

SITE IMPROVEMENT PLANS FOR WILMINGTON FIRE DISTRICT FIRE STATION CITY OF WILMINGTON, WILL COUNTY, ILLINOIS

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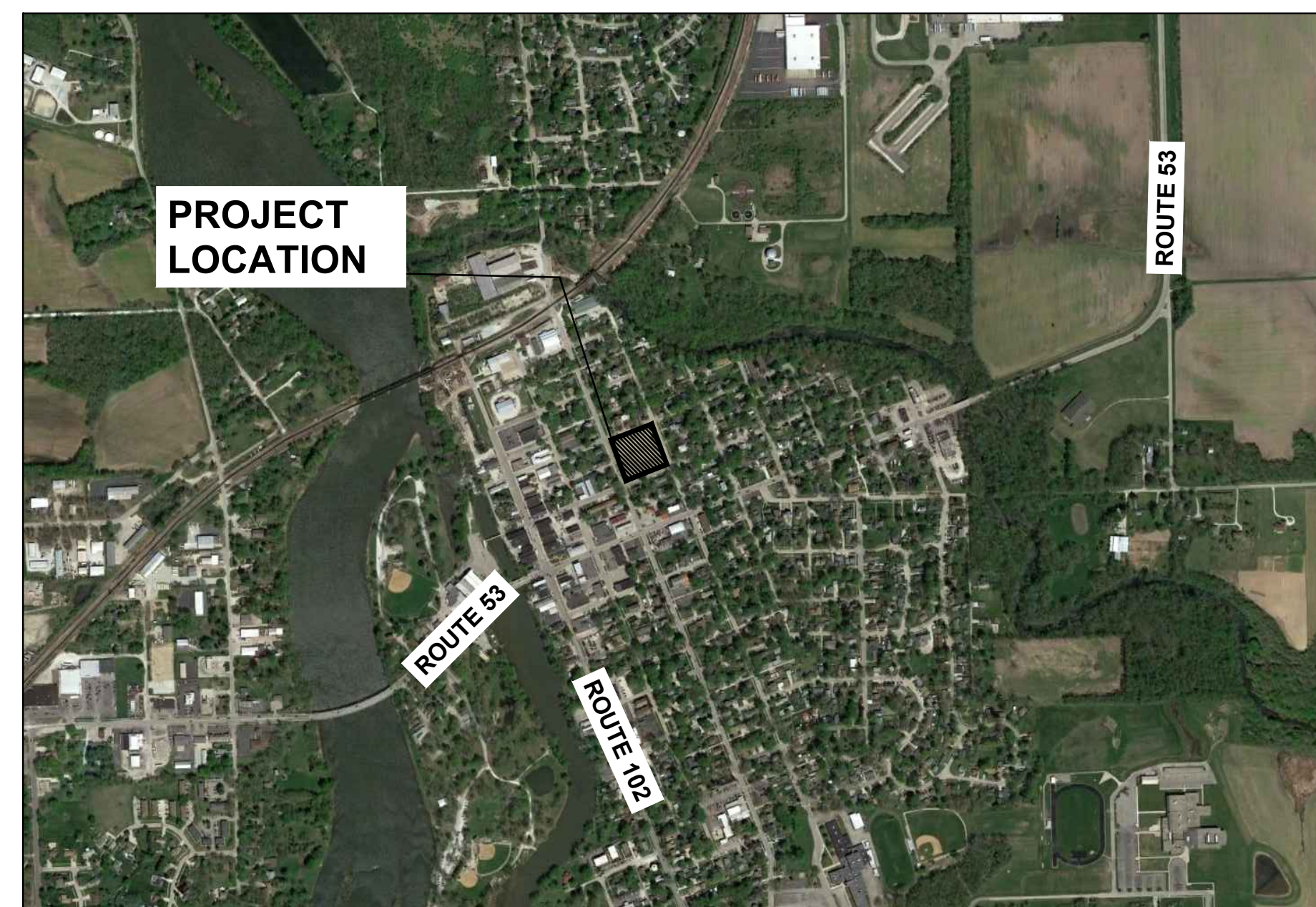
LEGEND

- | | |
|-----|---------------------------------|
| --- | BOUNDARY OF PROPERTY |
| --- | BUILDING SETBACK LINE |
| --- | EXISTING LOT LINE |
| --- | EXISTING RIGHT-OF-WAY |
| --- | EXISTING EASEMENT |
| --- | EXISTING FENCE |
| --- | EXISTING WATER MAIN |
| --- | EXISTING SANITARY SEWER |
| --- | EXISTING STORM SEWER |
| --- | PROPOSED STORM SEWER |
| --- | PROPOSED WATER MAIN/SERVICE |
| --- | PROPOSED SANITARY SEWER/SERVICE |
| --- | PROPOSED GUARD RAIL |
| --- | PROPOSED SILT FENCE |
| --- | EXISTING CONTOUR |
| --- | PROPOSED CONTOUR |
| ○ | EXISTING MANHOLE |
| ○ | EXISTING WATER SERVICE VALVE |
| ○ | EXISTING FIRE HYDRANT |
| ○ | IRON PIPE FOUND |
| ○ | IRON ROD FOUND |
| ● | CONCRETE |
| --- | BACK OF CURB |
| --- | EDGE OF PAVEMENT |
| --- | FINISHED GRADE |

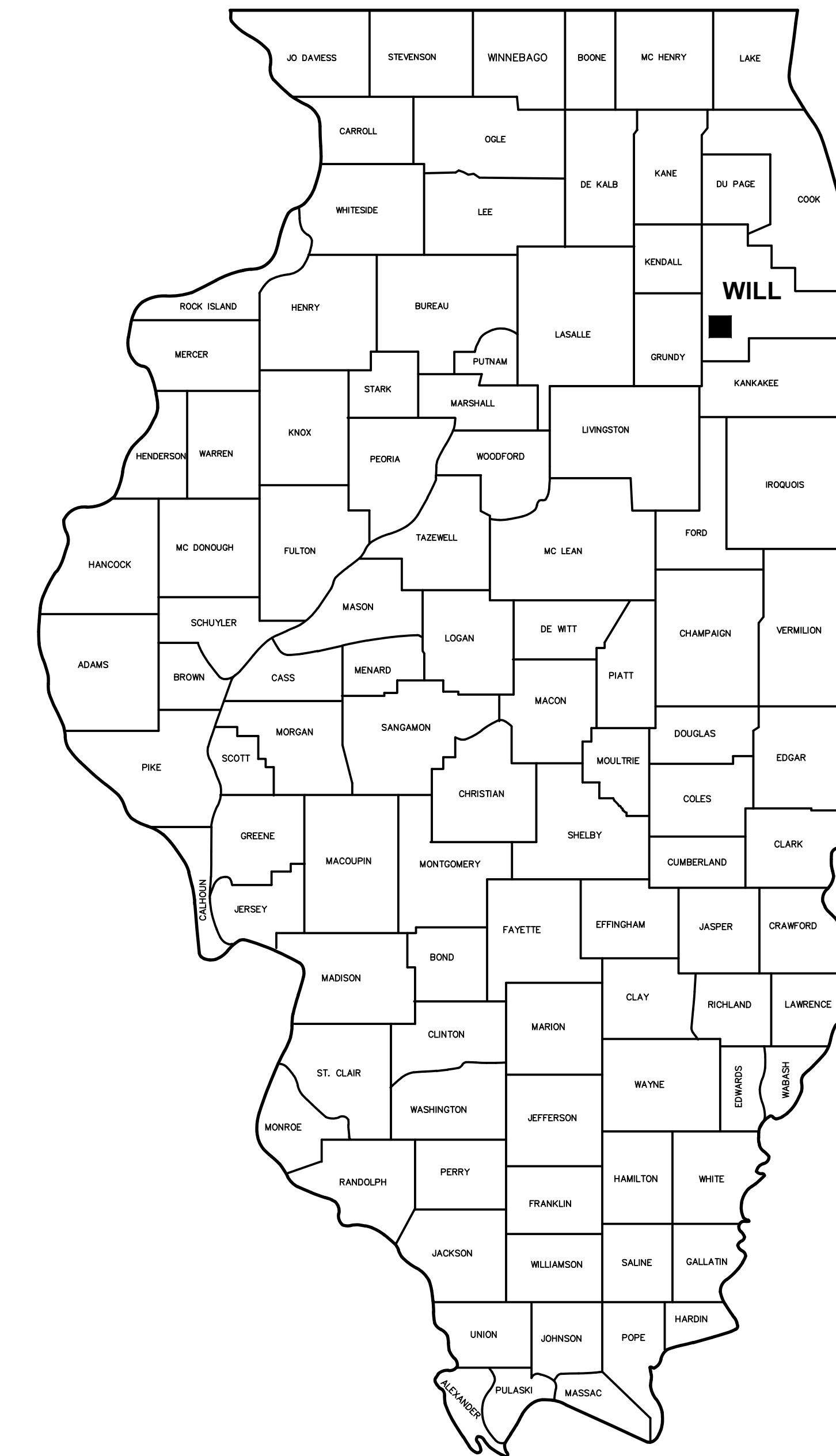
BENCHMARKS

BENCHMARK #1:
NUMBER BOLT ON FIRE
HYDRANT
EL. = 550.38

BENCHMARK #2:
NUMBER BOLT ON FIRE
HYDRANT
EL. = 551.24



LOCATION MAP



LOCATION OF SECTION INDICATED THUS: — ■



**TOPOGRAPHIC AND BOUNDARY
SURVEY INFORMATION PROVIDED BY
COMPASS SURVEYING LTD, PROJECT
NUMBER 22.0103, REVISED MAY 05, 2022**

**THESE PLANS ARE PREPARED FOR THE CONDITIONAL
USE APPLICATION AND ARE PRELIMINARY IN NATURE.
FINAL ENGINEERING PLANS WILL BE PREPARED UPON
APPROVAL OF THE CONDITIONAL USE.**

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ENGINEER

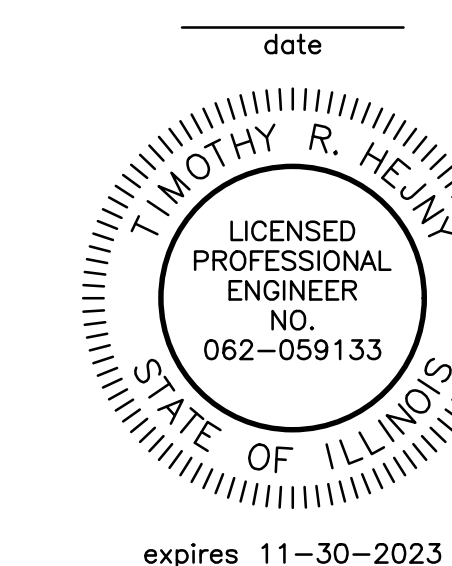
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expires 11-30-2023

signature
PROFESSIONAL DESIGN FIRM
LICENSE NO. 184-001717

CHAMLIN & ASSOCIATES JOB NO.: 33026.00



223 West Jackson Boulevard, Suite 1200
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New Fire Station

Wilmington Fire Protection District
201 N. Kankakee Street, Wilmington IL 60481

COVER SHEET

C-100

23034

GENERAL NOTES

THE CHAMLIN & ASSOCIATES "SPECIFICATIONS" SHALL GOVERN THE CONSTRUCTION OF THIS THIS PROJECT.

ALL WORK SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE IDOT STANDARD SPECIFICATIONS, LATEST EDITION.

IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO EXAMINE THE PLANS AND SPECIFICATIONS, VISIT THE WORK SITE, BE INFORMED OF THE WORK INVOLVED, BE INFORMED OF FEDERAL, STATE, AND LOCAL LAWS, LOCAL CODE REQUIREMENTS, ORDINANCES, RULES AND REGULATIONS, AND ANY OTHER ITEMS WHICH MAY AFFECT THE COST AND/OR TIME TO COMPLETE THE PROJECT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO NOTIFY THE ENGINEER SHOULD ANY DISCREPANCIES BE NOTICED BETWEEN THE PLANS, SPECIFICATIONS, OR WORKSITE.

THE LOCATION OF EXISTING UNDERGROUND OR OVERHEAD UTILITIES IF SHOWN ON THE PLANS IS FOR THE CONVENIENCE OF THE BIDDER ONLY. THE OWNER AND/OR ENGINEER ASSUMES NO RESPONSIBILITY WHATSOEVER WITH RESPECT TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO DETERMINE THE ACTUAL LOCATION OF ALL SUCH UTILITIES.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER PROTECTION OF ALL EXISTING PUBLIC OR PRIVATE ROADWAYS, STRUCTURES, AND UTILITIES PRIOR TO THE START OF CONSTRUCTION AND SHALL BE RESPONSIBLE FOR ANY DAMAGE TO SAID ROADWAYS, STRUCTURES, AND UTILITIES. ANY ROADWAY, STRUCTURE, OR UTILITY THAT IS DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED OR REPLACED BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE.

ALL FIELD DRAINAGE TILE DAMAGED DURING CONSTRUCTION SHALL BE REPAIRED TO THE SATISFACTION OF THE ENGINEER OR REROUTED TO A LOCATION DETERMINED BY THE ENGINEER.

WHEN SURVEY CONTROL POINTS ARE SET BY THE ENGINEER TO ESTABLISH THE HORIZONTAL AND VERTICAL CONTROL REQUIRED FOR THE CONSTRUCTION OF THE VARIOUS CONTRACT ITEMS OF WORK, THE ENGINEER SHALL BE RESPONSIBLE FOR THE ACCURACY OF THE CONTROL POINTS SET. THE CONTRACTOR SHALL ASSUME FULL RESPONSIBILITY FOR ALL MEASUREMENTS TAKEN OR DERIVED BY THE CONTRACTOR FROM CONTROL POINTS SET BY THE ENGINEER.

THE CONTRACTOR SHALL PROTECT AND PRESERVE ALL CONTROL POINTS OR REFERENCE STAKES SET BY THE ENGINEER. SHOULD THE CONTRACTOR DISTURB ANY CONTROL POINT OR REFERENCE STAKE WITHOUT THE PRIOR APPROVAL OF THE ENGINEER, THE ENGINEER MAY DEDUCT THE DIRECT ENGINEERING COST INCURRED IN THE RE-ESTABLISHMENT OF THE CONTROL POINT OR REFERENCE STAKE FROM COMPENSATION DUE THE CONTRACTOR.

WHEN THE OWNER EMPLOYS MULTIPLE CONTRACTORS, EACH CONTRACTOR SHALL CONDUCT HIS/HER WORK SO AS TO NOT INTERFERE WITH OR HINDER THE PROGRESS OR COMPLETION OF THE WORK BEING PERFORMED BY OTHER CONTRACTORS AND/OR UTILITY COMPANIES.

EACH CONTRACTOR SHALL ASSUME ALL LIABILITY, FINANCIAL OR OTHERWISE, IN CONNECTION WITH HIS/HER CONTRACT AND SHALL PROTECT AND HOLD HARMLESS THE OWNER AND ENGINEER FROM ANY AND ALL DAMAGES OR CLAIMS THAT MAY ARISE DUE TO INCONVENIENCE, DELAY, OR LOSS EXPERIENCED BY THE CONTRACTOR CAUSED BY THE PRESENCE AND OPERATION OF OTHER CONTRACTORS AND/OR UTILITY COMPANIES WORKING WITHIN THE LIMITS OF THE PROJECT.

SOIL EROSION AND SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH THE PROJECT SPECIFICATIONS AND DETAILS CONTAINED WITHIN THE PLANS.

PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRAFFIC FROM THE CONSTRUCTION SITE. ALL STREETS SHALL BE CLEANED DAILY OR AS NECESSARY TO KEEP CLEAN OF SEDIMENT AND DEBRIS CAUSED BY CONSTRUCTION ACTIVITIES. ADJACENT PROPERTIES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION BY USE OF AN ACCEPTABLE EROSION CONTROL PRACTICE SUCH AS VEGETATIVE BUFFER STRIPS OR SEDIMENT BARRIERS.

FOR CONSTRUCTION SITES WITH ONE (1) ACRE OR MORE OF DISTURBANCE, ALL CONTRACTORS AND SUB-CONTRACTORS WILL BE REQUIRED TO CERTIFY A STORM WATER POLLUTION PREVENTION PLAN (SWPPP). THE SWPPP, IF NECESSARY, AND ALL PERMITS PERTAINING TO SOIL AND EROSION CONTROL WILL BE PREPARED AND SUBMITTED BY THE OWNER/ENGINEER.

IT WILL BE THE CONTRACTOR/SUB-CONTRACTOR'S RESPONSIBILITY TO IMPLEMENT AND FOLLOW THE SWPPP.

WHEN REQUESTED BY THE OWNER, THE ENGINEER SHALL PROVIDE CONSTRUCTION INSPECTION TO ASCERTAIN THE WORK IS IN SUBSTANTIAL CONFORMANCE WITH THE CONTRACT DOCUMENTS AND WITH THE DESIGN INTENT. THE ENGINEER'S UNDERTAKING SHALL NOT RELIEVE THE CONTRACTOR FROM THE CONTRACTOR'S OBLIGATION TO PERFORM WORK IN CONFORMITY WITH THE PLANS AND SPECIFICATIONS AND IN A WORKMANLIKE MANNER, SHALL NOT MAKE THE ENGINEER AN INSURER OF THE CONTRACTOR'S PERFORMANCE; AND SHALL NOT IMPOSE UPON THE ENGINEER ANY OBLIGATION TO ENSURE THAT THE WORK IS PERFORMED IN A SAFE MANNER. THE CONTRACTOR SHALL BE TOTALLY RESPONSIBLE FOR SAFETY FOR THIS PROJECT.

BEFORE ACCEPTANCE AND SUBSEQUENT FINAL PAYMENT, ALL WORK SHALL BE INSPECTED AND APPROVAL BY THE OWNER OR HIS REPRESENTATIVE. FINAL PAYMENT SHALL BE MADE ONLY AFTER ALL OF THE CONTRACTOR'S WORK HAS BEEN APPROVED AND INSPECTED.

TRAFFIC CONTROL SHALL BE IN ACCORDANCE WITH APPLICABLE PORTIONS OF THE ILLINOIS DEPARTMENT OF TRANSPORTATION "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION" ADOPTED JANUARY 1, 2022 AND THE LATEST EDITION OF THE "ILLINOIS MANUAL FOR UNIFORM TRAFFIC CONTROL FOR STREETS AND HIGHWAYS". THE CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR USE OF APPROPRIATE ILLINOIS DEPARTMENT OF TRANSPORTATION HIGHWAY STANDARDS PERTAINING TO TRAFFIC CONTROL FOR THE ENTIRE DURATION OF THE PROJECT AND SOLELY LIABLE FOR ANY ACCIDENTS, WHICH MAY OCCUR DUE TO INADEQUATE TRAFFIC CONTROL, SIGNAGE, PAVEMENT MARKINGS, MAINTENANCE, FLAGGERS, BARRICADES AND INSPECTION SHALL BE INCLUDED IN THE LUMP SUM PRICE FOR TRAFFIC CONTROL.

THE ILLINOIS DEPARTMENT OF TRANSPORTATION HIGHWAY STANDARDS NOTED ON THESE PLANS WILL BE CONSIDERED A PART OF THE PLANS AND WILL APPLY TO THE WORK DESCRIBED HEREIN. COPIES OF THE APPLICABLE HIGHWAY STANDARDS ARE APPENDED TO THE SPECIFICATIONS FOR THE CONVENIENCE OF THE BIDDER.

STRUCTURE RIM OR FLOWLINE ELEVATIONS SHOWN ON THE PLANS ARE TO BE CONSIDERED APPROXIMATE. ADJUSTMENT RINGS SHALL BE PROVIDED TO SET THE CASTING FLUSH WITH THE FINISHED GROUND, PAVEMENT, OR GUTTER SURFACE. PROVIDING AND INSTALLING ADJUSTMENT RINGS SHALL BE CONSIDERED INCIDENTAL TO EACH MANHOLE OR INLET STRUCTURE INSTALLED AS PART OF THIS PROJECT.

SAW CUTTING FOR THIS PROJECT WILL BE INCIDENTAL IN ALL CASES. THIS SHALL INCLUDE FULL DEPTH SAW CUTTING ALONG ALL EDGES FOR REMOVAL OF PAVEMENTS, CURB, COMBINATION CURB & GUTTER, ETC. IT SHALL ALSO INCLUDE SUBSEQUENT SAW CUTTING TO PROVIDE CLEAN EDGES FOR PAVING WORK AND SCORING OF CONCRETE PAVEMENTS AND CURBS AS REQUIRED FOR CONTROL JOINTS. WHERE SAW CUTS ARE INDICATED ON THE DRAWINGS OR DETAILS OR NOTES, THESE SAW CUTS ARE MANDATORY.

SEWER REMOVAL REQUIRED TO INSTALL PROPOSED SEWERS SHALL BE CONSIDERED INCIDENTAL IN ALL CASES AND SHALL INCLUDE THE PLUGGING OR ABANDONING OF ANY SEWER LATERALS NOT TO BE RECONNECTED TO PREVENT GROUNDWATER INFILTRATION. THIS SHALL ALSO PERTAIN TO THE REMOVAL SEWERS CONNECTED TO INLETS, DRAINAGE STRUCTURES, AND MANHOLES TO BE REMOVED. PLUGGING OF THE SEWER SHALL BE DONE WITH NON-SHRINK GROUT OR OTHER MEANS APPROVED BY AND TO THE SATISFACTION OF THE ENGINEER.

EXPANSION JOINT MATERIALS SHALL BE PROVIDED BETWEEN PCC CONSTRUCTION. THESE MATERIALS SHALL BE CONSIDERED INCIDENTAL.

ALL SANITARY AND STORM SEWER LATERALS OR SERVICES TO BE RECONNECTED TO EXISTING LATERALS SHALL USE A FERROD OR ENGINEER APPROVED COUPLING. THIS WORK SHALL BE CONSIDERED INCIDENTAL TO THE LATERAL OR SERVICE BEING INSTALLED.

FOR THE SAKE OF SAFETY, TRAFFIC CONTROL, AND STREET INTEGRITY, THE OWNER AND ENGINEER WILL HAVE FINAL SAY ON TRUCKING ROUTES DURING THE CONSTRUCTION OF THE PROJECT. THE CONTRACTOR SHALL LIMIT TRUCKING MOVEMENTS TO THOSE AREAS SPECIFIED BY THE OWNER AND ENGINEER AS THE WORK PROGRESSES THROUGHOUT THE JOB.

SHEET PILES REQUIRED TO MAINTAIN TRENCH SIDES AND PROTECT STRUCTURES SHALL BE DESIGNED BY A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF ILLINOIS AND SHALL BE INCIDENTAL TO THE CONTRACT.

DEWATERING OF THE EXCAVATION DURING CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR AND SHALL BE INCIDENTAL TO THE CONTRACT.

EROSION CONTROL SHALL CONSIST OF THE FOLLOWING ITEMS AND SHALL BE INCLUDED IN THE CONTRACT LUMP SUM PRICE:

1. PIPE AND INLET PROTECTION PER THE DETAILS IN THESE DRAWINGS AND TO THE APPROVAL OF THE ENGINEER.
2. TEMPORARY EROSION CONTROL SEEDING SHALL BE INSTALLED ON ALL SLOPES STEEPER THAN 4:1 WHEN FINAL SEEDING AND EROSION CONTROL BLANKET WILL NOT BE INSTALLED UNTIL THE CONCLUSION OF THE CONSTRUCTION.
3. TEMPORARY CONCRETE WASHOUT FACILITY --EARTHEN TYPE
4. EROSION CONTROL BLANKET ON FINAL SEEDED SLOPES STEEPER THAN 4:1
5. SILT FENCE
6. STABILIZED CONSTRUCTION ENTRANCE

WHERE THE PLANS CALL FOR A MANHOLE OPENING TO BE PLUGGED WITH BLOCK AND MORTAR, CONTRACTOR SHALL USE CONCRETE BLOCK OF THE SAME THICKNESS AS THE MANHOLE SIDE WALL AND SHALL INSTALL THE BLOCK ON THE SAME CURVE AS THE MANHOLE SIDE WALL SO THAT THE BLOCK WILL BE UNDER COMPRESSION WHEN IT EXPERIENCES SOIL LOADS. THIS WORK WILL BE INCIDENTAL TO THE MANHOLE INSTALLATION. MORTAR SHALL BE ALLOWED TO CURE BEFORE BACKFILL IS PLACED AROUND THE PLUG.

STORMS SEWERS

STORM SEWERS TO BE CONSTRUCTED AS SPECIFIED IN THE IDOT STAND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

STORM SEWER MATERIALS SHALL BE AS SPECIFIED IN THE IDOT STAND SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, LATEST EDITION.

SANITARY SERVICE

THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TOOLS, AND EQUIPMENT NECESSARY TO CONSTRUCT THE SANITARY SEWER SYSTEM AS DETAILED ON THE PLANS.

WATER SERVICE LINES SHALL BE PROTECTED FROM SANITARY SEWER, STORM SEWERS, SEWER SERVICE CONNECTIONS AND DRAINS IN ACCORDANCE WITH TITLE 35, ENVIRONMENTAL PROTECTION AGENCY SUBTITLE F; PUBLIC WATER SUPPLIES, CHAPTER 11; ENVIRONMENTAL PROTECTION AGENCY, PARTS 651-654 TECHNICAL POLICY STATEMENTS, SECTION 653.119.

SANITARY SEWER MAIN CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS" 8TH EDITION 2020 EXCEPT WHERE NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS.

BEDDING, HAUNCHING, AND INITIAL BACKFILL SHALL BE PLACED IN ACCORDANCE WITH ASTM STANDARD D2321 AND SHALL BE CONSIDERED INCIDENTAL TO THE SANITARY SEWER. CLASS 1A MATERIAL, CRUSHED STONE OR CRUSHED GRAVEL, GRADATION (CA-7), SHALL BE USED FOR BEDDING, HAUNCHING, AND INITIAL BACKFILL.

TRENCH BACKFILL SHALL BE REQUIRED FOR ALL PIPES THAT ARE CONSTRUCTED UNDER OR WITHIN TWO (2) FEET OF THE EDGE OF EXISTING OR PROPOSED PAVEMENTS, SIDEWALKS, CURB AND GUTTERS, OR OTHER PAVED SURFACES.

EXCAVATED MATERIAL SHALL BE USED FOR FINAL BACKFILL FOR ALL AREAS NOT DESIGNATED FOR TRENCH BACKFILL.

TRENCH BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 208 OF THE IDOT STANDARD SPECIFICATIONS.

SANITARY SEWER PIPE MATERIAL

SANITARY SEWER PIPE SHALL BE POLYVINYL CHLORIDE (PVC) TYPE SDR-26 CONFORMING TO ASTM D-3034 WITH FLEXIBLE ELASTOMERIC JOINTS CONFORMING TO ASTM D-3212.

WATER SERVICE

THE CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, TOOLS, AND EQUIPMENT NECESSARY TO CONSTRUCT THE WATER MAIN AS DETAILED ON THE PLANS AND IN THE SPECIFICATIONS.

ALL WATER LINES SHALL HAVE A MINIMUM COVER OF FIVE FEET (5.5').

WATER LINES SHALL BE PROTECTED FROM SANITARY SEWERS, STORM SEWERS, SEWER SERVICE CONNECTIONS AND DRAINS IN ACCORDANCE WITH TITLE 35, ENVIRONMENTAL PROTECTION AGENCY SUBTITLE F; PUBLIC WATER SUPPLIES, CHAPTER 11; ENVIRONMENTAL PROTECTION AGENCY, PARTS 651-654 TECHNICAL POLICY STATEMENTS, SECTION 653.119.

WATER LINES SHALL BE SEPARATED FROM SEPTIC TANKS, LEACH DISPOSAL FIELDS AND SEEPAGE BEDS BY A MINIMUM DISTANCE OF TWENTY-FIVE (25) FEET.

WATER LINE CONSTRUCTION SHALL BE IN STRICT ACCORDANCE WITH THE "STANDARD SPECIFICATIONS FOR WATER & SEWER MAIN CONSTRUCTION IN ILLINOIS" 8TH EDITION 2020 EXCEPT WHERE NOTED OTHERWISE ON THE PLANS OR IN THE SPECIFICATIONS.

BEDDING, HAUNCHING, AND INITIAL BACKFILL SHALL BE SUPPLIED BY THE CONTRACTOR AND PLACED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS AND SHALL BE CONSIDERED INCIDENTAL TO THE WATER MAIN/SERVICE INSTALLATION. CLASS 1A MATERIAL, CRUSHED STONE OR CRUSHED GRAVEL, GRADATION (CA 7), SHALL BE USED FOR BEDDING, HAUNCHING, AND INITIAL BACKFILL.

TRENCH BACKFILL SHALL BE REQUIRED FOR FINAL BACKFILL FOR ALL WATER MAINS/SERVICES THAT ARE CONSTRUCTED UNDER OR WITHIN TWO (2) FEET OF THE EDGE OF EXISTING OR PROPOSED PAVEMENTS, SIDEWALKS, CURB AND GUTTERS, OR OTHER PAVED SURFACES. IN ALL OTHER LOCATIONS, FINAL BACKFILL SHALL CONSIST OF EXCAVATED MATERIAL. ALL PVC TO BE INSTALLED WITH TRACER WIRE.

TRENCH BACKFILL SHALL BE IN ACCORDANCE WITH SECTION 208 OF THE IDOT STANDARD SPECIFICATIONS.

WATER LINE PIPE MATERIAL

MATERIAL FOR THE 6" WATER SERVICE SHALL BE C-900 PVC PIPE, WHICH SHALL MEET OR EXCEED THE PERFORMANCE REQUIREMENTS OF ASTM D2241. JOINTS FOR THE C-900 PVC PIPE SHALL MEET ASTM F477 AND D3139.

WATER LINE FITTINGS

RETAINER GLANDS OR ANCHOR COUPLINGS ("MEGA-LUG" OR APPROVED EQUAL) SHALL BE USED WITH ALL MECHANICAL JOINT CONNECTIONS AND SHALL BE DESIGNED FOR INSTALLATION ON THE TYPE OF WATER MAIN SPECIFIED. ALL RETAINER GLANDS SHALL HAVE ONE (1) RETAINER BOLT PER FLANGE BOLT.

SOLID CONCRETE THRUST BLOCKS SHALL BE SUPPLIED BY THE CONTRACTOR AND INSTALLED AT ALL FITTINGS. THRUST BLOCKING SHALL BE POSITIONED AT LOCATIONS AS SHOWN ON THE STANDARD SPECIFICATIONS, TYPICAL THRUST BLOCK INSTALLATIONS STANDARD DETAIL.

WATER LINE TESTING AND DISINFECTING

THE 6" WATER SERVICE SHALL BE DISINFECTED IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS. THE CONTRACTOR SHALL SUPPLY ALL MATERIALS, (INCLUDING INJECTION AND TESTING POINT WHIPS), EQUIPMENT, AND LABOR NECESSARY FOR TESTING AND DISINFECTING THE WATER LINE AND SHALL BE RESPONSIBLE FOR COLLECTING WATER SAMPLES AND HAVING BACTERIOLOGICAL TESTING PERFORMED AS REQUIRED BY THE ILLINOIS ENVIRONMENTAL PROTECTION AGENCY. THE CONTRACTOR SHALL FURNISH ALL TEST RESULTS NECESSARY TO THE ENGINEER PRIOR TO PLACING THE WATER LINE IN SERVICE.

THE CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF TESTING AND DISINFECTING THE NEW WATER LINE AND SHALL NOTIFY THE OWNER AND OPERATOR A MINIMUM OF TWENTY FOUR (24) HOURS IN ADVANCE OF THE REQUESTED TIME FOR OBSERVATION OF THE PRESSURE AND LEAKAGE TEST. ALL TESTING SHALL BE IN ACCORDANCE WITH THE STANDARD SPECIFICATIONS.

PAVING

AGGREGATE BASE COURSE

THIS WORK SHALL BE DONE IN ACCORDANCE WITH THE APPLICABLE PARTS OF SECTION 406 OF THE ROADWAY SPECIFICATIONS.

PRIOR TO THE PLACEMENT OF THE HOT-MIX ASPHALT BINDER COURSE, THE AGGREGATE BASE SHALL BE COMPACTED TO THE SATISFACTION OF THE ENGINEER. THE CONTRACTOR SHALL PROVIDE A FULLY LOADED SEMI TO PERFORM A "PROOF" ROLL OVER THE ENTIRE AGGREGATE BASE. THE "PROOF" ROLL SHALL BE WITNESSED BY THE ENGINEER AND/OR OWNER.

ALL LOOSE AGGREGATE MATERIAL THAT APPEARS ON THE SURFACE OF THE BASE SHALL BE REMOVED BY THE CONTRACTOR PRIOR TO THE APPLICATION OF THE BITUMINOUS MATERIALS PRIME COAT. ANY ADDITIONAL HOT-MIX ASPHALT BINDER COURSE REQUIRED TO FILL THESE AREAS SHALL NOT BE PAID FOR BUT SHALL BE AT THE CONTRACTOR'S EXPENSE.

AGGREGATE (PRIME COAT) WILL NOT BE REQUIRED. THE CONTRACTOR SHALL BE REQUIRED TO PLACE TYPE III BARRICADES AT THE ENDS OF THE ROAD AFTER BITUMINOUS MATERIALS (PRIME COAT) HAVE BEEN APPLIED. THE SS-1H PRIME COAT SHALL BE APPLIED A MINIMUM OF 24 HOURS IN ADVANCE OF THE PAVING OPERATIONS AT A RATE OF 0.25 TO 0.50 GALLONS PER SQUARE YARD.

A BITUMINOUS TACK COAT SHALL BE PLACED BETWEEN THE BINDER COURSE AND SURFACE COURSE. THE TACK COAT SHALL CONSIST OF SS-1 PRIME AND APPLIED AT A RATE OF 0.05 TO 0.10 GALLONS PER SQUARE YARD. THE TACK COAT SHALL BE ALLOWED TO CURE SUFFICIENTLY SO THAT TRACKING OF THE SS-1 DOES NOT OCCUR.

THE OWNER RESERVES THE OPTION OF PLACING THE HMA SURFACE COURSE IN THE NEXT CONSTRUCTION SEASON.

AREAS THAT WILL RECEIVE PCC SIDEWALK OR CURB AND GUTTER SHALL HAVE AGGREGATE BASE COURSE INSTALLED IN ACCORDANCE WITH DETAILS SHOWN ON THE PLANS. PREPARE AREAS FOR BASE COURSE IN ACCORDANCE WITH SECTION 301 OF THE IDOT STANDARD SPECIFICATIONS. AGGREGATE BASE COURSE TYPE B SHALL BE INSTALLED IN ACCORDANCE WITH SECTION 351 OF THE IDOT STANDARD SPECIFICATIONS. MATERIAL ALLOWED SHALL BE EITHER IDOT GRADATION CA-6 OR CA-10.

PORTLAND CEMENT CONCRETE SIDEWALK

CONSTRUCT REINFORCED PORTLAND CEMENT CONCRETE PAVEMENT IN ACCORDANCE WITH SECTION 424 OF THE IDOT STANDARD SPECIFICATIONS AND THE SIDEWALK DETAILS SHOWN ON THE PLANS. REFER TO ARCHITECTURAL PLANS FOR JOINT DETAILS.

COMBINATION CONCRETE CURB AND GUTTER

CONSTRUCT REINFORCED COMBINATION CONCRETE CURB AND GUTTER IN ACCORDANCE WITH SECTION 606 OF THE IDOT STANDARD SPECIFICATIONS AND THE DETAILS SHOWN ON THE PLANS.

EARTHWORK

THE CONTRACTOR SHALL STRIP ALL TOPSOIL ON THE SITE THAT IS UNDER THE BUILDING FOOTPRINT AND PAVEMENT AREAS. THE CONTRACTOR SHALL STOCK PILE A SUFFICIENT AMOUNT OF TOPSOIL TO PROVIDE FOR A MINIMUM TOPSOIL DEPTH OF 6" FOR THE AREAS TO BE SEEDED. THE CONTRACTOR SHALL BE RESPONSIBLE TO PLACE THE TOPSOIL ON THE AREAS TO BE SEEDED AS PART OF THIS WORK. UNSUITABLE MATERIAL SHALL BE DISPOSED OF AT THE DISCRETION OF THE ENGINEER/OWNER.

ANY REMAINING EXCESS EARTH EXCAVATION FROM THE CONSTRUCTION OF THE IMPROVEMENTS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO REMOVE FROM THE JOB SITE.

ALL VEGETATION SHALL BE REMOVED PRIOR TO PLACEMENT OF THE EMBANKMENT MATERIALS.

THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVING FROM THE JOB SITE ALL EXCESS, UNSTABLE AND UNSUITABLE MATERIAL AS A PART OF THIS WORK.

WHEN EARTH EXCAVATION STOCK PILES WILL REMAIN ON THE SITE LONGER THAN ONE WEEK; THE PILES SHALL BE ENCOMPASSED WITH EROSION CONTROL BARRIER FENCE.

THIS WORK INCLUDES ALL EARTH EXCAVATION, AND CONSTRUCTION OF EMBANKMENT ON THE SITE.

IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO INVESTIGATE THE SITE TO DETERMINE THE AMOUNT OF EARTH EXCAVATION THAT WILL BE REQUIRED TO CONSTRUCT THE SITE TO THE LINES AND GRADES AS SHOWN ON THE PLANS.

EROSION CONTROL

SOIL EROSION AND SEDIMENT CONTROL SHALL BE IN ACCORDANCE WITH APPLICABLE PORTIONS OF THE ILLINOIS URBAN MANUAL, UPDATED 2013.

PROVISIONS SHALL BE MADE TO MINIMIZE THE TRANSPORT OF SEDIMENT BY VEHICULAR TRAFFIC FROM THE CONSTRUCTION SITE. ALL PUBLIC STREETS SHALL BE CLEANED DAILY OR AS NECESSARY TO KEEP CLEAN OF SEDIMENT AND DEBRIS CAUSED BY CONSTRUCTION ACTIVITIES. ADJACENT PROPERTIES SHALL BE PROTECTED FROM SEDIMENT DEPOSITION BY USE OF AN ACCEPTABLE EROSION CONTROL PRACTICE SUCH AS VEGETATIVE BUFFER STRIPS OR SEDIMENT BARRIERS. SHOULD AN EROSION CONTROL ITEM NOT BE INCLUDED AS A BID ITEM OR NOT BE ADDRESSED PER SPECIAL PROVISION AND BE DETERMINED NECESSARY BY THE ENGINEER, THOSE ITEMS WILL BE PAID FOR AT A PRE-APPROVED UNIT PRICE.

IDOT HIGHWAY STANDARDS

TEMPORARY EROSION CONTROL	280001-07
LANE CLOSURE, 2L, 2W, SHORT TIME OPERATIONS	701301-04
TRAFFIC CONTROL DEVICES	701901-08
MANHOLE TYPE A 4" DIAMETER	542301-03
TYPE 1 FRAME & GRATE	604001-05
PERPENDICULAR CURB RAMPS FOR SIDEWALKS	424001-11



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New Fire Station

Wilmington Fire Protection District
201 N. Kankakee Street, Wilmington, IL 60481

GENERAL NOTES

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C-200

BENCHMARKS

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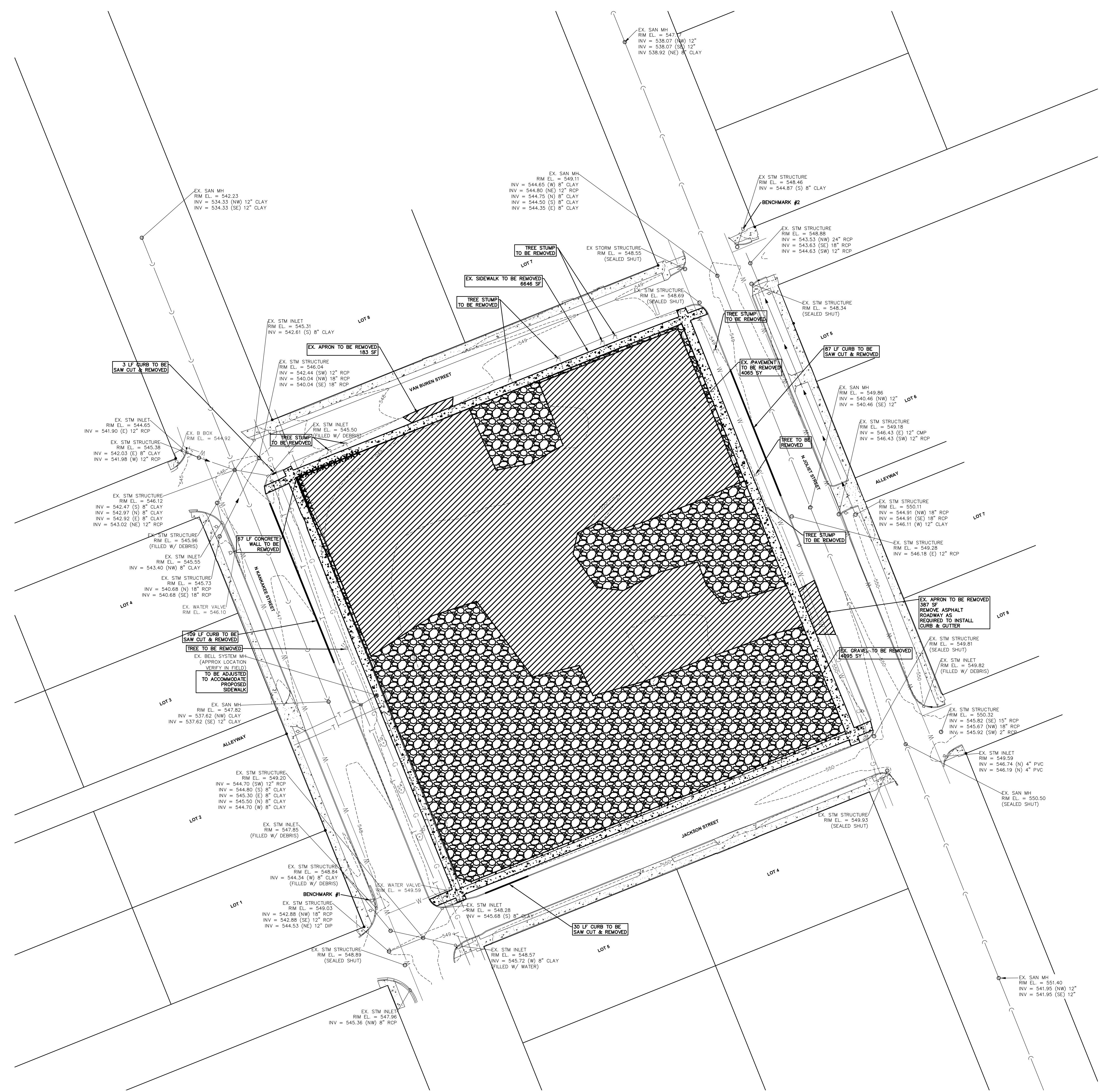
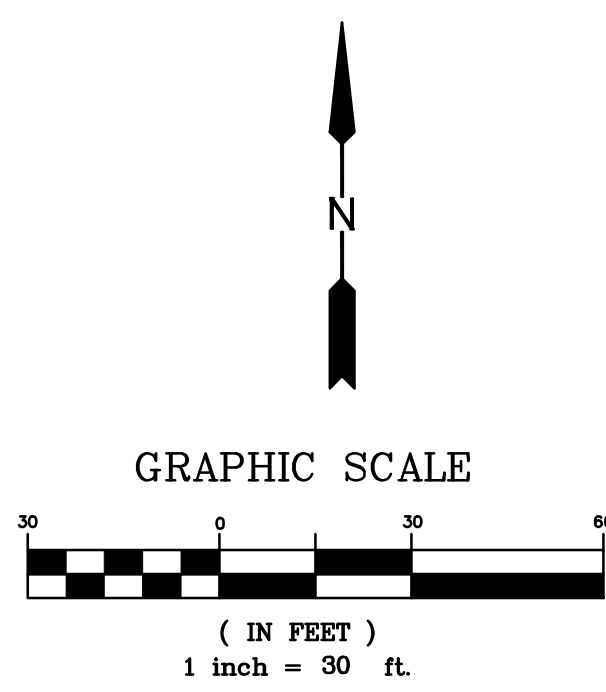
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HATCH LEGEND

	PAVEMENT TO BE REMOVED
	SIDEWALK TO BE REMOVED
	GRAVEL TO BE REMOVED
	EXISTING SIDEWALK
XXXXXXX	CONCRETE WALL TO BE REMOVED

- NOTES:**
1. THERE IS NO FEMA REGULATORY FLOODPLAIN LOCATED IN THE PROPOSED AREA OF DISTURBANCE PER FEMA FIRM 17197C0417G, REVISED FEBRUARY 15, 2019.
 2. SUBJECT PROPERTY DOES NOT CONTAIN ANY MAPPED WETLANDS PER U.S. FISH AND WILDLIFE NATIONAL WETLAND INVENTORY.
 3. ALL PAVEMENT AND CURB TO BE REMOVED TO BE SAW CUT AT LIMITS.
 4. ALL UTILITIES TO BE REMOVED SHALL BE RELOCATED OR DISCONNECTED BY APPROPRIATE UTILITY COMPANY.

THESE PLANS ARE PREPARED FOR THE
CONDITIONAL USE APPLICATION AND ARE
PRELIMINARY IN NATURE. FINAL ENGINEERING
PLANS WILL BE PREPARED UPON APPROVAL OF
THE CONDITIONAL USE.



**EXISTING
CONDITIONS &
DEMOLITION
PLAN**

C-400

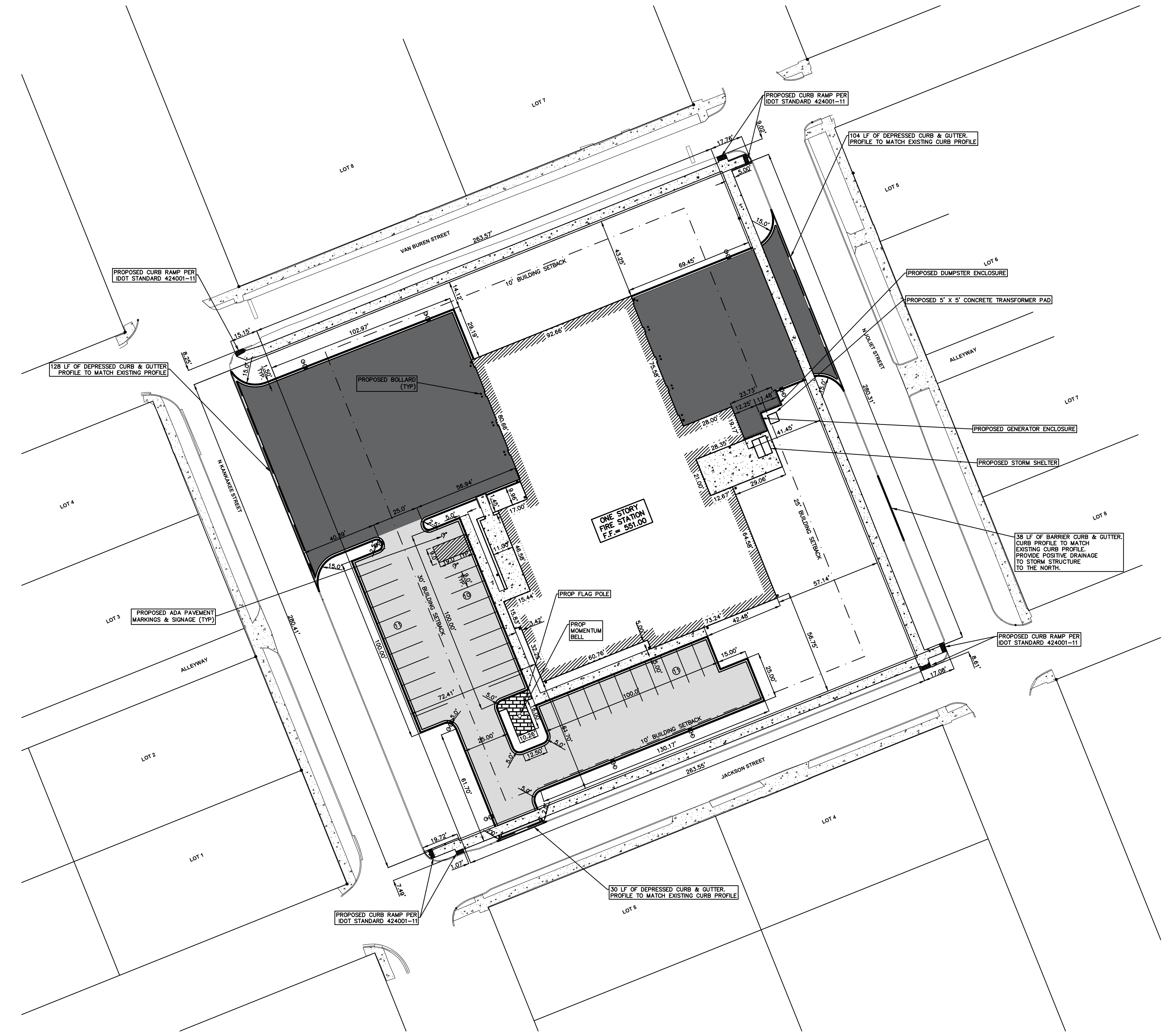
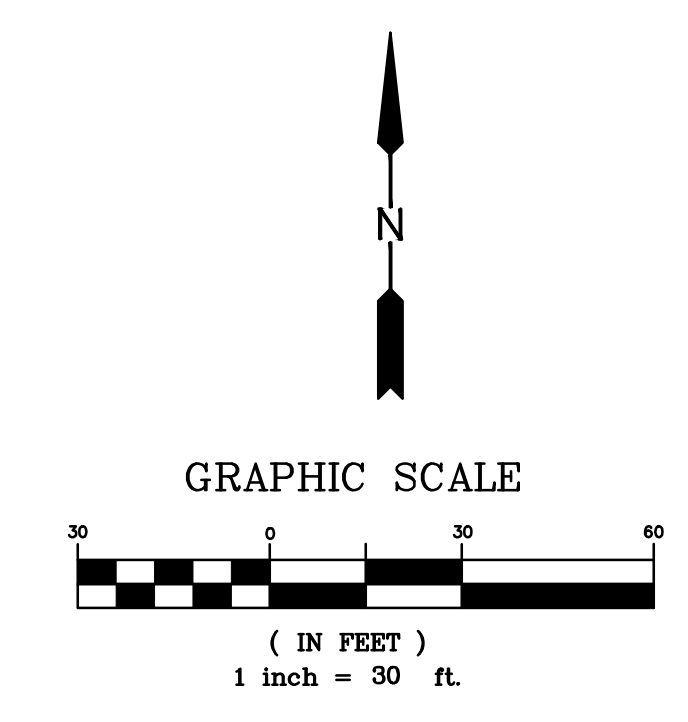
BENCHMARKS

BENCHMARK #1
NUMBER BOLT ON FIRE HYDRANT AT THE
NORTHWEST CORNER OF THE INTERSECTION
OF JACKSON AND KANKAKEE STREET,
SOUTHWEST OF SITE.
ELEVATION=550.38

BENCHMARK #2
NUMBER BOLT OF FIRE HYDRANT AT THE
NORTHEAST CORNER OF THE INTERSECTION
OF VAN BUREN STREET AND JOLIET
STREET, NORTHEAST OF SITE.
ELEVATION=551.24



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(312) 253-3400



SITE DATA

TOTAL SITE AREA: 1.696 ACRES
EXISTING ZONING: R-1
EXISTING IMPERVIOUS AREA: 1.68 AC (99%)
PROPOSED IMPERVIOUS AREA: 1.23 AC (73%)

PARKING SUMMARY

- PROPOSED STANDARD PARKING STALLS: 30
- PROPOSED ADA PARKING STALLS: 2
- TOTAL PARKING STALLS: 32
- MAXIMUM NUMBER OF EMPLOYEES PER SHIFT: 15

HATCH LEGEND

	PROPOSED LIGHT DUTY PAVEMENT
	PROPOSED HEAVY DUTY PAVEMENT
	PROPOSED CONCRETE SIDEWALK
	PROPOSED BRICK WALKWAY

NOTES:

1. SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS.
2. ALL DIMENSIONS ARE TO BACK OF CURB UNLESS NOTED OTHERWISE.
3. ALL CURB TO BE B-6.12 UNLESS NOTED OTHERWISE.
4. MAXIMUM CROSS SLOPE ON SIDEWALKS TO BE 2%.
5. PROPOSED HANDICAP PARKING STALLS TO HAVE SIGNS & PAVEMENT MARKINGS THAT MEET ADA REQUIREMENTS.

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New Fire Station

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**GEOMETRY
PLAN**

C-500

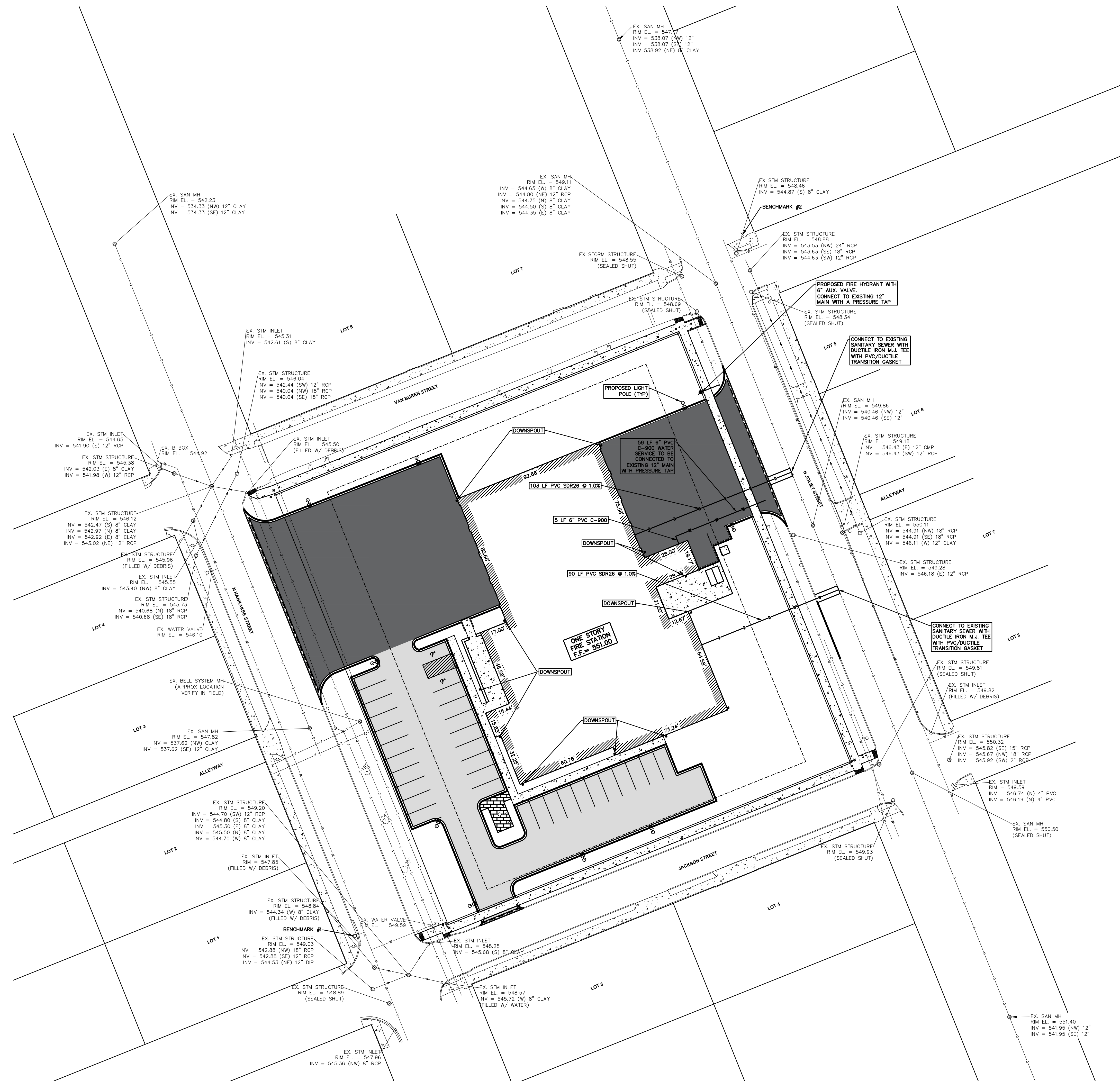
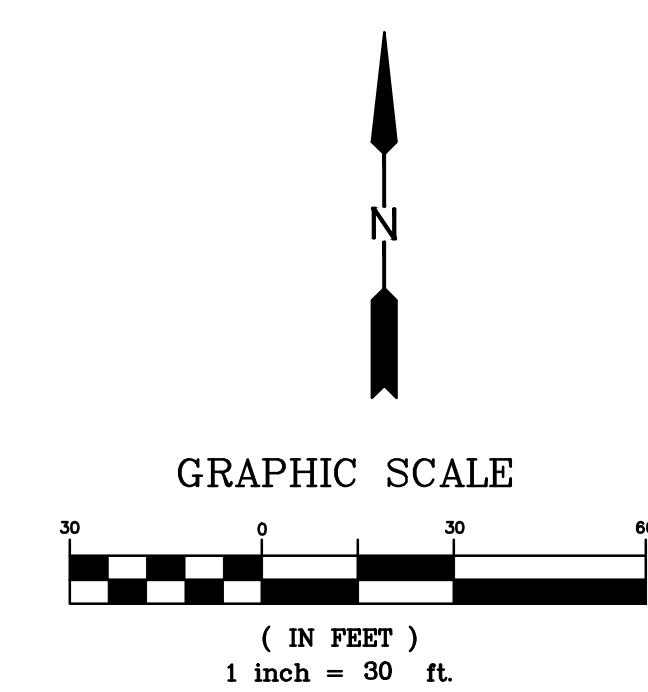
BENCHMARKS

BENCHMARK #1:
NUMBER BOLT ON FIRE
HYDRANT
EL. = 550.38

BENCHMARK #2:
NUMBER BOLT ON FIRE
HYDRANT
EL. = 551.24



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NOTES:

- SEE ARCHITECTURAL PLANS FOR EXACT BUILDING DIMENSIONS, UTILITY CONNECTION POINTS AT THE BUILDING AND TRIPLE BASIN LOCATION AND DETAIL.
- SEE PHOTOMETRIC PLAN BY 2010 ENGINEERING GROUP, LLC (DRAWING NO. 1813-B-1) FOR SITE LIGHTING SPECIFICATIONS, POLE FOUNDATION AND CONDUIT LOCATIONS.
- WATER SERVICE LINE TO BE A MINIMUM OF 5.5' DEEP.
- WATER AND SANITARY SERVICE TO BE INSTALLED PER REQUIREMENTS IN THE STANDARD SPECIFICATIONS FOR WATER AND SEWER CONSTRUCTION IN ILLINOIS (8TH EDITION/2020).

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New Fire Station

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UTILITY PLAN

C-600



BENCHMARKS

BENCHMARK #1:
NUMBER BOLT ON FIRE
HYDRANT
EL. = 550.38

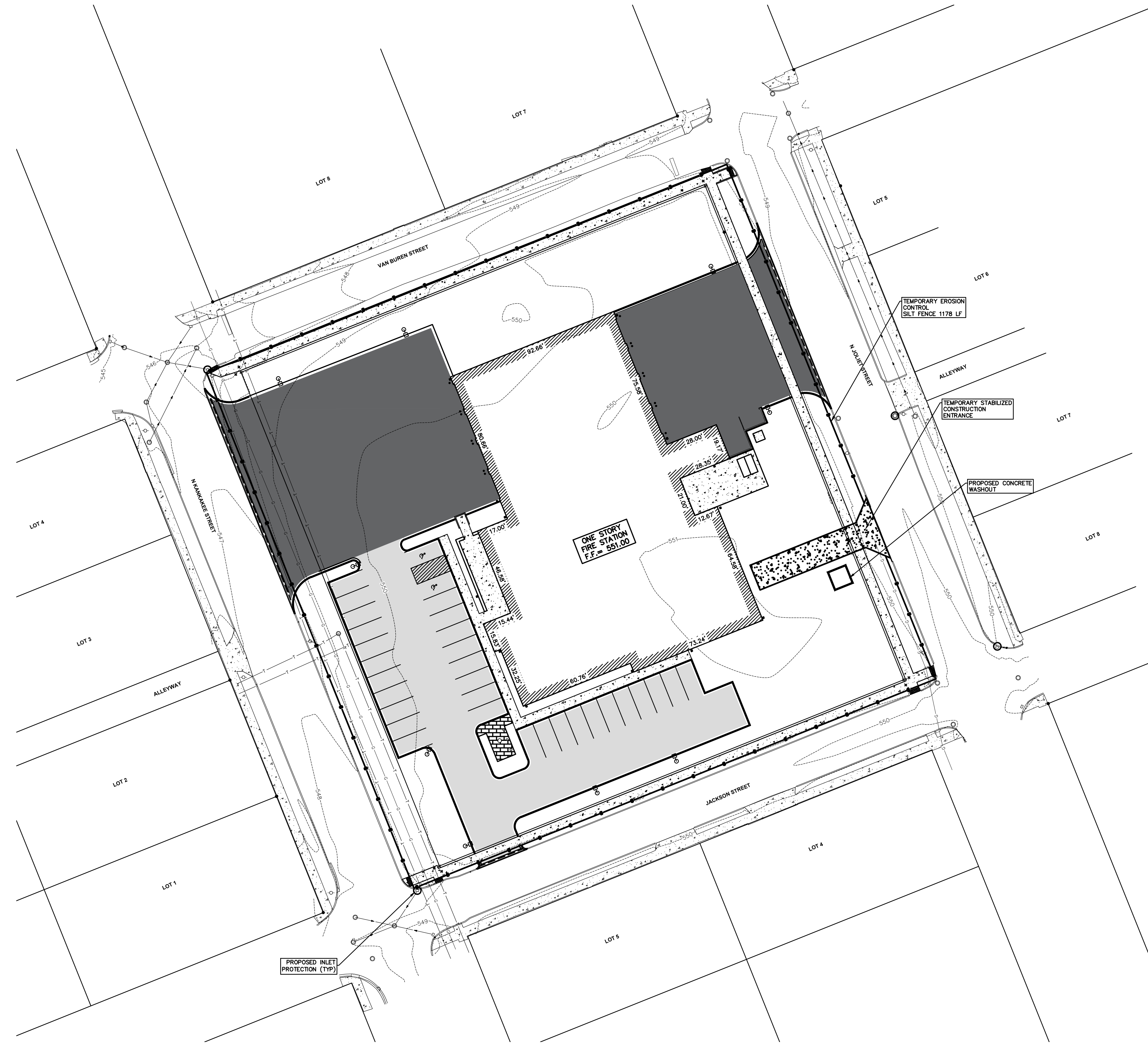
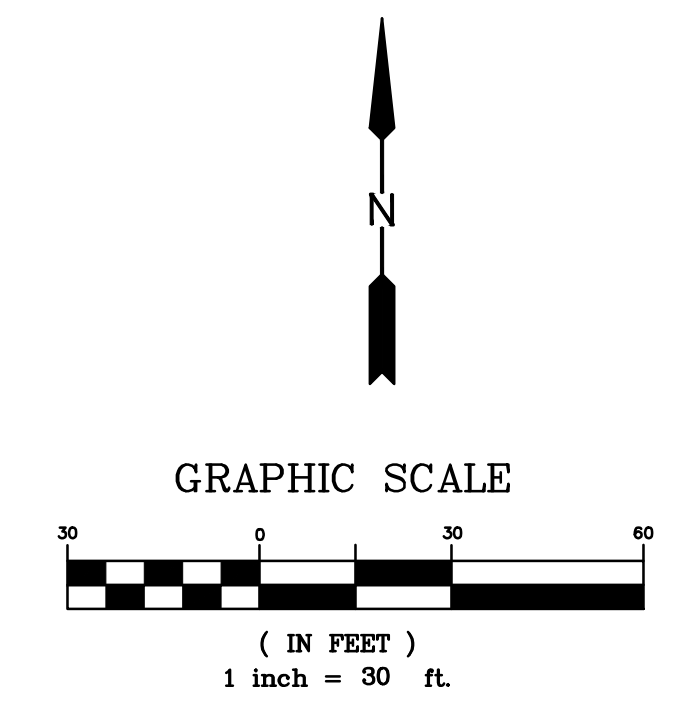
BENCHMARK #2:
NUMBER BOLT ON FIRE
HYDRANT
EL. = 551.24



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New Fire Station

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201 N. Kankakee Street, Wilmington, IL 60481



NOTES:

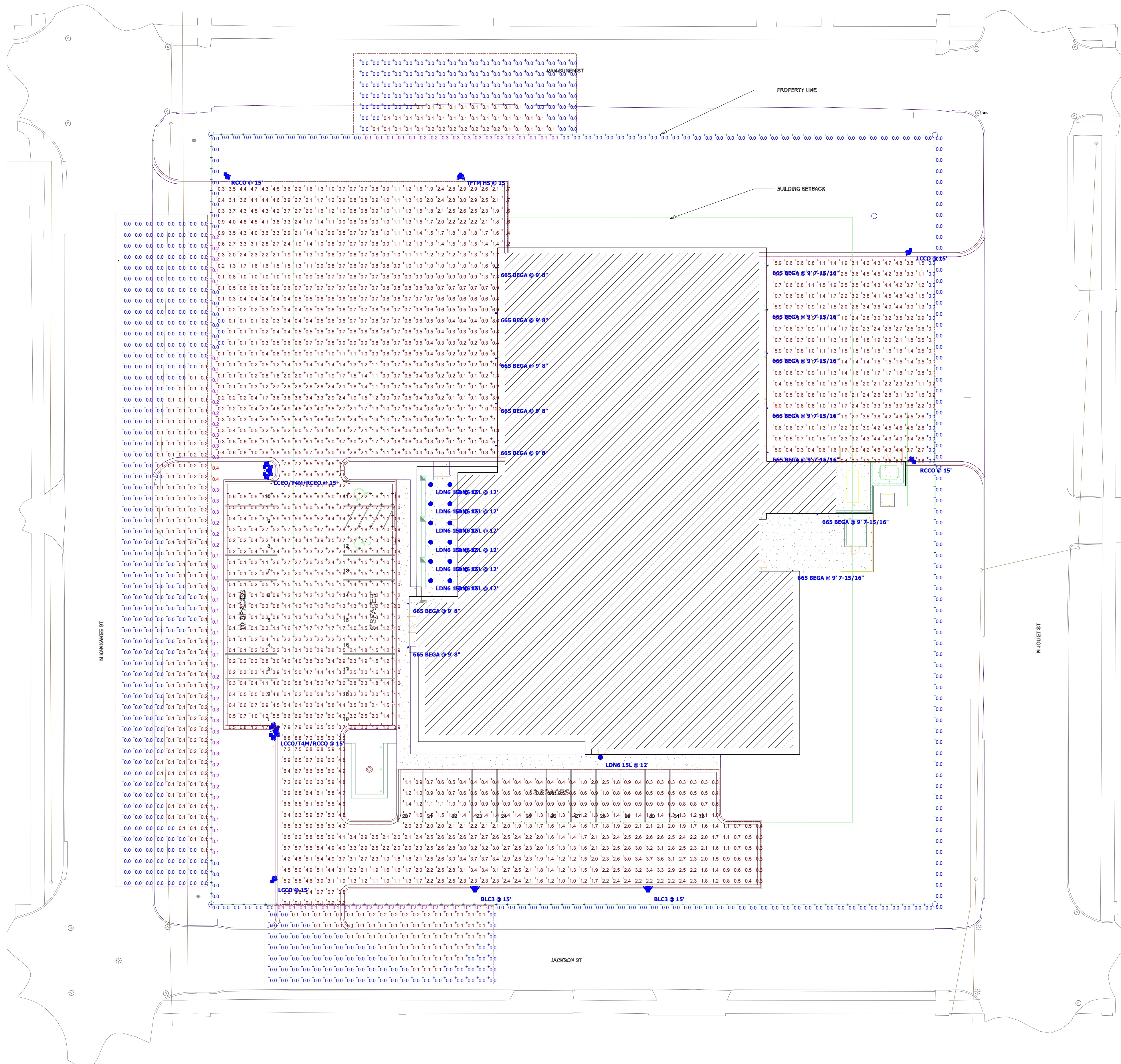
1. THE SITE DOES NOT HAVE ANY REGULATORY FLOODPLAIN PER FEMA FIRM NUMBER 17197C0417G, REVISED FEBRUARY 15, 2019.
2. THE SITE DOES NOT HAVE ANY MAPPED WETLANDS PER THE U.S. FISH AND WILDLIFE SERVICES NATIONAL WETLANDS INVENTORY MAP.
3. CONTRACTOR TO PROVIDE NECESSARY PROTECTION TO EXISTING UTILITIES. ANY DAMAGE TO THE EXISTING UTILITIES WILL BE THE CONTRACTOR'S RESPONSIBILITY TO REPAIR.
4. ANY FIELD TILES DISCOVERED DURING EXCAVATION SHALL BE ROUTED AROUND THE AREA OF THE PROPOSED WORK.
5. CONTRACTOR TO FOLLOW ALL ILLINOIS URBAN MANUAL REQUIREMENTS FOR SEDIMENT AND EROSION CONTROL AS REQUIRED BY THE SCOPE OF WORK.
6. MAXIMUM CROSS SLOPES OF PROPOSED SIDEWALKS TO BE 2%.
7. IF GROUND DISTURBANCE IS GREATER THAN 1 ACRES, AN IEPA NOTICE OF INTENT IS REQUIRED. CONTRACTOR IS REQUIRED TO KEEP A COPY OF THE STORMWATER POLLUTION PREVENTION PLAN ON SITE AT ALL TIMES DURING CONSTRUCTION.
8. ALL DISTURBED AREAS THAT ARE NOT TO BE PAVED OR LANDSCAPED SHALL BE RESTORED WITH 6" OF TOPSOIL, IDOT CLASS 1 SEED AND FERTILIZED.
9. CONTRACTOR IS RESPONSIBLE TO KEEP OFF-SITE ROADWAYS CLEAN OF SILT AND DEBRIS. OFFSITE ROADWAYS SHALL BE CLEANED DAILY OR AS DIRECTED BY MUNICIPAL ENGINEER.

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THE CONDITIONAL USE.

**GRADING &
EROSION
CONTROL
PLAN**

C-700



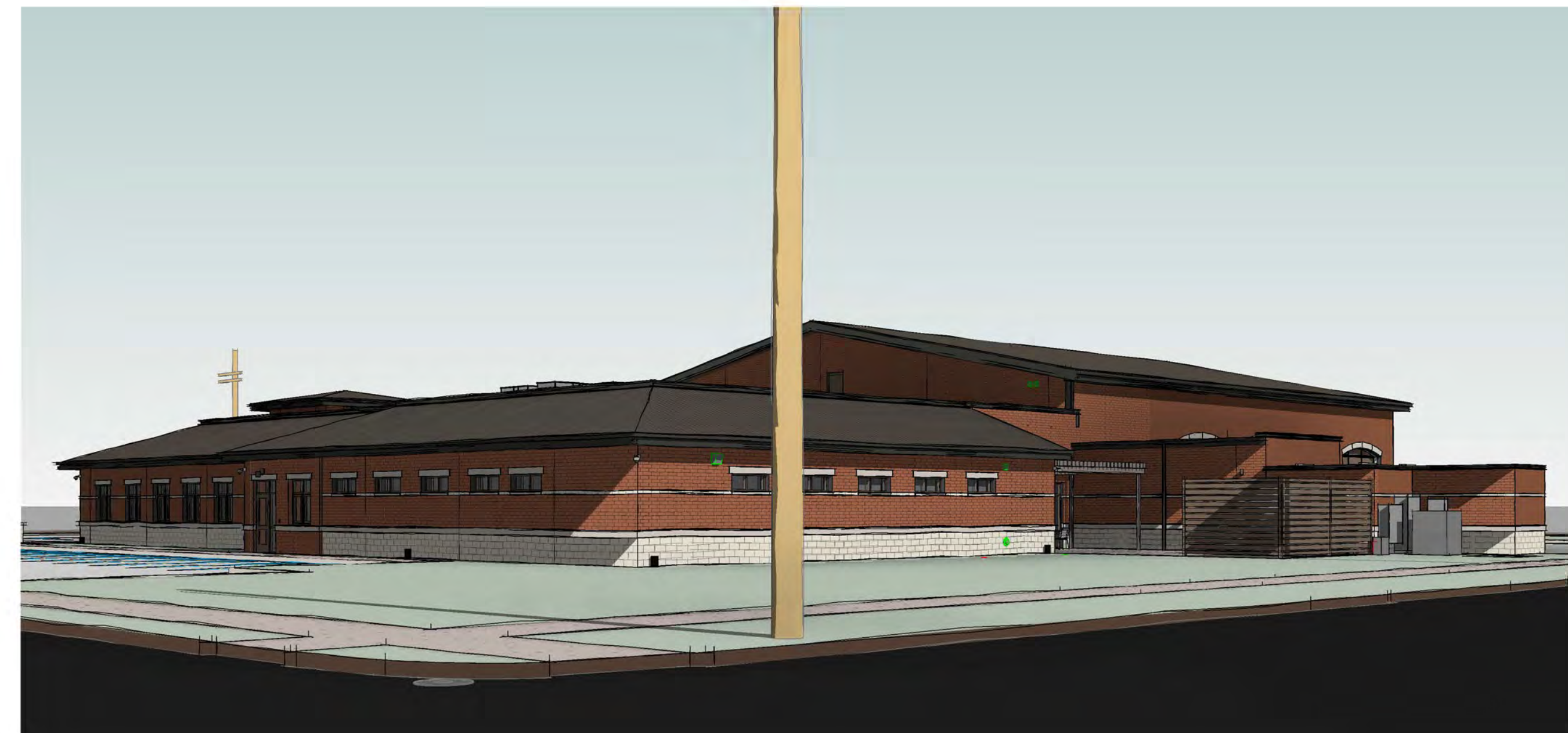


Plan View

Symbol	Label	QTY	Manufacturer	Catalog	Description	Number Lamps	Lamp Output	LLF	Input Power
[Symbol]	LCCO	2	Lithonia Lighting	DSX1 LED P1 40K 80CRI LCCO	D-Series Size 1 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Left Corner Cutoff Extreme Backlight Control	1	5114	0.9	50.9
[Symbol]	RCCO	2	Lithonia Lighting	DSX1 LED P1 40K 80CRI RCCO	D-Series Size 1 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Right Corner Cutoff Extreme Backlight Control	1	5114	0.9	50.9
[Symbol]	TFTM HS	1	Lithonia Lighting	DSX1 LED P1 40K 80CRI TFTM HS	D-Series Size 1 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Forward Throw Houseside Shield	1	5971	0.9	50.9015
[Symbol]	LCCO / T4 M/R CCO	2	Lithonia Lighting	[...]	[...]	1	[...]	0.9	152.7
[Symbol]			Lithonia Lighting	DSX1 LED P1 40K 80CRI LCCO	D-Series Size 1 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Left Corner Cutoff Extreme Backlight Control	1	5114	0.9	50.9
[Symbol]			Lithonia Lighting	DSX1 LED P1 40K 80CRI T4M	D-Series Size 1 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Type 4 Medium	1	7072	0.9	50.9
[Symbol]			Lithonia Lighting	DSX1 LED P1 40K 80CRI RCCO	D-Series Size 1 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Right Corner Cutoff Extreme Backlight Control	1	5114	0.9	50.9
[Symbol]	LDN 6 15L	13	Lithonia Lighting	LDN6 40/15 L06AR LSS	6IN LDN, 4000K, 1500LM, CLEAR, SEMI-SPECULAR REFLECTOR, CR180	1	1516	0.9	17.52
[Symbol]	665 BEG A	14	BEGA-US	66 655	5-15/16"DIA. X 7-1/4"H. LED SINGLE SIDED WALL LUMINAIRE ONE LED MODULE WITH ONE 3000K LED ARRAY, CLEAR TEMPERED GLASS LENS WITH ANODIZED ALUMINUM REFLECTOR	1	649	0.9	10.5
[Symbol]	BLC3	2	Lithonia Lighting	DSX1 LED P1 40K 80CRI BLC3	D-Series Size 1 Area Luminaire P1 Performance Package 4000K CCT 80 CRI Type 3 Extreme Backlight Control	1	5068	0.9	50.9

Description	Symbol	Avg	Max	Min	Max/Min	Avg/Min
BEYOND SOUTH LINE	+	0.0 fc	0.2 fc	0.0 fc	N/A	N/A
BEYOND WEST LINE	+	0.0 fc	0.2 fc	0.0 fc	N/A	N/A
EAST LOT	+	2.0 fc	6.0 fc	0.0 fc	N/A	N/A
PROP LINE	+	0.1 fc	0.4 fc	0.0 fc	N/A	N/A
WEST LOT	+	2.0 fc	12.3 fc	0.0 fc	N/A	N/A
BEYOND NORTH LINE	+	0.0 fc	0.2 fc	0.0 fc	N/A	N/A

Wilmington Fire Station
Site Photometrics



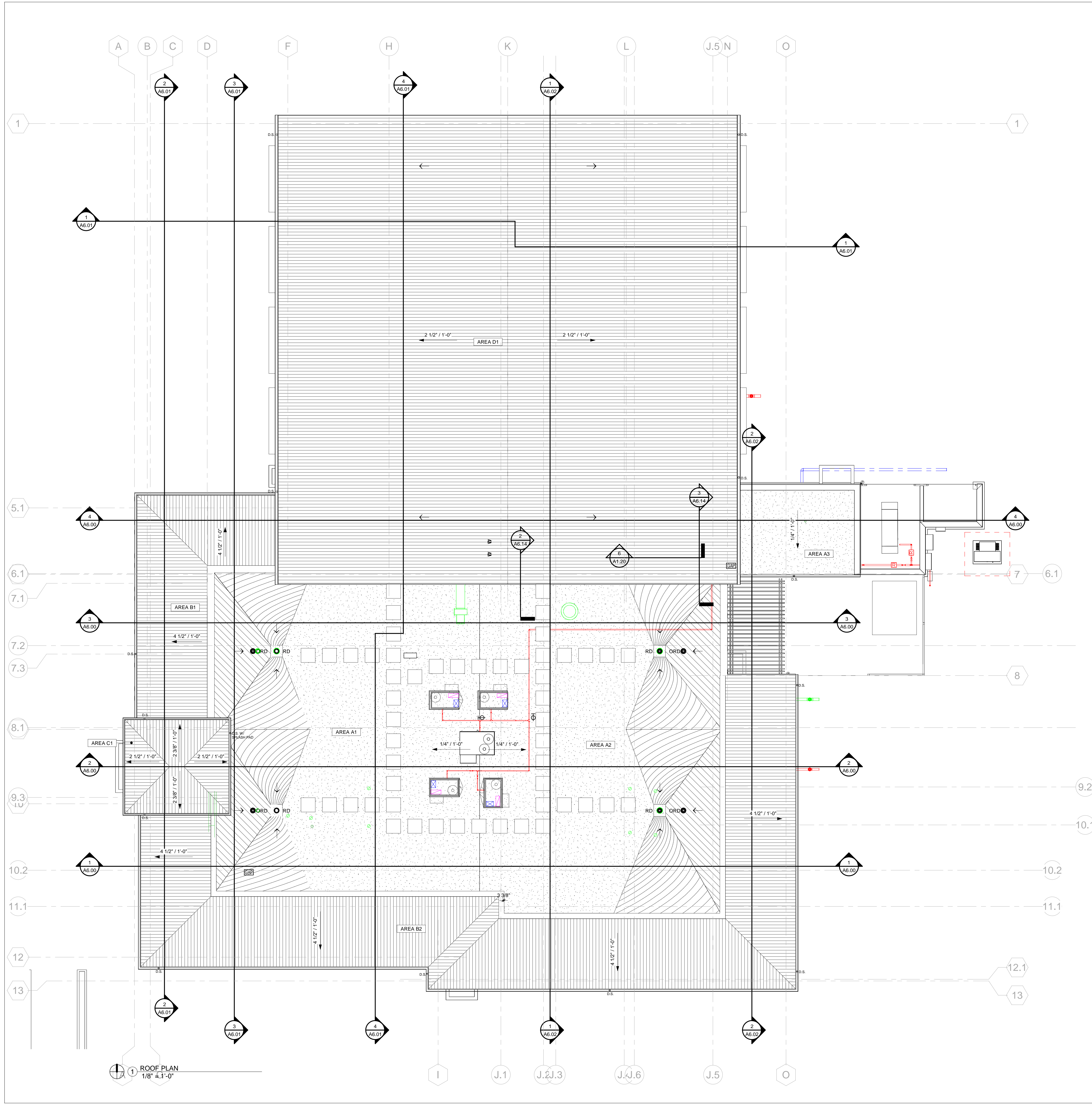
New Fire Station

Wilmington Fire Protection District
201 N. Kankakee Street, Wilmington IL, 60481

NO	ISSUE	DATE
	Zoning	11.15.2023

Building Perspective

SK-5



ROOF PLAN LEGEND

- A ROOF AREA TAG
- 1 ROOF PLAN KEY NOTE
- RD ROOF DRAIN
- ORD OVERFLOW ROOF DRAIN
- D.S. DOWN SPOUT
- NEW ROOF ASSEMBLY NEW ROOF ASSEMBLY
- NEW SADDLE - SLOPE 1/2" PER FOOT (TYP.) NEW SADDLE - SLOPE 1/2" PER FOOT (TYP.)
- INDICATES DIRECTION OF ROOF SLOPE
- ▽ ROOF HATCH
- RTU ROOF TOP MECHANICAL UNIT
- WALK PAD

ROOF AREAS

ROOF	AREA (APPROX.)	ASSEMBLY TYPE
AREA A1	140 SF	A
AREA A2	3772 SF	A
AREA A3	3681 SF	A
AREA B1	475 SF	A
AREA B2	1050 SF	B
AREA B3	3373 SF	B
AREA C1	438 SF	B
AREA D1	9743 SF	C

GENERAL NOTES - ROOF PLAN

- A. CONTRACTOR TO COORDINATE ALL ROOF EQUIPMENT, VENTS, FANS, ETC. WITH ARCHITECTURAL ROOF PLAN - REFER TO OTHER DISCIPLINE DRAWINGS FOR ADDITIONAL PENETRATION REQUIREMENTS.
- B. PROVIDE CRICKETS TO FACILITATE FLOW OF DRAINAGES @ ALL PENETRATIONS AND OBSTRUCTIONS. CRICKETS SHALL HAVE A 1/2" PER FOOT SLOPE.
- C. CONTRACTOR SHALL PROVIDE TEMPORARY PROTECTION, SUCH AS PLYWOOD, OF NEWLY ROOFED AREAS USED AS WORK ACCESS OR STAGING AREAS.
- D. CONTRACTOR SHALL VERIFY PRIOR TO INSTALLATION LOCATIONS OF SECONDARY INTERNAL ROOF DRAINS (MAX. 4' ABOVE PRIMARY ROOF DRAINS).
- E. CONTRACTOR SHALL NEVER LEAVE THE SITE UNTIL THE AFFECTED ROOF AREA IS WATER TIGHT.
- F. PROVIDE SADDLES AT HIGH SIDE OF ALL EQUIPMENT CURBS AND AT ROOF HATCHES FOR POSITIVE DRAINAGE TO ROOF DRAINS.
- G. FINAL LOCATION OF MECHANICAL ROOF TOP UNITS SHALL BE COORDINATED WITH HVAC CONTRACTOR.
- H. ALL CURBS AND THROUGH WALL FLASHING TO BE A MINIMUM OF 18" ABOVE ROOF STRUCTURE.
- I. CONTRACTOR TO CONSOLIDATE ROOFING PENETRATIONS AND PLACE IN AREAS NOT READILY SEEN.
- J. CONTRACTOR TO PAINT ALL ROOFING PENETRATIONS TO MATCH ROOF COLOR (AS SELECTED BY ARCHITECT FROM MANUFACTURERS' FULL RANGE).
- K. ALL SHEET METAL FLASHING AND TRIM TO BE FREE FROM OIL CANNING, DIMPLING, AND ALL OTHER SURFACE IMPERFECTIONS.
- L. FIELD VERIFY AND COORDINATE ALL ITEMS, DIMENSIONS, CONDITIONS, AND QUANTITIES, ETC.
- M. ALL NEW EXTERIOR GAS PIPE WORK ON ROOFS TO BE PAINTED SAFETY YELLOW. ALL NEW EXTERIOR DUCTWORK TO BE PAINTED COLOR TO BE SELECTED BY ARCHITECT (TYP.).

ROOF PLAN SHEET NOTES

1. INSTALL NEW ROOF LADDER PER DETAILS.



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New Fire Station

Wilmington Fire Protection District
201 N. Kankakee Street, Wilmington IL 60481

NO	ISSUE	DATE
•	25% Review Set	• 10.16.2023
•	60% Review Set	• 10.30.2023
•		
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Roof Plan

10/05/2023
ISSUED FOR
COORDINATION

A4.00



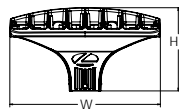
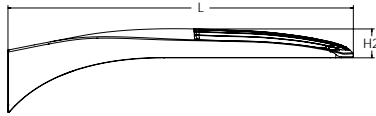
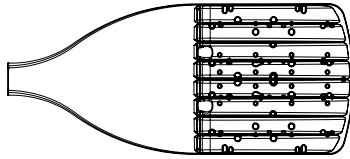
D-Series Size 1 LED Area Luminaire



d#series

Specifications

EPA:	0.69 ft ² (0.06 m ²)
Length:	32.71" (83.1 cm)
Width:	14.26" (36.2 cm)
Height H1:	7.88" (20.0 cm)
Height H2:	2.73" (6.9 cm)
Weight:	34 lbs (15.4 kg)



Catalog
Number

Notes

Type

Hit the Tab key or mouse over the page to see all interactive elements.

Introduction

The modern styling of the D-Series features a highly refined aesthetic that blends seamlessly with its environment. The D-Series offers the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire.

The photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. D-Series outstanding photometry aids in reducing the number of poles required in area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

EXAMPLE: DSX1 LED P7 40K 70CRI T3M MVOLT SPA NLTAIR2 PIRHN DDBXD

Series	LEDs	Color temperature ²	Color Rendering Index ²	Distribution	Voltage	Mounting	
DSX1 LED	Forward optics P1 P6 P2 P7 P3 P8 P4 P9 P5 Rotated optics P10 ¹ P12 ¹ P11 ¹ P13 ¹	(this section 70CRI only) 30K 3000K 40K 4000K 50K 5000K (this section 80CRI only, extended lead times apply) 27K 2700K 30K 3000K 35K 3500K 40K 4000K 50K 5000K	70CRI 70CRI 70CRI 80CRI 80CRI 80CRI 80CRI	AFR Automotive front row T1S Type I short T2M Type II medium T3M Type III medium T3LG Type III low glare ³ T4M Type IV medium T4LG Type IV low glare ³ TFTM Forward throw medium	T5M Type V medium T5LG Type V low glare T5W Type V wide BLC3 Type III backlight control ³ BLC4 Type IV backlight control ³ LCCO Left corner cutoff ³ RCCO Right corner cutoff ³	MVOLT (120V-277V) ⁴ HVOLT (347V-480V) ^{5,6} XVOLT (277V - 480V) ^{7,8} 120 ^{16,26} 208 ^{16,26} 240 ^{16,26} 277 ^{16,26} 347 ^{16,26} 480 ^{16,26}	Shipped included SPA Square pole mounting (#8 drilling) RPA Round pole mounting (#8 drilling) SPA5 Square pole mounting #5 drilling ⁹ RPA5 Round pole mounting #5 drilling ⁹ SPA8N Square narrow pole mounting #8 drilling WBA Wall bracket ¹⁰ MA Mast arm adapter (mounts on 2 3/8" OD horizontal tenon)

Control options	Other options	Finish (required)	
Shipped installed NLTAIR2 PIRHN nLight AIR gen 2 enabled with bi-level motion / ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc. ^{11,12,20,21} PIR High/low, motion/ambient sensor, 8-40' mounting height, ambient sensor enabled at 2fc. ^{13,20,21} PER NEMA twist-lock receptacle only (controls ordered separately) ¹⁴ PERS Five-pin receptacle only (controls ordered separate) ^{14,21}	PER7 Seven-pin receptacle only (controls ordered separate) ^{14,21} FAO Field adjustable output ^{15,21} BL30 Bi-level switched dimming, 30% ^{16,21} BL50 Bi-level switched dimming, 50% ^{16,21} DMG 0-10v dimming wires pulled outside fixture (for use with an external control, ordered separately) ¹⁷ DS Dual switching ^{18,19,21}	Shipped installed SPD20KV 20KV surge protection HS Houseside shield (black finish standard) ²² L90 Left rotated optics ¹ R90 Right rotated optics ¹ CCE Coastal Construction ²³ HA 50°C ambient operation ²⁴ BAA Buy America(n) Act Compliant SF Single fuse (120, 277, 347V) ²⁶ DF Double fuse (208, 240, 480V) ²⁶ Shipped separately EGSR External Glare Shield (reversible, field install required, matches housing finish) BSDB Bird Spikes (field install required)	DDBXD Dark Bronze DBLXD Black DNAXD Natural Aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white



Ordering Information

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) ²⁵
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) ²⁵
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) ²⁵
DSHORT SBK	Shorting cap ²⁵
DSX1HS P#	House-side shield (enter package number 1-13 in place of #)
DSXRPA (FINISH)	Round pole adapter (#8 drilling, specify finish)
DSXSPA5 (FINISH)	Square pole adapter #5 drilling (specify finish)
DSXRPA5 (FINISH)	Round pole adapter #5 drilling (specify finish)
DSX1EGSR (FINISH)	External glare shield (specify finish)
DSX1BSDB (FINISH)	Bird spike deterrent bracket (specify finish)

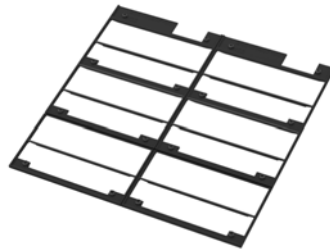
NOTES

- 1 Rotated optics available with packages P10, P11, P12 and P13. Must be combined with option L90 or R90.
- 2 30K, 40K, and 50K available in 70CRI and 80CRI. 27K and 35K only available with 80CRI. Contact Technical Support for other possible combinations.
- 3 T3LG, T4LG, BLC3, BLC4, LCCO, RCCO not available with option HS.
- 4 MVOLT driver operates on any line voltage from 120-277V (50/60 Hz).
- 5 HVOLT driver operates on any line voltage from 347-480V (50/60 Hz).
- 6 HVOLT not available with package P1 and P10 when combined with option NLTAIR2 PIRHN or option PIR.
- 7 XVOLT operates with any voltage between 277V and 480V (50/60 Hz).
- 8 XVOLT not available in packages P1 or P10. XVOLT not available with fusing (SF or DF).
- 9 SPA5 and RPA5 for use with #5 drilling only (Not for use with #8 drilling).
- 10 WBA cannot be combined with Type 5 distributions plus photocell (PER).
- 11 NLTAIR2 and PIRHN must be ordered together. For more information on nLight AIR2 visit this [link](#).
- 12 NLTAIR2 PIRHN not available with other controls including PIR, PER, PER5, PER7, FAO, BL30, BL50, DMG and DS. NLTAIR2 PIRHN not available with P1 and P10 using HVOLT. NLTAIR2 PIRHN not available with P1 and P10 using XVOLT.
- 13 PIR not available with NLTAIR2 PIRHN, PER, PER5, PER7, FAO BL30, BL50, DMG and DS. PIR not available with P1 and P10 using HVOLT. PIR not available with P1 and P10 using XVOLT.
- 14 PER/PER5/PER7 not available with NLTAIR2 PIRHN, PIR, BL30, BL50, FAO, DMG and DS. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Shorting Cap included.
- 15 FAO not available with other dimming control options NLTAIR2 PIRHN, PIR, PER5, PER7, BL30, BL50, DMG and DS.
- 16 BL30 and BL50 are not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, FAO, DMG and DS. BL30 or BL50 must specify 120, 277 or 347V. Consult tech support for 208, 240 or 480V.
- 17 DMG not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, BL30, BL50, FAO and DS.
- 18 DS not available with NLTAIR2 PIRHN, PIR, PER, PER5, PER7, BL30, BL50, FAO and DMG.
- 19 DS requires (2) separately switched circuits. DS provides 50/50 fixture operation via (2) different sets of leads using (2) drivers. DS only available with packages P8, P9, P10, P11, P12 and P13.
- 20 Reference Motion Sensor Default Settings table on page 4 to see functionality.
- 21 Reference Controls Options table on page 4.
- 22 HS not available with T3LG, T4LG, BLC3, BLC4, LCCO and RCCO distribution. Also available as a separate accessory; see Accessories information.
- 23 CCE option not available with option BS and EGSR. Contact Technical Support for availability.
- 24 Option HA not available with performance packages P4, P5, P7, P8, P9 and P13.
- 25 Requires luminaire to be specified with PER, PER5 or PER7 option. See Controls Table on page 4.
- 26 Single fuse (SF) requires 120V, 277V, or 347V. Double fuse (DF) requires 208V, 240V or 480V. XVOLT not available with fusing (SF or DF).

Shield Accessories



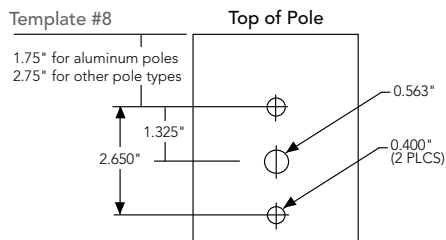
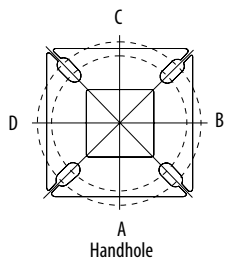
External Glare Shield (EGSR)



House Side Shield (HS)

Drilling

HANDHOLE ORIENTATION



Tenon Mounting Slipfitter

Tenon O.D.	Mounting	Single Unit	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
2-3/8"	RPA	AS3-5 190	AS3-5 280	AS3-5 290	AS3-5 390	AS3-5 320	AS3-5 490
2-7/8"	RPA	AST25-190	AST25-280	AST25-290	AST25-390	AST25-320	AST25-490
4"	RPA	AST35-190	AST35-280	AST35-290	AST35-390	AST35-320	AST35-490

Mounting Option	Drilling Template	Single	2 @ 180	2 @ 90	3 @ 90	3 @ 120	4 @ 90
Head Location		Side B	Side B & D	Side B & C	Side B, C & D	Round Pole Only	Side A, B, C & D
Drill Nomenclature	#8	DM19AS	DM28AS	DM29AS	DM39AS	DM32AS	DM49AS
Minimum Acceptable Outside Pole Dimension							
SPA	#8	3.5"	3.5"	3.5"	3.5"		3.5"
RPA	#8	3"	3"	3"	3"	3"	3"
SPA5	#5	3"	3"	3"	3"		3"
RPA5	#5	3"	3"	3"	3"	3"	3"
SPA8N	#8	3"	3"	3"	3"		3"

DSX1 Area Luminaire - EPA

*Includes luminaire and integral mounting arm. Other tenons, arms, brackets or other accessories are not included in this EPA data.

Fixture Quantity & Mounting Configuration	Single DM19	2 @ 180 DM28	2 @ 90 DM29	3 @ 90 DM39	3 @ 120 DM32	4 @ 90 DM49
Mounting Type						
DSX1 with SPA	0.69	1.38	1.23	1.54	---	1.58
DSX1 with SPA5, SPA8N	0.70	1.40	1.30	1.66	---	1.68
DSX1 with RPA, RPA5	0.70	1.40	1.30	1.66	1.60	1.68
DSX1 with MA	0.83	1.66	1.50	2.09	2.09	2.09

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's [homepage](#).

Isofootcandle plots for the DSX1 LED P9 40K 70CRI. Distances are in units of mounting height (25').



Performance Data

Lumen Ambient Temperature (LAT) Multipliers

Use these factors to determine relative lumen output for average ambient temperatures from 0-40°C (32-104°F).

Ambient		Lumen Multiplier
0°C	32°F	1.04
5°C	41°F	1.04
10°C	50°F	1.03
15°C	59°F	1.02
20°C	68°F	1.01
25°C	77°C	1.00
30°C	86°F	0.99
35°C	95°F	0.98
40°C	104°F	0.97

Projected LED Lumen Maintenance

Data references the extrapolated performance projections for the platforms noted in a **25°C ambient**, based on 10,000 hours of LED testing (tested per IESNA LM-80-08 and projected per IESNA TM-21-11).

To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	Lumen Maintenance Factor
0	1.00
25,000	0.95
50,000	0.90
100,000	0.81

FAO Dimming Settings

FAO Position	% Wattage	% Lumen Output
8	100%	100%
7	93%	95%
6	80%	85%
5	66%	73%
4	54%	61%
3	41%	49%
2	29%	36%
1	15%	20%

*Note: Calculated values are based on original performance package data. When calculating new values for given FAO position, use maximum published values by package listed on specification sheet (input watts and lumens by optic type).

Motion Sensor Default Settings

Option	Unoccupied Dimmed Level	High Level (when occupied)	Photocell Operation	Dwell Time	Ramp-up Time	Dimming Fade Rate
PIR	30%	100%	Enabled @ 2FC	7.5 min	3 sec	5 min
NLTAIR2 PIRHN	30%	100%	Enabled @ 2FC	7.5 min	3 sec	5 min

Controls Options

Nomenclature	Description	Functionality	Primary control device	Notes
FAO	Field adjustable output device installed inside the luminaire; wired to the driver dimming leads.	Allows the luminaire to be manually dimmed, effectively trimming the light output.	FAO device	Cannot be used with other controls options that need the 0-10V leads
DS (not available on DSX0)	Drivers wired independently for 50/50 luminaire operation	The luminaire is wired to two separate circuits, allowing for 50/50 operation.	Independently wired drivers	Requires two separately switched circuits. Consider nLight AIR as a more cost effective alternative.
PERS or PER7	Twist-lock photocell receptacle	Compatible with standard twist-lock photocells for dusk to dawn operation, or advanced control nodes that provide 0-10V dimming signals.	Twist-lock photocells such as DLL Elite or advanced control nodes such as ROAM.	Pins 4 & 5 to dimming leads on driver, Pins 6 & 7 are capped inside luminaire. Cannot be used with other controls options that need the 0-10V leads.
PIR	Motion sensor with integral photocell. Sensor suitable for 8' to 40' mounting height.	Luminaires dim when no occupancy is detected.	Acuity Controls rSBG	Cannot be used with other controls options that need the 0-10V leads.
NLTAIR2 PIRHN	nLight AIR enabled luminaire for motion sensing, photocell and wireless communication.	Motion and ambient light sensing with group response. Scheduled dimming with motion sensor over-ride when wirelessly connected to the nLight Elypse.	nLight Air rSBG	nLight AIR sensors can be programmed and commissioned from the ground using the CIAIRity Pro app. Cannot be used with other controls options that need the 0-10V leads.
BL30 or BL50	Integrated bi-level device that allows a second control circuit to switch all light engines to either 30% or 50% light output	BLC device provides input to 0-10V dimming leads on all drivers providing either 100% or dimmed (30% or 50%) control by a secondary circuit	BLC UVOLT1	BLC device is powered off the 0-10V dimming leads, thus can be used with any input voltage from 120 to 480V

Electrical Load

	Performance Package	LED Count	Drive Current (mA)	Wattage	Current (A)					
					120V	208V	240V	277V	347V	480V
Forward Optics (Non-Rotated)	P1	30	530	51	0.42	0.24	0.21	0.18	0.15	0.11
	P2	30	700	68	0.56	0.33	0.28	0.24	0.20	0.14
	P3	30	1050	104	0.85	0.49	0.43	0.37	0.29	0.21
	P4	30	1250	125	1.03	0.60	0.52	0.45	0.36	0.26
	P5	30	1400	142	1.15	0.66	0.58	0.50	0.40	0.29
	P6	40	1250	167	1.38	0.79	0.69	0.60	0.48	0.34
	P7	40	1400	188	1.54	0.89	0.77	0.67	0.53	0.38
	P8	60	1100	216	1.80	1.04	0.90	0.78	0.62	0.45
	P9	60	1400	279	2.31	1.33	1.15	1.00	0.80	0.58
Rotated Optics (Requires L90 or R90)	P10	60	530	101	0.84	0.49	0.42	0.37	0.29	0.21
	P11	60	700	135	1.12	0.65	0.56	0.49	0.39	0.28
	P12	60	1050	206	1.72	0.99	0.86	0.74	0.59	0.43
	P13	60	1400	279	2.30	1.33	1.15	1.00	0.79	0.57

LED Color Temperature / Color Rendering Multipliers

	70 CRI		80CRI		90CRI	
	Lumen Multiplier	Availability	Lumen Multiplier	Availability	Lumen Multiplier	Availability
5000K	102%	Standard	92%	Extended lead-time	71%	(see note)
4000K	100%	Standard	92%	Extended lead-time	67%	(see note)
3500K	100%	(see note)	90%	Extended lead-time	63%	(see note)
3000K	96%	Standard	87%	Extended lead-time	61%	(see note)
2700K	94%	(see note)	85%	Extended lead-time	57%	(see note)

Note: Some LED types are available as per special request. Contact Technical Support for more information.

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79. Contact factory for performance data on any configurations not shown here.

Forward Optics																			
Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K					40K					50K				
					(3000K, 70 CRI)					(4000K, 70 CRI)					(5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P1	51W	30	530	T1S	7,776	1	0	2	153	8,104	1	0	2	159	8,262	1	0	2	162
				T2M	7,203	1	0	3	142	7,507	2	0	3	147	7,653	2	0	3	150
				T3M	7,287	1	0	3	143	7,594	1	0	3	149	7,742	1	0	3	152
				T3LG	6,509	1	0	1	128	6,783	1	0	1	133	6,916	1	0	1	136
				T4M	7,395	1	0	3	145	7,707	1	0	3	151	7,857	1	0	3	154
				T4LG	6,726	1	0	1	132	7,010	1	0	1	138	7,146	1	0	1	140
				TFTM	7,446	1	0	3	146	7,760	1	0	3	152	7,912	1	0	3	155
				T5M	7,609	3	0	2	149	7,930	3	0	2	156	8,084	3	0	2	159
				T5W	7,732	3	0	2	152	8,058	4	0	2	158	8,215	4	0	2	161
				T5LG	7,631	3	0	1	150	7,953	3	0	1	156	8,108	3	0	1	159
				BLC3	5,300	0	0	2	104	5,524	0	0	2	109	5,631	0	0	2	111
				BLC4	5,474	0	0	3	108	5,705	0	0	3	112	5,816	0	0	3	114
				RCCO	5,348	0	0	2	105	5,573	0	0	2	109	5,682	0	0	2	112
				LCCO	5,348	0	0	2	105	5,573	0	0	2	109	5,682	0	0	2	112
				AFR	7,776	1	0	2	153	8,104	1	0	2	159	8,262	1	0	2	162
				P2	68W	30	700	T1S	9,997	1	0	2	147	10,418	1	0	2	154	10,621
T2M	9,260	2	0					3	137	9,651	2	0	3	142	9,839	2	0	3	145
T3M	9,368	2	0					3	138	9,763	2	0	3	144	9,953	2	0	3	147
T3LG	8,368	1	0					2	123	8,721	1	0	2	129	8,891	1	0	2	131
T4M	9,507	2	0					3	140	9,909	2	0	3	146	10,102	2	0	3	149
T4LG	8,647	1	0					2	128	9,012	1	0	2	133	9,187	1	0	2	136
TFTM	9,573	2	0					3	141	9,977	2	0	3	147	10,172	2	0	3	150
T5M	9,782	4	0					2	144	10,195	4	0	2	150	10,393	4	0	2	153
T5W	9,940	4	0					2	147	10,360	4	0	2	153	10,562	4	0	2	156
T5LG	9,810	3	0					1	145	10,224	3	0	1	151	10,423	3	0	1	154
BLC3	6,814	0	0					2	101	7,101	0	0	2	105	7,240	0	0	2	107
BLC4	7,038	0	0					3	104	7,334	0	0	3	108	7,477	0	0	3	110
RCCO	6,875	1	0					2	101	7,165	1	0	2	106	7,305	1	0	2	108
LCCO	6,875	1	0					2	101	7,165	1	0	2	106	7,305	1	0	2	108
AFR	9,997	1	0					2	147	10,418	1	0	2	154	10,621	1	0	2	157
P3	102W	30	1050					T1S	14,093	2	0	2	138	14,687	2	0	2	144	14,973
				T2M	13,055	2	0	3	128	13,605	2	0	3	133	13,871	2	0	3	136
				T3M	13,206	2	0	4	129	13,763	2	0	4	135	14,031	2	0	4	137
				T3LG	11,797	2	0	2	115	12,294	2	0	2	120	12,534	2	0	2	123
				T4M	13,403	2	0	4	131	13,968	2	0	4	137	14,241	2	0	4	139
				T4LG	12,190	2	0	2	119	12,704	2	0	2	124	12,952	2	0	2	127
				TFTM	13,496	2	0	4	132	14,065	2	0	4	138	14,339	2	0	4	140
				T5M	13,790	4	0	2	135	14,371	4	0	2	141	14,652	4	0	2	143
				T5W	14,013	4	0	3	137	14,605	4	0	3	143	14,889	4	0	3	146
				T5LG	13,830	3	0	2	135	14,413	3	0	2	141	14,694	3	0	2	144
				BLC3	9,606	0	0	2	94	10,011	0	0	2	98	10,206	0	0	2	100
				BLC4	9,921	0	0	3	97	10,340	0	0	3	101	10,541	0	0	3	103
				RCCO	9,692	1	0	2	95	10,101	1	0	2	99	10,298	1	0	2	101
				LCCO	9,692	1	0	2	95	10,101	1	0	2	99	10,298	1	0	2	101
				AFR	14,093	2	0	2	138	14,687	2	0	2	144	14,973	2	0	2	147

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79. Contact factory for performance data on any configurations not shown here.

Forward Optics

Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K					40K					50K								
					(3000K, 70 CRI)					(4000K, 70 CRI)					(5000K, 70 CRI)								
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW				
P4	124W	30	1250	T1S	16,416	2	0	3	132	17,109	2	0	3	138	17,442	2	0	3	141				
				T2M	15,207	3	0	4	123	15,849	3	0	4	128	16,158	3	0	4	130				
				T3M	15,383	2	0	4	124	16,032	2	0	4	129	16,345	2	0	4	132				
				T3LG	13,742	2	0	2	111	14,321	2	0	2	116	14,600	2	0	2	118				
				T4M	15,613	2	0	4	126	16,272	2	0	4	131	16,589	2	0	4	134				
				T4LG	14,200	2	0	2	115	14,799	2	0	2	119	15,087	2	0	2	122				
				TFTM	15,721	2	0	4	127	16,384	2	0	4	132	16,703	2	0	4	135				
				T5M	16,063	4	0	2	130	16,741	4	0	2	135	17,067	4	0	2	138				
				T5W	16,324	5	0	3	132	17,013	5	0	3	137	17,344	5	0	3	140				
				T5LG	16,110	3	0	2	130	16,790	4	0	2	135	17,117	4	0	2	138				
				BLC3	11,190	0	0	3	90	11,662	0	0	3	94	11,889	0	0	3	96				
				BLC4	11,557	0	0	3	93	12,044	0	0	3	97	12,279	0	0	3	99				
				RCCO	11,291	1	0	3	91	11,767	1	0	3	95	11,996	1	0	3	97				
				LCCO	11,291	1	0	3	91	11,767	1	0	3	95	11,996	1	0	3	97				
				AFR	16,416	2	0	3	132	17,109	2	0	3	138	17,442	2	0	3	141				
				P5	138W	30	1400	T1S	18,052	2	0	3	131	18,814	2	0	3	136	19,180	2	0	3	139
								T2M	16,723	3	0	4	121	17,428	3	0	4	126	17,768	3	0	4	129
T3M	16,917	3	0					4	122	17,630	3	0	4	128	17,974	3	0	4	130				
T3LG	15,111	2	0					2	109	15,749	2	0	2	114	16,055	2	0	2	116				
T4M	17,169	3	0					5	124	17,893	3	0	5	130	18,242	3	0	5	132				
T4LG	15,615	2	0					2	113	16,274	2	0	2	118	16,591	2	0	2	120				
TFTM	17,288	2	0					4	125	18,017	2	0	5	130	18,368	3	0	5	133				
T5M	17,664	5	0					3	128	18,410	5	0	3	133	18,768	5	0	3	136				
T5W	17,951	5	0					3	130	18,708	5	0	3	135	19,073	5	0	3	138				
T5LG	17,716	4	0					2	128	18,463	4	0	2	134	18,823	4	0	2	136				
BLC3	12,305	0	0					3	89	12,824	0	0	3	93	13,074	0	0	3	95				
BLC4	12,709	0	0					4	92	13,245	0	0	4	96	13,503	0	0	4	98				
RCCO	12,416	1	0					3	90	12,940	1	0	3	94	13,192	1	0	3	95				
LCCO	12,416	1	0					3	90	12,940	1	0	3	94	13,192	1	0	3	95				
AFR	18,052	2	0					3	131	18,814	2	0	3	136	19,180	2	0	3	139				
P6	165W	40	1250					T1S	21,031	2	0	3	127	21,918	2	0	3	133	22,345	2	0	3	135
								T2M	19,482	3	0	4	118	20,303	3	0	4	123	20,699	3	0	4	125
				T3M	19,708	3	0	5	119	20,539	3	0	5	124	20,939	3	0	5	127				
				T3LG	17,604	2	0	2	107	18,347	2	0	2	111	18,704	2	0	2	113				
				T4M	20,001	3	0	5	121	20,845	3	0	5	126	21,251	3	0	5	129				
				T4LG	18,191	2	0	2	110	18,959	2	0	2	115	19,328	2	0	2	117				
				TFTM	20,140	3	0	5	122	20,989	3	0	5	127	21,398	3	0	5	129				
				T5M	20,579	5	0	3	125	21,447	5	0	3	130	21,865	5	0	3	132				
				T5W	20,912	5	0	3	127	21,795	5	0	3	132	22,219	5	0	3	134				
				T5LG	20,638	4	0	2	125	21,509	4	0	2	130	21,928	4	0	2	133				
				BLC3	14,335	0	0	3	87	14,940	0	0	3	90	15,231	0	0	3	92				
				BLC4	14,805	0	0	4	90	15,430	0	0	4	93	15,731	0	0	4	95				
				RCCO	14,464	1	0	3	88	15,074	1	0	3	91	15,368	1	0	3	93				
				LCCO	14,464	1	0	3	88	15,074	1	0	3	91	15,368	1	0	3	93				
				AFR	21,031	2	0	3	127	21,918	2	0	3	133	22,345	2	0	3	135				

Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79. Contact factory for performance data on any configurations not shown here.

Forward Optics																			
Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K					40K					50K				
					(3000K, 70 CRI)					(4000K, 70 CRI)					(5000K, 70 CRI)				
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
P7	184W	40	1400	T1S	22,741	2	0	3	123	23,700	2	0	3	129	24,162	3	0	3	131
				T2M	21,066	3	0	4	114	21,955	3	0	4	119	22,383	3	0	4	121
				T3M	21,311	3	0	5	116	22,210	3	0	5	120	22,642	3	0	5	123
				T3LG	19,036	2	0	2	103	19,839	2	0	3	108	20,226	2	0	3	110
				T4M	21,628	3	0	5	117	22,541	3	0	5	122	22,980	3	0	5	125
				T4LG	19,671	2	0	2	107	20,501	2	0	3	111	20,900	2	0	3	113
				TFTM	21,778	3	0	5	118	22,697	3	0	5	123	23,139	3	0	5	125
				T5M	22,252	5	0	3	121	23,191	5	0	3	126	23,643	5	0	3	128
				T5W	22,613	5	0	3	123	23,567	5	0	4	128	24,027	5	0	4	130
				T5LG	22,317	4	0	2	121	23,258	4	0	2	126	23,712	4	0	2	129
				BLC3	15,501	0	0	3	84	16,155	0	0	4	88	16,470	0	0	4	89
				BLC4	16,010	0	0	4	87	16,685	0	0	4	90	17,010	0	0	4	92
				RCCO	15,641	1	0	3	85	16,301	1	0	3	89	16,619	1	0	3	90
				LCCO	15,641	1	0	3	85	16,301	1	0	3	89	16,619	1	0	3	90
				AFR	22,741	2	0	3	123	23,700	2	0	3	129	24,162	3	0	3	131
				P8	216W	60	1100	T1S	28,701	3	0	3	133	29,912	3	0	4	139	30,495
T2M	26,587	3	0					5	123	27,709	3	0	5	128	28,249	3	0	5	131
T3M	26,895	3	0					5	125	28,030	3	0	5	130	28,576	3	0	5	132
T3LG	24,025	3	0					3	111	25,038	3	0	3	116	25,526	3	0	3	118
T4M	27,296	3	0					5	127	28,448	3	0	5	132	29,002	3	0	5	134
T4LG	24,826	3	0					3	115	25,873	3	0	3	120	26,378	3	0	3	122
TFTM	27,485	3	0					5	127	28,645	3	0	5	133	29,203	3	0	5	135
T5M	28,084	5	0					4	130	29,269	5	0	4	136	29,839	5	0	4	138
T5W	28,539	5	0					4	132	29,743	5	0	4	138	30,323	5	0	4	141
T5LG	28,165	4	0					2	131	29,354	4	0	2	136	29,926	4	0	2	139
BLC3	19,563	0	0					4	91	20,388	0	0	4	94	20,786	0	0	4	96
BLC4	20,205	0	0					5	94	21,057	0	0	5	98	21,468	0	0	5	99
RCCO	19,740	1	0					4	91	20,572	1	0	4	95	20,973	1	0	4	97
LCCO	19,740	1	0					4	91	20,572	1	0	4	95	20,973	1	0	4	97
AFR	28,701	3	0					3	133	29,912	3	0	4	139	30,495	3	0	4	141
P9	277W	60	1400					T1S	34,819	3	0	4	126	36,288	3	0	4	131	36,996
				T2M	32,255	3	0	5	116	33,616	3	0	5	121	34,271	3	0	5	124
				T3M	32,629	3	0	5	118	34,006	3	0	5	123	34,668	3	0	5	125
				T3LG	29,146	3	0	3	105	30,376	3	0	4	110	30,968	3	0	4	112
				T4M	33,116	3	0	5	120	34,513	3	0	5	125	35,185	3	0	5	127
				T4LG	30,119	3	0	3	109	31,389	3	0	4	113	32,001	3	0	4	116
				TFTM	33,345	3	0	5	120	34,751	3	0	5	125	35,429	3	0	5	128
				T5M	34,071	5	0	4	123	35,509	5	0	4	128	36,201	5	0	4	131
				T5W	34,624	5	0	4	125	36,084	5	0	4	130	36,788	5	0	4	133
				T5LG	34,170	5	0	3	123	35,612	5	0	3	129	36,306	5	0	3	131
				BLC3	23,734	0	0	4	86	24,735	0	0	4	89	25,217	0	0	4	91
				BLC4	24,513	0	0	5	88	25,547	0	0	5	92	26,045	0	0	5	94
				RCCO	23,948	1	0	4	86	24,958	1	0	4	90	25,445	1	0	4	92
				LCCO	23,948	1	0	4	86	24,958	1	0	4	90	25,445	1	0	4	92
				AFR	34,819	3	0	4	126	36,288	3	0	4	131	36,996	3	0	4	134

Performance Data

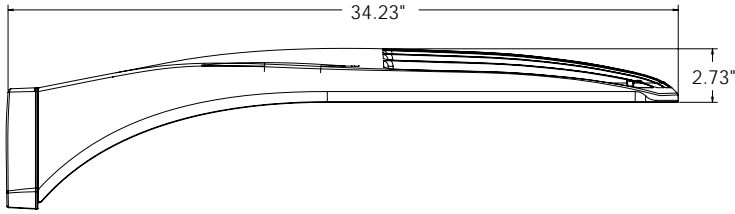
Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of configurations shown within the tolerances described within LM-79. Contact factory for performance data on any configurations not shown here.

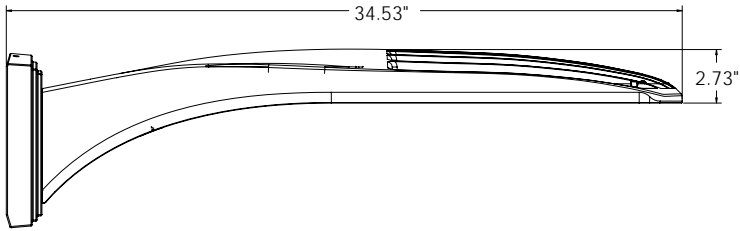
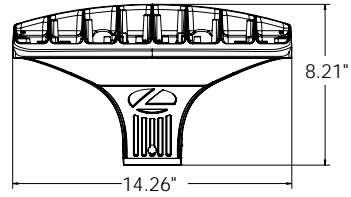
Rotated Optics																							
Performance Package	System Watts	LED Count	Drive Current (mA)	Distribution Type	30K					40K					50K								
					(3000K, 70 CRI)					(4000K, 70 CRI)					(5000K, 70 CRI)								
					Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW				
P10	101W	60	530	T1S	15,164	3	0	3	150	15,803	3	0	3	156	16,112	3	0	3	159				
				T2M	14,047	4	0	4	139	14,640	4	0	4	145	14,925	4	0	4	147				
				T3M	14,208	4	0	4	140	14,807	4	0	4	146	15,096	4	0	4	149				
				T3LG	12,693	3	0	3	125	13,229	3	0	3	131	13,487	3	0	3	133				
				T4M	14,420	4	0	4	142	15,028	4	0	4	148	15,321	4	0	4	151				
				T4LG	13,115	3	0	3	129	13,668	3	0	3	135	13,934	3	0	3	138				
				TFTM	14,522	4	0	4	143	15,134	4	0	4	149	15,429	4	0	4	152				
				T5M	14,836	4	0	2	146	15,462	4	0	2	153	15,763	4	0	2	156				
				T5W	15,076	4	0	3	149	15,712	5	0	3	155	16,019	5	0	3	158				
				T5LG	14,879	3	0	2	147	15,507	3	0	2	153	15,809	3	0	2	156				
				BLC3	10,335	3	0	3	102	10,771	4	0	4	106	10,981	4	0	4	108				
				BLC4	10,674	4	0	4	105	11,124	4	0	4	110	11,341	4	0	4	112				
				RCCO	10,429	1	0	2	103	10,869	1	0	2	107	11,080	1	0	2	109				
				LCCO	10,429	1	0	2	103	10,869	1	0	2	107	11,080	1	0	2	109				
				AFR	15,164	3	0	3	150	15,803	3	0	3	156	16,112	3	0	3	159				
				P11	135W	60	700	T1S	19,437	4	0	4	144	20,257	4	0	4	150	20,651	4	0	4	153
								T2M	18,005	4	0	4	133	18,765	4	0	4	139	19,131	4	0	4	142
T3M	18,211	4	0					4	135	18,980	4	0	4	141	19,350	4	0	4	143				
T3LG	16,270	3	0					3	121	16,957	3	0	3	126	17,287	4	0	4	128				
T4M	18,483	4	0					4	137	19,263	5	0	5	143	19,638	5	0	5	146				
T4LG	16,810	3	0					3	125	17,519	3	0	3	130	17,861	3	0	3	132				
TFTM	18,614	4	0					4	138	19,399	4	0	4	144	19,777	5	0	5	147				
T5M	19,017	5	0					3	141	19,819	5	0	3	147	20,205	5	0	3	150				
T5W	19,325	5	0					3	143	20,140	5	0	3	149	20,533	5	0	3	152				
T5LG	19,072	4	0					2	141	19,876	4	0	2	147	20,264	4	0	2	150				
BLC3	13,247	4	0					4	98	13,806	4	0	4	102	14,075	4	0	4	104				
BLC4	13,682	4	0					4	101	14,259	4	0	4	106	14,537	4	0	4	108				
RCCO	13,367	1	0					3	99	13,931	1	0	3	103	14,203	1	0	3	105				
LCCO	13,367	1	0					3	99	13,931	1	0	3	103	14,203	1	0	3	105				
AFR	19,437	4	0					4	144	20,257	4	0	4	150	20,651	4	0	4	153				
P12	206W	60	1050					T1S	27,457	4	0	4	133	28,616	4	0	4	139	29,174	4	0	4	142
								T2M	25,436	5	0	5	124	26,509	5	0	5	129	27,025	5	0	5	131
				T3M	25,727	5	0	5	125	26,812	5	0	5	130	27,335	5	0	5	133				
				T3LG	22,984	4	0	4	112	23,954	4	0	4	116	24,421	4	0	4	119				
				T4M	26,110	5	0	5	127	27,212	5	0	5	132	27,742	5	0	5	135				
				T4LG	23,747	4	0	4	115	24,749	4	0	4	120	25,231	4	0	4	123				
				TFTM	26,295	5	0	5	128	27,404	5	0	5	133	27,938	5	0	5	136				
				T5M	26,864	5	0	4	130	27,997	5	0	4	136	28,543	5	0	4	139				
				T5W	27,299	5	0	4	133	28,451	5	0	4	138	29,006	5	0	4	141				
				T5LG	26,942	4	0	2	131	28,078	4	0	2	136	28,626	4	0	2	139				
				BLC3	18,714	4	0	4	91	19,504	4	0	4	95	19,884	4	0	4	97				
				BLC4	19,327	5	0	5	94	20,143	5	0	5	98	20,535	5	0	5	100				
				RCCO	18,883	1	0	4	92	19,680	1	0	4	96	20,064	1	0	4	97				
				LCCO	18,883	1	0	4	92	19,680	1	0	4	96	20,064	1	0	4	97				
				AFR	27,457	4	0	4	133	28,616	4	0	4	139	29,174	4	0	4	142				
				P13	276W	60	1400	T1S	34,436	5	0	5	125	35,889	5	0	5	130	36,588	5	0	5	133
								T2M	31,900	5	0	5	116	33,246	5	0	5	121	33,894	5	0	5	123
T3M	32,265	5	0					5	117	33,626	5	0	5	122	34,282	5	0	5	124				
T3LG	28,826	4	0					4	105	30,042	4	0	4	109	30,628	4	0	4	111				
T4M	32,746	5	0					5	119	34,128	5	0	5	124	34,793	5	0	5	126				
T4LG	29,782	4	0					4	108	31,039	4	0	4	113	31,644	5	0	4	115				
TFTM	32,978	5	0					5	120	34,369	5	0	5	125	35,039	5	0	5	127				
T5M	33,692	5	0					4	122	35,113	5	0	4	127	35,797	5	0	4	130				
T5W	34,238	5	0					4	124	35,682	5	0	4	129	36,378	5	0	4	132				
T5LG	33,789	5	0					3	122	35,215	5	0	3	128	35,901	5	0	3	130				
BLC3	23,471	5	0					5	85	24,461	5	0	5	89	24,937	5	0	5	90				
BLC4	24,240	5	0					5	88	25,262	5	0	5	92	25,755	5	0	5	93				
RCCO	23,683	1	0					4	86	24,682	1	0	4	89	25,163	1	0	4	91				
LCCO	23,683	1	0					4	86	24,682	1	0	4	89	25,163	1	0	4	91				
AFR	34,436	5	0					5	125	35,889	5	0	5	130	36,588	5	0	5	133				



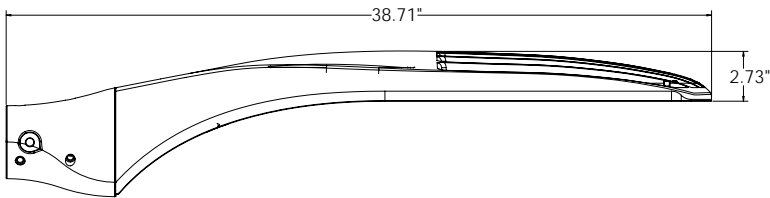
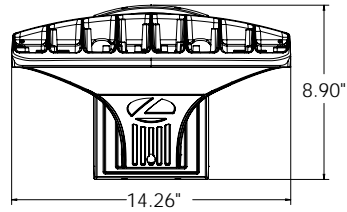
Dimensions



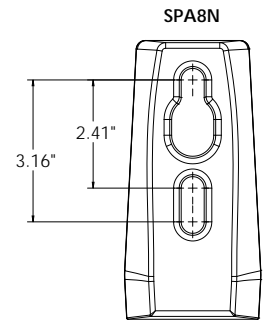
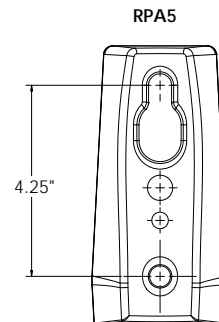
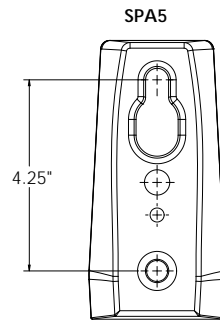
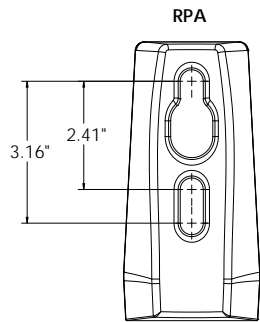
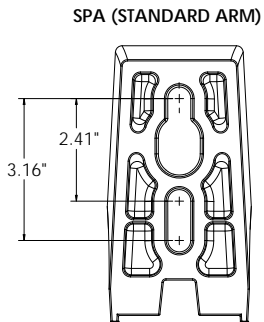
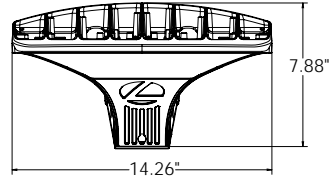
DSX1 with RPA, RPA5, SPA5, SPA8N mount
Weight: 36 lbs



DSX1 with WBA mount
Weight: 38 lbs

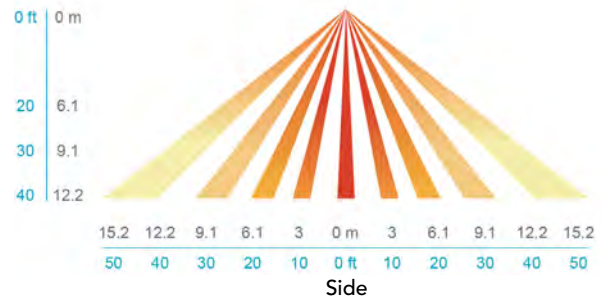
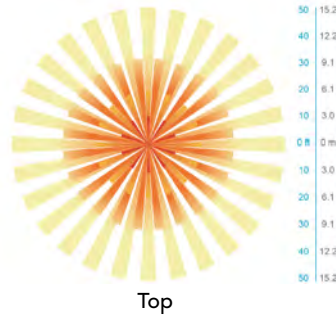


DSX1 with MA mount
Weight: 39 lbs



nLight Sensor Coverage Pattern

NLTAIR2 PIRHN



FEATURES & SPECIFICATIONS

INTENDED USE

The sleek design of the D-Series Size 1 reflects the embedded high performance LED technology. It is ideal for many commercial and municipal applications, such as parking lots, plazas, campuses, and streetscapes.

CONSTRUCTION

Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED drivers are mounted in direct contact with the casting to promote low operating temperature and long life. Housing driver compartment is completely sealed against moisture and environmental contaminants (IP66). Vibration rated per ANSI C136.31 for 3G for SPA and MA. 1.5G for mountings RPA, RPA5, SPA5 and SPA8N. Low EPA (0.69 ft²) for optimized pole wind loading.

FINISH

Exterior parts are protected by a zinc-infused Super Durable TGIC thermoset powder coat finish that provides superior resistance to corrosion and weathering. A tightly controlled multi-stage process ensures a minimum 3 mils thickness for a finish that can withstand extreme climate changes without cracking or peeling. Available in both textured and non-textured finishes.

Coastal Construction (CCE)

Optional corrosion resistant construction is engineered with added corrosion protection in materials and/or pre-treatment of base material under super durable paint. Provides additional corrosion protection for applications near coastal areas. Finish is salt spray tested to over 5,000 hours per ASTM B117 with scribe rating of 10. Additional lead-times may apply.

OPTICS

Precision-molded proprietary silicone lenses are engineered for superior area lighting distribution, uniformity, and pole spacing. Light engines are available in standard 3000 K, 4000 K and 5000 K (70 CRI) configurations. 80CRI configurations are also available. The D-Series Size 1 has zero uplight and qualifies as a Nighttime Friendly™ product, meaning it is consistent with the LEED® and Green Globes™ criteria for eliminating wasteful uplight.

ELECTRICAL

Light engine configurations consist of high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L81/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

STANDARD CONTROLS

The DSX1 LED area luminaire has a number of control options. DSX Size 1, comes standard with 0-10V dimming drivers. Dusk to dawn controls can be utilized via optional NEMA twist-lock photocell receptacles. Integrated motion sensor with on-board photocells feature field-adjustable programming and are suitable for mounting heights up to 40 feet. Control option BL features a bi-level device that allows a second control circuit to switch all light engines to either 30% or 50% light output.

nLIGHT AIR CONTROLS

The DSX1 LED area luminaire is also available with nLight® AIR for the ultimate in wireless control. This powerful controls platform provides out-of-the-box basic motion sensing and photocontrol functionality and is suitable for mounting heights up to 40 feet. Once commissioned using a smartphone and the easy-to-use CLAIRITY app, nLight AIR equipped luminaires can be grouped, resulting in motion sensor and photocell group response without the need for additional equipment. Scheduled dimming with motion sensor over-ride can be achieved when used with the nLight Eclipse. Additional information about nLight Air can be found here.

INSTALLATION

Integral mounting arm allows for fast mounting using Lithonia standard #8 drilling and accommodates pole drilling's from 2.41 to 3.12" on center. The standard "SPA" option for square poles and the "RPA" option for round poles use the #8 drilling. For #5 pole drillings, use SPA5 or RPA5. Additional mountings are available including a wall bracket (WBA) and mast arm (MA) option that allows luminaire attachment to a 2 3/8" horizontal mast arm.

LISTINGS

UL listed to meet U.S. and Canadian standards. UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP66 rated. Rated for -40°C minimum ambient.

DesignLights Consortium® (DLC) Premium qualified product and DLC qualified product. Not all versions of this product may be DLC Premium qualified or DLC qualified. Please check the DLC Qualified Products List at www.designlights.org/QPL to confirm which versions are qualified.

International Dark-Sky Association (IDA) Fixture Seal of Approval (FSA) is available for all products on this page utilizing 3000K color temperature only.

BUY AMERICAN ACT

Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY

5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed. Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application. All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

Application

Wall luminaires with single-sided light output designed to provide up or down lighting effects for interior and exterior locations.

Materials

Luminaire housing and faceplate constructed of die-cast marine grade, copper free ($\leq 0.3\%$ copper content) A360.0 aluminum alloy
 Clear safety glass
 Reflector made of pure anodized aluminum
 High temperature silicone gasket
 Mechanically captive stainless steel fasteners

NRTL listed to North American Standards, suitable for wet locations
 Protection class IP65
 Weight: 4.4lbs

Electrical

Operating voltage 120-277VAC
 Minimum start temperature -30°C
 LED module wattage 7.9W
 System wattage 10.5W
 Controllability 0-10V dimmable
 Color rendering index $Ra > 80$
 Luminaire lumens 652 lumens (3000K)
 LED service life (L70) 60,000 hours

LED color temperature

4000K - Product number + **K4 (EXPRESS)**
 3500K - Product number + **K35**
 3000K - Product number + **K3 (EXPRESS)**
 2700K - Product number + **K27**
 Amber - Product number + **AMB**

Wildlife friendly amber LED - Optional

Luminaire is optionally available with a narrow bandwidth, amber LED source (585-600nm) approved by the FWC. This light output is suggested for use within close proximity to sea turtle nesting and hatching habitats. Electrical and control information may vary from standard luminaire.

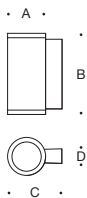
LED module wattage 9.0W (Amber)
 System wattage 11.6W (Amber)
 Luminaire lumens 220 lumens (Amber)

BEGA can supply you with suitable LED replacement modules for up to 20 years after the purchase of LED luminaires - see website for details

Finish

All BEGA standard finishes are matte, textured polyester powder coat with minimum 3 mil thickness.

Available colors Black (BLK) White (WHT) RAL:
 Bronze (BRZ) Silver (SLV) CUS :



Wall luminaire - single-sided output

	LED	β	A	B	C	D	Required wiring box
66 655	7.9W	19.5°	$4\frac{3}{8}$	9	$6\frac{3}{8}$	$1\frac{1}{8}$	19 537

β = Beam angle

BEGA 1000 BEGA Way, Carpinteria, CA 93013 (805) 684-0533 info@bega-us.com

Due to the dynamic nature of lighting products and the associated technologies, luminaire data on this sheet is subject to change at the discretion of BEGA North America. For the most current technical data, please refer to bega-us.com
 © copyright BEGA 2018 Updated 03/19/19

Type:

BEGA Product:

Project:

Modified:

Available Accessories

79 547 Surface mounted wiring box

See individual accessory spec sheet for details.



FEATURES & SPECIFICATIONS

INTENDED USE — Typical applications include corridors, lobbies, conference rooms and private offices.

CONSTRUCTION — Galvanized steel mounting/plaster frame; galvanized steel junction box with bottom-hinged access covers and spring latches. Reflectors are retained by torsion springs.

Vertically adjustable mounting brackets with commercial bar hangers provide 3-3/4" total adjustment.

Two combination 1/2"-3/4" and four 1/2" knockouts for straight-through conduit runs. Capacity: 8 (4 in, 4 out). No. 12 AWG conductors, rated for 90°C.

Accommodates 12"-24" joist spacing.

Passive cooling thermal management for 25°C standard; high ambient (40°C) option available. Light engine and drivers are accessible from above or below ceiling.

Max ceiling thickness 1-1/2".

OPTICS — LEDs are binned to a 3-step MacAdam Ellipse; 80 CRI minimum. 90 CRI optional.

LED light source concealed with diffusing optical lens.

General illumination lighting with 1.0 S/MH and 55° cutoff to source and source image.

Self-flanged anodized reflectors in specular, semi-specular, or matte diffuse finishes. Also available in white and black painted reflectors.

A+ CAPABLE LUMINAIRE — This item is an A+ capable luminaire, which has been designed and tested to provide consistent color appearance and out-of-the-box control compatibility with simple commissioning when used with Acuity Brands controls products. All configurations of this luminaire are calibrated and tested to meet the Acuity Brands' specifications for chromatic consistency – including color rendering, color fidelity and color temperature tolerance around standard CIE chromaticity coordinates. To learn more about A+ standards, specifications, and testing visit www.acuitybrands.com/aplus.

UGR — UGR is zero for fixtures aimed at nadir with a cut-off equal to or less than 60deg, per CIE 117-1996 Discomfort Glare in Interior Lighting.

ELECTRICAL — Multi-volt (120-277V, 50/60Hz) 0-10V dimming drivers mounted to junction box, 10% or 1% minimum dimming level available.

0-10V dimming fixture requires two (2) additional low-voltage wires to be pulled.

LUMEN MAINTENANCE — 70% lumen maintenance at 60,000 hours. L70/60,000 hours

LISTINGS — Certified to US and Canadian safety standards. Wet location standard (covered ceiling). IP55 rated. ENERGY STAR® certified product. Drivers are RoHS compliant

BUY AMERICAN ACT — Product with the BAA option is assembled in the USA and meets the Buy America(n) government procurement requirements under FAR, DFARS and DOT regulations. Please refer to www.acuitybrands.com/buy-american for additional information.

WARRANTY — 5-year limited warranty. This is the only warranty provided and no other statements in this specification sheet create any warranty of any kind. All other express and implied warranties are disclaimed.

Complete warranty terms located at: www.acuitybrands.com/support/warranty/terms-and-conditions

Note: Actual performance may differ as a result of end-user environment and application.

All values are design or typical values, measured under laboratory conditions at 25 °C. Specifications subject to change without notice.

PERFORMANCE DATA

LDN6 3500K AR LSS 80CRI			
Nominal Lumens	Lumens	Wattage	Lm/W
500	527.9	5.8	90.5
750	758.1	8.9	85.1
1000	950.1	10.4	91.0
1500	1514	17.5	86.4
2000	2006	22.5	89.1
2500	2504	28.3	88.6
3000	3021	34.8	86.9
4000	4008	44.3	90.6
5000	4975	57.7	86.3

Notes

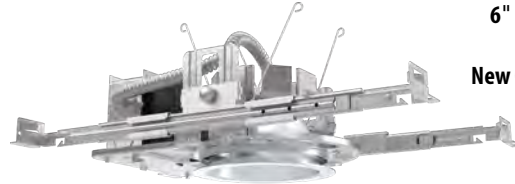
- Tested in accordance with IESNA LM-79-08.
- Tested to current IES and NEMA standards under stabilized laboratory conditions.
- CRI: 80 typical.



Catalog Number
Notes
Type

LDN6 STATIC WHITE

6" Open and Wallwash LED
Non-IC
New Construction Downlight

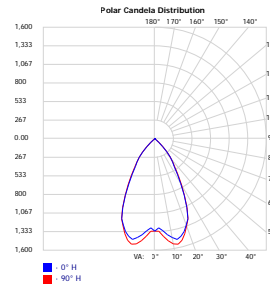


Open Trim

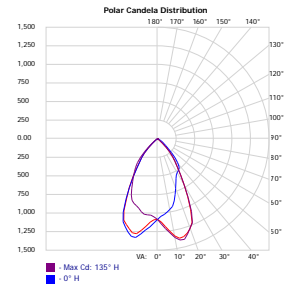


Wallwash Trim

DISTRIBUTIONS



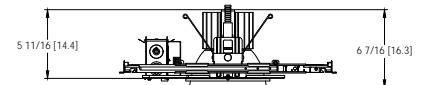
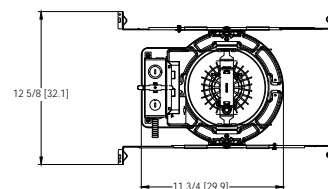
Open



Wallwash

DIMENSIONS

LDN6 500-3000 Lumens



Aperture: Ø 6-1/4" [15.9]
Ceiling Cutout: Ø 7-1/8" [18.1] Self-flanged
Overlap Trim: Ø 7-1/2" [19.1]

See page 4 for other fixture dimensions

ORDERING INFORMATION

Lead times will vary depending on options selected. Consult with your sales representative.

Example: LDN6 35/15 L06 AR LSS MVOLT EZ10

LDN6 Series	Color temperature	Lumens ‡	Trim Style	Trim Color	Trim Finish	Flange Color ‡	Voltage
LDN6 6" round	27/ 2700K 30/ 3000K 35/ 3500K 40/ 4000K 50/ 5000K	05 500 lumens 07 750 lumens 10 1000 lumens 15 1500 lumens 20 2000 lumens 25 2500 lumens 30 3000 lumens 40 4000 lumens 50 5000 lumens	L06 Downlight LW6 Wallwash	AR Clear WR ‡ White BR ‡ Black TCPC ‡ Custom painted trim TRALTBD ‡ RAL painted trim	LSS Semi-specular LD Matte diffuse LS Specular	TRW White painted flange TRBL Black painted flange FCPC Custom painted flange only FRALTBD RAL painted flange only	MVOLT Multi-volt 120 120V 277 277V 347 ‡ 347V

Driver	Emergency ‡	Control Input ‡	Options
GZ10 0-10V driver dims to 10%	(blank) No Emergency Needed	(blank) No Control Input Needed	HAO ‡ High ambient option (40°C)
GZ1 0-10V driver dims to 1%	EL Battery pack (10W constant power), non-T20 compliant, integral test switch	JOT Wireless room control with "Just One Touch" pairing	CP ‡ Chicago Plenum
D10 Minimum dimming 10% driver for use with JOT	ELR Battery pack (10W constant power), non-T20 compliant, remote test switch	NPP16D nLight® network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1).	RRL___ RELOC®-ready luminaire connectors enable a simple and consistent factory installed option across all ABL luminaire brands. Refer to RRL for complete nomenclature. Available only in RRLA, RRLB, RRLAE, and RRLC12S.
D1 Minimum dimming 1% driver for use with JOT	ELSD Self-diagnostic battery pack (10W constant power), non-T20 compliant, integral test switch	NPP16DER nLight® network power/relay pack with 0-10V dimming for non-eldoLED drivers (GZ10, GZ1). ER controls fixtures on emergency circuit.	BAA Buy America(n) Act Compliant
EZ1 0-10V eldoLED driver with smooth and flicker-free deep dimming performance down to 1% eldoLED DALI SOLDRIVE dim to dark	ELRSD Self-diagnostic battery pack (10W constant power), non-T20 compliant, remote test switch	NPS80EZ nLight® dimming pack controls 0-10V eldoLED drivers (EZ1).	90CRI High CRI (90+)
EDAB eldoLED DALI SOLDRIVE dim to dark	E10WCP Battery pack (10W constant power), T20 compliant, integral test switch	NPS80EZER nLight® dimming pack controls 0-10V eldoLED drivers (EZ1). ER controls fixtures on emergency circuit.	SF ‡ Single fuse
	E10WCPR Battery pack (10W constant power), T20 compliant, remote test switch	N80 nLight™ Lumen Compensation	
	E10WRSTAR Emergency battery pack, 10W with remote test switch and Iota STAR technology	NLTAIR2 nLight® Air enabled	
		NLTAIRER2 nLight® AIR Dimming Pack Wireless Controls. Controls fixtures on emergency circuit, not available with battery pack options	
		NLTAIREM2 nLight® AIR Dimming Pack Wireless Controls. UL924 Emergency Operation, via power interrupt detection. Available with battery pack options.	

‡ Option Value Ordering Restrictions

Option value	Restriction
Lumens	Overall height varies based on lumen package; refer to dimensional chart.
WR, BR	Not available with finishes.
347	Not available with emergency options.
SF	Must specify voltage 120V or 277V.
TRW, TRBL	Available with clear (AR) reflector only.
EL, ELR, ELSD, ELRSD, E10WCP, E10WCPR	12.5" of plenum depth or top access required for battery pack maintenance.
NPP16D, NPP16DER, NPS80EZ, NPS80EZER	Specify voltage. ER for use with generator supply EM power. Will require an emergency hot feed and normal hot feed. See UL 924 Sequence of Operation table.
N80	Fixture begins at 80% light level. Must be specified with NPS80EZ or NPS80EZ ER. Only available with EZ1 drivers.
NLTAIR, NLTAIR2, NLTAIRER2, NLTAIREM2	Not available with CP, NPS80EZ, NPS80EZER, NPP16D, NPP16DER or N80 options. not recommended for metal ceiling installations.
HAO	Fixture height is 6.5" for all lumen packages with HAO.
CP	Must specify voltage for 3000lm and above. 5000lm with marked spacing 24 L x 24 W x 14 H. Not available with emergency battery pack option.
JOT	Must specify D10 or D1 driver. Not available with nLight options. Not available with CP. Not recommended for metal ceiling installation. Not for use with emergency backup power systems other than battery packs.
Reloc® Options	Refer to RRL specification sheet on acuitybrands.com for further details.
RRLAE	Commercial fixtures should disconnect the TSPL before unplugging the RRL so it does not go into discharge mode.
RRLC12S	RRLC12S option is to be used with the OnePass OCU, OCS, OD, OFC and OD for 0-24V integrated single-circuit or 0-10V low voltage controls applications. Not available with integral dimming sensors.
TRALTBD, FRALTBD	RALTBD for pricing only. Replace with applicable RAL number and finish when ready to order. See the RAL BROCHURE for available color options.
TCPC, FCPC	CPC options for pricing only. Custom color chip needs to be sent in to your Customer Resolution specialist before order can be processed. Click HERE for more details
E10WRSTAR	Not available with wet location, EC1, EC6, QDS, CP, 347V, NPS80EZ ER, NLTAIRER2, NLTAIREM2, AL03 & AL04 w/DALI, OR 2000-4500 lumens w/JOT. Top access installation or 17.5" plenum clearance required for roomside installation. Not available with integral test switch

Accessories: Order as separate catalog number.

EAC ISSM 375	Compact interruptible emergency AC power system	SCA6 Sloped Ceiling Adapter. Degree of slope must be specified (5D, 10D, 15D, 20D, 25D, 30D). Ex: SCA6 10D
EAC ISSM 125	Compact interruptible emergency AC power system	
GRA68 JZ	Oversized trim ring with 8" outside diameter	



Items marked by a shaded background qualify for the Design Select program and ship in 15 days or less. To learn more about Design Select, visit www.acuitybrands.com/designselect. *See ordering tree for details

(Maximum order quantity for design select lead times is 112.)

Emergency Battery Pack Options - Field Installable

Battery Model Number	Wattage	Runtime (Minutes)	Lumen Output* @ 120 Lumens/Watt	Other
ILB CP07 2H A	7W	120	840	Storm Shelter / 2 Hour Runtime
ILB CP10 A	10W	90	1200	
ILBLP CP10 HE SD A+	10W	90	1200	Title 20, Self Diagnostic
ILBLP CP15 HE SD A+	15W	90	1800	Title 20, Self Diagnostic
ILB CP20 HE A	20W	90	2400	Title 20
ILB CP20 HE SD A	20W	90	2400	Title 20, Self Diagnostic
ILBHI CP10 HE SD A+	10W	90	1200	347-480V AC Input, Title 20, Self Diagnostic
ILBHI CP15 HE SD A+	15W	90	1800	347-480V AC Input, Title 20, Self Diagnostic

All the above are UL Listed products that are certified for field install external/remote to the fixture.

*Minimum delivered lumen output to assist in product selection for increased fixture mounting height.

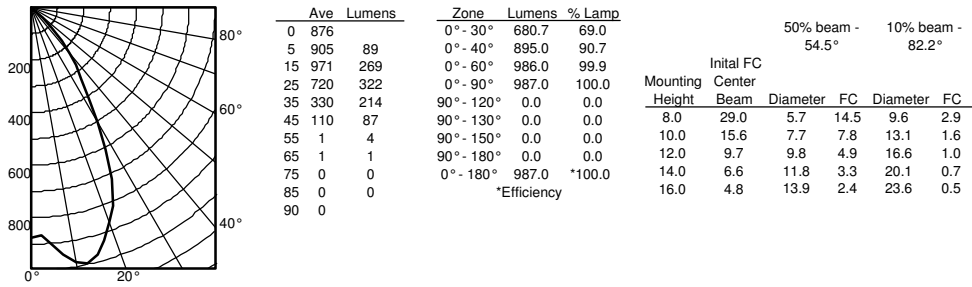
The CP10 delivered emergency illumination outperforms legacy 1400 lumen fluorescent emergency ballast.

Please contact us at techsupport@iotaengineering.com for any Emergency Battery related questions.

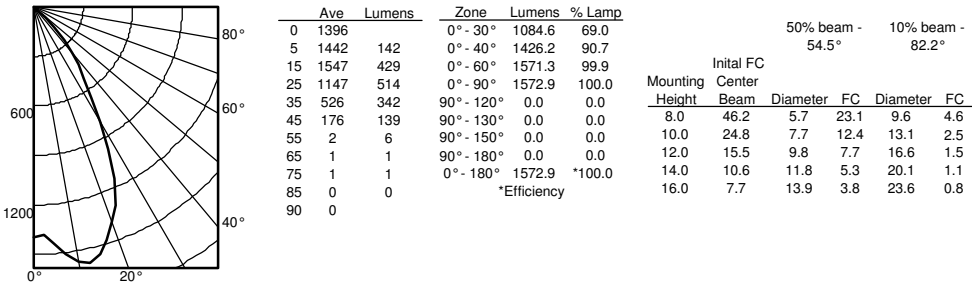
PHOTOMETRY

Distribution Curve Distribution Data Output Data Illuminance Data at 30" Above Floor for a Single Luminaire

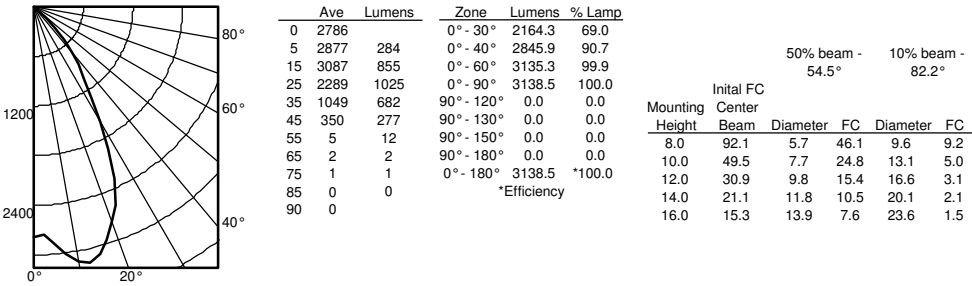
LDN6 35/10 L06AR, input watts: 10.44, delivered lumens: 987.10, LM/W = 94.54, spacing criterion at 0= 1.02, test no. ISF 30716P262.



LDN6 35/15 L06AR, input watts: 17.52, delivered lumens: 1572.9, LM/W = 89.77, spacing criterion at 0= 1.02, test no. ISF 30716P265.



LDN6 35/30 L06AR, input watts: 34.75, delivered lumens: 3138.5, LM/W = 90.31, spacing criterion at 0= 1.02, test no. ISF 30716P274.



HOW TO ESTIMATE DELIVERED LUMENS IN EMERGENCY MODE

Use the formula below to estimate the delivered lumens in emergency mode

Delivered Lumens = 1.25 x P x LPW

P = Output power of emergency driver. P = 10W for PS1055CP

LPW = Lumen per watt rating of the luminaire. This information is available on the ABL luminaire spec sheet.

The LPW rating is also available at Designlight Consortium.

Notes

- Tested in accordance with IESNA LM-79-08.
- Tested to current IES and NEMA standards under stabilized laboratory conditions.
- CRI: 80 typical.

LUMEN OUTPUT MULTIPLIERS - FINISH			
	Clear (AR)	White (WR)	Black (BR)
Specular (LS)	1.0	N/A	N/A
Semi-specular (LSS)	0.950	N/A	N/A
Matte diffuse (LD)	0.85	N/A	N/A
Painted	N/A	0.87	0.73

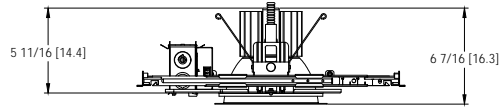
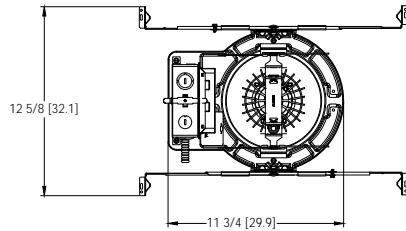
LUMEN OUTPUT MULTIPLIERS - CRI	
80	1.0
90	0.874

LUMEN OUTPUT MULTIPLIERS - CCT					
	2700K	3000K	3500K	4000K	5000K
80CRI	0.950	0.966	1.000	1.025	1.101

LDN6

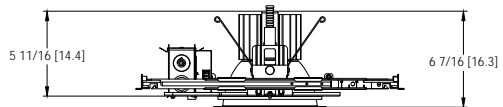
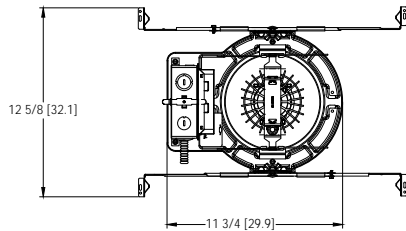
* All dimensions are inches (centimeters) unless otherwise noted.

LDN6 500-3000 Lumens



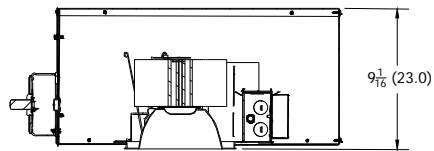
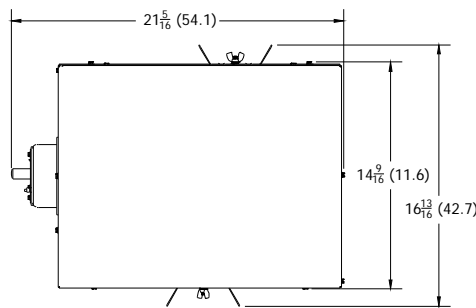
Aperture: \varnothing 6-1/4" [15.9]
 Ceiling Cutout: \varnothing 7-1/8" [18.1] Self-flanged
 Overlap Trim: \varnothing 7-1/2" [19.1]

LDN6 4000-5000 Lumens



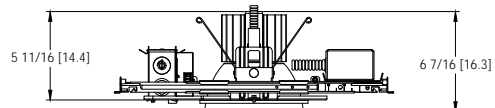
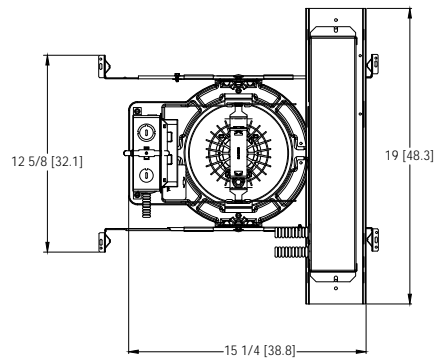
Marked Spacing: 24" x 24" x 10"
 Aperture: \varnothing 6-1/4" [15.9]
 Ceiling Cutout: \varnothing 7-1/8" [18.1] Self-flanged
 Overlap Trim: \varnothing 7-1/2" [19.1]

LDN6 CP



Aperture: 6-1/4 (15.9)
 Ceiling Opening: 7-1/8 (18.1)
 Overlap Trim: 7-1/2 (19.1)

LDN6 EL



Marked Spacing above 3000lm: 24" x 24" x 10"
 Aperture: \varnothing 6-1/4" [15.9]
 Ceiling Cutout: \varnothing 7-1/8" [18.1] Self-flanged
 Overlap Trim: \varnothing 7-1/2" [19.1]

ADDITIONAL DATA



The Sensor Switch JOT enabled solution offers a wireless, app-free approach to single room lighting control. JOT enabled products use Bluetooth® Low Energy (BLE) technology to enable wireless dimming and switching.

Diagram



LDN6 Series



Sensor Switch
WSXA JOT

1. **Power:** Install JOT enabled fixtures and controls as instructed.
2. **Pair:** Insert the pairing tool into the pinhole on the wall switch; press and hold any button for 6 seconds.
3. **Play:** Once paired, each fixture will individually dim down to 10% brightness. All products will be fully functional.

COMPATIBLE 0-10V WALL-MOUNT DIMMERS		
MANUFACTURER	PART NO.	POWER BOOSTER AVAILABLE
Lutron®	Diva® DVTV	
	Diva® DVSCTV	
	Nova T® NTFTV	
	Nova® NFTV	
Leviton®	AWSMT-7DW	CN100
	AWSMG-7DW	PE300
	AMRMG-7DW	
	Leviton Centura Fluorescent Control System	
	IllumaTech® IP7 Series	
Synergy®	ISD BC	RDMFC
	SLD LPCS	
	Digital Equinox (DEQ BC)	
Douglas Lighting Controls	WPC-5721	
Entertainment Technology	Tap Glide TG600FAM120 (120V)	
	Tap Glide Heatsink TGH1500FAM120 (120V)	
	Oasis OA2000FAMU	
Honeywell	EL7315A1019	EL7305A1010 (optional)
	EL7315A1009	
HUNT Dimming	Preset slide: PS-010-IV and PS-010-WH	
	Preset slide: PS-010-3W-IV and PS-010-3W-WH	
	Preset slide, controls FD-010: PS-IFC-010-IV and PS-IFC-010-WH-120/277V	
	Preset slide, controls FD-010: PS-IFC-010-3W-IV and PS-IFC-010-3W-WH-120/277V	
	Remote mounted unit: FD-010	
Lehigh Electronic Products	Solitaire	PBX
PDM Electrical Products	WPC-5721	
Starfield Controls	TR61 with DALI interface port	RT03 DALI.net Router
WattStopper®	LS-4 used with LCD-101 and LCD-103	

EXAMPLE

Group Fixture Control*

*Application diagram applies for fixtures with eldoLED drivers only.

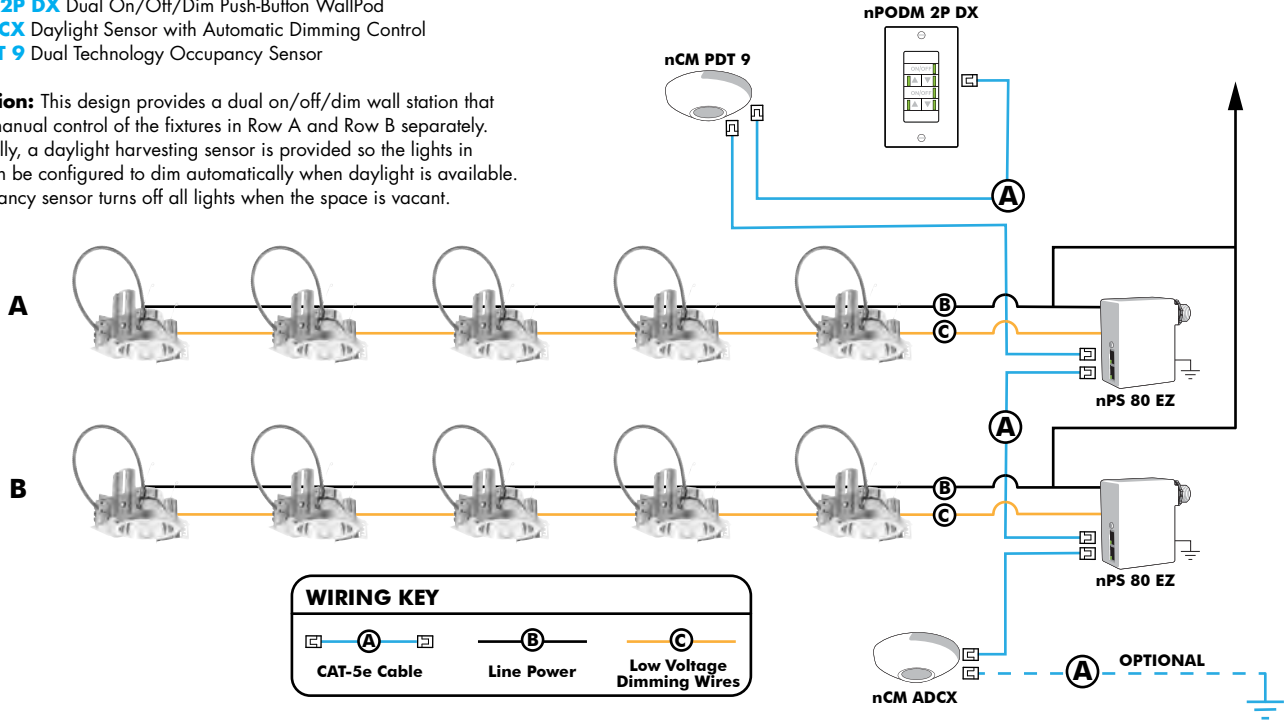
nPS 80 EZ Dimming/Control Pack (qty: 2 required)

nPODM 2P DX Dual On/Off/Dim Push-Button WallPod

nCM ADCX Daylight Sensor with Automatic Dimming Control

nCM PDT 9 Dual Technology Occupancy Sensor

Description: This design provides a dual on/off/dim wall station that enables manual control of the fixtures in Row A and Row B separately. Additionally, a daylight harvesting sensor is provided so the lights in Row B can be configured to dim automatically when daylight is available. An occupancy sensor turns off all lights when the space is vacant.



Choose Wall Controls

nLight offers multiple styles of wall controls - each with varying features and user experience.



Push-Button Wallpod
Traditional tactile buttons and LED user feedback



Graphic Wallpod
Full color touch screen provides a sophisticated look and feel

nLight® Wired Controls Accessories:

Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlight for complete listing of nLight controls.

WallPod Stations	Model number	Occupancy sensors	Model Number
On/Off	nPODM (Color)	Small motion 360°, ceiling (PIR/dual Tech)	nCM 9 / nCM PDT 9
On/Off & Raise/Lower	nPOD DX (Color)	Large motion 360°, ceiling (PIR/dual tech)	nCM 10 / nCM PDT 10
Graphic Touchscreen	nPOD GFX (Color)	Wide View (PIR/dual tech)	nWV 16 / nWV PDT 16
Photocell controls	Model Number	Wall Switch w/ Raise/Lower (PIR/dual tech)	nWSX LV DX / nWSX PDT LV DX
Dimming	nCM ADCX	Cat-5 cables (plenum rated)	Model Number
		10', CAT5 10FT	CAT5 10FT J1
		15, CAT5 15FT	CAT5 15FT J1

nLight® AIR Control Accessories:

Order as separate catalog number. Visit www.acuitybrands.com/products/controls/nlightair.

Wall switches	Model number
On/Off single pole	rPODB [color]
On/Off two pole	rPODB 2P [color]
On/Off & raise/lower single pole	rPODB DX [color]
On/Off & raise/lower two pole	rPODB 2P DX [color]
On/Off & raise/lower single pole	rPODBZ DX WH ¹

Notes

- 1 Can only be ordered with the RES7Z zone control sensor version.

UL924 Sequence of Operation

The below information applies to all nLight AIR devices with an EM option.

- EM devices will remain at their high-end trim and ignore wireless lighting control commands, unless a normal-power-sensed (NPS) broadcast is received at least every 8 seconds.
- Using the CLAIRITY+ mobile app, EM devices must be associated with a group that includes a normal power sensing device to receive NPS broadcasts.
- Only non-emergency rPP20, rLSXR, rSBOR, rSDGR, and nLight AIR luminaires with version 3.4 or later firmware can provide normal power sensing for EM devices. See specification sheets for control devices and luminaires for more information on options that support normal power sensing.

nLight AIR

nLight AIR is the ideal solution for retrofit or new construction spaces where adding communication is cost prohibitive. The integrated nLight AIR rPP20 Power Pack is part of each Lithonia LDN Luminaire. These individually addressable controls offer the ultimate in flexibility during initial setup and for space repurposing.



Simple as 1,2,3

1. Install the nLight® AIR fixtures with embedded smart sensor
2. Install the wireless battery-powered wall switch
3. With CLAIRITY app, pair the fixtures with the wall switch and if desired, customize the sensor settings for the desired outcome



SECTION 02920 - LANDSCAPING

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

Retain or delete this article in all Sections of Project Manual.

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Furnish all trees, shrubs, and other plant materials, labor equipment, and non-plant materials required to complete installation of planting indicated on the Landscape Drawings and Details.

Furnish all soil preparation, fertilizer, soil mulching, trees, shrubs, groundcovers, sodding, bed mulching, labor and equipment required to landscape all areas as indicated on the Landscape Drawings.

B. Section Includes:

- 1. Trees
2. Shrubs
3. Perennials
4. Annuals
5. Ornamental grasses
6. Mulch
7. Pruning
8. Guying and Staking
9. Landscape Edging
10. Tree Watering Devices
11. Seeding.
12. Hydros seeding.
13. Sodding.
14. Plugging.
15. Meadow grasses and wildflowers.
16. Turf renovation.
17. Erosion-control material(s).

C. Related Requirements (If Used):

- 1. Section 02231 "Tree Protection and Trimming" for protecting, trimming, pruning, repairing, and replacing existing trees to remain that interfere with, or are affected by, execution of the Work.
2. Section 02810 "Design-Build Irrigation System".
3. Section 02300 "Earthwork".

1.3 ALLOWANCES

- A. Perform planting work under quantity allowances and only as authorized. Authorized work includes work required by Drawings and the Specifications and work authorized in writing by the Project Manager.
B. Notify Project Manager weekly of extent of work performed that is attributable to quantity allowances.
C. Furnish trees as part of tree allowance.

1.4 UNIT PRICES

- A. Work of this Section is affected by unit prices specified in Section 01270 "Unit Prices."
B. Unit prices apply to authorized work covered by quantity allowances.
C. Unit prices apply to additions to and deletions from the Work as authorized by Change Orders.

1.4 DEFINITIONS

- A. Backfill: The earth used to replace or the act of replacing earth in an excavation.
B. Ball and Burlapped Stock: Plants dug with firm, natural balls of earth in which they were grown, with a ball size not less than diameter and depth recommended by ANSI Z60.1 for type and size of plant required; wrapped with burlap, tied, rigidly supported, and drum laced with twine with the root flare visible at the surface of the ball as recommended by ANSI Z60.1.
C. Container-Grown Stock: Healthy, vigorous, well-rooted plants grown in a container, with a well-established root system reaching sides of container and maintaining a firm ball when removed from container. Container shall be rigid enough to hold ball shape and protect root mass during shipping and be sized according to ANSI Z60.1 for type and size of plant required.
D. Finish Grade: Elevation of finished surface of planting soil.
E. Pesticide: A substance or mixture intended for preventing, destroying, repelling, or mitigating a pest. Pesticides include insecticides, miticides, herbicides, fungicides, rodenticides, and molluscicides. They also includes substances or mixtures intended for use as a plant regulator, defoliant, or desiccant.
F. Pests: Living organisms that occur where they are not desired or that cause damage to plants, animals, or people. Pests include insects, mites, grubs, mollusks (snails and slugs), rodents (gophers, moles, and mice), unwanted plants (weeds), fungi, bacteria, and viruses.
G. Planting Area: Areas to be planted
H. Planting Soil: Existing, on-site soil; imported soil; or manufactured soil that has been modified with soil amendments and perhaps fertilizers to produce a soil mixture best for plant growth. Plant; Plants; Plant Material: The terms refer to vegetation in general, including trees, shrubs, vines, groundcovers, ornamental grasses, bulbs, plugs, or herbaceous vegetation.
I. Root Flare: Also called "trunk flare." The area at the base of the plant's stem or trunk where the stem or trunk broadens to form roots; the area of transition between the root system and the stem or trunk.
J. Stem Girdling Roots: Roots that encircle the stems (trunks) of trees below the soil surface.
K. Subgrade: The surface or elevation of subsoil remaining after excavation is complete, or the top surface of a fill or backfill before planting soil is placed.

1.6 COORDINATION

- A. Coordination with turf areas (lawns): Plant trees, shrubs, and other plants after finish grades are established and before planting turf areas unless otherwise indicated.
1. When planting trees, shrubs, and other plants after planting turf areas, protect turf areas, and promptly repair damage caused by planting operations.

1.7 SUBMITTALS

- A. Qualification Data: For landscape installer.
B. Product Data: For each type of product.
1. Plant Materials: Include quantities, sizes, quality, and sources for plant materials.
2. Plant Photographs: Include color photographs in digital format of each species and size of plant materials as it will be furnished to the Project. Take photographs from an angle depicting true size and condition of the typical plant to be furnished. Include scale rod or other measuring device in each photograph. For species where more than ten (10) plants are required, include a minimum of three (3) photographs showing the average plant, the best quality plant, and the worst quality plant to be furnished. Identify each photograph with the full botanical name of the plant, plant size, and name of the growing nursery.
C. Grower or Nursery Certifications
1. All State, Federal, or other certificates shall be submitted to the Project Manager prior to acceptance of plant material along with other information showing the source or origin.
2. Current grower or nursery certifications indicating that all contractor supplied plant material is healthy, vigorous, and free from insects, pests, plant diseases, and injuries.
D. Certification of Topsoil Mixture: Submit topsoil mix test reports to Project Manager for review. If existing material is to be re-used, topsoil to be tested and reviewed by Project Manager
E. Certification of each sod/seed mixture. Include identification of source and name and telephone number of supplier.
F. Product Certificates: For fertilizers, from manufacturer.
G. Pesticides and Herbicides: Product label and manufacturer's application instructions specific to Project.
H. Samples: Submit physical samples of each of the following materials for approval. All samples shall be submitted in a one quart, clear, plastic bag (Ziploc type) or appropriate container. Submittals must be made prior to commencing any activities. All samples shall be clearly labeled with the following information.
- Project Name Site Improvements
- Material name as shown on plans and specifications
- Supplier or distributor's name
- Supplier or distributor's product name and/or order number
Required samples are as follows
1. Mulch
2. Compost

- I. Slow-Release, Tree-Watering Device: One (1) unit of each size required.

- J. Edging Materials and Accessories:
1. Manufacturer's product information sheet.
2. 12" length of Manufacturer's standard size, to verify color selected.

1.8 CONSTRUCTION SCHEDULE

- A. Prior to beginning installation of the landscape, the Contractor is to submit a project construction schedule to the Project Manager for approval. The schedule should include the areas and types of construction to be undertaken and the sequence which will be used to accomplish the completion of the project. Schedule must be submitted prior to commencing any activities.
B. At the completion of the work, furnish three (3) copies of written maintenance instructions to the Owner for maintenance and care of the landscaping. Instructions shall include directions for irrigation, weeding, pruning, fertilization, and spraying as required for continuance of proper maintenance through a full growing season and dormant period.

- C. Guarantee of Warranty: At completion of work, furnish written guarantee, and warranty, to the Owner based on the requirements of this section.

1.9 QUALITY ASSURANCE

- A. Reference Standards
1. U.S. Department of Agriculture Rules and Regulations under the Federal Seed Act and equal in quality to standards for Certified Seed.
2. Requirements for measurements, grading, branching, quality, and the baling and burlapping of plants listed in the plant list shall follow the current issue of American Standards for Nursery Stock issued by the American Association of Nurserymen, Inc. (ANSI-Z 60.1-1990)
3. Plants shall equal or exceed the measurements specified in the plant list, which are minimum acceptable sizes. Plants shall be measured before pruning with branches in normal position. Any necessary pruning shall be done at the time of planting.
B. Quality of Materials
1. All materials shall be subject to inspection and approval. The Project Manager reserves the right to reject at any time or place, prior to acceptance, the work and all materials which in the Project Manager's opinion fails to meet these specification requirements.
2. Inspection is primarily for quality, however, other requirements are not waived even though visual inspection at the place of growth shall not preclude the right of rejection at the site. Inspection may be made periodically during installation of materials, at completion, and at the end of guarantee periods by the Project Manager. Plants shall have a habit of growth that is normal for the species. They shall be healthy, vigorous, and free from insect pests, plant diseases, and injuries. All plant material shall be inspected stock conforming to all State and Federal Regulations.
3. Trees and Shrubs: Measure with branches and trunks or canes in their normal position. Take height measurements from or near the top of the root flare for field-grown stock and container-grown stock. Measure main body of tree or shrub for height and spread; do not measure branches or roots tip to tip. Take caliper measurements 6 inches (150 mm) above the root flare for trees up to 4-inch (100-mm) caliper size, and 12 inches (300 mm) above the root flare for larger sizes.
4. Other Plants: Measure with stems, petioles, and foliage in their normal position.

- C. Installer Qualifications: A qualified landscape installer whose work has resulted in successful establishment of plants.
1. Professional Membership: Installer shall be a member in good standing of either the Professional Landcare Network or the American Nursery and Landscape Association.
2. Experience: Five years' experience in landscape installation in addition to requirements in Section 01400 "Quality Requirements."
3. Installer's Field Supervision: Require Installer to maintain an experienced full-time supervisor on Project site when work is in progress.
4. Personnel Certifications: Installer's field supervisor shall have certification in one of the following categories from the Professional Landcare Network:
a. Landscape Industry Certified Technician - Exterior.
b. Landscape Industry Certified Horticultural Technician.
5. Pesticide Applicator: State licensed, commercial.
D. Plant Material Observation: Project Manager may observe plant material either at place of growth or at site before planting for compliance with requirements for genus, species, variety, cultivar, size, and quality. Project Manager may also observe trees and shrubs further for size and condition of balls and root systems, pests, disease symptoms, injuries, and latent defects and may reject unsatisfactory or defective material at any time during progress of work. Remove rejected trees or shrubs immediately from Project site.
1. Notify Project Manager of sources of planting materials five days in advance of delivery to site.

- E. Vandalism: The Contractor will not be responsible for malicious destruction of plantings after final acceptance of the project. He will, however, be responsible for replacement of vandalized materials stored but not yet installed, and vandalized material prior to final acceptance. All cases of vandalism shall be promptly reported to the Owner. The Contractor shall inform the Owner in writing if additional protection must be installed to protect the landscaping from damage after installation.

1.1 DELIVERY, STORAGE, AND HANDLING

- A. Packing and Shipping
1. Deliver fertilizer to site in original unopened containers bearing the manufacturer's guaranteed chemical analysis, name, trade name, trademark, and conformance to State law. Notify Project Manager of delivery schedule in advance so material may be inspected upon arrival at the job site.
2. Deliver packaged materials in original, unopened containers showing weight, analysis and name of manufacturer, and indication of compliance with state and Federal laws, if applicable. Provide copies of delivery receipts for materials to be incorporated into the construction to the Project Manager as deliveries are made. Materials to be accounted for include: fertilizers, soil amendments, peat moss, manure, grass seed, plant tabs, and mulch.
3. Plants shall be containerized with limbs bound, properly wrapped and prepared for shipping in accordance with recognized standard practice. The root system shall be kept moist and plants shall be protected from adverse conditions due to climate and transportation, between the time they are dug and actual planting.
4. Each plant shall be identified by means of a grower's label affixed to the plant. The grower's label shall give the data necessary to indicate conformance to specifications. Use durable waterproof labels with water resistant ink which will remain legible for at least 60 days. Notify the Project Manager prior to delivery of plant materials to the site so that a pre-planting inspection may be made or indicate delivery schedule in advance so plant material may be inspected upon arrival at job site, whichever is more appropriate. Grower's labels shall be removed prior to the walk through for initial acceptance.
5. Do not prune trees and shrubs before delivery.
6. Handle planting stock by root ball. Do not drop plants. Do not lift plants by the trunk, stems, or foliage. The ball of the plant shall be natural, and the plant shall be handled by the ball at all times. All plants shall be protected at all times from drying out or other injury. Minor broken and damaged roots shall be pruned before planting.

- B. Acceptance at Site
1. Remove unacceptable plant material immediately from job site.
2. Major damage shall be cause for rejection.
3. No balled or burlapped plant shall be accepted if the ball is broken or the trunk is loose in the ball.

- C. Storage and Protection
1. Deliver plants after preparations for planting have been completed, and install immediately. If planting is delayed more than six hours after delivery, set plants and trees in their appropriate aspect (sun, filtered sun, shade), protect from weather and mechanical damage, and keep roots moist.
a. Heel-in bare-root stock. Soak roots that are in less than moist conditions in water for two hours. Reject plants with dry roots.
b. Set balled stock on ground and cover ball with soil, peat moss, mulch, or other acceptable material.
c. Do not remove container-grown stock from containers before time of planting.
d. Water root systems of plants stored on-site deeply and thoroughly with a fine-mist spray. Water as often as necessary to maintain root systems in a moist, but not overly wet condition.
2. Protect bark, branches, and root systems from sun scald, drying, wind burn, sweating, whipping, and other handling and tying damage. Do not bend or bind-tie trees or shrubs in such a manner as they destroy their natural shape. Provide protective covering of plants during shipping and delivery. Do not drop plants during delivery and handling.
3. Apply antidesiccant to trees and shrubs using power spray to provide an adequate film over trunks (before wrapping), branches, stems, twigs, and foliage to protect during digging, handling, and transportation.
a. If deciduous trees or shrubs are moved in full leaf, spray with antidesiccant at nursery before moving and again two weeks after planting.
4. Wrap trees and shrubs with burlap fabric over trunks, branches, stems, twigs, and foliage to protect from wind and other damage during digging, handling, and transportation.
5. Protect all existing and newly planted trees, shrubs, and groundcover within the areas of construction and related excavation as herein specified. Provide suitable barricades and/or fences as required.
6. Store bulbs in a dry place at 60 to 65 deg. F (16 to 18 deg. C) until planting.

- B. Sod: Harvest, deliver, store, and handle sod according to requirements in "Specifications for Turfgrass Sod Materials" and "Specifications for Turfgrass Sod Transplanting and Installation" sections in TPI's "Guideline Specifications to Turfgrass Sodding." Deliver sod within 24 hours of harvesting and in time for planting promptly. Protect sod from breakage and drying.

- C. Bulk Materials:
1. Do not dump or store bulk materials near structures, utilities, walkways and pavements, or on existing turf areas or plants.
2. Provide erosion-control measures to prevent erosion or displacement of bulk materials; discharge of soil-bearing water runoff and airborne dust reaching adjacent properties, water conveyance systems, or walkways.
3. Accompany each delivery of bulk materials with appropriate certificates.

1.11 PROJECT CONDITIONS

- A. The Contractor must examine the subgrade upon which work is to be performed, verify subgrade elevations, observe the conditions under which work is to be performed, verify suitability of the soil and notify the Project Manager in writing of unsatisfactory conditions. Do not proceed with the work until unsatisfactory conditions have been corrected in a manner acceptable to the Project Manager. Commencement of work shall mean acceptance of the site conditions.
B. Existing Conditions
1. The site will be provided to the contractor within +/-0.2 foot finish grades.
2. Utilities - Determine location of underground utilities and perform work in a manner which will avoid possible damage. Do not permit heavy equipment such as trucks, rollers, or bulldozers to damage utilities. Hand excavate when called for to minimize the possibility of damage to underground utilities. Maintain grade stakes set by others until removal is mutually agreed upon by all parties concerned. Any damage to utilities that may result in spite of protective measures must be completely corrected and repaired by the Contractor at no additional cost to the Owner.

1.12 SEQUENCING AND SCHEDULING

- A. Planting Schedule
Schedule each type of landscape work required during the normal season for such work in the area of the site. Establish dates for each type of work and establish a completion date. Correlate work with specified maintenance periods to provide maintenance until accepted by the Owner. Do not depart from the accepted schedule, except with written authorization. Submit request to the Project Manager for changes in the planting schedule. When delays in the planting schedule are unavoidable, include documentation of the reason for delay.
B. Plant trees and shrubs during normal season for such work in the location of the project.
C. Weather Limitations: Proceed with planting only when existing and forecasted weather conditions permit planting to be performed when beneficial and optimum results may be obtained. Apply products during favorable weather conditions according to manufacturer's written instructions.
D. Coordination with Lawns
Plant trees and shrubs after final grades are established and prior to planting of lawns, unless otherwise acceptable to the Project Manager. If planting of trees and shrubs occurs after lawn work, protect lawn areas and promptly repair damage to lawns resulting from planting operations.



223 West Jackson Boulevard, Suite 1200
Chicago, Illinois 60606
(312) 253-3400



1167 Hebron Mill Drive
Naperville, Illinois 60563
Telephone: (630) 656-0775
www.design-perspectives.net

New Fire Station

Wilmington Fire Protection District
207 N. Kankakee Street, Wilmington IL, 60481

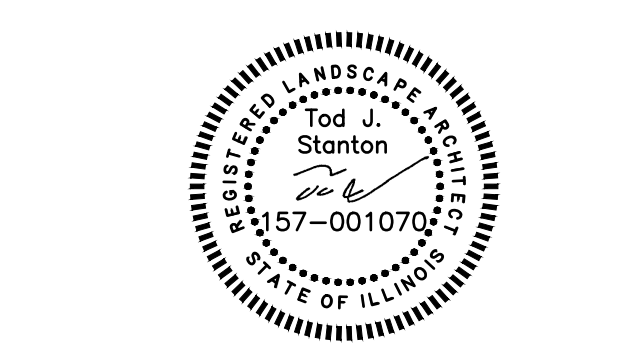


Table with 3 columns: NO, ISSUE, DATE. Row 1: 25% Review Set, 10.16.2023. Row 2: 60% Review Set, 10.30.2023.

LANDSCAPE SPECIFICATIONS

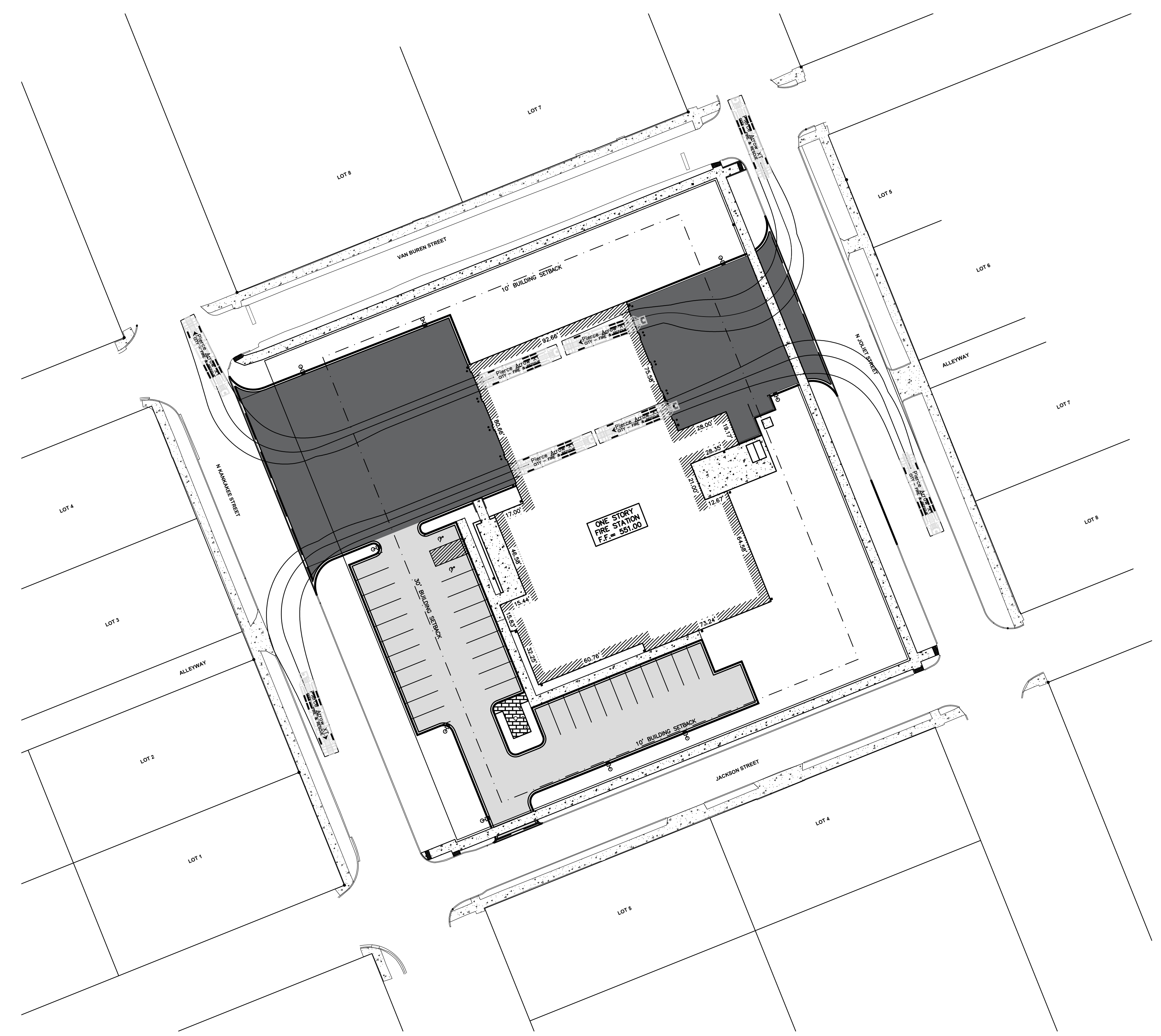
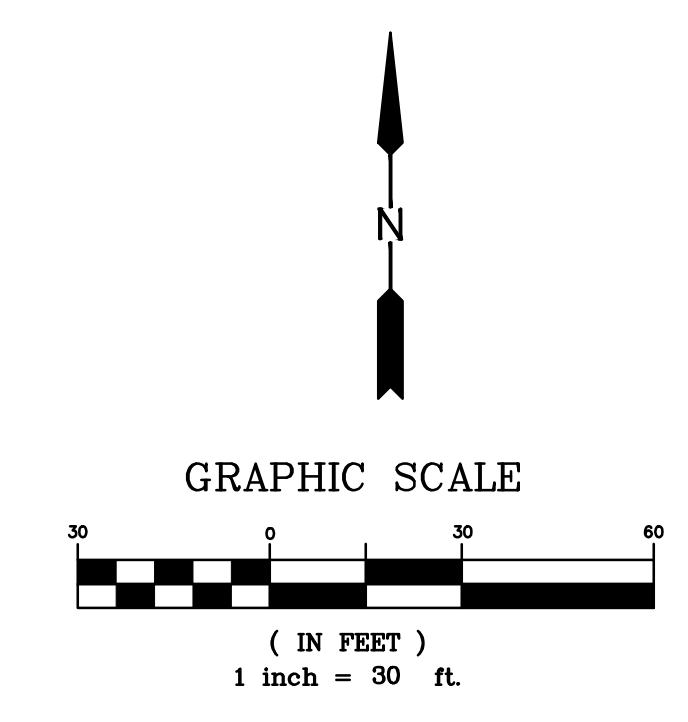
BENCHMARKS

BENCHMARK #1
NUMBER BOLT ON FIRE HYDRANT AT THE
NORTHWEST CORNER OF THE INTERSECTION
OF JACKSON AND KANKAKEE STREET,
SOUTHWEST OF SITE.
ELEVATION=550.38



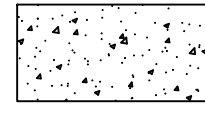
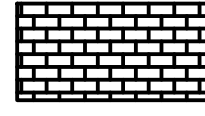
BENCHMARK #2
NUMBER BOLT OF FIRE HYDRANT AT THE
NORTHEAST CORNER OF THE INTERSECTION
OF VAN BUREN STREET AND JOLIET
STREET, NORTHEAST OF SITE.
ELEVATION=551.24

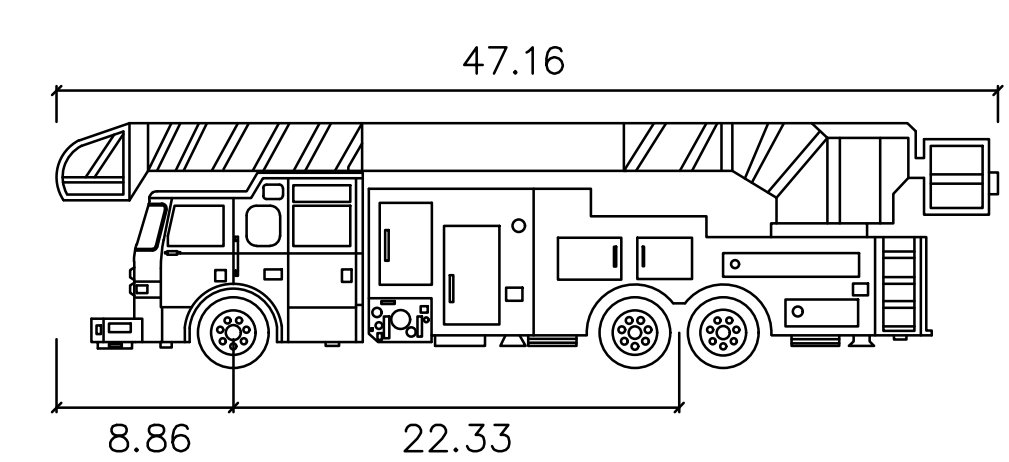


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HATCH LEGEND

-  PROPOSED LIGHT DUTY PAVEMENT
-  PROPOSED HEAVY DUTY PAVEMENT
-  PROPOSED CONCRETE SIDEWALK
-  PROPOSED BRICK WALKWAY

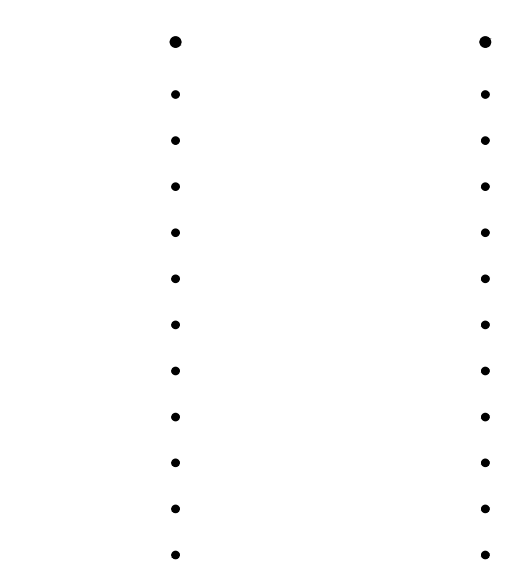


Pierce Arrow XT
feet
Width : 8.01
Track : 8.01
Lock to Lock Time : 6.0
Steering Angle : 45.5

THESE PLANS ARE PREPARED FOR THE
CONDITIONAL USE APPLICATION AND ARE
PRELIMINARY IN NATURE. FINAL ENGINEERING
PLANS WILL BE PREPARED UPON APPROVAL OF
THE CONDITIONAL USE.

New Fire Station

Wilmington Fire Protection District
201 N. Kankakee Street, Wilmington IL, 60481



**TURNING
RADIUS
EXHIBIT**

EX-01

