

BLOCK 1421LOT 14

QUALIFICATION CODE _____

ADDRESS (SITE) _____

PERMIT NO. 15-0345

CONSTRUCTION PERMIT APPLICATION

Applicant Completes: Sections I, II, III (optional), IV, VI, and VII

C15-000154**I. IDENTIFICATION**

1. Proposed Work Site at: Herbertsville E.S., 2282 Lanes Mill Rd, Brick, NJ 08723

2. Name of Owner in Fee: Brick Township Public Schools
 Tel. (732) 921-9594 e-mail tliming@brickschools.org
 Address 346 Chambers Bridge Road, Brick, NJ
street municipality zip code

3. Ownership in Fee: Public X Private _____

4. Principal Contractor: Electri-Tech Inc. Tel. (609) 476-0822
 Address 82 Tuckahoe Road, Dorothy, NJ 08317 e-mail _____
bblystone@electritechinc. net

License No. OR, if new home, Builder Reg. No. 34EB01233500 Exp. Date 03/31/2015

Home Improvement Contractor Registration No. or Exemption Reason _____

Federal Emp. ID No. 22-324542 FAX: (609) 476-0662

5. Architect or Engineer Di Cara/ Rubino Architects Contact Robert M. Lamello
 Address 30 Galesi Drive, Wayne, NJ 07470 e-mail biamello@dicararubino.co
 Tel. (973) 256-0202 FAX: (973) 256-0227

6. Responsible Person in Charge once Work has Begun Michael Bootie (Field Foreman)
 Tel. (609) 667-8222 FAX: (609) 476-0662

V. FEE SUMMARY (for office use only)

	Update	Update
1. Building	\$	
2. Electrical	\$	
3. Plumbing	\$	
4. Fire Protection	\$	
5. Elevator Devices	\$	
6. Subtotal	\$	
7. Less 20% for State Plan Review	\$	
8. Subtotal	\$	
9. State Permit Surcharge Fee	\$	
10. Subtotal	\$	
11. Cert. of Occupancy	\$	
12. Other	\$	
13. TOTAL	\$	

VI. BUILDING/SITE CHARACTERISTICS

	(office use only)
1. Number of Stories <u>1</u>	
2. Height of Structure _____ ft.	
3. Area — Largest Floor _____ sq. ft.	
4. New Building Area _____ sq. ft.	
5. Volume of New Structure _____ cu. ft.	
6. Max. Live Load _____	
7. Max. Occupancy Load _____	
8. If Industrialized Building: State Approved _____ HUD _____	
9. Total Land Area Disturbed _____ sq. ft.	
10. Flood Hazard Zone _____	
11. Base Flood Elevation _____ ft.	
12. Wetlands yes _____ no _____	

IIa. PROPOSED WORK

- ☐ Minor Work ☐ New Building ☐ Addition ☐ Demolition
☐ Repair ☐ Alteration ☐ Renovation ☐ Reconstruction
☐ Asbestos Abat. -Subch. 8 ☐ Lead Hazard Abatement ☐ Radon Remediation ☐ Annual Permit

IIb. SUBCODES

(Check all that apply)

- ☐ Building
☐ Electrical
☐ Plumbing
☐ Fire Protection
☐ Elevator

FOR OFFICE USE ONLY (Optional)

Est. Cost	Plans Rec'd by	Date Rec'd	Rejection Date	Approval Date	Re-viewer	Resubmission Dates	Re-viewer
		<u>05/15/15</u>					
				<u>2/6/18</u>	<u>TS</u>		
				<u>1/15/20</u>	<u>MSD</u>		

TOTAL COST \$0

III. PLAN REVIEW (optional)

DO YOU WANT:

1. ☐ Partial Releases
 2. ☐ Prototype Processing

IV. DOES OR WILL YOUR BUILDING CONTAIN ANY OF THE FOLLOWING?

1. ☐ Elevators/Escalators/Lifts/ Dumbwaiters/Moving Walks
 2. ☐ High Pressure Boilers
 3. ☐ Pressure Vessels
 4. ☐ Refrigeration Systems
 5. ☐ Cross-Connections/Backflow Preventers
 6. ☐ Hazardous Uses/Places of Assembly
 7. ☐ Sprinklers/Standpipes
 8. ☐ Smoke Control Systems in Open Wells
 9. ☐ Underground Storage Tanks
 10. ☐ Swimming Pools, Spas and Hot Tubs
 11. ☐ LPGas Tanks
 12. ☐ Fire Alarm

VII. DESCRIPTION OF BUILDING USE**A. RESIDENTIAL (primary use)**

1. State Specific Use: _____
2. Use Group, Proposed: Select Group
3. Change in Use Group, Indicate Present: Select Group
4. No. of dwelling units: Total Units Income-restricted
- | | |
|----------------|--|
| Gained, Sale | |
| Gained, Rental | |
| Lost, Sale | |
| Lost, Rental | |

B. NON-RESIDENTIAL (primary use)

1. State Specific Use: Public School
2. Use Group, Proposed: Select Group Select Group
3. Change in Use Group, Indicate Present
- C. MIXED USE -List secondary use(s): _____
- D. Construct. Classification: Present _____ Proposed _____



Brick Township
401 Chambersbridge Rd
Brick, NJ 08723

Date Issued 1/4/2016
Control Number C-15-000154
Permit Number 15-0345
Permit Issue Date 2/9/2015
Certificate Number 15-0345

Certificate

Construction Code Division
(Certificate of Approval)

Identification

Work Site Location: 2282 LANES MILL RD. Brick Township, NJ Block: 1421 Lot: 14 Qual: _____
Owner in Fee: BRICK TOWNSHIP BOARD OF EDUCATION
Owner Address: 101 HENDRICKSON AVE. BRICK NJ 08724
Telephone: (732) 921-9594
Contractor: Electri-Tech Inc.
Address: 82 Tuckahoe Road Dorothy NJ 08317
Telephone: (609) 476-0822 Fax: (609) 476-0662
License Number or Builders Registration Number: 12335 Federal Emp. Number: 22-324542

Home Warranty Number: _____

Type of Warranty Plan: ☐ State ☐ Private

Use Group: E Construction Classification: _____

Maximum Live Load: 0 Maximum Occupancy Load: 0

Description of Work/Use: ALARM SYSTEM (BURGLAR OR FIRE)

Certificate Comments:

☐ **Certificate of Occupancy**

This serves notice that said building or structure has been constructed in accordance with the New Jersey Uniform Construction Code and is approved for occupancy.

☒ **Certificate of Approval**

This serves notice that the work completed has been constructed or installed in accordance with the New Jersey Uniform Construction Code and is approved. If the permit was issued for minor work, this certificate was based upon what was visible at the time of inspection.

☐ **Certificate of Continued Occupancy**

This serves notice that based on a general inspection of the visible parts of the building there are no imminent hazards and the building is approved for continued occupancy.

☐ **Temporary Certificate of Compliance**

The following conditions must be met no later than or the owner will be subject to fine or order to vacate:

This certificate has an expiration date of:

Conditions to be met:

☐ **Certificate of Clearance - Lead Abatement 5:17**

This serves notice that based on written certification, lead abatement was performed as per NJAC5:17 to the following extent.

- ☐ Total removal of lead-based paint hazards in scope of work
☐ Partial or limited time period (years); see file

☐ **Certificate of Clearance - Asbestos Abatement**

This serves notice that based on written certification, asbestos abatement was performed to the following extent.

- ☐ Total removal of asbestos hazards in scope of work
☐ Partial or limited time period (years); see file

☐ **Certificate of Compliance**

This serves notice that said potentially hazardous equipment has been installed and/or maintained in accordance with the New Jersey Uniform Construction Code and is approved for use until

☐ **Temporary Certificate of Occupancy**

The following conditions must be met no later than: or the owner will be subject to fine or order to vacate:

This certificate has an expiration date of:

Conditions to be met:

Daniel Newman Jr

Construction Official

Fee: \$0.00
Check Number: _____
Collected By: _____



FIRE PROTECTION SUBCODE TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 1421 Lot 14 Qualification Code _____

Work Site Location Herbedsville Elementary School

2282 Lakes Mill Road, Brick, NJ 08724

Owner in Fee: Brick Township Public Schools

Tel. 732 921 9594 e-mail himing@brickschools.org

Address 346 Chambers Bridge Road, Brick, NJ 08723

Contractor: Electric Tech Inc. Tel. 609 476 0822

Address 82 Tuckahoe Rd, Donalys, NJ e-mail bblstone@electrictechinc.net

Fire Protection Equipment, NJ Div of Fire Safety Permit No. _____

Fire Protection Equipment, NJ Div of Fire Safety Installer No. _____

Fire Alarm Contractor No. _____ Exp. Date _____

Home Improvement Contractor Registration No. or Exemption Reason _____

Federal Emp. ID No. 22-3245424 FAX: 609 476 0822

B. FIRE PROTECTION CHARACTERISTICS

Use Group: Present _____ Proposed _____ Fuel Storage Tank: _____

Constr. Class: Present _____ Proposed _____ Fuel Type: ☐ Flammable or ☐ Combustible

Heating System: ☐ New or ☐ Modification to Existing Fire Alarm System: ☒ New or ☐ Existing

OR ☐ Conversion or ☐ Replacement Location of Panel: Main Office

Fuel Type: ☐ Gas ☐ Oil ☐ Electric ☐ Solar Fire Suppression/Standpipe System: _____

☐ Other _____ Location of Main Control Valve: _____

Location: _____

Total Cost of Fire Protection Work \$ 84,000.00

JOB SUMMARY (Office Use Only)

PLAN REVIEW

☐ No Plans Required

☐ Partial - Underlaid Utilities Approved

Date: _____ Approved by: _____

☒ Fire Protection Plans Approved

Date: 1/15/15 Approved by: [Signature]

Joint Plan Review Required: _____

☐ Bldg. ☐ Elec. ☐ Plumb. ☐ Elev.

SUBCODE APPROVAL for PERMIT

Date: 1/15/15

Approved by: [Signature]

SUBCODE APPROVAL for CERTIFICATE

☐ CO ☐ Gas ☐ CA

Date: 1/15/15

Approved by: [Signature]

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application.

Applicant/Contractor sign here: [Signature]

Print name here: Bill Blystone

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK:

Water Supply Source _____

Method of Alarm/Suppression System Supervision _____

Flammable/Combustible Tanks _____

Alarm Systems _____

☐ System _____

☐ 110v Interconnected _____

☐ CO Detectors/110v _____

Alarm Devices (i.e., smoke, heat, pull, waterflow) _____

Supervisory Devices (i.e., tamper, low/high air) _____

Signaling Devices (i.e., horn/strobes, bells) _____

Other Devices _____

TOTAL _____

Suppression Systems _____

Fire Pump _____ GPM Type _____

Dry Pipe/Alarm Valves _____

Pre-action Valves _____

Sprinkler Heads (Dry and Wet) _____

Standpipes _____

Pre-engineered Systems _____

Wet Chemical _____

Dry Chemical _____

CO₂ Suppression _____

Foam Suppression _____

FM200 Suppression _____

Other _____

Other Systems _____

Kitchen Hood Exhaust System _____

Smoke Control System _____

Fuel-Fired Appliances ☐ Gas ☐ Oil ☐ Solid _____

Fireplace Venting/Metal Chimney _____

Other _____

Administrative Surcharge \$ _____

Minimum Fee \$ _____

State Permit Surcharge Fee \$ _____

TOTAL FEE \$ _____



ELECTRICAL SUBCODE TECHNICAL SECTION



A. IDENTIFICATION—APPLICANT: COMPLETE ALL APPLICABLE INFORMATION. WHEN CHANGING CONTRACTORS, NOTIFY THIS OFFICE. CALL UTILITY DIG NO: 1-800-272-1000.

Block 1421 Lot 14 Qualification Code _____
Work Site Location Herbertsville Elementary School
2282 Lanes Mill Road, Brick, NJ 08724

Owner in Fee: Brick Township Public School

Tel. 921-9594 e-mail tliming@brickshools.org

Address 346 Chambers Bridge Road Brick, NJ 08723

Contractor: Electri-Tech Inc. Tel. 609 476 0822

Address 82 Tuckahoe Road e-mail blystone@electri-techinc.net

Dorothy, NJ 08317-9703 Exp. Date 03/31/2015

Contractor License No. 34EB01233500

Home Improvement Contractor Registration No. or Exemption Reason

Federal Emp. ID No. 22-324542 FAX: 609 476 0662

B. ELECTRICAL CHARACTERISTICS

Use Group Present Proposed _____

[] Pole/Pad # _____ [] Temporary [] Other _____

Building Occupied as _____ Utility Co. _____

Est. Cost of Elec. Work \$ 84,000

JOB SUMMARY (Office Use Only)

PLAN REVIEW	INSPECTIONS	Dates (Month/Day)
	Type:	Failure Failure Approval Initial
[] No Plans Required	Rough	
[] Partial -Under-slab Utilities Approved	Barrier-Free	
Date: _____ Approved by: _____	Trench	
[] Electric Plans Approved	Temp. Serv.	
Date: <u>2/6/15</u> Approved by: <u>CE</u>	Constr. Serv.	
Joint Plan Review Required:	TCO	
[] Bldg. [] Plumb. [] Fire. [] Elev.	Other	
SUBCODE APPROVAL for PERMIT	Service	
Date: <u>2/6/15</u>	Final	
Approved by: <u>CE</u>	Barrier-Free	
SUBCODE APPROVAL for CERTIFICATE	Temp. Cut-In-Card Date Issued	
[] CO [] CCO [] CA	Final Cut-In-Card Date Issued	
Date: <u>2/6/15</u>	Annual Pool Inspection	
Approved by: <u>CE</u>	Date of Grounding and Bonding	
	Certification	

C. CERTIFICATION IN LIEU OF OATH

I hereby certify that I am the (agent of) owner of record and am authorized to make this application and perform the work listed on this application.

Applicant sign/Contractor sign and seal here: Bill Blystone

Print name here: Bill Blystone

[X] Licensed Elec. Contractor [] Certifd Landscape Irrigation Contr [] Exempt Applicant

D. TECHNICAL SITE DATA

DESCRIPTION OF WORK:
Fire Alarm Replacement

QTY.	SIZE	ITEMS	FEE (Office Use Only)
		Lighting Fixtures	
		Receptacles	
		Switches	
		Detectors	
		Light Poles	
		Motors—Fract. HP	
		Emergency & Exit Lights	
		Communications Points	
		Alarm Devices/F.A.C. Panel	
		TOTAL NUMBERS	

		Pool Permit/with UV Lights	
		Storable Pool/Spa/Hot Tub	
		KW Elec. Range/Receptacle	
		KW Oven/Surface Unit	
		KW Elec. Water Heater	
		KW Elec. Dyer/Receptacle	
		KW Dishwasher	
		HP Garbage Disposal	
		KW Central A/C Unit	
		HP/KW Space Heater/Air Handler	
		KW Baseboard Heat	
		HP Motors 1/+ HP	
		KW Transformer/Generator	
		AMP Service	
		AMP Subpanels	
		AMP Motor Control Center	
		KW Elec. Sign/Outline Light	

Administrative Surcharge \$ _____

Minimum Fee \$ _____

State Permit Surcharge Fee \$ _____

TOTAL FEE \$ _____

8/18/15

(11 cameras
by dbe

- ① slow annunciator ✓
- ② reports AS built ✓
- ③ find test - prog ④ control station
- ④ remove old system ✓
- ⑤ keys for box ✓
- ⑥ program ④ central station
- * System strobe only is active ✓
- ⑦ Fire door operation ✓
- ⑧ Stickers ✓
- ⑨ duct detectors

↑ (F) tech

CERTIFICATION IN LIEU OF OATH

I. OWNER SECTION (to be completed if the applicant is the owner in fee)

I hereby certify that I am the owner in fee of the property listed on Page 1.

Mark the following applicable boxes:

- A. ☐ I further certify that a new home (private residence) will be constructed on this property for my own use and occupancy. This dwelling is to be occupied by myself and is not to be used for any purpose other than single family residential use. I attest that all construction, plumbing, or electrical work will be done, in whole or in part, by me or by subcontractors under my supervision, in accordance with all applicable laws; and, I further acknowledge that said new home is not covered under the New Home Warranty and Builders Registration Act (N.J.S.A. 46:3B-1 et seq.) and that such fact shall be disclosed to any person purchasing this property within ten years of the date of issuance of a certificate of occupancy.

I UNDERSTAND THAT IN MARKING BOX A, I ACKNOWLEDGE THAT I AM ASSUMING RESPONSIBILITY FOR THE WORK DONE ON SAID PROPERTY, THE CONDITION OF THE PROPERTY PRIOR TO, DURING, AND AFTER ANY WORK PERFORMED, AND FOR THE PERFORMANCE OF THE SUBCONTRACTORS I HIRE, EMPLOY, OR OTHERWISE CONTRACT OR WITH WHOM I MAKE AGREEMENTS TO PERFORM WORK. I AM VOLUNTARILY AND KNOWINGLY ASSUMING THIS RESPONSIBILITY.

- B. ☐ I further certify the following as required by the New Jersey Uniform Construction Code, N.J.A.C. 5:23-2.15(f)1.ix:

I personally prepared the plans submitted for: 1) the new home referred to in A.; or, 2) an addition, alteration, renovation, or repair to an existing single family residence owned and occupied by myself and located on the property listed on Page 1; or, 3) a new structure that will be physically separate from, but that will be deemed part of, an existing single family residence that is owned and occupied by myself and located on the property listed on Page 1.

- C. ☐ I further certify that I will perform or supervise the following work:

C.1. ☐ Building C.2. ☐ Fire Protection

I further certify that I will perform the following work:

C.3. ☐ Electrical C.4. ☐ Plumbing

- D. ☐ I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals, including such certification as the construction official may require, have been given or will be given prior to permit issuance.

I understand that if any of the above statements are willfully false, I am subject to punishment.

Signature _____ Date _____

II. AGENT SECTION (to be completed if the applicant is not the owner in fee)

I hereby certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(d): the proposed work is authorized by the owner in fee; and I have been authorized by the owner in fee to make this application as his agent.

I further certify the following as required by the Uniform Construction Code, N.J.A.C. 5:23-2.15(a)5: All required State, county, and local prior approvals, including such certification as the construction official may require, have been given or will be given prior to permit issuance.

I agree to advise all contractors on this project that they are required to be registered with the New Jersey Division of Taxation and to comply with all New Jersey tax laws.

I understand that if any of the above statements are willfully false, I am subject to punishment.

☐ Check if contractor.

Agent Name Electi-Tech Inc.

Address 82 Tuckahoe Road

Dorothy, N.J.

Telephone 609-476-0822

Signature [Signature]

- III. ☐ LEAD HAZARD ABATEMENT: Include Homeowner or Building Owner Affidavit as per N.J.A.C. 5:23-2.15(b)4.

- IV. ☐ HOME ELEVATION: Include Home Elevation Contractor Certification as per N.J.S.A. 52:27D-123.16.



CONSTRUCTION PERMIT

Date Issued 2/9/2015
Control # C-15-000154
Permit # 15-0345

IDENTIFICATION Block: 1421 Lot: 14 Qualifier _____
Work Site Location: 2282 LANES MILL RD. Brick Township, NJ Contractor Electri-Tech Inc.
Address 82 Tuckahoe Road Dorothy NJ 08317
Owner in Fee BRICK TOWNSHIP BOARD OF EDUCATION Telephone: (609) 476-0822
101 HENDRICKSON AVE. BRICK NJ 08724 Lic. No. or Bldrs. Reg. No. 12335
Telephone: (732) 921-9594 Federal Employee No. 22-324542

Is hereby granted permission to perform the following work:

- | | | |
|--|--|--|
| ☐ BUILDING | ☐ PLUMBING | ☐ LEAD HAZARD ABATEMENT |
| ☒ ELECTRICAL | ☒ FIRE PROTECTION | ☐ DEMOLITION |
| ☐ ELEVATOR DEVICES | ☐ ASBESTOS ABATEMENT
(Subchapter 8 only) | ☐ OTHER |

DESCRIPTION OF WORK:

ALARM SYSTEM (BURGLAR OR FIRE)

Note: If construction does not commence within one (1) year of date of issuance, or if construction ceases for a period of six (6) months, this permit is void.

Estimated Cost of Work \$168,000

Construction Official _____

Date 2/9/15

U.C.C. F170
equiv (rev. 1/04)

1 WHITE - INSPECTOR

2 CANARY - OFFICE

3 PINK - TAX ASSESSOR

4 GOLD - APPLICANT

PAYMENTS (Office Use Only)

Building	_____	\$0
Electrical	_____	\$0
Plumbing	_____	\$0
Fire Protection	_____	\$0
Elevator Devices	_____	\$0
Other	_____	\$0.00
DCA Training Fee	_____	\$0
CO Fee	_____	\$0
Other	_____	\$0
Total	_____	\$0
Check No.	_____	
Cash	_____	\$0
Credit	_____	\$0
Collected By	_____	

REQUIRED INSPECTIONS

Construction work must be inspected in accordance with the State Uniform Construction Code Regulations N.J.A.C. 5:23-2.18. This agency will carry out such periodic inspections during the progress of work as are necessary to insure that the work installed conforms with the requirements of the Uniform Construction Code.

The owner or other responsible person in charge of work must notify this agency when work is ready for any required inspections specified below. Requests for inspections must be made at least 24 hours prior to the time the inspection is desired. Inspections will be performed within three business days of the time for which they are requested. The work must not proceed in a manner which will preclude the inspection until it has been made and approval granted.

- ☐ Required inspections for all subcodes for one- and two-family dwellings are as follows:
1. The bottom of footing trenches before placement of footings, except that in cases of pile foundations, inspections shall be made in accordance with the requirements of the building subcode.
 2. Foundations and all walls up to grade level prior to back filling.
 3. All structural framing, connections, wall and roof sheathing and insulation; electrical rough wiring, panel and service installation; rough plumbing. The framing inspection shall take place after the rough electrical and plumbing inspections and after the installation of the heating, ventilation and /or air conditioning duct system. The insulation inspection shall be performed after all other subcode rough inspections and prior to the installation of any interior finish material.
 4. Installation of all finished materials, sealings of exterior joints, plumbing piping, trim and fixtures; electrical wiring, devices and fixtures; mechanical systems equipment.

Additional required inspections for all subcodes of construction, for other than one- and two-family dwellings, are fire suppression systems, heat producing devices and Barrier Free subcode accessibility, if applicable.

- ☐ Required special inspections. The applicant by accepting the permit will be deemed to have consented to these requirements:

- ☐ A final inspection is required for each applicable subcode area before a final Certificate of Occupancy or Approval may be issued. The final inspections include the installation of all interior and exterior finish materials, sealing of exterior joints, mechanical system and other required equipment; electrical wiring, devices and fixtures; plumbing pipes, trim and fixtures; tests required by any provision of the adopted subcodes, Barrier Free accessibility, if applicable; and verification of compliance with NJAC 5:23-3.5, "Posting structures".

- ☐ A complete copy of released plans must be kept on the job site.

If you do not understand any of this information, please ask.

Date 11/24/14

Project # 2014-102

Project Name: Fire Alarm Replacement at
Brick Township High School
Drum Point Elementary School
Emma Havens Young Elem. School
Herbertsville Elementary School
Osbornville Elementary School
Veterans Memorial Elem. School

Contract Amount: \$ 1,029,000.00

Owner: Brick Township Board of Education
101 Hendrickson Avenue
Brick, New Jersey 08724-2599

Phone 732-785-3000

Facilities Manager Thomas C. Liming, CEFM
346 Chamber Bridge Road
Brick, NJ 08723

E-mail tliming@brickschools.org

Phone 732-921-9594

Fax 732-477-8228

Assistant Fac. Manager Roger Readel

346 Chamber Bridge Road
Brick, NJ 08723

E-mail rreadel@brickschools.org

Phone 732-773-0248

Fax 732-477-8228

Architect: Di Cara | Rubino Architects
30 Galesi Drive

Wayne, NJ 07470
Robert M. Lamello, AIA
E-mail biamello@dicararubino.com
Phone 973-256-0202
Fax 973-256-0227
Cell 732-245-5404

DRA Project # 2707

Engineer: Johnson & Urban, LLC
Consulting Engineers
295 State Route 34
Colts Neck, NJ 07722
David J. Waldron, PE
E-mail dwaldron@johnsonurban.com
Phone 732-772-1500
Fax 732-772-1515
Cell 732-856-0031

Contractor Electri-Tech Inc.
82 Tuckahoe Road
Dorothy, NJ 08317
Phone 609-476-0822
Fax 609-476-0663

Project Manager Bill Blystone
Phone 609-476-0822
E-mail bblystone@electritechinc.net

Field Foreman Michael Bootie
Cell Phone 609-667-8222
E-mail mbootie@electritechinc.net

HERBERTSVILLE					ADD DEVICES
TOTALS				COUNTS	NOTE 6
PULL STATION				15	5
WP PULL STATION				0	
SPEAKER/STROBE				39	5
WP SPEAKER/STROBE				5	
SPEAKER				0	
STROBE				12	5
STI STOPPER II				15	
WP STI STOPPER II				0	
COMB. SMOKE/HEAT				0	
SMOKE DETECTOR				17	5
HEAT DETECTOR				65	5
HEAT RATE OF RISE				0	
HEAT RATE OF RISE ABOVE CEIL				51	
HEAT FIXED HIGH TEMP				7	5
DUCT DETECTOR				0	2
REMOTE TEST SWITCH W/LED				6	2
INTERPOSING RELAY				0	2
ANNUNCIATOR PANEL				1	
DOOR HOLDER				4	
NAC PANELS				0	
FACP				1	
ADDRESS MODULE				0	
ADDRESS CONTROL MODULE				0	6
TAMPER SWITCH (ADDRESS MODULE)				0	3
FLOW SWITCH (ADDRESS MODULE)				1	
TOTALS				239	45



System Power Requirements

Notifier NFS2-3030 Fire Alarm Control Panel

Protected Premises:	Herbertsville School	Date:	1/7/2015
Address:	2282 Lanes Mills Road		
City:	Brick	State:	New Jersey
		Zip:	08724
Prepared By:	Allied Fire & Safety Equipment Co., Inc.	Phone:	(732) 922-3399
Address:	517 Green Grove Road	Email:	info@alliedfiresafety.com
City:	Neptune	State:	New Jersey
		Zip:	07754

AC Branch Current Requirements

4.50 AMPS @ 120 VAC

Current required by source to power the fire alarm system.

Primary Standby Load

0.48 Amps

Current load on the primary power supply during non-alarm conditions.

Primary Alarm Load

0.76 Amps

Current load on the primary power supply during alarm conditions.

Secondary Load Requirements

13.81 Amp Hours

Total Secondary Load from the calculation table below.

Current Draw		Time (hours)	Total (AH)
Secondary Standby Load 0.477 A	x	Required Standby Time	
		24 hours	11.45
Secondary Alarm Load 0.762 A	x	Required Alarm Time	
		0.084 hours	0.06
Total Secondary Load			11.51
Derating factor			x 1.2
Secondary Load Requirements			13.81

AH

Battery Selection

18 Amp Hours

Select batteries from the list below.

18 AH BAT-12180 Battery (12 volt)

☒ Two

☐ Four (two 12VDC sets in parallel)



Device Current Draw

NFS2-3030 Fire Alarm Control Panel

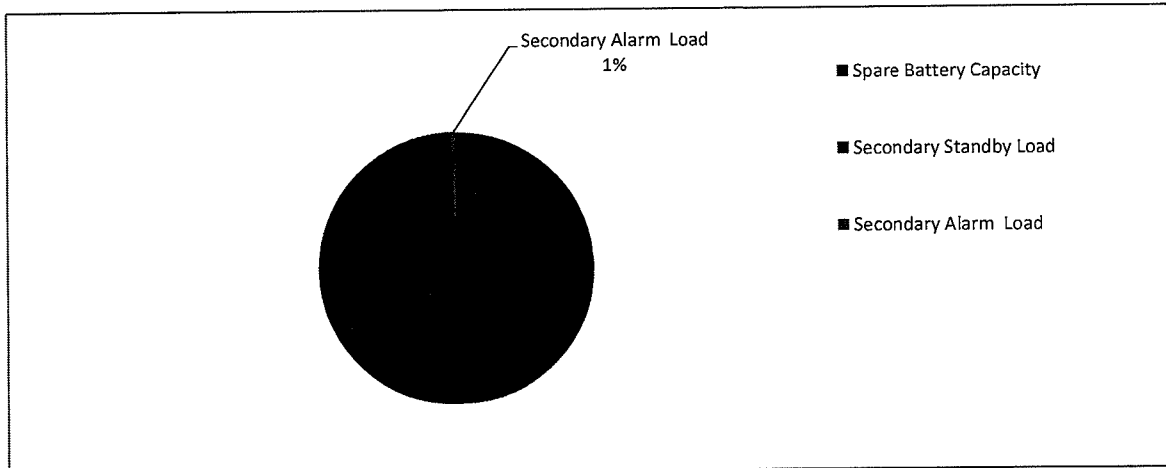
Quantity x [device current draw] = total current draw per device (in amps)

Part Number	Qty	Primary Non-Alarm	Primary Alarm	Secondary Non-Alarm
CPU2-3030	1	x [0.12000] = 0.12000	x [0.12000] = 0.12000	x [0.12000] = 0.12000
LCM-320	1	x [0.13000] = 0.13000	x [0.13000] = 0.13000	x [0.13000] = 0.13000
LEM-320	1	x [0.10000] = 0.10000	x [0.10000] = 0.10000	x [0.10000] = 0.10000
LCD-160	1	x [0.07500] = 0.07500	x [0.32500] = 0.32500	x [0.07500] = 0.07500
UDACT-2 Communicator	1	x [0.05200] = 0.05200	x [0.08700] = 0.08700	x [0.05200] = 0.05200
SLC Loop Device Activation Current	2	x [0.00000] = 0.00000	x [0.20000] = 0.40000	x [0.00000] = 0.00000
Total (Amperes):		0.4770 A	0.7620 A	0.4770 A

Part Number	Qty	Secondary Alarm
Total Primary Alarm Load - C2	1	x [0.76200] = 0.76200
Total (Amperes):		0.7620 A

Battery Distribution Chart

Shows amp-hour distribution of your selections.



Comments

1. Batteries will fit in the FACP cabinet.
2. Selected battery size meets secondary load requirements.
3. The selected batteries (18AH) are within the charger range of this power supply (12-60AH).

Spare Battery Capacity	4.19	Battery Selection (AH) - Secondary Load Requirements (AH)
Secondary Standby Load	13.74	Secondary Standby Load (AH) * Derating Factor
Secondary Alarm Load	0.08	Secondary Alarm Load (AH) * Derating Factor



System Power Requirements

FCPS-24s8 Power Supply

Protected Premises:	Brick Schools - Typical NAC Remote Panel		Date:	1/7/2015	
Address:					
City:	Brick	State:	New Jersey	Zip:	08723
Prepared By:	Allied Fire & Safety Equipment Co., Inc.		Phone:		
Address:	517 Green Grove Road		Email:	info@alliedfiresafety.com	
City:	Neptune	State:	New Jersey	Zip:	07754

AC Branch Current Requirements

3.20 AMPS @ 120 VAC

Current required by source to power the fire alarm system.

Primary Standby Load

0.09 Amps

Current load on the primary power supply during non-alarm conditions.

Primary Alarm Load

7.26 Amps

Current load on the primary power supply during alarm conditions.

Secondary Load Requirements

2.60 Amp Hours

Total Secondary Load from the calculation table below.

Current Draw		Time (hours)	Total (AH)
Secondary Standby Load		Required Standby Time	
0.065 A	x	24 hours	1.56
Secondary Alarm Load		Required Alarm Time (hours)	
7.258 A	x	0.084 hours	0.61
Total Secondary Load			2.17
Derating factor			x 1.2
Secondary Load Requirements			2.60

AH

Battery Selection

7 Amp Hours

Select batteries from the list below.

7 AH BAT-1270 Battery (12 volt)

☒ Two

☐ Four (two 12VDC sets in parallel)



Device Current Draw

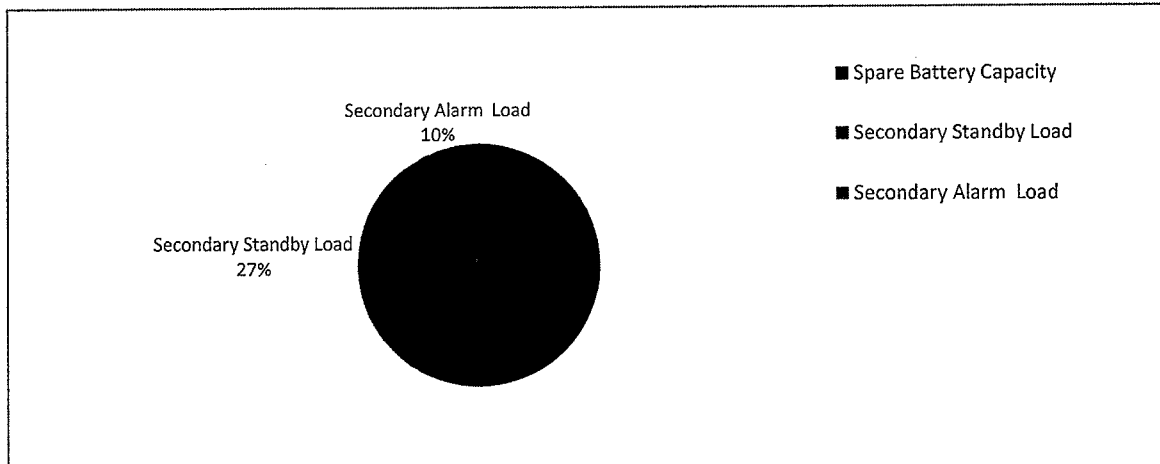
FCPS-24s8 Power Supply

Quantity x [device current draw] = total current draw per device (in amps)

Part Number	Qty	Primary Non-Alarm	Primary Alarm	Secondary Non-Alarm
FCPS-24S8 Main Circuit Board	1	x [0.09100] = 0.09100	x [0.14500] = 0.14500	x [0.06500] = 0.06500
P2R75	9	x [0.00000] = 0.00000	x [0.17600] = 1.58400	x [0.00000] = 0.00000
P2R30	40	x [0.00000] = 0.00000	x [0.11600] = 4.64000	x [0.00000] = 0.00000
SR15	10	x [0.00000] = 0.00000	x [0.06600] = 0.66000	x [0.00000] = 0.00000
P2RK115	1	x [0.00000] = 0.00000	x [0.22900] = 0.22900	x [0.00000] = 0.00000
Total (Amperes):		0.0910 A	7.2580 A	0.0650 A

Battery Distribution Chart

Shows amp-hour distribution of your selections.



Comments

1. Batteries will fit in the FACP cabinet.
2. Selected battery size meets secondary load requirements.
3. The selected batteries (7AH) are within the charger range of this power supply (7-18AH).

Spare Battery Capacity	4.40	Battery Selection (AH) - Secondary Load Requirements (AH)
Secondary Standby Load	1.87	Secondary Standby Load (AH) * Derating Factor
Secondary Alarm Load	0.73	Secondary Alarm Load (AH) * Derating Factor

Voltage Drop Analysis

Notification Appliances - NAC #1

FCPS-24S8 Notification Appliance Circuit

Source Voltage: 20.40 VDC Low Battery

Protected Premises: <u>Brick Township Schools Typical NAC Power Supply</u>						Date: <u>1-7-2015</u>			
Address: <u>101 Hendrickson Avenue</u>						City: <u>Brick</u>			
State: <u>New Jersey</u>			Zip: <u>08724</u>		Note: <u>Remote NAC Power Supply Voltage Drop</u>				
Prepared By: <u>Allied Fire and Safety Equipment Co., Inc</u>						Phone: <u>(732) 922-3399</u>			
Address: <u>517 Green Grove Road</u>						City: <u>Neptune</u>			
State: <u>NJ</u>			Zip: <u>07754</u>						

Device #	PartNumber	Current (amps)	Distance (Feet)		Circuit Voltage @ Each Device				
			Between	Total			14 AWG		
1	P2R1575	0.1000	50	50			19.94		
2	P2R1575	0.1000	50	100			19.51		
3	P2R1575	0.1000	50	150			19.11		
4	P2R1575	0.1000	50	200			18.74		
5	P2R1575	0.1000	50	250			18.40		
6	P2R1575	0.1000	50	300			18.10		
7	P2R1575	0.1000	50	350			17.82		
8	P2R1575	0.1000	50	400			17.58		
9	P2R1575	0.1000	50	450			17.36		
10	P2R1575	0.1000	50	500			17.18		
11	P2R1575	0.1000	50	550			17.02		
12	P2R1575	0.1000	50	600			16.90		
13	P2R1575	0.1000	50	650			16.81		
14	P2R1575	0.1000	50	700			16.75		
15	P2R1575	0.1000	50	750			16.72		
Total Current:		1.5000	% Voltage Drop:				18.06		
							Go		

~~Strikethrough~~ indicates a value below the device's minimum voltage at indicated location and wire gauge.

These calculations assume a worst-case source voltage as measured by UL with the batteries depleted to 20.4 volts. Under AC power and for most of the drain cycle of the batteries, the circuit voltages will be substantially higher and thus, would support a greater number of devices. A device's minimum operating voltage is derived from the UL-requirement that it operate within a Regulated Voltage Range (16VDC - 33VDC).

Voltage Drop Analysis

Notification Appliances - NAC #2

FCPS-24S8 Notification Appliance Circuit

Source Voltage: 20.40 VDC Low Battery

Protected Premises: <u>Brick Township Schools - Typical NAC Power Supply</u>					Date: <u>1-7-2015</u>				
Address: <u>101 Hendrickson Avenue</u>					City: <u>Brick</u>				
State: <u>New Jersey</u>			Zip: <u>08724</u>		Note: <u>Remote NAC Power Supply Voltage Drop</u>				
Prepared By: <u>Allied Fire and Safety Equipment Co., Inc</u>					Phone: <u>(732) 922-3399</u>				
Address: <u>517 Green Grove Road</u>					City: <u>Neptune</u>				
State: <u>NJ</u>			Zip: <u>07754</u>						

Device #	PartNumber	Current (amps)	Distance (Feet)		Circuit Voltage @ Each Device				
			Between	Total			14 AWG		
1	P2R1575	0.1000	50	50			19.94		
2	P2R1575	0.1000	50	100			19.51		
3	P2R1575	0.1000	50	150			19.11		
4	P2R1575	0.1000	50	200			18.74		
5	P2R1575	0.1000	50	250			18.40		
6	P2R1575	0.1000	50	300			18.10		
7	P2R1575	0.1000	50	350			17.82		
8	P2R1575	0.1000	50	400			17.58		
9	P2R1575	0.1000	50	450			17.36		
10	P2R1575	0.1000	50	500			17.18		
11	P2R1575	0.1000	50	550			17.02		
12	P2R1575	0.1000	50	600			16.90		
13	P2R1575	0.1000	50	650			16.81		
14	P2R1575	0.1000	50	700			16.75		
15	P2R1575	0.1000	50	750			16.72		
Total Current:		1.5000	% Voltage Drop:				18.06		
							Go		

~~Strikethrough~~ indicates a value below the device's minimum voltage at indicated location and wire gauge.

These calculations assume a worst-case source voltage as measured by UL with the batteries depleted to 20.4 volts. Under AC power and for most of the drain cycle of the batteries, the circuit voltages will be substantially higher and thus, would support a greater number of devices. A device's minimum operating voltage is derived from the UL-requirement that it operate within a Regulated Voltage Range (16VDC - 33VDC).

Voltage Drop Analysis

Notification Appliances - NAC #3

FCPS-24S8 Notification Appliance Circuit

Source Voltage: 20.40 VDC Low Battery

Protected Premises: <u>Brick Township Schools Typical NAC Power Supply</u>					Date: <u>1-7-2015</u>				
Address: <u>101 Hendrickson Avenue</u>					City: <u>Brick</u>				
State: <u>New Jersey</u>			Zip: <u>08724</u>		Note: <u>Remote NAC Power Supply Voltage Drop</u>				
Prepared By: <u>Allied Fire and Safety Equipment Co., Inc</u>					Phone: <u>(732) 922-3399</u>				
Address: <u>517 Green Grove Road</u>					City: <u>Neptune</u>				
State: <u>NJ</u>			Zip: <u>07754</u>						

Device #	PartNumber	Current (amps)	Distance (Feet)		Circuit Voltage @ Each Device				
			Between	Total			14 AWG		
1	P2R1575	0.1000	50	50			19.94		
2	P2R1575	0.1000	50	100			19.51		
3	P2R1575	0.1000	50	150			19.11		
4	P2R1575	0.1000	50	200			18.74		
5	P2R1575	0.1000	50	250			18.40		
6	P2R1575	0.1000	50	300			18.10		
7	P2R1575	0.1000	50	350			17.82		
8	P2R1575	0.1000	50	400			17.58		
9	P2R1575	0.1000	50	450			17.36		
10	P2R1575	0.1000	50	500			17.18		
11	P2R1575	0.1000	50	550			17.02		
12	P2R1575	0.1000	50	600			16.90		
13	P2R1575	0.1000	50	650			16.81		
14	P2R1575	0.1000	50	700			16.75		
15	P2R1575	0.1000	50	750			16.72		
Total Current:		1.5000	% Voltage Drop:				18.06		
							Go		

~~Strikethrough~~ indicates a value below the device's minimum voltage at indicated location and wire gauge.

These calculations assume a worst-case source voltage as measured by UL with the batteries depleted to 20.4 volts. Under AC power and for most of the drain cycle of the batteries, the circuit voltages will be substantially higher and thus, would support a greater number of devices. A device's minimum operating voltage is derived from the UL-requirement that it operate within a Regulated Voltage Range (16VDC - 33VDC).

Voltage Drop Analysis

Notification Appliances - NAC #4

FCPS-24S8 Notification Appliance Circuit

Source Voltage: 24 VDC Nominal

Protected Premises: <u>Brick Township Schools Typical NAC Power Supply</u>					Date: <u>1-7-2015</u>				
Address: <u>101 Hendrickson Avenue</u>					City: <u>Brick</u>				
State: <u>New Jersey</u>			Zip: <u>08724</u>		Note: <u>Remote NAC Power Supply Voltage Drop</u>				
Prepared By: <u>Allied Fire and Safety Equipment Co., Inc</u>					Phone: <u>(732) 922-3399</u>				
Address: <u>517 Green Grove Road</u>					City: <u>Neptune</u>				
State: <u>NJ</u>			Zip: <u>07754</u>						

Device #	PartNumber	Current (amps)	Distance (Feet)		Circuit Voltage @ Each Device				
			Between	Total			14 AWG		
1	P2R1575	0.1000	50	50			23.54		
2	P2R1575	0.1000	50	100			23.11		
3	P2R1575	0.1000	50	150			22.71		
4	P2R1575	0.1000	50	200			22.34		
5	P2R1575	0.1000	50	250			22.00		
6	P2R1575	0.1000	50	300			21.70		
7	P2R1575	0.1000	50	350			21.42		
8	P2R1575	0.1000	50	400			21.18		
9	P2R1575	0.1000	50	450			20.96		
10	P2R1575	0.1000	50	500			20.78		
11	P2R1575	0.1000	50	550			20.62		
12	P2R1575	0.1000	50	600			20.50		
13	P2R1575	0.1000	50	650			20.41		
14	P2R1575	0.1000	50	700			20.35		
15	P2R1575	0.1000	50	750			20.32		
Total Current:		1.5000	% Voltage Drop:				15.35		
							Go		

~~Strikethrough~~ indicates a value below the device's minimum voltage at indicated location and wire gauge.