK IN PUBLIC EASEMENTS AND RIGHT-OF-WAY AND ALL EROSION CONTROL WORK MUST COMPLY WITH THE LATEST EDITION OF THE TECHNICAL PROVISIONS & STANDARD DRAWINGS FOR ROADS AND SEWERS, OF THE UNITED GOVERNMENT OF WYANDOTTE COUNTY/KANSAS CITY, KANSAS (THE UG). IF ANY OF THE GENERAL NOTES CONFLICT WITH THE TECHNICAL PROVISIONS AND STANDARD DRAWINGS FOR ROADS AND SEWERS OF THE UG, THE UG'S STANDARDS SHALL OVERRIDE.
- THE CONTRACTOR SHALL SEED, MULCH, OR OTHERWISE STABILIZE ANY DISTURBED AREA WHERE THE LAND DISTURBANCE ACTIVITY HAS CEASED FOR MORE THAN 14 DAYS. INITIAL STABILIZATION ACTIVITIES SHALL BE COMPLETED WITHIN 14 DAYS AFTER SOIL DISTURBING ACTIVITIES HAVE CEASED. ALL SEEDING ACTIVITY SHALL INCLUDE MULCHING OR EQUIVALENT SOIL STABILIZING BMP MEASURE OF THE DISTURBED AREA. THE CONTRACTOR SHALL PERFORM INSPECTIONS OF EROSION AND SEDIMENT CONTROL MEASURES AT LEAST ONCE PER WEEK AND WHENEVER A RAINFALL TOTAL OF 0.5 INCHES OR GREATER IS OBSERVED BASED ON A SINGLE MONITORING EVENT; OR BASED ON THE CUMULATIVE TOTAL OF TWO CONSECUTIVE MONITORING EVENTS WHEN THE RAINFALL TOTAL OF THE FIRST MONITORING EVENT IS LESS THAN 0.5 INCHES. THE CONTRACTOR SHALL MAINTAIN AN INSPECTION LOG INCLUDING THE INSPECTOR'S NAME, DATE OF INSPECTION, OBSERVATIONS AS TO THE EFFECTIVENESS OF THE EROSION AND SEDIMENT CONTROL MEASURES, ACTIONS NECESSARY TO CORRECT DEFICIENCIES, WHEN DEFICIENCIES ARE CORRECTED, AND THE SIGNATURE OF THE PERSON PERFORMING THE INSPECTION. CONTRACTOR SHALL ADD EROSION CONTROL MEASURES AS NECESSARY TO CONTROL SEDIMENT RUNOFF FROM THE SITE, ADDITIONAL MEASURES SHALL BE AT THE CONTRACTORS EXPENSE.
- 3. CONTRACTOR TO HAVE A COPY OF THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) ON SITE AT ALL TIMES. INSPECTION LOGS AND ANY CHANGES TO EROSION CONTROL MEASURES SHALL BE ADDED TO THE SWPPP.
- 4. CONCRETE WASH OR RINSE WATER FROM CONCRETE MIXING EQUIPMENT, TOOLS AND/OR READY-MIX TRUCKS, TOOLS, ETC. MAY NOT BE DISCHARGED INTO OR BE ALLOWED TO RUN DIRECTLY INTO ANY EXISTING WATER BODY OR STORM INLET. ONE OR MORE LOCATIONS FOR CONCRETE WASH OUT WILL BE DESIGNATED ON SITE, SUCH THAT DISCHARGES DURING CONCRETE WASHOUT WILL BE CONTAINED IN A SMALL AREA WHERE WASTE CONCRETE CAN SOLIDIFY IN PLACE AND EXCESS WATER EVAPORATED OR INFILTRATED INTO THE GROUND.
- 5. CHEMICALS OR MATERIALS CAPABLE OF CAUSING POLLUTION MAY ONLY BE STORED ONSITE IN THEIR ORIGINAL CONTAINER. MATERIALS STORED OUTSIDE MUST BE IN CLOSED AND SEALED WATER-PROOF CONTAINERS AND LOCATED OUTSIDE OF DRAINAGE WAYS OR AREAS SUBJECT TO FLOODING. LOCKS AND OTHER MEANS TO PREVENT OR REDUCE VANDALISM SHALL BE USED. SPILLS WILL BE REPORTED AS REQUIRED BY LAW AND IMMEDIATE ACTIONS TAKEN TO CONTAIN THEM.
- 6. SEE SHEETS C17-C18 FOR EROSION CONTROL DETAILS.
- 7. CONTRACTOR TO KEEP ALL SEDIMENT FROM EXISTING OR PROPOSED PAVEMENT.
- 8. CONTRACTOR SHALL PROVIDE DUST CONTROL DURING CONSTRUCTION ACTIVITIES.
- 9. CONTRACTOR TO COMPLY WITH ALL APPLICABLE REQUIREMENTS OF CITY, STATE, AND FEDERAL REGULATIONS FOR EROSION CONTROL.
- 10. ALL DISTURBED AREAS SHALL BE SODDED UPON COMPLETION OF PROJECT. REFER TO FESCUE TURF NOTES ON SHEET LO2 FOR INSTALLATION INSTRUCTIONS.
- 11. GOOD HOUSEKEEPING, INCLUDING SPILL RESPONSE SHALL BE PERFORMED IN ACCORDANCE WITH THE KANSAS CITY CHAPTER OF THE AMERICAN PUBLIC WORKS ASSOCIATION STANDARD SPECIFICATIONS, SECTION 2150.
- 12. THE CONTRACTOR SHALL INSTALL EROSION CONTROL DEVICES PRIOR TO STARTING ANY CONSTRUCTION ACTIVITY.
- 13. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADDITIONAL EROSION CONTROL MEASURES OR MODIFICATIONS IF THE PLAN FAIL OR SUBSTANTIALLY CONTROL EROSION OR OFFSITE SEDIMENTATION.
- 14. THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING EROSION CONTROL DEVICES AND REMOVING SEDIMENT UNTIL A MINIMUM OF 70% OF PERMANENT VEGETATION HAS BECOME STABILIZED AND ESTABLISHED. EROSION CONTROL DEVICES SHALL REMAIN IN PLACE UNTIL 70% ESTABLISHED VEGETATION IS MET, OR THE DURATION OF THE PROJECT, WHICHEVER IS THE LATER DATE.
- 15. THE CONTRACTOR SHALL REPLACE DISTURBED AREAS WITH SOD AND SHALL BE INSTALLED WITHIN 14 DAYS AFTER PAVING COMPLETION AND FINAL TOPSOIL GRADING.
- 16. TOTAL DISTURBED LAND AREA = 0.93 AC.
- 17. THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, TOOLS, EQUIPMENT, AND LABOR AS NECESSARY TO INSTALL AND MAINTAIN ADEQUATE EROSION CONTROL. KEEP THE STREETS CLEAN OF MUD AND DEBRIS, AND PREVENT SOIL FROM LEAVING THE PROJECT SITE. THE CONTRACTOR'S EROSION CONTROL MEASURES SHALL CONFORM TO THE UNIFIED GOVERNMENT OF WYANDOTTE COUNTY/KANSAS CITY, KS TECHNICAL PROVISIONS SPECIFICATIONS.

EROSION CO	NTROL LEGEND	
	- INLET PROTECTION	٨
	– SILT FENCE	Ŷ
000000000	- CONSTRUCTION ENTRANCE	 N
— <u>X</u> —X—	- TREE PROTECTION	
	- CONSTRUCTION LIMITS	$\bigwedge$
		SCALE: 1"=20'



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EROSION CONTROL PLAN

PROJECT NO.					
	2202010801				
SCA	ALE				
			1	1"=20'	
C	RAWN I	DESIGNED	CHI	ECKED	
S	SEK	JLB	E	BSH	
1	ADD #2			02.28.24	
	CITY COMME	ENTS		02.27.24	
	CONSTRUCT	TION DOCUME	NTS	01.31.24	
	FINAL DEVE	_OPMENT PLA	NS	01.26.24	
NO.	RE	VISION		DATE	
Sŀ	SHEET NO.				
		C13			

# STRUCTURAL GENERAL NOTES

	SIGN CRITERIA		CONCRETE RE
		WYANDOTTE HIGH SCHOOL 2501 MINNESOTA AVENUE KANSAS CITY, KS 66102	22. REINFORCI IT MAY BE BENDING.
2.	BUILDING CODE:	2018 INTERNATIONAL BUILDING CODE (IBC)	23. WELDING
3.	DESIGN CODES:	ASCE/SEI 7–16 MINIMUM DESIGN LOADS FOR BUILDINGS & OTHER STRUCTURES ACI 318–14 BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE	24. REINF. MU 25. REINF. SH AT A MINI
4.	ACTIVE PRESS PASSIVE PRESS SOIL DENSITY SOIL REACTIO SURCHARGE	SSURE 250 PSF/FT 110 PCF	EXTENT. 26. REINF. WII DIMENSION UNLESS S 27. REINF. SH THE DRAW
<u>GEI</u>	APPLIED WINL		CAST FORME
5.	SCALE SECTIONS CONDITION. WHE INFORMATION PRO	PLANS FOR THE PURPOSE OF ESTABLISHING DIMENSIONS. DO NOT OR DETAILS AS THEY MAY BE DRAWN FOR A NON-SPECIFIC, TYPICAL RE REQUIRED DIMENSIONS CANNOT BE DETERMINED FROM THE OVIDED OR THERE APPEARS TO BE A DISCREPANCY, NOTIFY THE LARIFICATION AND/OR CORRECTION.	28. DO NOT C STRUCTURAL 29. STRUCTUR CODE, INC
6.	AND DO NOT IMF	DRAWINGS REPRESENT THE STRUCTURES IN THE COMPLETED CONDITION PLY A SPECIFIC METHOD OR SEQUENCE OF CONSTRUCTION UNLESS TED. MEANS AND METHODS OF CONSTRUCTION ARE THE RESPONSIBILITY TOR.	PROVIDED SOILS: CONCF
7.	STRUCTURE IS TH MAINTAIN. INSTA	SHORING AND/OR BRACING AS REQUIRED TO SAFELY CONSTRUCT THE IE RESPONSIBILITY OF THE CONTRACTOR TO DESIGN, INSTALL, AND LED SHORING AND BRACING MUST REMAIN IN PLACE UNTIL SUPPORTED BEEN INSTALLED AND CONNECTIONS HAVE BEEN COMPLETED.	30. NOTIFY T⊢ REQUIRED
8.	PRIOR TO SUBMIT	WILL REVIEW, MAKE COMMENTS, AND APPROVE ALL SHOP DRAWINGS TAL, NOTING ALL CHANGES MADE THAT DO NOT COMPLY WITH THE OCUMENTS FOR THE ATTENTION OF THE ENGINEER.	
9.	CONSTRUCTION TO DRAWINGS, AND F	MUST VERIFY ALL DIMENSIONS AND ELEVATIONS OF EXISTING HAT MAY AFFECT THE NEW CONSTRUCTION, WHETHER OR NOT NOTED ON REPORT DISCREPANCIES TO THE ENGINEER. EXISTING ABANDONED NTERFERE WITH NEW CONSTRUCTION SHALL BE REMOVED.	
<u>F0l</u>	JNDATIONS & SOIL	<u>.S</u>	
10.	GEOTECHNICAL IN VERIFY SUBSURFA THE DESIGN ASSI	WILL ENGAGE A LICENSED GEOTECHNICAL ENGINEER TO CONDUCT A VESTIGATION OF THE LOCATION OF THE NEW RETAINING WALL AND ACE CONDITIONS. IF THE EXISTING CONDITIONS DO NOT COMPLY WITH JMPTIONS NOTIFY THE ENGINEER IMMEDIATELY. THE GEOTECHNICAL VERIFY THE FOLLOWING CONDITIONS:	
	UNDISTURBE	NET SOIL BEARING PRESSURE OF 2,000 PSF FOR FOUNDATIONS IN D SOILS AND/OR ENGINEERED FILLS USED FOR DESIGN IS APPROPRIATE.	
		EMENT OF LESS THAN $\frac{3}{4}$ " AND DIFFERENTIAL SETTLEMENT OF LESS THAN NABLY EXPECTED WITHOUT OVEREXCAVATION AND REPLACEMENT OF FILL.	
		NTAL SHRINK/SWELL POTENTIAL OF SOILS EXISTS AND THE DEPTHS ADEQUATE FOR THE SITE.	
11.		FOUNDATIONS HAVE BEEN DESIGNED TO BEAR ON UNDISTURBED SOIL NGINEERED FILL WITH AN ALLOWABLE NET BEARING PRESSURE OF 2,000	
12.	EARTH-RETAINING ABOVE.	WALLS HAVE BEEN DESIGNED FOR THE LOADS AND CONDITIONS NOTED	
13.	BE VERIFIED WITH	ONDITION OF THE RETAINING WALL FOUNDATION BEARING MATERIALS MUST A GEOTECHNICAL INVESTIGATION MADE BY A LICENSED GEOTECHNICAL RECOMMENDED AND REQUIRED ADJUSTMENTS MADE PRIOR TO POURING	
14.	FOOTINGS MAY HA MORE THAN 6" G	WALL CONTINUOUS SHALLOW FOOTINGS AND CONCRETE STAIR TRENCH AVE EARTH—FORMED SIDES POURED TO THE DESIGN DIMENSIONS BUT NO REATER THAN THE DESIGN DIMENSIONS. EARTH—RETAINING WALLS AND S SUPPORT WALLS WILL BE FULLY FORMED AND POURED TO THE DESIGN	
15.	EARTH-RETAINING	F UNDERGROUND UTILITIES AND UTILITY TRENCHES TO THE WALL SYSTEM, SHOULD THEY EXIST, MUST BE APPROVED BY THE NGINEER FOR THE INTEGRITY OF THE BEARING MATERIAL.	
	BRACING HAS BE ACCORDANCE WIT	EARTH-RETAINING WALLS UNTIL FINAL PAVING AND/OR ADEQUATE EN INSTALLED. BACKFILL WILL BE PLACED AND COMPACTED IN H THE PROJECT SPECIFICATIONS.	
	CAST-IN-PLACE CON	<u>CRETE</u> CONCRETE MUST BE CONSTRUCTED IN CONFORMANCE WITH THE	
	CURRENT "ACI MA SPECIFICALLY CO	ANUAL OF CONCRETE PRACTICE." CONCRETE CONSTRUCTION MUST NFORM TO ACI 301 AND BE CONSTRUCTED WITHIN THE TOLERANCES 1 117. CONCRETE WILL BE MIXED, BATCHED, AND TRANSPORTED PER	
18.	CEMENT CONFORI ASTM C618 TYPE FINE & COARSE MEETING #57/#6	CONCRETE MATERIAL MUST BE MADE WITH CLEAN, POTABLE WATER; MING TO ASTM C150, TYPE I/II; FLY ASH, WHERE USED, CONFORMING TO C OR F AND REPLACING UP TO A MAXIMUM OF 20% OF THE CEMENT; AGGREGATES CONFORMING TO ASTM C33 WITH COARSE AGGREGATES 7 GRADATION REQUIREMENTS AND COARSE AGGREGATES MAKING UP NO OF THE TOTAL AGGREGATES BY WEIGHT FOR THE COMBINED GRADATION.	
19.		HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 4,000 PSI, CEMENT RATIO OF 0.45, AND 4% TO 7% AIR ENTRAINMENT.	
	TO A 3/4" RADIU	OF CONCRETE MUST BE CHAMFERED 3/4" INSIDE FORMS OR TOOLED JS, UNLESS NOTED OTHERWISE ON THE DRAWINGS.	
21.	NO ALUMINUM MA	Y BE EMBEDDED IN CONCRETE.	

# ICRETE REINFORCEMENT

REINFORCING BARS (REINF.) MUST CONFORM TO ASTM A615, GRADE 60 EXCEPT WHERE IT MAY BE SPECIFICALLY NOTED ON THE DRAWINGS AS 40 KSI MATERIAL FOR FIELD

WELDING OF REINF. IS PROHIBITED.

REINF. MUST BE DETAILED IN ACCORDANCE WITH ACI 315.

REINF. SHALL BE CONTINUOUS OR LAPPED THE GREATER OF 40 BAR DIAMETERS OR 24" AT A MINIMUM, UNLESS NOTED OTHERWISE ON THE DRAWINGS TO A GREATER OR LESSER

REINF. WILL BE PLACED AND SUPPORTED ON BOLSTERS/CHAIRS TO THE DESIGN DIMENSIONS AND MAINTAIN THE REQUIRED COVERAGE AND CLEARANCE PER ACI AND CRSI, UNLESS STRICTER REQUIREMENTS ARE NOTED ON THE DRAWINGS.

REINF. SHALL HAVE MINIMUM CLEAR COVERAGE AS LISTED, UNLESS NOTED OTHERWISE ON THE DRAWINGS: CAST AGAINST EARTH (FROM BOTTOM OR SIDES) 3"

FORMED & EXPOSED TO SOIL, WEATHER, OR LIQUIDS 2"

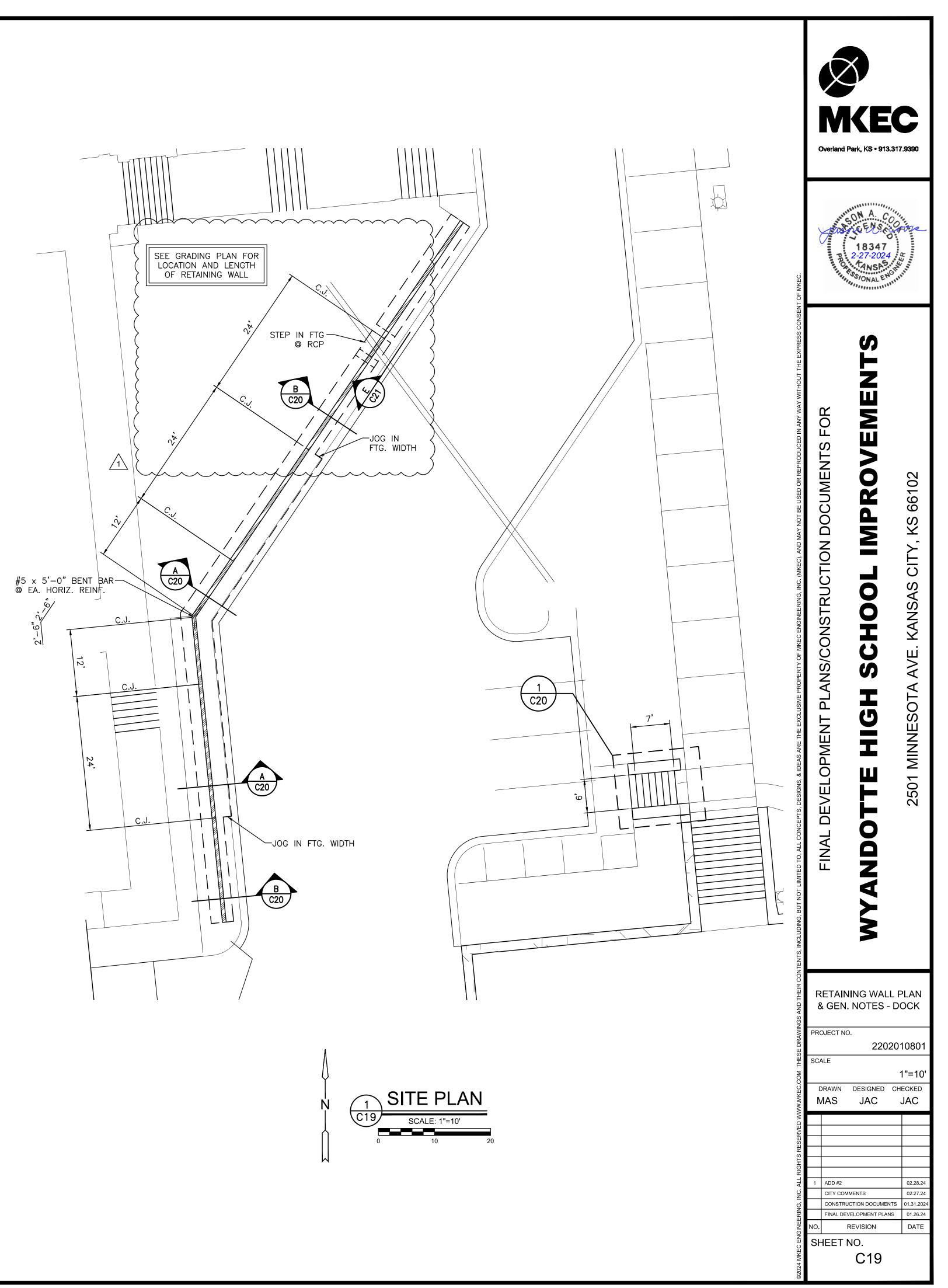
DO NOT CUT REINF. EXCEPT AS APPROVED BY THE ENGINEER.

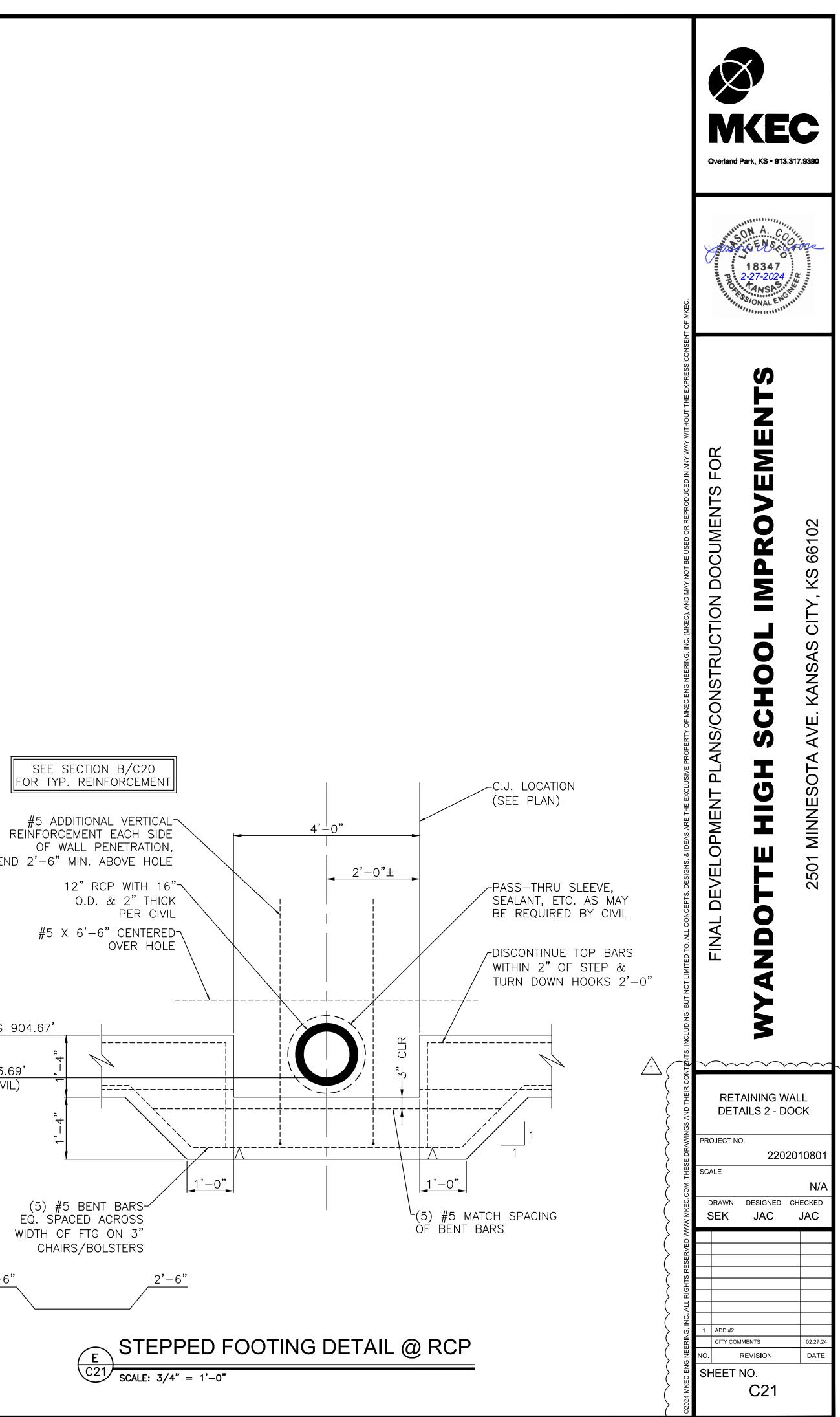
UCTURAL TESTS, INSPECTIONS, AND QUALITY ASSURANCE

STRUCTURAL TESTS AND INSPECTIONS TO BE PERFORMED PER THE REFERENCED BUILDING CODE, INCLUDING CHAPTER 17 (SPECIAL INSPECTIONS) WILL BE AS REQUIRED AND PROVIDED BY OWNER OR THE OWNER'S DESIGNATED REPRESENTATIVE. SOILS: IBC §1705.6 AND TBL. 1705.6

CONCRETE: IBC §1705.3 AND TBL. 1705.3

NOTIFY THE ENGINEER FOR OTHER SPECIFIC TESTS AND INSPECTIONS AS MAY BE REQUIRED PER THE OWNER'S REQUIREMENTS.





T.O. FTG 904.67' F.L. 903.69' (PER CIVIL)

2'-6"

EXTEND 2'-6" MIN. ABOVE HOLE

FOR TYP. REINFORCEMENT

BOJECTS/2022/202010801 KCKPS WYANDOTTE HIGH SCHOOL PARKING/00 220801 CAD/SHTS/05 CIVII /EDPS/220801-05-0200-EDP DWG

# Section 311000 - SITE CLEARING

<u>PART 1 – GENERAL</u> 1) RELATED DOCUMENTS

- a. Drawings and general provision of the Contract including, General and Supplementary Conditions and Division 01 Specification Sections, apply to this section.
- 2) SUMMARY
  - a. Section IncludesProtecting existing vegetation to remain.
  - Removing existing vegetation to ref
     Removing existing vegetation.
  - Clearing and grubbing.
  - Stripping and stockpiling topsoil.
  - Removing above and below grade site improvements.
    Temporary erosion and sedimentation control measures.
- DEFINITIONS
   b. Subsoil: All soil beneath the topsoil layer of the soil profile, and typified by the lack of organic matter and soil organisms.
  - c. Surface Soil: Soil that is present at the top layer of the existing soil profile at the Project site. In undisturbed areas, the surface soil is typically topsoil; but in disturbed areas such as urban environments, the surface soil can be subsoil.
  - d. Topsoil: Top layer of the soil profile consisting of existing native surface topsoil or existing in-place surface soil and is the zone where plant roots grow. Its appearance is generally friable, pervious, and black or a darker shade of brown, gray, or red than underlying subsoil; reasonably free of subsoil, clay lumps, gravel, and other objects more than 2 inches in
  - diameter; and free of subsoil and weeds, roots, toxic materials, or other nonsoil materials. e. Plant—Protection Zone: Area surrounding individual trees, groups of trees, shrubs, or other vegetation to be protected during construction, and indicated on Drawings.
  - f. Tree-Protection Zone: Area surrounding individual trees or groups of trees to be protected during construction, and indicated on Drawings.
- g. Vegetation: Trees, shrubs, groundcovers, grass, and other plants.
- 4) MATERIAL OWNERSHIP
- a. Except for stripped topsoil and other materials indicated to be stockpiled or otherwise remain Owner's property, cleared materials shall become Contractor's property and shall be removed from Project site. All stripped topsoil shall remain onsite and be distributed onsite per the Construction Manager's direction. See Earth Moving specification for soil material instruction.
   5) SUBMITTALS
- a. Existing Conditions: Documentation of existing trees and plantings, adjoining construction, and site improvements that establishes preconstruction conditions that might be misconstrued as damage caused by site clearing.
  - Use sufficiently detailed photographs or videotape.
  - Include plans and notations to indicate specific wounds and damage conditions of each tree or other plants designated to remain.
- b. Record Drawings: Identifying and accurately showing locations of capped utilities and other subsurface structural, electrical, and mechanical conditions.
- 6) PROJECT CONDITIONS
  - a. Traffic: Minimize interference with adjoining roads, streets, walks, and other adjacent occupied or used facilities during site-clearing operations.
  - Do not close or obstruct streets, walks, or other adjacent occupied or used facilities without permission from Owner and authorities having jurisdiction.
    Provide alternate routes around closed or obstructed traffic ways if required by Owner or
  - authorities having jurisdiction.
     b. Salvageable Improvements: Carefully remove items indicated to be salvaged and store on
  - Owner's premises.

c. Utility Locator Service: Notify utility locator service and appropriate City and County agencies for area where Project is located before site clearing.
d. Do not commence site clearing operations until temporary erosion – and sedimentation – control

- and plant-protection measures are in place.
- e. Protect existing trees as indicated on drawings.f. The following practices are prohibited within protection zones:
- Storage of construction materials, debris, or excavated material.
- Parking vehicles or equipment.
- Foot traffic.
- Erection of sheds or structures.
- Impoundment of water.
   Every stice or other diaging unless other
- Excavation or other digging unless otherwise indicated.
  Attachment of signs to or wrapping materials around trees or plants unless otherwise indicated.
- indicated.Sediment encroachment.
- g. Do not direct vehicle or equipment exhaust towards protection zones.
- h. Prohibit heat sources, flames, ignition sources, and smoking within or near protection zones.
- i. Soil Stripping, Handling, and Stockpiling: Perform only when the topsoil is dry or slightly moist. <u>PART 2 - PRODUCTS</u>
- 7) MATERIALS
  - a. Satisfactory Soil Material: Requirements for satisfactory soil material shall be provided by the Geotechnical Engineer.
- Obtain approved borrow soil material off-site when satisfactory soil material is not available on-site. Coordinate with Geotechnical engineer for acceptable soil material.
   PART 3 - EXECUTION
- 8) PREPARATION
  - a. Protect and maintain benchmarks and survey control points from disturbance during construction. b. Locate and clearly identify trees, shrubs, and other vegetation to remain.
  - c. Protect existing site improvements to remain from damage during construction.
- Restore damaged improvements to their original condition, as acceptable to Owner.
   9) TEMPORARY EROSION AND SEDIMENTATION CONTROL
- a. Provide temporary erosion- and sedimentation-control measures to prevent soil erosion and discharge of soil-bearing water runoff or airborne dust to adjacent properties and walkways, according to erosion- and sedimentation-control Drawings and requirements of authorities having jurisdiction.
- b. Verify that flows of water redirected from construction areas or generated by construction activity do not enter or cross protection zones.
- c. Inspect, maintain, and repair erosion— and sedimentation—control measures during construction until permanent vegetation has been established.
- d. Contractor to keep inspection logs of erosion control measures and update provided Storm Water Pollution Prevention Plan (SWPPP).
- 10) TREE AND PLANT PROTECTION
- a. General: Protect trees and plants remaining on-site according to requirements in Division 01 Section "Temporary Tree and Plant Protection."
- b. Contractor to protect existing trees onsite as indicated on drawings.
- c. Repair or replace trees, shrubs, and other vegetation indicated to remain or be relocated that are damaged by construction operations, as indicated on drawings.
- d. For trees to be removed, remove entire root ball, all root and organic materials.
- 11) EXISTING UTILITIES
- a. Contractor to arrange for disconnecting and sealing indicated utilities that serve existing structures before site clearing, when requested by Contractor.
- Utility service shall be maintained to the existing school building during construction of the proposed building. Contractor shall coordinate with utility service providers to provide temporary service to the existing building as necessary. See demolition notes on drawings.
- b. Locate, identify, and disconnect utilities indicated to be abandoned in place.c. Interrupting Existing Utilities: Do not interrupt utilities serving facilities occupied by Owner or
- others unless permitted under the following conditions and then only after arranging to provide temporary utility services according to requirements indicated: • Do not proceed with utility interruptions without Construction Managers and Owners written
- permission. 12) CLEARING AND GRUBBING
- a Remove obstructio
- a. Remove obstructions, trees, shrubs, and other vegetation to permit installation of new construction.
- b. Fill depressions caused by clearing and grubbing operations with satisfactory soil material unless further excavation or earthwork is indicated.
   Place fill material in horizontal layers not exceeding a loose depth of 8 inches, and compact
- Place fill material in horizontal layers not exceeding a loose depth of 8 inches, and compact each layer to a density per geotechnical representative requirements.
   13) TOPSOIL STRIPPING
- a. Remove sod and grass before stripping topsoil.
- b. Strip topsoil in a manner to prevent intermingling with underlying subsoil or other waste
- materials.Remove subsoil and nonsoil materials from topsoil, including clay lumps, gravel, and other

objects more than 2 inches in diameter; trash, debris, weeds, roots, and other waste materials. • Geotechnical engineer to monitor stripping operations to observe that all unsuitable materials

- have been removed. c. Stockpile topsoil away from edge of excavations without intermixing with subsoil. Grade and shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water.
- Shape stockpiles to drain surface water. Cover to prevent windblown dust and erosion by water.
  Do not stockpile topsoil within protection zones.
  Dispose of surplus topsoil. Surplus topsoil is that which exceeds quantity indicated to be
- stockpiled or reused.
  Stockpile surplus topsoil to allow for respreading deeper topsoil.
  d. Remove all topsoil and all organic material from proposed building footprint and pavement areas. Excavate as deep as necessary to ensure all organic material has been removed.
- 14) SITE IMPROVEMENTS a. Remove existing above- and below-grade improvements as indicated from the site. See
- demolition notes on drawings.
  b. Remove slabs, paving, curbs, gutters, and aggregate base as indicated.
  Unless existing full-depth joints coincide with line of demolition, neatly saw-cut along line of
- onless existing full-depth joints coincide with line of demontion, nearly saw-cut doing line of existing pavement to remain before removing adjacent existing pavement. Saw-cut faces vertically.
- Paint cut ends of steel reinforcement in concrete to remain with two coats of antirust coating, following coating manufacturer's written instructions. Keep paint off surfaces that will remain exposed.
- 15) DISPOSAL OF SURPLUS AND WASTE MATERIALS
- a. Remove surplus unsuitable soil material, unsuitable topsoil, obstructions, demolished materials, and waste materials including trash and debris, and legally dispose of them off Owner's property. b. Separate recyclable materials produced during site clearing from other nonrecyclable materials.
- Store or stockpile without intermixing with other materials and transport them to recycliable materials. facilities. Do not interfere with other Project work.





	FINAL DEVELOPMENT PLANS/CONSTRUCTION DOCUMENTS FOR	WYANDOTTE HIGH SCHOOL IMPROVEMENTS		2501 MINNESOTA AVE. KANSAS CITY, KS 66102
	SITE	311000 E CLEAR	RING	6
PR	DJECT NO		)20 ⁻	1080 <i>°</i>
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1	ADD #2 CITY COMM	MENTS		02.28.2 02.27.2
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# SECTION 312000 - EARTH MOVING

# PART 1 – GENERAL 1) RELATED DOCUMENTS

- a. Drawings and general provisions of the Contract, including General and Suppleme and Division 01 Specification Sections, apply to this Section.
- 2) SUMMARY
  - a. Section includes:
  - Excavating and backfilling trenches for utilities and pits for buried utility struct • Preparing subgrade for pavements and grass areas.
  - General earthwork and excavation. b. Related sections:

• Section 311000 "Site Clearing" for site stripping, grubbing, stripping and stock and removal of above- and below-grade improvements and utilities.

- 3) UNCLASSIFIED SITE a. All site work for this project is considered "unclassified." The term "unclassified" be defined as meaning the site contractor bears the entire risk of the soil quar types (e.g. rock, clay, peat, silt, shale, etc.) encountered above the bottom of excavations and over-excavated / treated soils areas. Above the bottom of req excavations, the site contractor shall bear the entire cost of such additional wo it becomes necessary for unsuitable soils to be handled, removed from the site, fill material to be imported to the site. This definition of "unclassified" supersed definitions or statements which may be contained in the specifications, plans, o documents. The unclassified site shall include all work above the bottom of reg and/or required soil remediation/replacement.
- b. The contractor shall be responsible to determine earthwork quantities. All import earth material shall be the responsibility of the contractor at his expense. 5) DEFINITIONS
  - a. Backfill: Soil material or controlled low-strength material used to fill an excavat • Initial Backfill: Backfill placed beside and over pipe in a trench, including hau support sides of pipe.
  - Final Backfill: Backfill placed over initial backfill to fill a trench.
  - b. Bedding Course: Aggregate layer placed over the excavated subgrade in a trend c. Borrow Soil: Satisfactory soil imported from off-site for use as fill or backfill. d. Drainage Course: Aggregate layer supporting the slab-on-grade that also minin
  - capillary flow of pore water.
  - e. Fill: Soil materials used to raise existing grades. f. Structures: Buildings, footings, foundations, retaining walls, slabs, tanks, curbs, electrical appurtenances, or other man-made stationary features constructed abo the around surface.
  - g. Subgrade: Uppermost surface of an excavation or the top surface of a fill or immediately below subbase, drainage fill, drainage course, or topsoil materials. h. Utilities: On-site underground pipes, conduits, ducts, and cables, as well as und
- services within buildings. 6) SUBMITTALS
  - a. Product Data: For each type of the following manufactured products required: Geotextiles.
  - Controlled low-strength material, including design mixture.
  - Warning tapes.
  - b. Qualification Data: For qualified testing agency. c. Material Test Reports: For each on-site and borrow soil material proposed for
  - according to Geotechnical Engineer requirements. d. Preexcavation Photographs or Videotape: Show existing conditions of adjoining site improvements, including finish surfaces, that might be misconstrued as dam
- earth moving operations. Submit before earth moving begins. 7) QUALITY ASSURANCE
  - a. Geotechnical Testing Agency Qualifications: Qualified according to ASTM E 329 a 3740 for testing indicated.
- b. Preexcavation Conference: Conduct conference at Project site.
- 8) PROJECT CONDITIONS
  - a. Traffic: Minimize interference with adjoining roads, streets, walks, and other adj or used facilities during earth moving operations.
  - Do not close or obstruct streets, walks, or other adjacent occupied or used permission from Owner and authorities having jurisdiction. • Provide alternate routes around closed or obstructed traffic ways if required
  - authorities having jurisdiction. b. Improvements on Adjoining Property: Authority for performing earth moving indi
  - property adjoining Owner's property will be obtained by Owner before award of C • Do not proceed with work on adjoining property until directed by Architect. c. Utility Locator Service: Notify utility locator service and City and County agencie
  - where Project is located before beginning earth moving operations. d. Do not commence earth moving operations until temporary erosion- and sedime measures, are in place.
- PART 2 PRODUCTS
- 9) SOIL MATERIALS
  - a. General: Provide borrow soil materials when sufficient satisfactory soil materials available from excavations.
  - b. Satisfactory Soils: Soil Classification Groups GW, GP, GM, SW, SP, and SM acco D2487, or a combination of these groups; free of rock or gravel larger than 3 dimension, debris, waste, frozen materials, vegetation, and other deleterious matt
  - c. Unsatisfactory Soils: Soil Classification Groups GC, SC, CL, ML, OL, CH, MH, OH, according to ASTM D2487, or a combination of these groups. • Unsatisfactory soils also include satisfactory soils not maintained within 2 perc
  - moisture content at time of compaction. d. Bedding Course: Naturally or artificially graded mixture of natural stone or crus
  - crushed stone, and natural or crushed sand; ASTM D 2940; except with 100 per 1-inch sieve and not more than 8 percent passing a No. 200 sieve.
  - e. Sub-drainage Aggregate: Naturally or artificially graded mixture of natural stone fines. Aggregate range shall be  $\frac{1}{2}$ " to  $\frac{3}{4}$ ".
- 10) GEOTEXTILES
  - a. Separation Geotextile: Woven geotextile fabric, manufactured for separation appli from polyolefins or polyesters; with elongation less than 50 percent; complying 288 and the following, measured per test methods referenced:
  - Survivability: Class 3; AASHTO M 288. • Grab Tensile Strength: 120 lbf; ASTM D 4632.
  - Sewn Seam Strength: 222 lbf; ASTM D 4632.
  - Tear Strength: 50 lbf; ASTM D 4533.
  - Puncture Strength: 90 lbf; ASTM D 4833.
  - Apparent Opening Size: No. 70 sieve, maximum; ASTM D 4751.
  - Permittivity: 1.7 second-1, minimum; ASTM D 4491. • UV Stability: 70 percent after 500 hours' exposure; ASTM D 4355.
- 11) ACCESSORIES
  - a. Warning Tape: Acid- and alkali-resistant, polyethylene film warning tape manufa marking and identifying underground utilities, 6 inches wide and 4 mils thick, cor inscribed with a description of the utility; colored as follows: • Red: Electric.
  - Yellow: Gas, oil, steam, and dangerous materials.
  - Orange: Telephone and other communications.
  - Blue: Water systems. • Green: Sewer systems.
  - b. Detectable Warning Tape: Acid- and alkali-resistant, polyethylene film warning t manufactured for marking and identifying underground utilities, a minimum of 6 and 4 mils thick, continuously inscribed with a description of the utility, with me encased in a protective jacket for corrosion protection, detectable by metal dete is buried up to 30 inches deep; colored as follows:
  - Red: Electric. • Yellow: Gas, oil, steam, and dangerous materials.
  - Orange: Telephone and other communications.
  - Blue: Water systems. • Green: Sewer systems.
- PART 3 EXECUTION
- 12) PREPARATION
- a. Protect structures, utilities, sidewalks, pavements, and other facilities from damage

<ul> <li>A production of a production of sets of a production of a product</li></ul>				
<ul> <li>A Proof Addies and a Sanger San</li></ul>	mentary Conditions	`	operations. b. Protect and maintain erosion and sedimentation controls during earth moving operations. c. Protect subgrades and foundation soils from freezing temperatures and frost. Remove temporary protection before placing subsequent materials.	<ul> <li>Completely proof-roll subgrade i perpendicular to first direction.</li> <li>Excavate soft spots, unsatisfactor determined by the Geotechnical</li> </ul>
<ul> <li> <ul> <li></li></ul></li></ul>	uctures.	13)	a. Prevent surface water and ground water from entering excavations, from ponding on prepared subgrades, and from flooding Project site and surrounding area. b. Protect subgrades from softening, undermining, washout, and damage by rain or water	<ul> <li>After proof rolling and repairing scarified and uniformly compacte density to provide a uniform sub</li> </ul>
<ul> <li>Participant</li> <li>Particip</li></ul>			• Reroute surface water runoff away from excavated areas. Do not allow water to accumulate	•
<ul> <li>A. Jackson 2017</li> <li>A.</li></ul>	ockpiling topsoil,	,	EXPLOSIVES a. Explosives: Do not use explosives.	according to Contract provisions fo bottom of required excavations / I
<ul> <li>The control of the cont</li></ul>	uantities and/or f required	15)	a. Unclassified Excavation: Excavate to subgrade elevations regardless of the character of surface and subsurface conditions encountered. Unclassified excavated materials may include rock, soil materials, and obstructions. No changes in the Contract Sum or the Contract Time will be	a. General: Uniformly grade areas to Comply with compaction requiremen
<ul> <li>A construction</li> <li>A construction<td>te, or for suitable edes any contrary or other contract</td><td>16)</td><td>fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials as determined by the Geotechnical Engineer. EXCAVATION FOR WALKS AND PAVEMENTS</td><td><ul> <li>Cut out soft spots, fill low spots tolerances.</li> <li>b. Slope grades to direct water away required elevations within the follow</li> </ul></td></li></ul>	te, or for suitable edes any contrary or other contract	16)	fill and backfill include unsatisfactory soil materials and rock, replace with satisfactory soil materials as determined by the Geotechnical Engineer. EXCAVATION FOR WALKS AND PAVEMENTS	<ul> <li>Cut out soft spots, fill low spots tolerances.</li> <li>b. Slope grades to direct water away required elevations within the follow</li> </ul>
<ul> <li>interport is in the interport of the second is the point of the second is the second is</li></ul>		17)	geotechnical engineer. EXCAVATION FOR UTILITY TRENCHES a. Excavate trenches to indicated gradients, lines, depths, and elevations.	<ul> <li>Turf or Unpaved Areas: Plus or</li> <li>Walks: Plus or minus 1/4 inch</li> <li>Pavements: Plus or minus 1/4</li> <li>27) FIELD QUALITY CONTROL</li> </ul>
<ul> <li>special Docked term basic yetter bits of the basis of 2 latter hour that is 2 latter hour thour t</li></ul>			line.	
<ul> <li>a. In addition of the second se</li></ul>			conduit. Excavate trench walls vertically from trench bottom to 12 inches higher than top of pipe or conduit unless otherwise indicated. • Clearance: As indicated on plans.	requirements. • Determine that fill material and • Determine, at the required frequ
<ul> <li>And Antice and a comparison of the comparison of second and the comparison of the compari</li></ul>	II. nimizes upward	18)	a. Notify testing agency when excavations have reached required subgrade.	b. Testing Agency: Owner will engage
<ul> <li>Proceeding of the second second</li></ul>	s, mechanical and		replace with compacted backfill or fill material as directed. c. Proof—roll subgrade below proposed pavements with a pneumatic—tired and loaded 10—wheel, tandem—axle dump truck weighing not less than 15 tons to identify soft pockets and areas of	<ul> <li>c. Allow testing agency to inspect and subsequent earth moving only after requirements.</li> </ul>
<ul> <li>memory and the province of the decides. Link while yeard is 2 man.</li> <li>second to provi matter does not a final decide. Link while yeard is 2 man.</li> <li>second to provi matter does not a final decide. Link while yeard is 2 man.</li> <li>second to provi matter does not a final decide. Link while yeard is 2 man.</li> <li>Second to the provi matter does not a final decide.</li> <li>Here does not a final decide to the provi matter does not a final decide to the provide to to the pr</li></ul>			paving operations.	a. when testing agency reports that s compaction specified, scarify and r depth required; recompact and rete
<ul> <li>decide is the araper mobiler context ind cataly.</li> <li>exception of the complet of lower and low</li></ul>	underground		perpendicular to first direction. Limit vehicle speed to 3 mph. • Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as	
<ul> <li>Modules content und derby of subgroups to be created whith the days offer to the subgroups of the content under a subgroup of the subgroups of the content under a subgroup of the subgroup of the subgroups of the content under a subgroup of the subgroup of the subgroup of the content under a subgroup of the subgroup of t</li></ul>	:		directed to the proper moisture content and density. • After proof rolling and repairing deep subgrade deficiencies, the entire subgrade should be scarified to a depth of 8 inches and uniformly compacted to at least 95% of the standard	free of trash and debris. b. Install erosion control measures as necessary to prevent erosion or do c. Repair and reestablish grades to s surfaces become eroded, rutted, se
<ul> <li>construction and model coulds be worked to accord a parameter / stability and provide the param</li></ul>	a fill and backfill		Moisture content and density of subgrade to be checked within two days prior to the commencement of paving operations.	construction operations or weather • Scarify or remove and replace s
<ul> <li>Integrating to Cartinal providers for unit place and allowances for ware sectionly became to be interest of allowances for ware section.</li> <li>Integrating to Cartinal providers and machine shall be free at all arguing machine intermining allowances for ware section.</li> <li>Integrating to Cartinal providers and machine shall be free at all arguing machine intermining.</li> <li>Integrating to Cartinal providers and machine shall be free at all arguing machine intermining.</li> <li>Integrating to Cartinal providers and machine shall be free at all arguing machine intermining.</li> <li>Integrating to Cartinal providers and machine shall be free at all arguing machine intermining intermining machine intermining.</li> <li>Integrating to Cartinal providers and machine shall be free at all arguing machine intermining machine intermining.</li> <li>Integrating to Cartinal providers and machine shall be free at all arguing machine intermining machine intermining.</li> <li>Integrating to Cartinal providers and machine shall be free at all arguing machine intermining machine intermining.</li> <li>Integrating to Cartinal providers and the provider intermining.</li> <li>Integrating to Cartinal providers and the provider intermining.</li> <li>Integrating to Cartinal providers and the provider intermining.</li> <li>Integrating to Cartinal providers and machine shall be compared to Park and Machine during to Cartinal providers and the provider intermining.</li> <li>Integrating to Cartinal providers and the provider interm</li></ul>			construction activities, without additional compensation.	d. Where settling occurs before Project
and ADTM 0       10: SIGMAGE OF SOL MATERALS       a. Therepert supplies and/tests         add ADTM 0       a. Sigma (add b borns on the index when cope here of the complex of the control of the of the contro	amage caused by		according to Contract provisions for unit prices and allowances for work necessary below the bottom of required excavations only.	<ul> <li>Restore appearance, quality, and eliminate evidence of restoration</li> </ul>
adjacent accupied is mailing without is facilities without is fac	and ASTM D	19)	STORAGE OF SOIL MATERIALS a. Stockpile borrow soil materials and excavated satisfactory soil materials without intermixing. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.	<ul> <li>29) DISPOSAL OF SURPLUS AND WASTE MAT</li> <li>a. Transport surplus satisfactory soil</li> <li>prior to soil removal from site.</li> <li>e. Remove waste materials, includin</li> <li>of them off Owner's property.</li> </ul>
<ul> <li>I fealles attrout</li> <li>Construction below finise grace including, where opplicable, audrainage, dempprocing, a charging locations of underground utilities.</li> <li>I by Daner or construction below finise grace including, and sheeting.</li> <li>Construction construction of the encode of utilities.</li> <li>Exercise of test of or ore construction below finise grace on the body of test of</li></ul>	adjacent occupied	20)	BACKFILL	
Up Users or contract.         • Surveying logitions of underground utilities for Record Documents.           Contract.         • Failing on Impacting underground utilities Removing Impacting underground utilities.           Centract.         • Failing on Impacting underground utilities Removing Impacting underground utilities.           Centract.         • Failing on Impacting underground utilities Removing Impacting Underground utilities.           Centract.         • Failing on Impacting Underground utilities Removing Impacting Underground utilities.           Centract.         • Failing on Impacting Underground utilities for Record Documents.           Centract.         • Failing on Impacting Underground utilities for Record Documents.           Centract.         • Failing on Impacting Underground utilities for Record Documents.           Centract.         • Failing on Impacting Underground utilities for Record Documents.           Centract.         • Failing on Impacting Underground Undergroundergrounderground Underground Underground Undergrounderground U	l facilities without		<ul> <li>Construction below finish grade including, where applicable, subdrainage, dampproofing,</li> </ul>	
Contract.       • Remaining track made defa.         Centract.       • Rece defa.         Centract.       • Rece made defa.         Server to server the defa.       • Rece made defa.         Server to server the defa.       • Rece made defa.         Server to server the defa.       • Rece made defa.         Place net defa.       • Rece made defa.         Server to server the defa.       • Rece made defa.         Place net defa.       • Rece made defa.         Server to server the defa.       • Rece made defa.         Server to server the defa.       • Rece made defa.	-		<ul> <li>Surveying locations of underground utilities for Record Documents.</li> </ul>	
<ul> <li>else for the subgroup subgroups for bells, provide the following subgroups for of mud, fragt, and, wor ise.</li> <li>b. Place boddil and subgroups free of mud, fragt, and, wor ise.</li> <li>c. Boddil ther areas subgroups free of mud, fragt, and, wor ise.</li> <li>c. Bode boddil and subgroups free of mud, fragt, and, wor ise.</li> <li>c. Bode boddil and subgroups free of mud, fragt, and where incicated. Shape bedding course to provide contains.</li> <li>c. Bode boddil and compact bedding course on trench bottoms and where incicated. Shape bedding course to provide contains.</li> <li>c. Bode boddil and compact bedding course on trench bottoms and where incicated. Shape bedding course to provide contains.</li> <li>c. Bode subgroups contrains.</li> <li>c. Bode subgroups contrelation.</li> <li>c. Bode subgroups con</li></ul>			<ul> <li>Removing trash and debris.</li> </ul>	
<ul> <li>ubclassing of the compact of building poder shall be compacted to 93% standard density.</li> <li>21) UTLITY TEKNOI BACKFLL</li> <li>21) UTLITY TEKNOI BACKFLL</li> <li>21) UTLITY TEKNOI BACKFLL</li> <li>22) DEC backfill on subgrades free of mud, frest, snew, or ice.</li> <li>23) Dec backfill on subgrades free of mud, frest, snew, or ice.</li> <li>24) Proce and compact bedding course on therein boloms and where iniciated. Shape bedding course is provide continuous upport for belis, joints, and barrels of pipes and for joints, fittings, and backs of conduits.</li> <li>24) Dec and compact bedding. Cycle metric iniciated grade, except 6 inches</li> <li>25) Dec anapped under powents and differ. Just and the building. Fug metricial should consist, of clay compacted at a water content in the building. Plug metricial should consist, of clay compacted at a water content in the the building. Plug metricial should consist, of clay compacted at a water content in the the building. Plug metricial should consist, of clay compacted at a water content in the the solis optimum water content.</li> <li>25 SUL FILL</li> <li>2 Dece and rompact. Him metricial is plug content.</li> <li>2 Direce and fill and with watering meterial.</li> <li>2 Proce and the should be backfill and in a plug des surfaces steeper than 1 vertical to 4 horizontal so fill meterial should be construint of a subgrade strane.</li> <li>2 SUL FILL</li> <li>2 Dece and in a building and and waterial should compacted to a least 35% of the meterial should then a subgrade strate or muticity is an anapped to a least 35% of the meterial should then a subgrade and compacted per the project requirements.</li> <li>2 Berch exiting plug and on adjust to swith the trange recommended for structural fill. The motical solutions or advice and some structural fills. The motical solutions of an advice and some structural fills. The motical solutions or advice and some subgrade and and subgrades and and subgrade</li></ul>	cies for area		<ul> <li>Installing permanent or temporary horizontal bracing on horizontally supported walls.</li> </ul>	
<ul> <li>a de not</li> <li>a. Pice back/il on subgrades free of mud, frast, anow, or ice.</li> <li>blee and compact bedding course on trench bottoms and where indicated. Shape bedding course to provide confluous support for bells, jointa, and barrels of pipes and for joints.</li> <li>clinatal warring to pa directly doole utilities, 12 inches below finished grades, except 6 inchest below subgrades under poersents and subcress of pipes and for joints.</li> <li>clinatal warring to a directly doole utilities, 12 inches below finished grades, except 6 inchest below subgrades under poersents and subcress of otco consected at a conseconta at a consected at a consected at a c</li></ul>	nentation—control	21)	plans. Areas under pavements or building pads shall be compacted to 95% standard density. All other areas shall be compacted to 90% standard density.	
3 increase in any citer.		,	a. Place backfill on subgrades free of mud, frost, snow, or ice. b. Place and compact bedding course on trench bottoms and where indicated. Shape bedding	
<ul> <li>trough the trench into the building. Plug material should consist of clay compacted at a water content at or above the solis optimum water content.</li> <li>Utility trenches should be backfilled per the requirements of the plan details.</li> <li>22) SOL FILL</li> <li>a. Plow, scarify, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material ill bod with existing material.</li> <li>b. Place and compact fill material in 9 inch loss lifts and compacted to a tiess 95% of the materials must dry density and molsture control as recommended by the geotechnical testing representative.</li> <li>c. Place soil fill on subgrades free of mud, frost, snow, or ice.</li> <li>d. The exposed grade prior to fill being placed shall be scarified to a minimum depth of 12° and the motiential should then be proof-rolled and compacted to a minimum depth of 12° and the motiential should then be proof-rolled and compacted prior to grade to the project requirements.</li> <li>e. Bench existing slopes of 5:1 or greater where fill is to be placed.</li> <li>23) SDL MOSTURE CONTROL</li> <li>a. Uniformly moisten or earcts subgrade and each subsequent fill or backfill soil layer before compacted by the geotechnical testing representative.</li> <li>a. Uniformly requirements.</li> <li>a. Diace backfill and fill soil material in jurys not more than 8 inches in loose depth for material within of the subjement, and not more than 4 inches in loose depth for material compacted by hangers.</li> <li>b. Place backfill and fill soil materials in layers and the more structure.</li> <li>c. Demact soil material complexed structures to require elevations, and uniformly oligon the full length of each structure.</li> <li>c. Demact soil material in length of sector structures to require elevations, and uniformly oligon the full length of each structure.</li> <li>c. Demact soil material sin layers not more than 8 inches in loose depth for material compacted b</li></ul>	3 inches in any atter.		fittings, and bodies of conduits. c. Install warning tape directly above utilities, 12 inches below finished grade, except 6 inches	
type:       22)       SOIL_FILL       3. Play, scatting, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.       3. Play, scatting, bench, or break up sloped surfaces steeper than 1 vertical to 4 horizontal so fill material will bond with existing material.         uplications, made      Place and compact fill material in 9 inch loase lifts and compacted to at least 95% of the materials max dry density and moisture control as recommended by the geotechnical testing representative.        with AASHTO M      Place soil fill on subgrades free of mud, frost, snow, or ice.        Distribute content ishuld be adjusted to within the range recommended for structural fill. The material should then be proof-rolled and compacted per the project requirements.        Banch existing slopes of 5:1 or greater where fill is to be placed.         23) SOIL_MOISTURE CONTROL        Di not place backfill or fill soil material on surfaces that are mudy, frozen, or contain frost or ice.        Di not place backfill or fill soil material in surfaces that are mudy, frozen, or contain frost or ice.        De not place backfill and fill soil materials in loyers nat more than 8 inches in loose depth for material compacted by heavy compaction equipments.        Diformly along the full length of each structures to required levations, and uniformly along the full length of each structures to required levations, and uniformly along the full length of each structures to required levations, and uniformly along the full length of each structures to required levations, and uniformly along the full length of each structures t			through the trench into the building. Plug material should consist of clay compacted at a	
<ul> <li>meterial will bord with existing material.</li> <li>b. Place and compact fill material in 9 inch losse lifts and compacted to at least 95% of the materials may dry density and moisture control as recommended by the geotechnical testing representative.</li> <li>c. Place soil fill on subgrades free of mud, frost, snow, or ice.</li> <li>d. The exposed grade prior to fill being placed shell be scarified to a minimum depth of 12° and the moisture content should be odjusted to within the range recommended for structural fill. The meterial should then be proof-rolled and compacted per the project requirements.</li> <li>e. Bench existing slopes of 5:1 or greater where fill is to be placed.</li> <li>23 SOL MOISTURE CONTROL</li> <li>a. Uniformly moisten or cerete subgrade and each subsequent fill or backfill soil layer before compaction as recommended by the geotechnical testing representative.</li> <li>b to place backfill or fill soil material on surfaces that are muddy, frozen, or contain frost or ice.</li> <li>Remove and replace, or scarify and air dry, otherwise satisfactory soil material not meeting moisture requirements.</li> <li>COMPACION OF SOLI BACKFILLS AND FILLS</li> <li>a. Place backfill and fill soil materials in layers not more than 4 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by heavd-compactine agineer.</li> <li>to be not soil materials to requirements determined by Geotechnical Engineer.</li> <li>b. Place backfill or fill soil materials to be performed every 200 cubic yards at backfill or each fill with with 200 linear feet of trench, whichever is less.</li> <li>BUILDING PAD PREPARATION</li> <li>b. Place backfill or fill soil material, capillary barrier, and vapor barrier for the building pad. The LVC shall consist of the following section from the bottom: 8' of structural fill material (geotechnical regimeer to determine material), 12' of KDOT AB=3 aggregate, and 4' capillary barrier.</li> <li>b. M</li></ul>	-	22)	SOIL FILL	
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<ul> <li>d. Utility trenches - compaction testing to be performed every 200 cubic yards at backfill or</li> <li>6 inches wide metallic core each lift within 200 linear feet of trench, whichever is less.</li> <li>25) BUILDING PAD PREPARATION <ul> <li>a. Prepare low-volume change material, capillary barrier, and vapor barrier for the building pad.</li> <li>The LVC shall consist of the following section from the bottom: 8" of structural fill material (geotechnical engineer to determine material), 12" of KDOT AB-3 aggregate, and 4" capillary barrier.</li> <li>b. Moisture condition and compact native soils below the LVC zone as necessary per onsite geotechnical representative.</li> <li>c. Proof-roll subgrade below proposed building pads with a pneumatic-tired and loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons to identify soft pockets and areas of</li> </ul> </li> </ul>	continuousiy	24)	a. Place backfill and fill soil materials in layers not more than 8 inches in loose depth for material compacted by heavy compaction equipment, and not more than 4 inches in loose depth for material compacted by hand—operated tampers. b. Place backfill and fill soil materials evenly on all sides of structures to required elevations, and	
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avage vialation to not prost-roll wat ar acturated subgrades. Unset will within two days -t			c. Proof-roll subgrade below proposed building pads with a pneumatic-tired and loaded 10-wheel, tandem-axle dump truck weighing not less than 15 tons to identify soft pockets and areas of	
excess yielding. Do not proof—roll wet or saturated subgrades. Proof—roll within two days of nage caused by	nage caused by		excess yielding. Do not proor-roll wet or saturated subgrades. Proor-roll within two days of	

- oll subgrade in one direction, repeating proof-rolling in direction t direction. Limit vehicle speed to 3 mph.
- unsatisfactory soils, and areas of excessive pumping or rutting, as Geotechnical Engineer, and replace with compacted backfill or fill as per moisture content and density.
- and repairing deep subgrade deficiencies, the entire subgrade should be mly compacted to at least 95% of the standard proctor maximum dry uniform subgrade for building pad construction. Moisture content and to be checked within two days prior to the commencement of building
- excavation and replacement / stabilization of soils will be paid for provisions for unit prices and allowances for work necessary below the cavations / low volume change material only.
- rade areas to a smooth surface. free of irreaular surface changes. ion requirements and grade to cross sections, lines, and elevations
- ransition between adjacent existing grades and new grades. fill low spots, and trim high spots to comply with required surface
- water away from buildings and to prevent ponding. Finish subgrades to hin the following tolerances: eas: Plus or minus 1 inch.
- nus 1/4 inch.
- minus 1/4 inch.
- Dwner will engage a qualified special inspector to perform the following
- placement of fill that site has been prepared in compliance with
- material and maximum lift thickness comply with requirements. required frequency, that in-place density of compacted fill complies with
- r will engage a gualified geotechnical engineering testing agency to
- to inspect and test subgrades and each fill or backfill layer. Proceed with ring only after test results for previously completed work comply with
- reports that subgrades, fills, or backfills have not achieved degree of scarify and moisten or aerate, or remove and replace soil materials to pact and retest until specified compaction is obtained.
- as: Protect newly graded areas from traffic, freezing, and erosion. Keep
- measures as indicated on the plans. Install additional measures as erosion or damage to erosion control measures. grades to specified tolerances where completed or partially completed
- led, rutted, settled, or where they lose compaction due to subsequent or weather conditions. and replace soil material to depth as directed by Architect; reshape and
- before Project correction period elapses, remove finished surfacing, backfill aterial, compact, and reconstruct surfacing.
- quality, and condition of finished surfacing to match adjacent work, and of restoration to greatest extent possible. ID WASTE MATERIALS
- sfactory soil offsite. Stockpile / spread topsoil per contract documents from site. rials, including unsatisfactory soil, trash, and debris, and legally dispose





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REVISION

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	<b>ION 321216 – ASPHALT PAVING</b> 1 – GENERAL	13)	JOINTS a. Construct joints to ensure a contin
)	<u>related</u> documents		joints free of depressions, with san
	a. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.		asphalt course. • Clean contact surfaces and apply
2)	SUMMARY a. Section Includes:		<ul> <li>Offset longitudinal joints, in succ</li> <li>Offset transverse joints, in succe</li> </ul>
	<ul> <li>Hot—mix asphalt paving.</li> </ul>		<ul> <li>Construct transverse joints at ea at a subsequent time.</li> </ul>
	<ul> <li>b. Related Sections:</li> <li>Section 312000 "Earth Moving" for aggregate subbase and base courses.</li> </ul>		<ul> <li>Compact joints as soon as hot—</li> </ul>
	<ul> <li>Division 32 Sections for other paving installed as part of crosswalks in asphalt pavement</li> </ul>		displacement. • Compact asphalt at joints to a (
3)	areas. DEFINITION	14)	COMPACTION
)	a. Hot—Mix Asphalt Paving Terminology: Refer to ASTM D 8 for definitions of terms. SUBMITTALS		a. General: Begin compaction as soo excessive displacement. Compact I
/	a. Product Data: For each type of product indicated. Include technical data and tested physical		<ul><li>vibratory-plate compactors in areas</li><li>Complete compaction before mix</li></ul>
	and performance properties. • Job—Mix Designs: For each job mix proposed for the Work.		b. Breakdown Rolling: Complete break outside edge. Examine surface imi
	b. Material Certificates: For each paving material, from manufacturer. Certifying that each material complies with or exceeds specified requirements.		and smoothness. Correct laydown
• •	c. Material Test Reports: For each paving material.		c. Intermediate Rolling: Begin interme hot—mix asphalt is still hot enough
)	QUALITY ASSURANCE a. Manufacturer Qualifications: A paving-mix manufacturer registered with a history of successful		<ul><li>asphalt course has been uniformly</li><li>Average Density: 96 percent of</li></ul>
	performance. b. Installer Qualifications: Engage an experienced installer who is trained and approved for		not less than 94 percent nor gr d. Finish Rolling: Finish roll paved su
	installations required for this Project.		warm.
	c. Testing Agency Qualifications: Qualified according to ASTM D 3666 for testing indicated. d. Regulatory Requirements: Comply with materials, workmanship, and other applicable		e. Edge Shaping: While surface is be proper alignment. Bevel edges whi
	requirements of the pavement specifications called out in the geotechnical report for asphalt paving work.		f. Repairs: Remove paved areas that replace with fresh, hot-mix asphalt
	e. Preinstallation Conference: Conduct conference at a site acceptable to the Construction		smoothness.
	Manager. • Review methods and procedures related to hot—mix asphalt paving including, but not limited		g. Protection: After final rolling, do n and hardened.
	to, the following: 1. Review proposed sources of paving materials, including capabilities and location of plant		h. Erect barricades to protect paving marked.
	that will manufacture hot-mix asphalt. 2. Review condition of subgrade and preparatory work.	15)	PAVEMENT MARKING
	3. Review requirements for protecting paving work, including restriction of traffic during		<ul> <li>a. Do not apply pavement—marking pa with Architect.</li> </ul>
	installation period and for remainder of construction period. 4. Review and finalize construction schedule and verify availability of materials, Installer's		b. Allow paving to age for 5 days bef
	personnel, equipment, and facilities needed to make progress and avoid delays.		c. Sweep and clean surface to elimino d. Apply paint with mechanical equipm
	DELIVERY, STORAGE, AND HANDLING a. Deliver pavement-marking materials to Project site in original packages with seals unbroken and		with uniform, straight edges. Apply minimum wet film thickness of 15
	bearing manufacturer's labels containing brand name and type of material, date of manufacture,	16)	INSTALLATION TOLERANCES
	and directions for storage. PROJECT CONDITIONS		a. Pavement Thickness: Compact eac following tolerances:
	a. Environmental Limitations: Do not apply asphalt materials if subgrade is wet or excessively damp, if rain is imminent or expected before time required for adequate cure, or if the		• Base Course: Plus or minus 1/
	following conditions are not met:		<ul> <li>Surface Course: Plus 1/4 inch,</li> <li>b. Pavement Surface Smoothness: Co</li> </ul>
	<ul> <li>Tack Coat: Minimum surface temperature of 50 deg F.</li> <li>Slurry Coat: Comply with weather limitations in ASTM D 3910.</li> </ul>		the following tolerances as determin longitudinally to paved areas:
	<ul> <li>Asphalt Base Course: Minimum surface temperature of 40 deg F and rising at time of placement.</li> </ul>		• Base Course: 1/4 inch.
	• Asphalt Surface Course: Minimum surface temperature of 50 deg F at time of placement		<ul> <li>Surface Course: 1/8 inch.</li> <li>Crowned Surfaces: Test with cro</li> </ul>
<u>T</u>	and when base is dry. <u>2 — PRODUCTS</u>	`	Maximum allowable variance from
	MATERIALS AND MIXES a. General: All work on the site as herein called for shall be done in accord with the American	17)	FIELD QUALITY CONTROL a. Testing Agency: Owner will engage
	Public Works Association (APWA), Kansas City Metropolitan Chapter, Division II, "Construction and		b. Thickness: In-place compacted thi according to ASTM D 3549.
	Materials Specifications for Paving", Section 2200, latest edition. The work herein required is not of the magnitude of work described in the aforesaid Standard Specification, therefore only		c. Surface Smoothness: Finished surf
	applicable limitations will be enforced. However, this is not a relaxing of the requirements for the quality of the work. When work is obviously substandard, necessary tests will be made		compliance with smoothness toleran d. In-Place Density: Testing agency w
	for compliance to the specifications. Work found to be in noncompliance with the specification shall be removed and replaced at the expense of the Contractor, including the costs of all		compacted pavement according to . • Reference maximum theoretical d
	tests.		samples of hot—mix asphalt—pav ASTM D 2041, and compacted a
	<ul> <li>Use locally available materials and gradations that exhibit a satisfactory record of previous installations.</li> </ul>		<ul> <li>In-place density of compacted p</li> </ul>
	b. Base Course Mix: Conform to requirements for mix designations APWA Type 1—01, per section 2205 of referenced APWA Specifications. Recycled content per APWA specifications allowed.		according to ASTM D 1188 or AS 1. One core sample will be tak
	c. Surface Course Mix: Conform to requirements for mix designation APWA Type 3-01, per Section		with no fewer than 3 cores 2. Field density of in-place co
	2205 of referenced APWA Specifications. Recycled content per APWA specifications allowed. d. Marking Paint: Alkyd—resin type, ready—mixed complying with AASHTO M248, Type I.		method according to ASTM
	Colors: White.     ASPHALT-AGGREGATE MIXTURE		e. Replace and compact hot—mix asph f. Remove and replace or install addit
	a. Provide plant—mixed, hot—laid asphalt—aggregate mixture complying with ASTM D 3515 and as	12\	indicate that it does not comply wi DISPOSAL
	recommended by local paving authorities to suit project conditions. <u>3 — EXECUTION</u>	10)	a. Except for material indicated to be
	EXAMINATION		legally dispose of them in an EPA- • Do not allow milled materials to
	a. Verify that subgrade is dry and in suitable condition to begin paving. b. Proof-roll subgrade below proposed pavements with a pneumatic-tired and loaded 10-wheel,		
	tandem—axle dump truck weighing not less than 15 tons to identify soft pockets and areas of excess yielding. Do not proof—roll wet or saturated subgrades. Proof—roll within two days of		
	paving operations.		
	<ul> <li>Completely proof-roll subgrade in one direction, repeating proof-rolling in direction perpendicular to first direction. Limit vehicle speed to 3 mph.</li> </ul>		
	<ul> <li>Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by the Geotechnical Engineer, and replace with compacted backfill or fill as</li> </ul>		
	directed to the proper moisture content and density.		
	<ul> <li>After proof rolling and repairing deep subgrade deficiencies, the entire subgrade should be scarified to a depth of 8 inches and uniformly compacted to at least 95% of the standard</li> </ul>		
	proctor maximum dry density to provide a uniform subgrade for pavement construction. Moisture content and density of subgrade to be checked within two days prior to the		
	commencement of paving operations.		
	<ul> <li>Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, without additional compensation.</li> </ul>		
)	c. Proceed with paving only after unsatisfactory conditions have been corrected. SURFACE PREPARATION		
	a. General: Immediately before placing asphalt materials, remove loose and deleterious material		
	from substrate surfaces. Ensure that prepared subgrade is ready to receive paving. b. Tack Coat: Apply uniformly to surfaces of existing pavement at a rate of 0.05 to 0.15		
	gal./sq. yd. • Allow tack coat to cure undisturbed before applying hot—mix asphalt paving.		
	• Avoid smearing or staining adjoining surfaces, appurtenances, and surroundings. Remove		
	spillages and clean affected surfaces. HOT-MIX ASPHALT PLACING		
	a. Machine place hot—mix asphalt on prepared surface, spread uniformly, and strike off. Place		
	asphalt mix by hand to areas inaccessible to equipment in a manner that prevents segregation of mix. Place each course to required grade, cross section, and thickness when compacted.		
	<ul> <li>Place hot—mix asphalt base course in number of lifts and thicknesses indicated.</li> <li>Place hot—mix asphalt surface course in single lift.</li> </ul>		
	<ul> <li>Spread mix at minimum temperature required by the mix design and outside temperature.</li> <li>Begin applying mix along centerline of crown for crowned sections and on high side of</li> </ul>		
	one-way slopes unless otherwise indicated.		
	one—way slopes unless otherwise indicated. • Regulate paver machine speed to obtain smooth, continuous surface free of pulls and tears in asphalt—paving mat.		

- in asphalt—paving mat. b. Place paving in consecutive strips not less than 10 feet wide unless infill edge strips of a lesser width are required.
- After first strip has been placed and rolled, place succeeding strips and extend rolling to overlap previous strips. Complete a section of asphalt base course before placing asphalt surface course.
- c. Promptly correct surface irregularities in paving course behind paver. Use suitable hand tools to remove excess material forming high spots. Fill depressions with hot-mix asphalt to prevent segregation of mix; use suitable hand tools to smooth surface.

tinuous bond between adjoining paving sections. Construct same texture and smoothness as other sections of hot-mix

- oply tack coat to joints. uccessive courses, a minimum of 6 inches. ccessive courses, a minimum of 24 inches. each point where paver ends a day's work and resumes work
- t-mix asphalt will bear roller weight without excessive
- density within 2 percent of specified course density.
- soon as placed hot—mix paving will bear roller weight without hot-mix paving with hot, hand tampers or with eas inaccessible to rollers.
- nix temperature cools to 185 deg F.
- eakdown or initial rolling immediately after rolling joints and immediately after breakdown rolling for indicated crown, grade, n and rolling operations to comply with requirements.
- mediate rolling immediately after breakdown rolling while ugh to achieve specified density. Continue rolling until hot-mix y compacted to the following density: of reference laboratory density according to ASTM D 6927, but
- greater than 100 percent. surfaces to remove roller marks while hot-mix asphalt is still
- being compacted and finished, trim edges of pavement to while asphalt is still hot; compact thoroughly. hat are defective or contaminated with foreign materials and nalt. Compact by rolling to specified density and surface
- not permit vehicular traffic on pavement until it has cooled from traffic until mixture has cooled enough not to become
- paint until layout, colors, and placement have been verified
- before starting pavement marking. ninate loose material and dust.
- pment to produce pavement markings, of dimensions indicated, oply at manufacturer's recommended rates to provide a 5 mils.
- each course to produce the thickness indicated within the
- 1/4 inch. ch, no minus.
- Compact each course to produce a surface smoothness within mined by using a 10-foot straightedge applied transversely or
- crowned template centered and at right angle to crown. om template is 1/4 inch.
- age a qualified testing agency to perform tests and inspections. thickness of hot-mix asphalt courses will be determined
- urface of each hot-mix asphalt course will be tested for rances.
- will take samples of uncompacted paving mixtures and ASTM standards.
- density will be determined by averaging results from four aving mixture delivered daily to site, prepared according to according to job-mix specifications.
- pavement will be determined by testing core samples ASTM D 2726.
- taken for every 1000 sq. yd. or less of installed pavement, res taken. compacted pavement may also be determined by nuclear
- M D 2950 and correlated with ASTM D 1188 or ASTM D 2726. sphalt where core tests were taken. dditional hot-mix asphalt where test results or measurements with specified requirements.
- be recycled, remove excavated materials from Project site and A-approved landfill.
- to accumulate on-site.





FOR

DOCUMENTS

**NS/CONSTRUCTION** 

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DEVELOPMENT

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10. Meadows, W. R., Inc.; 1100-CLEAR SERIES. SECTION 321313 - CONCRETE PAVING 11. Nox-Crete Products Group; Resin Cure E. PART 1 – GENERAL 12. SpecChem, LLC; PaveCure Rez. 1) RELATED DOCUMENTS 13. Symons by Dayton Superior; Resi-Chem Clear. a. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 14. Tamms Industries, Inc., Euclid Chemical Company (The); TAMMSCURE WB 30C. Specification Sections, apply to this Section. 15. TK Products, Division of Sierra Corporation. 2) SUMMARY 16. Vexcon Chemicals Inc.; Certi-Vex Enviocure 100. a. Section Includes: 11) RELATED MATERIALS • Curbs and autters. a. Joint Fillers: ASTM D 1751, asphalt-saturated cellulosic fiber or ASTM D 1752, cork or self-expanding cork in preformed Walks. Driveways. c. Epoxy Bonding Adhesive: ASTM C 881/C 881M, two-component epoxy resin capable of humid curing and bonding to damp Pavement surfaces: of class suitable for application temperature, of arade complying with requirements, and of the following types: b. Related Sections: • Types IV and V. load bearing, for bonding hardened or freshly mixed concrete to hardened concrete. • Section 321373 "Concrete Paving Joint Sealants" for joint sealants in expansion and contraction joints within concrete d. Chemical Surface Retarder: Water-soluble, liquid, set retarder with color dye, for horizontal concrete surface application, paving and in joints between concrete paving and asphalt paving or adjacent construction. capable of temporarily delaying final hardening of concrete to a depth of 1/8 to 1/4 inch. c. All concrete shall conform with the Kansas City Metro Materials Board minimum 4000 PSI granite mix (KCMMB 4K). If there • Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, are any contradictions to this mix in this specification, the KCMMB 4K mix shall govern. but are not limited to, the following: 3) DEFINITIONS 1. ChemMasters; Exposee. a. Cementitious Materials: Portland cement alone or in combination with one or more of blended hydraulic cement, fly ash 2. Conspec by Dayton Superior; Delay S. and other pozzolans, and ground granulated blast-furnace slag. 3. Dayton Superior Corporation; Sure Etch (J-73). 4) SUBMITTALS 4. Edoco by Dayton Superior; True Etch Surface Retarder. a. Product Data: For each type of product indicated. 5. Euclid Chemical Company (The), an RPM company; Surface Retarder Formula S. b. Other Action Submittals: 6. Kaufman Products, Inc.; Expose. • Cementitious materials. 7. Meadows, W. R., Inc.; TOP-STOP • Steel reinforcement and reinforcement accessories. 8. Metalcrete Industries; Surftard. Admixtures. 9. Nox-Crete Products Group; CRETE-NOX TA. Curing compounds. 10. Scofield, L. M. Company; LITHOTEX Top Surface Retarder. Applied finish materials. 11. Sika Corporation, Inc.; Rugasol-S. • Bonding agent or epoxy adhesive. 12. SpecChem, LLC; Spec Etch. Joint fillers. 13. TK Products, Division of Sierra Corporation; TK-6000 Concrete Surface Retarder. c. Material Test Reports: For each of the followina: 14. Unitex: TOP-ETCH Surface Retarder • Aggregates. Include service-record data indicating absence of deleterious expansion of concrete due to alkali-aggregate 15. Vexcon Chemicals Inc.; Certi-Vex Envioset reactivity. 12) WHEEL STOPS d. Field quality-control reports. e. Wheel Stops: Precast, air-entrained concrete, 3000-psi minimum compressive strength, 4-1/2 inches high by 9 inches 5) QUALITY ASSURANCE wide by 72 inches long. Provide chamfered corners and drainage slots on underside and holes for anchoring to substrate. a. Detectable Warning Installer Qualifications: An employer of workers trained and approved by manufacturer of brick paving • Dowels: Galvanized steel, 3/4 inch in diameter, 10-inch minimum length. b. Ready-Mix-Concrete Manufacturer Qualifications: A firm experienced in manufacturing ready-mixed concrete products and 13) CONCRETE CURBS that complies with ASTM C 94/C 94M requirements for production facilities and equipment. a. Curbs to comply with the plan details. • Manufacturer certified according to NRMCA's "Certification of Ready Mixed Concrete Production Facilities" (Quality Control 14) CONCRETE MIXTURES a. Prepare design mixtures, proportioned according to ACI 301, for each type and strength of normal-weight concrete, and as Manual - Section 3. "Plant Certification Checklist"). determined by either laboratory trial mixtures or field experience. Use ASTM C150, Type 1 - portland cement. Aggregates c. Testing Agency Qualifications: Qualified according to ASTM C 1077 and ASTM E 329 for testing indicated. per KCMMB-4K specifications. • Personnel conducting field tests shall be qualified as ACI Concrete Field Testing Technician, Grade 1, according to ACI • See concrete requirements in geotechnical report. CP-1 or an equivalent certification program. • Use a qualified independent testing agency for preparing and reporting proposed concrete design mixtures for the trial d. Concrete Testing Service: Engage a qualified testing agency to perform material evaluation tests and to design concrete batch method mixtures. • When automatic machine placement is used, determine design mixtures and obtain laboratory test results that meet or e. ACI Publications: Comply with ACI 301 unless otherwise indicated. exceed requirements. f. Preinstallation Conference: Conduct conference at Project site. b. Proportion mixtures to provide normal-weight concrete with the following properties: • Review methods and procedures related to concrete paving, including but not limited to, the following: Compressive Strength (28 Days): 4000 psi. Concrete mixture design. • Maximum Water-Cementitious Materials Ratio at Point of Placement: 0.45. 2. Quality control of concrete materials and concrete paving construction practices. • Slump Limit: 4 inches plus or minus 1 inch for paving and 2 plus or minus one inch for curbs and gutters. • Require representatives of each entity directly concerned with concrete paving to attend, including the following: c. Add air-entraining admixture at manufacturer's prescribed rate to result in normal-weight concrete at point of placement 1. Contractor's superintendent. having an air content as follows: 2. Independent testing agency responsible for concrete design mixtures • Air Content: 6 percent plus or minus 1 percent. 3. Ready-mix concrete manufacturer. d. Limit water-soluble, chloride-ion content in hardened concrete to 0.15 percent by weight of cement. 4. Concrete paving subcontractor. 6) PROJECT CONDITIONS e. Chemical Admixtures: Use admixtures according to manufacturer's written instructions. • Use water-reducing and retarding admixture when required by high temperatures, low humidity, or other adverse a. Traffic Control: Maintain access for vehicular and pedestrian traffic as required for other construction activities. placement conditions. PART 2 - PRODUCTS f. Cementitious Materials: Limit percentage by weight of cementitious materials other than portland cement according to AC 7) FORMS 301 requirements as follows: a. Form Materials: Plywood, metal, metal-framed plywood, or other approved panel-type materials to provide full-depth. • Fly Ash or Pozzolan: 25 percent. continuous, straight, and smooth exposed surfaces. Ground Granulated Blast-Furnace Slag: 50 percent. • Use flexible or uniformly curved forms for curves with a radius of 100 feet or less. Do not use notched and bent • Combined Fly Ash or Pozzolan, and Ground Granulated Blast-Furnace Slag: 50 percent, with fly ash or pozzolan not forms. exceeding 25 percent. b. Form-Release Agent: Commercially formulated form-release agent that will not bond with, stain, or adversely affect 15) CONCRETE MIXING concrete surfaces and that will not impair subsequent treatments of concrete surfaces. 8) STEEL REINFORCEMENT a. Ready—Mixed Concrete: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M, and a. Plain-Steel Welded Wire Reinforcement: ASTM A 185/A 185M, fabricated from steel wire into flat sheets. ASTM C 1116/C 1116M. Furnish batch certificates for each batch discharged and used in the Work. • When air temperature is between 85 and 90 deg F, reduce mixing and delivery time from 1-1/2 hours to 75 minutes; b. Reinforcing Bars: ASTM A 615/A 615M, Grade 60; deformed. when air temperature is above 90 deg F, reduce mixing and delivery time to 60 minutes. c. Joint Dowel Bars: ASTM A 615/A 615M, Grade 60 plain-steel bars. Cut bars true to length with ends square and free of b. Project-Site Mixing: Measure, batch, and mix concrete materials and concrete according to ASTM C 94/C 94M. Mix burrs. concrete materials in appropriate drum-type batch machine mixer. d. Tie Bars: ASTM A 615/A 615M, Grade 60, deformed. • For concrete batches of 1 cu. vd. or smaller, continue mixing at least 1-1/2 minutes, but not more than 5 minutes 9) CONCRETE MATERIALS after ingredients are in mixer, before any part of batch is released. a. Cementitious Material: Use the following cementitious materials, of same type, brand, and source throughout Project: • For concrete batches larger than 1 cu. yd., increase mixing time by 15 seconds for each additional 1 cu. yd. Provide • Portland Cement: ASTM C 150, aray or white portland cement Type I. batch ticket for each batch discharged and used in the Work, indicating Project identification name and number, date, 1. Fly Ash: ASTM C 618, Class C mixture type, mixing time, quantity, and amount of water added. • Blended Hydraulic Cement: ASTM C 595, Type IS, portland blast-furnace slag or Type IP, portland-pozzolan cement. PART 3 - EXECUTION b. Normal—Weight Aggregates: Aggregates shall be in accordance with KCMMB—4K specifications.) Provide aggregates from a 16) EXAMINATION single source with documented service-record data of at least 10 years' satisfactory service in similar paving applications a. Notify testing agency when excavations have reached required subgrade. and service conditions using similar aggregates and cementitious materials. b. Proof-roll subgrade below proposed pavements with a pneumatic-tired and loaded 10-wheel, tandem-axle dump truck • Maximum Coarse-Aggregate Size: 3/4 inch nominal. weighing not less than 15 tons to identify soft pockets and areas of excess yielding. Do not proof-roll wet or saturated • Fine Aggregate: Free of materials with deleterious reactivity to alkali in cement and shall meet KCMMB 4K mix. subgrades. Proof-roll within two days of paving operations. c. Water: Potable and complying with ASTM C 94/C 94M. • Completely proof-roll subgrade in one direction, repeating proof-rolling in direction perpendicular to first direction. Limit d. Air-Entraining Admixture: ASTM C 260. vehicle speed to 3 mph. e. Chemical Admixtures: Admixtures certified by manufacturer to be compatible with other admixtures and to contain not more • Excavate soft spots, unsatisfactory soils, and areas of excessive pumping or rutting, as determined by the Geotechnical than 0.1 percent water-soluble chloride ions by mass of cementitious material. Engineer, and replace with compacted backfill or fill as directed to the proper moisture content and density. • Water-Reducing Admixture: ASTM C 494/C 494M, Type A. • After proof rolling and repairing deep subgrade deficiencies, the entire subgrade should be scarified to a depth of 8 • Retarding Admixture: ASTM C 494/C 494M, Type B. inches and uniformly compacted to at least 95% of the standard proctor maximum dry density to provide a uniform • Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type D. subgrade for pavement construction. Moisture content and density of subgrade to be checked within two days prior to the commencement of paving operations. • High-Range, Water-Reducing Admixture: ASTM C 494/C 494M, Type F. Soil treatment□ • High-Range, Water-Reducing and Retarding Admixture: ASTM C 494/C 494M, Type G. c. Reconstruct subgrades damaged by freezing temperatures, frost, rain, accumulated water, or construction activities, without • Plasticizing and Retarding Admixture: ASTM C 1017/C 1017M, Type II. additional compensation. 10) CURING MATERIALS d. Proceed with paving only after unsatisfactory conditions have been corrected. a. Absorptive Cover: AASHTO M 182, Class 3, burlap cloth made from jute or kenaf, weighing approximately 9 oz./sq. yd. dry. 17) PREPARATION b. Moisture-Retaining Cover: ASTM C 171, polyethylene film or white burlap-polyethylene sheet. a. Remove loose material from compacted subbase surface immediately before placing concrete. c. Water: Potable. 18) EDGE FORMS AND SCREED CONSTRUCTION d. Evaporation Retarder: Waterborne, monomolecular, film forming, manufactured for application to fresh concrete. a. Set, brace, and secure edge forms, bulkheads, and intermediate screed guides to required lines, grades, and elevations. • Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, Install forms to allow continuous progress of work and so forms can remain in place at least 24 hours after concrete but are not limited to, the following: placement. Axim Italcementi Group, Inc.; Čaltexol CIMFILM. b. Clean forms after each use and coat with form-release agent to ensure separation from concrete without damage. BASF Construction Chemicals, LLC; Confilm. 19) STEEL REINFORCEMENT 3. ChemMasters; Spray-Film. a. General: Comply with CRSI's "Manual of Standard Practice" for fabricating, placing, and supporting reinforcement. 4. Conspec by Dayton Superior; Aquafilm. b. Clean reinforcement of loose rust and mill scale, earth, ice, or other bond-reducing materials. 5. Dayton Superior Corporation; Sure Film (J-74). c. Arrange, space, and securely tie bars and bar supports to hold reinforcement in position during concrete placement. 6. Edoco by Dayton Superior; BurkeFilm. Maintain minimum cover to reinforcement. 7. Euclid Chemical Company (The), an RPM company; Eucobar. d. Install welded wire reinforcement in lengths as long as practicable. Lap adjoining pieces at least one full mesh, and lace 8. Kaufman Products, Inc.; VaporAid. splices with wire. Offset laps of adjoining widths to prevent continuous laps in either direction. 9. Lambert Corporation; LAMBCO Skin. e. Epoxy-Coated Reinforcement: Use epoxy-coated steel wire ties to fasten epoxy-coated reinforcement. Repair cut and 10. L&M Construction Chemicals, Inc.; E-CON. damaged epoxy coatings with epoxy repair coating according to ASTM D 3963/D 3963M. 11. Meadows, W. R., Inc.; EVAPRE. f. Install fabricated bar mats in lengths as long as practicable. Handle units to keep them flat and free of distortions. 12. Metalcrete Industries; Waterhold. Straighten bends, kinks, and other irregularities, or replace units as required before placement. Set mats for a minimum 13. Nox-Crete Products Group; MONOFILM. 2-inch (50-mm) overlap of adjacent mats. 14. Sika Corporation, Inc.; SikaFilm. 20) JOINTS 15. SpecChem, LLC; Spec Film. a. General: Form construction, isolation, and contraction joints and tool edges true to line, with faces perpendicular to surface 16. Symons by Dayton Superior; Finishing Aid. plane of concrete. Construct transverse joints at right angles to centerline unless otherwise indicated. 17. TK Products, Division of Sierra Corporation; TK-2120 TRI-FILM. 18. Unitex; PRO-FILM. • When joining existing paving, place transverse joints to align with previously placed joints unless otherwise indicated. b. Construction Joints: Set construction joints at side and end terminations of paving and at locations where paving 19. Vexcon Chemicals Inc.; Certi-Vex EnvioAssist. e. Clear, Waterborne, Membrane-Forming Curing Compound: ASTM C 309, Type 1, Class B, dissipating. operations are stopped for more than one-half hour unless paving terminates at isolation joints. • Continue steel reinforcement across construction joints unless otherwise indicated. Do not continue reinforcement through • Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, sides of paving strips unless otherwise indicated. but are not limited to, the following: • Provide tie bars at sides of paving strips where indicated. Anti-Hydro International, Inc.; A-H Curing Compound #2 DR WB. • Butt Joints: Use bonding agent or epoxy bonding adhesive at joint locations where fresh concrete is placed against ChemMasters; Safe-Cure Clear. 3. Conspec by Dayton Superior: D.O.T. Resin Cure. DSSCC Clear Resin Cure. hardened or partially hardened concrete surfaces. • Keyed Joints: Provide preformed keyway-section forms or bulkhead forms with keys unless otherwise indicated. Embed 4. Dayton Superior Corporation; Day-Chem Rez Cure (J-11-W). keys at least 1-1/2 inches into concrete. 5. Edoco by Dayton Superior: DSSCC Clear Resin Cure, Resin Emulsion Cure V.O.C. (Type I). • Doweled Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or coat with asphalt 6. Euclid Chemical Company (The), an RPM company; Kurez W VOX. one-half of dowel length to prevent concrete bonding to one side of joint. Kaufman Products, Inc.; Thinfilm 420. c. Isolation Joints: Form isolation joints of preformed joint-filler strips abutting concrete curbs, catch basins, manholes, inlets, 8. Lambert Corporation; AQUA KURE - CLEAR.

9. L&M Construction Chemicals, Inc.; L&M CURE R.

- Extend joint fillers full width and depth of joint. toaether. marks on concrete surfaces. 21) CONCRETE PLACEMENT cast-in on frozen surfaces. tampina. h. Screed paving surface with a straightedge and strike off. arades. finish, and jointing. operations. placement. soft spots, or dry areas. 22) FLOAT FINISHING 23) CONCRETE PROTECTION AND CURING these as follows: 1 Water 24) PAVING TOLERANCES • Elevation: 1/4 inch.

- structures, other fixed objects, and where indicated.

- 28) REPAIRS AND PROTECTION

25) CONCRETE CURBS

- 27) FIELD QUALITY CONTROL
- a. Install curbs per plan details. 26) PAVEMENT MARKING

• Locate expansion joints at intervals of 50 feet unless otherwise indicated.

• Terminate joint filler not less than 1/2 inch or more than 1 inch below finished surface if joint sealant is indicated. • Place top of joint filler flush with finished concrete surface if joint sealant is not indicated. • Furnish joint fillers in one-piece lengths. Where more than one length is required, lace or clip joint-filler sections

• During concrete placement, protect top edge of joint filler with metal, plastic, or other temporary preformed cap. Remove protective cap after concrete has been placed on both sides of joint. d. Contraction Joints: Form weakened-plane contraction joints, sectioning concrete into areas as indicated. Construct contraction joints for a depth equal to at least one-fourth of the concrete thickness, as follows:

• Grooved Joints: Form contraction joints after initial floating by grooving and finishing each edge of joint with grooving tool to a 1/4-inch radius. Repeat grooving of contraction joints after applying surface finishes. Eliminate grooving-tool 1. Tolerance: Ensure that grooved joints are within 3 inches either way from centers of dowels.

• Sawed Joints: Form contraction joints with power saws equipped with shatterproof abrasive or diamond-rimmed blades. Cut 1/8-inch- wide joints into concrete when cutting action will not tear, abrade, or otherwise damage surface and before developing random contraction cracks.

1. Tolerance: Ensure that sawed joints are within 3 inches either way from centers of dowels. • Doweled Contraction Joints: Install dowel bars and support assemblies at joints where indicated. Lubricate or coat with asphalt one-half of dowel length to prevent concrete bonding to one side of joint. e. Edging: After initial floating, tool edges of paving, gutters, curbs, and joints in concrete with an edging tool to a 1/4-inch

radius. Repeat tooling of edges after applying surface finishes. Eliminate edging—tool marks on concrete surfaces. a. Before placing concrete, inspect and complete formwork installation, steel reinforcement, and items to be embedded or

b. Remove snow, ice, or frost from subbase surface and steel reinforcement before placing concrete. Do not place concrete

c. Moisten subbase to provide a uniform dampened condition at time concrete is placed. Do not place concrete around manholes or other structures until they are at required finish elevation and alignment. d. Comply with ACI 301 requirements for measuring, mixing, transporting, and placing concrete.

e. Do not add water to concrete during delivery or at Project site. Do not add water to fresh concrete after testing. f. Deposit and spread concrete in a continuous operation between transverse joints. Do not push or drag concrete into place or use vibrators to move concrete into place.

g. Consolidate concrete according to ACI 301 by mechanical vibrating equipment supplemented by hand spading, rodding, or

• Consolidate concrete along face of forms and adjacent to transverse joints with an internal vibrator. Keep vibrator away from joint assemblies, reinforcement, or side forms. Use only square-faced shovels for hand spreading and consolidation. Consolidate with care to prevent dislocating reinforcement, dowels, and joint devices.

i. Commence initial floating using bull floats or darbies to impart an open-textured and uniform surface plane before excess moisture or bleed water appears on the surface. Do not further disturb concrete surfaces before beginning finishing operations or spreading surface treatments.

i. Curbs and Gutters: Use design mixture for automatic machine placement. Produce curbs and gutters to required cross section, lines, grades, finish, and jointing. k. Slip-Form Paving: Use design mixture for automatic machine placement. Produce paving to required thickness, lines,

• Compact subbase and prepare subgrade of sufficient width to prevent displacement of slip-form paving machine during

I. Cold-Weather Placement: Protect concrete work from physical damage or reduced strength that could be caused by frost, freezing, or low temperatures. Comply with ACI 306.1 and the following: • When air temperature has fallen to or is expected to fall below 40 deg F, uniformly heat water and aggregates before

mixing to obtain a concrete mixture temperature of not less than 50 deg F and not more than 80 deg F at point of • Do not use frozen materials or materials containing ice or snow.

• Do not use calcium chloride, salt, or other materials containing antifreeze agents or chemical accelerators unless otherwise specified and approved in design mixtures.

m.Hot-Weather Placement: Comply with ACI 301 and as follows when hot-weather conditions exist: • Cool ingredients before mixing to maintain concrete temperature below 90 deg F at time of placement. Chilled mixing water or chopped ice may be used to control temperature, provided water equivalent of ice is calculated in total amount of mixing water. Using liquid nitrogen to cool concrete is Contractor's option.

• Cover steel reinforcement with water-soaked burlap so steel temperature will not exceed ambient air temperature immediately before embedding in concrete.

• Foq-spray forms and subgrade just before placing concrete. Keep subgrade moisture uniform without standing water,

a. General: Do not add water to concrete surfaces during finishing operations.

b. Float Finish: Begin the second floating operation when bleed-water sheen has disappeared and concrete surface has stiffened sufficiently to permit operations. Float surface with power-driven floats or by hand floating if area is small or inaccessible to power units. Finish surfaces to true planes. Cut down high spots and fill low spots. Refloat surface immediately to uniform aranular texture.

• Burlap Finish: Drag a seamless strip of damp burlap across float-finished concrete, perpendicular to line of traffic, to provide a uniform, gritty texture. • Medium-to-Fine-Textured Broom Finish: Draw a soft-bristle broom across float-finished concrete surface perpendicular

to line of traffic to provide a uniform, fine-line texture.

a. General: Protect freshly placed concrete from premature drying and excessive cold or hot temperatures.

b. Comply with ACI 306.1 for cold-weather protection.

c. Evaporation Retarder: Apply evaporation retarder to concrete surfaces if hot, dry, or windy conditions cause moisture loss approaching 0.2 lb/sq. ft. x h before and during finishing operations. Apply according to manufacturer's written instructions after placing, screeding, and bull floating or darbying concrete but before float finishing. d. Begin curing after finishing concrete but not before free water has disappeared from concrete surface.

e. Curing Methods: Cure concrete by moisture curing, moisture-retaining-cover curing, curing compound or a combination of • Moisture Curing: Keep surfaces continuously moist for not less than seven days with the following materials:

2. Continuous water—fog spray.

3. Absorptive cover, water saturated and kept continuously wet. Cover concrete surfaces and edges with 12-inch lap over adjacent absorptive covers. • Moisture-Retaining-Cover Curing: Cover concrete surfaces with moisture-retaining cover, placed in widest practicable

width, with sides and ends lapped at least 12 inches and sealed by waterproof tape or adhesive. Immediately repair any holes or tears occurring during installation or curing period using cover material and waterproof tape. • Curing Compound: Apply uniformly in continuous operation by power spray or roller according to manufacturer's written instructions. Recoat areas that have been subjected to heavy rainfall within three hours after initial application. Maintain continuity of coating, and repair damage during curing period.

a. Comply with tolerances in ACI 117 and as follows:

• Thickness: Plus 3/8 inch, minus 1/4 inch.

• Surface: Gap below 10-foot- long, unleveled straightedge not to exceed 1/2 inch. • Alignment of Tie-Bar End Relative to Line Perpendicular to Paving Edge: 1/2 inch per 12 inches of tie bar.

• Lateral Alignment and Spacing of Dowels: 1 inch.

• Vertical Alignment of Dowels: 1/4 inch.

• Alignment of Dowel-Bar End Relative to Line Perpendicular to Paving Edge: 1/4 inch per 12 inches of dowel. • Joint Spacing: 3 inches.

• Contraction Joint Depth: Plus 1/4 inch, no minus.

• Joint Width: Plus 1/8 inch, no minus.

a. Do not apply pavement-marking paint until layout, colors, and placement have been verified with Architect. b. Allow paving to age for 30 days before starting pavement marking.

c. Sweep and clean surface to eliminate loose material and dust.

d. Apply paint with mechanical equipment to produce pavement markings, of dimensions indicated, with uniform, straight edges. Apply at manufacturer's recommended rates to provide a minimum wet film thickness of 15 mils.

a. Testing Agency: Owner will engage a qualified testing agency to perform tests and inspections. b. Testing Services: Testing of composite samples of fresh concrete obtained according to ASTM C 172 shall be performed according to the following requirements outlined by the geotechnical representative.

29) Remove and replace concrete paving that is broken, damaged, or defective or that does not comply with requirements in this Section. Remove work in complete sections from joint to joint unless otherwise approved by Architect. 30) Drill test cores, where directed by Architect, when necessary to determine magnitude of cracks or defective areas. Fill drilled core holes in satisfactory paving areas with portland cement concrete bonded to paving with epoxy adhesive.

31) Protect concrete paving from damage. Exclude traffic from paving for at least 14 days after placement. When construction traffic is permitted, maintain paving as clean as possible by removing surface stains and spillage of materials as they occur. 32) Maintain concrete paving free of stains, discoloration, dirt, and other foreign material. Sweep paving not more than two days before date scheduled for Substantial Completion inspections.







CONSTRUCTION DOCUMENTS 01.31.24

DATE

REVISION

C25

SHEET NO.

BOJECTS/2022/202010801 KCKPS WYANDOTTE HIGH SCHOOL PARKING/00 220801 CAD/SHTS/05 CIVII /EDPS/220801-05-0200-EDP DWG

# SECTION 321373 – CONCRETE PAVING JOINT SEALANTS PART 1 – GENERAL

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.
- 2) SUMMARY
- a. Section Includes:Cold-applied joint sealants.
- Hot-applied joint sealants.
- b. Related Sections:
  Section 321216 "Asphalt Paving" for constructing joints between concrete and asphalt pavement.
  Section 321313 "Concrete Paving" for constructing joints in concrete pavement.
- Section 321313 Concrete Paving for constructing joints in concrete pavement.
   3) ACTION SUBMITTALS

   a. Product Data: For each joint—sealant product indicated.
  - b. Pavement-Joint-Sealant Schedule: Include the following information:
  - Joint-sealant application, joint location, and designation.
    Joint-sealant manufacturer and product name.
  - Joint-sealant manufacturer and prod
    Joint-sealant formulation.
- Joint-sealant color.
- 4) INFORMATIONAL SUBMITTALS
- a. Qualification Data: For qualified Installer.
- b. Product Certificates: For each type of joint sealant and accessory, from manufacturer.
   c. Product Test Reports: Based on evaluation of comprehensive tests performed by a qualified testing agency, for joint sealants.
- 5) QUALITY ASSURANCE
- a. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for installation of units required for this Project.
- b. Source Limitations: Obtain each type of joint sealant from single source from single manufacturer.
- c. Product Testing: Test joint sealants using a qualified testing agency.
- Testing Agency Qualifications: An independent testing agency qualified according to ASTM C 1021 to conduct the testing indicated.
- 6) PROJECT CONDITIONS
- a. Do not proceed with installation of joint sealants under the following conditions:
  When ambient and substrate temperature conditions are outside limits permitted by
  - joint-sealant manufacturer.
- When joint substrates are wet.
  Where joint widths are less than those allowed by joint-sealant manufacturer for applications
- indicated.
- Where contaminants capable of interfering with adhesion have not yet been removed from joint substrates.
- PART 2 PRODUCTS
- 7) MATERIALS
  - a. Compatibility: Provide joint sealants, backing materials, and other related materials that are compatible with one another and with joint substrates under conditions of service and application, as demonstrated by joint—sealant manufacturer based on testing and field experience.
- b. Colors of Exposed Joint Sealants: As indicated by manufacturer's designations.
- 8) COLD-APPLIED JOINT SEALANTS
  - a. Single-Component, Nonsag, Silicone Joint Sealant for Concrete: ASTM D 5893, Type NS.
    Products: Subject to compliance with requirements, available products that may be
  - incorporated into the Work include, but are not limited to, the following:
  - 1. Crafco Inc., an ERGON company; RoadSaver Silicone.
  - 2.Dow Corning Corporation; 888. 3.Pecora Corporation; 301 NS.
  - b. Single-Component, Self-Leveling, Silicone Joint Sealant for Concrete: ASTM D 5893, Type SL.
    Products: Subject to compliance with requirements, available products that may be
  - incorporated into the Work include, but are not limited to, the following:
  - 1. Crafco Inc., an ERGON company; RoadSaver Silicone SL.
  - 2.Dow Corning Corporation; 890-SL.
  - 3.Pecora Corporation; 300 SL.
  - c. Multicomponent, Pourable, Traffic-Grade, Urethane Joint Sealant for Concrete: ASTM C 920, Type
  - M, Grade P, Class 25, for Use T.Products: Subject to compliance with requirements, available products that may be
- incorporated into the Work include, but are not limited to, the following: 1.Pecora Corporation; Urexpan NR-200.
- 9) HOT-APPLIED JOINT SEALANTS
  - a. Hot-Applied, Single-Component Joint Sealant for Concrete: ASTM D 3406.
  - Products: Subject to compliance with requirements, available products that may be incorporated into the Work include, but are not limited to, the following:
  - 1.Crafco Inc., an ERGON company; Superseal 444/777.
  - b. Hot-Applied, Single-Component Joint Sealant for Concrete and Asphalt: ASTM D 6690, Types I, II, and III.
    Products: Subject to compliance with requirements, available products that may be
    - incorporated into the Work include, but are not limited to, the following:
  - 1.Meadows, W. R., Inc.; Sealtight Hi-Spec or Sealtight 3405.
- 2.Right Pointe; D-3405 Hot Applied Sealant.
- 10) JOINT-SEALANT BACKER MATERIALS
  - a. General: Provide joint-sealant backer materials that are nonstaining; are compatible with joint substrates, sealants, primers, and other joint fillers; and are approved for applications indicated by joint-sealant manufacturer based on field experience and laboratory testing.
- b. Round Backer Rods for Cold— and Hot—Applied Joint Sealants: ASTM D 5249, Type 1, of
- diameter and density required to control sealant depth and prevent bottom—side adhesion of sealant.
- c. Round Backer Rods for Cold-Applied Joint Sealants: ASTM D 5249, Type 3, of diameter and
- density required to control joint-sealant depth and prevent bottom-side adhesion of sealant. d. Backer Strips for Cold- and Hot-Applied Joint Sealants: ASTM D 5249; Type 2; of thickness and width required to control joint-sealant depth, prevent bottom-side adhesion of sealant, and
- fill remainder of joint opening under sealant.
- 11) PRIMERS
- a. Primers: Product recommended by joint—sealant manufacturer where required for adhesion of sealant to joint substrates indicated, as determined from preconstruction joint—sealant—substrate tests and field tests.
- PART 3 EXECUTION
- 12) EXAMINATION
- a. Examine joints indicated to receive joint sealants, with Installer present, for compliance with requirements for joint configuration, installation tolerances, and other conditions affecting joint—sealant performance.
- b. Proceed with installation only after unsatisfactory conditions have been corrected.

13) PREPARATION

- a. Surface Cleaning of Joints: Clean out joints immediately before installing joint sealants to comply with joint-sealant manufacturer's written instructions.
- b. Joint Priming: Prime joint substrates where indicated or where recommended in writing by joint-sealant manufacturer, based on preconstruction joint-sealant-substrate tests or prior experience. Apply primer to comply with joint-sealant manufacturer's written instructions. Confine primers to areas of joint-sealant bond; do not allow spillage or migration onto adjoining surfaces.
- 14) INSTALLATION OF JOINT SEALANTS
- a. General: Comply with joint-sealant manufacturer's written installation instructions for products and applications indicated unless more stringent requirements apply. b. Joint-Sealant Installation Standard: Comply with recommendations in ASTM C 1193 for use of
- joint sealants as applicable to materials, applications, and conditions indicated. c. Install joint-sealant backings of kind indicated to support joint sealants during application and at position required to produce cross-sectional shapes and depths of installed sealants relative to
- joint widths that allow optimum sealant movement capability.
- Do not leave gaps between ends of joint-sealant backings.
  Do not stretch, twist, puncture, or tear joint-sealant backings.
- Remove absorbent joint-sealant backings that have become wet before sealant application and replace them with dry materials.
- d. Install joint sealants using proven techniques that comply with the following and at the same time backings are installed:
- Place joint sealants so they directly contact and fully wet joint substrates.Completely fill recesses in each joint configuration.

- Produce uniform, cross-sectional shapes and depths relative to joint widths that allow
- optimum sealant movement capability. e. Tooling of Nonsag Joint Sealants: Immediately after joint—sealant application and before skinning or curing begins, tool sealants according to the following requirements to form smooth, uniform beads of configuration indicated; to eliminate air pockets; and to ensure contact and adhesion
- of sealant with sides of joint:Remove excess joint sealant from surfaces adjacent to joints.
- Use tooling agents that are approved in writing by joint-sealant manufacturer and that do not

discolor sealants or adjacent surfaces. f. Provide joint configuration to comply with joint—sealant manufacturer's written instructions unless otherwise indicated.

15) CLEANING

- a. Clean off excess joint sealant or sealant smears adjacent to joints as the Work progresses, by methods and with cleaning materials approved in writing by manufacturers of joint sealants and of products in which joints occur.
- 16) PROTECTION

   a. Protect joint sealants, during and after curing period, from contact with contaminating substances and from damage resulting from construction operations or other causes so sealants are without deterioration or damage at time of Substantial Completion. If, despite such protection, damage or deterioration occurs, cut out and remove damaged or deteriorated joint sealants immediately and replace with joint sealant so installations in repaired areas are indistinguishable from the original work.

   17) PAVEMENT-JOINT-SEALANT SCHEDULE
  - a. Joint-Sealant Application: Joints within cement concrete pavement:
  - Joint Location:
     1.Expansion and isolation joints in cast-in-place concrete pavement.
  - 2.0ther joints as indicated.
  - Silicone Joint Sealant for Concrete: Single component, nonsag or single component,
  - self-leveling.Urethane Joint Sealant for Concrete: Multicomponent, pourable.
  - Hot-Applied Joint Sealant for Concrete: Single component.
  - Joint-Sealant Color: Grey.
  - b. Joint-Sealant Application: Joints between cement concrete and asphalt pavement.
    Joint Location:
  - 1. Joints between concrete and asphalt pavement.Hot-Applied Joint Sealant for Concrete and Asphalt: Single component.
  - Retain subparagraph below if joint sealants specified are offered in a choice of colors and colors are not specified on Drawings. Typically, color choice is not available for pavement joint sealants.
  - Joint-Sealant Color: As indicated by manufacturer's designations.





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2 <u>ART 1 - GENERAL</u> 1) RELATED DOCUMENTS 	21) CONNECTIONS a. Connect nonpressure, gravity—flow drainage piping in b Section 221413 "Storm Drainage Piping"
a. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.	Section 221413 "Storm Drainage Piping." b. Make connections to piping.
2) SUMMARY a. Section Includes:	<ul> <li>Use commercially manufactured wye fittings for pipir is indicated.</li> </ul>
<ul> <li>Pipe and fittings.</li> <li>Cleanouts.</li> </ul>	<ul> <li>Make connections to structures by cutting into exist enough to allow 3 inches of concrete to be packed</li> </ul>
<ul> <li>Stormwater_inlets.</li> </ul>	connection pipe passing through pipe or structure w
<ul> <li>Manholes / Junction Boxes.</li> <li>SUBMITTALS</li> </ul>	with inside wall unless otherwise indicated. On outs encase entering connection in 6 inches of concrete
a. Product Data: For each type of product indicated.	provide additional support of collar from connection 1. Use concrete that will attain a minimum 28-de
<ul> <li>b. Shop Drawings:</li> <li>Trench Drain: Include elevations, sections, details, frames, covers, and depths.</li> </ul>	otherwise indicated. 2. Use epoxy-bonding compound as interface betw
<ul> <li>Drain Basin: Include elevations, details, covers, and depths.</li> <li>Concrete Structures: Include elevations, sections, details, frames, covers, and depths.</li> </ul>	materials.
End Sections: Product specifications and grate protection.     DELIVERY, STORAGE, AND HANDLING	<ul> <li>Protect existing piping, manholes, and structures to while making tap connections. Remove debris or o</li> </ul>
a. Do not store plastic manholes, pipe, and fittings in direct sunlight.	accumulate. 22) IDENTIFICATION
b. Protect pipe, pipe fittings, and seals from dirt and damage. c. Handle manholes according to manufacturer's written rigging instructions.	a. Materials and their installation are specified in Division
d. Handle stormwater inlets according to manufacturer's written rigging instructions.	installation of green warning tape directly over piping structures.
5) PROJECT CONDITIONS a. Interruption of Existing Storm Drainage Service: Do not interrupt service to facilities occupied by	<ul> <li>Use warning tape or detectable warning tape over f</li> <li>Use detectable warning tape over nonferrous piping</li> </ul>
Owner or others unless permitted under the following conditions and then only after arranging to provide temporary service according to requirements indicated:	23) FIELD QUALITY CONTROL a. Inspect interior of piping to determine whether line dis
<ul> <li>Notify Construction Manager and Owner no fewer than two days in advance of proposed interruption of service.</li> </ul>	Inspect after approximately 24 inches of backfill is in
ART 2 – PRODUCTS	<ul><li>Submit separate reports for each system inspection.</li><li>Defects requiring correction include the following:</li></ul>
3) PE PIPE AND FITTINGS a. HDPE Dual—Wall Pipe and Fittings NPS 3 to NPS 10: AASHTO M 252M, Type S, with smooth	<ol> <li>Alignment: Less than full diameter of inside of 2. Deflection: Flexible piping with deflection that</li> </ol>
waterway for coupling joints. • Soiltight Couplings: AASHTO M 252M, corrugated, matching tube and fittings.	size not less than 92.5 percent of piping diam 3. Damage: Crushed, broken, cracked, or otherwi
b. HDPE Dual—Wall Pipe and Fittings NPS 12 to NPS 60: AASHTO M 294M, Type S, with smooth	4. Infiltration: Water leakage into piping.
waterway for coupling joints. • Soiltight Couplings: AASHTO M 294M, corrugated, matching pipe and fittings.	<ul><li>5. Exfiltration: Water leakage from or around pip</li><li>Replace defective piping using new materials, and re</li></ul>
') PVC PIPE AND FITTINGS a. Pipe: ASTM D1785 Schedule 40 PVC, with plain ends for solvent—cemented joints.	allowances specified. • Reinspect and repeat procedure until results are sat
<ul> <li>b. PVC pipe to be used as riser pipe for building downspouts below grade.</li> <li>CONCRETE PIPE AND FITTINGS</li> </ul>	b. Test new piping systems, and parts of existing system repaired, for leaks and defects.
a. Reinforced—Concrete Sewer Pipe and Fittings conforming to ASTM C76.	• Do not enclose, cover, or put into service before in
<ul> <li>Bell-and-spigot ends with gasketed joints. O-ring gaskets shall be synthetic rubber and shall conform to ASTM C361 and ASTM C443.</li> </ul>	<ul><li>Test completed piping systems according to requirer</li><li>Schedule tests and inspections by authorities having</li></ul>
• Class III, Wall B. 9) CLEANOUTS	advance notice. • Submit separate report for each test.
a. Plastic Cleanouts:	<ul> <li>Gravity—Flow Storm Drainage Piping: Test according</li> </ul>
<ul> <li>Manufacturers: Subject to compliance with requirements available manufacturers offering products that may be incorporated into the Work include, but are not limited to, the following:</li> </ul>	jurisdiction, UNI-B-6, and the following: 1. Exception: Piping with soiltight joints unless re
1. Canplas LLC. 2. IPS Corporation.	<ol> <li>Option: Test plastic piping according to ASTM</li> <li>Option: Test concrete piping according to AST</li> </ol>
3. NDS Inc ['] . 4. Plastic Oddities; a division of Diverse Corporate Technologies, Inc.	c. Leaks and loss in test pressure constitute defects tha d. Replace leaking piping using new materials, and repeat
5. Sioux Chief Manufacturing Company, Inc.	specified.
<ul><li>6. Zurn Light Commercial Products Operation; Zurn Plumbing Products Group.</li><li>Description: PVC body with PVC threaded plug. Include PVC sewer pipe fitting and riser to</li></ul>	24) CLEANING a. Clean interior of piping of dirt and superfluous materio
cleanout of same material as sewer piping. 10) PVC DRAIN BASINS	
a. Drain basins shall be manufactured from PVC pipe stock conforming to ASTM D1784 cell class	
12454. Structure and pipe connections shall be watertight conforming to ASTM D3212. • Frames and grates shall be ductile iron and shall meet loading requirements shown.	
11) STORMWATER INLETS / MANHOLES / JUNCTION BOXES a. Curb inlets, manholes, and junction boxes per plan details.	
12) PIPE OUTLETS	
a. Install concrete toe wall on pipe end section and turf reinforcement mat at pipe end sections. See plans for location and details.	
b. Pipe outfalls shall have HDPE or CMP pre—manufactured end sections. c. HDPE end sections shall conform to ASTM D3530 minimum cell classification 213320C. End	
sections shall have a toe plate to cast into a concrete toe wall. d. Corrugated metal end sections shall be fabricated from galvanized base metal, conform to ASTM	
A 760/A, and meet CMP pipe manufacturer design standards. End sections shall have a toe	
plate to cast into a concrete toe wall 3) CONCRETE	
<ul> <li>a. General: Cast-in-place concrete according to ACI 318, and the following:</li> <li>Cement: ASTM C 150, Type II.</li> </ul>	
• Fine Aggregate: ASTM C 33, sand.	
<ul> <li>Coarse Aggregate: ASTM C 33, crushed gravel.</li> <li>Water: Potable.</li> </ul>	
b. Portland Cement Design Mix: 4000 psi minimum, with 0.45 maximum water/cementitious materials ratio.	
<ul> <li>Reinforcing Fabric: ASTM A 185/A 185M, steel, welded wire fabric, plain.</li> </ul>	
<ul> <li>Reinforcing Bars: ASTM A 615/A 615M, Grade 60 deformed steel.</li> <li><u>RT 3 — EXECUTION</u></li> </ul>	
5) EARHWORK	
a. Excavation, trenching, and backfilling are specified in Section 312000 "Earth Moving." 3) PIPING INSTALLATION	
a. General Locations and Arrangements: Drawing plans and details indicate general location and arrangement of piping layout	
take into account design considerations. Install piping as indicated, to extent practical. Where	
specific installation is not indicated, follow piping manufacturer's written instructions. b. Install piping beginning at low point, true to grades and alignment indicated with unbroken	
continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves,	
and couplings according to manufacturer's written instructions for use of lubricants, cements, and other installation requirements.	
c. Install proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.	
d. When installing pipe under streets or other obstructions that cannot be disturbed, use pipe-jacking process of microtunneling.	
e. Install gravity-flow, nonpressure drainage piping according to the following:	
<ul> <li>Install piping pitched down in direction of flow.</li> <li>Install PE corrugated sewer piping according to ASTM D 2321.</li> </ul>	
<ul> <li>Install PVC sewer piping according to ASTM D 2321 and ASTM F 1668.</li> <li>Install reinforced-concrete sewer piping according to ASTM C 1479 and ACPA's "Concrete Pipe</li> </ul>	
Installation Manual."	
<ol> <li>PIPE JOINT CONSTRUCTION         <ul> <li>a. Join gravity—flow, nonpressure drainage piping according to the following:</li> </ul> </li> </ol>	
<ul> <li>Join corrugated PE piping according to ASTM D 3212 for push—on joints.</li> </ul>	
<ul> <li>Join PVC cellular-core piping according to ASTM D 2321 and ASTM F 891 for solvent-cemented joints.</li> </ul>	
<ul> <li>Join reinforced—concrete sewer piping according to ACPA's "Concrete Pipe Installation Manual" for rubber—gasketed joints.</li> </ul>	
<ul> <li>Join dissimilar pipe materials with nonpressure-type flexible couplings.</li> </ul>	
8) CLEANOUT INSTALLATION a. Install cleanouts and riser extensions from sewer pipes to cleanouts at grade. Install piping	
so cleanouts open in direction of flow in sewer pipe. • Use Light-Duty, top-loading classification cleanouts in earth or unpaved foot-traffic areas.	
<ul> <li>Use Heavy-Duty, top-loading classification cleanouts in vehicle-traffic service areas.</li> </ul>	
b. Set cleanout frames and covers in concrete pavement and roads with tops flush with pavement surface.	
19) PVC DRAIN BASINS	

a. PVC drain basins shall be installed per ASTM D2321 and manufacturer specifications. 20) TRENCH DRAIN

# a. Install trench drain per manufacturer specifications.

iping in building's storm building drains specified in

for piping branch connections unless a structure

into existing unit and creating an opening large be packed around entering connection. Cut end of tructure wall to conform to shape of and be flush On outside of pipe, manhole, or structure wall, concrete for minimum length of 12 inches to connection to undisturbed ground. um 28-day compressive strength of 3000 psi unless

erface between new and existing concrete and piping

ictures to prevent concrete or debris from entering ebris or other extraneous material that may

Division 31 Section "Earth Moving." Arrange for piping and at outside edge of underground

pe over ferrous piping. us piping and over edges of underground structures.

line displacement or other damage has occurred. kfill is in place, and again at completion of Project. nspection.

inside of pipe is visible between structures. tion that prevents passage of ball or cylinder of iping diameter.

r otherwise damaged piping.

round piping. Ils, and repeat inspections until defects are within s are satisfactory.

ng systems that have been altered, extended, or

before inspection and approval. requirements of authorities having jurisdiction. ies having jurisdiction with at least 24 hours'

according to requirements of authorities having

unless required by authorities having jurisdiction. to ASTM F 1417. ng to ASTM C 924.

efects that must be repaired. and repeat testing until leakage is within allowances

us materials. Flush with water.





5 ┝ Ζ FOR Σ N N **NS/CONSTRUCTION DOCUMENTS** IMPRO 66102 KS CITY, KANSAS 0 0 I U AVE. 5 MINNESOTA T 5 H DEVELOPMENT Ш 2501 0 Z 3 334100 STORM UTILITY DRAINAGE PIPING PROJECT NO. 2202010801 SCALE N.T.S. DRAWN DESIGNED CHECKED JLB SEK BSH

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FINAL

1 ADD #2

NO.

CITY COMMENTS

SHEET NO.

CONSTRUCTION DOCUMENTS 01.31.24

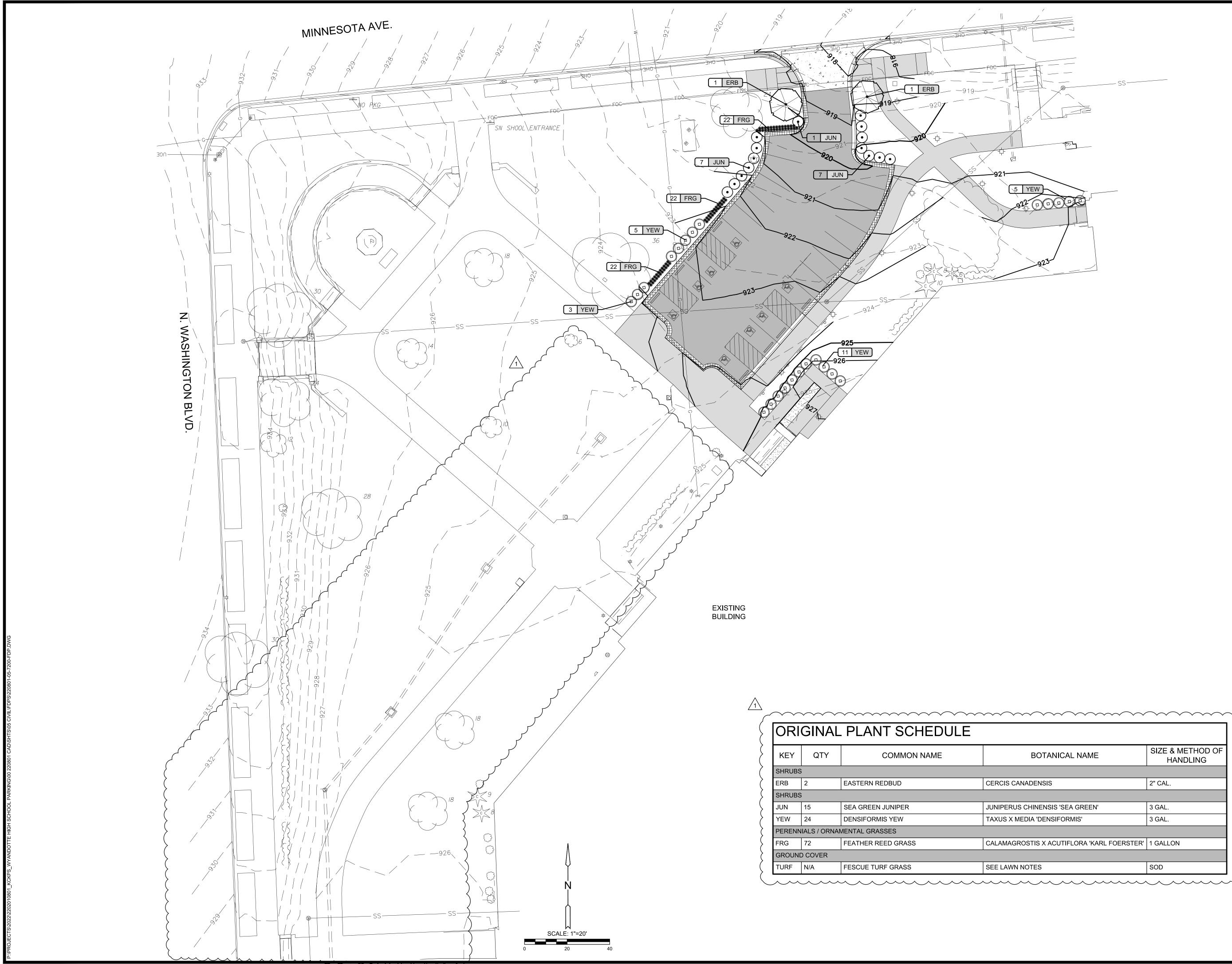
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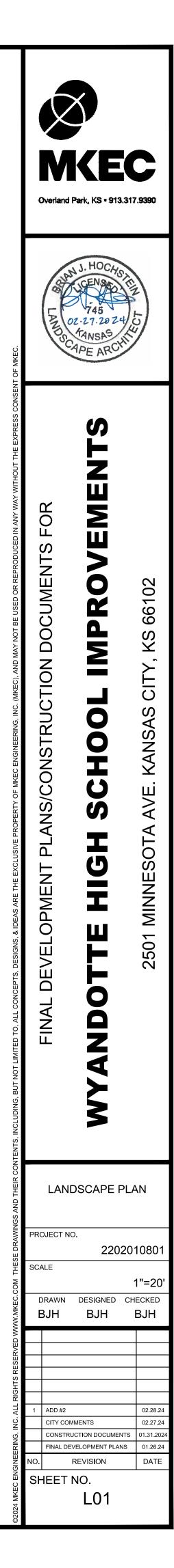
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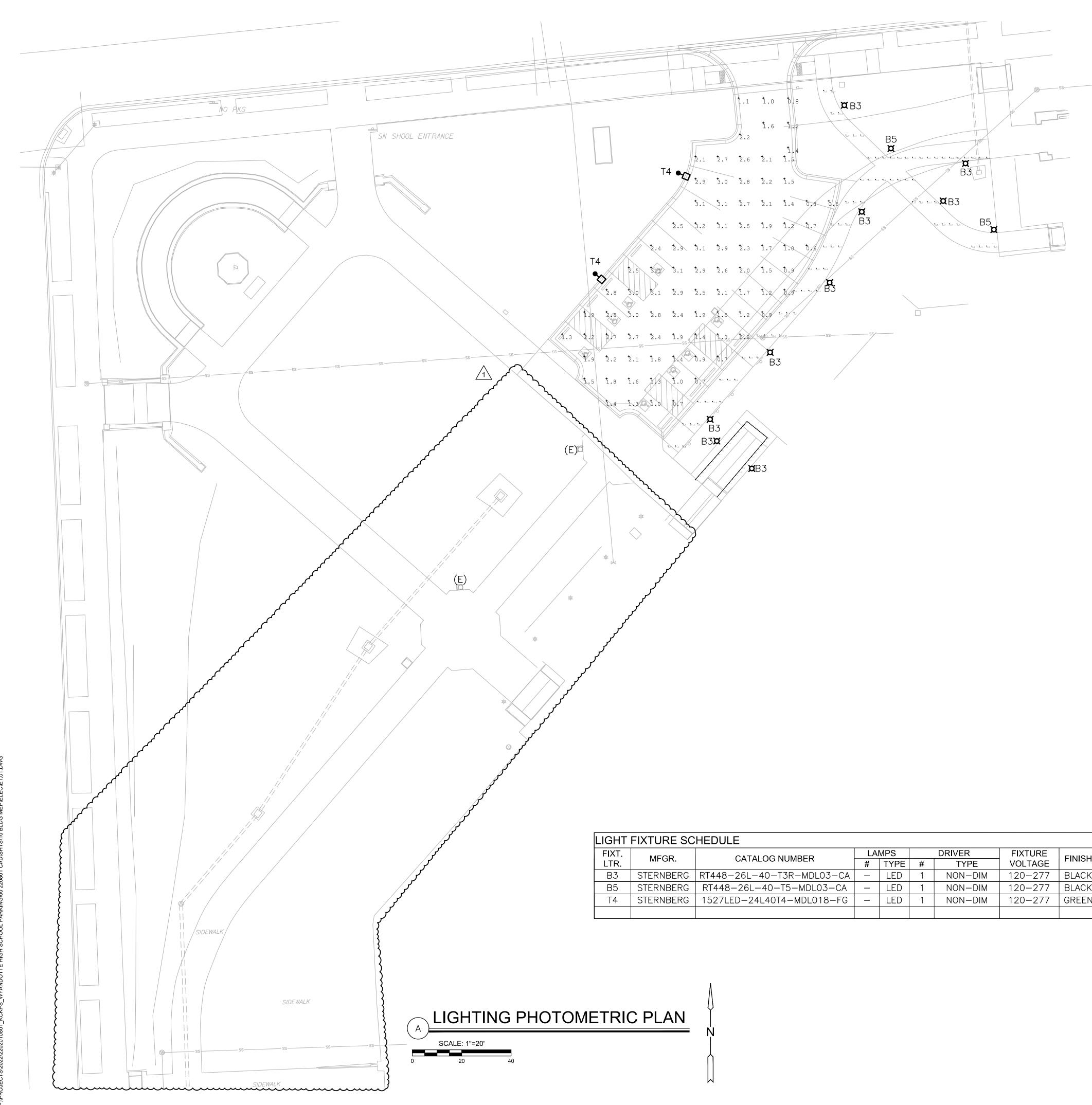
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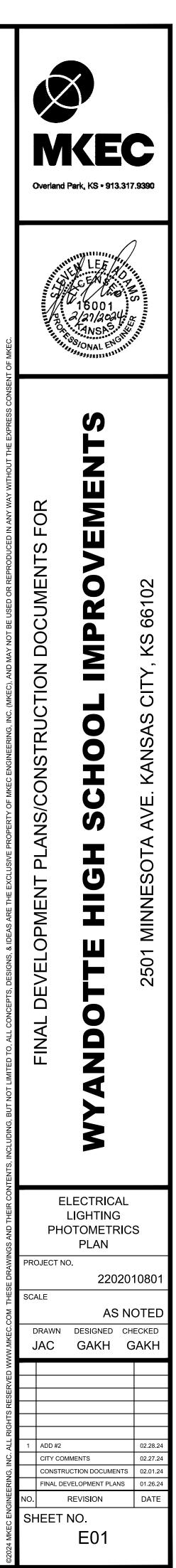


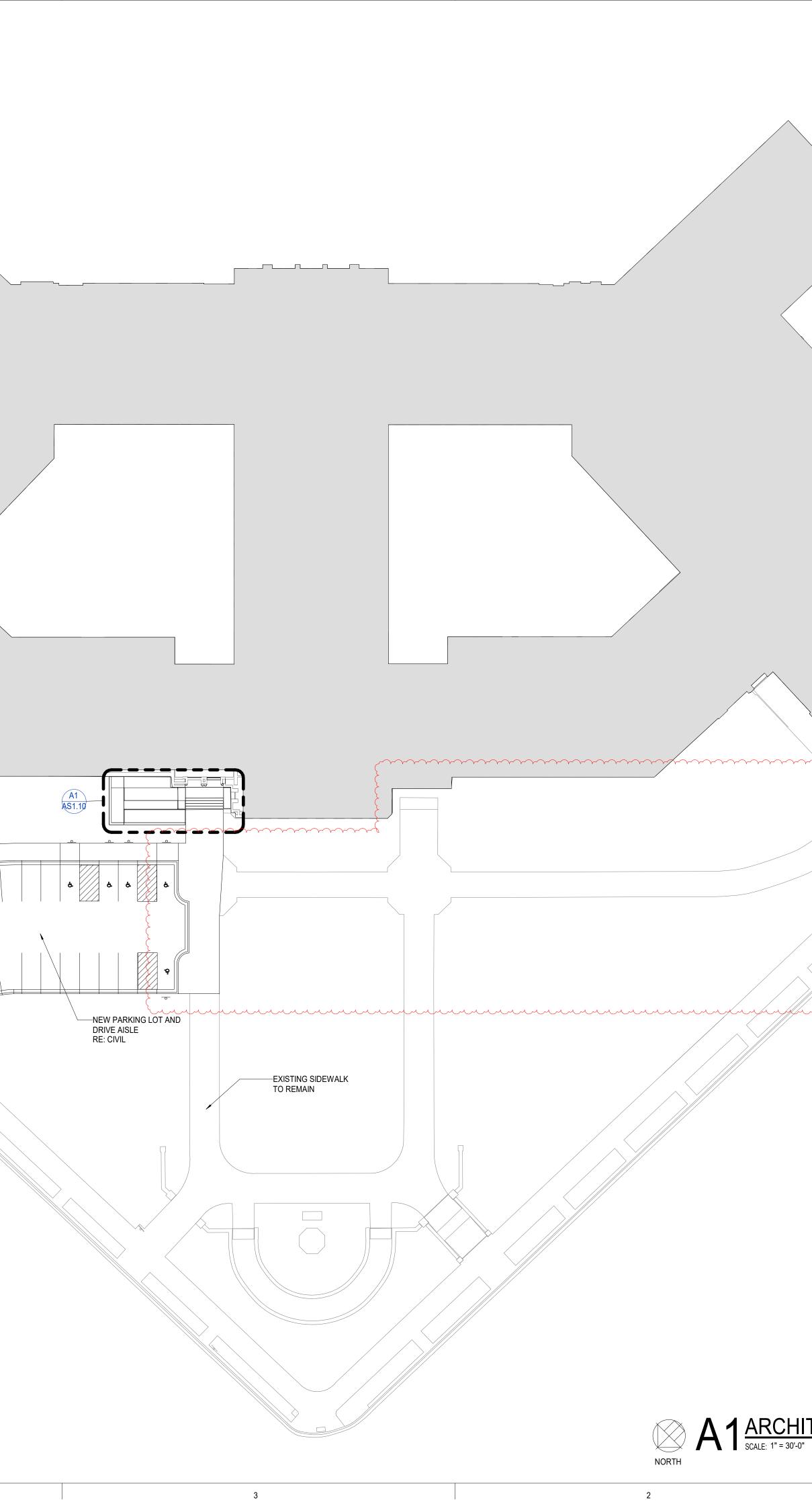
BOTANICAL NAME	SIZE & METHOD OF HANDLING
CERCIS CANADENSIS	2" CAL.
JUNIPERUS CHINENSIS 'SEA GREEN'	3 GAL.
TAXUS X MEDIA 'DENSIFORMIS'	3 GAL.
CALAMAGROSTIS X ACUTIFLORA 'KARL FOERSTER'	1 GALLON
SEE LAWN NOTES	SOD





FIXT. LTR.	MFGR.	CATALOG NUMBER LAMPS DRIVER FIXTURE FINISH MOUNT		MOUNTING	MOUNTING	FIXTURE VA	REMARKS/DESCRIPTION	NOTES					
LTR.	MIFGR.	CATALOG NUMBER	#	TYPE	#	TYPE	VOLTAGE	FINISH	WOONTING	HEIGHT	FIATURE VA	REWARKS/DESCRIPTION	NOTES
B3	STERNBERG	RT448-26L-40-T3R-MDL03-CA	_	LED	1	NON-DIM	120-277	BLACK	BOLLARD	4'-0"	31	TYPE 3R LED BOLLARD	
B5	STERNBERG	RT448-26L-40-T5-MDL03-CA	—	LED	1	NON-DIM	120-277	BLACK	BOLLARD	4'-0"	31	TYPE 5 LED BOLLARD	
T4	STERNBERG	1527LED-24L40T4-MDL018-FG	—	LED	1	NON-DIM	120-277	GREEN	POLE	25'-0"	118	TYPE 4 LED SITE AREA	





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	с.	License DUANE CASH License KS #7083 Cert. of Authority A-543 INCITE DESIGN STUDIO, LLC
		WYANDOTTE HIGH SCHOOL RENOVATION
	·	2501 MINNESOTA AVENUE KANSAS CITY, KS Project Phase
	в	PERMIT SET         Project Number         24-304         Issue Date         1/31/2024         Revision No.       Description         Date Issued
Le la		1 ADD #2 02/28/2024
		Shaet Name
	A	Sheet Name ARCHITECTURAL SITE PLAN - OVERALL
ITECTURAL SITE PLAN		Sheet Number
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