



# ROUND LAKE AREA SCHOOLS

## Community Unit School District #116

### WJ Murphy Elementary School 2023 Site Improvements Bid Q&A

1) Can you provide a detail for the concrete pavement?

**Answer:** Yes. Diagram attached.

2) For the proposed full depth pavement detail, it calls for aggregate base course 12". Would the intent for bidding purposes be to use new aggregate and there could be a unit cost for on-site aggregate used in lieu of new aggregate (perhaps per ton)?

**Answer:** A. Yes, the new pavement section includes 12" CA-6 aggregate.

B. At the contractor's option, the millings from the existing parking lot can be used for up to 6" of the aggregate for the new parking lot, provided they are milled to a CA-6 gradation. If used, the millings must be used for the bottom 6" of the new parking lot aggregate base. Millings cannot be used for the aggregate base under the sidewalk, PCC pavement or combination curb and gutter.

3) Will there be a unit cost sheet added to the bid form for things like "remove and replace unsuitable materials" etc.?

**Answer:** This is lump sum contract. Attached is the updated Bid Form for bidder's to include unit prices for potential additions/deductions from the scope of work.

4) Can recycled aggregates be approved as long as it meets the CA-6 specification?

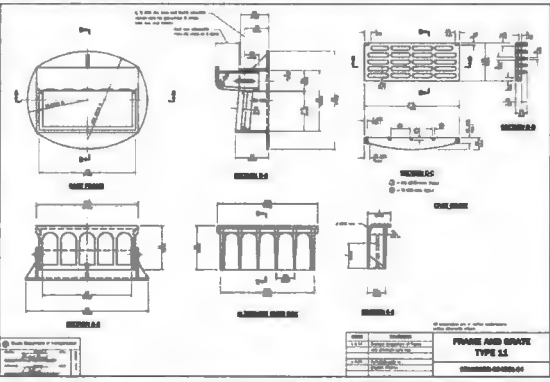
**Answer:** Recycled aggregates, such as concrete, can be used for any of the aggregate base needed on the project.

5) Please provide the proposed lighting manufacturer and catalog number as it is not indicated on the lighting schedule. Also, please indicate the location of pole B3 that is to receive the festoon box and also the proposed beacon light location.

**Answer:** Attached are the updated Lighting Sheets. The revised 'Proposed Lighting Schedule' includes the correct luminaire/pole specs and a catalog number. The revised plans also corrected the plan notes, which are now project specific (light pole 'B3' and the beacon lights do not exist in these plans).

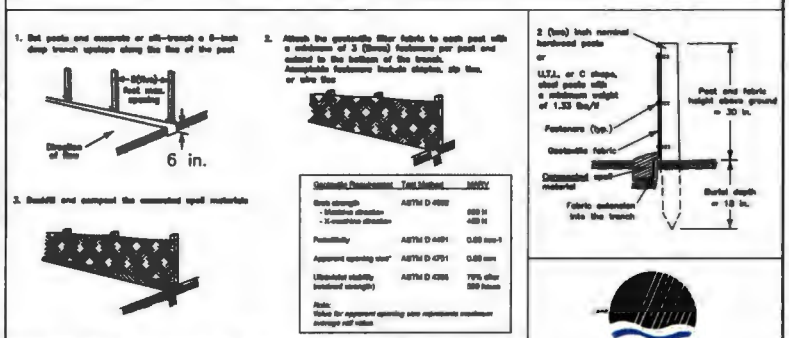
6) Do you have pavement cores that you can share?

**Answer:** Yes. Report is attached.

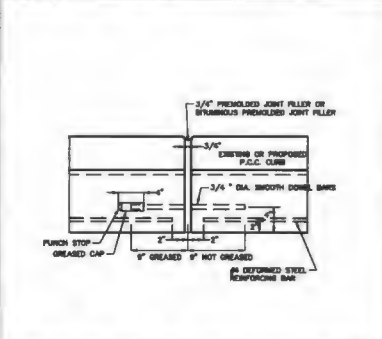


Installation Type	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC
Permanent Seeding	A	A	A	A	X	X	X	X	X	X	X	X
Dormant Seeding	B	B	B	B	B	B	B	B	B	B	B	B
Temporary Seeding	C	C	C	C	C	C	C	C	C	C	C	C
Seeding	E	X	X	X	X	X	X	X	X	X	X	X
Stabilizing	F	F	F	F	F	F	F	F	F	F	F	F

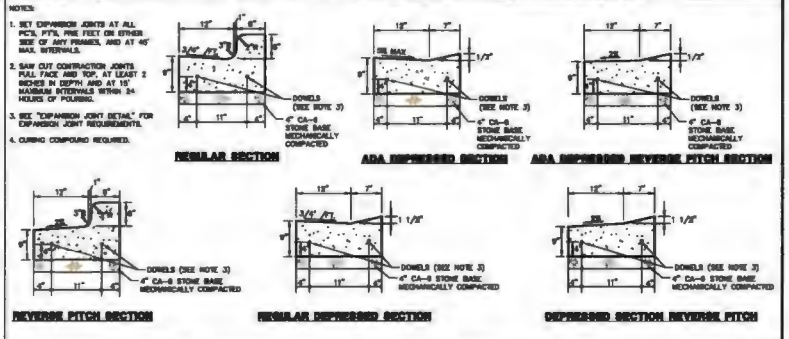
**A** = INSTANT BLENDED GRASS @ 50 LBS./AC. USED WITH PERENNIAL HYDRUS @ 20 LBS./AC.  
**B** = INSTANT BLENDED GRASS @ 125 LBS./AC. USED WITH PERENNIAL HYDRUS @ 45 LBS./AC.  
**C** = SPRINK GRASS @ 100 LBS./AC.  
**E** = SEED OR CRACK SEAL @ 100 LBS./AC.  
**X** = SEED  
**F** = SPRAY MULCH (HYDRUS) OR LIME STRAW BLENDED @ 2 TONS/AC.  
**XXX** = STABILIZATION SEEDING  
 INDICATION SHOULD BE PROVIDED AS NECESSARY TO PROPERLY ESTABLISH PROVED GROWTH.  
 SODS, SPREADS OR PRODUCTS CANNOT BE USED NOW - FEB.



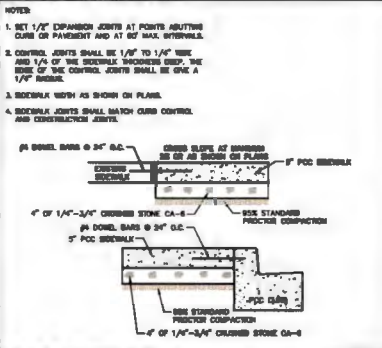
**GENEALTY HAMILTON ASSOCIATES, INC.** TYPICAL SOIL PROTECTION CHART



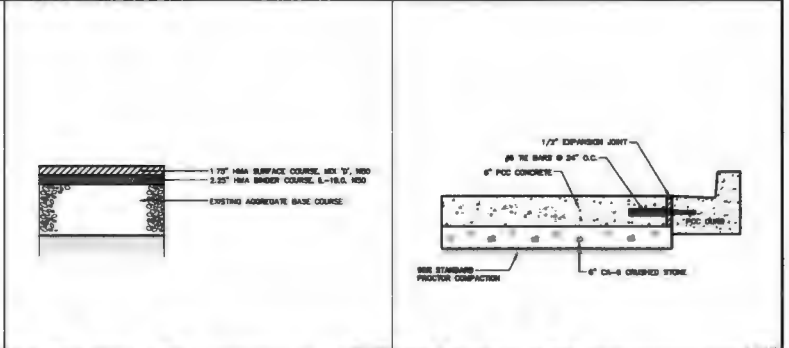
**GENEALTY HAMILTON ASSOCIATES, INC.** STORMWATER MANAGEMENT COMMISSION



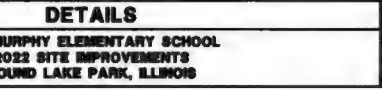
**GENEALTY HAMILTON ASSOCIATES, INC.** CATCH BASIN TYPE A



**GENEALTY HAMILTON ASSOCIATES, INC.** INLET FILTER BASKET DETAIL



**GENEALTY HAMILTON ASSOCIATES, INC.** PCC SIDEWALK DETAIL



**GENEALTY HAMILTON ASSOCIATES, INC.** EXPANSION JOINT DETAIL



**GENEALTY HAMILTON ASSOCIATES, INC.** DETAILS

**GENEALTY HAMILTON ASSOCIATES, INC.**

625 Forest Edge Drive • Vernon Hills, IL 60061  
TEL 847.478.9700 • FAX 847.478.9701

WJ MURPHY ELEMENTARY SCHOOL  
2022 SITE IMPROVEMENTS  
ROUND LAKE PARK, ILLINOIS

DATE: 1/11/23  
CHECKED BY: G.L.P.  
DATE: 1/11/23

SHEET NUMBER: 9 OF 10 SHEETS

# Bid Proposal Form – Base Bid

## BASE BID

WJ Murphy Elementary School 2023 Site Improvements  
 Round Lake Area Schools CUSD 116  
 February 10, 2023

Description: The work shall consist of, in general, but shall not be limited to, the following: Concrete sidewalk removal, concrete curb and gutter removal, asphalt removal (both full depth and milling), new asphalt surface and binder courses, new concrete sidewalk, new combination curb and gutter, pavement patching, and parking lot striping, lighting improvements, site grading and restoration as shown on the plan set.

	UNIT PRICE
WJ MURPHY 2023 SITE IMPROVEMENTS - AS SHOWN ON THE ENGINEERING PLANS	\$ _____
CONSTRUCTION ALLOWANCE - TO BE USED AT SCHOOL DISTRICT'S APPROVAL	\$ 50,000
<b>GRAND TOTAL BASE BID - WJ MURPHY 2023 SITE IMPROVEMENTS</b>	<b>\$ _____</b>
Written Amount	_____ Dollars

### Contracted Unit Prices to be used for any Additions / Deductions to the Contract

	UNIT PRICE
Material Undercuts (Remove existing unsuitable material and replace with CA-1)	\$ _____ / CY
2' Diameter Drainage Inlet	\$ _____ / EA
4' Diameter Manhole (Storm Sewer)	\$ _____ / EA
Concrete Sidewalk, including aggregate base	\$ _____ / SF
Combination C6.12 Curb & Gutter	\$ _____ / LF
Hot-Mix Asphalt Surface Course, Mix "D", N50	\$ _____ / SY
Hot-Mix Asphalt Binder Course, IL-19.0, N50	\$ _____ / SY
Class D Pavement Patches, All Types	\$ _____ / SY



**GENERAL LIGHTING NOTES:**

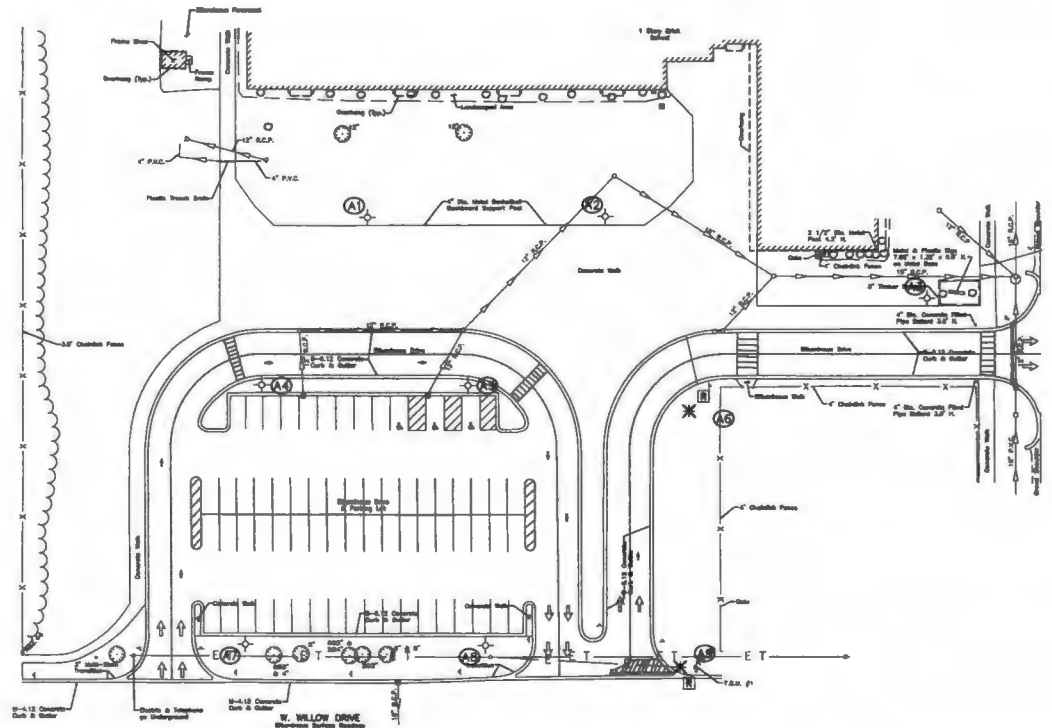
- WORK SHALL MEAN THE FURNISHING OF ALL LABOR, MATERIALS, TOOLS, EQUIPMENT, AND OTHER INCIDENTALS NECESSARY OR CONVENIENT TO THE SUCCESSFUL COMPLETION OF THE PROJECT AND CONDUCTING ALL DUTIES AND OBLIGATIONS IMPOSED BY THE CONTRACT. WORK MAY ALSO BE USED IN CONTEXT TO DESCRIBE, IN WHOLE OR IN PART, THE COMPLETED FACILITIES TO BE CONSTRUCTED. THE CONTRACT SHALL BE AS DETAILED IN THE CONTRACT. THE ENGINEER WILL HAVE EXCLUSIVE AUTHORITY TO DETERMINE THE INTENT AND MEANING OF THE USAGE OF THIS TERM WHEREVER IT APPEARS IN THE CONTRACT.
- ALL WORK SHALL CONFORM TO THE NATIONAL ELECTRICAL CODE, THE ILLINOIS DEPARTMENT OF TRANSPORTATION'S "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" LATEST EDITION, AND ANY APPLICABLE FEDERAL, STATE, AND LOCAL LAWS, CODES, REGULATIONS, AND ORDINANCES HAVING JURISDICTION OVER THIS WORK. IF DISCREPANCIES EXIST THE CONTRACTOR SHALL CONSULT WITH THE ENGINEER TO DETERMINE THE PROPER COURSE OF ACTION.
- ALL NECESSARY PERMITS, LICENSES, INSPECTIONS, TAXES, AND TESTING COSTS ASSOCIATED WITH THE ELECTRICAL WORK SPECIFIED IN THE CONTRACT DOCUMENTS SHALL BE INCIDENTAL TO THE CONTRACT AND INCLUDED IN THE BASE BID OR UNIT PRICES OF THE ELECTRICAL PAY ITEMS.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL WORK REQUIRED TO INSTALL A COMPLETE AND OPERATIONAL ELECTRICAL SYSTEM. ALL REQUIRED MATERIALS, EQUIPMENT, TOOLS, LABOR, AND INCIDENTALS, UNLESS OTHERWISE PROVIDED IN THE CONTRACT, SHALL BE INCLUDED IN THE BASE BID OR UNIT PRICES OF THE ELECTRICAL PAY ITEMS FOR THE CONTRACT WORK.
- ALL WORK REQUIRED TO INSTALL THE PROPOSED LIGHTING SYSTEM SHALL BE INCLUDED IN THE BASE BID OR APPLICABLE PAY ITEMS.
- IF THE CONTRACT INCLUDES PAY ITEMS THE QUANTITIES APPEARING IN THE BID SUMMARY/SCHEDULE OF QUANTITIES ARE ESTIMATES PREPARED FOR THE ESTABLISHMENT OF PAY ITEM UNIT PRICES AND THE COMPARISON OF BIDS. PAYMENT TO THE CONTRACTOR WILL BE MADE FOR THE ACTUAL MEASURED QUANTITIES PERFORMED AND ACCEPTED OR MATERIAL FURNISHED AND ACCEPTED ACCORDING TO THE CONTRACT AND THE SCHEDULED QUANTITIES MAY BE INCREASED, DECREASED, OR OMITTED. UNDER NO CIRCUMSTANCES SHALL THE CONTRACTOR EXCEED ANY ESTABLISHED PAY ITEM QUANTITY WITHOUT NOTIFICATION TO THE ENGINEER AND RECEIPT OF WRITTEN AUTHORIZATION.
- ALL PAY ITEMS REFER TO IDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.
- ALL WORK PERFORMED UNDER THIS CONTRACT SHALL BE GUARANTEED BY THE CONTRACTOR AND HIS SURETY FOR A PERIOD OF 12 MONTHS FROM THE DATE OF INITIAL ACCEPTANCE OF THE COMPLETED WORK BY THE OWNER AGAINST ALL DEFECTS IN MATERIALS AND WORKMANSHIP OF WHATEVER NATURE.
- THE ELECTRICAL CONTRACTOR SHALL NOTIFY THE ENGINEER OF ANY AMBIGUITY, OMISSIONS, OR CONFLICTS IN THE PLANS, SPECIFICATIONS, OR OTHER CONTRACT DOCUMENTS PRIOR TO BIDDING. ABSENCE OF ANY NOTIFICATIONS SHALL BE INTERPRETED TO INDICATE THAT THE CONTRACTOR HAS REVIEWED THE CONSTRUCTION DOCUMENTS AND NO DISCREPANCIES OR CONFLICTS EXIST. THEREFORE, AFTER AWARD OF THE ELECTRICAL CONTRACT, NO ADDITIONAL COMPENSATION WILL BE GRANTED FOR ANY WORK INCLUDED IN THE SCOPE OF WORK.
- ANY DEVICES, FIXTURES, ETC. SHOWN ON THE DRAWINGS TO REMAIN, BE REMOVED, OR BE REDUCED IS ONLY FOR THE CONVENIENCE OF THE OWNER, AND THE ELECTRICAL CONTRACTOR SHALL FIELD VERIFY ALL EXISTING CONDITIONS PRIOR TO SUBMITTING A BID.
- IF THE ELECTRICAL CONTRACTOR PROPOSES ALTERNATE EQUIPMENT SELECTIONS, THEY MUST BE LISTED ON THE BID PROPOSAL AS A DEDUCTIVE ALTERNATE. CATALOG CUTS FOR THE PROPOSED ALTERNATE EQUIPMENT SELECTIONS SHALL BE SUBMITTED WITH THE BID PROPOSAL. ALTERNATE EQUIPMENT SELECTIONS WILL NOT BE PERMITTED AFTER AWARD OF CONTRACT.
- UNLESS OTHERWISE SPECIFIED IN THE CONTRACT DOCUMENTS, ALL MATERIALS PERMANENTLY INCORPORATED IN THE WORK SHALL BE NEW.
- UNLESS OTHERWISE INDICATED, ALL MATERIALS AND EQUIPMENT SHALL BEAR THE UL LABEL, OR AN APPROVED EQUIVALENT, WHENEVER SUCH LABELING IS AVAILABLE FOR THE TYPE OF MATERIAL OR EQUIPMENT BEING FURNISHED.
- THE ELECTRICAL CONTRACTOR SHALL VERIFY COMPLIANCE OF THE EQUIPMENT PRIOR TO ORDERING. ANY CHANGES REQUIRED TO ACCOMMODATE THE LOAD OR VOLTAGE OF THE ELECTRICAL SYSTEM SHALL BE SPECIFICALLY IDENTIFIED IN THE SHOP DRAWING SUBMITTAL.
- PRIOR TO ORDERING ANY ELECTRICAL EQUIPMENT (CONTROL PANELS, POLES, LUMINAIRES, ETC.), THE ELECTRICAL CONTRACTOR SHALL SUBMIT A COMPLETE SET OF SHOP DRAWINGS FOR ENGINEER REVIEW. SHOP DRAWINGS SHALL CONSIST OF MANUFACTURER'S CATALOG CUTS AND DESCRIPTIVE DATA SHEETS FOR ALL SPECIFIED EQUIPMENT.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE ELECTRICAL WORK WITH ALL OTHER TRADES AND MAKE FIELD ADJUSTMENTS AS NECESSARY TO ACCOMMODATE THE PROPOSED INSTALLATION.
- THE EXACT LOCATIONS OF ALL UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR BEFORE INSTALLATION OF ANY COMPONENT OF THE LIGHTING SYSTEM.
- TEST HOLES REQUIRED TO CONFIRM THE DEPTH AND LOCATION OF EXISTING UTILITIES ARE TO BE MADE BY THE CONTRACTOR AT THEIR OWN EXPENSE. RESTORATION AND BACKFILL RELATED TO THESE TEST HOLES SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
- PRIOR TO COMMENCEMENT OF CONSTRUCTION, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND CONDITIONS AFFECTING THEIR WORK WITH THE ACTUAL CONDITIONS AT THE JOB SITE. IF THERE ARE ANY DISCREPANCIES FROM WHAT IS SHOWN ON THE CONSTRUCTION PLANS, STANDARD SPECIFICATIONS AND/OR SPECIAL DETAILS, THE CONTRACTOR SHALL SECURE WRITTEN INSTRUCTION FROM THE ENGINEER PRIOR TO PROCEEDING.
- THE CONTRACTOR IS RESPONSIBLE FOR METHODS OF CONSTRUCTION, JOB SITE SAFETY, AND THE SAFETY OF THE GENERAL PUBLIC IN AND NEAR THE PROJECT SITE.
- ALL WORK, WHETHER OR NOT IT WAS INSPECTED BY THE VILLAGE, OWNER, OR ENGINEER IS THE SOLE RESPONSIBILITY OF THE CONTRACTOR COMPLETING THE WORK, AND THE CONTRACTOR IS IN NO WAY RELIEVED OF ANY SAFETY, CONTRACTUAL, OR LEGAL OBLIGATIONS.
- ACCESS TO WORK AREAS, INCLUDING SCHEDULED WORK, MUST HAVE PRIOR APPROVAL OF THE OWNER/LANDLORD AND TENANT.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE THE ELECTRICAL CONTROLLER OPERATIONS RELATED TO DEMOLITION AND INSTALLATION WITH THE OWNER OR FACILITY MANAGER, AS NECESSARY.
- THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR THE SCHEDULING OF DELIVERY, RECEIVING, UNLOADING, STORING, UNPACKING, STAGING, AND PROTECTING FROM DAMAGE, VANDALISM, THEFT OR WEATHER DURING CONSTRUCTION OF ALL EQUIPMENT FURNISHED BY OR TO THE ELECTRICAL CONTRACTOR FOR THIS CONTRACT.
- NO MATERIALS SHALL BE DELIVERED TO THE JOB SITE UNTIL A STORAGE LOCATION AND ALL PERTINENT SUBMITTALS HAVE BEEN APPROVED BY THE ENGINEER.
- THE ELECTRICAL CONTRACTOR SHALL COORDINATE ALL SUBMITTALS, DELIVERIES, AND SCHEDULING TO MEET THE PROJECT COMPLETION DATES.
- THE CONTRACTOR IS RESPONSIBLE FOR MAINTAINING CLEAN AND ORDERLY WORK AREAS. UPON COMPLETION OF THE WORK DAY THE ELECTRICAL CONTRACTOR SHALL REVIEW AND CHECK THE DAYS WORK, CLEANUP DEBRIS, PUT EQUIPMENT AND UNUSED MATERIAL BACK IN APPROVED STAGING AREA, AND REMOVE SURPLUS MATERIALS FROM THE JOB SITE.
- THE CONTRACTOR SHALL MARK THE PROPOSED LOCATIONS OF ALL LIGHT POLES, HANDHOLES, AND RECEPTACLES FOR VERIFICATION AND APPROVAL BY THE ENGINEER, PRIOR TO STARTING WORK.
- IF LIGHTS ARE POSITIONED NEAR OVERHEAD UTILITIES, THE CONTRACTOR SHALL CONTACT THE LOCAL UTILITY FOR LOCATION APPROVAL.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE ESTABLISHMENT OF FINISHED GRADE AND COORDINATING THE FINISHED GRADE ELEVATION WITH THE TOP OF THE FOUNDATION.
- NO POLES SHALL BE ERECTED UNTIL THE RESPECTIVE FOUNDATIONS HAVE CURED, AS APPROVED BY THE ENGINEER.
- POLES SHALL NOT BE ERECTED AND LEFT TO STAND WITHOUT LUMINAIRES, AND THE PROPOSED LIGHT POLES WILL NOT BE CONSIDERED COMPLETE WITHOUT THE LUMINAIRES INSTALLED.
- THE PROPOSED ELECTRICAL PLAN SHALL BE A PROPERLY GROUNDING AC SYSTEM.
- ALL CONDUCTORS AND EQUIPMENT SHALL HAVE PROPER OVERCURRENT PROTECTION. OVERCURRENT PROTECTION SHALL BE PROVIDED FOR EACH LUMINAIRE AND ITS ASSOCIATED BRANCH CIRCUIT THROUGH THE USE OF POLE BASE FUSING. ALL POLE BASE FUSES SHALL BE COPPER BUSBAR, SIZED FOR ASSOCIATED LINE/LOAD TERMINAL CONNECTIONS.
- BRANCH CIRCUIT AND EQUIPMENT IDENTIFICATION: FURNISH AND INSTALL ENGRAVED PLASTIC NAMEPLATES (BLACK FACE WITH MINIMUM OF 1/2" HIGH WHITE LETTERS) SCREWED OR RIVETED TO THE COVER OF ALL CONTROL EQUIPMENT (DISCONNECT SWITCHES, CONTROL CABINETS, STARTERS, ETC.) INDICATING THE IDENTIFICATION TAG OF THE EQUIPMENT SERVED. ON THE INSIDE COVER OF THE CONTROL EQUIPMENT INDICATE THE PANEL AND BRANCH CIRCUIT NUMBER SERVING THE EQUIPMENT. PROVIDE PERMANENT IDENTIFICATION ON ALL DEVICES (RECEPTACLES, SWITCHES, LIGHT POLES, ETC.) INDICATING THE PANEL AND BRANCH CIRCUIT NUMBER SERVING THE DEVICE. THE BRANCH CIRCUIT NUMBER SHALL BE INDICATED ON THE INSIDE OF THE DEVICE COVER PLATE.
- CONCRETE FOUNDATIONS SHALL BE REMOVED TO A MINIMUM OF 2 FT BELOW GRADE, AND SHALL EXTEND DEEPER WHERE REQUIRED TO FACILITATE PROPOSED CONSTRUCTION. THE UNDERGROUND CONDUIT AND CABLES SHALL BE SEPARATED FROM THE FOUNDATION AT 2.5 FT BELOW GRADE AND ABANDONED, REMOVED, OR RE-USED AS SPECIFIED IN THE CONTRACT DOCUMENTS.
- ALL SUSPENDED CONDUITS SHALL BE RIGIDLY SUPPORTED FROM THE BUILDING STRUCTURE BY MEANS OF APPROVED CONDUIT FASTENERS, HANGERS, STRAPS, SUPPORTS, CLAMPS, ETC., FIRMLY ANCHORED IN PLACE AND SPACED AT INTERVALS NOT TO EXCEED 10 FT. ELECTRICAL RACEWAYS ARE NOT TO BE SUPPORTED OR ATTACHED TO CEILING. THE SUPPORT EQUIPMENT SHALL BE "BOLT-ON" TYPE GALVANIZED STEEL FOR EXPOSED CONSTRUCTION AND IN MET AREAS, SNAP-ON METAL CLIPS IN METAL PARTITION WALLS AND INDEPENDENTLY SUPPORTED ABOVE THE SUSPENDED CEILING WHERE PERMITTED. ALL DEVICES/EQUIPMENT UTILIZED FOR THE SUPPORT OF CONDUIT SHALL BE UL LISTED FOR THE USE.
- ALL INTERIOR CONDUIT RACEWAYS SHALL BE CONCEALED IN OR WITHIN THE WALL, CEILING CAVITY, SLAB, GRADE, ETC., UNLESS NOTED OTHERWISE ON THE PLANS. CONDUIT RACEWAYS ARE TO BE ROUTED OVERHEAD UNLESS INDICATED OTHERWISE ON THE PLANS. RACEWAYS ARE TO BE INSTALLED IN THE METHOD INDICATED ON THE ELECTRICAL PLANS, ANY DEVIATION TO THE PLAN OR FOR A PROPOSED RACEWAY TO BE RIGID EXPOSED THROUGH A FINISHED AREA SHALL BE APPROVED IN WRITING BY THE ENGINEER PRIOR TO THE INSTALLATION. ALL CONDUIT SHALL BE ROUTED PARALLEL OR PERPENDICULAR TO WALLS AND STRUCTURAL MEMBERS, EVEN WHERE INSTALLED ABOVE A CONCEALED CEILING, WITH 90-DEGREE BENDS WHERE REQUIRED, AND SHALL BE RACKED.
- NO INTERIOR CONDUITS SHALL BE REQUIRED THROUGH OR IN H.V.A.C. DUCTS.
- ALL JUNCTION OR PULL BOXES LOCATED ABOVE SUSPENDED CEILING SHALL BE MOUNTED A MINIMUM OF 12" ABOVE THE CEILING IN AN ACCESSIBLE LOCATION. ALL JUNCTION OR PULL BOXES EXPOSED TO WET, DAMP, OR OUTDOOR CONDITIONS SHALL BE CAST METAL TYPE WITH GASKETED COVERS.
- THE ELECTRICAL CONTRACTOR SHALL FURNISH AND INSTALL SLEEVES FOR ALL INTERIOR CONDUIT PENETRATIONS THRU BLOCK OR CONCRETE WALLS, FOUNDATION WALLS OR CONCRETE FLOORS. FIREPROOF ALL OPENINGS AND PENETRATIONS CREATED BETWEEN FLOORS AND/OR ANY INTERIOR FIRE SEPARATION BLOCK WALLS FOR ELECTRICAL EQUIPMENT USE WITH AN ENGINEER APPROVED UL LISTED FIRE RETARDANT MATERIAL.
- NO HOLES OR RECESSIONS MAY BE CUT IN WALLS, FLOORS, CEILINGS, OR ANY PART OF THE BUILDING FOR WORK UNDER THIS CONTRACT WITHOUT PRIOR APPROVAL BY THE OWNER. WORK SHALL BE PERFORMED BY A COMPETENT MECHANIC SKILLED IN THIS FIELD. ALL CUTTING SHALL BE DONE NET TO MINIMIZE THE SPREAD OF DUST, AND THE CONTRACTOR SHALL PROVIDE DUST PROTECTION AS REQUIRED BY THE OWNER. THE PORTIONS CUT FOR ACCESS MUST BE RESTORED TO THEIR ORIGINAL CONDITION AT THE EXPENSE OF THE ELECTRICAL CONTRACTOR.
- THE ELECTRICAL CONTRACTOR SHALL WATERPROOF ALL OPENINGS AND PENETRATIONS CREATED THROUGH FOUNDATION AND EXTERIOR WALLS WITH AN ENGINEER APPROVED WATERPROOF MATERIAL.
- UPON COMPLETION OF THE PERMANENT LIGHTING SYSTEM, THE ELECTRICAL CONTRACTOR SHALL REQUEST IN WRITING A PREFINAL INSPECTION TO GENERATE A PUNCH LIST. THE ELECTRICAL CONTRACTOR SHALL MAKE CORRECTIONS, AS REQUIRED, AND A FINAL INSPECTION SHALL BE PERFORMED. IF ANY PUNCH LIST ITEMS ARE FOUND NOT TO BE CORRECTED TO THE SATISFACTION OF THE OWNER AND ENGINEER, A REVISED PUNCH LIST WILL BE GENERATED AND ANOTHER FINAL INSPECTION WILL BE PERFORMED UPON COMPLETION OF THE PUNCH LIST ITEMS. PUNCH LIST ITEMS ARE STILL NOT COMPLETED AND ADDITIONAL INSPECTIONS ARE REQUIRED BY THE ENGINEER, THE ELECTRICAL CONTRACTOR WILL BE WORKED ON A TIME AND MATERIALS BASIS UNTIL ALL PUNCH LIST ITEMS ARE CORRECTED TO THE SATISFACTION OF THE OWNER.
- THE PROPOSED LIGHTING SYSTEM SHALL BE TESTED ACCORDING TO ART. 801.13 OF THE NATIONAL ELECTRICAL CODE TO FIELD INSPECTOR. THE ELECTRICAL CABLES SHALL BE MED TESTED PRIOR TO CONNECTING THE LED LUMINAIRES.
- THE ELECTRICAL CONTRACTOR SHALL FURNISH THREE (3) SETS OF CONTRACT RECORD PORTFOLIOS TO THE ENGINEER BEFORE FINAL PAYMENT WILL BE ISSUED. THE CONTRACT RECORD PORTFOLIO SHALL CONTAIN: CONTRACT RECORD DRAWINGS; SHOP DRAWINGS; COMPLETE OPERATING INSTRUCTIONS; ANY EQUIPMENT DRAWINGS INDICATING PART NUMBERS; MAINTENANCE MANUALS; WIRING DIAGRAMS; TESTING DATA; ETC., FOR ALL ITEMS OF EQUIPMENT AND DEVICES FURNISHED UNDER THIS CONTRACT.
- EXISTING ITEMS (CURBS, LANDSCAPING, SIDEWALKS, FENCING, ETC.) DISTURBED BY THE ELECTRICAL INSTALLATION BEYOND THE LIMITS OF THE SITE CONSTRUCTION, SHALL BE RESTORED TO THEIR LIKE NEW CONDITION BY THE ELECTRICAL CONTRACTOR TO THE SATISFACTION OF THE OWNER, AT THE EXPENSE OF THE CONTRACTOR.
- ALL RACEWAYS WHICH EXTEND OUTSIDE OF A STRUCTURE OR DUCT BANK BUT ARE NOT TERMINATED IN A CABINET, JUNCTION BOX, PULL BOX, HANDLE, POST, POLE, OR PESTICIDE SHALL EXTEND A MINIMUM OF 12" (OR THE LENGTH SHOWN ON THE PLAN) BEYOND THE STRUCTURE OR DUCT BANK. THE END OF THIS EXTENSION SHALL BE CAPPED AND SEALED WITH A CAP DESIGNED FOR THE CONDUIT TO BE CAPPED. THE ENDS OF RIGID METAL CONDUIT TO BE CAPPED SHALL BE THREADED. THE THREADS PROTECTED WITH FULL GALVANIZING, AND CAPPED WITH A THREADED GALVANIZED STEEL CAP. THE ENDS OF RIGID NONMETALLIC CONDUIT AND COLLABLE NONMETALLIC CONDUIT SHALL BE CAPPED WITH A RIGID PVC CAP OF NOT LESS THAN 3 MM (0.125") THICK. THE CAP SHALL BE SEALED TO THE CONDUIT USING A ROOM-TEMPERATURE-VULCANIZING (RTV) SEALANT COMPATIBLE WITH THE MATERIAL OF BOTH THE CAP AND THE CONDUIT. A WASHER OR SIMILAR METAL RING SHALL BE GLUED TO THE INSIDE CENTER OF THE CAP WITH EPOXY, AND THE PULL CORD SHALL BE TIED TO THIS RING.
- CONDUIT REQUIREMENTS:  
49.1. ALL CONDUIT PROVIDED BY THIS CONTRACT SHALL CONFORM TO SECTION 1008.01 OF IDOT'S STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.  
49.2. ALL UNDERGROUND CONDUIT SHALL BE INSTALLED AT A MINIMUM DEPTH OF 30 INCHES UNLESS OTHERWISE INDICATED.  
49.3. CONDUIT SHALL BE POSITIONED IN THE FIELD TO AVOID CONFLICT WITH TREES, BUSHES, DRAINS AND OTHER UTILITIES.  
49.4. CHANGES IN DIRECTION SHALL BE ACCOMPLISHED BY UNIFORMLY BENDING THE CONDUIT TO FIT THE RADIUS, OR STANDARD FITTINGS MAY BE USED.
- ALL BENDS MUST BE MADE WITH A STANDARD PIPE BENDER.  
49.8. IF THE CONDUIT IS CUT, IT SHALL BE CUT SQUARE, REAMED, AND CLEANED TO REMOVE ALL BURRS AND CUTTINGS. WHEN NECESSARY THE PIP SHALL BE RE-THREADED.  
49.7. ALL CONDUIT AND FITTINGS SHALL HAVE THE BURRS AND ROUGH PLACES SMOOTHED AND ALL CONDUIT RUNS SHALL BE CLEANED AND SWABBED BEFORE CABLES OR DUCT ARE INSTALLED.  
50. CABLE REQUIREMENTS:  
50.1. THE UNDERGROUND CABLE SIZED NO. 2 AWG AND SMALLER SHALL BE U.L. LISTED TYPE RHW/RHW AND MAY BE TYPE RHW/RHW/USE. CABLE SIZED LARGER THAN NO. 2 AWG SHALL BE U.L. LISTED TYPE RHM/RHW/USE.  
50.2. THE ABOVE GROUND CABLE, LOCATED INSIDE BUILDINGS AND NOT SUBJECT TO MOISTURE, SHALL BE U.L. LISTED TYPE THHN.  
50.3. THE CABLE SHALL BE RATED 600 VOLTS.  
50.4. THE CABLE SHALL BE RATED AT A MINIMUM OF 90 C DRY AND 75 C WET AND SHALL BE SUITABLE FOR INSTALLATION IN WET AND DRY LOCATIONS, AND SHALL BE RESISTANT TO OILS AND CHEMICALS.  
50.5. COATED CONDUCTORS SHALL BE ACCORDING TO ASTM B 33, ASTM B 8, ICEA 5-85-85B/NEMA WC70 AND UL STANDARD 44.  
50.6. CABLE INSULATION DESIGNATED AS XLP SHALL INCORPORATE CROSS-LINKED POLYETHYLENE (XLP) INSULATION AS SPECIFIED AND SHALL MEET OR EXCEED THE REQUIREMENTS OF ICEA 5-85-85B, NEMA WC70, AND UL STANDARD 44.  
50.7. THE UL LISTING MARK, CABLE VOLTAGE, INSULATION TYPE AND RATINGS, AS WELL AS THE CABLE SIZE SHALL ALL BE CLEARLY PRINTED ON THE CABLE IN A COLOR CONTRASTING WITH THE INSULATION COLOR.  
50.8. ALL ELECTRIC CABLES INSTALLED SHALL BE COLOR CODED.  
50.9. EACH WIRE INSTALLED SHALL BE IDENTIFIED WITH ITS COMPLETE CIRCUIT NUMBER AT EACH TERMINATION, SPLICE, JUNCTION BOX OR OTHER LOCATION WHERE THE WIRE IS ACCESSIBLE.  
50.10. THE CABLE IDENTIFICATION LABELS SHALL BE WEATHER AND UV RESISTANT.  
50.11. WIRING IDENTIFICATION MARKERS SHALL BE EITHER CLOTH TAPE OR CLIP-ON. CLOTH TAPE WIRE MARKERS IDENTIFICATION SHALL BE MADE USING SELF-STICKING WIRE MARKERS, WRAPPED AROUND THE WIRE. THE MARKERS SHALL HAVE BLACK CHARACTERS NOT LESS THAN 5/16 IN. HIGH ON A WHITE OR YELLOW BACKGROUND. MARKERS SHALL BE IN STRIPS NOT LESS THAN 1 1/2 IN. LONG AND SHALL BE MADE OF A HIGH-TACK CLOTH TAPE WITH PRINTING PROTECTED BY A CLEAR PERMANENT OVERCOATING. CLIP-ON WIRE MARKERS SHALL BE WHITE WITH BLACK LETTERING. THE PROPER SIZE OF WIRE MARKERS SHALL BE USED TO PREVENT SLIPPING OF THE MARKERS ON THE CABLE.  
50.12. POLE WIRE SHALL RUN FROM HANDLE TO LUMINAIRE.  
50.13. POLE WIRE SHALL BE SIZED NO. 10, RATED 600 V, RHW/USE-2, AND HAVE COPPER CONDUCTORS, STRANDED IN CONFORMANCE WITH ASTM B 8. POLE WIRE SHALL BE INSULATED WITH CROSS-LINKED POLYETHYLENE (XLP) INSULATION.  
50.14. ALL CABLE RUNS SHALL BE INSTALLED WITHOUT UNDERGROUND SPICES OR JUNCTION BOX, UNLESS OTHERWISE INDICATED ON THE PLANS. UNDERGROUND SPACING OF CABLES WILL NOT BE PERMITTED.  
51. GROUNDING REQUIREMENTS:  
51.1. ALL FOUNDATIONS SHALL BE EQUIPPED WITH A GROUNDING ROD.  
51.2. GROUNDING CONNECTIONS AT THE FOUNDATIONS SHALL BE INSPECTED AND APPROVED BY THE ENGINEER PRIOR TO BACKFILLING.  
51.3. THE EQUIPMENT GROUNDING CONDUCTOR (GREEN WIRE) SHALL BE INSULATED.  
51.4. THE GROUNDING CONDUCTOR SHALL EXTEND CONTINUOUSLY WITH ALL CIRCUIT CONDUCTORS, AND SHALL BE BONDED TO THE SYSTEM GROUND AT THE CONTROL PANEL.  
51.5. THE GROUNDING CONDUCTOR SHALL BE SPLICED AND BONDED AT EACH POLE.  
52. RECEPTACLE REQUIREMENTS:  
52.1. GROUND FAULT DUPLEX, 125 VOLT, 20 AMP, 3 WIRE GROUNDING TYPE, IMPACT RESISTANT THERMOPLASTIC FACE, STRAIGHT BLADE, N.E.M.A. TYPE 5-20R, TEST AND RESET BUTTONS IN FACE, AND UL LISTED.  
52.2. THE COVER SHALL MEET THE FOLLOWING SPECIFICATIONS: WEATHERPROOF, NEMA 3R RATED WHILE IN USE, NON-LOCKING, STANDARD DEPTH, VERTICAL MOUNT, FEDERAL SPECIFICATION AND U.L. LISTED, AND 2003 U.L. 943 COMPLIANT, COLOR TO MATCH POLE.  
52.3. RECEPTACLES THAT ARE INDICATED FOR G.F.I. PROTECTION SHALL PROTECT THE RECEPTACLE INDICATED ONLY.  
53. ELECTRICAL TAPE SHALL BE ALL WEATHER VINYL PLASTIC TAPE RESISTANT TO WEATHERING, FLEXING, FLAME, OIL, ACIDS, SALTS, AND WEATHERING, CONFORMING TO FEDERAL SPECIFICATION MIL-1-24391, ASTM D1000 AND SHALL BE LISTED UNDER UL 510 STANDARD. THICKNESS SHALL NOT BE LESS THAN 0.215 MM (8.5 MILS) AND WIDTH SHALL NOT BE LESS THAN 20 MM (3/4-INCH).



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**GENERAL LIGHTING NOTES**  
**WJ MURPHY ELEMENTARY SCHOOL**  
**2023 SITE IMPROVEMENTS**  
**ROUND LAKE PARK, ILLINOIS**

DATE	BY	DATE	REVISION	DATE	BY	DATE	REVISION															
11-22	2-8-23																					
<table border="1"> <tr> <td>FILE NO.</td> <td>DATE</td> <td>BY</td> <td>DATE</td> <td>REVISION</td> </tr> <tr> <td>9803.009-01</td> <td>01-13-23</td> <td>CH</td> <td>01-13-23</td> <td>CH</td> </tr> <tr> <td>9803.009</td> <td></td> <td>CH</td> <td></td> <td></td> </tr> </table>								FILE NO.	DATE	BY	DATE	REVISION	9803.009-01	01-13-23	CH	01-13-23	CH	9803.009		CH		
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<table border="1"> <tr> <td>PROJECT NO.</td> <td>SCALE</td> <td>SHEET NO.</td> <td>TOTAL SHEETS</td> </tr> <tr> <td>9803.009</td> <td>N.A.</td> <td>E1</td> <td>OF E4</td> </tr> </table>								PROJECT NO.	SCALE	SHEET NO.	TOTAL SHEETS	9803.009	N.A.	E1	OF E4							
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9803.009	N.A.	E1	OF E4																			



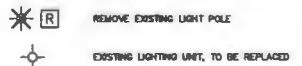
**EXISTING LIGHTING NOTES:**

1. THE PANELBOARD POWERING THE SITE LIGHTING IS A 3D SPACE CUTLER-HAMMER POW-R-LINE C (PRL-1A), 208/120V, 3-PHASE, 4-WIRE, AND 100A. LABELED LP-X. (#SLA8AT0100)
2. THE PANELBOARD IS FED BY A SEPARATE 100AMP MAIN (GE, SPECTRA RMS, MODEL #SLA8AT0100)
3. THE LIGHTING IS FED BY TWO (2 EA), 20-AMP, 2-POLE BREAKERS (CIRCUIT No. 18/21 AND No. 23/25).
4. THE PARKING LOT LIGHTING ARE CONTROLLED BY A BUILDING MOUNTED PHOTOCELL WITH A BYPASS SWITCH.
5. LIGHTING CONTROLS AND PANELBOARD ARE LOCATED INSIDE THE BUILDINGS ELECTRICAL EQUIPMENT ROOM.
6. EXISTING CONCRETE FOUNDATIONS ARE 24-INCH DIA. WITH AN EXPOSURE HEIGHT OF APPROXIMATELY 1'-7\"/>

**DEMOLITION NOTES:**

1. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS, CONNECTIVITY OF THE EXISTING LIGHTS, AND LOCATE EXISTING UTILITIES PRIOR TO ORDERING ANY MATERIAL OR STARTING WORK. IF ANY CONFLICTS EXIST WITH THE PROPOSED IMPROVEMENTS, THE CONTRACTOR SHALL NOTIFY THE ENGINEER AND ANY ADJUSTMENT MADE TO THE PROPOSED LIGHTING PLAN, AS A RESULT, SHALL BE CONSIDERED INCIDENTAL TO THE CONTRACT.
2. THE CONTRACTOR SHALL COORDINATE WITH THE FACILITY MANAGER FOR THE EXACT LOCATIONS OF THE ELECTRICAL EQUIPMENT ROOM, ELECTRICAL PANELS, AND THE SITE LIGHTING CONTROLS.
3. TO COMPLETE THE DEMOLITION WORK, THE CONTRACTOR SHALL REMOVE, MODIFY, OR ABANDON THE EXISTING LIGHTING COMPONENTS, AS REQUIRED, TO COMPLETE THE PROPOSED LIGHTING IMPROVEMENTS.
4. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER/ENGINEER TO DETERMINE WHAT EQUIPMENT SHALL BE SALVAGED. ANY EQUIPMENT THAT ISN'T SALVAGED, SHALL BECOME PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE JOBSITE WITHIN FIVE (5) WORKING DAYS.
5. THE CONTRACTOR SHALL MAINTAIN THE EXISTING LIGHTING SYSTEM AND ALL LIGHTS SHALL REMAIN OPERATIONAL UNTIL THE PROPOSED LIGHTING UNITS ARE AVAILABLE (SEE NOTE No. 7).
6. DUE TO THE ANTICIPATED LEAD TIMES OF THE PROPOSED LIGHTING UNITS, THE CONTRACTOR SHALL RELOCATE THE DUAL ARM LIGHT POLE ONTO THE NEW FOUNDATION (A8) AND TEMPORARILY CONNECT POWER UNTIL THE PROPOSED LIGHTING UNITS ARE AVAILABLE (SEE NOTE No. 7).
7. ALL WORK SHALL BE COORDINATED TO MINIMIZE THE LAPSE IN LIGHTING TO A MAXIMUM OF TEN (10) WORKING DAYS. ANY CHANGES TO THIS REQUIREMENT, SHALL BE APPROVED BY THE PROJECT MANAGER PRIOR TO THE START OF WORK.
8. TO 'REMOVE EXISTING LIGHT POLE,' THE CONTRACTOR SHALL REMOVE THE LIGHTING UNIT (AND TEMPORARILY RELOCATE), DISCONNECT AND REMOVE THE EXISTING CABLE TO THE NEAREST JUNCTION POINT, BREAKDOWN THE EXISTING CONCRETE FOUNDATION TO 2'-0\"/>

**LEGEND**



**GHA GEWALT HAMILTON ASSOCIATES, INC.**  
 625 Forest Edge Drive • Vernon Hills, IL 60061  
 TEL 847.478.9700 • FAX 847.478.9701

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**EXISTING/DEMOLITION LIGHTING PLAN**

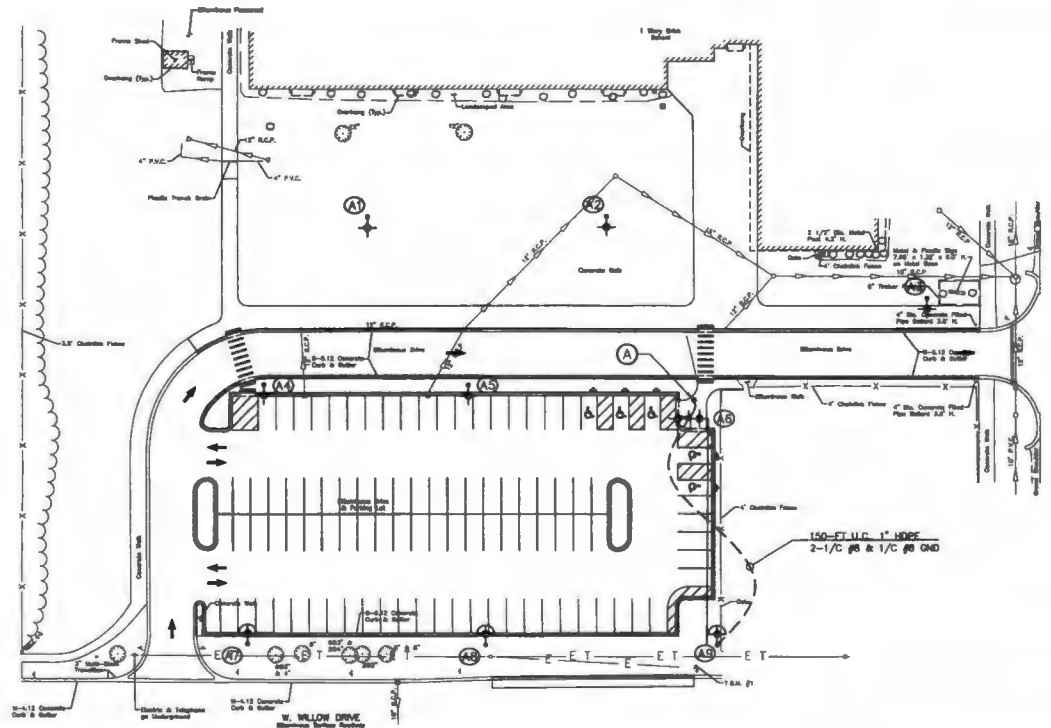
**WJ MURPHY ELEMENTARY SCHOOL  
 2023 SITE IMPROVEMENTS  
 ROUND LAKE PARK, ILLINOIS**

FILE 5803.005-01.dwg	SHEET NUMBER
DRAWN BY: GHA	GHA PROJECT #
DATE: 01-13-23	5803.005
CHECKED BY: GLP	ICHS
DATE: 01-13-23	1"=30'
NO. BY DATE	REVISION
1 01-13-23	

**E2**  
 OF E4 SHEETS



GRAPHIC SCALE  
 (BY P1802)  
 1 inch = 30 FT.



**PLAN NOTES:**

1. REFER TO CIVIL DRAWINGS FOR ADDITIONAL INFORMATION REGARDING PROPOSED IMPROVEMENTS.
2. THE CONTRACTOR SHALL MODIFY THE EXISTING LIGHTING SYSTEM AS SPECIFIED IN THE CONTRACT DOCUMENTS. THE EXISTING LIGHTING UNITS AND ASSOCIATED CONDUIT/CABLE SHALL BE MODIFIED, RELOCATED, OR REPLACED AS SHOWN. ALL COSTS ASSOCIATED WITH THE ELECTRICAL WORK SHALL BE INCLUDED IN THE BASE BID OR CONTRACT PAY ITEMS.
3. THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS AND CONNECTIVITY PRIOR TO ORDERING ANY MATERIAL OR STARTING WORK. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING EXISTING CONDUIT SIZE, MATERIAL, AND UNDERGROUND ROUTING; ELECTRICAL CABLE SIZE AND QUANTITY; FOUNDATION BOLT CIRCLE DIAMETER; FOUNDATION ANCHOR BOLT SIZE AND PROJECTION; AND LIGHTING CIRCUITRY.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING THE EXISTING LIGHTING'S CABLE AND CONDUIT, IN THE FIELD.
5. ALL CABLE SPLICES SHALL BE MADE IN HANDHOLES, JUNCTION BOXES OR POLES. UNDERGROUND SPLICING OF CABLES SHALL NOT BE PERMITTED. ALL SPLICES SHALL BE WATER TIGHT.
6. THE CONTRACTOR SHALL SEQUENCE WORK TO COMPLETE ALL UNDERGROUND INSTALLATIONS OR INSTALL A RIGID CONDUIT SLEEVE 2" (MIN.) BELOW GRADE PRIOR TO POURING P.C.C. OR PLACING WMA.
7. THE UNDERGROUND CONDUIT SHALL BE INSTALLED IN LOCATIONS TO AVOID SPANNING UNDER FINISHED SURFACES AND CONFLICTS WITH UTILITIES/TREES, WHERE APPLICABLE.
8. THE CONTRACTOR SHALL VERIFY FOUNDATION EXPOSURE HEIGHT PRIOR TO FRAMING THE LIGHT POLE FOUNDATION.
9. LIGHT POLES SHALL BE LABELED ((VOLTAGE)(WATTAGE)(PANEL-CIRCUIT).
10. LABELS SHALL BE PLACED ON THE BACKSIDE OF THE ACCESS PANEL OF THE LIGHT POLE.

**CONSTRUCTION NOTES:**

- (A) TO CONNECT THE PROPOSED LIGHT POLE (AS) TO THE EXISTING ELECTRICAL SYSTEM, THE ELECTRICAL CONTRACTOR SHALL SPLICE A NEW SECTION OF CONDUIT TO THE EXISTING UNDERGROUND CONDUIT (MATCH SIZE AND MATERIAL), AND REMOVE AND REPLACE THE EXISTING ELECTRICAL CABLE WITHIN THE CONDUIT TO THE NEAREST JUNCTION POINT. (IF THERE IS ADEQUATE SLACK THE CONTRACTOR CAN REUSE THE EXISTING CABLE WITH THE APPROVAL OF THE ENGINEER). ALL COSTS TO COMPLETE THIS WORK SHALL BE INCLUDED IN THE BASE BID OR CONTRACT UNIT PRICES OF THE APPLICABLE PAY ITEMS.

PROPOSED LIGHTING SCHEDULE	
SYMBOL	MANUFACTURER & CATALOG No.
+	LUMINAIRE: LED SHOEBOX STYLE LUMINAIRE, 138W/17,830 LUMENS, 4000K CCT, 70 OR MULTI-VOLT, TYPE 3 DISTRIBUTION, FIXED HORIZONTAL MOUNT, DARK BRONZE FINISH (MATCH POLE), HOUSE SIDE SHIELD INCLUDED WHERE SPECIFIED ON THE PLANS. LITHONIA LIGHTING: DSX1-LED-PS-60K-70CR-13M-INVOLT-DBR3D (OR EQUAL)
+	POLE: ROUND TAPERED ALUMINUM (RTA) LIGHT POLE WITH FULL BASE COVER, VIBRATION DAMPER, AND DARK BRONZE FINISH (MATCH LUMINAIRE), WALL THICKNESS AS REQUIRED FOR LUMINAIRES. COORDINATE BOLT CIRCLE TO MATCH EXISTING FOUNDATIONS. LITHONIA LIGHTING: RTA-30-VD-FBC-DBR3D (OR EQUAL)
++	LUMINAIRE: DUAL LED SHOEBOX STYLE LUMINAIRE, 138W/18,410 LUMENS, 4000K CCT, 70 OR MULTI-VOLT, TYPE 3 DISTRIBUTION, FIXED HORIZONTAL MOUNT, DARK BRONZE FINISH (MATCH POLE). LITHONIA LIGHTING: DSX1-LED-PS-60K-70CR-13M-INVOLT-DBR3D (OR EQUAL)
++	POLE: ROUND TAPERED ALUMINUM (RTA) LIGHT POLE WITH FULL BASE COVER, VIBRATION DAMPER, AND DARK BRONZE FINISH (MATCH LUMINAIRE), WALL THICKNESS AS REQUIRED FOR LUMINAIRES. DUAL LUMINAIRES MOUNTED AT 180. LITHONIA LIGHTING: RTA-30-VD-FBC-DBR3D (OR EQUAL)

**LEGEND**

- PROPOSED PARKING LOT LIGHT  
 30-FT ROUND TAPERED ALUMINUM LIGHT POLE  
 SINGLE ARM ARRANGEMENT  
 LED LUMINAIRE, 200W (PHASE TO PHASE)
- PROPOSED PARKING LOT LIGHT  
 30-FT ROUND TAPERED ALUMINUM LIGHT POLE  
 DUAL ARM ARRANGEMENT  
 LED LUMINAIRES, 200W (PHASE TO PHASE)
- PROPOSED PARKING LOT LIGHT  
 30-FT ROUND TAPERED ALUMINUM LIGHT POLE  
 SINGLE ARM ARRANGEMENT  
 LED LUMINAIRE, 200W (PHASE TO PHASE), WITH HOUSE SIDE SHIELD
- UNDERGROUND CONDUIT  
 WITH PHASE, NEUTRAL, AND GROUND CONDUCTORS  
 30" (TYPE RLP-NRV)  
 (SIZE, TYPE, AND QUANTITY AS SPECIFIED)

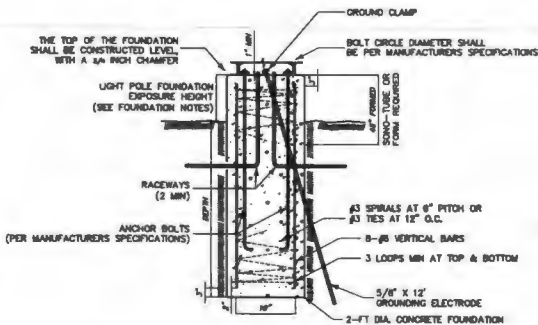
**GHA GEWALT HAMILTON ASSOCIATES, INC.**  
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**PROPOSED LIGHTING PLAN**  
**WJ MURPHY ELEMENTARY SCHOOL**  
**2023 SITE IMPROVEMENTS**  
**ROUND LAKE PARK, ILLINOIS**

FILE: 5803.005-01.dwg	SHEET NUMBER
DRAWN BY: GHA	GHA PROJECT #
DATE: 01-13-23	5803.005
CHECKED BY: CLP	ICHS
DATE: 01-13-23	1"=30'
NO. BY DATE	REVISION
NO. BY DATE	REVISION

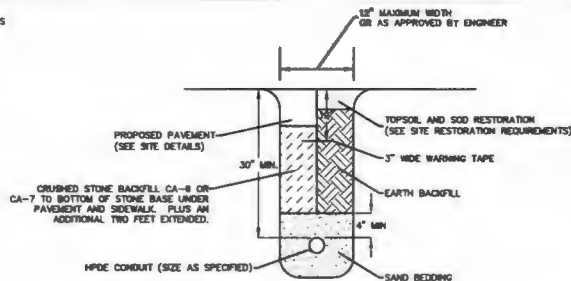
**E3**  
 OF 4 SHEETS



**1 LIGHT POLE FOUNDATION DETAIL**  
NO SCALE

**FOUNDATION NOTES:**

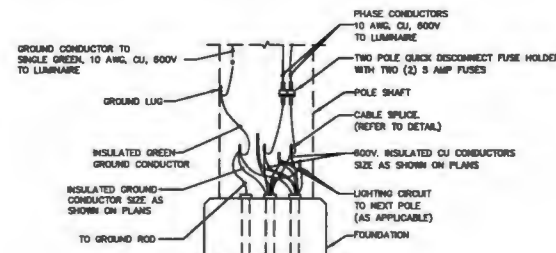
1. THE BOLT CIRCLE DIAMETER SHALL BE SIZED PER LIGHT POLE MANUFACTURER'S SPECIFICATIONS (4 EA).
2. THE ANCHOR RODS AND RACEWAYS SHALL BE PROPERLY SECURED IN PLACE BEFORE THE CONCRETE IS PLACED.
3. THE LIGHT POLE FOUNDATIONS EXPOSED HEIGHT ABOVE FINISHED GRADE SHALL MATCH EXISTING FOUNDATIONS (APPROXIMATELY 1-FT) (UNLESS OTHERWISE APPROVED BY THE OWNER/ENGINEER). IF THE FOUNDATION HEIGHT DOES NOT MEET THE SPECIFICATIONS, THE FOUNDATION SHALL BE REPLACED AT THE CONTRACTOR'S EXPENSE.
4. THE FOUNDATION DEPTH SHALL BE 8-FT FOR THE SINGLE ARM 30-FT LIGHT POLE AND 10.5-FT FOR THE DUAL ARM 30-FT LIGHT POLE.
5. THE HOLE FOR THE FOUNDATION SHALL BE MADE BY DRILLING WITH AN AUGER, OF THE SAME DIAMETER AS THE FOUNDATION, IF SOIL CONDITIONS REQUIRE THE USE OF A LINER TO FORM THE HOLE, THE LINER SHALL BE WITHDRAWN AS THE CONCRETE IS DEPOSITED.
6. THE TOP OF THE FOUNDATION SHALL BE CONSTRUCTED LEVEL. A LINER OR FORM SHALL BE USED TO PRODUCE A UNIFORM SMOOTH SIDE TO THE TOP OF THE FOUNDATION A MIN. OF 45 IN. FROM THE TOP AND A MAX. OF 50% OF THE TOTAL DEPTH. FOUNDATION TOP SHALL BE CHAMFERED 3/4\"/>



**2 TYPICAL CONDUIT IN TRENCH DETAIL**  
NO SCALE

**NOTES:**

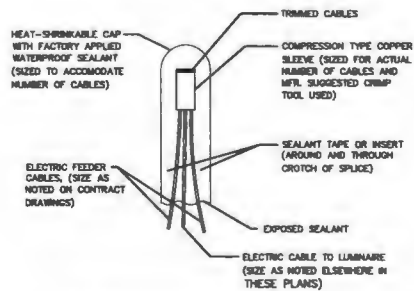
1. CONDUIT SHALL BE SURROUNDED BY 4\"/>



**3 POLE BASE WIRING DIAGRAM**  
NO SCALE

**NOTES:**

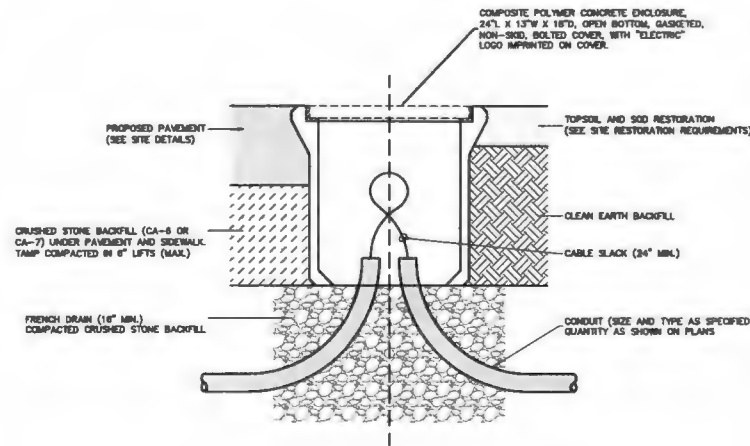
1. ALL FUSE HOLDERS SHALL INCLUDE BOOTS



**4 SPLICING ELECTRIC CABLES BASIC MATERIALS AND METHODS**  
NO SCALE

**NOTES:**

1. THE NUMBER OF CABLES IN SPLICE MAY VARY



**5 COMPOSITE HANDHOLE DETAIL**  
NO SCALE

**NOTES:**

1. HANDHOLE SHALL BE U.S. LISTED (OR EQUIVALENT)
2. EARTH BACKFILL SHALL BE COMPACTED TO 95% OF THE DENSITY OF SURROUNDING UNDISTURBED SOIL
3. HANDHOLE SHALL BE RATED BASED ON APPLICATION AND LOCATION:
  - A. GRASS OR PARKWAY WITH NO VEHICULAR TRAFFIC - TER 8
  - B. SIDEWALK WITH NO VEHICULAR TRAFFIC - TER 8
  - C. DRIVEWAY OR PARKING LOT WITH OCCASIONAL VEHICULAR TRAFFIC - TER 22
  - D. DELIBERATE VEHICULAR TRAFFIC - AASHTO H-20



Office: 847-870-0544  
Fax: 847-870-0661  
us@soilandmaterialconsultants.com  
www.soilandmaterialconsultants.com

April 12, 2022  
File No. 26461

Mr. Geoffrey Perry, P.E.  
Gewalt Hamilton Associates, Inc.  
625 Forest Edge Drive  
Vernon Hills, IL 60061

Re: Pavement Investigation  
WJ Murphy Elementary School  
Round Lake Park, Illinois

Dear Mr. Perry:

We are submitting the results of our pavement investigation of the school parking lot at WJ Murphy Elementary School in the Village of Round Lake Park, Illinois. The investigation was requested to determine existing pavement sections.

The field investigation included obtaining 6 pavement cores at the requested locations. The pavement materials were returned to our laboratory for identification and thickness verification. The results are included in the summary with this submittal.

<u>Core</u>	<u>HMA Surface (in.)</u>	<u>HMA Binder (in.)</u>	<u>Total HMA (in.)</u>	<u>PCC (in.)</u>	<u>Granular Base (in.)</u>	<u>Total Pavement (in.)</u>
1	1.25	2.0	3.25	---	10.75	14.0
2	1.25	2.75	4.0	---	11.0	15.0
3	2.0	6.25	8.25	---	6.75	15.0
4	---	---	---	4.25	7.75	12.0
5	---	---	---	4.0	5.0	9.0
6	0.75	5.0	5.75	---	7.75	13.5

If you should have any questions concerning the enclosed information, please feel free to contact our office at any time.

Very truly yours,

SOIL AND MATERIAL CONSULTANTS, INC.

Andrew C. Enns  
Project Engineer

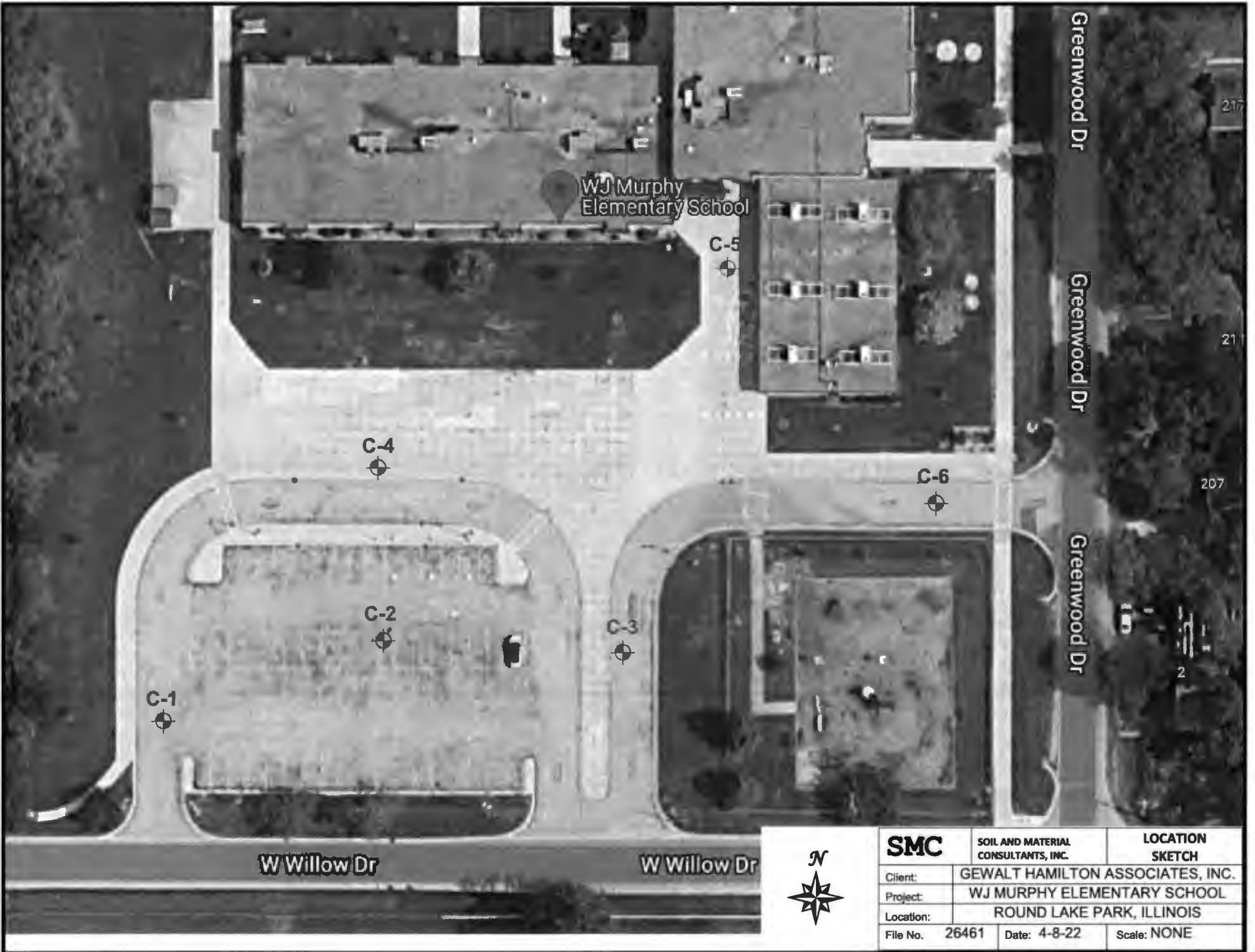
Thomas P. Johnson, P.E.  
President

ACE:TPJ  
Enc.

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

SOIL BORINGS • SITE INVESTIGATIONS • PAVEMENT INVESTIGATIONS • GEOTECHNICAL ENGINEERING  
TESTING OF • SOIL • ASPHALT • CONCRETE • MORTAR • STEEL





<b>SMC</b>		<b>SOIL AND MATERIAL CONSULTANTS, INC.</b>	<b>LOCATION SKETCH</b>
Client:	GEWALT HAMILTON ASSOCIATES, INC.		
Project:	WJ MURPHY ELEMENTARY SCHOOL		
Location:	ROUND LAKE PARK, ILLINOIS		
File No.	26461	Date:	4-8-22
		Scale:	NONE



Date: 4/8/22  
 File No.: 26461

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

**CORE LOG**

Client: Gewalt Hamilton Assoc., Inc. Reference WJ Murphy Elementary School  
Round Lake Park, IL

Core No: 1 Work Done By: DB & JL

Location of Core: SEE SKETCH

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

(Depth, In.)	Type of Material	Recovery
0 --	1-1/4" Bituminous concrete - surface	Full
1 --		
2 --	2-0" Bituminous concrete - binder	Full
3 --		
4 --	10-3/4" Crushed limestone with fines	Partial
5 --		
6 --		
7 --		
8 --		
9 --		
10 --		
11 --		
12 --		
13 --		
14 --	Total 14-0"	
15 --	E.O.C.	
16 --		
17 --		
18 --		
19 --		
20 --		



Date: 4/8/22

File No.: 26461

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

**CORE LOG**

Client: Gewalt Hamilton Assoc., Inc. Reference WJ Murphy Elementary School  
Round Lark Park, IL

Core No: 2 Work Done By: DB & JL

Location of Core: SEE SKETCH

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

(Depth, In.)	Type of Material	Recovery
0 --	1-1/4" Bituminous concrete - surface	no bond Full
1 --		
2 --	2-3/4" Bituminous concrete - binder	Full
3 --		
4 --		
5 --	11-0" Crushed limestone with fines	Partial
6 --		
7 --		
8 --		
9 --		
10 --		
11 --	Total 15-0"	
12 --		
13 --	E.O.C.	
14 --		
15 --		
16 --		
17 --		
18 --		
19 --		
20 --		



Date: 4/8/22

File No.: 26461

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

**CORE LOG**

Client: Gewalt Hamilton Assoc., Inc. Reference WJ Murphy Elementary School Round Lake Park, IL

Core No: 3 Work Done By: DB & JL

Location of Core: SEE SKETCH

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

(Depth, In.)	Type of Material	Recovery
0 --		
1 --	2-0" Bituminous concrete - surface	Full
2 --	no bond	
3 --		
4 --	2-3/4" Bituminous concrete - binder	Full
5 --	no bond	
6 --		
7 --	3-1/2" Bituminous concrete - binder	Full
8 --		
9 --		
10 --		
11 --		
12 --	6-3/4" Crushed limestone with fines, some large	Partial
13 --		
14 --		
15 --	Total 15-0"	
16 --	E.O.C.	
17 --		
18 --		
19 --		
20 --		



**SOIL AND MATERIAL CONSULTANTS, INC.**

Date: 4/8/22

File No.: 26461

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

**CORE LOG**

Client: Gewalt Hamilton Assoc., Inc. Reference WJ Murphy Elementary School  
Round Lake Park, IL

Core No: 4 Work Done By: DB & JL

Location of Core: SEE SKETCH

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

(Depth, In.)	<u>Type of Material</u>	<u>Recovery</u>
0 --		
1 --		
2 --		
3 --		
4 --		
5 --		
6 --		
7 --		
8 --		
9 --		
10 --		
11 --		
12 --		
13 --		
14 --		
15 --		
16 --		
17 --		
18 --		
19 --		
20 --		

4-1/4" Concrete

Full

7-3/4" Crushed & uncrushed gravel with fines, some asphalt grindings

Partial

E.O.C.

Total 12-0"





**SOIL AND MATERIAL CONSULTANTS, INC.**

Date: 4/8/22

File No.: 26461

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

**CORE LOG**

Client: Gewalt Hamilton Assoc., Inc. Reference WJ Murphy Elementary School  
Round Lake Park, IL

Core No: 5 Work Done By: DB & JL

Location of Core: SEE SKETCH

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

(Depth, In.)	<u>Type of Material</u>	<u>Recovery</u>
0 ---		
1 ---		
2 ---	4-0" Concrete	Full
3 ---		
4 ---		
5 ---	5-0" Crushed & uncrushed gravel with fines, some asphalt grindings	Partial
6 ---		
7 ---		
8 ---		
9 ---	Total 9-0"	
10 ---	E.O.C.	
11 ---		
12 ---		
13 ---		
14 ---		
15 ---		
16 ---		
17 ---		
18 ---		
19 ---		
20 ---		



**SOIL AND MATERIAL CONSULTANTS, INC.**

Date: 4/8/22

File No.: 26461

8 W. COLLEGE DR. • SUITE C • ARLINGTON HEIGHTS, IL 60004

**CORE LOG**

Client: Gewalt Hamilton Assoc., Inc. Reference: WJ Murphy Elementary School  
Round Lake Park, IL

Core No: 6 Work Done By: DB & JL

Location of Core: SEE SKETCH

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

(Depth, In.)	<u>Type of Material</u>	<u>Recovery</u>
0 --	0-3/4" Bituminous concrete - surface	Full
1 --		
2 --		
3 --	3-1/4" Bituminous concrete - binder	Full
4 --		
5 --	1-3/4" Bituminous concrete - binder	Full
6 --		
7 --	7-3/4" Crushed limestone with fines, some large	Partial
8 --		
9 --		
10 --		
11 --	Total 13-1/2"	
12 --		
13 --	E.O.C.	
14 --		
15 --		
16 --		
17 --		
18 --		
19 --		
20 --		

