

# ADDENDUM ONE

FWCS, Fort Wayne, Indiana  
2025 Site and Traffic PPI

MARTINRILEY architects/engineers  
221 West Baker Street  
Fort Wayne, Indiana 46802  
260-422-7994

Commission No.: F24070

Addendum Date: February 21, 2025

**Conditions:** The following clarifications, amendments, additions, deletions, revisions, and modifications are a part of the contract documents and change the original documents only in the manner and to the extent stated.

**ADDENDUM ONE** shall be electronically issued to all plan holders.

## CLARIFICATIONS:

1. Permits and permit fees are the responsibility of the contractor. The City of Fort Wayne Right of Way Department indicated the following permits will be required.
  - C201 - 1 Right of Way Permit
  - C207 - 1 Fence Permit
  - C208 - 1 Right of Way Permit
  - C211 - 1 Right of Way Permit
  - C220 - 1 Site Permit

## CHANGES TO DRAWINGS:

Sheet C206 Forest Park Elementary School

**ADD** labels for section views A-A, B-B, and C-C in Detail 2 Stair Overlay - Enlarged Layout Plan  
**ADD** note to Detail 3 South Courtyard Concrete Stair Overlay Detail - A-A "Concrete Foundation Wall Joint"

**REVISE** concrete sidewalk replacement adjacent to concrete foundation wall in Detail 3 South Courtyard Concrete Stair Overlay Detail - A-A

**DELETE** note "#4 dowel @ 6'" from Detail 3 South Courtyard Concrete Stair Overlay Detail - A-A

**ADD** note to Detail 4 Typical Stair Detail - B-B "Concrete Foundation Wall Joint"

**REVISE** concrete sidewalk replacement adjacent to concrete steps and foundation wall in 3 South Courtyard Concrete Stair Overlay Detail - A-A

**REPLACE** note to Detail 4 Typical Stair Detail - B-B with " 12" reinforced concrete foundation wall with: - #4 vert. hook at 18" O.C. - #4 horz. At 12" O.C."

**DELETE** note "#4 dowel @6'" from Detail 4 Typical Stair Detail - B-B

**ADD** note to Detail 5 Typical Stair Detail - C-C "Concrete Landing and Stair Joint"

**REVISE** concrete sidewalk replacement adjacent to concrete steps and foundation wall in Detail 5 Typical Stair Detail - C-C

**DELETE** note "#4 dowel @6'" from Detail 5 Typical Stair Detail - C-C

**REMOVE** note "Stair Handrail: As Manufactured by Viva Railings, Cube Picket Metal Railing System To Accommodate the Sections Shown as Available From vivarailings.com/products/cube-picket-metal-railing (Or Approved Equal) Product Type: Stainless Steel"

**REPLACE** Detail 6 Typical Handrail Detail

Sheet C207 Glenwood Park Elementary School

**ADD** New Concrete Sidewalk Section “S7-01” and regrade to match existing grades, backfill, and seed “E1-01”, “E1-02”.

Sheet C208 Grile Administration Center

**ADD** Detail 3 Ramp Handrail Detail

Sheet C15B Northcrest Canopy Details

**REPLACE** Detail 1 Column Detail

Sheet C217 Northrop High School

**REVISE** “2 Northrop High School - Alternate 4” layout to depict the existing baseball field drainage system.

#### **CHANGES TO SPECIFICATIONS:**

Section 00 0110 Table of Contents

**ADD** “Division 26 - Electrical” and Sections “26 0505 Selective Demolition for Electrical”, “26 0519 Low-Voltage Electrical Power Conductors and Cables”, “26 0526 Grounding and Bonding for Electrical Systems”, “26 0533.13 Conduit for Electrical Systems”, “26 0533.16 Boxes for Electrical Systems”, and “26 5600 Exterior Lighting”.

Section 32 3113 Chain Link Fences and Gates

**REPLACE** 2.02 Components G. with “Fabric for 8’ fencing: 2 inch diamond mesh interwoven wire, 9 gauge, 0.148 inch thick, top selvage knuckle end closed, bottom selvage twisted tight.”  
**REPLACE** 2.03 D. with “Wire Fabric: 9 gauge (8 gauge where vinyl coated): Steel wire with the following coatings 1. PVC per ASTM F668 2. Galvanized (zinc coated)”

Section 26 0505 Selective Demolition for Electrical

**ADD** Specification to Project Manual

Section 26 0519 Low-Voltage Electrical Power Conductors and Cables

**ADD** Specification to Project Manual

Section 26 0526 Grounding and Bonding for Electrical Systems

**ADD** Specification to Project Manual

Section 26 0533.13 Conduit for Electrical Systems

**ADD** Specification to Project Manual

Section 26 0533.16 Boxes for Electrical Systems

**ADD** Specification to Project Manual

Section 26 5600 Exterior Lighting

**ADD** Specification to Project Manual

**Attachments:**

PREBID ATTENDEE LIST  
PREBID MEETING MINUTES

C206 Forest Park Elementary School  
C207 Glenwood Park Elementary School  
C217 Northrop High School  
ADD 1-1  
ADD 1-2

26 0505 Selective Demolition for Electrical  
26 0519 Low-Voltage Electrical Power Conductors and Cables  
26 0526 Grounding and Bonding for Electrical Systems  
26 0533.13 Conduit for Electrical Systems  
26 0533.16 Boxes for Electrical Systems  
26 5600 Exterior Lighting

**END OF ADDENDUM NUMBER ONE**

### PRE-BID ATTENDEE LIST

2025 Site and Traffic PPI  
Fort Wayne Community Schools

The following individuals have registered their attendance at the Pre-Bid held at 10:00 am, local time, Tuesday, February 11, 2025, at Fort Wayne Community Schools Facilities Department Training Room, (1519 Catalpa Street, Fort Wayne, Indiana).

Matt Phillips  
(printed name)

Matt J. Phillips  
(signature)

Wayne Asphalt  
(firm/company)

260 609 1414 matt@wayneasphalt.com  
(phone, fax & e-mail)

John Huda  
(printed name)

\_\_\_\_\_  
(signature)

FUCS  
(firm/company)

\_\_\_\_\_  
(phone, fax & e-mail)

Scott Fenstermaker  
(printed name)

Scott Fenstermaker  
(signature)

API  
(firm/company)

260-697-2743 a.lybargere@apiland.net  
(phone, fax & e-mail)

Andy Schentel  
(printed name)

Andy Schentel  
(signature)

Malott Contracting, Inc  
(firm/company)

260-385-1100 andy5@malottcontracting.com  
(phone, fax & e-mail)

Tacey Ehrman  
(printed name)

Tacey Ehrman  
(signature)

Martin Riley  
(firm/company)

\_\_\_\_\_  
(phone, fax & e-mail)

Victoria Bernardi  
(printed name)

VB  
(signature)

Martin Riley  
(firm/company)

\_\_\_\_\_  
(phone, fax & e-mail)



# PREBID MEETING AGENDA

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Project: Fort Wayne Community School 2025 Traffic and Site PPI

Meeting Date: February 11, 2025  
Commission No: F24070

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I. Design Team Introduction:

1. Travis Searles, Coordinator of Capital Projects – Facilities Department  
Office: 260.467.2075; Cell: 260.438.0122 email: [Travis.Searles@fwcs.k12.in.us](mailto:Travis.Searles@fwcs.k12.in.us)
2. Jayde Steffen, Coordinator of Capital Projects – Facilities Department  
Office: 260.467.2078; Cell: 260.267.1083; email: [Jayde.Steffen@fwcs.k12.in.us](mailto:Jayde.Steffen@fwcs.k12.in.us)
3. John Hudson, Coordinator of Design Controls – Facilities Department  
Office: 260.467.2893; Cell: 260.417.3566; email: [John.Hudson@fwcs.k12.in.us](mailto:John.Hudson@fwcs.k12.in.us)
4. Torrey Ehrman, Project Manager, **MARTINRILEY architects•engineers**  
Office: 260.422.7994; Cell: 260.615.7193; email: [tehrman@martin-riley.com](mailto:tehrman@martin-riley.com)
5. Victoria Bernardi, Civil Designer, **MARTINRILEY architects•engineers**  
Office: 260.422.7994; Cell: 260.704.5765; email: [vbernardi@martin-riley.com](mailto:vbernardi@martin-riley.com)

II. Scope of Work:

The Scope of work includes improvements at 21 FWCS properties. The work includes paving improvements, sidewalk repairs, storm structure repairs, and a bus parking lot extension with stormwater detention.

III. Timeline

1. In order to fairly disseminate all information to all bidders in the Addendum, address all questions to **MARTINRILEY** by the end of the business according to the following schedule. **Be certain all questions have been asked, as the submission of bids by the contractor suggests there are no questions regarding ambiguity, and you are submitting bids that will result in a complete project. Failure to do so will result in contractor's compliance with the Owner or Architects interpretation, at no contract increase. Deadline for all questions will be Thursday, February 20, 2025 before 12:00 p.m. local time.**
2. Bids are due at FWCS, Maintenance and Operations Facility, Facilities Department, located at 1519 Catalpa Street, Fort Wayne, Indiana before 2:00 p.m. local time on Tuesday, February 25, 2025 as indicated on the advertisement for bid.
3. It is the intent of the owner to begin work on **May 23, 2025** and achieve substantial completion on/or before **August 1, 2025** and final completion on/or before **August 29, 2025**. Final completion includes the completion all of the Punch List items (Owner and Architect) and Close Out Paperwork (i.e. change orders, warranties, waiver of liens, certification letters, etc.)

IV. General Items

1. Bidders may obtain bidding documents from Eastern Engineering (260) 426-3119.
2. The owner reserves the right to accept or reject any and all bids and to waive any informalities in bidding.
3. Questions relating to the project should be directed to Victoria Bernardi at the office of **MARTINRILEY architects•engineers**
4. It is the Contractor's responsibility to assure that they or their subcontractors visit each project and verify existing conditions prior to the date of bid. Contractors will be required to sign-in at main office prior to site visit. The buildings will be open to Contractor's for field investigation **before or after** the following times:

**Elementary Schools -**

**8:20 a.m. – 2:55 p.m.**

**Administrative buildings -**

**7:00 a.m. – 5:00 p.m.**

5. For work performed within the City of Fort Wayne Right-of-Way it is the contractor's responsibility to obtain all permits and to construct repairs meeting City of Fort Wayne's standards. The city provided the following comments based on their review of the plans:

- C201 – 1 Right-of-Way Permit
- C207 – 1 Fence Permit (replace)
- C208 – 1 Right-of-Way Permit
- C211 – 1 Right-of-Way Permit
- C220 – 1 Site Permit

Please refer to the city standards when working inside the City of Fort Wayne ROW (<https://www.cityoffortwayne.org/publicworks/181-transportation-engineering-services/5067-construction-standards-public-works.html>)

V. Project Manual Items

1. **Section 00 01 26 – Background Check Requirements**

- Each contractor and sub-contractor providing services to the owner shall screen all employees providing services to the owner.
- FWCS SafeVendor program – online registration of company and background checks required
- FWCS may require random background checks to be performed
- Submit certificate of compliance with background check requirement to be submitted within 30 days of contract execution, failure to do so is ground for contract termination

2. **Section 00 01 27 – FWCS Smoking Policy**

- Smoking is not permitted on any FWCS properties, including electronic vapor, or smokeless tobacco.

3. **Section 00 01 31 – FWCS Document Management (Procore)**

- FWCS shall use this software for web-based management tool
- Training will be offered to awarded contractors
- Use for: Submittals, Meeting Minutes, RFIs, PRs, ASIs/ESIs, Punch List, other project information as required

4. **Section 00 01 33 – Liquidated Damages**
  - Liquidated damages may be assessed for each calendar day beyond the specified Substantial and/or Final completion dates
  - The payment of Liquidated Damages in the amount of \$1,500.00 per calendar day for each calendar day after the completion date that the Work is not certified as Substantially complete by the Architect.
5. **Section 00 21 13 – Instruction to Bidders**
  - Shall be AIA Document A701, a copy of which is bound within the specifications, will become a part of the Contract Documents.
6. **Section 00 22 13 – Supplementary Instruction to Bidders**
  - Modify, delete, and supplement AIA Document A701, Instruction to Bidders.
  - Bidding Procedures among other items are identified in this section.
7. **Section 00 41 71 – Bid Proposal Form**
  - All bids shall be accompanied by the following completed documents identified on the Required Bid Checklist
    - Supplement to Form 96
    - State Form 96
    - Bid Security – 5%
    - List of Major Subcontractors, Suppliers and Manufacturers
    - E-Verify affidavit
    - Contractor's Statement of Equal Employment Opportunity Policy
    - Record of MBE, WBE, EBE
    - Iran Certifications
    - Submitted in Duplicate
    - Sealed Envelope Marked with Name and Bid Account Numbers
  - The failure to fill out all items in the Bid Supplement to Form 96 will be considered justification for rejection of the bid.
8. **Section 00 43 43 – Responsible Bidder Requirements**
  - All contractors must comply with ALL requirements of the Indiana Common Construction Wage as indicated.
  - Contractor Pre-qualification requirements for Public Works Projects: All contractor's and major subcontractors **MUST** be pre-qualified through the IDOA Public Works Certification Board
    - <http://www.in.gov/idoa/2486.htm>
9. **Section 00 52 13 – Agreement Between Owner and Contractor**
  - The Agreement shall be the FWCS Standard Construction Agreement, a copy of which is bound in these documents, and which when executed, will become a part of the Contract Documents of the successful bidder.
10. **Section 00 72 00 – General Conditions of the Contract**
  - Shall be AIA Document A201, a copy of which is bound within these documents, will become a part of the Contract Documents.
11. **Section 00 73 00 – Supplementary Conditions**
  - Modify the AIA Document A201, General Conditions of the Contract
  - Contractors shall secure a Performance Bond and Labor and Material Bond in the amount of 100% of the work accepted.
  - Insurance limits among other items are identified in this section.

12. **Section 01 21 00 – Allowances**

- A Contingency allowance of \$50,000 shall be included.
- Contingency Allowance shall be used only as directed for Owner's purposes and only by approved designate amounts to be charged to the contingency allowance.
- Contractors overhead and profit, including bond markups shall be included in the Base Bid and not part of the allowance

VI. Review Drawings

1. Bid project per drawings, specifications, and addendum(s). Contractors will be held accountable to the bidding documents.
2. Contractor will need to coordinate public and private locates. Owner will do the private locates but will need advanced notice.
3. All work will need to be scheduled and coordinated in advance at FACE Center, Grile Administrative Center, North Side High School, South Side High School, and Transportation Center.
4. Stencils and paint for parking lot areas will be provided by Owner. Stencils will need to be checked out and returned.
5. Concrete testing shall be performed to ensure compliance with specified requirements. The testing agency shall report test results in writing to the Architect and Contractor within 24 hours of the test.
6. High early concrete mix is to be used at Grile Administrative Center and Lakeside Middle School.

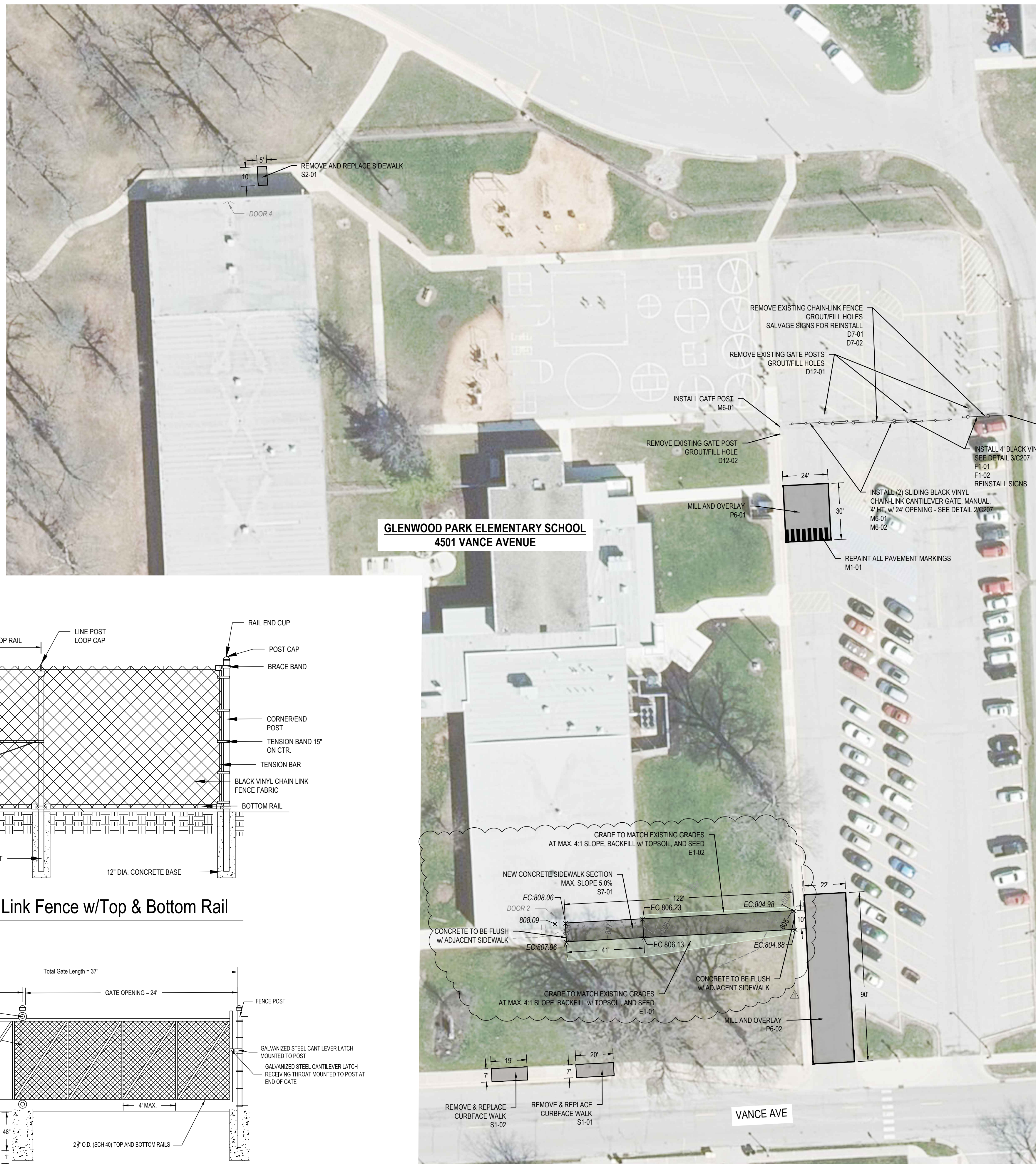
Alternates

- Alternate No. 1: Adams Elementary School
- Alternate No. 2: Brentwood Elementary School
- Alternate No. 3: Northwood Middle School
- Alternate No. 4: Northrop High School and South Side High School Athletic Annex

Any additions or corrections to these minutes must be submitted, in writing, to **MARTINRILEY** within three (3) days of issue date; otherwise these minutes shall stand as correct.







**GLENWOOD PARK ELEMENTARY SCHOOL  
4501 VANCE AVENUE**

- GENERAL CONSTRUCTION NOTES
1. QUANTITY TABLES PROVIDED FOR GENERAL USE AND REFERENCE ONLY. CONTRACTOR SHALL FIELD VERIFY ALL REMOVAL OR REPLACEMENT AREAS, QUANTITIES AND LIMITS OF CONSTRUCTION PRIOR TO THE START OF OPERATIONS AT EACH SITE.
  2. CONTRACTOR SHALL USE WHATEVER MEANS NECESSARY TO PROTECT ALL PAVEMENT, PAVEMENT MARKINGS, WALKS, GRASS AREAS, BUILDINGS, ETC. DURING CONSTRUCTION. ALL DAMAGED PROPERTY CAUSED BY CONSTRUCTION ACTIVITIES SHALL BE REPAIRED/REPLACED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
  3. PRIOR TO THE START OF DEMOLITION, CONTRACTOR SHALL PLACE APPROPRIATE EROSION CONTROL MEASURES TO ENSURE NO SEDIMENT LEAVES SITE OR ENTERS EXISTING ON-SITE OR PUBLIC STORM SYSTEM.
  4. CONTRACTOR SHALL PROVIDE CONCRETE WASHOUT FACILITIES OF ADEQUATE CAPACITY IN ACCORDANCE WITH PROJECT REQUIREMENTS. THE CONCRETE WASHOUT SHALL BE LOCATED AS FAR FROM SURFACE WATERS AS PRACTICAL, AND SHALL BE ABLE TO CONTAIN ALL LIQUID AND SOLID MATERIAL FROM CONCRETE TRUCK OR MIXER WASHING OPERATIONS WITHOUT CONTACTING OR CONTAMINATING THE GROUND.
  5. ALL AFFECTED PAVEMENT MARKINGS SHALL BE RESTORED UPON COMPLETION OF CONSTRUCTION ACTIVITIES. PRIOR TO THE START OF CONSTRUCTION, CONTRACTOR SHALL DOCUMENT TYPE, LOCATION AND FUNCTION OF EXISTING PAVEMENT MARKINGS (TRAFFIC, PEDESTRIAN, PLAYGROUND, ETC) WITHIN CONSTRUCTION LIMITS UNLESS SPECIFICALLY NOTED ON THE DRAWINGS. IF PAVEMENT MARKINGS AT START OF CONSTRUCTION DIFFER FROM PLANS NOTIFY ENGINEER AND OBTAIN OWNER APPROVAL PRIOR TO PLACEMENT.
  6. UNLESS SPECIFICALLY CALLED OUT AS SALVAGE MATERIALS FOR RE-USE OR RETURN TO OWNER, ALL CONSTRUCTION DEBRIS BECOMES PROPERTY OF THE CONTRACTOR. REMOVE ALL DEMOLISHED AND WASTE MATERIALS, AND LEGALLY DISPOSE OF THEM OFF THE OWNER'S PROPERTY.
  7. CONTRACTOR TO MATCH NEW CONSTRUCTION TO EXISTING GRADES AND PROVIDE POSITIVE DRAINAGE TO INLETS OR OTHER INTENDED OUTLET.
  8. CONTRACTOR SHALL RESTORE ALL DISTURBED GRASS AREAS BY PLACING TOPSOIL, IF REQUIRED, GRADING TO RE-ESTABLISH POSITIVE DRAINAGE, SEEDING AND MULCH.
  9. ALL ASPHALT AND CONCRETE REMOVAL AREAS SHALL BE SAW-CUT IN CLEAN STRAIGHT LINES.
  10. WHEN REPLACING/PLACING NEW CONCRETE ADJACENT TO EXISTING CONCRETE, THE CONTRACTOR SHALL USE #4 SMOOTH GREASED DOWELS @ 24" O.C. PLACED AT THE MIDPOINT OF EXISTING CONCRETE THICKNESS BETWEEN THE TWO AREAS.
  11. CONTRACTOR SHALL PROVIDE 3/8" EXPANSION JOINT BETWEEN ALL EXISTING AND NEW POURS, AT BEGINNING AND END OF EACH DAY'S POUR, AND A MINIMUM OF 1 EXPANSION JOINT PER 50 FT MAXIMUM OF CONTINUOUS SIDEWALK.
  12. CONTRACTOR SHALL PROVIDE 3/8" EXPANSION JOINTS BETWEEN ALL EXISTING STRUCTURES/BUILDINGS AND NEW CONCRETE CONSTRUCTION. ALL JOINTS AT SCHOOL BUILDING SHALL BE CAULKED WITH WATER TIGHT MATERIAL.
  13. CONTRACTOR SHALL ADJUST ALL CASTINGS TO GRADE WITHIN OR ADJACENT TO ALL REPLACEMENT OR REPAIR AREAS (CB) PROVIDE POSITIVE DRAINAGE TO INLETS.
  14. FORT WAYNE COMMUNITY SCHOOLS WILL PROVIDE ALL STENCILS AND PAINT FOR PAVEMENT STRIPING.

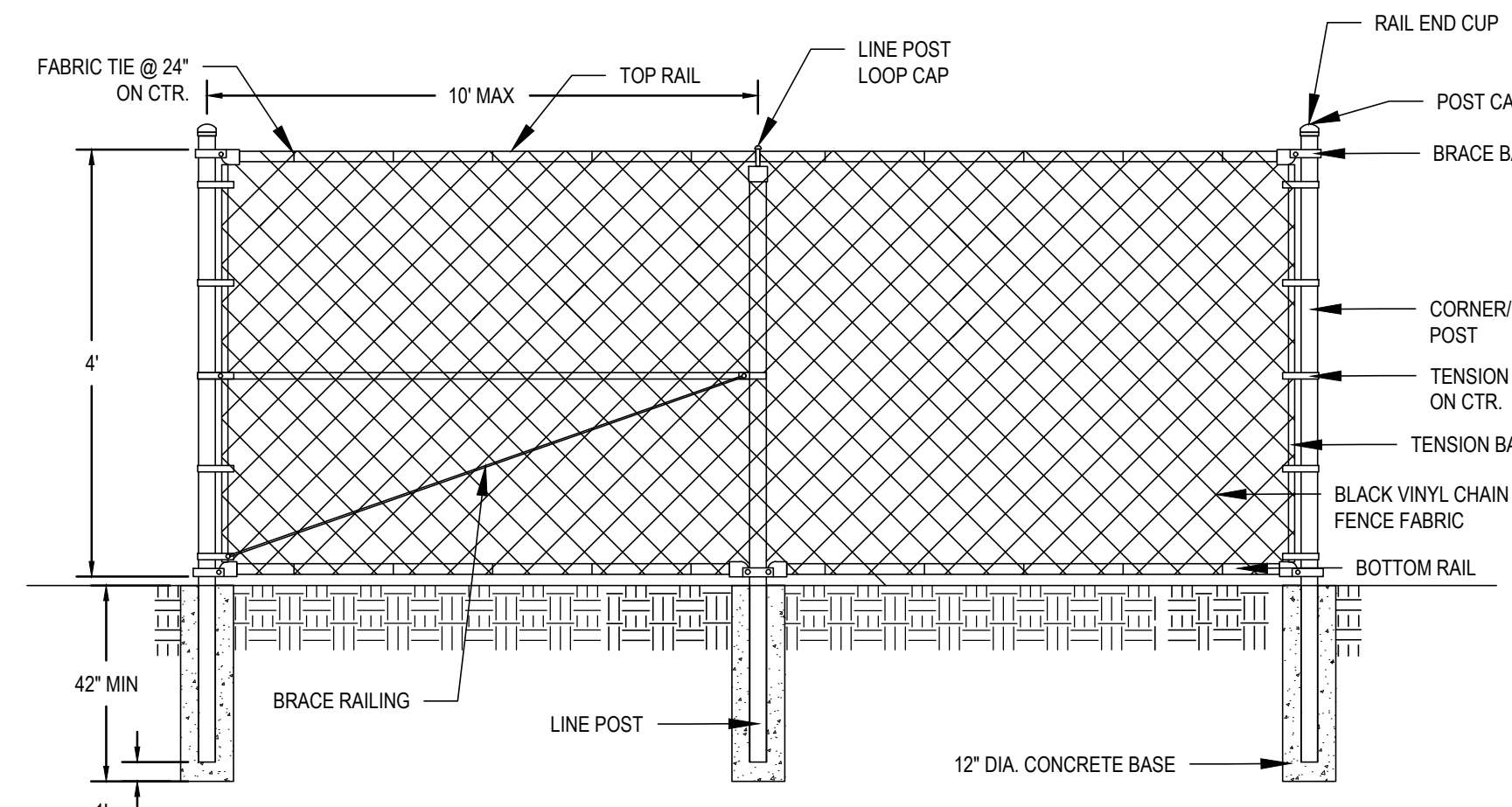
NOTE: SEE REFERENCED DETAILS PER SHEET AND TYPICAL DETAILS FOR ADDITIONAL CONSTRUCTION NOTES

**QUANTITY SUMMARY  
(FOR INFORMATION PURPOSES ONLY)**

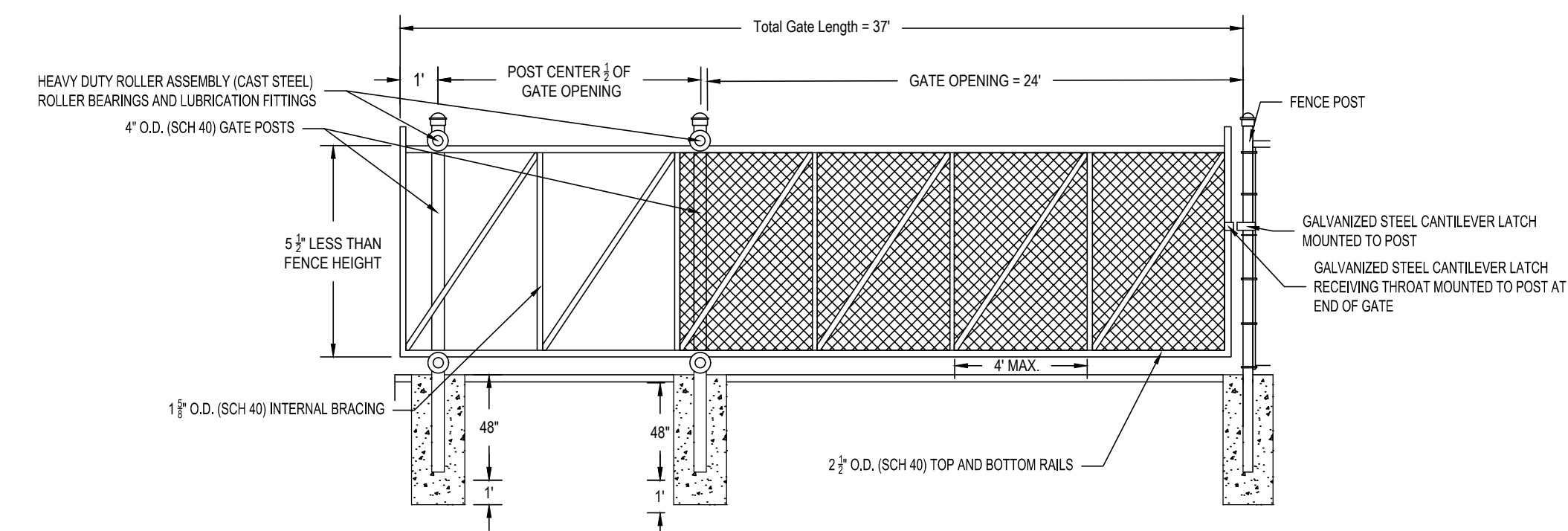
**LEGEND**

Site Code	GP	Glenwood Park Elementary School	Unit	Repair Description
GP07-01	D7	44	LF	Fence/Gate Removal
GP07-02	D7	24	LF	Fence/Gate Removal
GPD12-01	D12	3	EA	Remove Gate Post, GROUT/FILL HOLES
GPD12-02	D12	1	EA	Remove Gate Post, GROUT/FILL HOLES
GPF1-01	F1	48	LF	4' Chain-Link Fence
GPF1-02	F1	24	LF	4' Chain-Link Fence
GPM1-01	M1	1	LS	Pavement Striping
GPM6-01	M6	1	EA	Chain-link Slide Gate with 24' Opening
GPM6-02	M6	1	EA	Chain-link Slide Gate with 24' Opening
GPP6-01	P6	80	SY	2" Mill and Overlay
GPP6-02	P6	220	SY	2" Mill and Overlay
GPS2-01	S2	5.5	SY	Remove and Replace Sidewalk
GPS1-01	S1	15.6	SY	Remove and Replace Curbside Walk
GPS1-02	S1	14.6	SY	Remove and Replace Curbside Walk
GPST-01	S7	135	SY	Standard Concrete Sidewalk Section
GPE1-01	E1	12	CY	Grading/Earthwork
GPE1-02	E1	3	CY	Grading/Earthwork

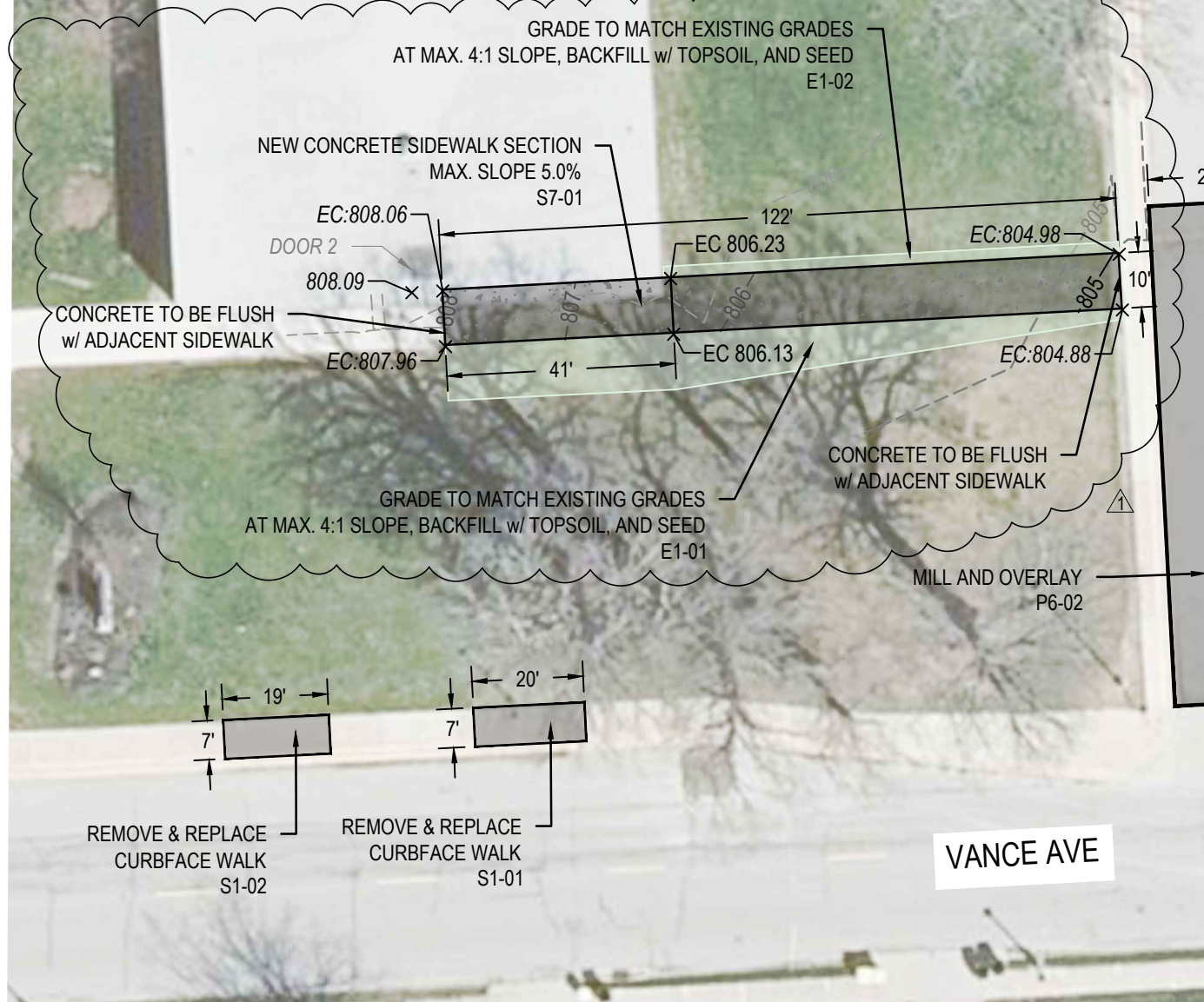
- XXX --- EXISTING MAJOR CONTOUR
- XXX --- EXISTING MINOR CONTOUR
- XXX --- PROPOSED MAJOR CONTOUR
- XXX --- PROPOSED MINOR CONTOUR
- EC EDGE OF CONCRETE
- xx.xx EXISTING SPOT ELEVATION
- xx.x PROPOSED SPOT ELEVATION



**3 Typical 4' Chain Link Fence w/Top & Bottom Rail**  
NTS



**2 Cantilever Slide Gate Detail**  
NTS



**1 Glenwood Park Elementary School**  
1" = 30'

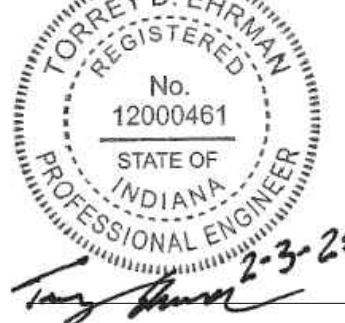
A New Construction Project For:

**FWCS 2025 SITE AND TRAFFIC PPI**

1200 S. Clinton Street  
Fort Wayne, IN 46802



221 West Baker Street  
Fort Wayne, Indiana 46802  
TEL. 260.422.7994  
FAX. 260.426.2067



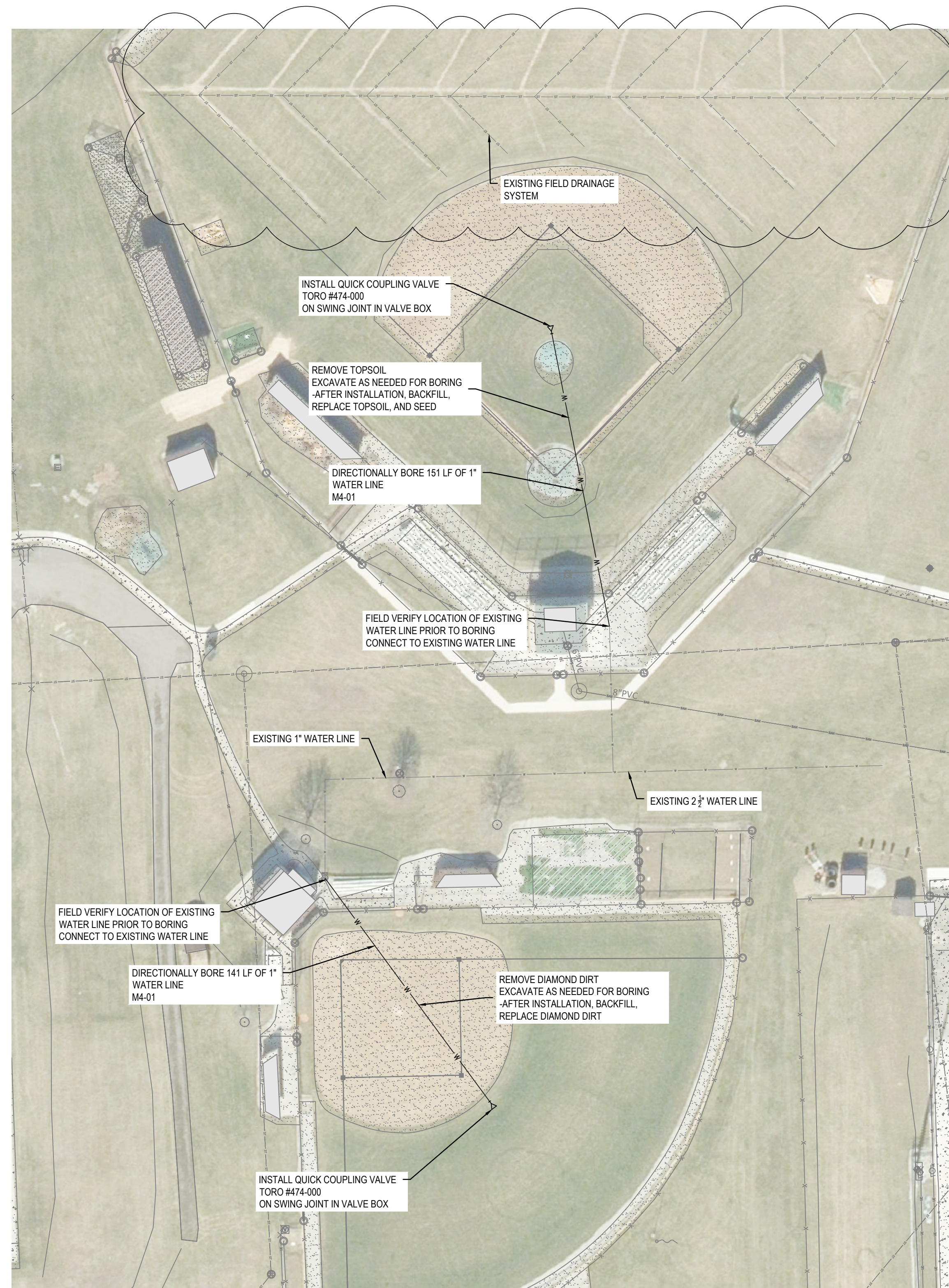
ALL WORK SHOWN, ARRANGEMENT AND PLANS INDICATED OR REPRESENTED BY THIS DRAWING ARE CONSIDERED TO BE THE PROPERTY OF MARTIN RILEY, INC. AND SHALL REMAIN THE PROPERTY OF MARTIN RILEY, INC. AND SHALL NOT BE REPRODUCED OR TRANSMITTED IN ANY FORM OR BY ANY MEANS, ELECTRONIC OR MECHANICAL, INCLUDING PHOTOCOPYING, RECORDING, OR BY ANY INFORMATION STORAGE AND RETRIEVAL SYSTEM, WITHOUT THE WRITTEN PERMISSION OF MARTIN RILEY, INC. THE USER OF THESE DRAWINGS AND CONDITIONS OF THE JOB AND THE OFFICE MUST BE NOTIFIED BY MAIL OF ANY VARIATION FROM THE DRAWINGS AND CONDITIONS IN THESE DRAWINGS. SEALS SHALL BE SUBMITTED TO THE OFFICE FOR REVIEW FOR THE LIMITED PURPOSE OF CHECKING FOR COMPLIANCE WITH INFORMATION GIVEN AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH CONSTRUCTION.

REVISION	DATE
ADDENDUM ONE	2025-02-21

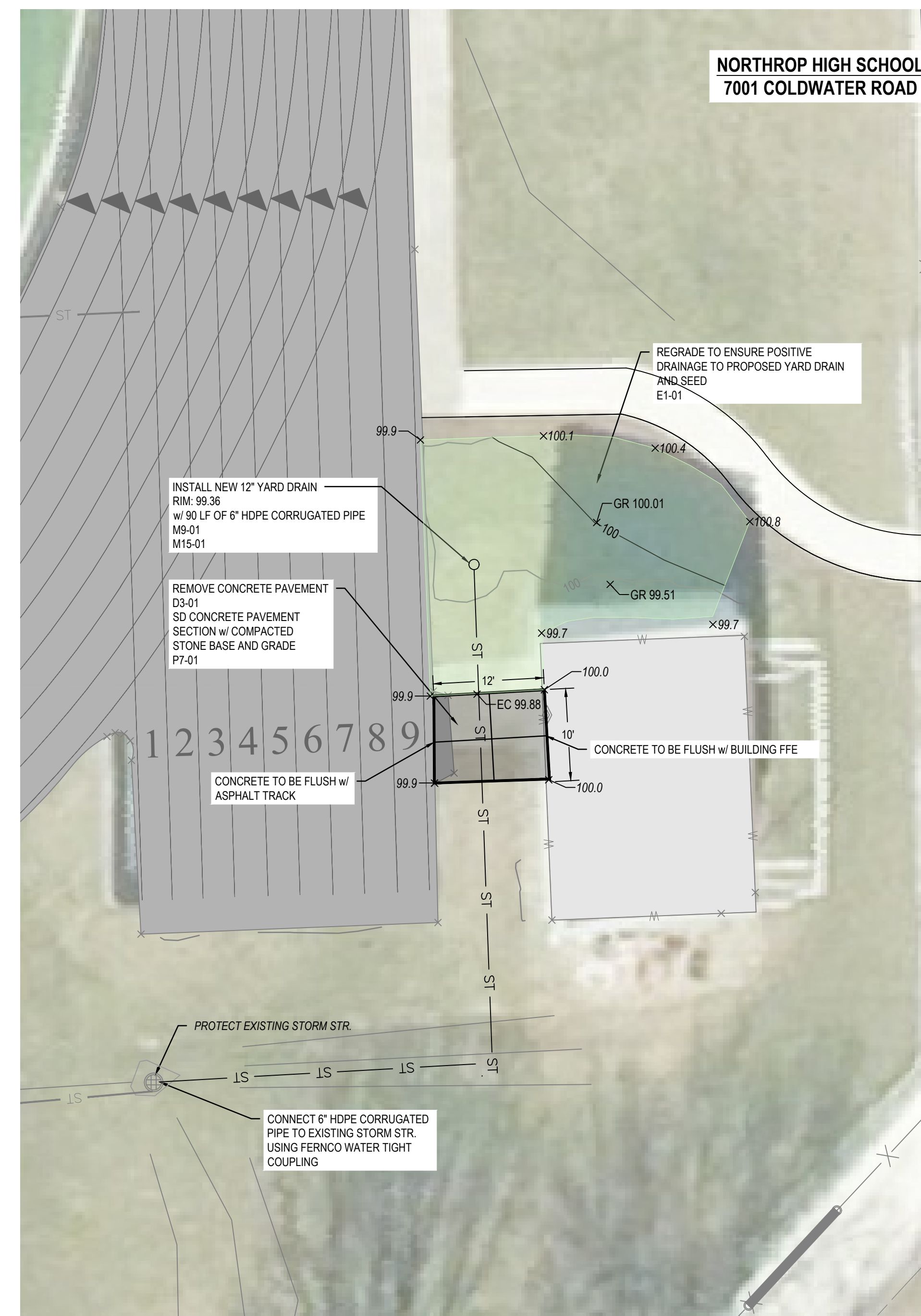
DRAWN BY: VLB  
COMMISSION NUMBER: F24070  
REVIEWED BY: TDE  
DATE: 2025-02-03

**C207**

GLENWOOD PARK  
ELEMENTARY SCHOOL



**2** Northrop High School - Alternate 4  
1" = 40'



**1** Northrop High School  
1" = 10'

- GENERAL CONSTRUCTION NOTES
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NOTE: SEE REFERENCED DETAILS PER SHEET AND TYPICAL DETAILS FOR ADDITIONAL CONSTRUCTION NOTES

QUANTITY SUMMARY  
(FOR INFORMATION PURPOSES ONLY)

Site Code	NP	Northrop High School	Unit	Repair Description
NPD3-01	D3	13	SY	Concrete Pavement Removal
NPM4-01	M4	2	LS	Directional Bore Water Service
NPM15-01	M15	90	LF	6" HDPE
NPM9-01	M9	1	LS	Install Yard Drain
NPE1-01	E1	40	CY	Grading/Earthwork
NPP7-01	P7	13	SY	New Concrete Section with Compacted Stone Base and Grade

LEGEND

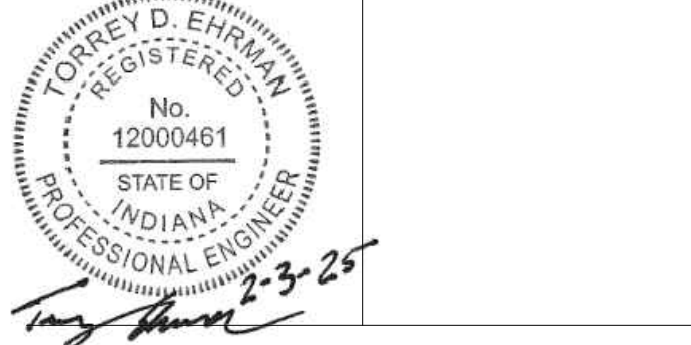
A New Construction Project For :

**FWCS 2025 SITE AND TRAFFIC PPI**

1200 S. Clinton Street  
Fort Wayne, IN 46802

221 West Baker Street  
Fort Wayne, Indiana 46802

TEL. 260.422.7994  
FAX. 260.426.2067



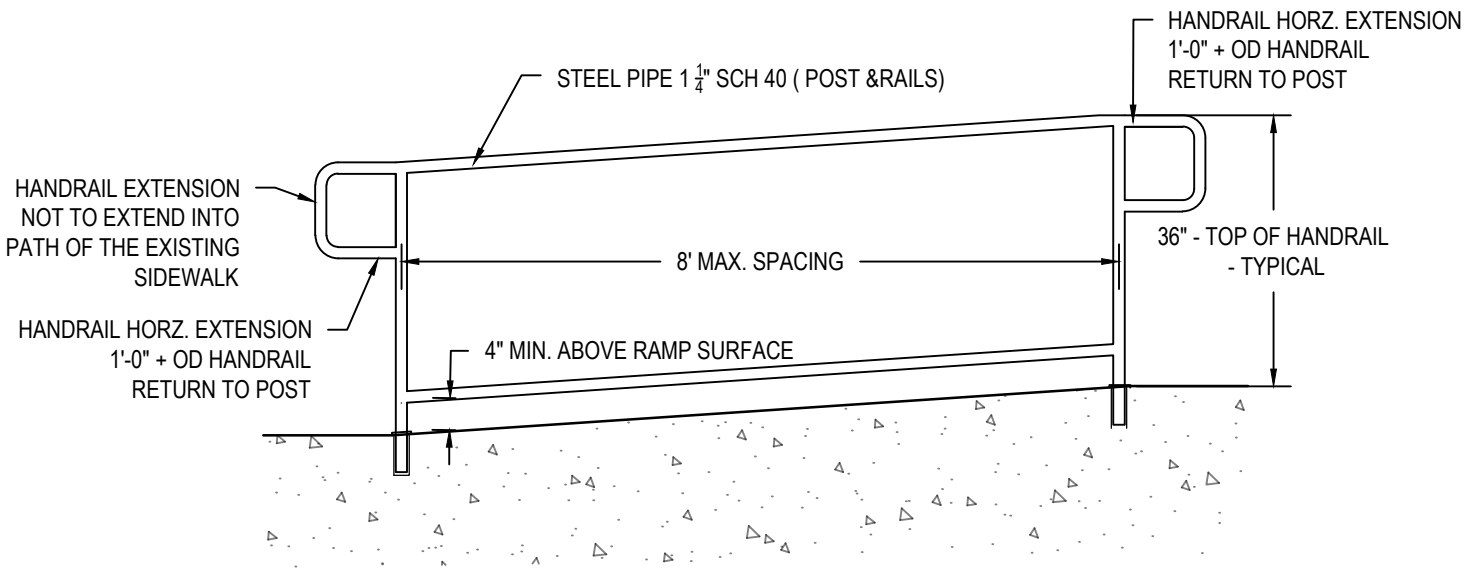
ALL REVISIONS, AMENDMENTS AND FEES INDICATED OR REPRESENTED BY THIS DRAWING ARE CONSIDERED BY AND THE PROPERTY OF MARTIN RILEY, INC. AND SHALL BE MAINTAINED, AND APPLIED FOR THE USE OF AND CONNECTION WITH THE PROJECT. NO PART OF THIS DRAWING, INFORMATION OR FEES SHALL BE USED OR REPRODUCED IN ANY MANNER WITHOUT THE WRITTEN PERMISSION OF MARTIN RILEY, INC. THE USER SHALL BE RESPONSIBLE FOR ALL DIMENSIONS AND CONDITIONS ON THE JOB AND THIS OFFICE SHALL BE NOTIFIED OF ANY VARIATION FROM THE DIMENSIONS AND CONDITIONS SHOWN IN THESE DRAWINGS. USER SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND CHECKING FOR CONFORMANCE WITH APPLICABLE CODES AND THE DESIGN CONCEPT EXPRESSED IN THE CONTRACT DOCUMENTS BEFORE PROCEEDING WITH CONSTRUCTION.

REVISION	DATE
ADDENDUM ONE	2025-02-21

DRAWN BY	COMMISSION NUMBER	REVIEWED BY	DATE
VLB	F24070	TDE	2025-02-03

**C217**

NORTHROP HIGH SCHOOL



ALL HANDRAILS ARE TO BE GALVANIZED STEEL

NOTE:  
 INSTALL STEEL RAIL SYSTEMS USING 'THE WAGNER COMPANIES' EMBEDDED MOUNT 'EZ SLEEVE' SET INTO PLACE USING 'KWIXSET' ANCHOR CEMENT OR EQUAL. GROUT AND MOUND JOINT - INSTALL STEEL COVER FLANGE AT EACH LOCATION

### 3 Ramp Handrail Detail

NTS



221 West Baker Street  
 Fort Wayne, Indiana 46802

TEL. 260.422.7994  
 FAX. 260.426.2067

SHEET TITLE:  
 Grile Administration Center  
 C208

TITLE  
 FWCS 2025 Site and Traffic PPI

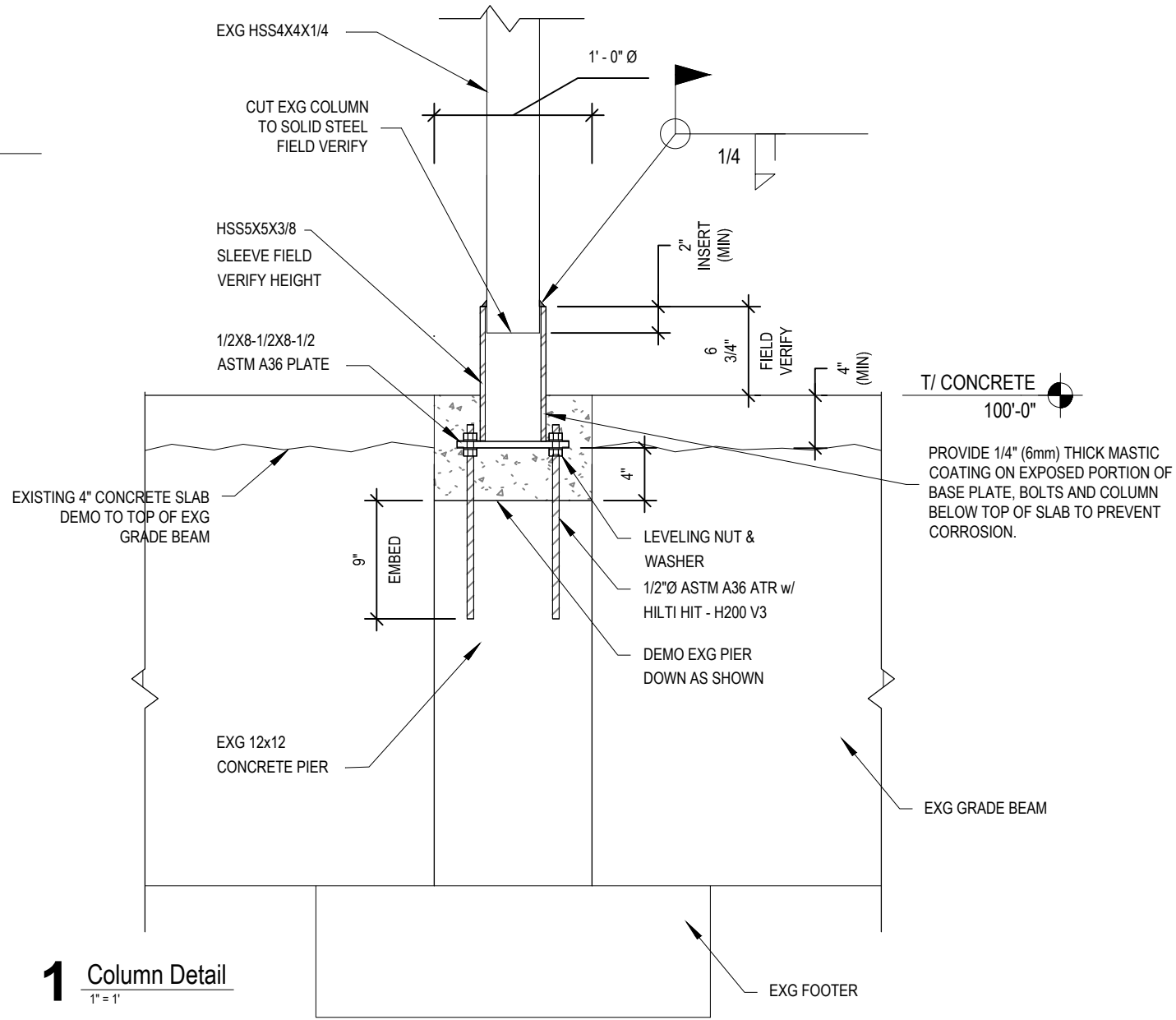
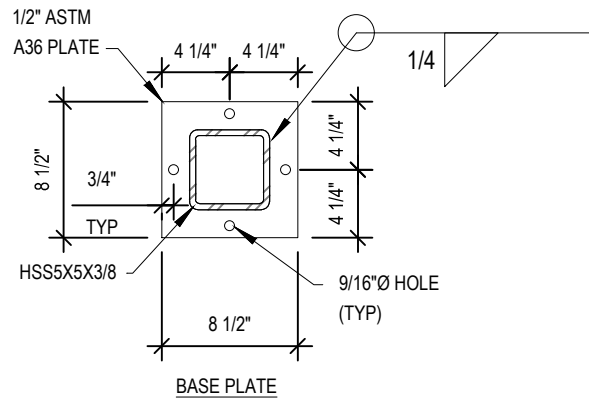
LOCATION  
 Fort Wayne, Indiana

DRAWN BY: VLB

DATE: 2025-02-21

COMMISSION NUMBER: F24070

**ADD 1-1**



**1** Column Detail  
 1" = 1"

SHEET TITLE:  
**Northcrest Canopy Details  
 C215B**

TITLE  
**FWCS 2025 Site and Traffic PPI**

LOCATION  
**Fort Wayne, Indiana**

DRAWN BY: **VLB**

DATE: **2025-02-21**

COMMISSION NUMBER: **F24070**



221 West Baker Street  
 Fort Wayne, Indiana 46802

TEL. 260.422.7994  
 FAX. 260.426.2067

**ADD 1-2**

**SECTION 26 0505  
SELECTIVE DEMOLITION FOR ELECTRICAL**

**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Electrical demolition.

**PART 3 EXECUTION****2.01 EXAMINATION**

- A. Verify that abandoned wiring and equipment serve only abandoned facilities.
- B. Beginning of demolition means installer accepts existing conditions.

**2.02 PREPARATION**

- A. Disconnect electrical systems in walls, floors, and ceilings to be removed.
- B. Coordinate utility service outages with utility company.
- C. Provide temporary wiring and connections to maintain existing systems in service during construction. When work must be performed on energized equipment or circuits, use personnel experienced in such operations.
- D. Existing Electrical Service: Maintain existing system in service until new system is complete and ready for service. Disable system only to make switchovers and connections. Minimize outage duration.

**2.03 DEMOLITION AND EXTENSION OF EXISTING ELECTRICAL WORK**

- A. Remove, relocate, and extend existing installations to accommodate new construction.
- B. Remove abandoned wiring to source of supply.
- C. Remove exposed abandoned conduit, including abandoned conduit above accessible ceiling finishes. Cut conduit flush with walls and floors, and patch surfaces.
- D. Disconnect abandoned outlets and remove devices. Remove abandoned outlets if conduit servicing them is abandoned and removed. Provide blank cover for abandoned outlets that are not removed.
- E. Repair adjacent construction and finishes damaged during demolition and extension work.
- F. Maintain access to existing electrical installations that remain active. Modify installation or provide access panel as appropriate.

**2.04 CLEANING AND REPAIR**

- A. See Section 01 7419 - Construction Waste Management and Disposal for additional requirements.
- B. Clean and repair existing materials and equipment that remain or that are to be reused.

**END OF SECTION**

**SECTION 26 0519**  
**LOW-VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES**

**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Single conductor building wire.
- B. Underground feeder and branch-circuit cable.
- C. Wiring connectors.
- D. Electrical tape.
- E. Oxide inhibiting compound.
- F. Cable ties.

**1.02 RELATED REQUIREMENTS**

- A. Section 07 8400 - Firestopping.
- B. Section 26 0505 - Selective Demolition for Electrical: Disconnection, removal, and/or extension of existing electrical conductors and cables.
- C. Section 26 0526 - Grounding and Bonding for Electrical Systems: Additional requirements for grounding conductors and grounding connectors.
- D. Section 31 2316 - Excavation.
- E. Section 31 2316.13 - Trenching: Excavating, bedding, and backfilling.
- F. Section 31 2323 - Fill: Bedding and backfilling.

**1.03 REFERENCE STANDARDS**

- A. ASTM B3 - Standard Specification for Soft or Annealed Copper Wire; 2013.
- B. ASTM B8 - Standard Specification for Concentric-Lay-Stranded Copper Conductors, Hard, Medium-Hard, or Soft; 2011.
- C. ASTM B33 - Standard Specification for Tin-Coated Soft or Annealed Copper Wire for Electrical Purposes; 2010 (Reapproved 2014).
- D. ASTM B787/B787M - Standard Specification for 19 Wire Combination Unilay-Stranded Copper Conductors for Subsequent Insulation; 2004 (Reapproved 2014).
- E. ASTM D3005 - Standard Specification for Low-Temperature Resistant Vinyl Chloride Plastic Pressure-Sensitive Electrical Insulating Tape; 2010.
- F. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2010.
- G. NECA 121 - Standard for Installing Nonmetallic-Sheathed Cable (Type NM-B) and Underground Feeder and Branch-Circuit Cable (Type UF); 2007.
- H. NEMA WC 70 - Nonshielded Power Cable 2000 V or Less for the Distribution of Electrical Energy; 2009.
- I. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- J. UL 44 - Thermoset-Insulated Wires and Cables; Current Edition, Including All Revisions.
- K. UL 83 - Thermoplastic-Insulated Wires and Cables; Current Edition, Including All Revisions.
- L. UL 486A-486B - Wire Connectors; Current Edition, Including All Revisions.
- M. UL 486C - Splicing Wire Connectors; Current Edition, Including All Revisions.
- N. UL 493 - Thermoplastic-Insulated Underground Feeder and Branch-Circuit Cables; Current Edition, Including All Revisions.

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- O. UL 510 - Polyvinyl Chloride, Polyethylene, and Rubber Insulating Tape; Current Edition, Including All Revisions.

#### 1.04 ADMINISTRATIVE REQUIREMENTS

- A. Coordination:
  - 1. Coordinate sizes of raceways, boxes, and equipment enclosures installed under other sections with the actual conductors to be installed, including adjustments for conductor sizes increased for voltage drop.
  - 2. Coordinate with electrical equipment installed under other sections to provide terminations suitable for use with the conductors to be installed.
  - 3. Notify Architect of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

#### 1.05 QUALITY ASSURANCE

- A. Comply with requirements of NFPA 70.

### PART 2 PRODUCTS

#### 2.01 CONDUCTOR AND CABLE APPLICATIONS

- A. Do not use conductors and cables for applications other than as permitted by NFPA 70 and product listing.
- B. Provide single conductor building wire installed in suitable raceway unless otherwise indicated, permitted, or required.

#### 2.02 CONDUCTOR AND CABLE GENERAL REQUIREMENTS

- A. Provide products that comply with requirements of NFPA 70.
- B. Provide products listed, classified, and labeled as suitable for the purpose intended.
- C. Unless specifically indicated to be excluded, provide all required conduit, boxes, wiring, connectors, etc. as required for a complete operating system.
- D. Comply with NEMA WC 70.
- E. Thermoplastic-Insulated Conductors and Cables: Listed and labeled as complying with UL 83.
- F. Thermoset-Insulated Conductors and Cables: Listed and labeled as complying with UL 44.
- G. Conductor Material:
  - 1. Copper Conductors: Soft drawn annealed, 98 percent conductivity, uncoated copper conductors complying with ASTM B3, ASTM B8, or ASTM B787/B787M unless otherwise indicated.
  - 2. Tinned Copper Conductors: Comply with ASTM B33.
- H. Conductor Color Coding:
  - 1. Color code conductors as indicated unless otherwise required by the authority having jurisdiction. Maintain consistent color coding throughout project.
  - 2. Color Coding Method: Integrally colored insulation.
  - 3. Color Code:
    - a. 480Y/277 V, 3 Phase, 4 Wire System:
      - 1) Phase A: Brown.
      - 2) Phase B: Orange.
      - 3) Phase C: Yellow.
      - 4) Neutral/Grounded: Gray.
    - b. 208Y/120 V, 3 Phase, 4 Wire System:
      - 1) Phase A: Black.
      - 2) Phase B: Red.
      - 3) Phase C: Blue.



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- 4) Neutral/Grounded: White.
- c. Equipment Ground, All Systems: Green.

### 2.03 SINGLE CONDUCTOR BUILDING WIRE

- A. Description: Single conductor insulated wire.
- B. Conductor Stranding:
  - 1. Feeders and Branch Circuits:
    - a. Size 10 AWG and Smaller: Solid.
    - b. Size 8 AWG and Larger: Stranded.
- C. Insulation Voltage Rating: 600 V.
- D. Insulation:
  - 1. Copper Building Wire: Type THHN/THWN or THHN/THWN-2, except as indicated below.

### 2.04 UNDERGROUND FEEDER AND BRANCH-CIRCUIT CABLE

- A. Description: NFPA 70, Type UF multiple-conductor cable listed and labeled as complying with UL 493, Type UF-B.
- B. Provide equipment grounding conductor unless otherwise indicated.
- C. Conductor Stranding:
  - 1. Size 10 AWG and Smaller: Solid.
  - 2. Size 8 AWG and Larger: Stranded.
- D. Insulation Voltage Rating: 600 V.

### 2.05 WIRING CONNECTORS

- A. Description: Wiring connectors appropriate for the application, suitable for use with the conductors to be connected, and listed as complying with UL 486A-486B or UL 486C as applicable.
- B. Wiring Connectors for Splices and Taps:

### 2.06 ACCESSORIES

- A. Electrical Tape:
  - 1. Vinyl Insulating Electrical Tape: Complying with ASTM D3005 and listed as complying with UL 510; minimum thickness of 7 mil; resistant to abrasion, corrosion, and sunlight; conformable for application down to 0 degrees F and suitable for continuous temperature environment up to 221 degrees F.
- B. Cable Ties: Material and tensile strength rating suitable for application.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify that interior of building has been protected from weather.
- B. Verify that work likely to damage wire and cable has been completed.
- C. Verify that raceways, boxes, and equipment enclosures are installed and are properly sized to accommodate conductors and cables in accordance with NFPA 70.
- D. Verify that field measurements are as indicated.
- E. Verify that conditions are satisfactory for installation prior to starting work.

### 3.02 PREPARATION

- A. Clean raceways thoroughly to remove foreign materials before installing conductors and cables.

### 3.03 INSTALLATION

- A. Circuiting Requirements:

Low-Voltage Electrical Power Conductors and  
Cables

- B. Install products in accordance with manufacturer's instructions.
- C. Perform work in accordance with NECA 1 (general workmanship).
- D. Install underground feeder and branch-circuit cable (Type UF-B) in accordance with NECA 121.
- E. Installation in Raceway:
  - 1. Tape ends of conductors and cables to prevent infiltration of moisture and other contaminants.
  - 2. Pull all conductors and cables together into raceway at same time.
  - 3. Do not damage conductors and cables or exceed manufacturer's recommended maximum pulling tension and sidewall pressure.
  - 4. Use suitable wire pulling lubricant where necessary, except when lubricant is not recommended by the manufacturer.
- F. Paralleled Conductors: Install conductors of the same length and terminate in the same manner.
- G. Secure and support conductors and cables in accordance with NFPA 70 using suitable supports and methods approved by the authority having jurisdiction. Provide independent support from building structure. Do not provide support from raceways, piping, ductwork, or other systems.
- H. Terminate cables using suitable fittings.
- I. Install conductors with a minimum of 12 inches of slack at each outlet.
- J. Neatly train and bundle conductors inside boxes, wireways, panelboards and other equipment enclosures.
- K. Group or otherwise identify neutral/grounded conductors with associated ungrounded conductors inside enclosures in accordance with NFPA 70.
- L. Make wiring connections using specified wiring connectors.
  - 1. Make splices and taps only in accessible boxes. Do not pull splices into raceways or make splices in conduit bodies or wiring gutters.
  - 2. Remove appropriate amount of conductor insulation for making connections without cutting, nicking or damaging conductors.
  - 3. Do not remove conductor strands to facilitate insertion into connector.
  - 4. Clean contact surfaces on conductors and connectors to suitable remove corrosion, oxides, and other contaminates. Do not use wire brush on plated connector surfaces.
- M. Insulate splices and taps that are made with uninsulated connectors using methods suitable for the application, with insulation and mechanical strength at least equivalent to unspliced conductors.
- N. Insulate ends of spare conductors using vinyl insulating electrical tape.
- O. Install firestopping to preserve fire resistance rating of partitions and other elements, using materials and methods specified in Section 07 8400.
- P. Unless specifically indicated to be excluded, provide final connections to all equipment and devices, including those furnished by others, as required for a complete operating system.

**END OF SECTION**

**SECTION 26 0526**  
**GROUNDING AND BONDING FOR ELECTRICAL SYSTEMS**

**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Grounding and bonding requirements.
- B. Conductors for grounding and bonding.
- C. Connectors for grounding and bonding.

**1.02 RELATED REQUIREMENTS**

- A. Section 26 0519 - Low-Voltage Electrical Power Conductors and Cables: Additional requirements for conductors for grounding and bonding, including conductor color coding.
- B. Section 26 0553 - Identification for Electrical Systems: Identification products and requirements.

**1.03 ADMINISTRATIVE REQUIREMENTS**

- A. Coordination:
  - 1. Notify Architect of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

**1.04 QUALITY ASSURANCE**

- A. Comply with requirements of NFPA 70.

**PART 2 PRODUCTS****2.01 GROUNDING AND BONDING REQUIREMENTS**

- A. Do not use products for applications other than as permitted by NFPA 70 and product listing.
- B. Unless specifically indicated to be excluded, provide all required components, conductors, connectors, conduit, boxes, fittings, supports, accessories, etc. as necessary for a complete grounding and bonding system.
- C. Where conductor size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.

**2.02 GROUNDING AND BONDING COMPONENTS**

- A. General Requirements:
  - 1. Provide products listed, classified, and labeled as suitable for the purpose intended.
  - 2. Provide products listed and labeled as complying with UL 467 where applicable.
- B. Conductors for Grounding and Bonding, in Addition to Requirements of Section 26 0526:
  - 1. Use insulated copper conductors unless otherwise indicated.
    - a. Exceptions:
      - 1) Use bare copper conductors where installed underground in direct contact with earth.
      - 2) Use bare copper conductors where directly encased in concrete (not in raceway).
- C. Connectors for Grounding and Bonding:
  - 1. Description: Connectors appropriate for the application and suitable for the conductors and items to be connected; listed and labeled as complying with UL 467.
  - 2. Unless otherwise indicated, use exothermic welded connections for underground, concealed and other inaccessible connections.
  - 3. Unless otherwise indicated, use mechanical connectors, compression connectors, or exothermic welded connections for accessible connections.

**2.03 CONNECTORS AND ACCESSORIES**

- A. Mechanical Connectors: Bronze.

**PART 3 EXECUTION****3.01 EXAMINATION**

- A. Verify that work likely to damage grounding and bonding system components has been completed.
- B. Verify that field measurements are as indicated.
- C. Verify that conditions are satisfactory for installation prior to starting work.

**3.02 INSTALLATION**

- A. Install products in accordance with manufacturer's instructions.
- B. Perform work in accordance with NECA 1 (general workmanship).
- C. Make grounding and bonding connections using specified connectors.
  - 1. Remove appropriate amount of conductor insulation for making connections without cutting, nicking or damaging conductors. Do not remove conductor strands to facilitate insertion into connector.
  - 2. Remove nonconductive paint, enamel, or similar coating at threads, contact points, and contact surfaces.
  - 3. Exothermic Welds: Make connections using molds and weld material suitable for the items to be connected in accordance with manufacturer's recommendations.
  - 4. Mechanical Connectors: Secure connections according to manufacturer's recommended torque settings.
  - 5. Compression Connectors: Secure connections using manufacturer's recommended tools and dies.
- D. Identify grounding and bonding system components in accordance with Section 26 0553.

**END OF SECTION**

**SECTION 26 0533.13  
CONDUIT FOR ELECTRICAL SYSTEMS**

**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Rigid polyvinyl chloride (PVC) conduit.

**1.02 ADMINISTRATIVE REQUIREMENTS**

- A. Coordination:
1. Coordinate minimum sizes of conduits with the actual conductors to be installed, including adjustments for conductor sizes increased for voltage drop.
  2. Coordinate the arrangement of conduits with structural members, ductwork, piping, equipment and other potential conflicts installed under other sections or by others.
  3. Verify exact conduit termination locations required for boxes, enclosures, and equipment installed under other sections or by others.
  4. Coordinate the work with other trades to provide roof penetrations that preserve the integrity of the roofing system and do not void the roof warranty.
- B. Sequencing:
1. Do not begin installation of conductors and cables until installation of conduit is complete between outlet, junction and splicing points.

**1.03 QUALITY ASSURANCE**

- A. Comply with requirements of NFPA 70.

**PART 2 PRODUCTS****2.01 CONDUIT APPLICATIONS**

- A. Underground:
1. Exterior, Direct-Buried: Use galvanized steel rigid metal conduit, intermediate metallic conduit (IMC), PVC-coated galvanized steel rigid metal conduit, rigid PVC conduit, or reinforced thermosetting resin conduit (RTRC).
  2. Exterior, Embedded Within Concrete: Use galvanized steel rigid metal conduit, intermediate metallic conduit (IMC), PVC-coated galvanized steel rigid metal conduit, rigid PVC conduit, or reinforced thermosetting resin conduit (RTRC).
  3. Where rigid polyvinyl (PVC) conduit is provided, transition to galvanized steel rigid metal conduit where emerging from underground.

**2.02 CONDUIT REQUIREMENTS**

- A. Existing Work: Where existing conduits are indicated to be reused, they may be reused only where they comply with specified requirements, are free from corrosion, and integrity is verified by pulling a mandrel through them.

**2.03 RIGID POLYVINYL CHLORIDE (PVC) CONDUIT**

- A. Description: NFPA 70, Type PVC rigid polyvinyl chloride conduit complying with NEMA TC 2 and listed and labeled as complying with UL 651; Schedule 40 unless otherwise indicated, Schedule 80 where subject to physical damage; rated for use with conductors rated 90 degrees C.
- B. Fittings:
1. Manufacturer: Same as manufacturer of conduit to be connected.
  2. Description: Fittings complying with NEMA TC 3 and listed and labeled as complying with UL 651; material to match conduit.

**2.04 ACCESSORIES**

- A. Solvent Cement for PVC Conduit and Fittings: As recommended by manufacturer of conduit and fittings to be installed.

- B. Pull Strings: Use nylon cord with average breaking strength of not less than 200 pound-force.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that field measurements are as indicated.
- B. Verify that mounting surfaces are ready to receive conduits.
- C. Verify that conditions are satisfactory for installation prior to starting work.

#### **3.02 INSTALLATION**

- A. Install products in accordance with manufacturer's instructions.
- B. Conduit Support:
  - 1. Provide independent support from building structure. Do not provide support from piping, ductwork, or other systems.
- C. Connections and Terminations:
  - 1. Use suitable adapters where required to transition from one type of conduit to another.
- D. Penetrations:
  - 1. Do not penetrate or otherwise notch or cut structural members, including footings and grade beams, without approval of Structural Engineer.
  - 2. Make penetrations perpendicular to surfaces unless otherwise indicated.
  - 3. Provide sleeves for penetrations as indicated or as required to facilitate installation. Set sleeves flush with exposed surfaces unless otherwise indicated or required.
  - 4. Conceal bends for conduit risers emerging above ground.
  - 5. Where conduits penetrate waterproof membrane, seal as required to maintain integrity of membrane.
- E. Unless specifically indicated on plan drawings or approved by architect do not use exposed conduit in finished areas. Exposed conduit in unfinished areas is an acceptable means of installation.

#### **3.03 CLEANING**

- A. Clean interior of conduits to remove moisture and foreign matter.

#### **3.04 PROTECTION**

- A. Immediately after installation of conduit, use suitable manufactured plugs to provide protection from entry of moisture and foreign material and do not remove until ready for installation of conductors.

**END OF SECTION**

**SECTION 26 0533.16**  
**BOXES FOR ELECTRICAL SYSTEMS**

**PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Outlet and device boxes up to 100 cubic inches, including those used as junction and pull boxes.
- B. Cabinets and enclosures, including junction and pull boxes larger than 100 cubic inches.
- C. Boxes and enclosures for integrated power, data, and audio/video.
- D. Underground boxes/enclosures.

**1.02 RELATED REQUIREMENTS**

- A. Section 26 0526 - Grounding and Bonding for Electrical Systems.
- B. Section 26 0529 - Hangers and Supports for Electrical Systems.
- C. Section 26 0533.13 - Conduit for Electrical Systems:
  - 1. Conduit bodies and other fittings.

**1.03 REFERENCE STANDARDS**

- A. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2010.
- B. NECA 130 - Standard for Installing and Maintaining Wiring Devices; 2010.
- C. NEMA FB 1 - Fittings, Cast Metal Boxes, and Conduit Bodies for Conduit, Electrical Metallic Tubing, and Cable; 2012.
- D. NEMA OS 1 - Sheet-Steel Outlet Boxes, Device Boxes, Covers, and Box Supports; 2013.
- E. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- F. SCTE 77 - Specification for Underground Enclosure Integrity; 2013.
- G. UL 514A - Metallic Outlet Boxes; Current Edition, Including All Revisions.

**1.04 ADMINISTRATIVE REQUIREMENTS**

- A. Coordination:
  - 1. Coordinate the work with other trades to avoid placement of ductwork, piping, equipment, or other potential obstructions within the dedicated equipment spaces and working clearances for electrical equipment required by NFPA 70.
  - 2. Coordinate arrangement of electrical equipment with the dimensions and clearance requirements of the actual equipment to be installed.
  - 3. Coordinate minimum sizes of boxes with the actual installed arrangement of conductors, clamps, support fittings, and devices, calculated according to NFPA 70.
  - 4. Coordinate minimum sizes of pull boxes with the actual installed arrangement of connected conduits, calculated according to NFPA 70.
  - 5. Coordinate the placement of boxes with millwork, furniture, devices, equipment, etc. installed under other sections or by others.
  - 6. Coordinate the work with other trades to preserve insulation integrity.
  - 7. Coordinate the work with other trades to provide walls suitable for installation of flush-mounted boxes where indicated.
  - 8. Notify Architect of any conflicts with or deviations from Contract Documents. Obtain direction before proceeding with work.

**1.05 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

**1.06 QUALITY ASSURANCE**

- A. Comply with requirements of NFPA 70.

**PART 2 PRODUCTS****2.01 BOXES**

- A. General Requirements:
1. Do not use boxes and associated accessories for applications other than as permitted by NFPA 70 and product listing.
  2. Provide all boxes, fittings, supports, and accessories required for a complete raceway system and to accommodate devices and equipment to be installed.
  3. Provide products listed, classified, and labeled as suitable for the purpose intended.
  4. Where box size is not indicated, size to comply with NFPA 70 but not less than applicable minimum size requirements specified.
  5. Provide grounding terminals within boxes where equipment grounding conductors terminate.
- B. Outlet and Device Boxes Up to 100 cubic inches, Including Those Used as Junction and Pull Boxes:
1. Use sheet-steel boxes for dry locations unless otherwise indicated or required.
  2. Use cast iron boxes or cast aluminum boxes for damp or wet locations unless otherwise indicated or required; furnish with compatible weatherproof gasketed covers.
  3. Use suitable concrete type boxes where flush-mounted in concrete.
  4. Use suitable masonry type boxes where flush-mounted in masonry walls.
  5. Use raised covers suitable for the type of wall construction and device configuration where required.
  6. Use shallow boxes where required by the type of wall construction.
  7. Do not use "through-wall" boxes designed for access from both sides of wall.
  8. Sheet-Steel Boxes: Comply with NEMA OS 1, and list and label as complying with UL 514A.
  9. Cast Metal Boxes: Comply with NEMA FB 1, and list and label as complying with UL 514A; furnish with threaded hubs.
  10. Boxes for Supporting Luminaires and Ceiling Fans: Listed as suitable for the type and weight of load to be supported; furnished with fixture stud to accommodate mounting of luminaire where required.
  11. Boxes for Ganged Devices: Use multigang boxes of single-piece construction. Do not use field-connected gangable boxes unless specifically indicated or permitted.
  12. Wall Plates: Comply with Section 26 2726.
- C. Cabinets and Enclosures, Including Junction and Pull Boxes Larger Than 100 cubic inches:
1. Junction and Pull Boxes Larger Than 100 cubic inches:
    - a. Provide screw-cover or hinged-cover enclosures unless otherwise indicated.
- D. Underground Boxes/Enclosures:
1. Description: In-ground, open bottom boxes furnished with flush, non-skid covers with legend indicating type of service and stainless steel tamper resistant cover bolts.
  2. Size: As indicated on drawings.
  3. Depth: As required to extend below frost line to prevent frost upheaval, but not less than 12 inches.
  4. Applications:
    - a. Sidewalks and Landscaped Areas Subject Only to Occasional Nondeliberate Vehicular Traffic: Use polymer concrete enclosures, with minimum SCTE 77 Tier 8 load rating.
    - b. Parking Lots, in Areas Subject Only To Occasional Nondeliberate Vehicular Traffic: Use polymer concrete enclosures, with minimum SCTE 77 Tier 15 load rating.



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- c. Do not use polymer concrete enclosures in areas subject to deliberate vehicular traffic.
5. Polymer Concrete Underground Boxes/Enclosures: Comply with SCTE 77.
  - a. Combination fiberglass/polymer concrete boxes/enclosures are acceptable.

### **PART 3 EXECUTION**

#### **3.01 EXAMINATION**

- A. Verify that field measurements are as indicated.
- B. Verify that mounting surfaces are ready to receive boxes.
- C. Verify that conditions are satisfactory for installation prior to starting work.

#### **3.02 INSTALLATION**

- A. Install products in accordance with manufacturer's instructions.
- B. Install boxes in accordance with NECA 1 (general workmanship) and, where applicable, NECA 130, including mounting heights specified in those standards where mounting heights are not indicated.
- C. Arrange equipment to provide minimum clearances in accordance with manufacturer's instructions and NFPA 70.
- D. Box Supports:
  1. Secure and support boxes in accordance with NFPA 70 and Section 26 0529 using suitable supports and methods approved by the authority having jurisdiction.
  2. Provide independent support from building structure except for cast metal boxes (other than boxes used for fixture support) supported by threaded conduit connections in accordance with NFPA 70. Do not provide support from piping, ductwork, or other systems.
- E. Install boxes plumb and level.
- F. Flush-Mounted Boxes:
  1. Install boxes in noncombustible materials such as concrete, tile, gypsum, plaster, etc. so that front edge of box or associated raised cover is not set back from finished surface more than 1/4 inch or does not project beyond finished surface.
  2. Install boxes in combustible materials such as wood so that front edge of box or associated raised cover is flush with finished surface.
  3. Repair rough openings around boxes in noncombustible materials such as concrete, tile, gypsum, plaster, etc. so that there are no gaps or open spaces greater than 1/8 inch at the edge of the box.
- G. Install boxes as required to preserve insulation integrity.
- H. Underground Boxes/Enclosures:
  1. Install enclosure on gravel base, minimum 6 inches deep.
  2. Install additional bracing inside enclosures in accordance with manufacturer's instructions to minimize box sidewall deflections during backfilling. Backfill with cover bolted in place.
- I. Install permanent barrier between ganged wiring devices when voltage between adjacent devices exceeds 300 V.
- J. Install firestopping to preserve fire resistance rating of partitions and other elements, using materials and methods specified in Section 07 8400.
- K. Close unused box openings.
- L. Install blank wall plates on junction boxes and on outlet boxes with no devices or equipment installed or designated for future use.
- M. Provide grounding and bonding in accordance with Section 26 0526.

**3.03 CLEANING**

- A. Clean interior of boxes to remove dirt, debris, plaster and other foreign material.

**3.04 PROTECTION**

- A. Immediately after installation, protect boxes from entry of moisture and foreign material until ready for installation of conductors.

**END OF SECTION**

**SECTION 26 5600  
EXTERIOR LIGHTING****PART 1 GENERAL****1.01 SECTION INCLUDES**

- A. Exterior luminaires.
- B. Poles and accessories.

**1.02 RELATED REQUIREMENTS**

- A. Section 26 0526 - Grounding and Bonding for Electrical Systems.
- B. Section 26 0529 - Hangers and Supports for Electrical Systems.
- C. Section 26 0533.16 - Boxes for Electrical Systems.

**1.03 REFERENCE STANDARDS**

- A. NECA 1 - Standard for Good Workmanship in Electrical Construction; 2010.
- B. NECA/IESNA 501 - Standard for Installing Exterior Lighting Systems; 2006.
- C. NFPA 70 - National Electrical Code; Most Recent Edition Adopted by Authority Having Jurisdiction, Including All Applicable Amendments and Supplements.
- D. UL 1598 - Luminaires; Current Edition, Including All Revisions.

**1.04 ADMINISTRATIVE REQUIREMENTS**

- A. Coordination:
  - 1. Coordinate placement of poles and associated foundations with utilities, curbs, sidewalks, trees, walls, fences, striping, etc. installed under other sections or by others. Coordinate elevation to obtain specified foundation height.
  - 2. Notify Architect of any conflicts or deviations from Contract Documents to obtain direction prior to proceeding with work.

**1.05 SUBMITTALS**

- A. See Section 01 3000 - Administrative Requirements, for submittal procedures.

**1.06 QUALITY ASSURANCE**

- A. Comply with requirements of NFPA 70.

**1.07 DELIVERY, STORAGE, AND HANDLING**

- A. Receive, handle, and store products according to NECA/IESNA 501 and manufacturer's written instructions.
- B. Keep products in original manufacturer's packaging and protect from damage until ready for installation.

**PART 2 PRODUCTS****2.01 LUMINAIRE TYPES**

- A. Furnish products as indicated in luminaire schedule included on the drawings.

**2.02 LUMINAIRES**

- A. Provide products that comply with requirements of NFPA 70.
- B. Provide products that are listed and labeled as complying with UL 1598, where applicable.
- C. Provide products listed, classified, and labeled as suitable for the purpose intended.
- D. Unless otherwise indicated, provide complete luminaires including lamp(s) and all sockets, ballasts, reflectors, lenses, housings and other components required to position, energize and protect the lamp and distribute the light.

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- E. Unless specifically indicated to be excluded, provide all required conduit, boxes, wiring, connectors, hardware, poles, foundations, supports, trims, accessories, etc. as necessary for a complete operating system.
- F. Provide products suitable to withstand normal handling, installation, and service without any damage, distortion, corrosion, fading, discoloring, etc.

### 2.03 POLES

- A. All Poles:
  - 1. Provide poles and associated support components suitable for the luminaire(s) and associated supports and accessories to be installed.
  - 2. Material: Steel, unless otherwise indicated.
  - 3. Mounting: Install on concrete foundation, height as indicated on the drawings, unless otherwise indicated.

## PART 3 EXECUTION

### 3.01 EXAMINATION

- A. Verify that field measurements are as indicated.
- B. Verify that outlet boxes are installed in proper locations and at proper mounting heights and are properly sized to accommodate conductors in accordance with NFPA 70.
- C. Verify that suitable support frames are installed where required.
- D. Verify that branch circuit wiring installation is completed, tested, and ready for connection to luminaires.
- E. Verify that conditions are satisfactory for installation prior to starting work.

### 3.02 PREPARATION

- A. Provide extension rings to bring outlet boxes flush with finished surface.
- B. Clean dirt, debris, plaster, and other foreign materials from outlet boxes.

### 3.03 INSTALLATION

- A. Coordinate locations of outlet boxes provided under Section 26 0533.16 as required for installation of luminaires provided under this section.
- B. Install products in accordance with manufacturer's instructions.
- C. Install luminaires in accordance with NECA/IESNA 501.
- D. Provide required support and attachment in accordance with Section 26 0529.
- E. Install luminaires plumb and square and aligned with building lines and with adjacent luminaires.
- F. Install accessories furnished with each luminaire.
- G. Bond products and metal accessories to branch circuit equipment grounding conductor.
- H. Install lamps in each luminaire.

### 3.04 ADJUSTING

- A. Aim and position adjustable luminaires to achieve desired illumination as indicated or as directed by Architect. Secure locking fittings in place.

### 3.05 CLEANING

- A. Clean surfaces according to NECA/IESNA 501 and manufacturer's instructions to remove dirt, fingerprints, paint, or other foreign material and restore finishes to match original factory finish.

**3.06 PROTECTION**

- A. Protect installed luminaires from subsequent construction operations.

**END OF SECTION**