Re BID NO.: 641 PROJECT NAME & LOCATION Advanced Science Research Center
85 St. Nicholas Terrace
New York, NY 10027

Description: **Furnish, Deliver and Install Laser Curtains**
Bid Open Location: DASNY
515 Broadway
Albany, New York
Bid Open Date: October 10, 2019

Bid Open Time: 2:30PM Contact: Theresa Graffeo at (518) 257-3583

NOTICE TO BIDDERS

MAIL BIDS EARLY
Sealed bids will be received by DASNY at the above address for the items listed in the attached Bid Breakdown and Schedule. When submitting your bid you must:

1. Prepare your bid on the attached Bid Breakdown and Schedule. Return one signed original of the Bid Breakdown and Schedule

2. If your bid deviates from Specifications, explain such deviations or qualifications on your letterhead, setting forth therein such explanations, and attach them to the Bid Breakdown and Schedule.

3. Submission of a bid constitutes full knowledge and acceptance of all provisions of the Notice to Bidders, all information referenced in the Purchasing General Conditions, Supplemental and Detailed Specifications, the Bid Submission and any Supplemental General Requirements contained herein, as well as any addenda issued in relation to the Invitation for Bids.

4. Each bid shall bear on the outside of the envelope the name of the bidder, address, telephone number and designated as a bid for the following:
   DASNY Re Bid No. 641
   Bid Opening Date: 10/10/2019 @ 2:30PM
   Return to:
   DASNY
   Attn: Purchasing Unit
   515 Broadway
   Albany, NY 12207-2964

When a sealed bid is placed inside another delivery jacket, the bid delivery jacket must be clearly marked on the outside **"BID ENCLOSED"** and **"ATTENTION: PURCHASING UNIT".** The Dormitory Authority will not be responsible for receipt of bids which do not comply with these instructions.

5. Mail bid responses early in order for them to be received before the time of the bid opening. **Late bids will be automatically rejected**. Individuals submitting bids in person or by private delivery services should allow sufficient time for processing through building security to assure that the bids are received prior to the deadline for submitting bids. All individuals who plan to attend bid openings will be required to present government-issued picture identification to building security officials and obtain a visitor's pass prior to attending the bid opening.

6. In accordance with State Finance Law § 139-j and 139-k, this solicitation includes and imposes certain restrictions on communications between Dormitory Authority personnel and an Offerer during this procurement process. Designated contact for this solicitation is: Theresa Graffeo, Purchasing Coordinator , at Dormitory Authority – State of New York, 515 Broadway, Albany, NY 12207,(518) 257-3085. Contacts made to other Dormitory Authority Personnel regarding this procurement may disqualify the Offerer and affect future procurements with governmental entities in the State of New York. Please refer to the Authority's website www.dasny.org for Authority policy and procedures regarding this law, or the NYS office of General Services website www.ogs.ny.gov/BU/PC/ for more information about this law.

Bid No.: Re Bid 641

If you are not submitting a bid it is requested that you complete and return the lower portion of this form

(Please check all that apply and provide comments in the space provided, if necessary)

- ☐ We are not Submitting a bid.
- ☐ We Request removal of our name from the mailing list.
- ☐ Location of the job site.
- ☐ Commodity is not carried by our company.
- ☐ Scope is too large.

Other/Additional Explanation: _____

_____

NAME OF BIDDER: _____

ADDRESS: _____

Street City State Zip

Telephone

_____ _____

Signature of Bidder Official Title

CLAUSES PURSUANT TO THE OMNIBUS PROCUREMENT ACT OF 1992

It is the policy of New York State to maximize opportunities for the participation of New York State business enterprises, including minority and woman-owned business enterprises as bidders, subcontractors and suppliers on its procurement contracts.

Information on the availability of New York subcontractors and supplies is available from:

Empire State Development
Small Business Division
30 South Pearl Street, 7th Floor
Albany, NY 12207
Phone: (800) 782-8369

A directory of minority and woman-owned business enterprises is available from:

Empire State Development
Division of Minority and Women Business Development
30 South Pearl Street
Albany, NY 12207
Phone: (518) 292-5250

Online Directory: https://ny.newnycontracts.com/FrontEnd/VendorSearchPublic.asp

DASNY maintains a directory of minority and women-owned business enterprises:
http://www.dasny.org/construc/mwsbereg/index.php

The contractor acknowledges notice that New York State may seek to obtain offset credits from foreign countries as a result of this contract and agrees to cooperate with the State in these efforts.

DASNY encourages the use of recycled Materials in the manufacturing process. To that end, the recycled product must meet the same codes, specifications and standards the non-recycled materials do, including requirements for cost, installation, aesthetics, availability and maintenance.

The Omnibus Procurement Act of 1992 and § 2879 of the NYS Public Authorities Law require that by signing this bid, contractors certify that whenever the total bid amount is greater than $1 million:

1. The contractor has made reasonable efforts to encourage the participation of New York State Business Enterprises as suppliers and Subcontractors on this project, and has retained the documentation of these efforts to be provided upon request to the State. If the contractor determines that NYS business enterprises are not available to participate on the contract as subcontractors or suppliers, the contractor shall provide a statement indicating the method by which such determination was made. If the contractor does not intend to use subcontractors, contractor shall provide a statement verifying such;

2. The contractor has complied with the Federal Equal Opportunity Act of 1972 (PL 92-261), as amended;

3. The contractor agrees to make reasonable efforts to provide notification to New York State residents of employment opportunities on this project through listing any such positions with the Job Service Division of the New York State Department of Labor, or providing such notification in such manner as is consistent with existing collective bargaining contracts or agreements. The contractor agrees to document these efforts and to provide said documentation to the State upon request;

DASNY is required by law to notify the NYS Department of Economic Development of any procurement contract for one million dollars or more that is to be awarded to an out-of-state vendor. This notice must be done simultaneous to the notification of award provided to the vendor. A purchase order or contract cannot be issued until fifteen (15) days after such notification is provided.

NEW YORK STATE OF OPPORTUNITY. | DASNY

GENERAL SPECIFICATIONS

(1) The enclosed Purchasing General Conditions are hereby incorporated by reference. Submission of a bid response shall constitute acceptance of such conditions. Any exceptions/clarifications/qualifications to these conditions or other specifications and/or requirements contained herein must be clearly stated in the bid response and, depending upon the nature of such, may be grounds for rejection of your bid.

(2) Bids must be submitted in the bidder's full legal name, or the bidder's full legal name plus a registered assumed name, if any.

(3) All NYS bidders are required to be registered to do business with the NYS Department of State or their local County Clerk, whichever is applicable.

(4) All out-of-state bidders will be required to provide proof of registration to do business in their state. All out-of-state bidders that "do business in New York State" MUST BE REGISTERED WITH THE NYS DEPARTMENT OF STATE. Please contact the NYS Department of State at (518) 473-2492. Information is available at the DOS website: www.dos.ny.gov

(5) DASNY is required by law to notify the Empire State Development of any procurement contract for one million dollars or more that is to be awarded to an out-of-state vendor. This notice must be done simultaneous to the notification of award provided to the vendor. A purchase order or contract cannot be issued until fifteen (15) days after such notification is provided.

(6) Empire State Development is required by law to identify states and other jurisdictions that impose preferences or other penalties against New York bidders. DASNY is precluded from soliciting bids or entering into procurement contracts with companies that have their principal place of business located in one of the listed jurisdictions, unless the procurement is for a product that is substantially manufactured in New York State or the services are to be performed in New York State. Currently, this list of jurisdictions includes the states of Alaska, Hawaii, Louisiana, South Carolina, West Virginia and Wyoming.

(7) Unless otherwise indicated, any reference to brands or model numbers is intended to establish a standard. Items of all manufacturers will be considered, provided the item is determined to meet or exceed the required specification. DASNY's decision as to whether a substitute item meets specification will be final. Your attention is directed to Article II-7, Page 5 of the General Conditions. In order to evaluate substitute items, detailed specifications must be submitted for any product that is other than the one(s) specified in the bid.

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GENERAL SPECIFICATIONS CONTINUED

(8) Unless otherwise noted, guarantee on all items is to be one year as detailed in Article XVI of the General Conditions

(9) All upholstered furniture and drapery panels and lining must meet strict flammability requirements. Standards applicable to this bid, if any, will be delineated in the Detailed Specifications.

(10) LABOR/TRADES - Any labor, materials or means whose employment, or utilization during the course of this contract, shall not in any way cause or result in strike, work stoppages, delays, suspension of work; or similar troubles by workers employed by this contractor or his subcontractors, or by any of the trades working in or about the buildings and premises where work is being performed. Any violation by the contractor of this requirement may in the sole judgment of DASNY be considered as proper and sufficient cause for declaring the contractor to be in default, and for the owner to take action against him as set forth in the Purchasing General Conditions, Article VIII, “Termination", or such other action as DASNY may deem proper.

(11) Bid results are available on the DASNY website (www.DASNY.org). Bid results will not be given over the phone.

(12) If you are a NYS Certified Minority or Women Owned Business, please include a copy of your certification with the bid.

SUPPLEMENTAL SPECIFICATIONS

The following items are attached for informational purposes. Referenced documents need not be returned with the proposal. These documents are only applicable to the successful bidder and the ensuing procurement contract. Documents are only applicable to the successful bidder and the ensuing procurement contract. Documents applicable to the procurement that will result from this Invitation for Bids are designated by a check box (☒). Unless otherwise indicated, the referenced documents are located at the end of this Invitation for Bids.

☒ **Purchasing General Conditions –** The DASNY Purchasing General Conditions contains terms and conditions of purchases made by DASNY. It is recommended that this document be reviewed fully.

☒ **M/WBE Utilization Plan and Request for Waiver -** Minority and Women-Owned Business Enterprise (M/WBE) goals for this project are 18% and 12%, respectively. The successful bidder shall be required to complete a Utilization Plan or Request for Waiver, to be approved by DASNY's Opportunity Programs Group. Reference Purchasing General Conditions, Article XIX, Affirmative Action for Contracts Mr. Michael Clay, DASNY Opportunity Programs Group at (518) 257-3464, is available to assist all bidders in attaining these goals. *Reference the enclosed "Good Faith Efforts Guidelines".*

☒ **Supplemental General Requirements –** Attached (if applicable) are the Supplemental General Requirements (SGRs) which provide important logistical information and additional conditions which govern this procurement. Please read these SGRs carefully.

☒ **Form of DASNY Contract** – The procurement resulting from the Invitation for Bids will be executed through a DASNY purchase order and a related contract. The contract executed with the successful bidder will be in the same substantial form as the attached "Form of Contract". Note that this Invitation for Bids and any response to such will be annexed as binding terms of the purchase agreement.

☒ **Certificate of Insurance** *(sample enclosed)* – The successful bidder will be required to provide a Certificate of Insurance pursuant to Article XIV of the enclosed Purchasing General Conditions. The certificate shall name DASNY and other designated parties as additional insureds.

SUPPLEMENTAL SPECIFICATIONS CONTINUED

☒ **Worker's Compensation / Disability Insurance** – The successful proposer will be required to provide specific documentation with respect to Worker's Compensation and Disability Insurance pursuant to Article XIV of the enclosed Purchasing General Conditions. Requirements are detailed in the enclosed "Workers' Compensation and Disability Benefits Requirements" document.

☒ **Prevailing Wage Schedule** – NYS Labor Law requires all wages paid by contractors and subcontractors on public work projects be paid at the prevailing wage rates. Enclosed is the current rate schedule for the appropriate county. Contractors and Subcontractors are responsible for obtaining current rates throughout the course of the project. The NYS Department of Labor (NYS DOL) updates these rates on July1st of each year. Current rates can be obtained on the NYS DOL website (www.labor.state.ny.us) or by fax at (518) 485-1870. Note that an executed Contractor and Subcontractor Certification and certified payrolls, which include the hours and days worked by each workman, laborer or mechanic, the occupation at which he worked, the hourly wage rate paid and the supplements paid or provided, must be submitted with each and every payment requisition. **DASNY will not process an invoice without this information.** Forms are available on the DASNY website: http://www.dasny.org/construc/forms2/vendors.php

☒ **Labor and Material Payment Bond –** The successful bidder must be prepared to provide surety bonds prior to award in accordance with Article XIV of the DASNY Purchasing General Conditions. The costs of these bonds are to be separately stated in the total bid price as indicated on the Bid Breakdown and Schedule.

☒ **Performance Bond –** The Successful bidder must be prepared to provide surety bonds prior to award in accordance with Article XIV of DASNY Purchasing General Conditions. The costs of these bonds are to be separately stated in the total bid price as indicated on the Bid Breakdown and Schedule.

☒ **Standard Vendor Responsibility Questionaire (SVRQ) –** The successful proposer, in accordance with Article XXII of DASNY Purchasing General Conditions, will be required to complete the enclosed SVRQ. The award of a contract will be subject to a review of the information contained in these forms.

SUPPLEMENTAL SPECIFICATIONS CONTINUED

☒ **NYS Uniform Contracting Questionaire (UCQ) –** The successful proposer will be required to complete the enclosed UCQ. The award of a contract will be subject to a review of the information contained in these forms.

☒ **DASNY Contractor and Consultant Questionaire (CCQ)** – The successful proposer will be required to complete the enclosed CCQ. The award of a contract will be subject to a review of the information contained in these

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ANDREW M. CUOMO
Governor

ALFONSO L. CARNEY, JR.
Chair

GERRARD P. BUSHELL, Ph.D.
President & CEO

SUPPLEMENTAL GENERAL REQUIREMENTS

Requests for Information:

All questions pertaining to Re-Bid No. 641 – Furnish, Deliver and Install Laser Curtains are due no later than 4:00 p.m. on September 25, 2019 to tgraffeo@dasny.org. RFI Responses will be posted via Addenda to DASNY's Website in the Attachments Section of the Bid Opportunity Page for Re-Bid No. 641.

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SCOPE OF WORK

Furnish, deliver and install new Laser Curtains and furnish and deliver an Integrated Laser Entry Control System per the bid documents and as follows:

Furnish and Install Items:

1) Furnish and installation of new heavy-duty Laser track with supports fastened to structure above.
2) C-15 Certificates and tags for each room.
3) Shop drawings of all rooms with curtains.
4) 8 Window Covers at 25.5" x 31.25"
5) 8 Window Covers at 25.5" x 48.5"

Furnish ONLY items: (installation by General Contractors Electrician):
1) 6 of Entry Guard Control Panels
2) 13 of Entry Guard illuminated dual status signs
3) 21 of Entry Guard magnetic safety interlocks
4) 21 of Entry Guard dual interlock receptacles
5) 42 of Entry Guard interlock connector plugs
6) 21 of Entry Guard emergency stop switches

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DETAILED SPECIFICATIONS and DRAWINGS

See attached

CORPORATE HEADQUARTERS
515 Broadway
Albany, NY 12207-2964

T 518-257-3000
F 518-257-3100

NEW YORK CITY OFFICE
One Penn Plaza, 52nd Floor
New York, NY 10119-0098

T 212-273-5000
F 212-273-5121

BUFFALO OFFICE
539 Franklin Street
Buffalo, NY 14202-1109

T 716-884-9780
F 716-884-9787

DORMITORY AUTHORITY STATE OF NEW YORK

WE FINANCE, BUILD AND DELIVER.

www.dasny.org

SECTION 11 5363

LASER SAFETY EQUIPMENT

PART 1 - GENERAL

1.1 SECTION INCLUDES

A. Laser curtain, track, and hardware.

B. Laser entry control system.

1.2 REFERENCE STANDARDS

A. ANSI Z136.1 - Safe Use of Lasers.

1.3 SUBMITTALS

A. Product Data:
   1. For laser curtain and track. Include data on physical characteristics, durability, fade resistance, and performance and flame-resistance characteristics.
   2. For laser entry control system: Include product data electrical requirements.

B. Shop Drawings: Indicate locations and mounting details for laser curtain track and entry control system.
   1. For laser curtain and track. Include plans, details, and locations.
   2. For entry control system. Submit plans, details, locations, wiring and control diagrams, and design and testing data.

C. Samples: In sets for each color, texture, and pattern specified.

D. Certificate: Submit manufacturer's documentation that curtain meets specified requirements.

E. Maintenance Data: Include operation and maintenance information for laser curtains and laser entry control system in the operation and maintenance manual.

1.4 QUALITY ASSURANCE

A. Installer Qualifications: Installers shall have minimum five years of documented experience for installation of products of this Section.
   1. Laser Entry Control System: Installers shall be approved by system manufacturer.

B. Single Source: Provide laser curtains and track assemblies by a single manufacturer.

1.5 PROJECT CONDITIONS

A. Environmental Limitations: Do not install laser curtains and laser entry control system until spaces are enclosed and weatherproof, wet work in spaces is complete and dry, work above ceilings is complete, and ambient temperature and humidity conditions are maintained at the levels indicated for Project when occupied for its intended use.

PART 2 - PRODUCTS

2.1 LASER CURTAIN AND TRACK

A. Manufacturers: Provide products by one of the following:
   1. Beamstop'r Laser Barriers, Inc.: www.beamstopr.com.
   2. Kentek; Flex-Guard: www.kentek-laser.com.
   3. Rockwell Laser Industries, Inc.: www.rli.com.

B. Laser Curtain Fabric: Oil and water resistant and permanently flame resistant, with double-vinyl black color laminated to back for opacity.

C. Curtain Performance:
   1. Flame Resistance: Meet requirements of State of California test and in accordance with NFPA Standard No. 701-2010, test methods 1 and 2.
   2. Rating: 100 Watts/sq. cm.
   3. Threshold limit for beam penetration through the curtain at the minimum distance indicated on the Drawings shall not be exceeded for exposure time of 60 seconds.
   4. No part of curtain or track shall release toxic fumes following laser exposure.

D. Extruded Aluminum Track: Minimum 1-1/4 inches wide by 3/4 inch high, with minimum wall thickness of 0.062 inch.
   1. Finish: Satin anodized.

E. Track Accessories: Fabricate splices, corners, end caps, connectors, end stops, coupling and joining sleeves, wall flanges, brackets, ceiling clips, Velcro strips, and other accessories from same material and with same finish as track.

F. Curtain Carriers: Two nylon rollers and nylon axle with rustproof wire and bead chain and chrome-plated steel or aluminum hook.

G. Exposed Fasteners: Stainless steel.

H. Concealed Fasteners: Hot-dip galvanized.

I. Curtain Fabrication:
   1. Curtain Size: Make curtains at least 10 percent wider than track length and long enough to overlap finished floor minimum 2 inches. Bottom of curtain shall be weighted.
      a. Provide curtains with front and rear valances for light trap. Valances shall be same material as curtains with sewn-on Velcro strip for mounting.
      b. Curtains shall conform to ANSI Z136.1 “Safe Use of Lasers”
   2. Construction: Sewn flat with 10 percent fullness.
   3. Curtain Lengths: 1/4 inch above finished floor.
   4. Seams: French-style with no visible raw edges.
   5. Top Hem: Heavy gauge fabric reinforcing strip in top hem; brass grommets at 8 inches o.c.
   6. Bottom Hem: Weighted.
   7. Edges: Provide hook and loop sealing strips at outside vertical edges to provide light trap overlaps attachment to walls.
   8. Sew curtains using lock stitch and in a manner so that fabric is not pierced in a way that will allow light through the needle holes.
   9. Sew side and bottom hems French style with no visible raw edges. Crooked or selvaged edges in lieu of side or bottom hems are prohibited. Overlap vertical seams and provide with Velcro strips to facilitate “light-trap” overlaps.

10. Provide stay-put type fastners as indicated on Drawings.

J. Provide laster curtain interlock assembly as indicated on Drawings.

2.2 LASER ACCESS CONTROL SYSTEM

A. Manufacturers:
   1. Kentek Corporation: www.kentek-laser.com. Basis of design as follows:
      a. Control Module: ETG-CP Entry-Guard.
      b. Status Sign: ETG-DLS-2 Entry-Guard.
      c. Emergency Stop Switch: ETG-ES-F Entry-Guard.
      d. Safety Interlock: ETG-INLK Entry-Guard.
      e. Dual Interlock Receptacle: ETG-X1 Entry-Guard.
      f. Interlock Connector Plug: ETG-X2 Entry-Guard.
   2. Rockwell Laser Industries, Inc.: www.rli.com.

B. Laser Access Control System: Integrated system to control entry to and egress from laser operation areas and laser emission to areas where there is accessible or exposed laser energy, meeting requirements of ANSI Z136.1.

C. System Components:
   1. Main Control Module: Wall-mounted, painted metal enclosure with front-mounted controls, housing microprocessor controller. Front panel controls include the following:
      a. Key lock.
      b. System power key switch.
      c. Start, Stop, Exit, and Emergency Stop buttons.
      d. System status indicators including, but not limited to, Power On, Entryway/Doors Closed, and Interlock/Maglock On.
   2. Magnetic door locks.
   3. Entry keypads.
   4. Remote pushbuttons.
   5. Emergency access switches.
   6. Emergency stop buttons.
   7. Laser interlock or shutter.
   8. Illuminated safety signs.
      a. Metal, lighted sign box with translucent plastic laser status signs; back-mounted or edge-mounted as required.
      b. Two-way and two color to indicate Safe - No Laser Hazard and Danger - Laser Radiation.
   9. Nondefeatable safety latches.
   10. Circuitry.
   11. Accessories: Manufacturer's standard.

D. Entry Laser System Operation and Controls:
   1. Emergency stop and external emergency access controls.
   2. Isolated, normally open, relay closures for control of laser interlocks and shutters.
   3. Isolated, normally open/normally closed, auxiliary laser interlock relays.
   4. Isolated, magnetic, door latch relay.
   5. Universal interface to entry key cards or dedicated key pads.
   6. Automated, illuminated laser safety sign control.
   7. Audible indicator for interlock timeout and exit delay (defeatable).
   8. Adjustable exit delay; 5 to 90 seconds.
   9. Automatic shutdown of lasers and unlocking of doors by building fire or evacuation alaram.

10. Automatic shutdown of lasers when access parameters are violated.
11. Optically isolated external inputs.
12. Two, automatic, warning sign modes.
13. Easy remote of system Enable and Exit Request controls.
14. External computer/access controller monitor interface.
15. Full function diagnostic indicators.
16. Built-in, low voltage power supply.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Install tracks level and plumb, according to manufacturer's written instructions. Provide track fabricated from one continuous length, up to 16 feet.

B. Track Accessories: Install splices, corners, end caps, connectors, end stops, coupling and joining sleeves, and other accessories as required for a secure and operational installation.

C. Curtain Carriers: Provide enough curtain carriers for 6 inch spacing along full length of curtain plus an additional carrier.

3.2 CLEANING AND ADJUSTING

A. Press curtain material to remove folds, creases, and wrinkles.

B. Repair or remove and replace defective work. Repairs shall be indistinguishable from undamaged curtain and track.

C. Clean curtains and tracks. Touch up damaged track finish.

END OF SECTION

THE CITY UNIVERSITY OF NEW YORK

ASRC/CCNY SCIENCE RESEARCH CENTER

The City College of New York

New York, New York

DASNY Project Number:
257110
Flad Project Number:
05432-82

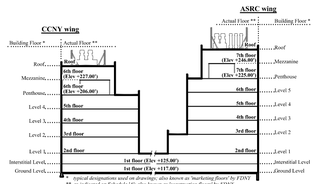
ASRC PHOTONICS LABORATORY RENOVATIONS

June 11th, 2019

Drawing Sheet Index

Project Sheet No.	NYC DoB Sheet No.		Sheet Name	CONSTRUCTION DOCUMENTS 5/6/2019	ADDENDUM 01 6/11/2019
GN General					
GN-000	T	000.00	COVER SHEET, DRAWING LIST & PLOT PLAN	x	x
GN-001	G	001.00	PLOT PLAN & BUILDING NOTES	x	
GN-101	G	101.00	PARTIAL LIFE SAFETY PLAN - GROUND LEVEL	x	
GN-220	G	220.00	LIFE SAFETY PLAN - LEVEL 2	x	
DM Plans					
AD-221	DM	220.00	PARTIAL DEMOLITION FLOOR PLAN - LEVEL 2 - SOUTH	x	
AD-222	DM	221.00	PARTIAL DEMOLITION FLOOR PLAN - LEVEL 2 - NORTH	x	
DPL-221	DM	222.00	DEMOLITION PLAN SECOND LEVEL SOUTH	x	
DPL-222	DM	223.00	DEMOLITION PLAN SECOND LEVEL NORTH	x	
DM-018	DM	018.00	DEMOLITION PLAN 1ST LEVEL (+125.00) INTERSTITIAL AREA 4	x	
DM-221	DM	224.00	DEMOLITION PLAN SECOND LEVEL SOUTH	x	
DM-222	DM	225.00	DEMOLITION PLAN SECOND LEVEL NORTH	x	
A Plans					
AE-014	A	014.00	PARTIAL LABORATORY PLAN - GROUND LEVEL	x	
AE-221	A	221.00	PARTIAL LABORATORY FLOOR PLAN - LEVEL 2 - SOUTH	x	
AE-222	A	222.00	PARTIAL LABORATORY FLOOR PLAN - LEVEL 2 - NORTH	x	
AB-221	A	321.00	PARTIAL REFLECTED CEILING PLAN - LEVEL 2 - SOUTH	x	
AB-222	A	322.00	PARTIAL REFLECTED CEILING PLAN -LEVEL 2 - NORTH	x	
AE-600	A	600.00	EQUIPMENT LIST	x	
AE-850	A	850.00	INTERIOR ELEVATIONS	x	x
AE-900	A	900.00	SCHEDULES AND DETAILS	x	x
AE-901	A	901.00	DETAILS	x	x
AE-902	A	901.00	DETAILS	x	
P Plans					
PL-000	P	000.00	PLUMBING SYMBOLS AND ABBREVIATIONS	x	
PL-014	P	014.00	FLOOR PLAN GROUND LEVEL (+117.00) AREA 4	x	
PL-018	P	018.00	FLOOR PLAN 1ST LEVEL (+125.00) INTERSTITIAL AREA 4	x	
PL-221	P	221.00	FLOOR PLAN SECOND LEVEL SOUTH	x	
PL-222	P	222.00	FLOOR PLAN SECOND LEVEL NORTH	x	
M Plans					
M-000	M	000.00	MECHANICAL SYMBOLS AND ABBREVIATIONS	x	
M-014	M	014.00	FLOOR PLAN GROUND LEVEL (+117.00) AREA 4	x	
M-018	M	018.00	FLOOR PLAN 1ST LEVEL (+125.00) INTERSTITIAL AREA 4	x	
M-221	M	221.00	FLOOR PLAN SECOND LEVEL SOUTH	x	
M-222	M	222.00	FLOOR PLAN SECOND LEVEL NORTH	x	
M-300	M	300.00	MECHANICAL DETAILS	x	
M-400	M	400.00	PARTIAL FLOOR PLAN SHAFT AND EXHAUST RISER	x	
M-500	M	500.00	MECHANICAL SCHEDULES	x	
M-600	M	600.00	MECHANICAL LAB CONTROL DIAGRAMS	x	
E Plans					
E-000			ELECTRICAL SYMBOLS AND ABBREVIATIONS	x	
E-400			ELECTRICAL PANEL SCHEDULES	x	
E-401			ELECTRICAL PANEL SCHEDULES	x	
E-402			ELECTRICAL PANEL SCHEDULES	x	

Project Sheet No.	NYC DoB Sheet No.		Sheet Name	CONSTRUCTION DOCUMENTS 5/6/2019
EL (Lighting) Plans				
DEL-014			DEMOLITION PLAN LIGHTING GROUND LEVEL (+117.00) AREA 4	x
DEL-221			DEMOLITION PLAN LIGHTING SECOND LEVEL SOUTH	x
DEL-222			DEMOLITION PLAN LIGHTING SECOND LEVEL NORTH	x
EL-014			FLOOR PLAN LIGHTING GROUND LEVEL (+117.00) AREA 4	x
EL-221			FLOOR PLAN LIGHTING SECOND LEVEL SOUTH	x
EL-222			FLOOR PLAN LIGHTING SECOND LEVEL NORTH	x
EP (Power) Plans				
DEP-014			DEMOLITION PLAN POWER GROUND LEVEL (+117.00) AREA 4	x
DEP-221			DEMOLITION PLAN POWER SECOND LEVEL SOUTH	x
DEP-222			DEMOLITION PLAN POWER SECOND LEVEL NORTH	x
EP-014			FLOOR PLAN POWER GROUND LEVEL (+117.00) AREA 4	x
EP-221			FLOOR PLAN POWER SECOND LEVEL SOUTH	x
EP-222			FLOOR PLAN POWER SECOND LEVEL NORTH	x
FA Plans				
DEF-014	DM	014.00	DEMOLITION PLAN FIRE ALARM GROUND LEVEL (+117.00) AREA 4	x
DEF-221	DM	221.00	DEMOLITION PLAN FIRE ALARM SECOND LEVEL SOUTH	x
DEF-222	DM	222.00	DEMOLITION PLAN FIRE ALARM SECOND LEVEL NORTH	x
EF-014	FA	014.00	FLOOR PLAN FIRE ALARM GROUND LEVEL (+117.00) AREA 4	x
EF-221	FA	221.00	FLOOR PLAN FIRE ALARM SECOND LEVEL SOUTH	x
EF-222	FA	222.00	FLOOR PLAN FIRE ALARM SECOND LEVEL NORTH	x
FA-515	FA	515.00	ELECTRICAL MODIFICATION TO EXISTING PRE-ACTION SYSTEM PARTIAL LABORATORY PLAN GROUND LEVEL	x
SP Plans				
FX-001	SP	001.00	SPRINKLER NOTES, KEY OF SYMBOL, PLOT PLAN AND DRAWING LIST	x
FX-002	SP	002.00	SPRINKLER NOTES AND SPECIFICATIONS	x
FX-003	SP	003.00	FLOOD INSURANCE RATE MAP 3604970079G	x
FX-004	SP	004.00	FLOOD INSURANCE RATE MAP 3604970079F	x
FX-014	SP	014.00	SPRINKLER PARTIAL LABORATORY PLAN GROUND LEVEL	x
FX-100	SP	100.00	SPRINKLER DEMOLITION PARTIAL REFLECTED CEILING PLAN LEVEL—2 SOUTH	x
FX-101	SP	101.00	SPRINKLER DEMOLITION PARTIAL REFLECTED CEILING PLAN LEVEL—2 NORTH	x
FX-220	SP	320.00	SPRINKLER PARTIAL REFLECTED CEILING PLAN LEVEL—2 SOUTH	x
FX-221	SP	321.00	SPRINKLER PARTIAL REFLECTED CEILING PLAN LEVEL—2 NORTH	x
FX-400	SP	400.00	SPRINKLER RISER DIAGRAM	x
FX-401	SP	401.00	SPRINKLER PRE-ACTION NOTES & SEQUENCE OF OPERATION (FOR REFERENCE ONLY)	x
FX-501	SP	501.00	SPRINKLER SCHEDULES & DETAILS	x



FLOOR DESIGNATION CONVERSION CHART

Flad Architects
Facility Leaders in Architectural/ Engineering Design, PC
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New York, NY 10016
Tel 212-897-3000
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AEI
Affiliated Engineers, P.C.

Cavadini Associates

BY:

Rev	Date	Description of Issue
01	06/11/19	ADDENDUM 01
0	05/06/19	CONSTRUCTION DOCUMENTS

Project Title

Dormitory Authority State Of New York
DASNY Project Number – 257110

The City University of New York

ASRC Photonics Lab Renovations

The City College of New York

85 St Nicholas Terrace
New York, NY 10027

DASNY #
257110

Scale
N/A

Company Drawn By
Flad Architects

Project Phase
CONSTRUCTION DOCUMENTS

Date
06/11/2019

Drawn By
KS

Flad Project Number
05432-82

Checked By
DH

Sheet Title
Cover Sheet & Drawing List

Sheet Number
GN-000

NYC DOB Sheet Number
T-000.00

Page No.
1 OF 1

Application No.

DOB BSCAN

GENERAL CONSTRUCTION NOTES

1.1 The following list of general notes is intended to set a quality standard and an expectation of reasonable care to be exercised when working on projects at The City University of New York (CUNY). It is not intended to take the place of the Design Consultant's general notes, nor does it relieve the Consultant's obligation for completeness and coordination of all information contained in the Drawings and Specifications.

1.2 The following General Notes shall be included in all DASNY/CUNY Project Drawing sets. Any notes that, in the opinion of the Consultant are inappropriate for the project shall be brought to the attention of the Project Manager for resolution.

DESIGN REQUIREMENTS

2.1 All work shall be done in accordance with the rules, regulations and procedures of DASNY/CUNY ("Contractor Work Rules" included in the Bid Package) and in accordance with the DASNY/CUNY Design Requirements.

2.2 The general notes contained herein are part of the Drawings and Specifications and are to be complied with in all respects. More restrictive notes located elsewhere in the Contract Documents are to take precedence over those listed below.

2.3 The best trade practices and governmental authorities having jurisdiction over the work including, but not limited to, New York City Department Of Buildings (DOB), the Board of Fire Underwriters, the New York City Fire Department and OSHA shall apply.

2.4 Prior to the commencement of the work, Contractor shall secure all required permits, approvals, etc. from all respective departments, agencies, commissions etc. having jurisdiction and submit one (1) copy of such to the DASNY/CUNY Project Manager.

2.5 Contractor shall be responsible for the protection of and safety in and around the Jobsite and adjacent properties. Provide and maintain protective flooring along traffic route for interior deliveries, using hardboard taped and secured to floor or other means acceptable to Owner (DASNY/CUNY). Protect all existing work from damage or soiling for the duration of the project. Any damaged or soiled items shall be restored to "like new condition" at no cost to the Owner.

2.6 Except for the area under construction, Owner will occupy site and existing building(s) during entire construction period. Cooperate with Owner during construction operations to minimize conflicts and facilitate Owner usage. Perform work so as not to interfere with Owner's day-to-working days in advance of activities that will effect Owner's operations.

2.7 Owner reserves the right to occupy and to install furniture and equipment in completed portions of the Work prior to substantial completion of the Work. Such placement and limited occupancy does not constitute acceptance of the Work.

2.8 Coordinate all Work with Project Manager that may result in high levels of noise and vibration, odors, or other disruption to Owner. Notify Owner not less than 5 working days in advance of proposed disruptive activities.

2.9 Smoking is not permitted within the Campus or within 50 feet of entrances, operable windows, or outdoor air intakes.

2.10 Use of tobacco or other controlled substances within the existing building is not permitted.

2.11 Contractor shall provide a schedule of required shop drawings/samples/cut sheets for approval within 7 working days from Project Kickoff. See specific trade notes and specifications for list of required submittals.

2.12 The contractor shall verify all existing conditions and dimensions in the field, whether or not specifically noted, and shall report any discrepancies between the Drawings and field conditions to the Project Manager and Architect prior to starting work.

2.13 Do not scale the Drawings.

2.14 Repetitive features may be drawn only once and shall be provided as if drawn in full.

2.15 Minor details not usually shown or specified, but necessary for proper construction of any part of the work shall be included as if they were indicated in the Drawings.

2.16 Contractor shall coordinate all trades, including Trade Work provided directly by the Owner.

2.17 Plumbing and electrical work shall be performed by professionals licensed in their trades, who shall arrange for and obtain inspections and required sign-offs.

2.18 Contractor shall keep temporary and permanent structural loading within intended limits.

2.19 Contractor shall be responsible for all cutting, fitting, or patching that may be required to complete the Work or to make its several parts fit together properly, and fit to receive or be received by work of others Contractors shown upon or reasonably implied by the Drawings and notes.

2.20 Patch and level flooring substrates per flooring manufacturers' recommendations. No gypsum based floor patching or leveling shall be allowed. Patch and repair finishes where existing pipe and duct hangers and other appurtenances have been removed.

2.21 Seal all openings uncovered during demolition – relocation of duct shafts or pipe chases, or removal of partitions or fixtures.

2.22 All areas affected by demolition of existing construction are to be patched to match new construction, and/or provide substrate to support new finish. Coordinate with new finishes to be applied at areas affected by demolition work.

2.23 Contractor shall lay out his own work and shall provide all dimensions required for other trades. The layout of partitions and openings shall be verified by the Architect prior to securing floor channels. Any work performed without Architect's approval does not relieve the contractor's responsibility for conforming with the Contract Documents.

2.24 All new construction shall match up with adjacent surfaces. Patch all cracks, holes and other imperfections to provide continuous smooth surface for joining new work.

2.25 The integrity of existing fireproofing shall always be restored and maintained.

2.26 Existing fire separations shall be maintained at all times, and if found compromised, shall be restored. Firestop all penetrations (new and existing) using acceptable firestop materials, means and methods.

2.27 All furred spaces are to be fire stopped 20"O.C. horizontally and 8'-0" vertically per the New York City Building Code.

2.28 Where fire division or separations are being removed the contractor shall provide temporary rated construction to match existing rating to ensure that currently occupied spaces will not be exposed to any increased hazard of fire or smoke spread.

2.29 Ducts, pipes and conduits passing through rated construction shall have spaces not exceeding 1/2", be packed with mineral wool and closed off with close-fitting metal escutcheons UON or specified in the Drawings or Specifications. Provide firestop assembly data showing required rating.

2.30 Where pipes, wires, conduits, ducts, etc. penetrate fire protection of individually wrapped encased structural members penetration shall not exceed 2% of any face of such projection and shall be closed off with close fitting metal escutcheons or plates, as per New York City Building Code.

2.31 All corridors shall be 3'-8" minimum clear in compliance with the New York City Building Code.

2.32 All wood to be used as blocking or other concealed purposes shall be fire retardant treated in compliance with the New York City Building Code UON.

2.33 Refer to Specifications for materials, assemblies, and products not specified on Drawings.

2.34 The contractor is to supply flush finished access doors where required, UON, and is responsible for supplying access doors in the size and quantity as required by the owner or by building codes for all supplemental mechanical equipment, electrical, sprinkler or other such devices installed or located above the ceiling or in the walls. Contractor to receive approval for all access door locations and sizes prior to ordering doors.

2.35 Contractor to provide 7 days notice for all building service shutdown requests (electrical, HVAC, water riser, fire protection, steam, etc.) and Hot Work Permit applications. Contractor must submit via Owner provided or approved standard shutdown request form. Shutdowns will be scheduled at the convenience of Owner daily operations, not necessarily the convenience of the Contractor.

2.36 Contractor is not responsible for providing or installing final locksets UON. The Contractor is responsible for obtaining the correct templates from Owner provided shops and coordinating cutouts for sets. Owner's locksmiths to provide and install entry locksets and permanent cylinders.

2.37 Premises are to be turned over to the Owner at completion of work perfectly clean, including windows, all tile floors cleaned and waxed, bases wiped clean, carpets vacuumed, etc.

2014 TENANT PROTECTION PLAN NOTES - BC 28-104.8.4

1. Means of Egress: At all times during the course of construction, the egress from the various floors of the building will be maintained. Required egress shall not be obstructed at any time. All existing means of egress shall be maintained clear and free of all obstructions, such as building materials, tools, etc.
2. Fire Safety: All precautions shall be observed to maintain fire safety. As well, additional safety measures necessitated by the construction shall be strictly observed. All necessary laws and controls including those with respect to occupied dwellings shall be strictly observed.
3. Health Requirements: Dust shall be kept to a minimum and shall be removed after completion of each work day. Disposal of construction debris shall be done in the same manner. Contractor shall provide protection to limit to the minimal, the amount of dust, dirt, or other such inconveniences created to all other areas within the building. Maintain sanitary facilities. Control pests at all times. Contractor shall comply with applicable laws relating to lead and asbestos. If observed, immediately contact Owner or Architect.
4. Compliance with Housing Standards: The requirements of the New York City Housing Maintenance Code shall be strictly adhered to. Services throughout the building including cleaning, rodent control, collection of wastes, and other required services shall continue during the entire construction period. Construction operations shall not involve interruption of heating, water, or electrical services to other occupants of the building without proper posted notice. The New York State Multiple Dwelling Law shall be strictly observed.
5. Structural Safety: No structural work is contemplated for this alteration. Channeling of building structure including beams, columns, the structural floor slabs and exterior masonry walls shall not be permitted.

BUILDING DEPARTMENT NOTES

1. All work shall be constructed in conformance with the 2014 New York City Building Code and applicable sections of Local Law 26 of 2004.
2. All references to the Building Code and Building Department shall be understood to mean the rules and regulations of the New York City Building Department's Administrative Code and Local Law No. 76 of the City of New York, Latest Edition.
3. All necessary electrical work approvals shall be obtained from the Bureau of Electrical Control.
4. Lighting and power installation shall conform to the New York City Electrical Code-performed by individuals licensed in the trades, and any pertinent regulations of the New York City Department of Water Supply, Environmental Protection, Gas and Electrical Supply (Con Edison).
5. All Department of Building's Permits are to be conspicuously posted, open to public inspection, until the completion of the work, of the use and operation of the equipment, or until the permit's expiration.
6. Contractors are to file Workman's Compensation certificates and all other insurance certificates and obtain required permits from the Building Department as may be required to conduct the work, including the payment of all fees required by any City Agency.
7. All OSHA requirements are to be complied with, including, but not limited to the provisions pertaining to safety barriers/barricades at all openings, existing or new, temporary due to removals.
8. The contractor shall coordinate all work procedures with requirements of local agencies and authorities.
9. Opening protectives shall conform to Section 715 of the New York City Building Code.
10. All materials, assemblies, forms and methods of construction and service equipment shall have been accepted for use under the prescribed test methods by the Commissioner or approved by the Board of Standards and Appeals (BSA).
11. Upon completion of the work, the contractor shall apply for Certificate of Occupancy or related documents, and shall arrange for Department of Buildings Inspections and signoffs required to obtain same.
12. Refer to Specification Section 014000 Quality and Code Requirements for additional requirements.

SPECIAL INSPECTIONS

1. DASNY (Owner) is responsible for engaging the testing agency that will be providing any and all Special Inspections and Tests, except where noted.
2. The following work items are subject to Special Inspections and Tests - are to be made and witnessed by or under the direct supervision of an architect or engineer retained by the Owner. Test reports and certificates of inspection shall be filed with the Building Department as required:

a. Sprayed Fire-Resistant Materials — BC 1704.11
b. Mechanical Systems — BC 1704.16
c. Fire-resistant Penetrations and Joints — BC 1704.27
d. Progress Inspections
 d.1. Fire-Resistance Rated Construction — BC 110.3.4
 d.2. Energy Code Compliance — BC 110.3.5
 d.3. Final — BC 110.5

e. Energy Code Progress Inspections
 e.1. HVAC and Service Water Heating Equipment — IIB3
 e.2. HVAC and Service Water Heating System Controls — IIB4
 e.3. HVAC Insulation and Sealing — IIB5
 e.4. Duct Leakage Testing — IIB6
 e.5. Electrical Energy Consumption — IIC1
 e.6. Interior Lighting Power — IIC3
 e.7. Lighting Controls — IIC5

f. Refer to Specification Section 01 4000 Quality and Code Requirements for additional requirements.

ENERGY CODE COMPLIANCE

To the best of my knowledge, belief, and professional judgement, the drawings and specifications which comprise the construction documents for this project are in conformance with NYC ECC 2016.

ECC ANALYSIS

NYC
Buildings

2016 NYCECC TABULAR ANALYSIS
Commercial - Lighting

NYCECC Citation	Provision	Item Description	Proposed Design Value	Code Prescriptive Value (ECC)	Supporting Documentation
C503.6 Exception	Lighting Systems	Lighting fixtures for areas of alteration	The alterations replace less than 20 percent of the luminaires in the space and do not increase the installed interior lighting power therefore do not need to comply with Section C405	Existing lighting loads for the area of alteration include (19) 64W fixtures on ground floor, (123) 64W fixtures, (7) 26W fixtures and (4) 98W fixtures on second floor for a total of 9662W. Of the (19) fixtures on ground floor, (10) are being replaced. All other fixtures on ground and first floor are existing to remain or being relocated within the space. The total fixture count after alteration is (26) 64W fixtures on ground floor, (109) 64W fixtures, (7) 26W fixtures and (4) 98W fixtures on second floor for a total of 9214W. The alteration project replaces only (10) of the total (153) fixtures in the areas of renovation which is less than 20% of the luminaries. The net energy use is decreased by 448W.	See drawings DEL-014, DEL-221, and DEL-222 for quantity and layout of luminaires being demolished and existing luminaires to remain and/or be relocated. See drawings EL-014, EL-221, and EL-222 for new layout of relocated luminaires.

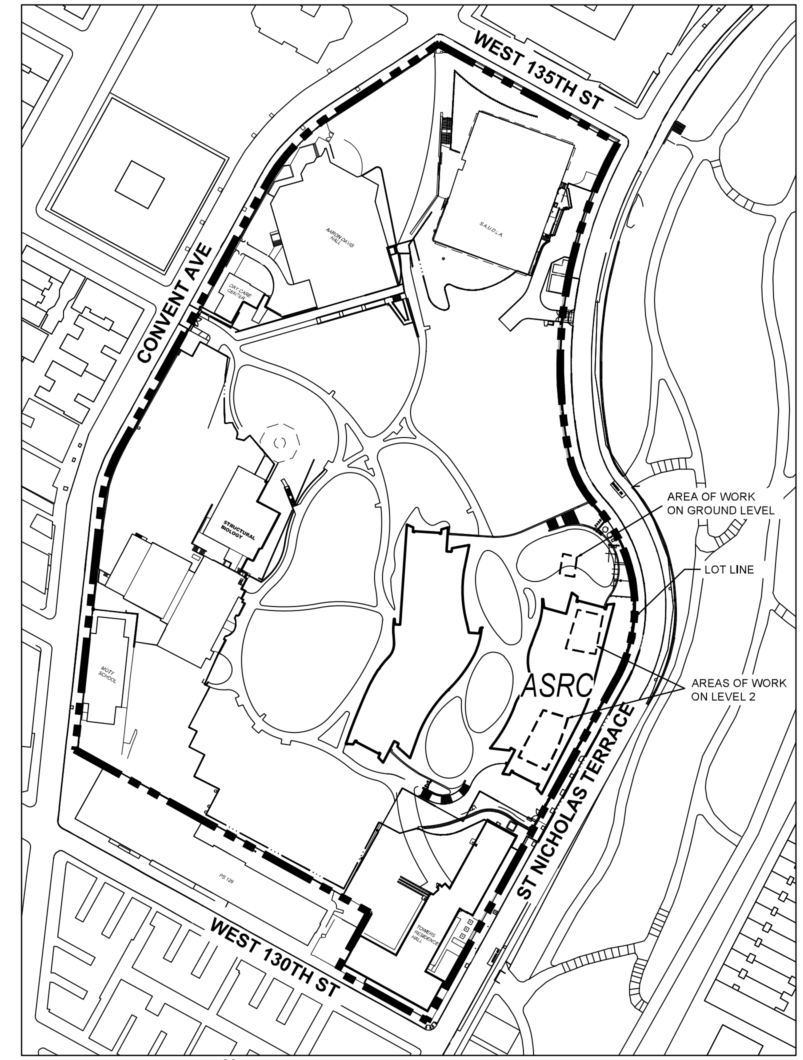
NYC
Buildings

2016 NYCECC TABULAR ANALYSIS
Commercial - HVAC

NYCECC Citation	Provision	tem Description	Proposed Design Value	Code Prescriptive Value (ECC)	Supporting Documentation
C403.2.1	Calculation of heating and cooling loads	Load calculations for HVAC system	Design loads are determined in accordance with the procedures described in ASHRAE Standard 183.	Design loads associated with HVAC shall be determined in accordance with ANSI/ASHRAE/ACCA Standard 183.	Signed and sealed statement from Engineer certifying compliance with Energy Code.
C403.2.2	Equipment sizing	HVAC systems sizing based on load calculations	Were applicable, HVAC equipment is sized based on load calcs. Equipment serving select Laser Labs is sized to maintain precise space temperature control (+/- 1F) based on the design load calculations.	Heating and cooling equipment shall not exceed calculated loads.	Signed and sealed statement from Engineer certifying compliance with Energy Code.
C403.2.4.1	Thermostatic controls	individual thermostatic controls for each HVAC zone	A minimum of (1) thermostat is provided for each HVAC zone.	A minimum of (1) thermostat is required for each HVAC zone.	Thermostats are shown on M-014.00, M-221.00, M-222.00, M-600.00
C403.2.4.1.2 Exception	Deadband	Provide Deadband	Spaces will be controlled to maintain a year around setpoint (72 +/- 1F)	Exception: Spaces served require precision indoor temperature control	M-600.00
C403.2.4.2 Exception	Off-hour controls	Provide thermostatic setback controls	Spaces will operate as "occupied" 24/7 to maintain precision temperature control	Exception: Zones will be operated continuously.	M-600.00
C403.2.6.1 Exception	Demand control ventilation controls	Provide DCV controls	Space airflow/ventilation (100% OA system) is airchagne driven to maintain precision temperature control	Exception: Systems with energy recovery complying with NYCECC.	Project is served from existing primary airside equipment that includes a run-around heat recovery loop.
C403.2.9	Duct and plenum insulation and sealing	All ductwork	Unconditioned spaces: R-6 Conditioned spaces: none, exterior wall insulated >R-8	Supply and return ducts and plenums shall have a minimum of R-6 where located in unconditioned spaces and R-8 minimum where located outside building. Where located within a building envelope assembly, the duct or plenum shall be separated from the building exterior by a minimum of R-8.	Spec Section 23 0700 HVAC Insulation
C403.2.9.1	Duct construction	All ductwork	Ductwork must be constructed and erected in accordance with the NYCMC	Ductwork shall be constructed and erected in accordance with the NYCMC	Spec Section 23 3113 Metal Ductwork
C403.2.10	Piping insulation	Reheat hot water piping	Pipe up to 1-1/2" --> 1-1/2" of insul. Pipe 2"-6" --> 2" of insul.	Piping serving as part of a heating or cooling system shall be thermally insulated in accordance with Table C403.2.10.	Spec Section 23 0700 HVAC Insulation

ARCHITECTURAL ABBREVIATIONS

ALUM	ALUMINUM
CAB	CABINET
CFOI	CONTRACTOR FURNISHED, OWNER INSTALLED
CHWS/R	CHILLED WATER SUPPLY/RETURN
CLG	CEILING
CM	CONSTRUCTION MANAGER
CMU	CONCRETE MASONRY UNIT
COL	COLUMN
CONT	CONTINUOUS/ CONTINUE
CONTR	CONTRACT(OR)
CONV	CONVECTOR
CORR	CORRIDOR
CR	CARD READER
CSK	COUNTERSINK
CW	COLD WATER
DIM	DIMENSION
DIR	DIRECTION
DISP	DISPENSER
DR	DOOR
DTL	DETAIL
DWG	DRAWING
EL	ELEVATION
ELEC	ELECTRIC (ELECTRICAL)
EP	ELECTRICAL PANEL
EPO	EMERGENCY POWER OUTLET
EPT	EPOXY PAINT
EPX	EPOXY
EQ	EQUAL
EQUIP	EQUIPMENT
ES	EMERGENCY SHOWER
ETR	EXISTING TO REMAIN
EWS	EMERGENCY SHOWER AND EYEWASH
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPOSED
EXT	EXTERIOR
FA	FIRE ALARM
FB	FLOOR BOX
FCU	FAN COIL UNIT
FD	FLOOR DRAIN
FDC	FIRE DEPT CONNECTION
FDTN	FOUNDATION
FDV	FIRE DEPT VALVE
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF	FINISHED FLOOR
FIN	FINISH (ED)
FIXT	FIXTURE
FLEX	FLEXIBLE
FLR	FLOOR
FP	FIRE PROTECTION
FR	FIRE RETARDANT/ RESISTANT
FRT	FIRE RESISTANT TREATED
FRZ	FREEZER
GA	GAGE (GAUGE)
GC	GENERAL CONTRACTOR
GL	GLASS/GLAZING
GB	GYPSUM BOARD
HDWD	HARDWOOD
HM	HOLLOW METAL
HPC	HIGH PERFORMANCE COATING
HR	HOUR
HT	HEIGHT
HVAC	HEATING, VENTILATING & AIR CONDITIONING
HW	HOT WATER
HWS	HEAD WELDED STUD
INFO	INFORMATION
INSUL	INSULATION/INSULATED
INT	INTEGRAL
J-BOX	JUNCTION BOX
JST	JOIST
JT	JOINT
LAB	LABORATORY
LAN	LOCAL AREA NETWORK
LFC	LAB FURNISHINGS CONTRACTOR
LINO	LINOLEUM
LL	LIVE LOAD
LN2	LIQUID NITROGEN
LNDG	LANDING
LOC	LOCATION (LOCATE)
LPT	LOW POINT
LT GA	LIGHT GAGE
LTG	LIGHTING
LTG PNL	LIGHTING PANEL
LW	LIGHTWEIGHT
M	METER
MECH	MECHANICAL
MECH RM	MECHANICAL EQUIPMENT ROOM
MEP	MECHANICAL, ELECTRICAL, PLUMBING
MIR	MIRROR
MISC	MISCELLANEOUS
MLDG	MOLDING/ MOULDING
mm	MILLIMETER
OFCI	OWNER FURNISHED, CONTRACTOR INSTALLED
OFF	OFFICE/ OFFICER
OFOI	OWNER FURNISHED, OWNER INSTALLED
OHSC	OVER HEAD SERVICE CARRIER
PLAM	PLASTIC LAMINATE
PLAS	PLASTER
PLBG	PLUMBING
PLF	POUNDS PER LINEAR FOOT
PNL	PANEL/ PANELING
PT	PAINT
REF	REFERENCE
REF	REFRIGERATOR
REQ	REQUIRED
RM	ROOM
SIM	SIMILAR
SS	STAINLESS STEEL
SSM	SOLID SURFACE MATERIAL
STD	STANDARD
STL	STEEL
STOR	STORAGE
STRUCT	STRUCTURAL/STRUCTURE
THK	THICK/THICKNESS
TO	TOP OF
TYP	TYPICAL
UC	UNDER COUNTER

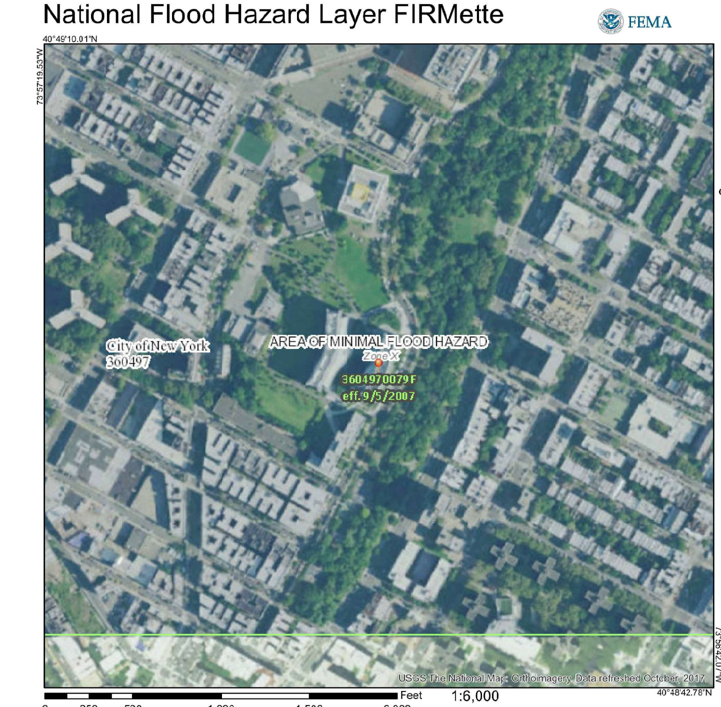


2 **PLOT PLAN**
NTS

N

National Flood Hazard Layer FIRMette

FEMA



Legend

SEE FIS REPORT FOR DETAILED LEGEND AND INDEX MAP FOR FIRM PANEL LAYOUT

SPECIAL FLOOD HAZARD AREAS		Without Base Flood Elevation (BFE) *Zone A, V, A99*
		With BFE or Depth *Zone AE, AO, AH, VE, AR*
		Regulatory Floodway
OTHER AREAS OF FLOOD HAZARD		0.2% Annual Chance Flood Hazard, Areas of 1% annual chance flood with average depth less than one foot or with drainage areas of less than one square mile *Zone X*
		Future Conditions 1% Annual Chance Flood Hazard *Zone X*
		Area with Reduced Flood Risk due to Levee. See Notes. *Zone X*
		Area with Flood Risk due to Levee *Zone D*
OTHER AREAS	NO SCREEN	Area of Minimal Flood Hazard *Zone X*
		Effective LOMRs
		Area of Undetermined Flood Hazard *Zone D*
GENERAL STRUCTURES		Channel, Culvert, or Storm Sewer
		Levee, Dike, or Floodwall
	20.2	Cross Sections with 1% Annual Chance
	17.5	Water Surface Elevation
	8	Coastal Transect
	513	Base Flood Elevation Line (BFE)
		Limit of Study
		Jurisdiction Boundary
		Coastal Transect Baseline
OTHER FEATURES		Profile Baseline
		Hydrographic Feature
MAP PANELS		Digital Data Available
		No Digital Data Available
		Unmapped

The pin displayed on the map is an approximate point selected by the user and does not represent an authoritative property location.

This map complies with FEMA's standards for the use of digital flood maps if it is not void as described below. The basemap shown complies with FEMA's basemap accuracy standards

The flood hazard information is derived directly from the authoritative NFHL web services provided by FEMA. This map was exported on 4/25/2019 at 10:39:18 AM and does not reflect changes or amendments subsequent to this date and time. The NFHL and effective information may change or become superseded by new data over time.

This map image is void if the one or more of the following map elements do not appear: basemap imagery, flood zone labels, legend, scale bar, map creation date, community identifiers, FIRM panel number, and FIRM effective date. Map images for unmapped and unmodernized areas cannot be used for regulatory purposes.

1 **FEMA MAP**

N

PROPERTY DATA

ADDRESS:	85 ST NICHOLAS TERRACE NEW YORK, NY 10027
BLOCK:	1957
LOT:	1
ZONE:	R7-2
MAP:	6a
BIN:	1088609
OCCUPANCY:	D-2
USE GROUP:	3
CONSTRUCTION CLASSIFICATION:	I-C (2 HOUR PROTECTED) NONCOMBUSTIBLE
NO. OF STORIES:	6
BLDG HEIGHT:	168'-0"

Flad Architects
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AEI
Affiliated Engineers, P.C.

Cosentini Associates

BY:

Rev	Date	Description of Issue
0	05/06/19	CONSTRUCTION DOCUMENTS

Project Title

Dormitory Authority State Of New York
DASNY Project Number - 257110

CUNY The City University of New York

ASRC Photonics Lab Renovations

The City College of New York

85 St Nicholas Terrace
New York, NY 10027

DASNY # 257110

Scale N/A

Company Drawn By Flad Architects

Project Phase CONSTRUCTION DOCUMENTS

Date 05/06/2019 | **Drawn By** KS

Flad Project Number 05432-82 | **Checked By** DH

Sheet Title Plot Plan & Building Notes

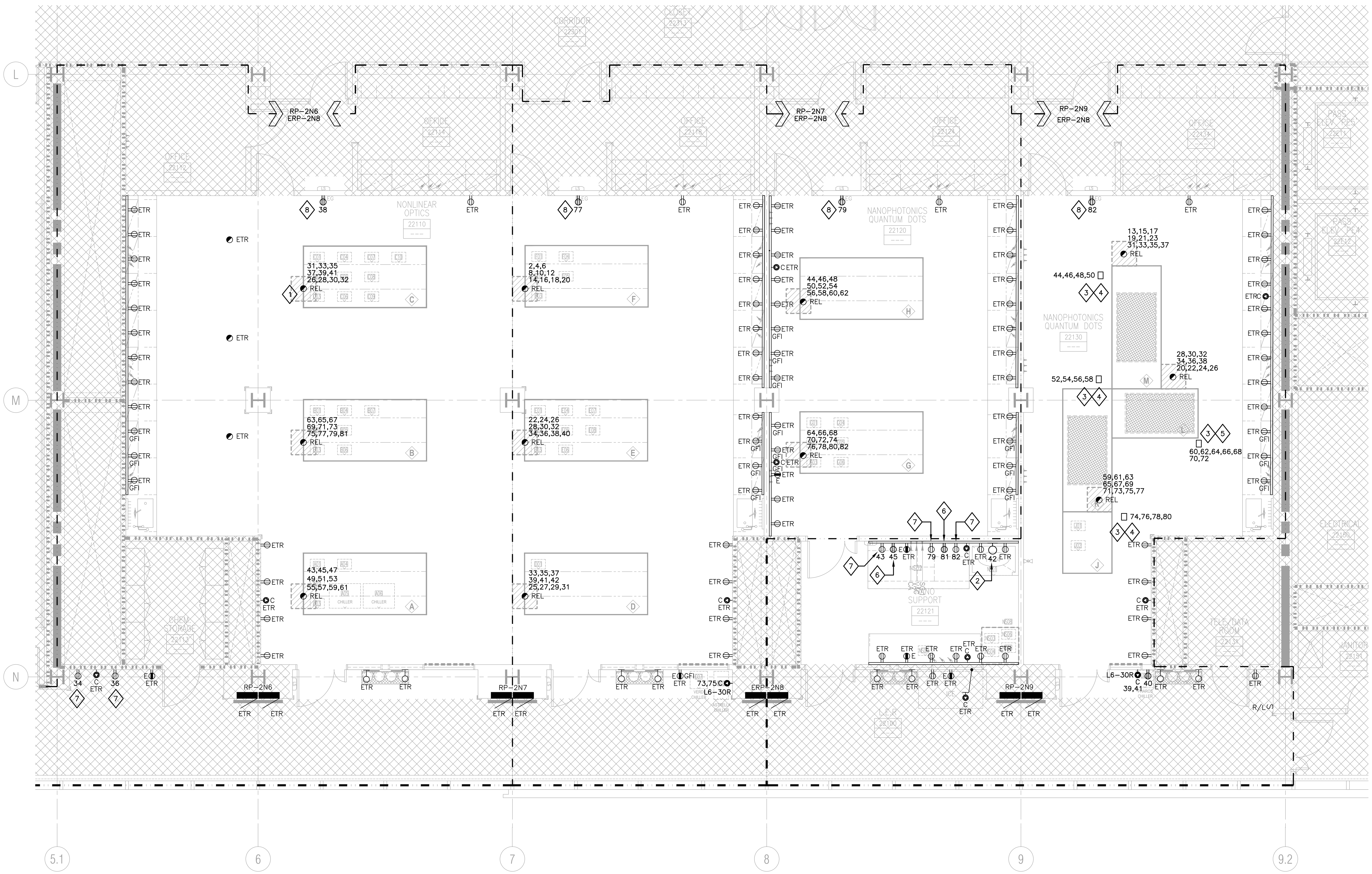
Sheet Number GN-001

NYC DOB Sheet Number G-001.00

Page No. 1 OF 1

Application No.

DOB BSCAN



1 **Floor Plan Power - Second Level - South**
1/4" = 1'-0"

GENERAL NOTES:

1. REFER TO SHEET E-000 FOR SYMBOLS AND ABBREVIATIONS.
2. CIRCUITING SHALL BE MAINTAINED TO DEVICES INDICATED AS EXISTING TO REMAIN. RELOCATE OR EXTEND EXISTING CONDUIT AND CONDUCTORS AS REQUIRED TO MAINTAIN CIRCUITING.
3. CIRCUIT NUMBERS INDICATE QUANTITY OF RECEPTACLES PER CIRCUIT.
4. REFER TO ARCHITECTURAL AND LAB ELEVATIONS FOR MOUNTING HEIGHT OF ABOVE COUNTER RECEPTACLES AND SURFACE MOUNTED RACEWAY.
5. PROVIDE GFI PROTECTION FOR RECEPTACLES LOCATED WITHIN 6' OF LABORATORY SINKS, WHETHER SHOWN ON PLAN OR NOT.
6. NUMBER ADJACENT TO POWER CONNECTION SYMBOL IS INTENDED CIRCUIT NUMBER. REFER TO PANEL DIVISION LINES FOR SOURCE PANELBOARD.
7. ALL 120V, 20A BRANCH CIRCUITS IN LABS SHALL HAVE A DEDICATED NEUTRAL UNLESS NOTED OTHERWISE.
8. PROVIDE 120V POWER CONNECTION TO FIRE/SMOKE DAMPER CONTROL TRANSFORMER. CIRCUIT TO 20/1 BREAKER IN NEAREST 208V LIFE SAFETY PANEL. REFER TO M-SERIES DRAWINGS FOR DAMPER LOCATION. PROVIDE 1 CIRCUIT FOR UP TO 10 DAMPERS.

SHEET KEYNOTES:

1. TYPICAL: CEILING SERVICE PANEL RELOCATED FROM SECOND FLOOR. PROVIDE (6) 120V, 20A AND (2) 208V, 1 PHASE, 30A CIRCUITS TO RECESSED CEILING SERVICE PANEL FOR POWER TO LASER TABLE. ELECTRICAL CONTRACTOR SHALL INSTALL (1) RECEPTACLE PER CIRCUIT AND (2) DATA CABLE CONNECTIONS TO EXISTING JACKS IN EACH DATA BACKBOX IN CEILING SERVICE PANEL. RECEPTACLES, FACE PLATES AND SERVICE PANELS ARE PROVIDED BY LAB EQUIPMENT SUPPLIER.
2. PROVIDE A 120V HARDWIRE CONNECTION TO FUME HOOD. COORDINATE EXACT LOCATION OF HARDWIRE CONNECTION WITH FUME HOOD CONTRACTOR PRIOR TO INSTALL.
3. PROVIDE BLANK ALUMINIUM TWO-COMPARTMENT POLE WITH CAPACITY FOR UP TO A 60A DEVICE OR UP TO 12 RECEPTACLES. MINIMUM HEIGHT 10'-2" TO EXTEND ABOVE SUSPENDED CEILING. MOUNT RECEPTACLES ON LOWER HALF OF POLE. COORDINATE EXACT MOUNTING HEIGHT AND ORIENTATION OF POLE FACE CONTAINING RECEPTACLES WITH THE OWNER PRIOR TO INSTALLATION. BASIS OF DESIGN: WIREMOLD NP800C-10-2B OR EQUAL.
4. PROVIDE (4) NEMA 5-20R RECEPTACLES IN POLE, CIRCUITS AS INDICATED.
5. PROVIDE (5) NEMA 5-20R AND (1) NEMA 6-20R RECEPTACLES IN POLE, CIRCUITS AS INDICATED.
6. INSTALL NEW RECEPTACLES IN EXISTING SURFACE MOUNTED RACEWAY.
7. RECIRCUIT EXISTING RECEPTACLE AS INDICATED TO PROVIDE DEDICATED CIRCUIT.
8. POWER FOR ENTRY-GUARD CONTROL PANEL. PROVIDE LOW VOLTAGE WIRING AND DOOR SENSOR SHOWN ON ARCHITECTURAL DRAWINGS. COORDINATE WITH KENTEK INSTALLATION INSTRUCTIONS.

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AEI
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KEY PLAN — ASRC — NORTH

BY:

Rev	Date	Description of Issue
0	05/06/19	Construction Documents

Project Title

Dormitory Authority State Of New York
DASNY Project Number - 257110
CUNY The City University of New York

ASRC Photonics Lab Renovations

The City College of New York
85 St Nicholas Terrace
New York, NY 10027

DASNY # 257110

Scale

Company Drawn By: Affiliated Engineers
Project Phase: CONSTRUCTION DOCUMENTS
Date: 05/06/2019 — Drawn By: AEI
Flad Project Number: 05432-82 — Checked By: AEI

Sheet Title: **Floor Plan Power Second Level South**

Sheet Number: EP-221

NYC DOB Sheet Number

Page No.

Application No.

DOB BSCAN

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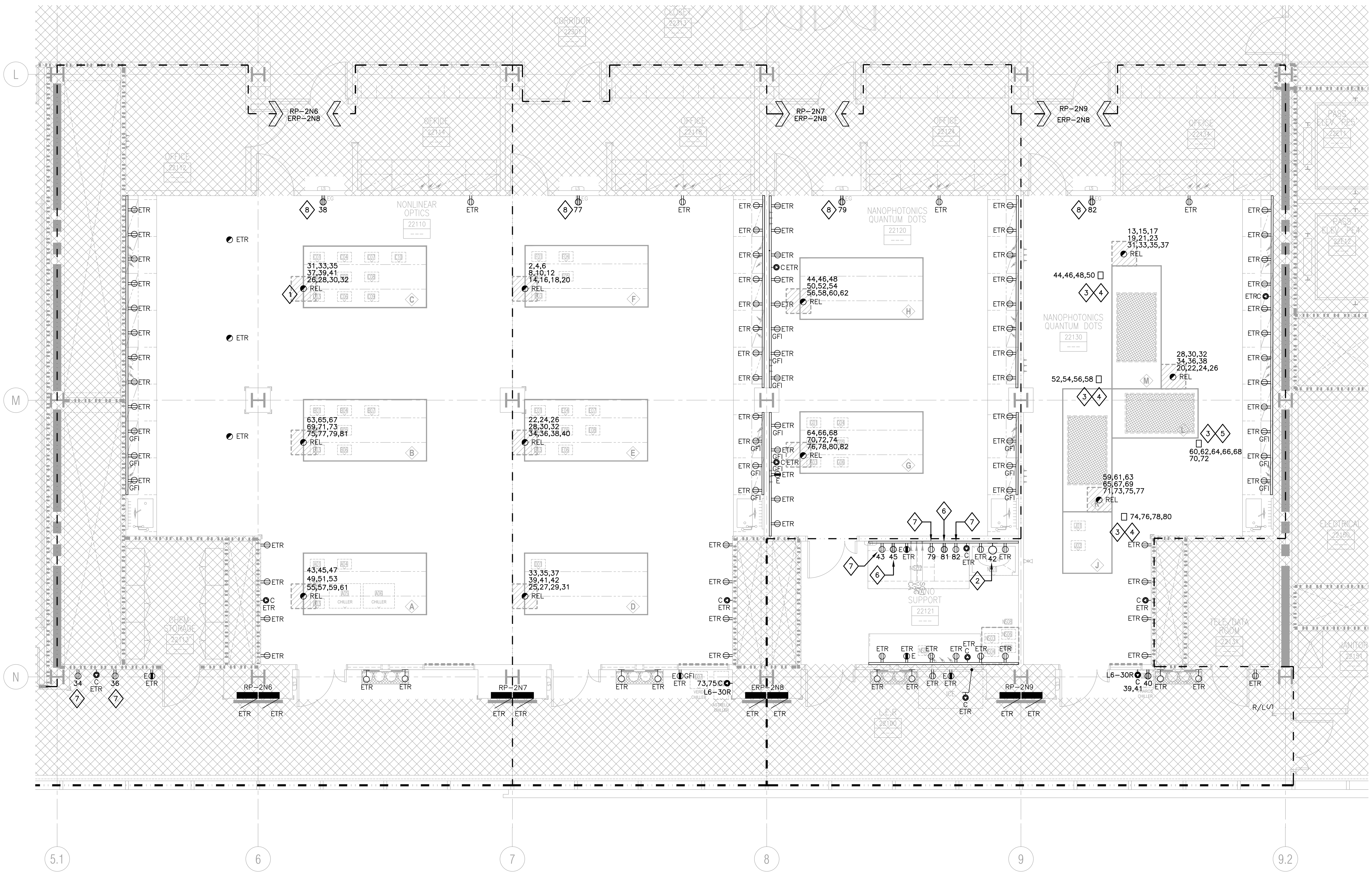

1 Floor Plan Power - Second Level - South

1/4" = 1'-0"

GENERAL NOTES:

1. REFER TO SHEET E-000 FOR SYMBOLS AND ABBREVIATIONS.
2. CIRCUITING SHALL BE MAINTAINED TO DEVICES INDICATED AS EXISTING TO REMAIN. RELOCATE OR EXTEND EXISTING CONDUIT AND CONDUCTORS AS REQUIRED TO MAINTAIN CIRCUITING.
3. CIRCUIT NUMBERS INDICATE QUANTITY OF RECEPTACLES PER CIRCUIT.
4. REFER TO ARCHITECTURAL AND LAB ELEVATIONS FOR MOUNTING HEIGHT OF ABOVE COUNTER RECEPTACLES AND SURFACE MOUNTED RACEWAY.
5. PROVIDE GFI PROTECTION FOR RECEPTACLES LOCATED WITHIN 6' OF LABORATORY SINKS, WHETHER SHOWN ON PLAN OR NOT.
6. NUMBER ADJACENT TO POWER CONNECTION SYMBOL IS INTENDED CIRCUIT NUMBER. REFER TO PANEL DIVISION LINES FOR SOURCE PANELBOARD.
7. ALL 120V, 20A BRANCH CIRCUITS IN LABS SHALL HAVE A DEDICATED NEUTRAL UNLESS NOTED OTHERWISE.
8. PROVIDE 120V POWER CONNECTION TO FIRE/SMOKE DAMPER CONTROL TRANSFORMER. CIRCUIT TO 20/1 BREAKER IN NEAREST 208V LIFE SAFETY PANEL. REFER TO M-SERIES DRAWINGS FOR DAMPER LOCATION. PROVIDE 1 CIRCUIT FOR UP TO 10 DAMPERS.

SHEET KEYNOTES:

1. TYPICAL: CEILING SERVICE PANEL RELOCATED FROM SECOND FLOOR. PROVIDE (6) 120V, 20A AND (2) 208V, 1 PHASE, 30A CIRCUITS TO RECESSED CEILING SERVICE PANEL FOR POWER TO LASER TABLE. ELECTRICAL CONTRACTOR SHALL INSTALL (1) RECEPTACLE PER CIRCUIT AND (2) DATA CABLE CONNECTIONS TO EXISTING JACKS IN EACH DATA BACKBOX IN CEILING SERVICE PANEL. RECEPTACLES, FACE PLATES AND SERVICE PANELS ARE PROVIDED BY LAB EQUIPMENT SUPPLIER.
2. PROVIDE A 120V HARDWIRE CONNECTION TO FUME HOOD. COORDINATE EXACT LOCATION OF HARDWIRE CONNECTION WITH FUME HOOD CONTRACTOR PRIOR TO INSTALL.
3. PROVIDE BLANK ALUMINIUM TWO-COMPARTMENT POLE WITH CAPACITY FOR UP TO A 60A DEVICE OR UP TO 12 RECEPTACLES. MINIMUM HEIGHT 10'-2" TO EXTEND ABOVE SUSPENDED CEILING. MOUNT RECEPTACLES ON LOWER HALF OF POLE. COORDINATE EXACT MOUNTING HEIGHT AND ORIENTATION OF POLE FACE CONTAINING RECEPTACLES WITH THE OWNER PRIOR TO INSTALLATION. BASIS OF DESIGN: WIREMOLD NP800C-10-2B OR EQUAL.
4. PROVIDE (4) NEMA 5-20R RECEPTACLES IN POLE, CIRCUITS AS INDICATED.
5. PROVIDE (5) NEMA 5-20R AND (1) NEMA 6-20R RECEPTACLES IN POLE, CIRCUITS AS INDICATED.
6. INSTALL NEW RECEPTACLES IN EXISTING SURFACE MOUNTED RACEWAY.
7. RECIRCUIT EXISTING RECEPTACLE AS INDICATED TO PROVIDE DEDICATED CIRCUIT.
8. POWER FOR ENTRY-GUARD CONTROL PANEL. PROVIDE LOW VOLTAGE WIRING AND DOOR SENSOR SHOWN ON ARCHITECTURAL DRAWINGS. COORDINATE WITH KENTEK INSTALLATION INSTRUCTIONS.

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KEY PLAN (ASRC, 9.2, 10, NORTH)

BY:

Rev	Date	Description of Issue
0	05/06/19	Construction Documents

Project Title

Dormitory Authority State Of New York
DASNY Project Number – 257110

The City University of New York

ASRC Photonics Lab Renovations

The City College of New York

85 St Nicholas Terrace
New York, NY 10027

DASNY # 257110

Scale

Company Drawn By: Affiliated Engineers

Project Phase: CONSTRUCTION DOCUMENTS

Date: 05/06/2019 — Drawn By: AEI

Flad Project Number: 05432-82 — Checked By: AEI

Sheet Title: **Floor Plan Power Second Level South**

Sheet Number: EP-221

NYC DOB Sheet Number

Page No.

Application No.

DOB BSCAN

GENERAL NOTES:

1. REFER TO SHEET E-000 FOR SYMBOLS AND ABBREVIATIONS.
2. ALL PANELS, CIRCUITS, AND BREAKERS ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.

(4)

PANEL: **RP-BK16** SECT.: 1 MTG.: SURFACE
VOLTS: 120/208V PHASE: 3 WIRES: 4 GND.: GROUND BUS
MAIN C.B.: 225 AMP
MAIN BUS: 225 AMP MINIMUM INTERRUPTING RATING: 22,000A*

CKT. No.	TRIP (Amps)	DESCRIPTION OF LOAD	Category	Load (Va)	Per Phase (Va) A	B	C	Load (Va)	Category	DESCRIPTION OF LOAD	Trip (Amps)	Ckt. No.
1	20	RECEPS RM 00772A	R	720	1080			360	R	RECEPS RM 00614A, 00614B	20	2
3	20	RECEPS RM 00772A	R	540		900		360	R	RECEPS 00614B	20	4
5	20	RECEPS RM 00614A	R	720			1260	540	R	RECEPS 00614B	20	6
7	20	RECEPS RM 00614A	R	720	900			180	R	CLG SERVICE PNL 00614A L5-20R	20	8
9	20	RECEPS 00614B	R	360		540		180	R	CLG SERVICE PNL 00614A L5-20R	20	10
11	20	RECEPS 00614B	R	540			720	180	R	CLG SERVICE PNL 00614A L5-20R	20	12
13	20	CLG SERVICE PNL 00614A L5-20R	R	180	360			180	R	CLG SERVICE PNL 00614A L5-20R	20	14
15	20	CLG SERVICE PNL 00614A L5-20R	R	180		360		180	R	CLG SERVICE PNL 00614A L5-20R	20	16
17	20	CLG SERVICE PNL 00614A L5-20R	R	180			360	180	R	CLG SERVICE PNL 00614A L5-20R	20	18
19	20	CLG SERVICE PNL 00614A L5-20R	R	180	2680			2500	R	CLG SERVICE PNL 00614A L6-30R	30	20
21	20	CLG SERVICE PNL 00614A L5-20R	R	180		2680		2500	R	CLG SERVICE PNL 00614A L6-30R	|	22
23	20	CLG SERVICE PNL 00614A L5-20R	R	180			2680	2500	R	CLG SERVICE PNL 00614A L6-30R	30	24
25	30	CLG SERVICE PNL 00614A L6-30R	R	2500	5000			2500	R	CLG SERVICE PNL 00614A L6-30R	|	26
27	|	CLG SERVICE PNL 00614A L6-30R	R	2500		5000		2500	R	208V RECEP RM 00614B	30	28
29	30	CLG SERVICE PNL 00614A L6-30R	R	2500			5000	2500	R	|	|	30
31	|	CLG SERVICE PNL 00614A L6-30R	R	2500	5000			2500	R	ANECHOIC CHAMBER POWER 208V	30	32
33	20	GAS MANIFOLD	O	180		2680		2500	R	|	|	34
35	20	SPARE					2500	2500	R	ANECHOIC CHAMBER POWER 208V	30	36
37	20	SPARE			2500			2500	R	|	|	38
39	20	SPARE				720		720	R	ANECHOIC CHAMBER POWER	20	40
41	20	SPARE					1116	1116	O	ANECHOIC CHAMBER LIGHTING	20	42
					17520	12880	13636					

TOTAL CONNECTED LIGHTING LOAD (KVA): 0.00
TOTAL CONNECTED RECEPTACLE LOAD (KVA): 42.74
TOTAL CONNECTED OTHER LOAD (KVA): 1.30
TOTAL CONNECTED LOAD (KVA): 44.04
TOTAL DEMAND LOAD (KVA): 27.67
TOTAL DEMAND LOAD (AMPS): 76.85

*CONFIRM MINIMUM INTERRUPTING RATING AS OUTLINED IN SPECIFICATION SECTION 260573

SHEET KEYNOTES:

1. PROVIDE NEW LOAD ON EXISTING CIRCUIT UNLOADED DURING DEMOLITION.
2. PROVIDE NEW LOAD ON EXISTING SPARE CIRCUIT.
3. PROVIDE NEW BREAKER FOR NEW LOAD.
4. PROVIDE NEW PANELBOARD, REFER TO SHEET E-403 FOR PARTIAL ONE-LINE DIAGRAM.

PANEL: **RP-2N6-L** SECT.: 1 MTG.: RECESSED
VOLTS: 120/208V PHASE: 3 WIRES: 4 GND.: GROUND BUS
MAIN C.B.: 225 AMP
MAIN BUS: 225 AMP MINIMUM INTERRUPTING RATING: 22,000A*

	CKT. No.	TRIP (Amps)	DESCRIPTION OF LOAD	Category	Load (Va)	Per Phase (Va) A	B	C	Load (Va)	Category	DESCRIPTION OF LOAD	Trip (Amps)	Ckt. No.	
	1	20	RECEPS RM 2112	R	540	3036			2496	R	208V RECEP LER 22100	30	2	
	3	20	RECEPS RM 2112	R	540		3036		2496	R	|	|	4	
	5	20	RECEPS RM 2112	R	360			2856	2496	R	208V RECEP RM 22110	30	6	
	7	20	RECEPS RM 22110	R	720	3216			2496	R	|	|	8	
	9	20	RECEPS RM 22110	R	720		1440		720	R	OVERHEAD SERVICE PANEL RM 22110	20	10	
	11	20	RECEPS RM 22110	R	720			1440	720	R	|	20	12	
	13	20	RECEPS RM 22110 & LER 22100	R	540	1260			720	R	|	20	14	
	15	20	RECEPS RM 22110 & LER 22100	R	540		1260		720	R	|	20	16	
	17	20	RECEPS RM 22114 & 22110	R	540			1260	720	R	OVERHEAD SERVICE PANEL RM 22110	20	18	
	19	20	RECEPS RM 22114 & 22110	R	540	1260			720	R	|	20	20	
	21	20	RECEPS RM 22114 & 22110	R	540		1260		720	R	|	20	22	
	23	30	208V RECEP RM 22112	R	2496			3216	720	R	|	20	24	
	25	|	|	R	2496	4996			**2500**	**R**	**CLG SERVICE PNL 22110 L6-30R**	**30**	26	
	27	30	208V RECEP RM 22112	R	2496		4996		**2500**	**R**	|	|	28	(3)
	29	|	|	R	2496			4996	**2500**	**R**	**CLG SERVICE PNL 22110 L6-30R**	**30**	30	
	31	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**	2680			**2500**	**R**	|	|	32	
	33	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**		1080		**900**	**O**	**LER 22100 CHILLER A05**	20	34	
(2)	35	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**			1080	**900**	**O**	**LER 22100 CHILLER A06**	20	36	(2)
	37	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**	420			**240**	**O**	**ENTRY-GUARD PWR**	20	38	
	39	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**		180				SPARE	20	40	
	41	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**			180			SPARE	20	42	
						16868	13252	15028						

TOTAL CONNECTED LIGHTING LOAD (KVA): 0.00
TOTAL CONNECTED RECEPTACLE LOAD (KVA): 43.11
TOTAL CONNECTED OTHER LOAD (KVA): 2.04
TOTAL CONNECTED LOAD (KVA): 45.15
TOTAL DEMAND LOAD (KVA): 28.59
TOTAL DEMAND LOAD (AMPS): 79.43

PANEL: **RP-2N6-R** SECT.: 2 MTG.: RECESSED
VOLTS: 120/208V PHASE: 3 WIRES: 4 GND.: GROUND BUS
MAIN C.B.: 225 AMP
MAIN BUS: 225 AMP MINIMUM INTERRUPTING RATING: 22,000A*

	CKT. No.	TRIP (Amps)	DESCRIPTION OF LOAD	Category	Load (Va)	Per Phase (Va) A	B	C	Load (Va)	Category	DESCRIPTION OF LOAD	Trip (Amps)	Ckt. No.
	43	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**	2676			2496	R	208V RECEP RM 22114	30	44
	45	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**		2676		2496	R	|	|	46
(1)	47	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**			900	720	R	OVERHEAD SERVICE PANEL RM 22110	20	48
	49	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**	900			720	R	|	20	50
	51	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**		900		720	R	|	20	52
	53	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**			900	720	R	|	20	54
	55	**30**	**CLG SERVICE PNL 22110 L6-30R**	**R**	**2500**	3220			720	R	OVERHEAD SERVICE PANEL RM 22110	20	56
(3)	57	|	|	**R**	**2500**		3220		720	R	|	20	58
	59	**30**	**CLG SERVICE PNL 22110 L6-30R**	**R**	**2500**			3220	720	R	|	20	60
	61	|	|	**R**	**2500**	3220			720	R	|	20	62
(1)	63	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**		180				SPARE	20	64
	65	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**			180			SPARE	20	66
	67	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**	180					SPARE	20	68
(2)	69	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**		180				SPARE	20	70
	71	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**			180			SPARE	20	72
	73	20	**CLG SERVICE PNL 22110 L5-20R**	**R**	**180**	180					SPARE	20	74
	75	**30**	**CLG SERVICE PNL 22110 L6-30R**	**R**	**2500**		2500				SPARE	20	76
(3)	77	|	|	**R**	**2500**			2500			SPARE	20	78
	79	**30**	**CLG SERVICE PNL 22110 L6-30R**	**R**	**2500**	2500					SPARE	20	80
	81	|	|	**R**	**2500**		2500				SPARE	20	82
	83	20	SHADES	O	432			432			SPARE	20	84
						12876	12156	8312					

TOTAL CONNECTED LIGHTING LOAD (KVA): 0.00
TOTAL CONNECTED RECEPTACLE LOAD (KVA): 32.91
TOTAL CONNECTED OTHER LOAD (KVA): 0.43
TOTAL CONNECTED LOAD (KVA): 33.34
TOTAL DEMAND LOAD (KVA): 21.89
TOTAL DEMAND LOAD (AMPS): 60.80

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[illegible]

BY:

Rev	Date	Description of Issue
0	05/06/19	Construction Documents

Project Title

Dormitory Authority State Of New York
DASNY Project Number – 257110
CUNY The City University of New York

ASRC Photonics Lab Renovations

The City College of New York

85 St Nicholas Terrace
New York, NY 10027

DASNY # 257110

Scale

Company Drawn By: Affiliated Engineers

Project Phase: CONSTRUCTION DOCUMENTS

Date: 05/06/2019 Drawn By: AEI

Flad Project Number: 05432-82 Checked By: AEI

Sheet Title: **Electrical Panel Schedules**

Sheet Number: E-400

NYC DOB Sheet Number

Page No.

Application No.

DOB BSCAN

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PANEL: RP-2N7-L SECT.: 1 MTG.: RECESSED
VOLTS: 120/208V PHASE: 3 WIRES: 4 GND.: GROUND BUS
MAIN C.B.: 225 AMP
MAIN BUS: 225 AMP MINIMUM INTERRUPTING RATING: 22,000A*

	CKT. No.	TRIP (Amps)	DESCRIPTION OF LOAD	Category	Load (Va)	Per Phase (Va) A	B	C	Load (Va)	Category	DESCRIPTION OF LOAD	Trip (Amps)	Ckt. No.	
	1	20	RECEPS RM 22118	R	540	720			180	R	CLG SERVICE PNL 22110 L5-20R	20	2	1
	3	20	RECEPS RM 22118	R	540		720		180	R	CLG SERVICE PNL 22110 L5-20R	20	4	
	5	20	RECEPS RM 22118 & 22110	R	540			720	180	R	CLG SERVICE PNL 22110 L5-20R	20	6	
	7	20	RECEPS RM 22110	R	720	900			180	R	CLG SERVICE PNL 22110 L5-20R	20	8	
	9	20	RECEPS RM 22110	R	720		900		180	R	CLG SERVICE PNL 22110 L5-20R	20	10	
	11	20	RECEPS RM 22110	R	720			900	180	R	CLG SERVICE PNL 22110 L5-20R	20	12	
	13	20	RECEPS RM 22110	R	360	2860			2500	R	CLG SERVICE PNL 22110 L6-30R	30	14	3
	15	20	RECEPS RM 22110	R	360		2860		2500	R	|	|	16	
	17	30	208V RECEP RM 22118	R	2496			4996	2500	R	CLG SERVICE PNL 22110 L6-30R	30	18	
	19	|	|	R	2496	4996			2500	R	|	|	20	
	21	30	208V RECEP RM 22110	R	2496		2676		180	R	CLG SERVICE PNL 22110 L5-20R	20	22	1
	23	|	|	R	2496			2676	180	R	CLG SERVICE PNL 22110 L5-20R	20	24	
3	25	30	CLG SERVICE PNL 22110 L6-30R	R	2500	2680			180	R	CLG SERVICE PNL 22110 L5-20R	20	26	
	27	|	|	R	2500		2680		180	R	CLG SERVICE PNL 22110 L5-20R	20	28	
	29	30	CLG SERVICE PNL 22110 L6-30R	R	2500			2680	180	R	CLG SERVICE PNL 22110 L5-20R	20	30	
	31	|	|	R	2500	2680			180	R	CLG SERVICE PNL 22110 L5-20R	20	32	
2	33	20	CLG SERVICE PNL 22110 L5-20R	R	180		2680		2500	R	CLG SERVICE PNL 22110 L6-30R	30	34	3
	35	20	CLG SERVICE PNL 22110 L5-20R	R	180			2680	2500	R	|	|	36	
	37	20	CLG SERVICE PNL 22110 L5-20R	R	180	2680			2500	R	CLG SERVICE PNL 22110 L6-30R	30	38	
	39	20	CLG SERVICE PNL 22110 L5-20R	R	180		2680		2500	R	|	|	40	
	41	20	CLG SERVICE PNL 22110 L5-20R	R	180			360	180	R	CLG SERVICE PNL 22110 L5-20R	20	42	2
						17516	15196	15012						

TOTAL CONNECTED LIGHTING LOAD (KVA): 0.00
TOTAL CONNECTED RECEPTACLE LOAD (KVA): 47.72
TOTAL CONNECTED OTHER LOAD (KVA): 0.00
TOTAL CONNECTED LOAD (KVA): 47.72
TOTAL DEMAND LOAD (KVA): 28.86
TOTAL DEMAND LOAD (AMPS): 80.17

PANEL: RP-2N7-R SECT.: 2 MTG.: RECESSED
VOLTS: 120/208V PHASE: 3 WIRES: 4 GND.: GROUND BUS
MAIN C.B.: 225 AMP
MAIN BUS: 225 AMP MINIMUM INTERRUPTING RATING: 22,000A*

	CKT. No.	TRIP (Amps)	DESCRIPTION OF LOAD	Category	Load (Va)	Per Phase (Va) A	B	C	Load (Va)	Category	DESCRIPTION OF LOAD	Trip (Amps)	Ckt. No.	
	43	20	RECEPS RM 22120	R	720	900			180	R	CLG SERVICE PNL 22120 L5-20R	20	44	1
	45	20	RECEPS RM 22120	R	720		900		180	R	CLG SERVICE PNL 22120 L5-20R	20	46	
	47	20	RECEPS RM 22120	R	720			900	180	R	CLG SERVICE PNL 22120 L5-20R	20	48	
	49	20	RECEPS RM 22124	R	540	720			180	R	CLG SERVICE PNL 22120 L5-20R	20	50	
	51	20	RECEPS RM 22124	R	540		720		180	R	CLG SERVICE PNL 22120 L5-20R	20	52	
	53	20	RECEPS RM 22124 & 22120	R	540			720	180	R	CLG SERVICE PNL 22120 L5-20R	20	54	
	55	20	RECEPS RM 22120	R	720	3220			2500	R	CLG SERVICE PNL 22120 L6-30R	30	56	3
	57	20	RECEPS RM 22120	R	720		3220		2500	R	|	|	58	
	59	20	RECEPS RM 22120	R	720			3220	2500	R	CLG SERVICE PNL 22120 L6-30R	30	60	
	61	30	208V RECEP RM 22120	R	2496	4996			2500	R	|	|	62	
	63	|	|	R	2496		2676		180	R	CLG SERVICE PNL 22120 L5-20R	20	64	1
	65	30	208V RECEP RM 22120	R	2496			2676	180	R	CLG SERVICE PNL 22120 L5-20R	20	66	
	67	|	|	R	2496	2676			180	R	CLG SERVICE PNL 22120 L5-20R	20	68	2
	69	30	208V RECEP RM 22124	R	2496		2676		180	R	CLG SERVICE PNL 22120 L5-20R	20	70	
	71	|	|	R	2496			2676	180	R	CLG SERVICE PNL 22120 L5-20R	20	72	
3	73	30	LER 22100 CHILLER D02	O	1300	1480			180	R	CLG SERVICE PNL 22120 L5-20R	20	74	
	75	|	|	O	1300		3800		2500	R	CLG SERVICE PNL 22120 L6-30R	30	76	3
2	77	20	ENTRY-GUARD PWR	O	240			2740	2500	R	|	|	78	
	79	20	ENTRY-GUARD PWR	O	240	2740			2500	R	CLG SERVICE PNL 22120 L6-30R	30	80	
	81	20	SPARE				2500		2500	R	|	|	82	
	83	20	SHADES	O	144			144			SPARE	20	84	
						16732	16492	13076						

TOTAL CONNECTED LIGHTING LOAD (KVA): 0.00
TOTAL CONNECTED RECEPTACLE LOAD (KVA): 43.08
TOTAL CONNECTED OTHER LOAD (KVA): 3.22
TOTAL CONNECTED LOAD (KVA): 46.30
TOTAL DEMAND LOAD (KVA): 29.76
TOTAL DEMAND LOAD (AMPS): 82.67

GENERAL NOTES:
1. REFER TO SHEET E-000 FOR SYMBOLS AND ABBREVIATIONS.
2. ALL PANELS, CIRCUITS, AND BREAKERS ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.

SHEET KEYNOTES:
1 PROVIDE NEW LOAD ON EXISTING CIRCUIT UNLOADED DURING DEMOLITION.
2 PROVIDE NEW LOAD ON EXISTING SPARE CIRCUIT.
3 PROVIDE NEW BREAKER FOR NEW LOAD.

PANEL: RP-2N9-L SECT.: 1 MTG.: RECESSED
VOLTS: 120/208V PHASE: 3 WIRES: 4 GND.: GROUND BUS
MAIN C.B.: 225 AMP
MAIN BUS: 225 AMP MINIMUM INTERRUPTING RATING: 22,000A*

	CKT. No.	TRIP (Amps)	DESCRIPTION OF LOAD	Category	Load (Va)	Per Phase (Va) A	B	C	Load (Va)	Category	DESCRIPTION OF LOAD	Trip (Amps)	Ckt. No.	
	1	20	RECEPS RM 22121	R	720	1440			720	R	RECEPS RM 22130	20	2	
	3	20	RECEPS RM 22121 & 22100	R	720		1440		720	R	RECEPS RM 22130	20	4	
	5	20	RECEPS RM 22121 & 22100	R	540			1260	720	R	RECEPS RM 22130	20	6	
	7	20	RECEPS RM 22134	R	720	3216			2496	R	208V RECEP RM 22121	30	8	
	9	20	RECEPS RM 22134	R	540		3036		2496	R	|	|	10	
	11	20	RECEPS RM 22134	R	540			3036	2496	R	208V RECEP RM 22121	30	12	
1	13	20	CLG SERVICE PNL 22130 L5-20R	R	180	2676			2496	R	|	|	14	
	15	20	CLG SERVICE PNL 22130 L5-20R	R	180		2676		2496	R	208V RECEP LER 22100	30	16	
	17	20	CLG SERVICE PNL 22130 L5-20R	R	180			2676	2496	R	|	|	18	
	19	20	CLG SERVICE PNL 22130 L5-20R	R	180	2680			2500	R	CLG SERVICE PNL 22130 L6-30R	30	20	1
	21	20	CLG SERVICE PNL 22130 L5-20R	R	180		2680		2500	R	|	|	22	
	23	20	CLG SERVICE PNL 22130 L5-20R	R	180			2680	2500	R	CLG SERVICE PNL 22130 L6-30R	30	24	
	25	20	ICE MACHINE LER 22100	R	651	3151			2500	R	|	|	26	
	27	20	RECEPS RM 22130	R	360		540		180	R	CLG SERVICE PNL 22130 L5-20R	20	28	2
	29	20	RECEPS RM 22130	R	360			540	180	R	CLG SERVICE PNL 22130 L5-20R	20	30	
3	31	30	CLG SERVICE PNL 22130 L6-30R	R	2500	2680			180	R	CLG SERVICE PNL 22130 L5-20R	20	32	
	33	|	|	R	2500		2680		180	R	CLG SERVICE PNL 22130 L5-20R	20	34	
	35	30	CLG SERVICE PNL 22130 L6-30R	R	2500			2680	180	R	CLG SERVICE PNL 22130 L5-20R	20	36	
	37	|	|	R	2500	2680			180	R	CLG SERVICE PNL 22130 L5-20R	20	38	
	39	30	LER 22100 208V	O	2500		3700		1200	O	LER 22100 CHILLER J03	20	40	
	41	|	|	O	2500			3700	1200	O	FUME HOOD 22121	20	42	
						18523	16752	16572						

TOTAL CONNECTED LIGHTING LOAD (KVA): 0.00
TOTAL CONNECTED RECEPTACLE LOAD (KVA): 44.45
TOTAL CONNECTED OTHER LOAD (KVA): 7.40
TOTAL CONNECTED LOAD (KVA): 51.85
TOTAL DEMAND LOAD (KVA): 34.62
TOTAL DEMAND LOAD (AMPS): 96.18

PANEL: RP-2N9-R SECT.: 2 MTG.: RECESSED
VOLTS: 120/208V PHASE: 3 WIRES: 4 GND.: GROUND BUS
MAIN C.B.: 225 AMP
MAIN BUS: 225 AMP MINIMUM INTERRUPTING RATING: 22,000A*

	CKT. No.	TRIP (Amps)	DESCRIPTION OF LOAD	Category	Load (Va)	Per Phase (Va) A	B	C	Load (Va)	Category	DESCRIPTION OF LOAD	Trip (Amps)	Ckt. No.	
3	43	20	22121 RECEP	R	180	680			500	R	PWR POLE 22130 5-20R	20	44	1
	45	20	22121 RECEP	R	180		680		500	R	PWR POLE 22130 5-20R	20	46	
	47	30	208V RECEP RM 22130	R	2496			2996	500	R	PWR POLE 22130 5-20R	20	48	
	49	|	|	R	2496	2996			500	R	PWR POLE 22130 5-20R	20	50	
	51	30	208V RECEP RM 22130	R	2496		2996		500	R	PWR POLE 22130 5-20R	20	52	
	53	|	|	R	2496			2996	500	R	PWR POLE 22130 5-20R	20	54	
	55	30	208V RECEP RM 22134	R	2496	2996			500	R	PWR POLE 22130 5-20R	20	56	
	57	|	|	R	2496		2996		500	R	PWR POLE 22130 5-20R	20	58	
1	59	20	CLG SERVICE PNL 22130 L5-20R	R	180			680	500	R	PWR POLE 22130 5-20R	20	60	
	61	20	CLG SERVICE PNL 22130 L5-20R	R	180	680			500	R	PWR POLE 22130 5-20R	20	62	
	63	20	CLG SERVICE PNL 22130 L5-20R	R	180		680		500	R	PWR POLE 22130 5-20R	20	64	
	65	20	CLG SERVICE PNL 22130 L5-20R	R	180			680	500	R	PWR POLE 22130 5-20R	20	66	
2	67	20	CLG SERVICE PNL 22130 L5-20R	R	180	680			500	R	PWR POLE 22130 5-20R	20	68	2
	69	20	CLG SERVICE PNL 22130 L5-20R	R	180		1844		1664	R	PWR POLE 22130 6-20R	20	70	3
3	71	30	CLG SERVICE PNL 22130 L6-30R	R	2500			4164	1664	R	|	|	72	
	73	|	|	R	2500	3000			500	R	PWR POLE 22130 5-20R	20	74	2
	75	30	CLG SERVICE PNL 22130 L6-30R	R	2500		3000		500	R	PWR POLE 22130 5-20R	20	76	
	77	|	|	R	2500			3000	500	R	PWR POLE 22130 5-20R	20	78	
2	79	20	22121 RECEP	R	180	680			500	R	PWR POLE 22130 5-20R	20	80	
	81	20	22121 RECEP	R	180		360		180	R	22121 RECEP	20	82	
	83	20	SHADES	O	288			528	240	O	ENTRY-GUARD PWR	20	84	
						11712	12556	15044						

TOTAL CONNECTED LIGHTING LOAD (KVA): 0.00
TOTAL CONNECTED RECEPTACLE LOAD (KVA): 38.78
TOTAL CONNECTED OTHER LOAD (KVA): 0.53
TOTAL CONNECTED LOAD (KVA): 39.31
TOTAL DEMAND LOAD (KVA): 24.92
TOTAL DEMAND LOAD (AMPS): 69.22

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STATE OF NEW YORK RONALD M. PARSLEY No. 063909-1 LICENSED PROFESSIONAL ENGINEER

BY:

Rev	Date	Description of Issue
0	05/06/19	Construction Documents

Project Title
Dormitory Authority State Of New York
DASNY Project Number – 257110
CUNY The City University of New York

ASRC Photonics Lab Renovations

The City College of New York

85 St Nicholas Terrace
New York, NY 10027

DASNY # 257110
Scale
Company Drawn By: Affiliated Engineers
Project Phase: CONSTRUCTION DOCUMENTS
Date: 05/06/2019 Drawn By: AEI
Flad Project Number: 05432-82 Checked By: AEI
Sheet Title: **Electrical Panel Schedules**
Sheet Number: E-401
NYC DOB Sheet Number
Page No.
Application No.
DOB BSCAN

PANEL: **RP-2N11-L** SECT.: 1 MTG.: RECESSED
VOLTS: 120/208V PHASE: 3 WIRES: 4 GND.: GROUND BUS
MAIN C.B.: 225 AMP
MAIN BUS: 225 AMP MINIMUM INTERRUPTING RATING: 22,000A*

	CKT.	TRIP		Category	Load	Per Phase (Va)			Load	Category		Trip	Ckt.	
	No.	(Amps)	DESCRIPTION OF LOAD		(Va)	A	B	C	(Va)		DESCRIPTION OF LOAD	(Amps)	No.	
	1	20	RECEPS RM 22212	R	360	900			540	R	RECEPS RM 22214	20	2	
	3	20	RECEPS RM 22212 & 22210	R	540		900		360	R	RECEPS RM 22214	20	4	
	5	20	RECEPS RM 22212	R	540			1080	540	R	RECEPS RM 22214 & 22210	20	6	
	7	20	RECEPS RM 22210	R	720	1260			540	R	RECEPS RM 22210	20	8	
	9	20	RECEPS RM 22210	R	720		1260		540	R	RECEPS RM 22210	20	10	
	11	20	RECEPS RM 22210	R	720			1440	720	R	RECEPS RM 22210	20	12	
	13	20	RECEPS RM 22210	R	720	1371			651	R	ICE MACHINE LER 22201	20	14	
	15	30	208V RECEP RM 22212	R	2496		4992		2496	R	208V RECEP RM 22214	30	16	
	17	|	|	R	2496			4992	2496	R	|	|	18	
	19	30	208V RECEP RM 22212	R	2496	4992			2496	R	208V RECEP RM 22210	30	20	
	21	|	|	R	2496		4992		2496	R	|	|	22	
	23	30	208V RECEP RM 22212	R	2496			2676	180	R	CLG SERVICE PNL 22210 L5-20R	20	24	2
	25	|	|	R	2496	2676			180	R	CLG SERVICE PNL 22210 L5-20R	20	26	
2	27	20	FUME HOOD 22121	O	1000		1180		180	R	CLG SERVICE PNL 22210 L5-20R	20	28	
	29	20	FUME HOOD 22121	O	1000			1180	180	R	CLG SERVICE PNL 22210 L5-20R	20	30	
	31	20	ENTRY-GUARD PWR	O	240	420			180	R	CLG SERVICE PNL 22210 L5-20R	20	32	
	33	20	ENTRY-GUARD PWR	O	240		420		180	R	CLG SERVICE PNL 22210 L5-20R	20	34	
	35	20	SPARE					2500	2500	R	CLG SERVICE PNL 22210 L6-30R	30	36	3
	37	20	SPARE			2500			2500	R	|	|	38	
	39	20	SPARE				2500		2500	R	CLG SERVICE PNL 22210 L6-30R	30	40	
	41	20	SPARE					2500	2500	R	|	|	42	
						14119	16244	16368						

TOTAL CONNECTED LIGHTING LOAD (KVA): 0.00
TOTAL CONNECTED RECEPTACLE LOAD (KVA): 44.25
TOTAL CONNECTED OTHER LOAD (KVA): 2.48
TOTAL CONNECTED LOAD (KVA): 46.73
TOTAL DEMAND LOAD (KVA): 29.61
TOTAL DEMAND LOAD (AMPS): 82.24

PANEL: **RP-2N11-R** SECT.: 2 MTG.: RECESSED
VOLTS: 120/208V PHASE: 3 WIRES: 4 GND.: GROUND BUS
MAIN C.B.: 225 AMP
MAIN BUS: 225 AMP MINIMUM INTERRUPTING RATING: 22,000A*

	CKT.	TRIP		Category	Load	Per Phase (Va)			Load	Category		Trip	Ckt.	
	No.	(Amps)	DESCRIPTION OF LOAD		(Va)	A	B	C	(Va)		DESCRIPTION OF LOAD	(Amps)	No.	
1	43	20	CLG SERVICE PNL 22210 L5-20R	R	180	360			180	R	CLG SERVICE PNL 22210 L5-20R	20	44	1
	45	20	CLG SERVICE PNL 22210 L5-20R	R	180		360		180	R	CLG SERVICE PNL 22210 L5-20R	20	46	
	47	20	CLG SERVICE PNL 22210 L5-20R	R	180			360	180	R	CLG SERVICE PNL 22210 L5-20R	20	48	
	49	20	CLG SERVICE PNL 22210 L5-20R	R	180	360			180	R	CLG SERVICE PNL 22210 L5-20R	20	50	
	51	20	CLG SERVICE PNL 22210 L5-20R	R	180		360		180	R	CLG SERVICE PNL 22210 L5-20R	20	52	
	53	20	CLG SERVICE PNL 22210 L5-20R	R	180			360	180	R	CLG SERVICE PNL 22210 L5-20R	20	54	
3	55	30	CLG SERVICE PNL 22210 L6-30R	R	2500	5000			2500	R	CLG SERVICE PNL 22210 L6-30R	30	56	3
	57	|	|	R	2500		5000		2500	R	|	|	58	
	59	30	CLG SERVICE PNL 22210 L6-30R	R	2500			5000	2500	R	CLG SERVICE PNL 22210 L6-30R	30	60	
	61	|	|	R	2500	5000			2500	R	|	|	62	
1	63	20	CLG SERVICE PNL 22210 L5-20R	R	180		360		180	R	CLG SERVICE PNL 22210 L5-20R	20	64	1
	65	20	CLG SERVICE PNL 22210 L5-20R	R	180			360	180	R	CLG SERVICE PNL 22210 L5-20R	20	66	
2	67	20	CLG SERVICE PNL 22210 L5-20R	R	180	360			180	R	CLG SERVICE PNL 22210 L5-20R	20	68	
	69	20	CLG SERVICE PNL 22210 L5-20R	R	180		360		180	R	CLG SERVICE PNL 22210 L5-20R	20	70	
	71	20	CLG SERVICE PNL 22210 L5-20R	R	180			360	180	R	CLG SERVICE PNL 22210 L5-20R	20	72	
	73	20	CLG SERVICE PNL 22210 L5-20R	R	180	360			180	R	CLG SERVICE PNL 22210 L5-20R	20	74	
3	75	30	CLG SERVICE PNL 22210 L6-30R	R	2500		5000		2500	R	CLG SERVICE PNL 22210 L6-30R	30	76	3
	77	|	|	R	2500			5000	2500	R	|	|	78	
	79	30	CLG SERVICE PNL 22210 L6-30R	R	2500	5000			2500	R	CLG SERVICE PNL 22210 L6-30R	30	80	
	81	|	|	R	2500		5000		2500	R	|	|	82	
	83	20	SHADES	O	288			288			SPARE	20	84	
						16440	16440	11728						

TOTAL CONNECTED LIGHTING LOAD (KVA): 0.00
TOTAL CONNECTED RECEPTACLE LOAD (KVA): 44.32
TOTAL CONNECTED OTHER LOAD (KVA): 0.29
TOTAL CONNECTED LOAD (KVA): 44.61
TOTAL DEMAND LOAD (KVA): 27.45
TOTAL DEMAND LOAD (AMPS): 76.24

GENERAL NOTES:

1. REFER TO SHEET E-000 FOR SYMBOLS AND ABBREVIATIONS.
2. ALL PANELS, CIRCUITS, AND BREAKERS ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE.

SHEET KEYNOTES:

1. PROVIDE NEW LOAD ON EXISTING CIRCUIT UNLOADED DURING DEMOLITION.
2. PROVIDE NEW LOAD ON EXISTING SPARE CIRCUIT.
3. PROVIDE NEW BREAKER FOR NEW LOAD.

PANEL: **RP-2N12.5-L** SECT.: 1 MTG.: RECESSED
VOLTS: 120/208V PHASE: 3 WIRES: 4 GND.: GROUND BUS
MAIN C.B.: 225 AMP
MAIN BUS: 225 AMP MINIMUM INTERRUPTING RATING: 22,000A*

	CKT.	TRIP		Category	Load	Per Phase (Va)			Load	Category		Trip	Ckt.	
	No.	(Amps)	DESCRIPTION OF LOAD		(Va)	A	B	C	(Va)		DESCRIPTION OF LOAD	(Amps)	No.	
	1	20	RECEPS RM 22222	R	540	1080			540	R	RECEPS RM 22220	20	2	
	3	20	RECEPS RM 22222	R	360		900		540	R	RECEPS RM 22220	20	4	
	5	20	RECEPS RM 22222	R	360			720	360	R	RECEPS RM 22220	20	6	
	7	20	RECEPS RM 22220 & 22221	R	720	1080			360	R	RECEPS RM 22220	20	8	
	9	20	RECEPS RM 22220 & 22221	R	720		1260		540	R	RECEPS RM 22221	20	10	
	11	20	RECEPS RM 22220 & 22221	R	540			1080	540	R	RECEPS RM 22221	20	12	
	13	20	RECEPS RM 22221	R	360	900			540	R	RECEPS RM 22221	20	14	
	15	30	208V RECEP RM 22222	R	2496		4992		2496	R	208V RECEP RM 22221	30	16	
	17	|	|	R	2496			4992	2496	R	|	|	18	
	19	30	208V RECEP RM 22221	R	2496	2736			240	O	ENTRY-GUARD PWR	20	20	2
	21	|	|	R	2496		2496				SPARE	20	22	
	23	20	SPARE					0			SPARE	20	24	
	25	20	SPARE			0					SPARE	20	26	
	27	20	SPARE				0				SPARE	20	28	
	29	20	SPARE					0			SPARE	20	30	
	31	20	SPARE			0					SPARE	20	32	
	33	20	SPARE				0				SPARE	20	34	
	35	20	SPARE					0			SPARE	20	36	
	37	20	SPARE			0					SPARE	20	38	
	39	20	SPARE				0				SPARE	20	40	
	41	20	SPARE					0			SPARE	20	42	
						5796	9648	6792						

TOTAL CONNECTED LIGHTING LOAD (KVA): 0.00
TOTAL CONNECTED RECEPTACLE LOAD (KVA): 22.00
TOTAL CONNECTED OTHER LOAD (KVA): 0.24
TOTAL CONNECTED LOAD (KVA): 22.24
TOTAL DEMAND LOAD (KVA): 16.24
TOTAL DEMAND LOAD (AMPS): 45.11

PANEL: **RP-2N12.5-R** SECT.: 2 MTG.: RECESSED
VOLTS: 120/208V PHASE: 3 WIRES: 4 GND.: GROUND BUS
MAIN C.B.: 225 AMP
MAIN BUS: 225 AMP MINIMUM INTERRUPTING RATING: 22,000A*

	CKT.	TRIP		Category	Load	Per Phase (Va)			Load	Category		Trip	Ckt.	
	No.	(Amps)	DESCRIPTION OF LOAD		(Va)	A	B	C	(Va)		DESCRIPTION OF LOAD	(Amps)	No.	
1	43	20	CLG SERVICE PNL 22220 L5-20R	R	180	360			180	R	CLG SERVICE PNL 22220 L5-20R	20	44	1
	45	20	CLG SERVICE PNL 22220 L5-20R	R	180		360		180	R	CLG SERVICE PNL 22220 L5-20R	20	46	
	47	20	CLG SERVICE PNL 22220 L5-20R	R	180			360	180	R	CLG SERVICE PNL 22220 L5-20R	20	48	
	49	20	CLG SERVICE PNL 22220 L5-20R	R	180	360			180	R	CLG SERVICE PNL 22220 L5-20R	20	50	
	51	20	CLG SERVICE PNL 22220 L5-20R	R	180		360		180	R	CLG SERVICE PNL 22220 L5-20R	20	52	
	53	20	CLG SERVICE PNL 22220 L5-20R	R	180			360	180	R	CLG SERVICE PNL 22220 L5-20R	20	54	
3	55	30	CLG SERVICE PNL 22220 L6-30R	R	2500	5000			2500	R	CLG SERVICE PNL 22220 L6-30R	30	56	3
	57	|	|	R	2500		5000		2500	R	|	|	58	
	59	30	CLG SERVICE PNL 22220 L6-30R	R	2500			5000	2500	R	CLG SERVICE PNL 22220 L6-30R	30	60	
	61	|	|	R	2500	5000			2500	R	|	|	62	
2	63	20	CLG SERVICE PNL 22221 L5-20R	R	180		360		180	R	CLG SERVICE PNL 22221 L5-20R	20	64	2
	65	20	CLG SERVICE PNL 22221 L5-20R	R	180			360	180	R	CLG SERVICE PNL 22221 L5-20R	20	66	
	67	20	CLG SERVICE PNL 22221 L5-20R	R	180	360			180	R	CLG SERVICE PNL 22221 L5-20R	20	68	
	69	20	CLG SERVICE PNL 22221 L5-20R	R	180		360		180	R	CLG SERVICE PNL 22221 L5-20R	20	70	
	71	20	CLG SERVICE PNL 22221 L5-20R	R	180			360	180	R	CLG SERVICE PNL 22221 L5-20R	20	72	
	73	20	CLG SERVICE PNL 22221 L5-20R	R	180	360			180	R	CLG SERVICE PNL 22221 L5-20R	20	74	
3	75	30	CLG SERVICE PNL 22221 L6-20R	R	2500		5000		2500	R	CLG SERVICE PNL 22221 L6-30R	30	76	3
	77	|	|	R	2500			5000	2500	R	|	|	78	
	79	30	CLG SERVICE PNL 22221 L6-30R	R	2500	5000			2500	R	CLG SERVICE PNL 22221 L6-30R	30	80	
	81	|	|	R	2500		5000		2500	R	|	|	82	
	83	20	SHADES	O	144			144			SPARE	20	84	
						16440	16440	11584						

TOTAL CONNECTED LIGHTING LOAD (KVA): 0.00
TOTAL CONNECTED RECEPTACLE LOAD (KVA): 44.32
TOTAL CONNECTED OTHER LOAD (KVA): 0.14
TOTAL CONNECTED LOAD (KVA): 44.46
TOTAL DEMAND LOAD (KVA): 27.30
TOTAL DEMAND LOAD (AMPS): 75.84

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BY:

Rev	Date	Description of Issue
0	05/06/19	Construction Documents

Project Title

Dormitory Authority State Of New York
DASNY Project Number – 257110
CUNY The City University of New York

ASRC Photonics Lab Renovations

The City College of New York

85 St Nicholas Terrace
New York, NY 10027

DASNY # 257110

Scale

Company Drawn By: Affiliated Engineers

Project Phase: CONSTRUCTION DOCUMENTS

Date: 05/06/2019 | Drawn By: AEI

Flad Project Number: 05432-82 | Checked By: AEI

Sheet Title: **Electrical Panel Schedules**

Sheet Number: E-402

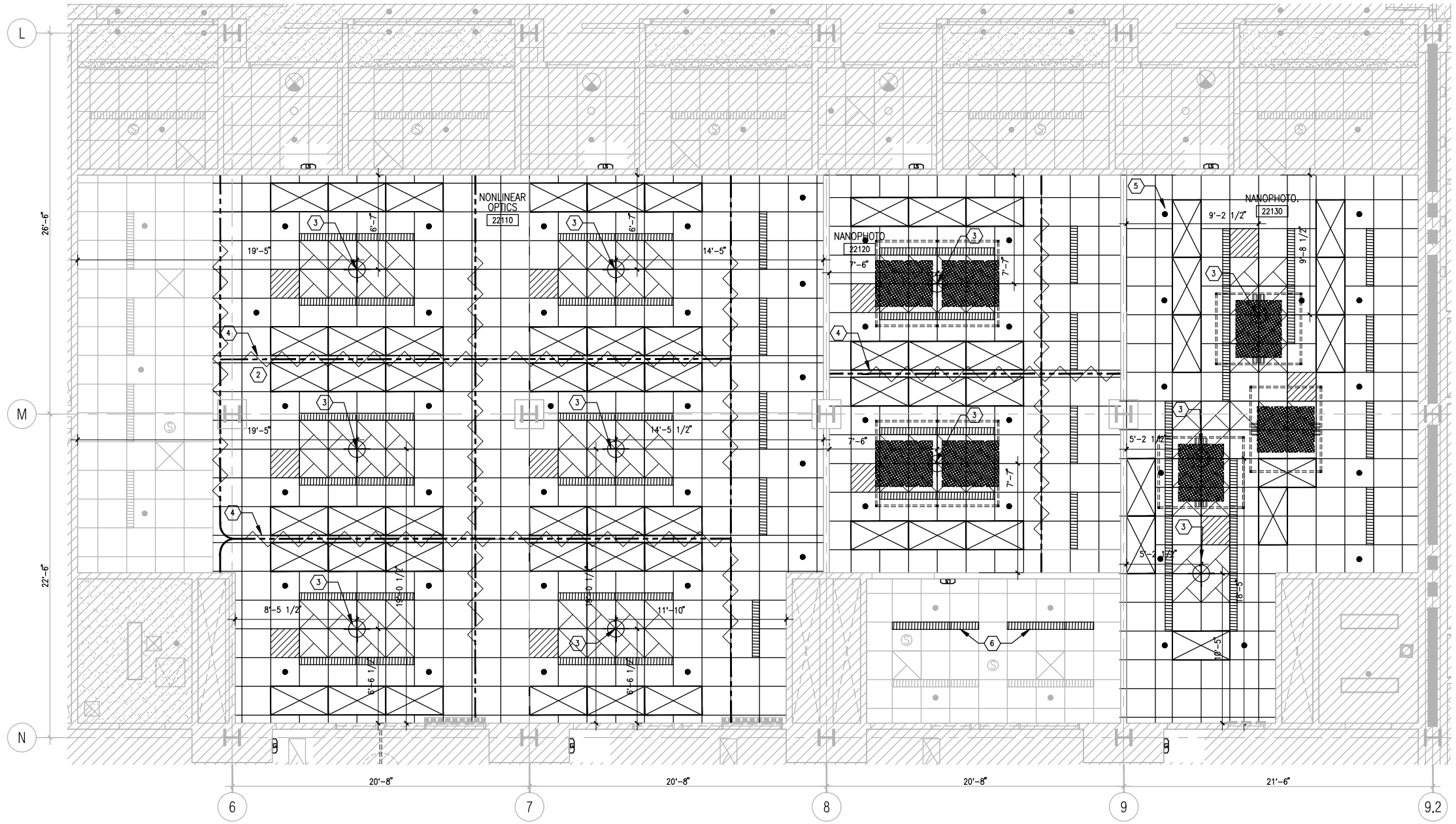
NYC DOB Sheet Number

Page No.

Application No.

DOB BSCAN

N:\msn\2019\19043-00\15 Drawings\Electrical\E-402.dwg



1 REFLECTED CEILING PLAN - LEVEL 2 - SOUTH

1/4" = 1'-0"

0 1' 5' 10'

1/4" = 1'-0"

RCP NOTES

1. ALL ACT LAY-IN CEILINGS TO BE ACT-2, 10'-0" AFF, U.N.O.
2. REFER TO ELEC, & MECH, DRAWINGS FOR TYPE & QUANTITY OF FIXTURES & DEVICES AS WELL AS FOR DEVICES NOT DIMENSIONED.
3. LIGHTS, SPRINKLER HEADS, SENSORS AND OTHER CEILING MOUNTED DEVICES TO BE CENTERED IN CEILING TILE U.N.O.
4. VERIFY SIZE, LOCATION, & QUANTITY OF ACCESS PANELS WITH MECHANICAL CONTRACTOR AND CONFIRM LOCATION WITH ARCHITECT
5. COORDINATE CEILING PENETRATION FOR LAB EQUIPMENT WITH MECHANICAL DRAWINGS
6. MIDDLE GRID OR MIDDLE ACT TILE TO BE CENTERED ON ROOM DIMENSIONS, U.N.O.
7. ALL EMERGENCY LIGHT LOCATIONS ARE INDICATED GRAPHICALLY. REFER TO ELECTRICAL PLANS FOR FIXTURE TYPE AND DIRECTION ACCORDING TO LIFE SAFETY DRAWINGS.
8. REFER TO G-SERIES FOR TASK LIGHTING LOCATIONS AT LAB CASEWORK. REFER TO ELEC, FOR CASEWORK TASK LIGHTING FIXTURE SPECS.
9. ALL HEADERS NOT IDENTIFIED WITH HEIGHT AFF TO BE 8'-0" TO MATCH DOOR HEIGHT U.N.O.

KEYNOTES

1. POINT EXHAUST CONNECTION
2. LASER SAFETY CURTAIN, INSTALL WALL TO WALL WITH SEALS ON BOTH SIDES, SEE DETAIL 6/AE-901, REFER TO SPEC FOR ADDITIONAL PRODUCT DETAILS
3. START POINT- START CEILING FROM THIS LOCATION, STOP WHEN REACHING A 'CUT' TILE AND BEGIN FROM OTHER START POINT, ONCE MEETING IN MIDDLE, CUT TILE ACCORDING TO FIELD CONDITION.
4. CUT TILE TO 6'
5. CUT TILE V.I.F.
6. RELOCATED LIGHT FIXTURES - SEE ELECTRICAL LIGHTING DRAWINGS.
7. SUSPENDED OVERHEAD SHELVING TYPE 'A', CENTERED WITHIN CEILING ARRANGEMENT (LIGHT FIXTURES AND DIFFUSERS) OVER LASER TABLE, SEE DETAIL 1/AE-902.
8. SUSPENDED OVERHEAD SHELVING TYPE 'B', CENTERED WITHIN CEILING ARRANGEMENT (LIGHT FIXTURES AND DIFFUSERS) OVER LASER TABLE, SEE DETAIL 2/AE-902.

LEGENDS

- ACT (ACOUSTICAL CEILING TILE)
- EXPOSED
- SUSPENDED PERFORATED METAL SHELVING
- 1X4 FLUORESCENT LIGHT FIXTURE
- 2X4 FLUORESCENT LIGHT FIXTURE
- RECESSED LIGHT FIXTURE
- SUSPENDED LIGHT FIXTURE
- DOWN LIGHT FIXTURE
- LASER SAFETY CURTAIN, SEE KEYNOTE #2
- LASER SAFETY SHADE
- LS WALL MOUNTED, ILLUMINATED LASER SAFETY SIGN
- CEILING DIFFUSER
- CEILING DIFFUSER
- AIR RETURN GRILL
- ACCESS PANEL
- WALL ACCESS PANEL
- LINEAR DIFFUSER
- 2X2 CEILING SERVICE PANEL
- 2X4 EXHAUST HOOD
- POINT EXHAUST
- SS SAFETY SHOWER
- UMBILICAL
- SPRINKLER HEAD
- EXIT LIGHT-CEILING MOUNTED (REFER TO ELEC.)
- EXIT LIGHT-WALL MOUNTED (REFER TO ELEC.)
- S OCCUPANCY SENSOR-CEILING MOUNTED
- SMOKE DETECTOR (REFER TO ELEC.)
- C SECURITY CAMERA
- SP SPEAKER (AV)
- W CEILING MOUNT WIRELESS ACCESS DEVICE (REFER TO ELEC.)
- CJ CEILING CONTROL JOINT

LINE TYPE LEGEND

- NEW WORK
- EXISTING TO REMAIN
- EXISTING TO BE REMOVED
- NOT IN SCOPE

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KEY PLAN NORTH

BY:

Rev	Date	Description of Issue
0	05/06/19	CONSTRUCTION DOCUMENTS

Project Title

Dormitory Authority State Of New York
DASNY Project Number – 257110

CUNY The City University of New York

ASRC Photonics Lab Renovations

The City College of New York

85 St Nicholas Terrace
New York, NY 10027

DASNY #	257110
Scale	1/4" = 1'-0"
Company Drawn By	Flad Architects
Project Phase	CONSTRUCTION DOCUMENTS
Date	05/06/2019
Drawn By	KS
Flad Project Number	05432-82
Checked By	DH

Sheet Title
Partial Reflected Ceiling Plan Level 2 - South

Sheet Number
AB-221

NYC DOB Sheet Number
A-321.00

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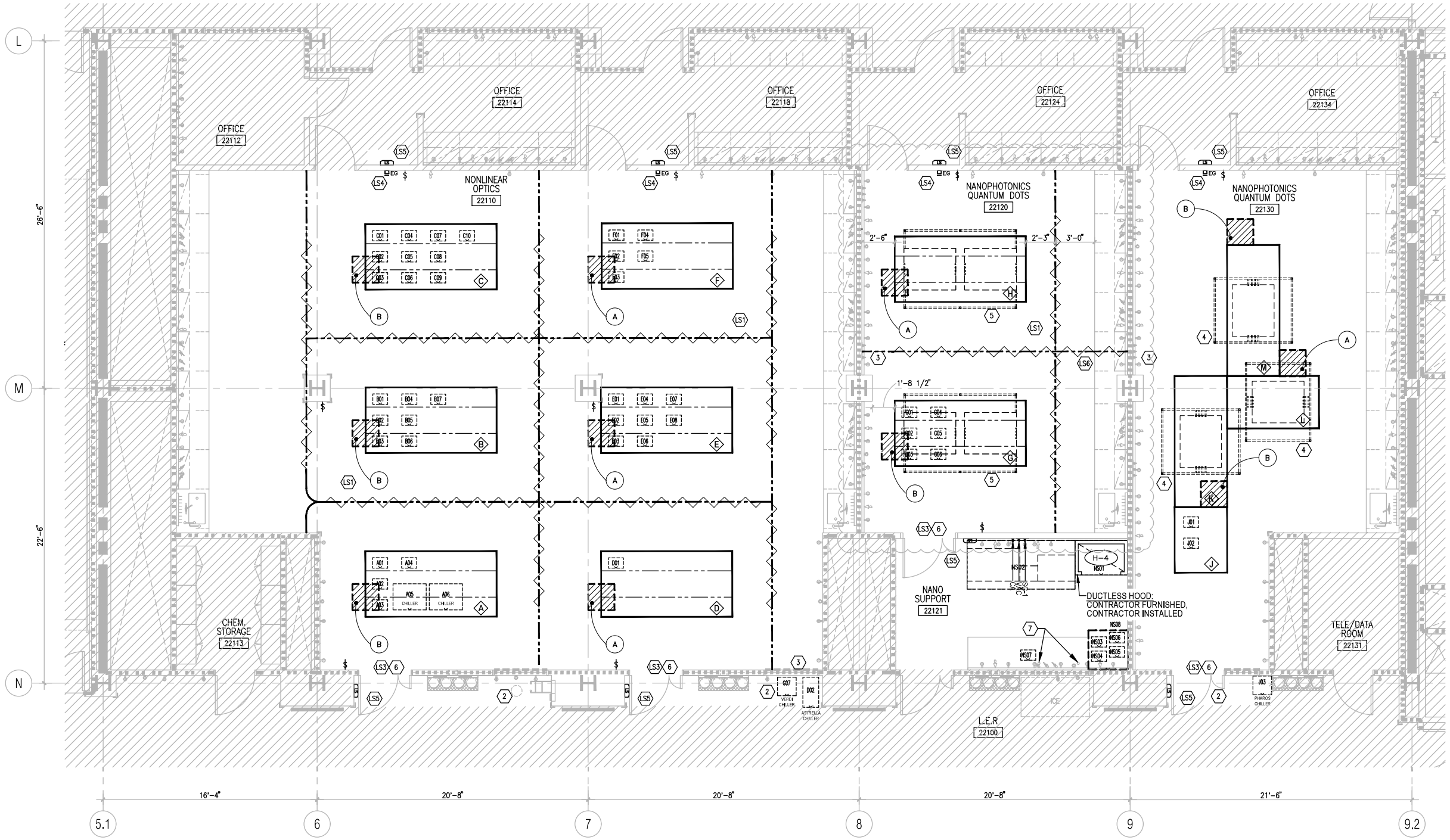
Application No.

DOB BSCAN



1 LABORATORY PLAN - LEVEL 2 - SOUTH

1/4" = 1'-0"

GENERAL NOTES

NOTES:

1. ALL LABORATORY CASEWORK IS 'EXISTING TO REMAIN' U.O.N.
2. LASER AIR TABLES 'A' THROUGH 'W' PROVIDED BY OWNER.
3. EXISTING 'LASER IN USE' ILLUMINATED SIGNS IN L.E.R. TO BE REMOVED AND REPLACED WITH NEW DUAL-STATUS ILLUMINATED SIGN. INSTALL NEW SIGN AT EXISTING SIGN LOCATION TO REUSE EXISTING JUNCTION BOX AND WIRING.
4. NEW DUAL-STATUS ILLUMINATED SIGN IN OFFICE VESTIBULES WILL BE INSTALLED AT JUNCTION BOX PROVIDED DURING CONSTRUCTION BULLETIN 2.
5. SEE RCP FOR LASER SAFETY CURTAIN LOCATION AND COORDINATION WITH SUSPENDED CEILING AND MECHANICAL SYSTEMS. LAB PLAN DIMENSIONS FOR REFERENCE ONLY.

KEYNOTES

PLAN KEYNOTES

1. NOT USED
2. SEE ELECTRICAL AND PLUMBING DRAWINGS FOR COORDINATION OF LOCAL CHILLERS.
3. PROVIDE 2" DIAMETER THROUGH-WALL CONDUIT FOR FUTURE FIBER OPTIC CABLE. SEE DETAIL 8/AE-900.
4. SUSPENDED OVERHEAD SHELVING TYPE 'A'. SEE DETAIL 1/AE-902.
5. SUSPENDED OVERHEAD SHELVING TYPE 'B'. SEE DETAIL 2/AE-902.
6. PROVIDE ASTRAGAL SEAL TO EXISTING DOOR PANELS.
7. PROVIDE GROMMET FOR EACH WORKSTATION, 2" DIAMETER.

LASER SAFETY KEYNOTES

- LS1 CEILING MOUNTED LASER SAFETY CURTAIN AND TRACK. SEE ELECTRICAL DRAWINGS FOR COORDINATION OF LASER SAFETY DEVICES (INCLUDING 'LASER IN USE' ILLUMINATED SIGNAGE, CURTAIN POSITION SENSORS, AND AREA CONTROL MODULE)
- LS2 NOT USED
- LS3 REPAIR / INSTALL LASER SAFETY WINDOW BLOCK / CURTAIN ON L.E.R. DOOR GLAZING
- LS4 LASER EQUIPMENT CONTROL MODULE AND DISCONNECT
- LS5 'LASER IN USE' ILLUMINATED STATUS SIGNAGE CONNECTED TO EXISTING ELECTRICAL BOX (SEE ELECTRICAL DRAWINGS)
- LS6 TAILOR CURTAIN TO MATCH PROFILE OF EXISTING LAB CASEWORK NECESSARY TO PROVIDE LIGHT BLOCKING CURTAIN INSTALLATION WHEN PAIRED WITH APPROVED CLOSURE (ie VELCRO). INSTALL CONTINUOUS CLOSURE AT FULL VERTICAL PROFILE ENGAGED BY CURTAIN. INSTALL LASER RATED WINDOW BLOCKING ON GLAZED WALL CABINET DOORS WITHIN THE VERTICAL PLANE OF THE LASER CURTAIN AND TRACK.

LEGENDS

- LASER SAFETY CURTAIN AND CURTAIN TRACK
- LASER SAFETY SHADE / WINDOW BLOCK
- DUAL-STATUS ILLUMINATED LASER SAFETY SIGN
- EG 'ENTRY GUARD' CONTROL MODULE AND EMERGENCY EQUIPMENT SHUT-OFF
- $ CONTROL FOR INDIVIDUAL LASER WORKSTATION LIGHTING. (SUGGESTED LOCATION. SEE ELECTRICAL DRAWINGS)
- X OPTICAL TABLE (NIC)
- X01 PHOTONICS EQUIPMENT TAG. SEE EQUIPMENT SCHEDULE.
- B SERVICE PANEL - SEE SCHEDULE ON SHEET AE-900

LINE TYPE LEGEND

- NEW WORK
- EXISTING TO REMAIN
- EXISTING TO BE REMOVED
- NOT IN SCOPE

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KEY PLAN

Rev	Date	Description of Issue
0	05/06/19	CONSTRUCTION DOCUMENTS

Project Title

Dormitory Authority State Of New York
DASNY Project Number – 257110

The City University of New York

ASRC Photonics Lab Renovations

The City College of New York

85 St Nicholas Terrace
New York, NY 10027

DASNY #: 257110

Scale: 1/4" – 1'-0"

Company Drawn By: Flad Architects

Project Phase: CONSTRUCTION DOCUMENTS

Date: 05/06/2019 | Drawn By: KS

Flad Project Number: 05432-82 | Checked By: DH

Sheet Title: **Partial Laboratroy Floor Plan Level 2 - South**

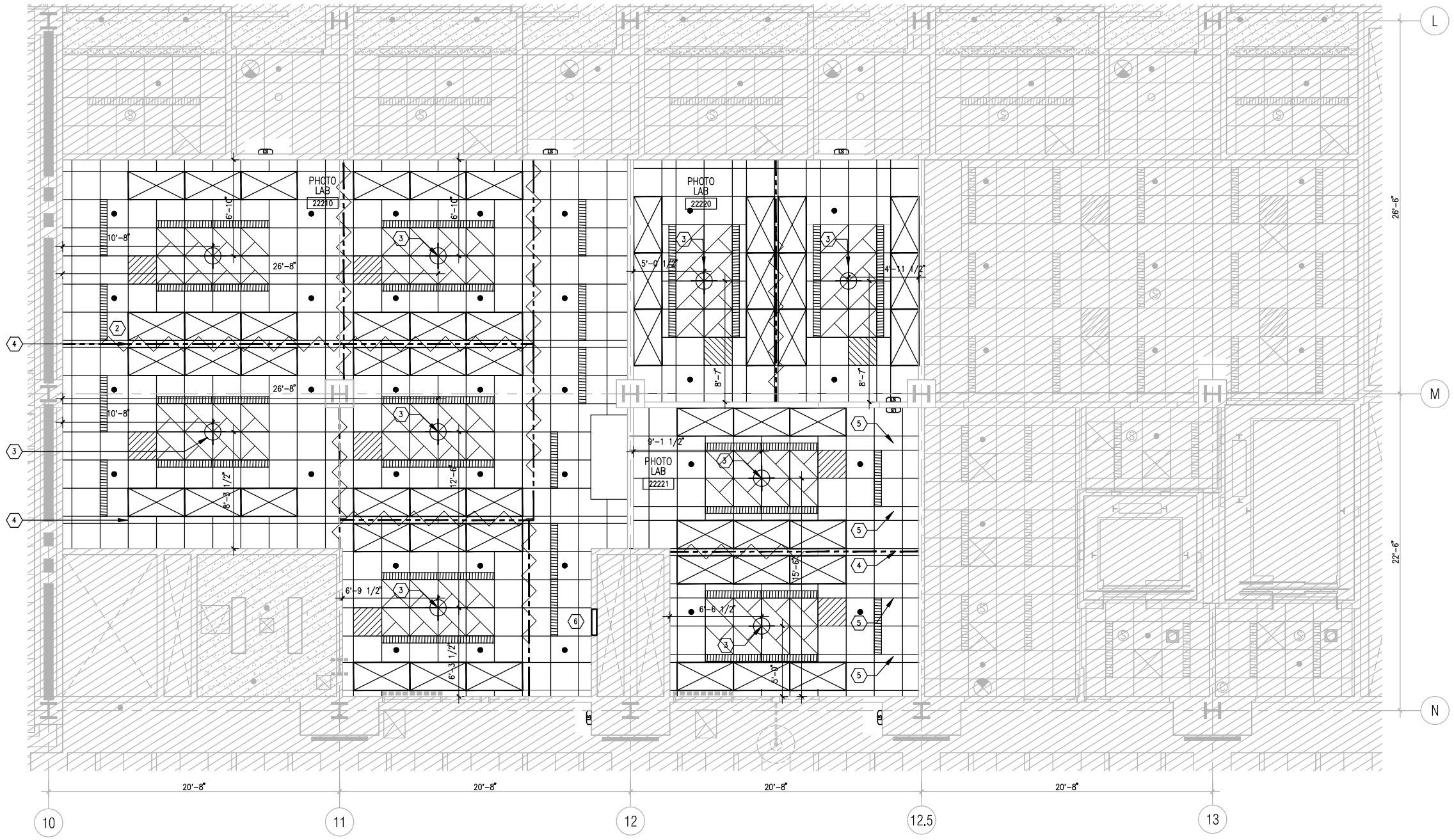
Sheet Number: AE-221

NYC DOB Sheet Number: **A-221.00**

Page No.: 2 OF 10

Application No.:

DOB BSCAN



1 REFLECTED CEILING PLAN - LEVEL 2 - NORTH
1/4" = 1'-0"

0 1' 5' 10'
1/4" = 1'-0"

RCP NOTES

1. ALL ACT LAY-IN CEILINGS TO BE ACT-2, 10'-0" AFF, U.N.O.
2. REFER TO ELEC. & MECH. DRAWINGS FOR TYPE & QUANTITY OF FIXTURES & DEVICES AS WELL AS FOR DEVICES NOT DIMENSIONED.
3. LIGHTS, SPRINKLER HEADS, SENSORS AND OTHER CEILING MOUNTED DEVICES TO BE CENTERED IN CEILING TILE U.N.O.
4. VERIFY SIZE, LOCATION, & QUANTITY OF ACCESS PANELS WITH MECHANICAL CONTRACTOR AND CONFIRM LOCATION WITH ARCHITECT
5. COORDINATE CEILING PENETRATION FOR LAB EQUIPMENT WITH MECHANICAL DRAWINGS
6. MIDDLE GRID OR MIDDLE ACT TILE TO BE CENTERED ON ROOM DIMENSIONS, U.N.O.
7. ALL EMERGENCY LIGHT LOCATIONS ARE INDICATED GRAPHICALLY. REFER TO ELECTRICAL PLANS FOR FIXTURE TYPE AND DIRECTION ACCORDING TO LIFE SAFETY DRAWINGS.
8. REFER TO G-SERIES FOR TASK LIGHTING LOCATIONS AT LAB CASEWORK. REFER TO ELEC. FOR CASEWORK TASK LIGHTING FIXTURE SPECS.
9. ALL HEADERS NOT IDENTIFIED WITH HEIGHT AFF TO BE 8'-0" TO MATCH DOOR HEIGHT U.N.O.

KEYNOTES

1. POINT EXHAUST CONNECTION
2. LASER SAFETY CURTAIN, INSTALL WALL TO WALL WITH SEALS ON BOTH SIDES, SEE DETAIL SHEET AE-900, REFER TO SPEC FOR ADDITIONAL PRODUCT DETAILS
3. START POINT- START CEILING FROM THIS LOCATION, STOP WHEN REACHING A 'CUT' TILE AND BEGIN FROM OTHER START POINT, ONCE MEETING IN MIDDLE, CUT TILE ACCORDING TO FIELD CONDITION.
4. CUT TILE TO 6"
5. CUT TILE V.I.F.
6. 2 HOUR RATED SHAFTWALL AT FUME HOOD EXHAUST PENETRATION ABOVE CEILING - PARTITION TYPE P8, SEE SHEET AE-900.

LEGENDS

- ACT (ACOUSTICAL CEILING TILE)
- RECESSED LIGHT FIXTURE
- DOWN LIGHT FIXTURE
- LASER SAFETY CURTAIN, SEE KEYNOTE #2
- LASER SAFETY SHADE
- LS — WALL MOUNTED, ILLUMINATED LASER SAFETY SIGN
- CEILING DIFFUSER
- AIR RETURN GRILL
- 2X2 CEILING SERVICE PANEL
- 2X4 EXHAUST HOOD
- POINT EXHAUST
- SPRINKLER HEAD
- EXIT LIGHT-CEILING MOUNTED (REFER TO ELEC.)
- EXIT LIGHT-WALL MOUNTED (REFER TO ELEC.)
- S — OCCUPANCY SENSOR-CEILING MOUNTED
- SMOKE DETECTOR (REFER TO ELEC.)
- C — SECURITY CAMERA
- SP — SPEAKER (AV)
- W — CEILING MOUNT WIRELESS ACCESS DEVICE (REFER TO ELEC.)

LINE TYPE LEGEND

- NEW WORK
- EXISTING TO REMAIN
- EXISTING TO BE REMOVED
- NOT IN SCOPE

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KEY PLAN NORTH

BY:

Rev	Date	Description of Issue
0	05/06/19	CONSTRUCTION DOCUMENTS

Project Title

Dormitory Authority State Of New York
DASNY Project Number - 257110

CUNY The City University of New York

ASRC Photonics Lab Renovations

The City College of New York

85 St Nicholas Terrace
New York, NY 10027

DASNY # 257110	
	Scale 1/4" = 1'-0"
Company Drawn By: Flad Architects	
Project Phase: CONSTRUCTION DOCUMENTS	
Date: 05/06/2019	Drawn By: KS
Flad Project Number: 05432-82	Checked By: DH

Sheet Title
Partial Reflected Ceiling Plan Level 2 - North

Sheet Number
AB-222

NYC DOB Sheet Number
A-322.00

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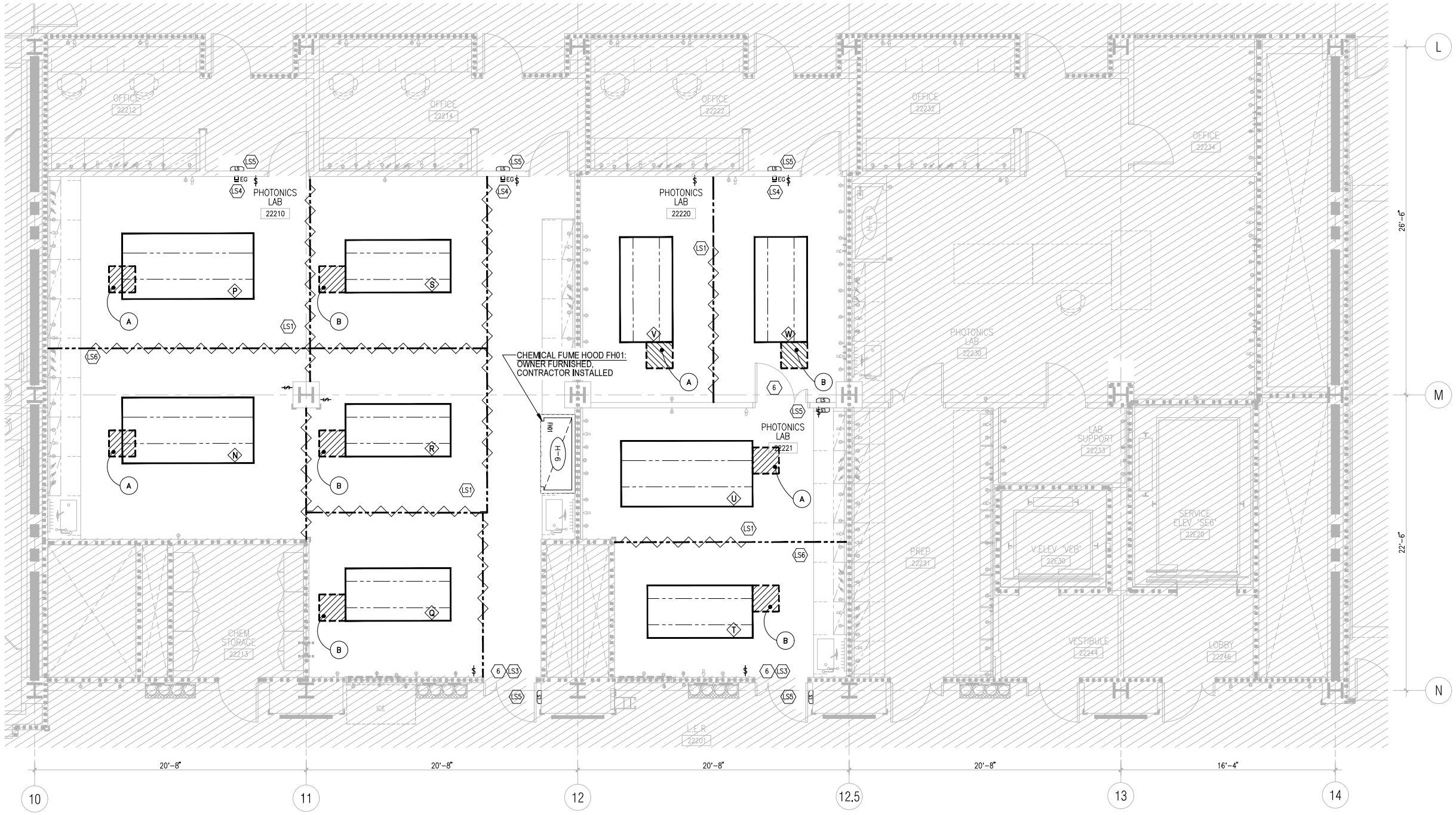
Application No.

DOB BSCAN



1 LABORATORY PLAN - LEVEL 2 - NORTH

1/4" = 1'-0"

GENERAL NOTES

NOTES:

1. ALL LABORATORY CASEWORK IS 'EXISTING TO REMAIN' U.O.N.
2. LASER AIR TABLES 'A' THROUGH 'W' PROVIDED BY OWNER.
3. EXISTING 'LASER IN USE' ILLUMINATED SIGNS IN L.E.R. TO BE REMOVED AND REPLACED WITH NEW DUAL-STATUS ILLUMINATED SIGN. INSTALL NEW SIGN AT EXISTING SIGN LOCATION TO REUSE EXISTING JUNCTION BOX AND WIRING.
4. NEW DUAL-STATUS ILLUMINATED SIGN IN OFFICE VESTIBULES WILL BE INSTALLED AT JUNCTION BOX PROVIDED DURING CONSTRUCTION BULLETIN 2.
5. SEE RCP FOR LASER SAFETY CURTAIN LOCATION AND COORDINATION WITH SUSPENDED CEILING AND MECHANICAL SYSTEMS. LAB PLAN DIMENSIONS FOR REFERENCE ONLY.
6. SEE ELECTRICAL AND PLUMBING DRAWINGS FOR COORDINATION OF LOCAL CHILLERS.

KEYNOTES

PLAN KEYNOTES

1. NOT USED.
2. NOT USED.
3. PROVIDE 2" DIAMETER THROUGH-WALL CONDUIT FOR FUTURE FIBER OPTIC CABLE. SEE DETAIL 8/AE-900.
4. NOT USED.
5. NOT USED.
6. PROVIDE ASTRAGAL SEAL TO EXISTING DOOR PANELS

LASER SAFETY KEYNOTES

LS1. CEILING MOUNTED LASER SAFETY CURTAIN AND TRACK. SEE ELECTRICAL DRAWINGS FOR COORDINATION OF LASER SAFETY DEVICES (INCLUDING 'LASER IN USE' ILLUMINATED SIGNAGE, CURTAIN POSITION SENSORS, AND AREA CONTROL MODULE)

LS2. NOT USED

LS3. REPAIR / INSTALL LASER SAFETY WINDOW BLOCK / CURTAIN ON L.E.R. DOOR GLAZING

LS4. LASER EQUIPMENT CONTROL MODULE AND DISCONNECT

LS5. 'LASER IN USE' ILLUMINATED STATUS SIGNAGE CONNECTED TO EXISTING ELECTRICAL BOX (SEE ELECTRICAL DRAWINGS)

LS6. TAILOR CURTAIN TO MATCH PROFILE OF EXISTING LAB CASEWORK NECESSARY TO PROVIDE LIGHT BLOCKING CURTAIN INSTALLATION WHEN PAIRED WITH APPROVED CLOSURE (ie VELCRO). INSTALL CONTINUOUS CLOSURE AT FULL VERTICAL PROFILE ENGAGED BY CURTAIN. INSTALL LASER RATED WINDOW BLOCKING ON GLAZED WALL CABINET DOORS WITHIN THE VERTICAL PLANE OF THE LASER CURTAIN AND TRACK, SEE DETAIL 6/AE-901.

LEGENDS

- LASER SAFETY CURTAIN AND CURTAIN TRACK
- LASER SAFETY SHADE / WINDOW BLOCK
- LS — DUAL-STATUS ILLUMINATED LASER SAFETY SIGN
- EG — 'ENTRY GUARD' CONTROL MODULE AND EMERGENCY EQUIPMENT SHUT-OFF
- $ — CONTROL FOR INDIVIDUAL LASER WORKSTATION LIGHTING. (SUGGESTED LOCATION. SEE ELECTRICAL DRAWINGS)
- X — OPTICAL TABLE (NIC)
- 101 — PHOTONICS EQUIPMENT TAG. SEE EQUIPMENT SCHEDULE.
- B — SERVICE PANEL - SEE SCHEDULE ON SHEET AE-900

LINE TYPE LEGEND

- NEW WORK
- EXISTING TO REMAIN
- EXISTING TO BE REMOVED
- NOT IN SCOPE

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KEY PLAN NORTH

Rev	Date	Description of Issue
0	05/06/19	CONSTRUCTION DOCUMENTS

Project Title

Dormitory Authority State Of New York
DASNY Project Number – 257110

The City University of New York

ASRC Photonics Lab Renovations

The City College of New York

85 St Nicholas Terrace
New York, NY 10027

DASNY # 257110	
	Scale 1/4" – 1'-0"
Company Drawn By: Flad Architects	
Project Phase: CONSTRUCTION DOCUMENTS	
Date: 05/06/2019	Drawn By: KS
Flad Project Number: 05432-82	Checked By: DH

Sheet Title
Partial Laboratroy Floor Plan Level 2 - North

Sheet Number
AE-222

NYC DOB Sheet Number
A-222.00

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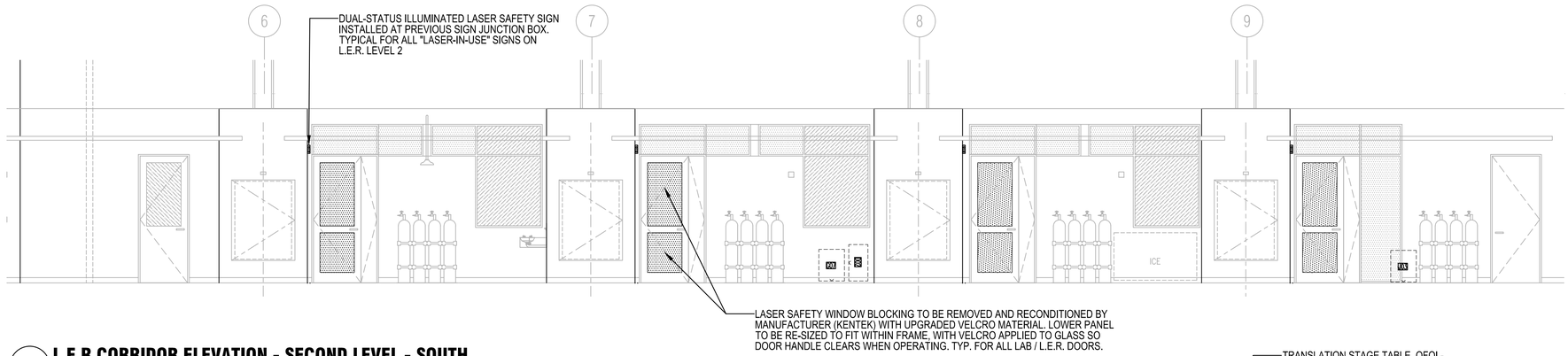
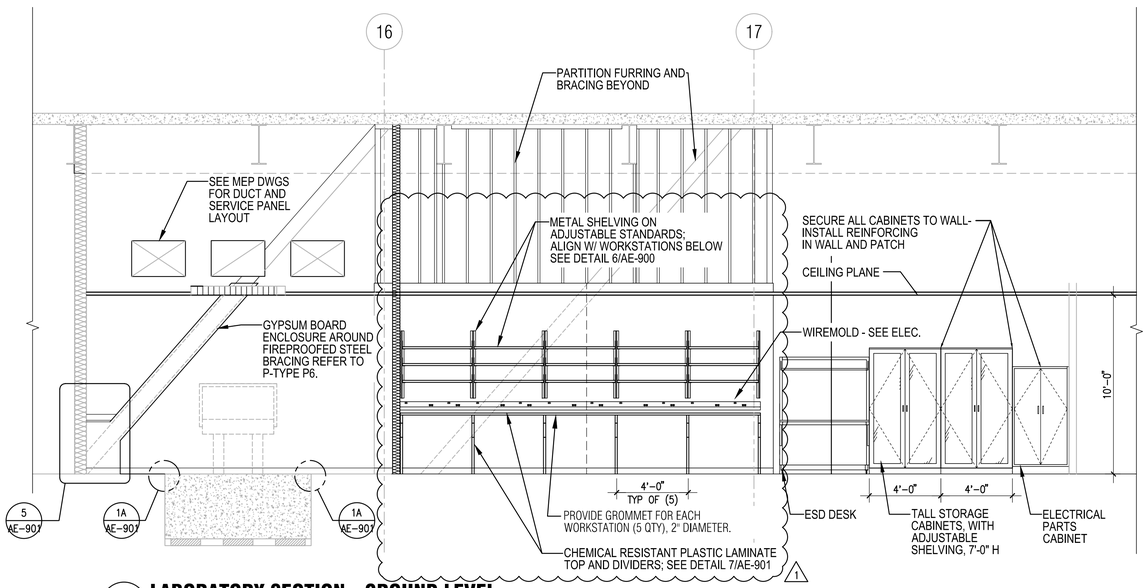
Application No.

DOB BSCAN

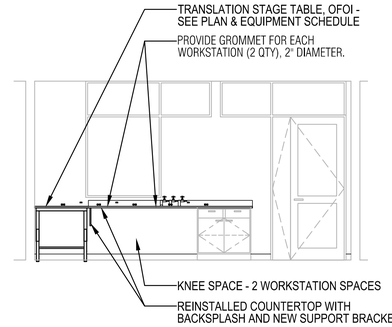


3 L.E.R CORRIDOR ELEVATION - SECOND LEVEL - SOUTH
1/4" = 1'–0"

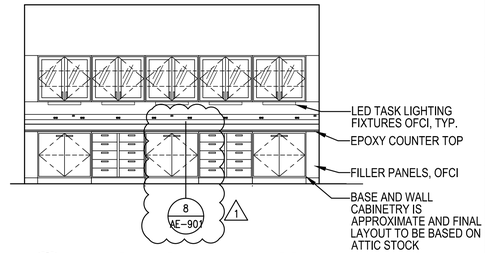
2 L.E.R CORRIDOR ELEVATION -SECOND LEVEL - NORTH
1/4" = 1'–0"



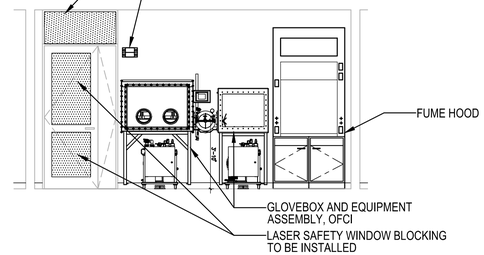
1 LABORATORY SECTION - GROUND LEVEL
1/4" = 1'–0"



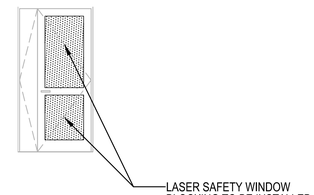
4 NANO SUPPORT LAB 2121 - EAST ELEVATION
1/4" = 1'–0"



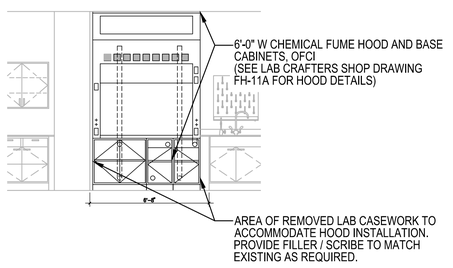
7 TEM SUPPORT 00772A SOUTH ELEVATION
1/4" = 1'–0"



5 NANO SUPPORT LAB 2121 - WEST ELEVATION
1/4" = 1'–0"



8 2.221 DOOR ELEVATION
1/4" = 1'–0"



6 PHOTONICS LAB 2210 - PARTIAL NORTH ELEVATION
1/4" = 1'–0"

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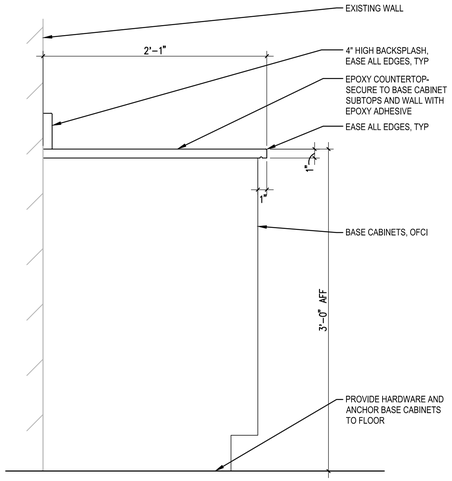
Rev	Date	Description of Issue
01	06/11/19	ADDENDUM 01
0	05/06/19	CONSTRUCTION DOCUMENTS

Project Title
Dormitory Authority State Of New York
DASNY Project Number – 257110
The City University of New York

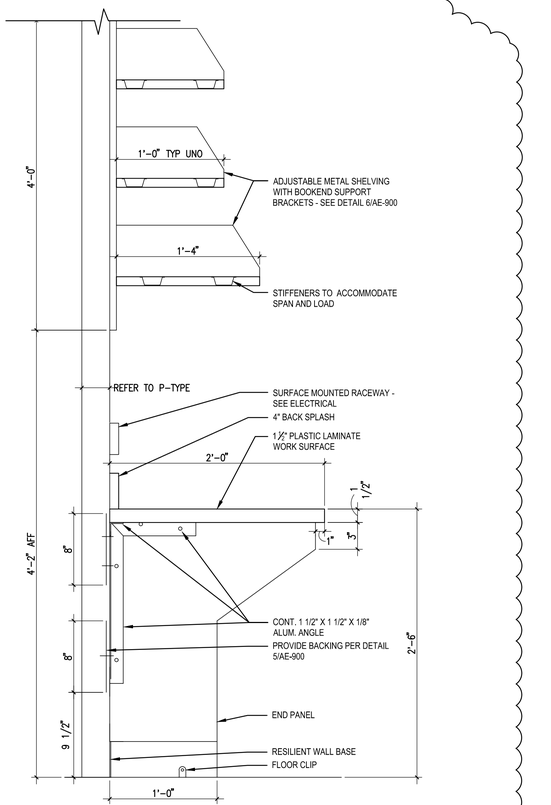
ASRC Photonics Lab Renovations

The City College of New York
85 St Nicholas Terrace
New York, NY 10027

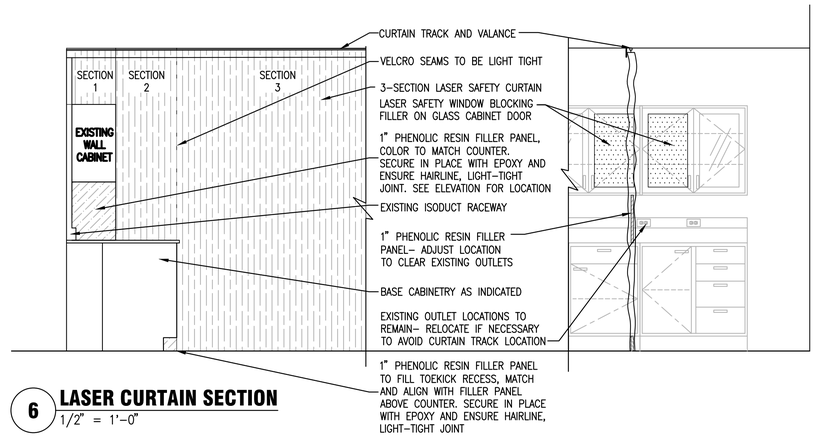
DASNY # 257110
Scale 1/4" = 1'-0"
Company Drawn By: Flad Architects
Project Phase: CONSTRUCTION DOCUMENTS
Date: 06/11/2019 | Drawn By: KS
Flad Project Number: 05432-82 | Checked By: DH
Sheet Title: **Interior Elevations**
Sheet Number: AE-850
NYC DOB Sheet Number: **A-850.00**
Page No.: 7 OF 10
Application No.:
DOB BSCAN



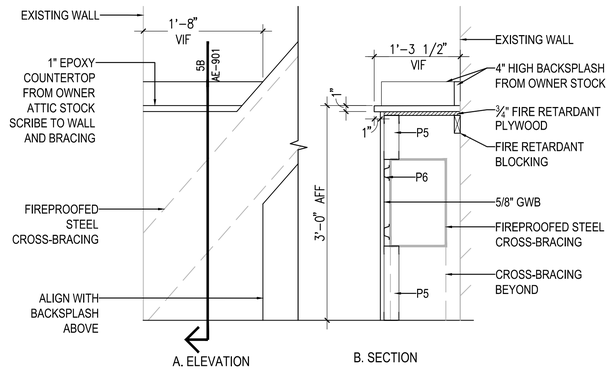
8 COUNTERTOP DETAIL
1 1/2" = 1'-0"



7 WORKSURFACE AND SHELVING SECTION
1 1/2" = 1'-0"



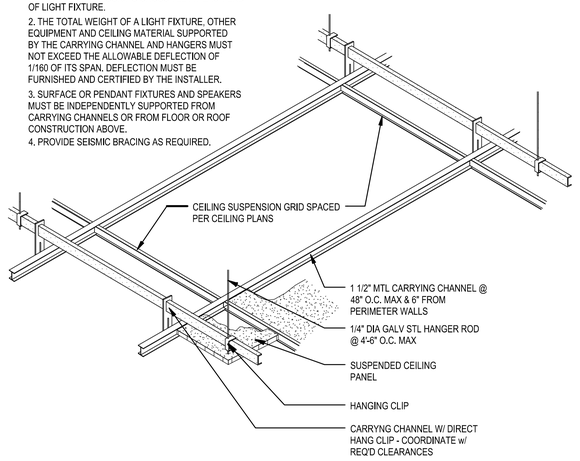
6 LASER CURTAIN SECTION
1/2" = 1'-0"



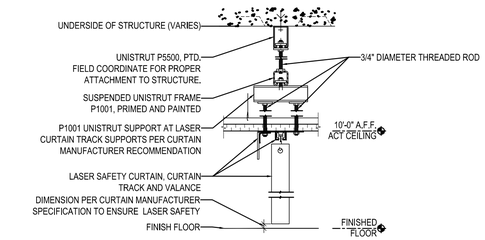
5 LAB COUNTER SUPPORT
1" = 1'-0"

NOTES

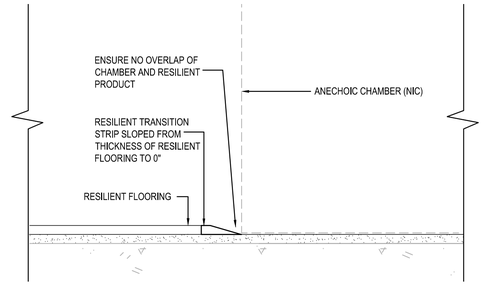
1. PROVIDE INTERLOCKING CROSS TEE AT EACH END OF LIGHT FIXTURE.
2. THE TOTAL WEIGHT OF A LIGHT FIXTURE, OTHER EQUIPMENT AND CEILING MATERIAL SUPPORTED BY THE CARRYING CHANNEL AND HANGERS MUST NOT EXCEED THE ALLOWABLE DEFLECTION OF 1/160 OF ITS SPAN. DEFLECTION MUST BE FURNISHED AND CERTIFIED BY THE INSTALLER.
3. SURFACE OR PENDANT FIXTURES AND SPEAKERS MUST BE INDEPENDENTLY SUPPORTED FROM CARRYING CHANNELS OR FROM FLOOR OR ROOF CONSTRUCTION ABOVE.
4. PROVIDE SEISMIC BRACING AS REQUIRED.



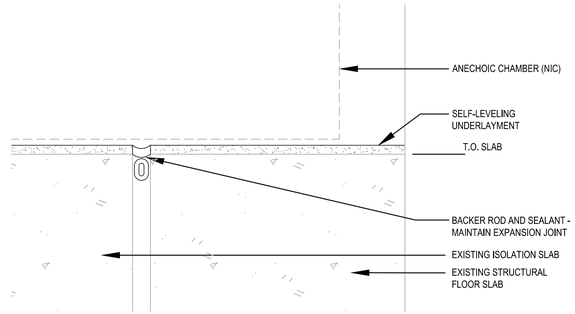
4 BLACK IRON SUSPENDED CEILING SYSTEM
1/4" = 1'-0"



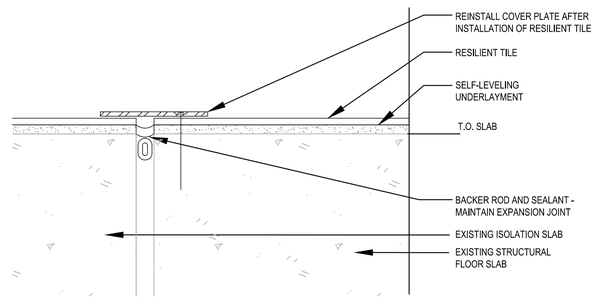
3 SUSPENDED LASER SAFETY CURTAIN DETAIL
1 1/2" = 1'-0"



2 FLOORING TERMINATION AT ANECHOIC CHAMBER
6" = 1'-0"



1B ISOLATION SLAB DETAIL AT ANECHOIC CHAMBER
6" = 1'-0"



1A ISOLATION SLAB DETAIL AT SOUTH LAB
6" = 1'-0"

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AEI
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Rev	Date	Description of Issue
01	06/11/19	ADDENDUM 01
0	05/06/19	CONSTRUCTION DOCUMENTS

Project Title

Dormitory Authority State Of New York
DASNY Project Number – 257110

The City University of New York

ASRC Photonics Lab Renovations

The City College of New York

85 St Nicholas Terrace
New York, NY 10027

DASNY # 257110
Scale: As Indicated
Company Drawn By: Flad Architects
Project Phase: CONSTRUCTION DOCUMENTS
Date: 06/11/2019 | Drawn By: KS
Flad Project Number: 05432-82 | Checked By: DH
Sheet Title: **Details**
Sheet Number: AE-901
NYC DOB Sheet Number: **A-901.00**
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DOB BSCAN