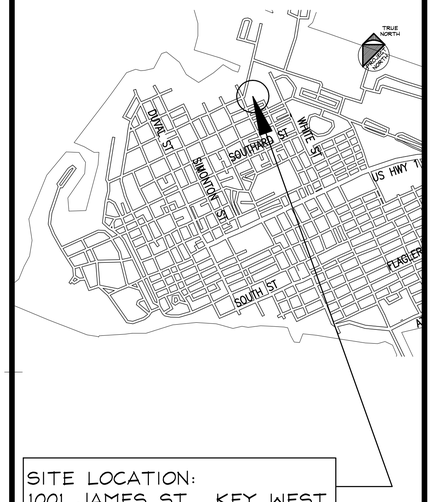
Keys Energy Services

1001 JAMES STREET

CITY COMMISSION MEETING 9.16.14

CITY COMMISSION 9.16.14

SITE MAP - KEY WEST



SITE LOCATION:
1001 JAMES ST., KEY WEST

Not to Scale

GENERAL NOTES

1. All work shall comply with the Florida Building Code, latest edition, and all applicable laws, codes and ordinances of the City, County, and the State of Florida. In the City of Key West, applicable Codes forming the basis of this design and compliance requirements for the Contractor include:
   FLORIDA BUILDING CODE - Building 2010 EDITION
   FLORIDA BUILDING CODE - Existing 2010 EDITION
   FLORIDA BUILDING CODE - Residential 2010 EDITION
   FLORIDA BUILDING CODE - Plumbing 2010
   FLORIDA BUILDING CODE - Fuel Gas 2010 EDITION
   FLORIDA BUILDING CODE - Mechanical 2010 EDITION
   NATIONAL ELECTRICAL CODE 2008 EDITION
   NFPA 101 LIFE SAFETY CODE w/ Florida Modifications
   2006 EDITION FLORIDA FIRE PREVENTION CODE 2007 EDITION
   NFPA 1 2006 EDITION
   This project is designed in accordance with A.S.C.E. 7-10 to resist wind loads of 180 mph (gusts).
2. Prior to submitting a bid, verify all existing conditions and dimensions on the jobsite, and also after award, but prior to the start of construction.
3. Contours and/or existing grades shown are approximate. Verify with field conditions. Final grading shall provide gradual slopes and grades. Slope all grades away from the building. Planting areas shall be graded with soil suitable for planting. Rock and debris will not be allowed.
4. Where discrepancies between drawings, specifications, and code requirements occur, adhere to the most stringent requirement.
5. Dimensions shall take precedence over scale.
6. Drawings and specifications are complementary. Refer to all sheets of drawings and applicable sections of the specifications for interfaces of work with related trades.
7. After completion of construction remove all debris and construction equipment. Restore site to original condition.
8. Notify owner of any possible artifacts uncovered during site grading and throughout the course of construction.
9. Furnish a receptacle on site to contain construction debris and maintain the site in an orderly manner to ensure public safety and prevent blowing debris.
10. Comply with all requirements for selective demolition as specified, shown on the Demolition Plan, or called for in the selective Demolition Notes.

61G1-16.003 Use of Seal.The personal seal, signature and date of the architect or interior designer shall appear on all architectural or interior design documents to be filed for public record and shall be construed to obligate his partners or his corporation. A corporate seal alone is insufficient. Documents shall be signed personally and sealed by the responsible architect or interior designer. Final official record documents (not tracings, etc.) shall be so signed. The signing and sealing of the specification index sheets shall be considered adequate. All drawing sheets and pages shall be so signed and sealed. An architect or interior designer shall not affix, or permit to be affixed, his seal or name to any plan, specifications, drawings, or other related document which was not prepared by him or under his responsible supervising control as provided in Rule Chapter 61G1-23, F.A.C. An architect or interior designer shall not use his seal or do any other act as an architect or interior designer unless holding at the time a certificate of registration and all required renewals thereof.

Specific Authority 481.2055, 481.221 FS. Law Implemented 481.221, 481.225(1)(e), (g), (j), 481.225(1)(g), (h), (i) FS. History-New 12-23-79, Formerly 21B-16.03, Amended 7-27-89, Formerly 21B-16.003, Amended 11-21-94, 4-18-00.

PROJECT DIRECTORY

PROJECT: KEYS ENERGY SERVICES 1001 JAMES STREET
ARCHITECT'S PROJECT No.: 1310

OWNER: Keys Energy Services
1001 James Street
Key West, FL 33040
E-mail: -------
Phone: ------
Representative: --------

ARCHITECT: BENDER & ASSOCIATES ARCHITECTS, P.A.
Address: 410 Angela Street, Key West, FL 33040
Tel: (305) 296-1347 Fax: (305) 296-2727
E-mail: blbender@bellsouth.net
Project Manager: Bert L. Bender (Principal-in-Charge)
Project Architect: Haven Burkee

ENGINEERING CONSULTANTS:
STRUCTURAL: H.W. KEISTER ASSOCIATES
Address: 2027 University Boulevard, North, Jacksonville, FL 32211
Tel: (904) 743-4633 Fax: (904) 744-6985
Representative: Mark J. Keister, P.E.,

MEP: HNGS ENGINEERS
Address: 4800 SW 74th Court, Miami, FL 33155
Tel: 305-270-9935 Fax: 305-665-5841
E-mail: hngs@hngsengineers.com
Representative: Enrique J. Suarez,Jr. P.E.

CIVIL: Perez Engineering and Development, Inc.
1010 Kennedy Dr., Suite 400, Key West
Tel: (305) 293-9440
Email: perezengineering@bellsouth.net
Representative: Allen Perez

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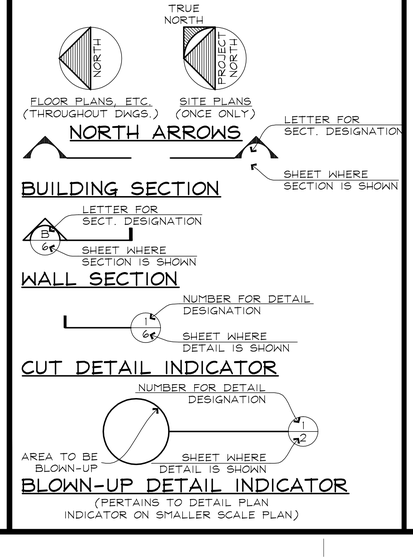
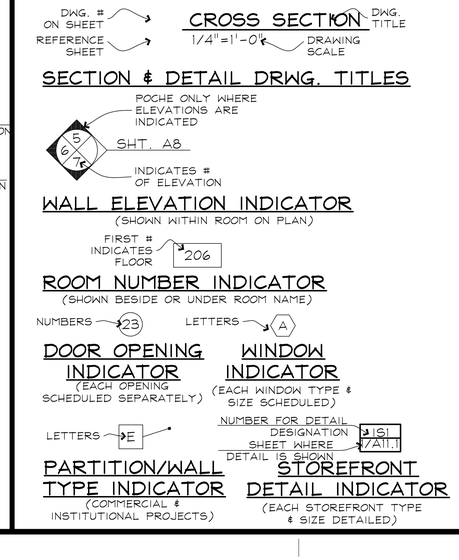
ABBREVIATIONS

AB	ANCHOR BOLT	MIN	MINIMUM
ABC	AGGREGATE BASE COURSE	NTS	NOT TO SCALE
A/C	AIR CONDITIONING	OA	OVERALL
BLKG	BLOCKING	OC	ON CENTER
BUR	BILT UP ROOF	OD	OUTSIDE DIAMETER
CAB	CABINET	PCF	POUNDS PER CUBIC FOOT
CER	CERAMIC	PL	PROPETRY LINE
CL	CENTER LINE	PLAM	PLASTIC LAMINATE
CLG	CEILING	PLF	POUNDS PER LINEAL FOOT
CMU	CONCRETE MASONRY UNIT	PNL	PANEL
COL	COLUMN	PT	CCA PRESSURE TREATED
CONC	CONCRETE	PT	POINT
DBL	DOUBLE	PVC	POLYVINYLCHLORIDE
DIAG	DIAGONAL	R	RADIUS (OR) RISER
DS	DOWNSPOUT	R/A	RETURN AIR
DTL	DETAIL	REBAR	STEEL REINF. BAR
DWR	DRAWER	REFR.	REFRIGERATOR
EJ	EXPANSION JOINT	SF	SQUARE FOOT (FEET)
EL	ELEVATION	SS	STAINLESS STEEL
ELEC	ELECTRIC	SPEC	SPECIFICATION
EQ	EQUAL	T	TREAD(S)
EXH	EXHAUST	TYP	TYPICAL
FV	FIELD VERIFY	UNO	UNLESS NOTED OTHERWISE
GALV	GALVANIZED	VCT	VINYL COMPOSITION TILE
GI	GALVANIZED IRON	VERT	VERTICAL
HORZ	HORIZONTAL	WD	WOOD
HDW	HARDWARE	WWF	WELDED WIRE FABRIC
HVAC	HEATING VENTILATING & AIR CONDITIONING	WH	WATER HEATER
		W/O	WITHOUT
FOC	FACE OF CONCRETE		
FOS	FACE OF STUD		
FIN	FINISH		
FE	FIRE EXTINGUISHER		
FND	FOUNDATION		
FTG	FOOTING		
ID	INSIDE DIAMETER		
MAX	MAXIMUM		

SYMBOLS LEGEND





MATERIAL DESIGNATIONS

- CONCRETE MASONRY UNITS IN PLAN
- CONC., STUCCO, PLASTER IN ELEV.;POURED CONC. IN PLAN
- METAL IN ELEVATION
- METAL IN SECTION
- FINISH WOOD IN ELEV. & IN SECTION
- DIMENSION LUMBER IN SECTION (CONTINUOUS)
- WOOD BLOCKING IN SECTION (DISCONTINUOUS)
- GYPSUM WALL BOARD IN SECTION (LARGE SCALE)
- EARTH, NATURAL SUBSTRATE
- GRAVEL, AGGREGATE BASE COURSE, FILL
- FIBERGLASS BATT INSULATION
- RIGID INSULATION

PARTITIONS & WALLS

- CONCRETE MASONRY UNITS
- POURED CONCRETE
- WOOD FRAME
- METAL STUDS
- EXISTING CONSTRUCTION TO REMAIN
- EXISTING CONSTRUCTION TO BE DEMOLISHED

DESCRIPTION OF WORK:
RENOVATION OF EXISTING THREE STORY CONCRETE BUILDING.

KEYS ENERGY SERVICES
1001 JAMES STREET
Key West, Florida 33040

410 Angela Street
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Telephone (305) 296-1347
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Florida License AAC002022

Bender & Associates ARCHITECTS p.a.

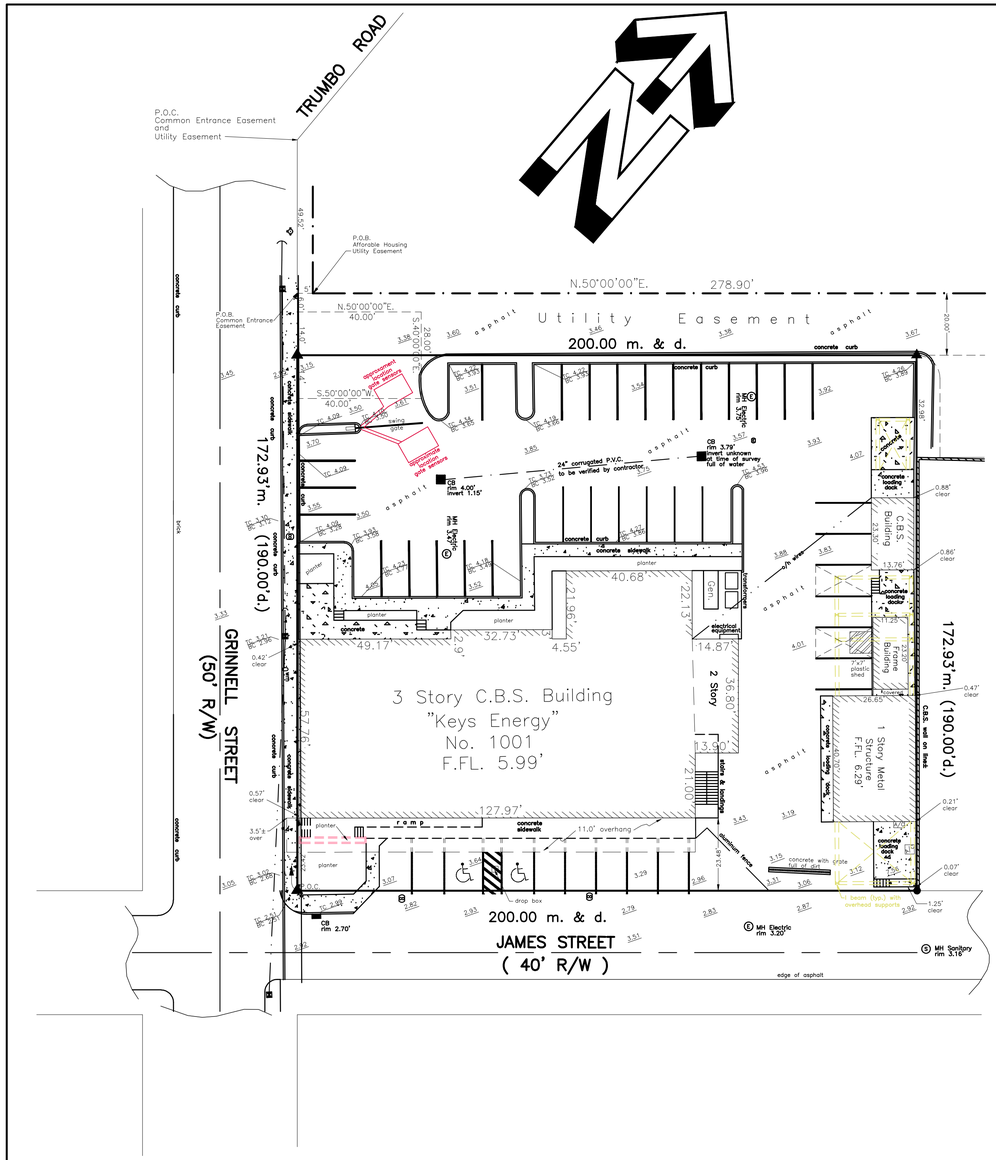
Project №: 1310

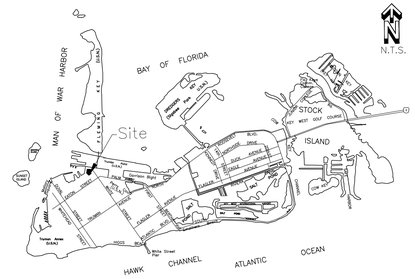
SITE MAP
PROJECT DIRECTORY
GENERAL NOTES
ABBREVIATIONS
SHEET INDEX
SYMBOL LEGEND

Date: 8/17/14

A.0

CITY COMMISSION 9.16.14





LOCATION MAP
City of Key West
and Stock Island

LEGAL DESCRIPTION:

A parcel of land in Square 19 and/or in the filled land contiguous to the Northerly and Northwesterly boundary of said Square 19, on the Island of Key West, Florida according to the William A. Whitehead's map of said Island and being more particularly described by metes and bounds as follows:
Commencing at the intersection of the Northwesterly property line of James Street and the Northeasterly property line of Grinnell Street, said intersection also to be known as the Point of Beginning of the parcel of land hereinafter described, bear Northwesterly along the Northeasterly property line of Grinnell Street for a distance of 190 feet to a point; thence at right angles and Northeasterly and parallel with the Northwesterly property line of James Street for a distance of 200 feet to a point; thence at right angles and Southeasterly and parallel with the Northeasterly property line of Grinnell Street for a distance of 190 feet to a point on the Northwesterly property line of James Street; thence at right angles and Southwesterly along the Northwesterly property line of James Street for a distance of 200 feet, back to the Point of Beginning; subject to an encroachment of 9 inches along the Northwesterly boundary of this Parcel No.1.

LEGAL DESCRIPTION: (Utility Easement)

On the Island of Key West, Monroe County, Florida and being more particularly described as follows:
Commencing at the intersection of the Easterly Right–of–Way Line of Trumbo Road and the Northeasterly Right–of–Way Line of Grinnell Street; thence S.40°00'00"E., along the said Northeasterly Right–of–Way line of Grinnell Street a distance of 49.52 feet to the Point of Beginning; thence N.50°00'00"E., a distance of 283.90 feet to a point on a curve to the left, having: a radius of 7.15 feet, a central angle of 84°24'47", a chord bearing of S.83°08'39"E. and a chord length of 9.61 feet; thence along the arc of said curve, an arc length of 10.53 feet to the point of tangency of said curve; thence N.54°38'57"E., a distance of 71.76 feet; thence N.65°38'21"E., a distance of 52.30 feet to the point of curvature of a curve to the left, having: a radius of 25.00 feet, a central angle of 15°40'21", a chord bearing of N.57°48'10"E. and a chord length of 6.82 feet; thence along the arc of said curve, an arc length of 6.84 feet to the point of tangency of said curve; thence N.49°58'00"E., a distance of 159.26 feet to a point on a curve to the right, having: a radius of 25.00 feet, a central angle of 90°00'00", a chord bearing of S.04°58'00"W. and a chord length of 35.36 feet; thence along the arc of said curve, an arc length of 39.27 feet to the point of tangency of said curve; thence S.49°58'00"W., a distance of 126.60 feet to the point of curvature of a curve to the right, having: a radius of 25.00 feet, a central angle of 15°40'21", a chord bearing of S.57°48'10"W. and a chord length of 6.82 feet; thence along the arc of said curve, an arc length of 6.84 feet to the point of tangency of said curve; thence S.65°38'21"W., a distance of 64.32 feet; thence S.54°38'57"W., a distance of 14.99 feet to the point of curvature of a curve to the left, having: a radius of 7.50 feet, a central angle of 94°40'57", a chord bearing of S.07°18'29"W. and a chord length of 11.03 feet; thence along the arc of said curve, an arc length of 12.39 feet to the point of tangency of said curve; thence S.40°02'00"E., a distance of 12.05 feet; thence S.49°58'00"W., a distance of 127.50 feet; thence N.40°02'00"W., a distance of 25.48 feet to the point of curvature of a curve to the left, having: a radius of 7.50 feet, a central angle of 89°58'00", a chord bearing of N.85°01'00"W. and a chord length of 10.60 feet; thence along the arc of said curve, an arc length of 11.78 feet to the point of tangency of said curve; thence S.50°00'00"W., a distance of 200.04 feet to the said Northeasterly Right–of–Way Line of Grinnell Street; thence N.40°00'00"W., along the said Northeasterly Right–of–Way Line of Grinnell Street a distance of 20.00 feet to the Point of Beginning.
Parcel contains 16247 square feet or 0.37 acres, more or less.

LEGAL DESCRIPTION: (Common Entrance Easement):

On the Island of Key West, Monroe County, Florida and being more particularly described as follows:
Commencing at the intersection of the Easterly Right–of–Way Line of Trumbo Road and the Northeasterly Right–of–Way Line of Grinnell Street; thence S.40°00'00"E., along the said Northeasterly Right–of–Way Line of Grinnell Street a distance of 55.52 feet to the Point of Beginning; thence N.50°00'00"E., a distance of 40.00 feet; thence S.40°00'00"E., a distance of 28.00 feet; thence S.50°00'00"W., a distance of 40.00 feet to the said Northeasterly Right–of–Way Line of Grinnell Street; thence N.40°00'00"W., a distance of 28.00 feet to the Point of Beginning.
Parcel contains 1120 square feet or 0.03 acres, more or less.

LEGEND

A/C	Air Conditioner	LB	Licensed Business
BAL	Balcony		Number
BM	Bench Mark	M	Measured
CB	Catch Basin	N.T.S.	Not To Scale
℄	Center Line	O.R.	Official Records
CO	Clean Out	OH	Over Head
CONC	Concrete	P	Plat
C.B.S.	Concrete Block Stucco	PB	Plat Book
CUP	Concrete Utility Pole	P.O.B.	Point Of Beginning
COV'D	Covered	P.O.C.	Point Of Commence
D	Deed	R/W	Right Of Way
ELEV	Elevation	SIB	Set Iron Bar
F.FL.	Finished Floor Elevation	SIP	Set Iron Pipe
FD	Found	SPK	Set Nail And Disc
FIB	Found Iron Bar	STY	Story
FIP	Found Iron Pipe	UP	Utility Pole
INV	Invert	WM	Water Meter
IRR	Irregular	WV	Water Valve

SYMBOLS

	Concrete Utility Pole		Street Light
	Sanitary Sewer Clean Out		Wood Utility Pole
	Fire Hydrant		Electric Junction Box

Monumentation:
- ⌀ = set 1/2" Iron Pipe, P.L.S. No. 2749
- ● = Found 1/2" Iron Pipe
- ● = Found 1/2" Iron Bar
- △ = Set P.K. Nail, P.L.S. No. 2749
- ▲ = Found P.K. Nail

SURVEYOR'S NOTES:
North arrow based on plat assumed median
Reference Bearing: R/W Grinnell Street
3.4 denotes existing elevation
Elevations based on N.G.V.D. 1929 Datum
Bench Mark No.: D–121 Elevation: 3.914
Field Work performed on: 1/23/14
All angles 90°00'00" unless otherwise described
TC = top of curve
BC = bottom of curve

CERTIFICATION:
I HEREBY CERTIFY that the attached BOUNDARY SURVEY is true and correct to the best of my knowledge and beleif; that it meets the minimun technical standards adopted by the Florida Board of Land Surveyors, Chapter 61G17–6, Florida Statue Section 472.027, and the American land Title Association, and that there are no visable encroachments unless shown hereon.

FREDERICK H. HILDEBRANDT
Professional Land Surveyor & Mapper No. 2749
Professional Engineer No. 36810
State of Florida

NOT VALID UNLESS EMBOSSED WITH RAISED SEAL & SIGNATURE

Utility Board of the City of Key West
1001 James Streets, Key West, Fl.

BOUNDARY SURVEY — Dwn No.: 14–211

Scale: 1"=20' | Ref. 120–21, 169–52 Ele. | Flood panel No. 1516 K | Dwn. By: F.H.H.
Date: 4/29/14 | Flood Zone: AE | Flood Elev.: 7'

REVISIONS AND/OR ADDITIONS

c/dwg/keys

ISLAND SURVEYING INC.
ENGINEERS PLANNERS SURVEYORS
3152 Northside Drive
Suite 201
Key West, Fl. 33040
(305) 293–0466
Fax. (305) 293–0237
fhildebrandt@bellsouth.net
L.B. No. 7700

1 / AO.1 EXISTING SURVEY FOR REFERENCE

SCALE: N.T.S.

NORTH

KEYS ENERGY SERVICES
1001 JAMES STREET
Key West, Florida 33040

410 Angela Street
Key West, Florida 33040
Telephone (305) 296–1347
Facsimilie (305) 296–2727
Florida License AAC002022

Bender & Associates ARCHITECTS p.a.

Project №: 1310
SURVEY
Date: 8/17/14

A0.1

TREE BRACING NOTES:
2" and larger caliper trees braced by guying:

1. Choose the correct size and number of stakes and size of hose and wire. Guying shall be completed within 48 hours of planting the tree.
2. Cut lengths of staking hose to extend 2 inches past tree trunk when wrapping around.
3. Space stakes evenly on outside of water ring and drive each firmly into ground. Stakes should be driven at a 30 degree angle with the point of the stake toward the tree until 4 to 5 inches are left showing.
4. Place the hose around the trunk just above the lowest branch.
5. Thread the wire through the hose and past the stake, allowing approximately 2 feet of each of the two ends beyond the stake before cutting the wire.
6. Twist wire at rubber hose to keep it in place.
7. Pull wire down and wind both ends around stake twice. Twist wire back onto itself to secure it before cutting off the excess.
8. The above procedures are to be followed for each stake, keeping the tree straight at all times. There should be a 1 to 3 inch sway in the tree (the wires should not be pulled tight) for best establishment.
9. Flag the guy wires with surveyor's flagging or approved equal for safety.
10. Guys are not to be removed until approved by landscape contractor.

Specimen trees and tall palms braced with props:

11. Choose the correct size, length, and number of props to be used (pressure treated (PT) 2"x4", 4"x4").
12. Wrap at least 5 layers of burlap around trunk of the palm at least 4 inches wider than the battens being used. Battens should be mounted at a point 1/3 of the distance from ground to the clear trunk of the tree or palm, but not less than 4 feet, whichever is greater.
13. Select the proper length and size of battens (PT 2"x4"x12"-16")
14. Use the same number of battens as props being used.
15. Place the battens vertically and evenly spaced against the burlap.
16. Secure the battens in place with metal or plastic banding straps. DO NOT NAIL INTO TREE.
17. Wedge lower end of prop into soil and secure with a 2"x4"x30" stake. Props should be installed at a 30 to 40 degree angle from the battens and of sufficient length to reach the ground. NOTE: ON STRAIGHT TREES OR PALMS OR TREES, SPACE PROPS EQUAL DISTANCE AROUND TREE OR PALM. ON CURVED PALMS OR TREES, SPACE PROPS AGAINST THE FRONT OF THE CURVE OF THE PALM.
18. Cut a smooth angle at the end of the props. Align with and nail into battens. DO NOT PENETRATE TREE OR PALM WITH NAILS.
19. **If it appears that additional construction work will take place near to or in the vicinity of the newly braced trees or palms, then props are to be clearly labeled with the statement, "DO NOT REMOVE."**
20. Props are not to be removed until approved by the landscape contractor.

END

GENERAL LANDSCAPE NOTES:

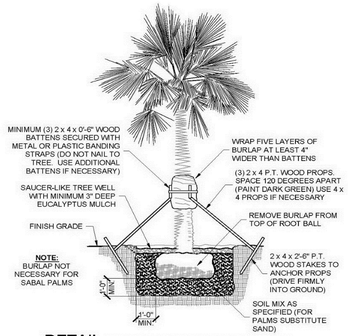
1. **Changes may occur during the normal course of implementation. Verbal change orders will not be honored. Any changes must be submitted to landscape architect in writing as a change order to be reviewed and approved in writing by owner/client.**
2. All newly planted areas to receive 100% coverage by automatic irrigation system (drip preferred) unless otherwise directed by OWNER. **Landscape contractor to coordinate installation of irrigation system with irrigation contractor. Irrigation time clock to be HARD WIRED on completion – responsibility of irrigation contractor. Landscape contractor to hand water or arrange for watering during planting until irrigation system is 100% operable.** ***This is the responsibility of the landscape contractor.***
3. Landscape contractor to become familiar with the scope of work as well as the site, digging conditions, and any obstacles prior to bidding.
4. Landscape contractor shall locate and verify all underground utilities prior to digging.
5. All Plant material is to be Florida No. 1 or better. Florida Department of Agriculture Grades and Standards, Parts I & II, 1975, respectively.
6. All trees to be staked in a good workmanlike manner. No nail staking permitted. (Refer to planting details)
7. Landscape plan shall be installed in compliance with all local codes.
8. All tree holes to be back filled around and under root ball with washed beach sand. All shrub beds to be installed with washed beach sand. (See spec)
9. All trees, shrubs and ground covers shall be guaranteed for six months from date of final acceptance. All palms are to be guaranteed for one year.
10. All planting beds shall be weed and grass free.
11. All trees, palms, shrubs and ground cover plants shall be fertilized at installation according to manufacturers' recommendations. Type and amount of fertilizer is up to discretion of Landscape Contractor in order to avoid "burn" on plants that may already contain fertilizer from nursery and ensure proper establishment to maintain contractors warranty.
12. **Planting plan shall take precedence over plant list in case of discrepancies.**
13. No change shall be made without prior consent of Landscape Architect.
14. All material shall be subject to availability at time of installation. Substitutions may be made after consultation with Landscape Architect
15. Landscape Contractor to coordinate his work with the General Contractor, Irrigation Contractor, and the Electrical Contractor.
16. All existing plant material to remain shall be protected.
17. All trees to be relocated will get root pruned 30 days min. (or more if required by the species). Upon relocation, thin out 30% of the relocated trees' canopy.
18. After removal or relocation of existing trees and palms, backfill tree pit with washed beach sand, and sod disturbed area, if required.
19. All trees on sod area shall receive a mulch ring 2" in diameter typical.
20. All trees shall have 2" caliper at D.B.H. minimum for a 10' height tree.
21. All 1 gallon material to have 12" spread minimum, all 3 gallon material to have 20-24" spread minimum.
22. Landscape contractor to be County and City licensed where work is to be performed. Liability and Workman's' comp insurance is required for each and every employee to be on-site at any time during implementation. Paperwork to this effect to be provided on request within 2 business days.

END

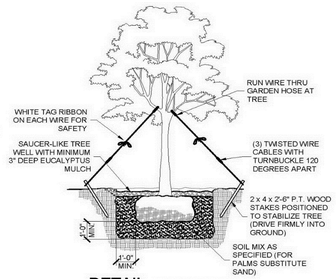
IRRIGATION NOTES:

1. All Lady Palms (*Rhapis spp.)*, Heliconia, and Bamboos to have single bubbler. All Major Palms to have two bubblers on opposing sides of root ball. Bubblers to be hidden from view.
2. Irrigation contractor to coordinate location of main lines with Landscape Contractor prior to implementation. Avoid root balls of trees and large plant materials. Refer to landscape drawings.
3. All pipe to be PVC schedule 40, 8" minimum cover.
4. All heads installed on flexible PVC pipe and fittings.
5. Pressurized backflow, rain switch, and multi-programmable controller with battery backup required.
6. All crossings under permanent concrete to be sleeved two times the sprinkler pipe size with schedule 40 PVC.
7. All valves to have flow control and be installed in green valve boxes with room to work in future.
8. All valve boxes to be located away from walkways, garden paths, and groundcovers – keep to back of beds.
9. All sprinklers to be commercial grade Toro 570 Series 4" and 12" and installed out of sight.
10. Irrigation contractor to measure water available on-site and use no more than 75% of available GPM.
11. Water connection to the house, including shut-off valves, shall not be altered by pressurized backflow.
12. All wire splices to be in valve boxes and clearly labeled at back of time clock. All wire splices to be installed with water proof connections.
13. 2 spare wires to be run to the last valve in each direction.
14. Controller to be hard-wired at time of completion and included in irrigation contractors bid.
15. System to provide 100% controlled coverage on completion. Additions/modifications from irrigation plan may be necessary.
16. Irrigation contractor to be County and City licensed where work is to be performed. Liability and Workman's' comp insurance is required for each and every employee to be on-site at any time during implementation. Paperwork to this effect to be provided on request within 2 business days.
17. **As-built irrigation drawing to be provided prior to final payment.**

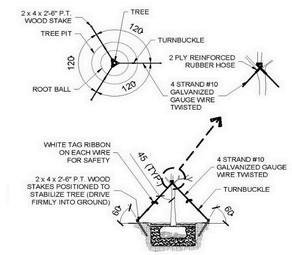
END



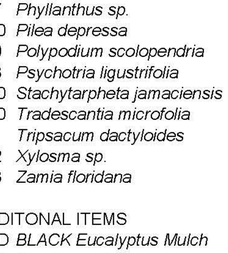
DETAIL OF SPECIMEN TREE AND TALL PALMS SUPPORT
SCALE: NONE



DETAIL OF SMALL TREE SUPPORT
SCALE: NONE

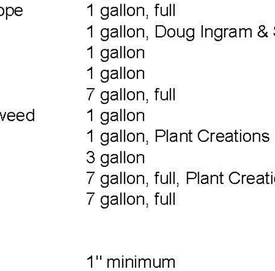


DETAIL OF TYPICAL TREE GUYING
SCALE: NONE



DETAIL OF TYPICAL SHRUB PLANTING
SCALE: NONE

DETAIL OF TYPICAL PLANTING BED
SCALE: NONE



DETAIL OF TYPICAL SQUARE PLANT SPACING
SCALE: NONE

DETAIL OF TYPICAL TRIANGULAR PLANT SPACING
SCALE: NONE

PLANT LIST

Qty.	Botanical Name	Common Name	Specifications	Provide Photo
TREES AND PALMS				
1	*Ardisia escalanoides*	Marlberry	6' PH, very full	
4	*Bursera simaruba*	Gumbo Limbo	12' PH, FF#1	
10	*Capparis cynophallophora*	Jamaica Caper	4' PH	
5	*Chrysophyllum oliviforme*	Satinleaf	8' PH, FF#1	
1	*Coccoloba diversifolia*	Pigeon Plum	8' PH x 3' spread	
7	*Coccothrinax argentata*	Florida Silver Palm	15 gallon	
1	*Guiacum sanctum*	Lignum Vitae	5' PH x 5' spread, specimen	Yes
6	*Gymanthes lucida*	Crabwood	25 gallon	
5	*Lysiloma latisilliquum*	Tamarind	12' PH x 6' spread, standard FF#1	
3	*Myrcianthes fragrans*	Simpson Stopper	45 gallon, multi-trunk specimens, Plant Creations Nursery	
2	*Pseudophoenix sargentii*	Buccaneer Palm	5' PH, fat & heavy, (1) double, (1) single	
1	*Swietenia mahogani*	Mahogany	14-16' PH, FF#1	
23	*Sabal Palmetto*	Same	Regenerated, slicks, mix of 10-24' CT with leans	
15	*Serenoa repens 'cericeus'*	Silver Saw Palmetto	3' x 3' PH	
1	*Thrinax morisii*	Silver Thatch Palm	Double trunk, 4' PH	
SHRUBS AND GROUNDCOVERS				
21	*Baccharis halimifolia*	Groundsel Bush	15 gallon, full, Doug Ingram & Sons Nursery	
37	*Borischia arborescens*	Sea Oxeye Daisy	1 gallon	
145	*Ernodiea littoralis*	Golden Creeper	1 gallon	
153	*Hymenocalis latifolia*	Spider Lily	3 gallon	
916	*Liriope sp. 'Isabella'*	DWARF Isabella Liriope	1 gallon, full	
67	*Phyllanthus sp.*	Phyllanthus	1 gallon, Doug Ingram & Sons Nursery	
240	*Pilea depressa*	Pilea	1 gallon	
40	*Polypodium scolopendria*	Wart Fern	1 gallon	
18	*Psychotria ligustrifolia*	DWARF Wild Coffee	7 gallon, full	
250	*Stachytarpheta jamaciensis*	DWARF Blue Porterweed	1 gallon	
230	*Tradescantia microfolia*	Argentine Ivy	1 gallon, Plant Creations Nursery	
7	*Tripsacum dactyloides*	Fakahatchee Grass	3 gallon	
22	*Xylosma sp.*	Xylosma	7 gallon, full, Plant Creations Nursery	
73	*Zamia floridana*	Coontie	7 gallon, full	
ADDITONAL ITEMS				
TBD	*BLACK Eucalyptus Mulch*		1" minimum	
TBD	*Planting soil*		50/50 sand/soil mix	

KEYS ENERGY SERVICES

1001 JAMES STREET
KEY WEST, FL 33040

Date: 08-07-2014

REVISIONS

No.	Date	Remarks
1	8-12-2014	Revised planting plan & quantities

DRAWING LIST

A. COVER SHEET
- Tree Bracing Notes
- General Landscape Notes
- Irrigation Notes
- Planting Details
- Plant List and Specifications

B. LC-1
- Planting Plan

CRAIG REYNOLDS
landscape architecture
craigreynolds.net 305.292.7243
517 Duval Street, Suite 204 Key West, Florida 33040

(1) LIGNUM VITAE
(1) EXISTING SABAL PALM
(1) RELOCATED SABAL PALM
(2) SABAL PALM 12-14' CT
(1) EXISTING SABAL PALM
(21) GROUNDSEL BUSH
(172) ARGENTINIAN IVY
(3) TAMARIND
(1) EXISTING SABAL
(2) SABAL PALM (STRAIGHT) 14-18' CT
(37) SEA OXEYE DAISY
(1) EXISTING SABAL
(1) EXISTING CRABWOOD
(4) GUMBO LIMBO
(116) GOLDEN CREEPER
(1) SILVER SAW PALMETTO
(150) DWARF BLUE PORTERWEED
(2) RELOCATED BUCCANEER PALMS
(10) JAMAICA CAPER
(2) RELOCATED SILVER THATCH PALMS
(6) CRABWOOD
8'-0"
15'-0"
15' X 8' SIGHT TRIANGLE
(1) TAMARIND
(58) SPIDER LILY
(49) ARGENTINIAN IVY
(1) SILVER THATCH PALM
(7) DWARF WILD COFFEE
(1) MARLBERRY
15'-0"
8'-0"
(17) DWARF ISABELLA LIRIOPE
(1) FLORIDA SILVER PALM
(1) PIGEON PLUM
(9) ARGENTINIAN IVY
(100) DWARF BLUE PORTERWEED
(1) MAHOGANY
(5) FAKAHATCHEE GRASS
(3) SABAL PALM (LEANING) 12-16' CT
(1) FAKAHATCHEE GRASS
(29) GOLDEN CREEPER
GRINNELL STREET
(8) SILVER SAW PALMETTO)
(73) COONTIE
(5) SATINLEAF
(240) PILEA
(3) SABAL PALM (LEANING) 18-24' CT
(3) FLORIDA SILVER PALM
(1) FAKAHATCHEE GRASS
(118) DWARF ISABELLA LIRIOPE
(5) SABAL PALM (LEANING) 14-18' CT
(130) DWARF ISABELLA LIRIOPE
(11) XYLSOMA SP.
(3) FLORIDA SILVER PALM
(19) PHYLLANTHUS SP.
(5) SILVER SAW PALMETTO
(3) SIMPSON STOPPER
(2) BUCCANEER PALM, (1) DOUBLE, (1) SINGLE
(95) SPIDER LILY
(276) DWARF ISABELLA LIRIOPE
20'-0"
20'-0"
20' X 20' SIGHT TRIANGLE
15' X 8' SIGHT TRIANGLE
15' X 8' SIGHT TRIANGLE
15'-0"
15'-0"
15'-0"
8'-0"
8'-0"
8'-0"
(11) XYLOSMA SP.
(1) SILVER SAW PALMETTO
(1) TAMARIND
(48) PHYLLANTHUS SP.
(6) SABAL PALM (STRAIGHT) 10' CT
(11) DWARF WILD COFFEE
(200) DWARF ISABELLA LIRIOPE
(2) SABAL PALM (STRAIGHT) 10' CT
(30) DWARF ISABELLA LIRIOPE
JAMES STREET

1001 JAMES STREET KEYS ENERGY SERVICES

SHEET TITLE

SCALE: 3/32" = 1'
SHEET: LP-2
REVISED: August 12, 2014
~~DATE: August 7, 2014~~

CRAIG REYNOLDS
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craigreynolds.net 305.292.7243
517 Duval Street, Suite 204 Key West, Florida 33040

30' 0 30'

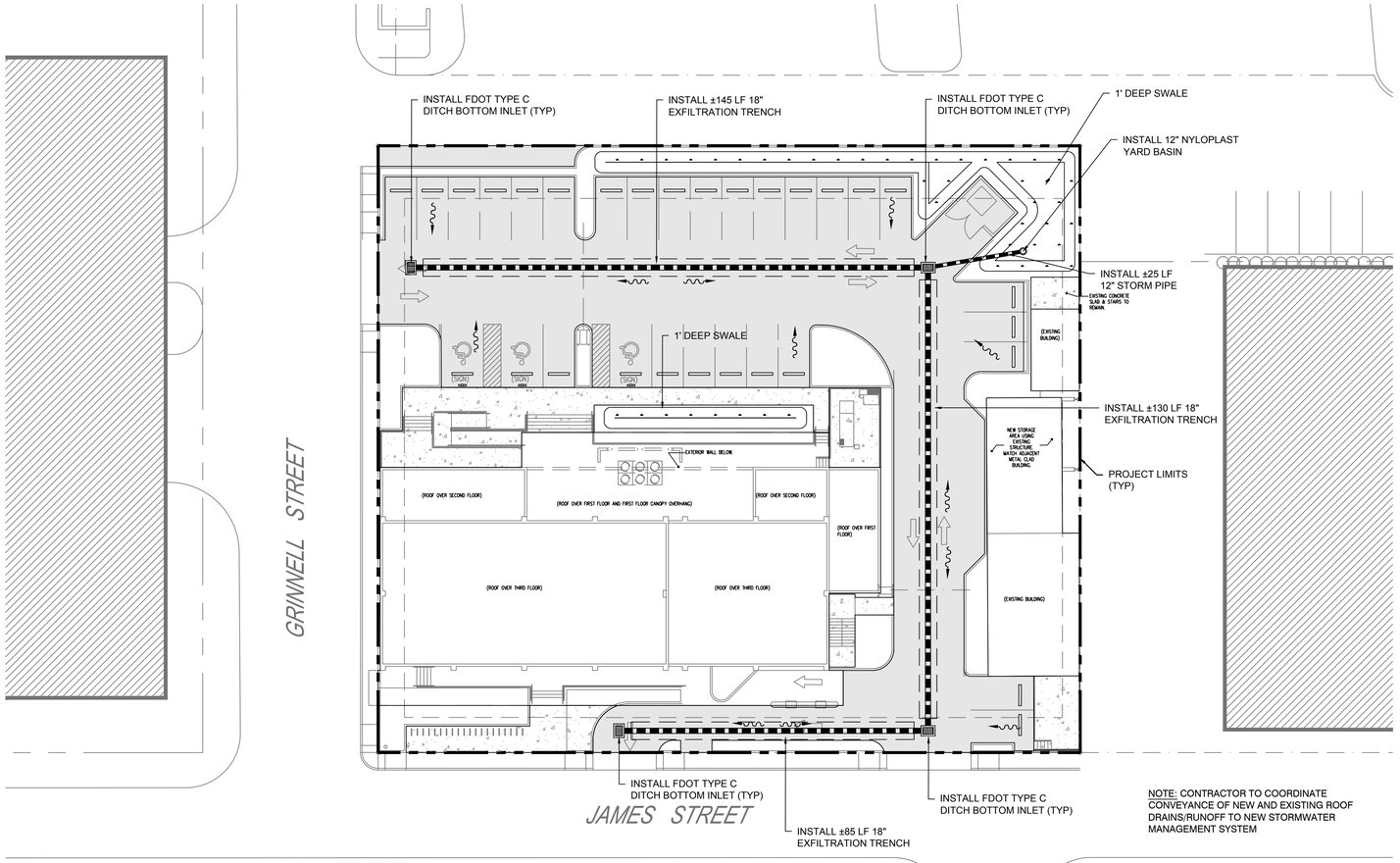
SCALE 1"=30'

BAR IS TWO INCHES ON ORIGINAL DRAWINGS IF NOT TWO INCHES ON THIS SHEET ADJUST SCALES ACCORDINGLY

LEGEND

- PROJECT LIMITS
- ASPHALT PAVEMENT
- CONCRETE
- ROOF AREA
- DRY RETENTION AREA
- STORMWATER FLOW

NOTE:SYMBOLS IN LEGEND ARE NOT TO SCALE



NOTE: CONTRACTOR TO COORDINATE CONVEYANCE OF NEW AND EXISTING ROOF DRAINS/RUNOFF TO NEW STORMWATER MANAGEMENT SYSTEM

Water Quantity Calculations - 25yr/72hr Design Storm

Water Quantity - Predevelopment

Project Area	A =	0.794	ac	34,605	sf
Pervious Area		0.049	ac	2,119	sf
Impervious Area		0.746	ac	32,486	sf
% Impervious		93.88%			
Rainfall for 25yr/24hr event	P_{24} =	9	in		
Rainfall for 25yr/3day event	P_{72} =	12.23	in		
Depth to Water Table		2	ft		
Predeveloped Available Storage		1.88	in		
Soil Storage	S =	0.12	in		
$Q_{pre} = \frac{(P72 - 0.2S)^2}{(P72 + 0.8S)}$	Q_{pre} =	12.09	in		
Runoff Volume from 25 year/ 3 day storm	$V_{25yr/72h}$ =	9.61	ac-in		

Water Quantity - Postdevelopment

Project Area	A =	0.794	ac	34,605	sf
Pervious Area		0.127	ac	5,549	sf
Impervious Area		0.667	ac	29,056	sf
% Impervious		84.0%			
Rainfall for 25yr/24hr event	P_{24} =	9	in		
Rainfall for 25yr/3day event	P_{72} =	12.23	in		
Depth to Water Table		2	ft		
Developed Available Storage		1.88	in		
Soil Storage	S =	0.30	in		
$Q_{post} = \frac{(P_{24} - 0.2S)^2}{(P_{24} + 0.8S)}$	Q_{post} =	11.88	in		
Runoff Volume from 25 year/ 3 day storm	$V_{25yr/72h}$ =	9.43	ac-in		

Postdevelopment - Predevelopment

$Q_{pre\text{-}post} = Q_{post} - Q_{pre}$	$Q_{pre\text{-}post}$ =	-0.22	in		
Pre/Post Volume = $Q_{pre\text{-}post} \times A$	$V_{pre\text{-}post}$ =	-0.17	ac-in		

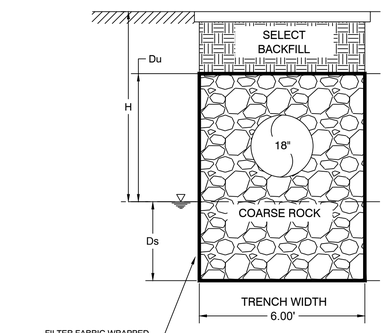
Water Quality Calculations - 25yr/72hr Design Storm

Water Quality

Project Area	0.794	ac	34,605	sf
Surface Water	0.000	ac	0	sf
Roof Area	0.283	ac	12,342	sf
Pavement/Walkways	0.384	ac	16,714	sf
Pervious area	0.127	ac	5,549	sf
Impervious area for water Quality (Site area for Water Quality - Pervious area)	0.384	ac	16,714	sf
% Impervious	48%			
A) One inch of runoff from project area	0.794	ac-in		
B) 2.5 inches times percent impervious (2.5 x percent impervious x (site area - surface water))	0.959	ac-in		

Comparision of Water Quality Methods

	0.794 ac-in	<	0.959 ac-in	
Total Volume Required	0.959	ac-in	3,482	cf
Swale Volume Provided	0.313	ac-in	1,137	cf
Exfiltration Provided	0.689	ac-in	2,501	cf
Total Provided	1.002	ac-in	3,638	cf



Exfiltration Trench Detail
NOT TO SCALE

Exfiltration Trench Design

Required trench length (L) =

$$\frac{V}{K\,(H_2W + 2H_2Du - Du^2 + 2H_2Ds) + 1.39x10^{-4}(W)(Du)}$$

Assumed Hydraulic Conductivity, K=	0.0000145	
H =	3	ft
W =	6	ft
Du =	1.5	ft
Ds =	3.5	ft
Volume of Trench , V =	0.646	ac-in
Trench Length Required =	337	FT
Trench Length Provided =	360	FT

PEREZ ENGINEERING & DEVELOPMENT, INC
CIVIL ENGINEERING • REGULATORY PERMITTING • CONSTRUCTION MANAGEMENT
KEY WEST OFFICE
1010 KENNEDY DRIVE, SUITE 201
KEY WEST, FLORIDA 33040
TEL: (305) 293-9440 FAX: (305) 296-0243
CERTIFICATE OF AUTHORIZATION NO. 8579

ALLEN E. PEREZ, P.E.
Florida P.E. NO. 51468
August 13, 2014

REVISIONS: ORIGINAL: APRIL 2014
1 2 3 4 5 6

KEYS ENERGY SERVICES
1001 JAMES STREET
KEY WEST, FL 33040

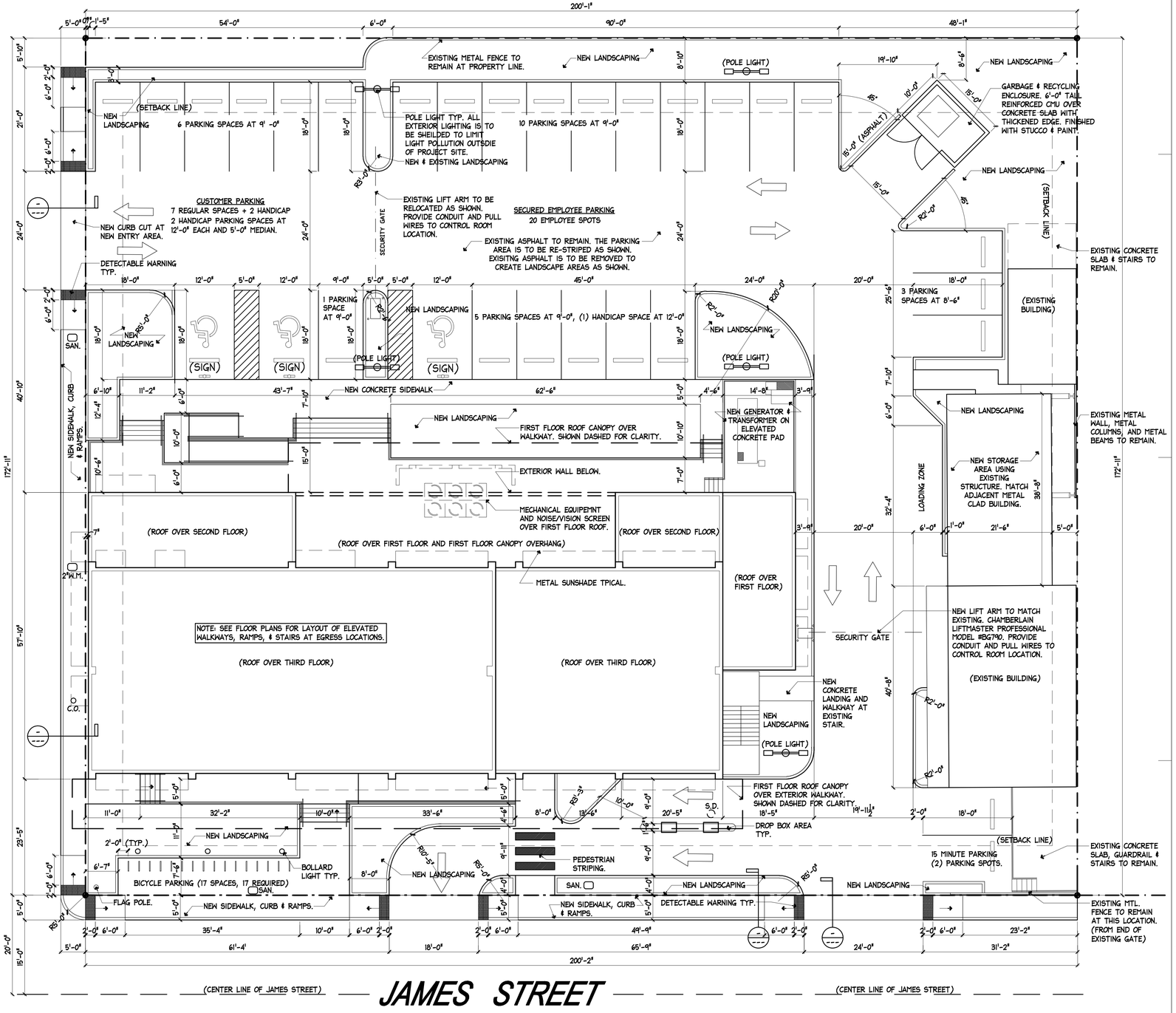
1001 JAMES STREET
KEY WEST, FL 33040
DRAINAGE PLAN

JOB NO. 141038
DRAWN BGO
DESIGNED AEP
CHECKED AEP
QC
SHEET C-1

CITY COMMISSION 9.16.14

PROJECT STATISTICS			
FEMA FLOOD ZONE	ZONE 'AE(7)' EXISTING FINISHED FLOOR: 6'-0" ABV. MSL.		
ZONING DESIGNATION	HRCC-2		
LOT SIZE	34,600 S.F.		
NO. OF UNITS	1 BUILDING UNDER SCOPE, 3 BUILDINGS ON SITE		
	REQUIRED	EXISTING	PROPOSED
BUILDING COVERAGE 34,600 S.F. X 50%	17,300 S.F. MAX.	13,500 S.F.	13,450 S.F.
BUILDING HEIGHT	35'-0" MAX.	43'-11" (EXISTING)	43'-11" (EXISTING)
IMPERVIOUS SURFACE 34,600 S.F. X 60%	20,760 S.F. MAX.	33,215 S.F.	30,100 S.F.
FLOOR AREA	17,300 S.F. (FAR)	23,060 S.F. (21,450 S.F. MAIN BUILDING)	22,300 S.F. (19,500 S.F. MAIN BUILDING)
FRONT SETBACK	10'-0" MIN.	12'-6"	12'-6"
STREET SIDE SETBACK	7'-6" MIN.	0'-5" (3'-6" OVER AT ROOF CANOPY & SHADE STRUCTURES)	0'-5" (3'-6" OVER AT ROOF CANOPY & SHADE STRUCTURES)
SIDE SETBACK	5'-0" MIN.	2-1/2" TO ACCESSORY STRUCTURE 56'-10" TO MAIN BUILDING	2-1/2" TO ACCESSORY STRUCTURE 56'-10" TO MAIN BUILDING
REAR SETBACK	15'-0" MIN.	68'-8"	68'-8"
PARKING SPACES	65	44 PLUS 50 AT ADJACENT PARKING GARAGE.	30 PLUS 50 AT ADJACENT PARKING GARAGE.
FLOOR AREA ¢ RATIO	.50	.67	.64
OPEN SPACE AREA ¢ RATIO	6,920 S.F. (20%)	1,385 S.F. (4%)	4,500 S.F. (14%)

NOTE: EXISTING FINISH FLOOR ELEVATION IS AT 6'-0" ABOVE MEAN SEA LEVEL. THE PROPOSED RENOVATION OF THE BUILDING INCLUDES FLOOD PROOFING MEASURES TO 10'-6" ABOVE MEAN SEA LEVEL (3'-6" ABOVE BASE FLOOD ELEVATION).



1 / A1.1 SITE PLAN

SCALE: 3/32"=1'-0"

PROJECT NORTH

KEYS ENERGY SERVICES
1001 JAMES STREET
Key West, Florida 33040

410 Angela Street
Key West, Florida 33040
Telephone (305) 296-1347
Facsimilie (305) 296-2727
Florida License AAC002022

Bender & Associates ARCHITECTS p.a.

Project №: 1310

SITEPLAN

Date: 8/17/14

A1.1

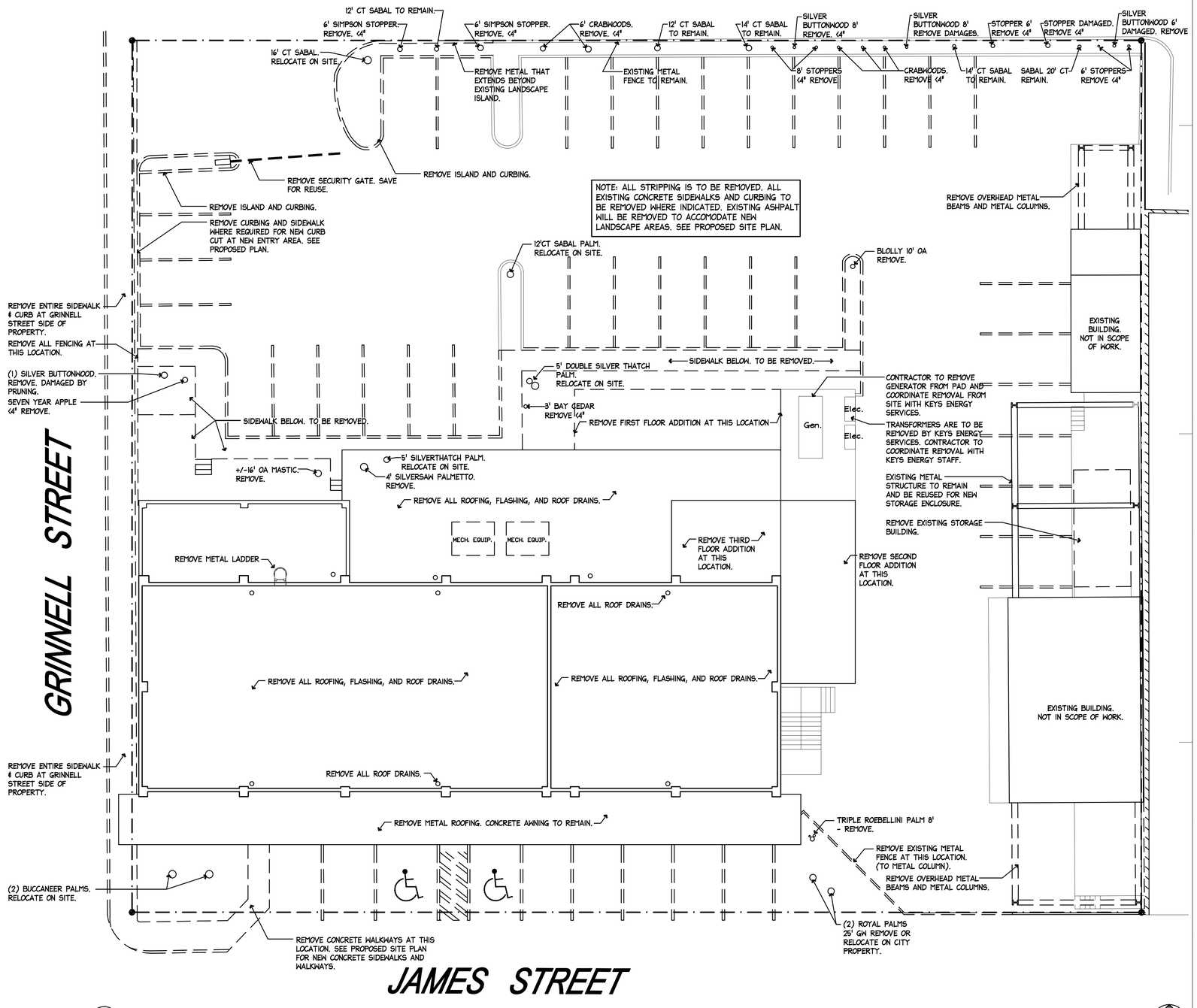
GENERAL NOTES:
1. ALL FIXTURES AND FINISHES ARE TO BE REMOVED. INTERIOR PARTITION WALLS, ALL EXTERIOR DOORS, AND ALL EXTERIOR WINDOWS ARE TO BE REMOVED. WHERE EXISTING INTERIOR WALLS ARE INDICATED TO REMAIN THE EXISTING DRYWALL IS TO BE REMOVED. AT THE INTERIOR STAIRWELL THE EXISTING PLASTER FINISH IS TO REMAIN
2. ALL CONCRETE COLUMNS, CONCRETE/CMU EXTERIOR WALLS, CONCRETE FLOOR SLABS, AND OTHER STRUCTURAL FRAMING MEMBERS ARE TO REMAIN.
3. REMOVE ALL ROOFING, FLASHING, AND DRAINS.
4. SEE MEP PLANS FOR MORE DETAILS AND NOTES ON DEMOLITION OF MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS.
5. ALL EXTERIOR CONDUIT, WIRES, PLUMBING, SHUTTERS, EQUIPMENT STANDS, JUNCTION BOXES, AND ELECTRICAL FIXTURES ARE TO BE REMOVED.

6. ASBESTOS ABATEMENT WILL BE REQUIRED FOR THIS PROJECT. REFER TO THE SPECIFICATIONS FOR 'EE&G ENVIRONEMNTAL SERVICES' LIMITED ASBESTOS PRE-RENOVATION INSPECTION REPORT.

DEMOLITION NOTES

1. Remove all miscellaneous fasteners such as nails, screws and clips, as required, to allow patching of existing finishes. Some fasteners will not be able to be removed without extensive damage to historic finishes. Subject to concurrence by the Architect, such fasteners may remain, but must be treated to inhibit rust after cutting back below the wood surface.
2. Prior to submitting a bid, verify all existing conditions and dimensions on the jobsite, and also after award, but prior to the start of construction.
3. All demolished material, except for artifacts, shall become the property of the contractor, unless specifically noted otherwise, and shall be properly removed from the site. Comply with all applicable laws, codes and regulations of governmental agencies having jurisdiction over the project.
4. All costs of demolition including permit fees, disposal fees, etc. are the responsibility of the Contractor.
5. It is the Contractor's responsibility to be aware of and to conform with all applicable demolition and disposal codes, safety requirements, and environmental protection regulations of any governmental body having jurisdiction over the work.
6. Provide safety barricades as required to protect the safety of the general public and workers connected with the project.
7. Provide bracing and shoring as required to protect the safety of the general public and workers connected with the project.

CITY COMMISSION 9.16.14



1 / A2.1 DEMOLITION SITE PLAN
SCALE: 1/8"=1'-0"

PROJECT NORTH

KEYS ENERGY SERVICES
1001 JAMES STREET
Key West, Florida 33040

410 Angela Street
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Telephone (305) 296-1347
Facsimilie (305) 296-2727
Florida License AAC002022

Bender & Associates ARCHITECTS p.a.

Project №: 1310

DEMOLITION PLANS

Date: 8/17/14

A2.1

GENERAL NOTES:
1. ALL FIXTURES AND FINISHES ARE TO BE REMOVED. INTERIOR PARTITION WALLS, ALL EXTERIOR DOORS, AND ALL EXTERIOR WINDOWS ARE TO BE REMOVED. WHERE EXISTING INTERIOR WALLS ARE INDICATED TO REMAIN THE EXISTING DRYWALL IS TO BE REMOVED. AT THE INTERIOR STAIRWELL THE EXISTING PLASTER FINISH IS TO REMAIN
2. ALL CONCRETE COLUMNS, CONCRETE/CMU EXTERIOR WALLS, CONCRETE FLOOR SLABS, AND OTHER STRUCTURAL FRAMING MEMBERS ARE TO REMAIN.
3. REMOVE ALL ROOFING, FLASHING, AND DRAINS.
4. SEE MEP PLANS FOR MORE DETAILS AND NOTES ON DEMOLITION OF MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS.
5. ALL EXTERIOR CONDUIT, WIRES, PLUMBING, SHUTTERS, EQUIPMENT STANDS, JUNCTION BOXES, AND ELECTRICAL FIXTURES ARE TO BE REMOVED.

6. ASBESTOS ABATEMENT WILL BE REQUIRED FOR THIS PROJECT. REFER TO THE SPECIFICATIONS FOR 'EE&G ENVIRONEMNTAL SERVICES' LIMITED ASBESTOS PRE-RENOVATION INSPECTION REPORT.

DEMOLITION NOTES

1. Remove all miscellaneous fasteners such as nails, screws and clips, as required, to allow patching of existing finishes. Some fasteners will not be able to be removed without extensive damage to historic finishes. Subject to concurrence by the Architect, such fasteners may remain, but must be treated to inhibit rust after cutting back below the wood surface.
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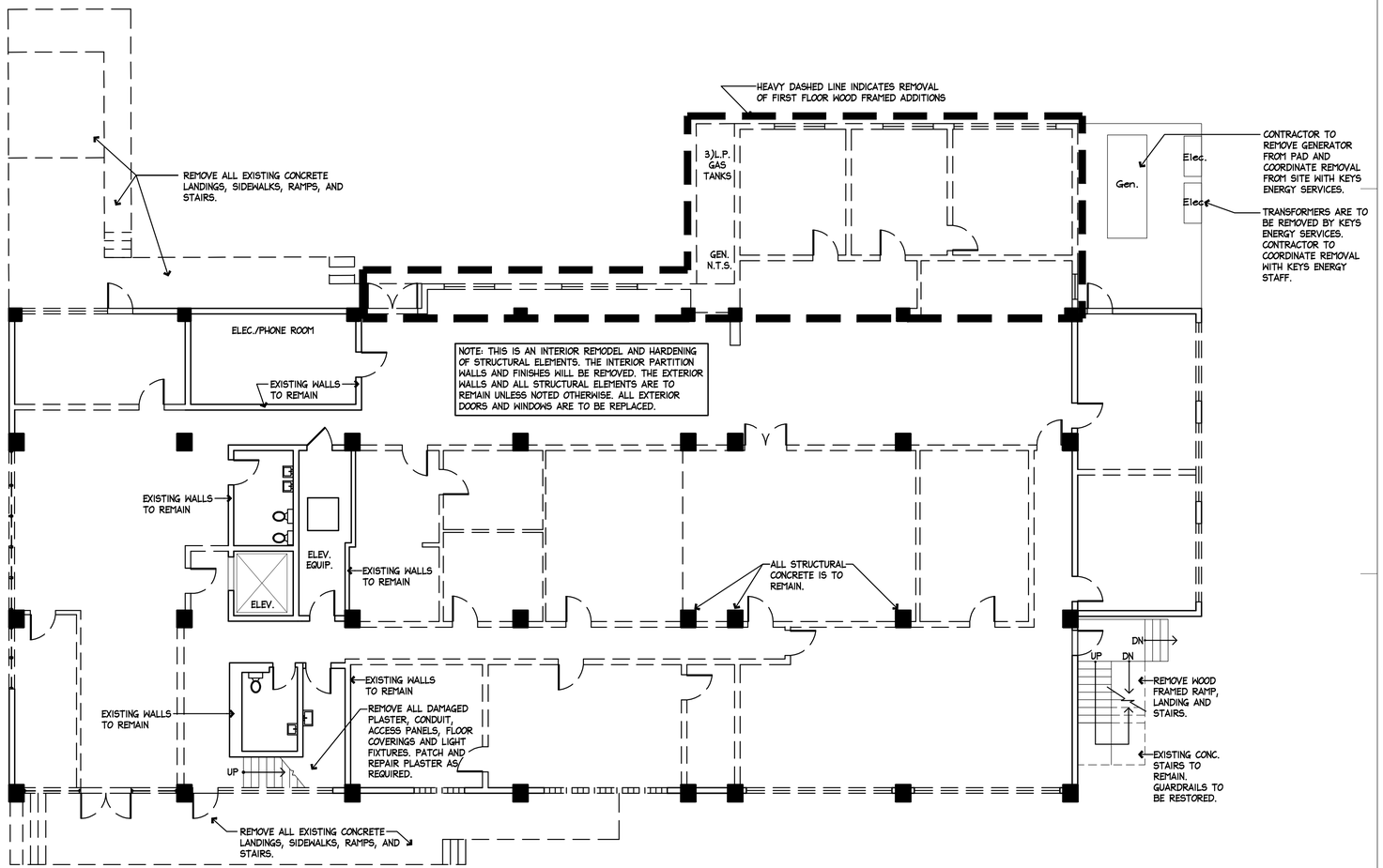
5. It is the Contractor's responsibility to be aware of and to conform with all applicable demolition and disposal codes, safety requirements, and environmental protection regulations of any governmental body having jurisdiction over the work.
6. Provide safety barricades as required to protect the safety of the general public and workers connected with the project.
7. Provide bracing and shoring as required to protect the safety of the general public and workers connected with the project.



1 A2.2 DEMOLITION PLAN: FIRST FLOOR
SCALE: 1/8"=1'-0"

CITY COMMISSION 9.16.14

KEYS ENERGY SERVICES
1001 JAMES STREET
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Bender & Associates ARCHITECTS *p.a.*

Project №: 1310
DEMOLITION PLAN
Date: 8/17/14

A2.2

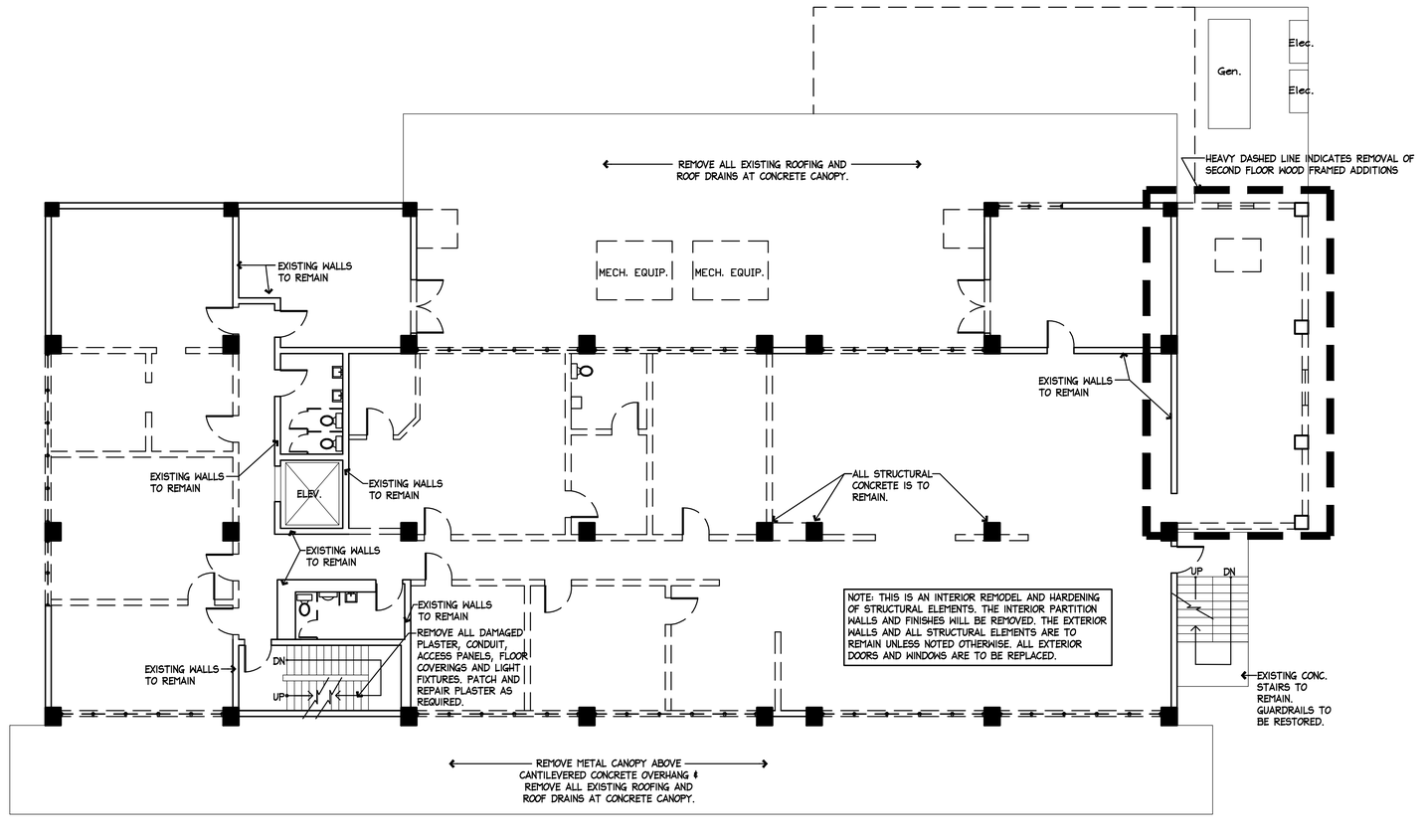
GENERAL NOTES:
1. ALL FIXTURES AND FINISHES ARE TO BE REMOVED. INTERIOR PARTITION WALLS, ALL EXTERIOR DOORS, AND ALL EXTERIOR WINDOWS ARE TO BE REMOVED. WHERE EXISTING INTERIOR WALLS ARE INDICATED TO REMAIN THE EXISTING DRYWALL IS TO BE REMOVED. AT THE INTERIOR STAIRWELL THE EXISTING PLASTER FINISH IS TO REMAIN
2. ALL CONCRETE COLUMNS, CONCRETE/CMU EXTERIOR WALLS, CONCRETE FLOOR SLABS, AND OTHER STRUCTURAL FRAMING MEMBERS ARE TO REMAIN.
3. REMOVE ALL ROOFING, FLASHING, AND DRAINS.
4. SEE MEP PLANS FOR MORE DETAILS AND NOTES ON DEMOLITION OF MECHANICAL, ELECTRICAL, AND PLUMBING SYSTEMS.
5. ALL EXTERIOR CONDUIT, WIRES, PLUMBING, SHUTTERS, EQUIPMENT STANDS, JUNCTION BOXES, AND ELECTRICAL FIXTURES ARE TO BE REMOVED.

6. ASBESTOS ABATEMENT WILL BE REQUIRED FOR THIS PROJECT. REFER TO THE SPECIFICATIONS FOR 'EE&G ENVIRONEMNTAL SERVICES' LIMITED ASBESTOS PRE-RENOVATION INSPECTION REPORT.

DEMOLITION NOTES

1. Remove all miscellaneous fasteners such as nails, screws and clips, as required, to allow patching of existing finishes. Some fasteners will not be able to be removed without extensive damage to historic finishes. Subject to concurrence by the Architect, such fasteners may remain, but must be treated to inhibit rust after cutting back below the wood surface.
2. Prior to submitting a bid, verify all existing conditions and dimensions on the jobsite, and also after award, but prior to the start of construction.
3. All demolished material, except for artifacts, shall become the property of the contractor, unless specifically noted otherwise, and shall be properly removed from the site. Comply with all applicable laws, codes and regulations of governmental agencies having jurisdiction over the project.
4. All costs of demolition including permit fees, disposal fees, etc. are the responsibility of the Contractor.
5. It is the Contractor's responsibility to be aware of and to conform with all applicable demolition and disposal codes, safety requirements, and environmental protection regulations of any governmental body having jurisdiction over the work.
6. Provide safety barricades as required to protect the safety of the general public and workers connected with the project.
7. Provide bracing and shoring as required to protect the safety of the general public and workers connected with the project.

CITY COMMISSION 9.16.14



1 A2.3 DEMOLITION PLAN: SECOND FLOOR
SCALE: 1/8"=1'-0"

PROJECT NORTH

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Bender & Associates ARCHITECTS *p.a.*

Project Nº: 1310
DEMOLITION PLANS
Date: 8/17/14

A2.3

GENERAL NOTES:
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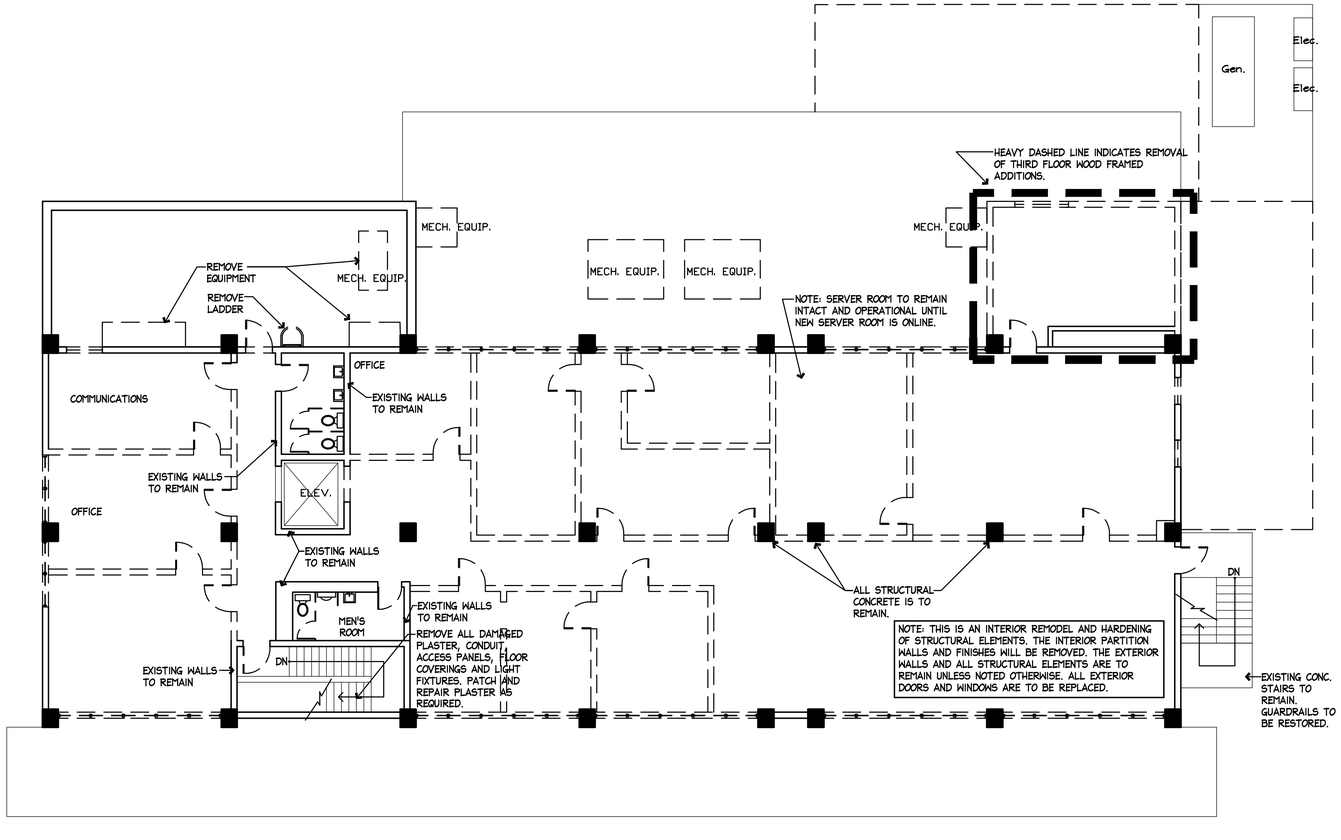

1 / A2.4 DEMOLITION PLAN: THIRD FLOOR
SCALE: 1/8"=1'-0"

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Project №: 1310
DEMOLITION PLANS
Date: 8/17/14

A2.4

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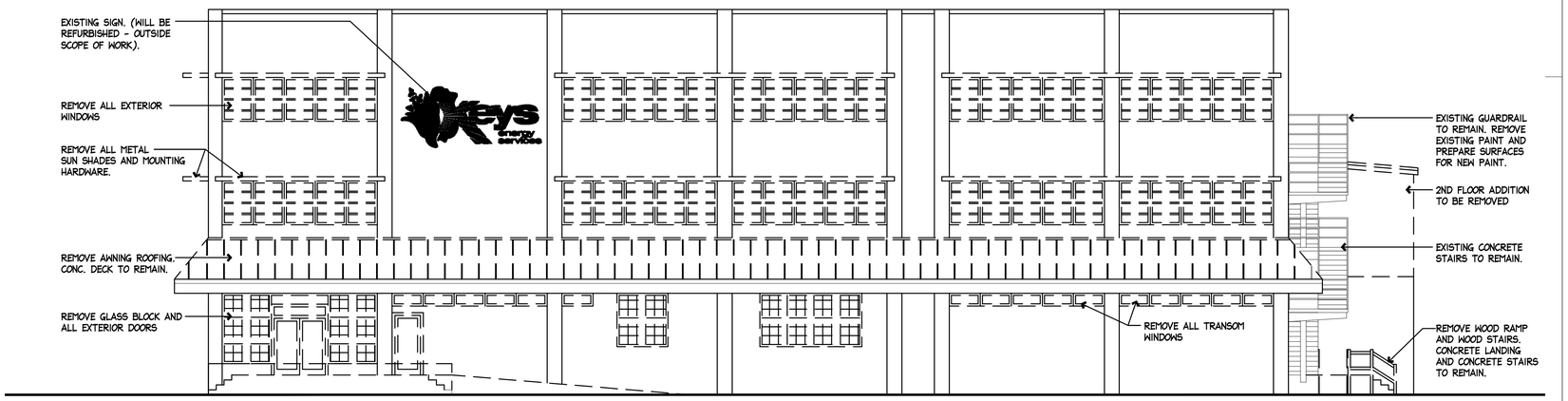
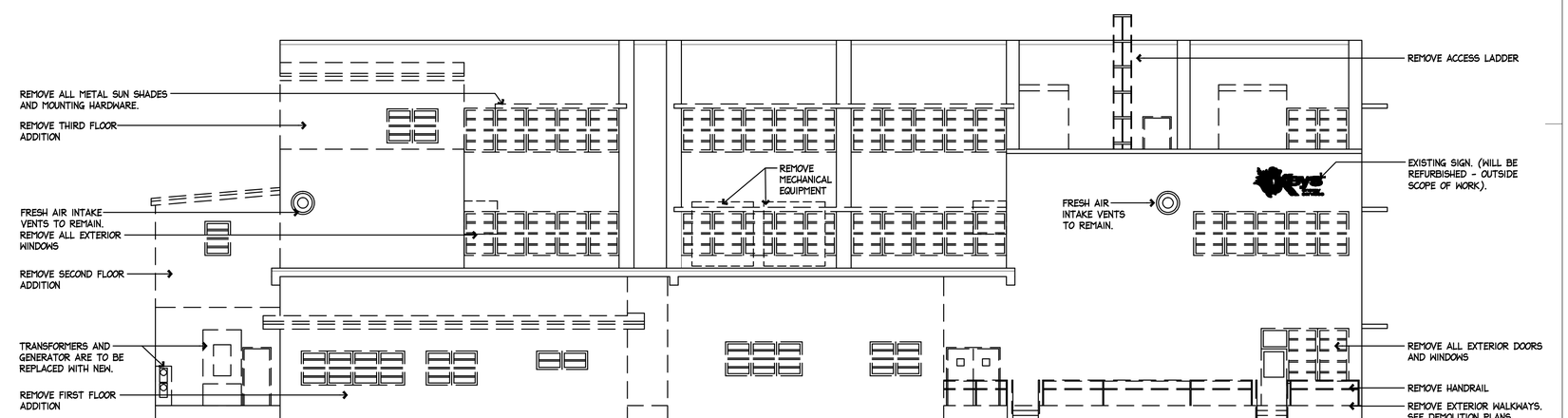


1 A2.5 DEMOLITION PLAN: SOUTH ELEVATION
SCALE: 1/8"=1'-0"



2 A2.5 DEMOLITION PLAN: NORTH ELEVATION
SCALE: 1/8"=1'-0"

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Bender & Associates ARCHITECTS *p.a.*

Project Nº: 1310

DEMOLITION ELEVATIONS

Date: 8/17/14

A2.5

CITY COMMISSION 9.16.14

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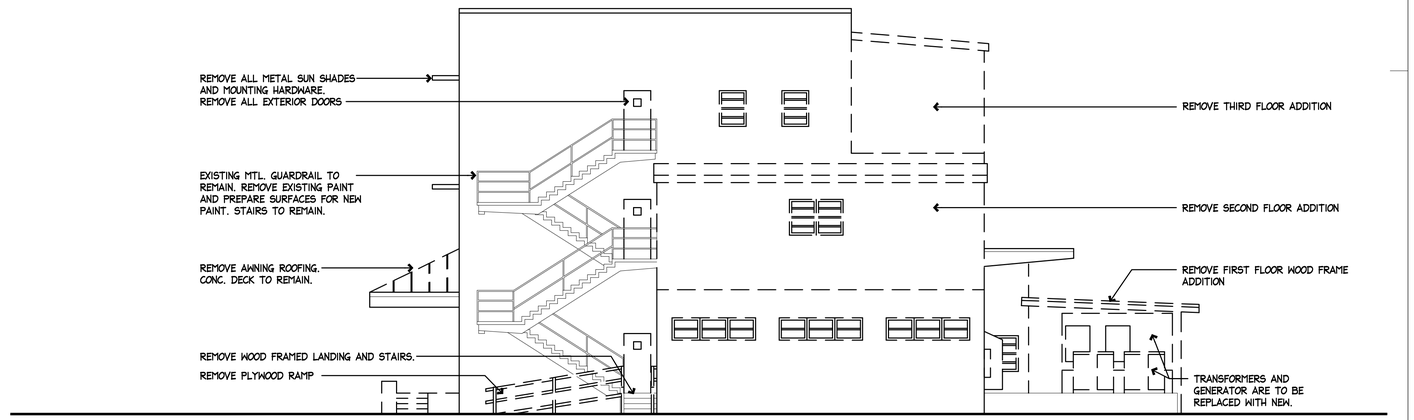
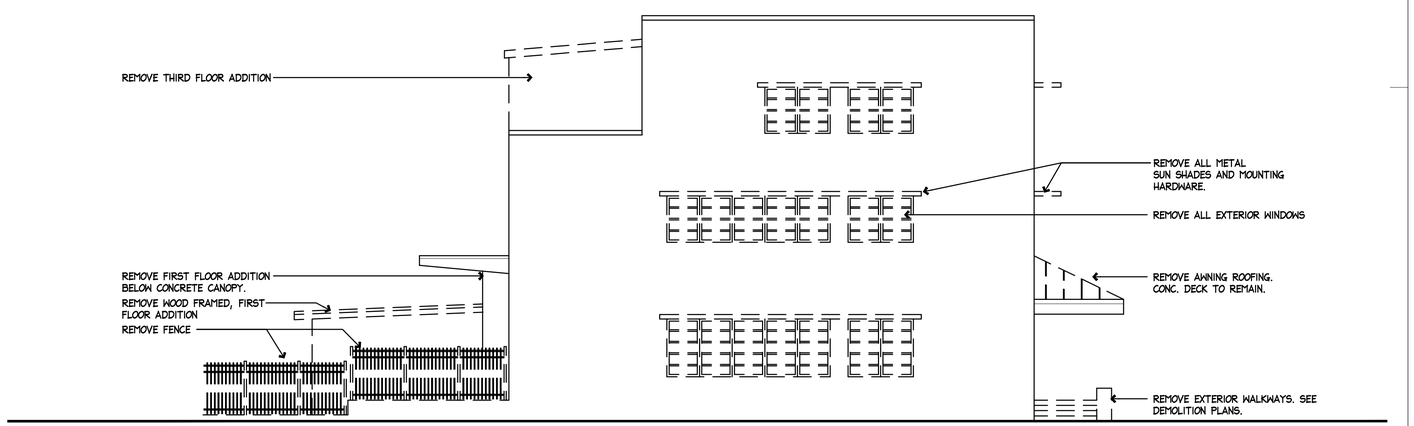


2 A2.6 DEMOLITION PLAN: EAST ELEVATION
SCALE: 1/8"=1'-0"



2 A2.6 DEMOLITION PLAN: WEST ELEVATION
SCALE: 1/8"=1'-0"

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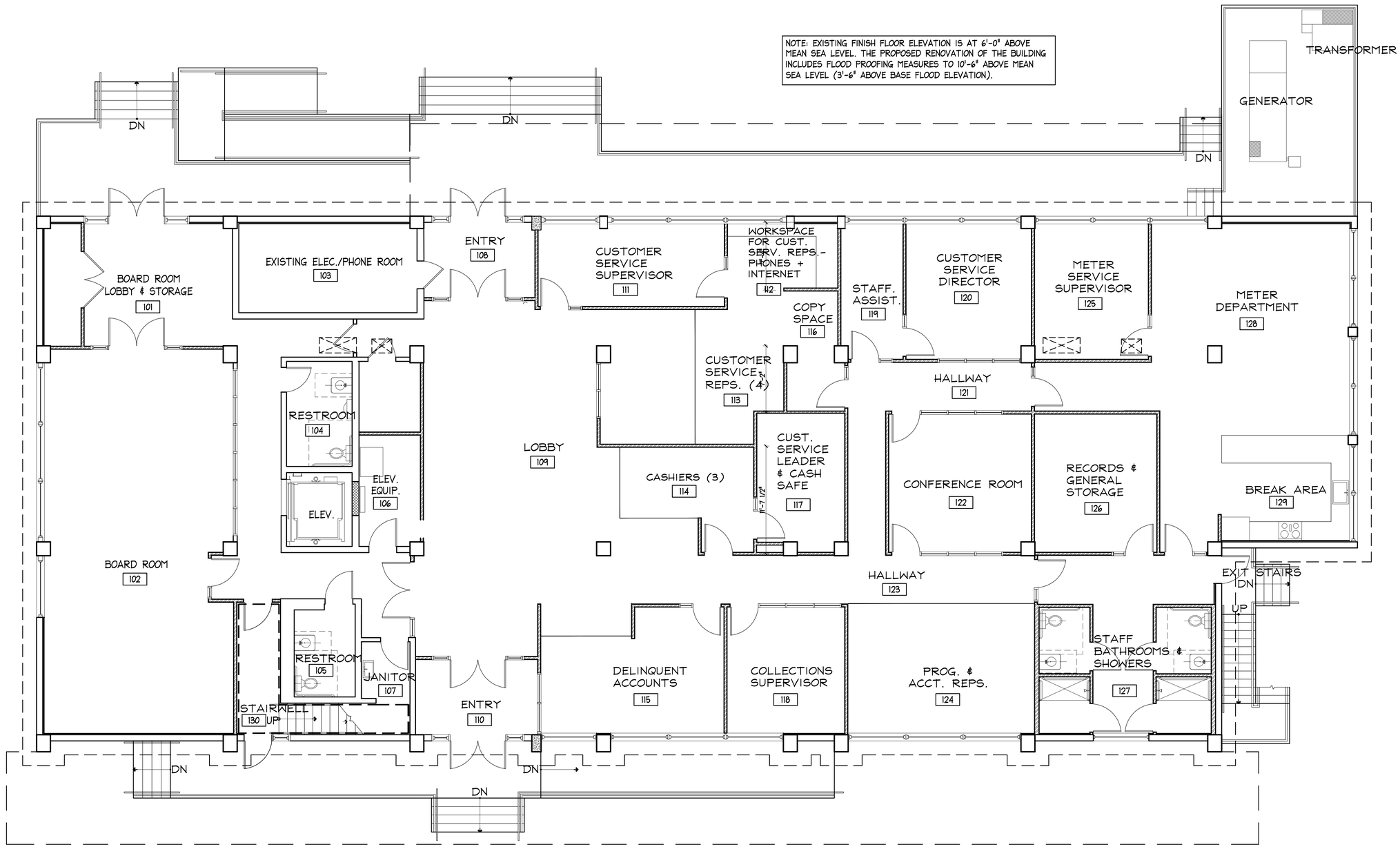
Bender & Associates ARCHITECTS *p.a.*

Project Nº: 1310
DEMOLITION ELEVATIONS
Date: 8/17/14

A2.6

CITY COMMISSION 9.16.14

NOTE: EXISTING FINISH FLOOR ELEVATION IS AT 6'-0" ABOVE MEAN SEA LEVEL. THE PROPOSED RENOVATION OF THE BUILDING INCLUDES FLOOD PROOFING MEASURES TO 10'-6" ABOVE MEAN SEA LEVEL (3'-6" ABOVE BASE FLOOD ELEVATION).



1 / A3.1 FIRST FLOOR PLAN
SCALE: 3/16"=1'-0"

PROJECT NORTH

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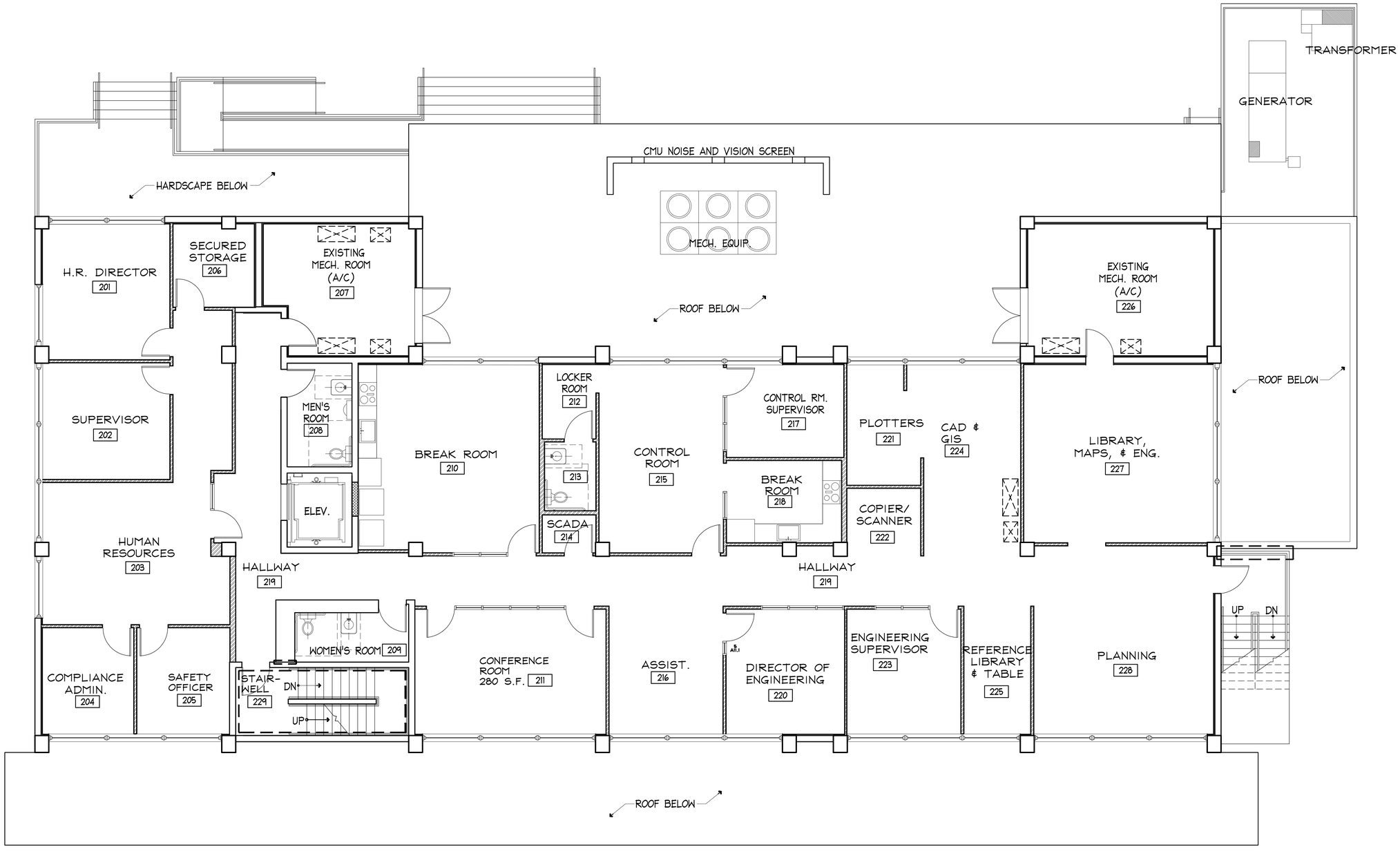
Project №: 1310

FIRST FLOOR PLAN

Date: 8/17/14

A3.1

CITY COMMISSION 9.16.14



1 / 3.2 SECOND FLOOR PLAN
SCALE: 3/16"=1'-0"

PROJECT NORTH

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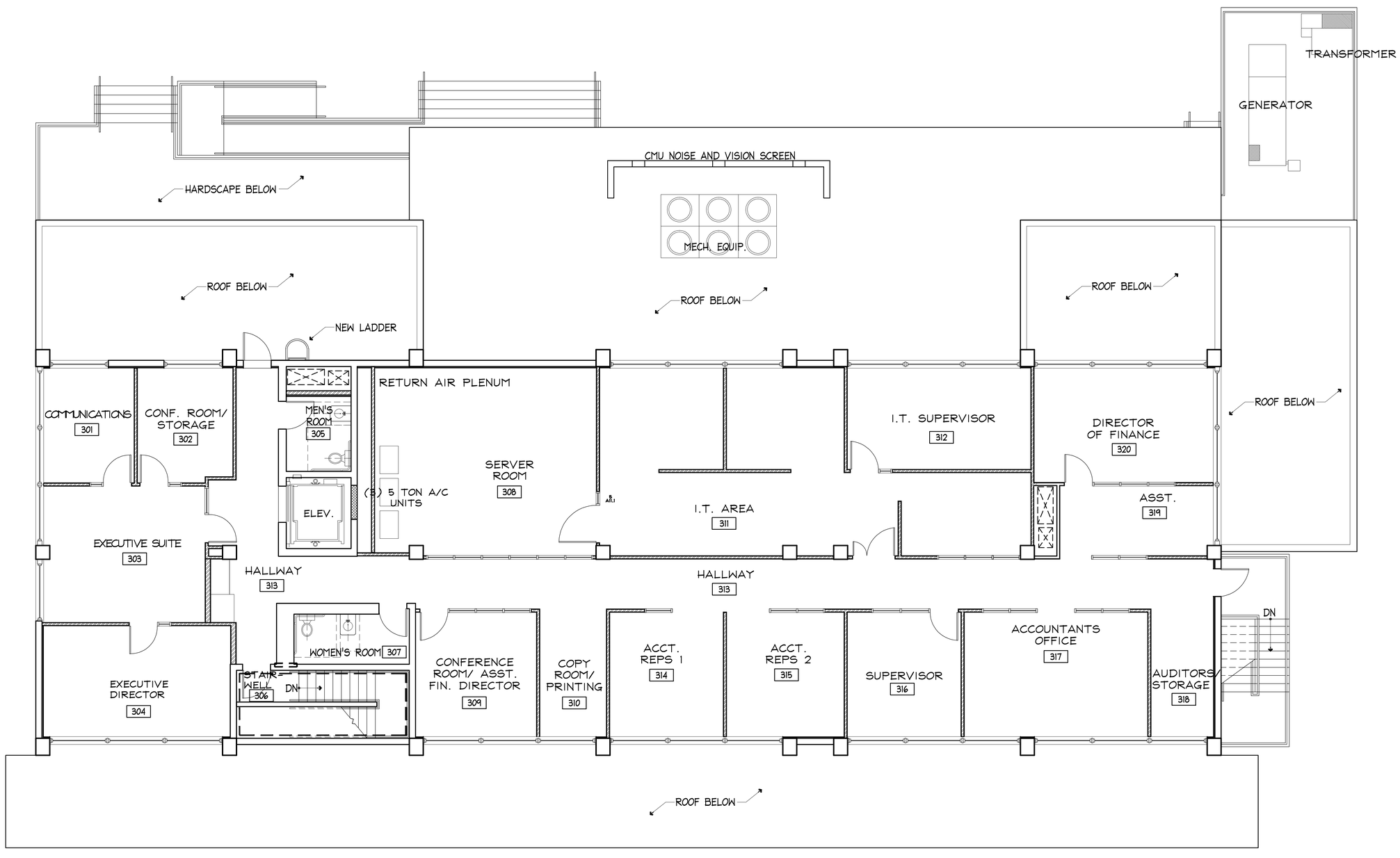
Project №: 1310

SECOND FLOOR PLAN

Date: 8/17/14

A3.2

CITY COMMISSION 9.16.14



1/3.3 THIRD FLOOR PLAN
SCALE: 3/16"=1'-0"

PROJECT NORTH

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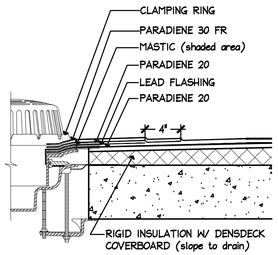
Project №: 1310

THIRD FLOOR PLAN

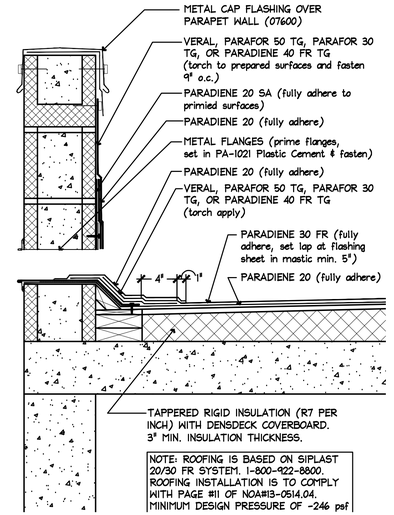
Date: 8/17/14

A3.3

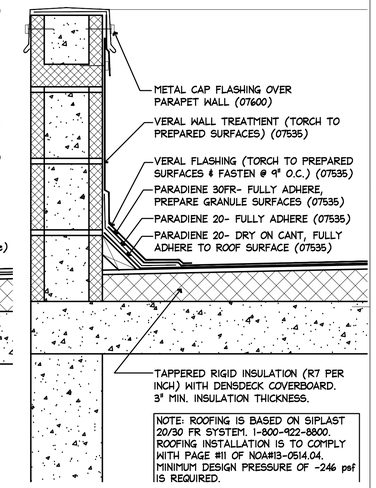
CITY COMMISSION 9.16.14



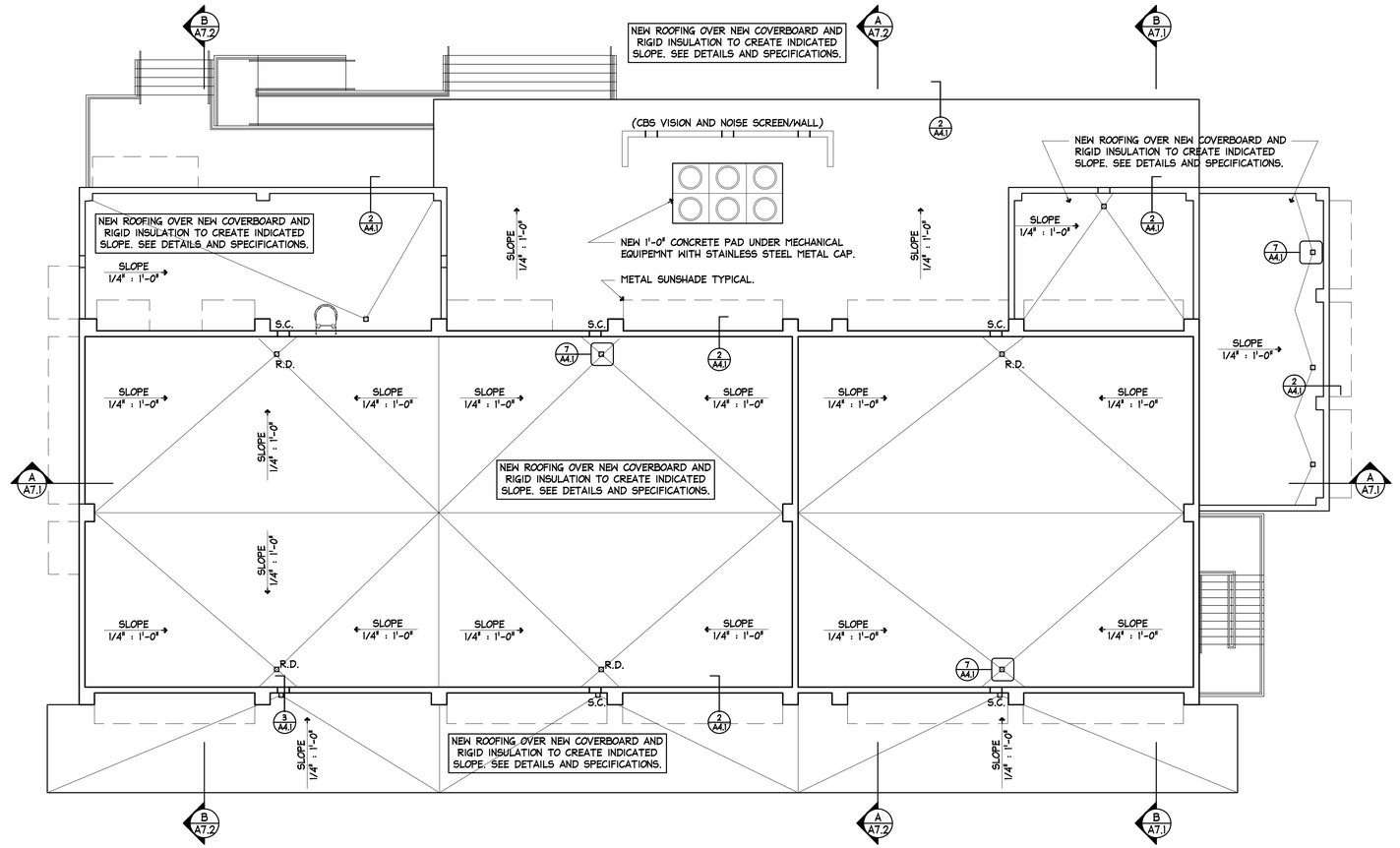
7 / A4.1 ROOF DETAIL
SCALE: 1-1/2"=1'-0"



3 / A4.1 ROOF DETAIL
SCALE: 1-1/2"=1'-0"



2 / A4.1 ROOF DETAIL
SCALE: 1-1/2"=1'-0"



1 / A4.1 ROOF PLAN
SCALE: 1/8"=1'-0"

PROJECT NORTH

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Project Nº: 1310

ROOF PLAN
ROOF DETAILS

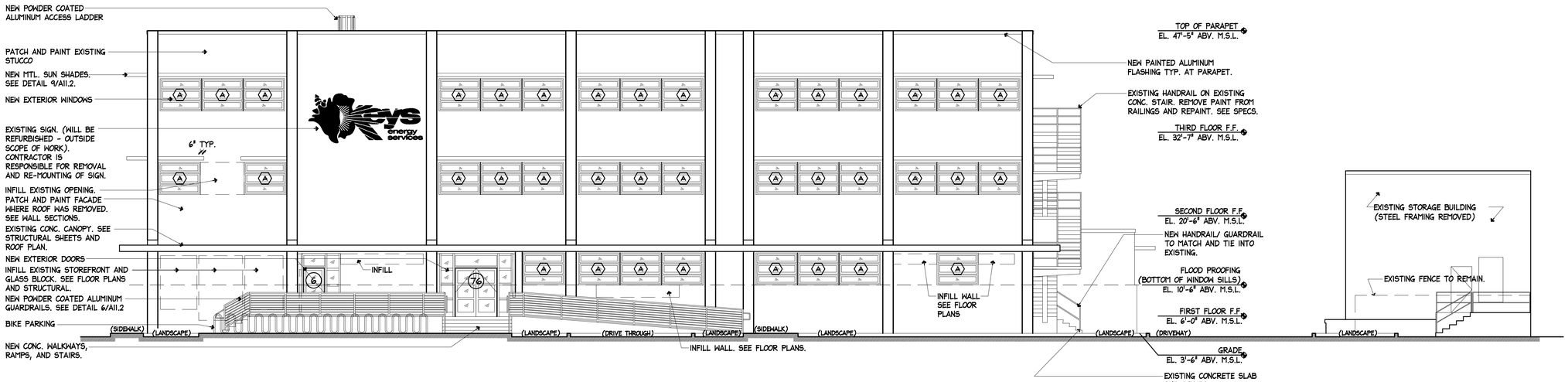
Date: 8/17/14

A4.1

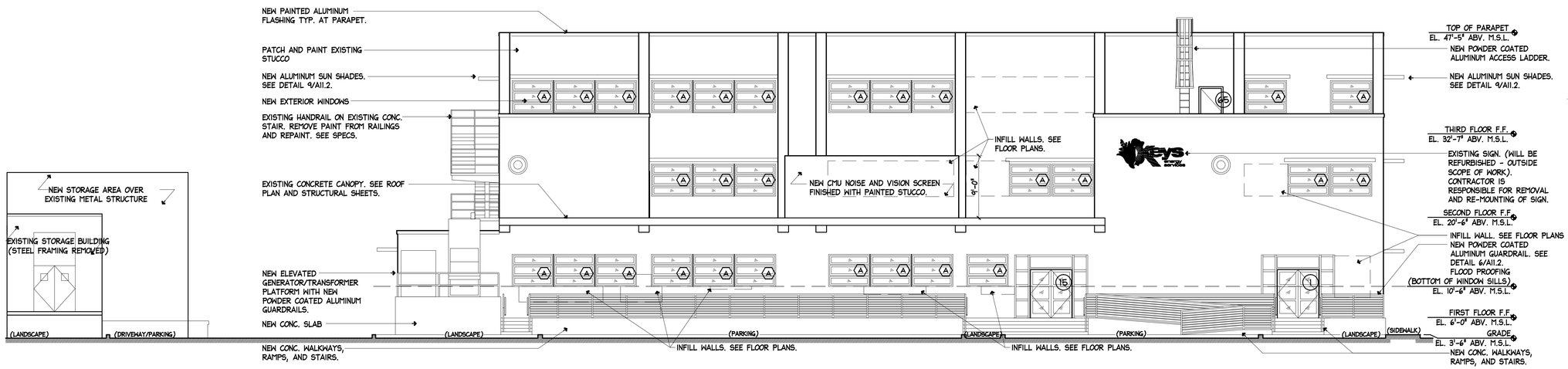
CITY COMMISSION 9.16.14

GENERAL EXTERIOR ELEVATION NOTE:

- THE EXTERIOR WALLS OF THE EXISTING BUILDING ARE TO BE REINFORCED, SEE STRUCTURAL PLANS. ALL LOOSE AND DAMAGED STUCCO IS TO BE REMOVED. AFTER REINFORCING WORK IS COMPLETE THE EXTERIOR IS TO RECEIVE NEW STUCCO WHERE REQUIRED AND EXISTING STUCCO IS TO BE PATCHED WHERE REQUIRED. PREPARE ALL SURFACES, INCLUDING EXISTING STUCCO WHICH WAS NOT BEEN REMOVED, TO RECEIVE NEW STUCCO. AFTER STUCCO INSTALLATION THE BUILDING WILL RECEIVE NEW PAINT. SEE PAINT SPECIFICATIONS FOR APPROVED PRODUCTS. ALL RAILING, SUN SHADES, EXTERIOR WALLS, DOORS, AND WINDOWS ARE TO BE PAINTED WHITE. ALL NEW DOORS AND WINDOWS ARE TO BE ALUMINUM IMPACT RESISTANT PRODUCTS MANUFACTURED BY CGI.



2 A6.1 SOUTH EXTERIOR ELEVATION
SCALE: 1/8"=1'-0"



1 A6.1 NORTH EXTERIOR ELEVATION
SCALE: 1/8"=1'-0"

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Project Nº: 1310

EXTERIOR ELEVATIONS

Date: 8/17/14

A6.1

CITY COMMISSION 9.16.14

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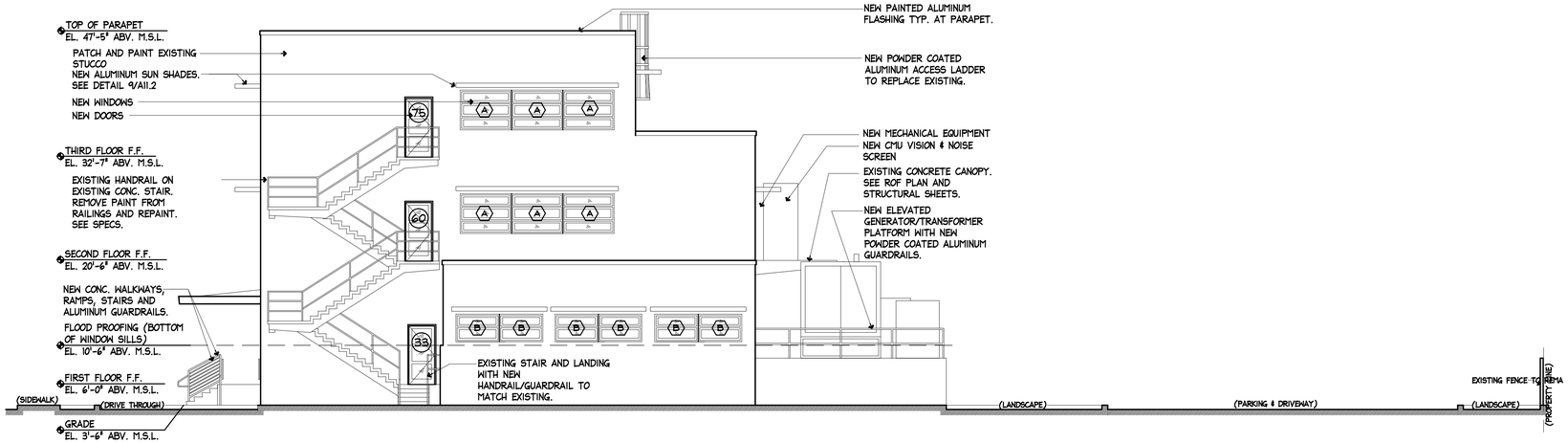
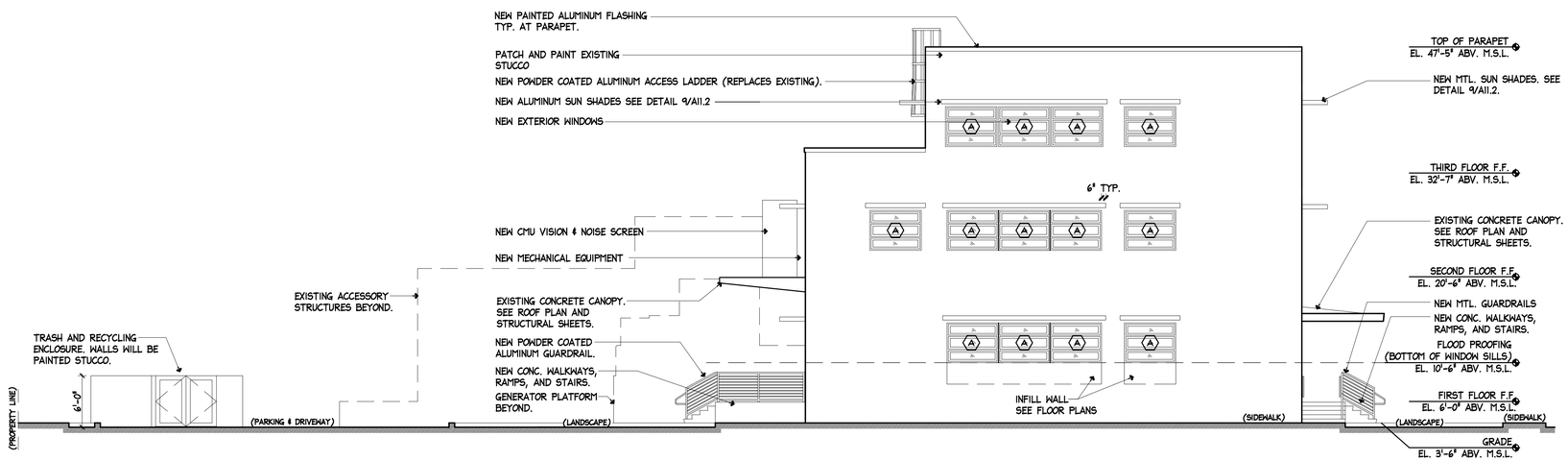


2 A6.2 EAST EXTERIOR ELEVATION
SCALE: 1/8"=1'-0"



1 A6.2 WEST EXTERIOR ELEVATION
SCALE: 1/8"=1'-0"

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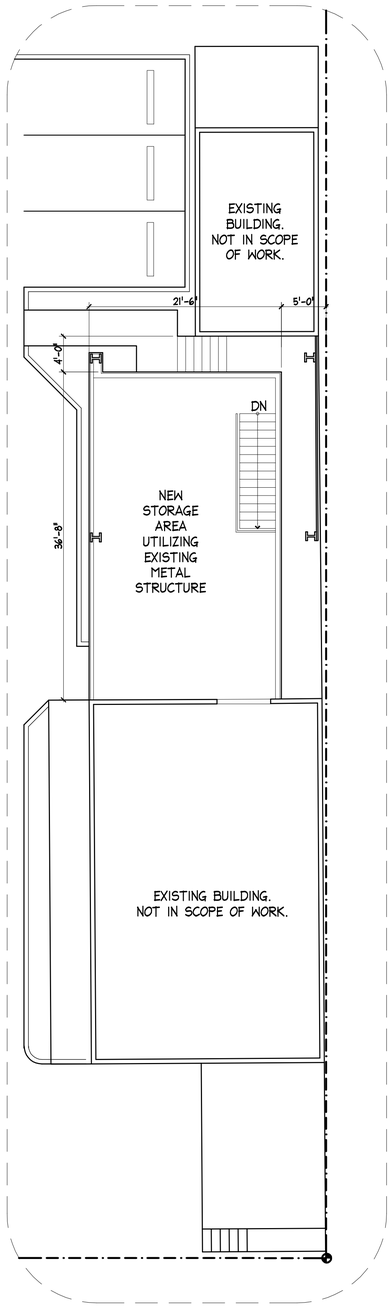
Project Nº: 1310

EXTERIOR ELEVATIONS

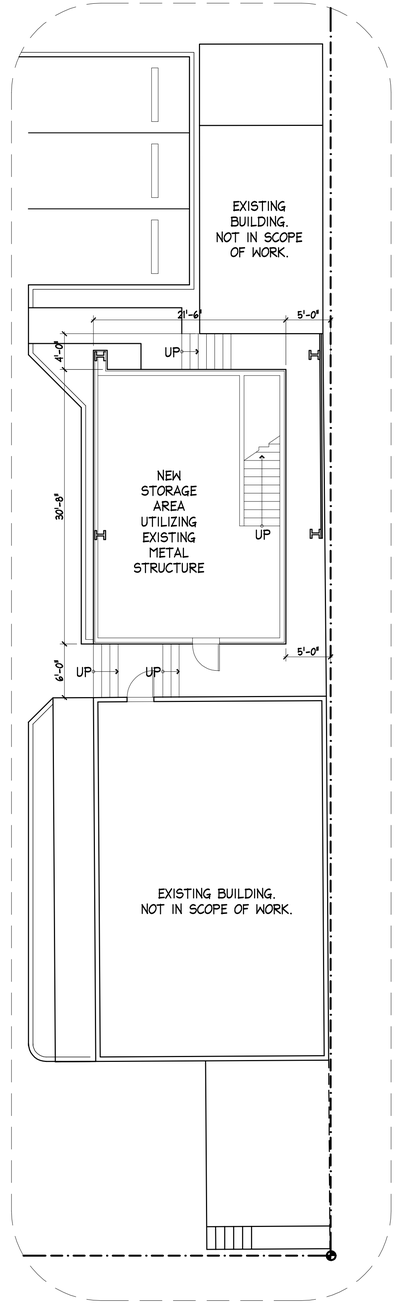
Date: 8/17/14

A6.2

CITY COMMISSION 9.16.14



3 A3.7 PROPOSED PLAN: STORAGE SECOND FLOOR
SCALE: 1/8"=1'-0"



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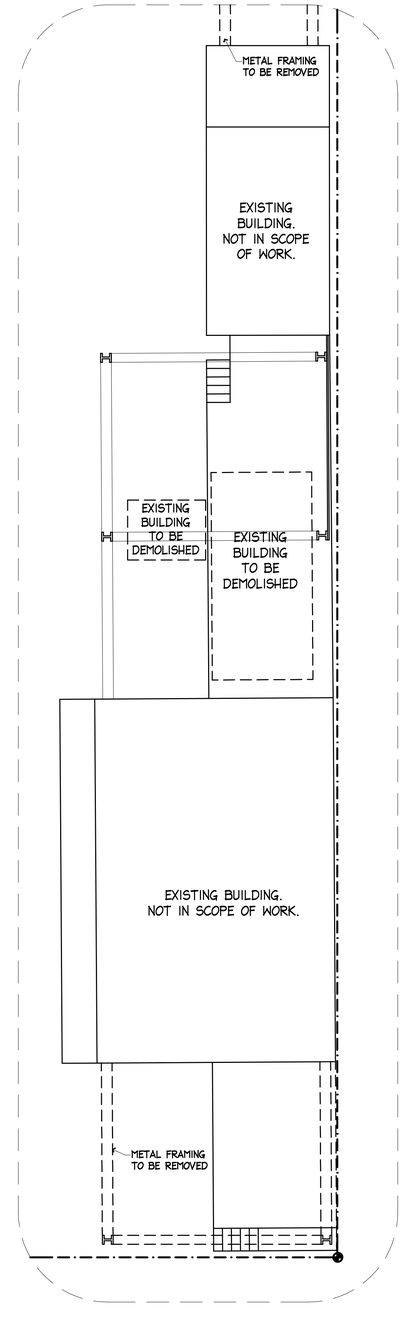
SCALE: 1/8"=1'-0"



1 A3.7 EXISTING PLAN: STORAGE FIRST FLOOR
SCALE: 1/8"=1'-0"

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Project No: 1310

Date: 8/17/14

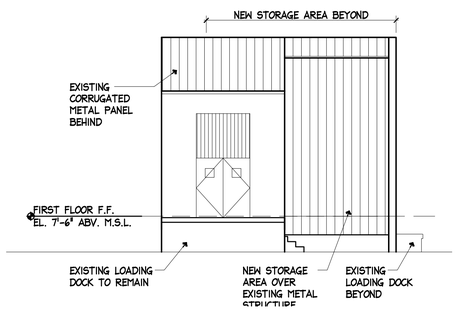
A3.7

CITY COMMISSION 9.16.14

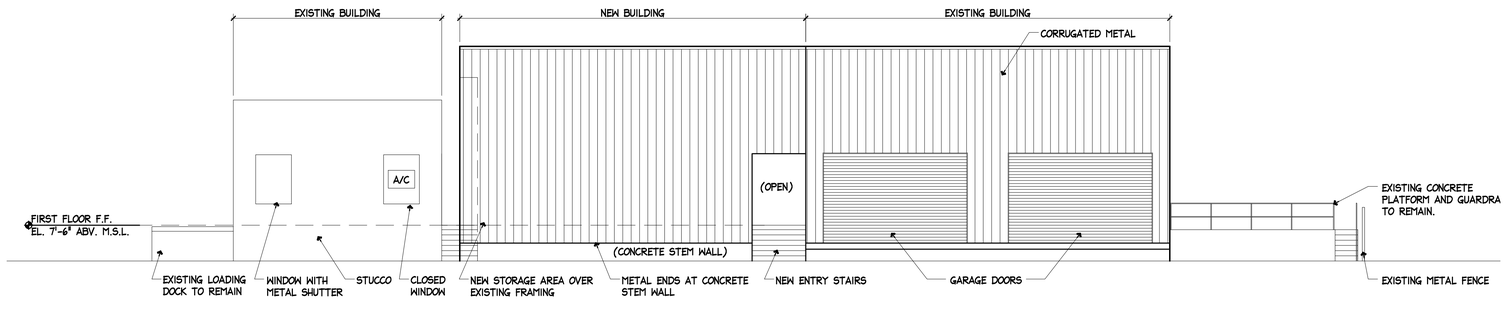
8 A6.3 PHOTO OF EXISTING STRUCTURE
N.T.S.

7 A6.3 PHOTO OF EXISTING STRUCTURE
N.T.S.

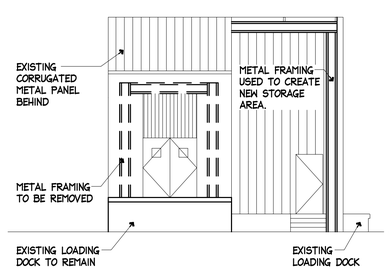
6 A6.3 PHOTO OF EXISTING STRUCTURE
N.T.S.



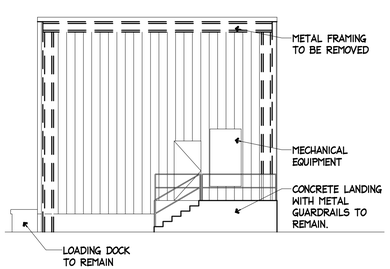
5 A6.3 PROPOSED NORTH ELEVATION
SCALE: 1/8"=1'-0"



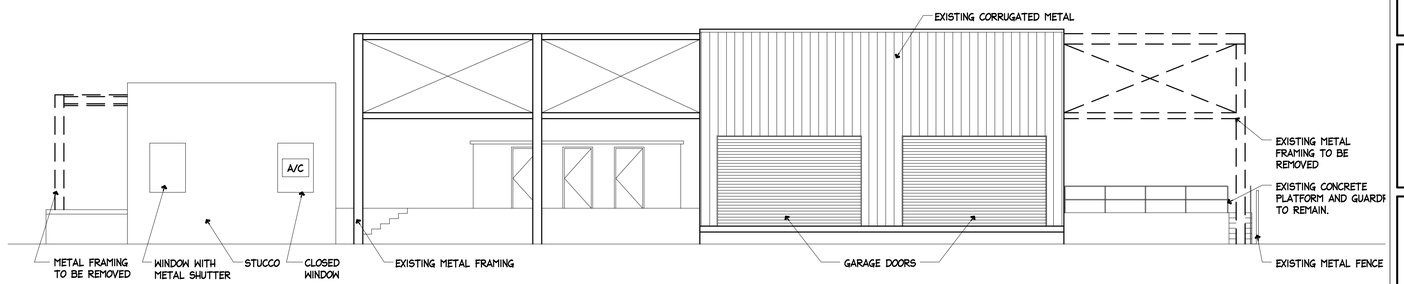
4 A6.3 PROPOSED WEST ELEVATION
SCALE: 1/8"=1'-0"



2 A6.3 EXISTING NORTH ELEVATION
SCALE: 1/8"=1'-0"



3 A6.3 EXISTING SOUTH ELEVATION
SCALE: 1/8"=1'-0"



1 A6.3 EXISTING WEST ELEVATION
SCALE: 1/8"=1'-0"

KEYS ENERGY SERVICES
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Florida License AAC002022

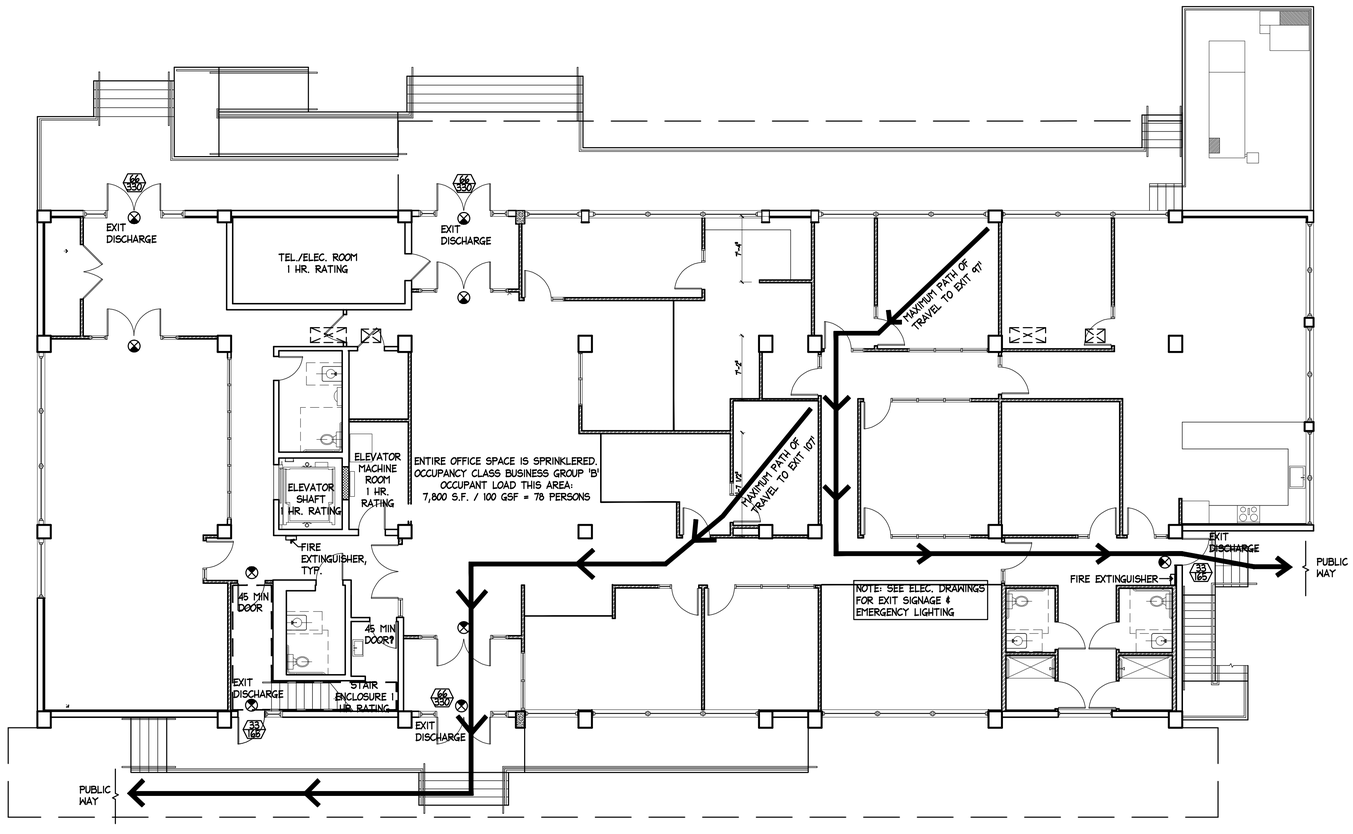
Bender & Associates ARCHITECTS *p.a.*

Project №: 1310

EXTERIOR ELEVATIONS OF ACCESSORY STRUCTURE

Date: 8/17/14

A6.3



1 / A13.1 FIRST FLOOR LIFE SAFETY PLAN
SCALE: 1/8"=1'-0"

PROJECT NORTH

CITY COMMISSION 9.16.14

KEYS ENERGY SERVICES - T&D BUILDING
LIFE SAFETY CODE CALCULATIONS
FLORIDA BUILDING CODE 2010, BUILDING

2010 BUILDING CODE SECTION — **Occupancy Classification:**

Section 304 — Offices: Group 'B' Business

Building Area:

1st Floor:	7,800 s.f.
2nd Floor:	6,300 s.f.
3rd Floor:	5,400 s.f.
Total:	19,500 s.f.

Table 601 — **Construction Type:** Type II-B construction, sprinklered.

Primary structural frame:	0 hours.
Exterior / Interior Bearing walls:	0 hours.
Exterior Non-bearing walls:	0 hours.
Interior Non-bearing walls:	0 hours.
Floor construction / Secondary members:	0 hours.
Roof construction / secondary members:	0 hours.

Table 503 — **Allowable Building Heights & Areas:**
(Automatic sprinkler system increase per Section 504.2)

Group	# Stories Allowed:	Area:	Bldg. Height:
B	4	19,000sf/floor	75'

Table 1004.1.1 — **Occupancy Loads:**

1st Floor: B Business
7,800 s.f. / 100 gross = 78 persons
2nd floor: B Business
6,300 s.f. / 100 gross = 63 persons
3rd Floor: B Business
5,400 s.f. / 100 gross = 54 persons

Table 707.3.9 — **Fire Resistant Separations:**

Group:	Separation:
B- Business	2 hours.

Table 1021.1 — **Number of Exits Required:**

1st floor: 2
2nd floor: 2
3rd floor: 2

Table 1016.1 — **Exit Access Travel Distance:**

Occupancy Group:	Travel Distance:
B-Business	135' (300' allowable) OK.

Section 1005.1 — **Egress Width:**
Existing Building:
1st Floor: 80 persons x .3" = 24": (36" provided)
2nd Floor: 64 persons x .3" = 19.2" (36" provided)
3rd Floor: 56 persons x .3" = 16.8" (36" provided)

Section 1009.1 — **Minimum Stair Width:** 44" clear (EXISTING)

Section 705.8.1, Exception 2. — **Allowable Area of Openings:**
Buildings whose exterior bearing walls, exterior nonbearing walls and exterior primary structural frame are not required to be fire resistance rated shall be permitted to have unlimited unprotected openings.

Plumbing, Table 403.1 — **Plumbing Fixtures:**
Business Occupancy:
Water Closets: 1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50.
6 required, 8 provided (4 male, 4 female)
Lavatories: 1 per 40 for the first 80 & 1 per 80 for the remainder.
4 required, 8 provided (4 male, 4 female)
Drinking Fountains: 1 per 100.
2 required, 2 provided (1 barrier free)

LIFE SAFETY LEGEND

- 1 HR RATED WALL / PARTITION
- XX / XX — CLR EGRESS WIDTH (INCHES) / EGRESS CAPACITY (# OF PERSONS)
- COMMON PATH
- FIRE EXTINGUISHER CABINET (RECESSED)
- FIRE ALARM HORN / VISUAL ALARM
- FIRE PULL STATION
- S — SPEAKER (PUBLIC ANNOUNCEMENT)
- SL — STROBE LIGHT
- SMOKE DETECTOR
- HEAT DETECTOR
- EMERGENCY EXIT
- EMERGENCY LIGHTING FIXTURE
- FIRE SPRINKLER HEAD

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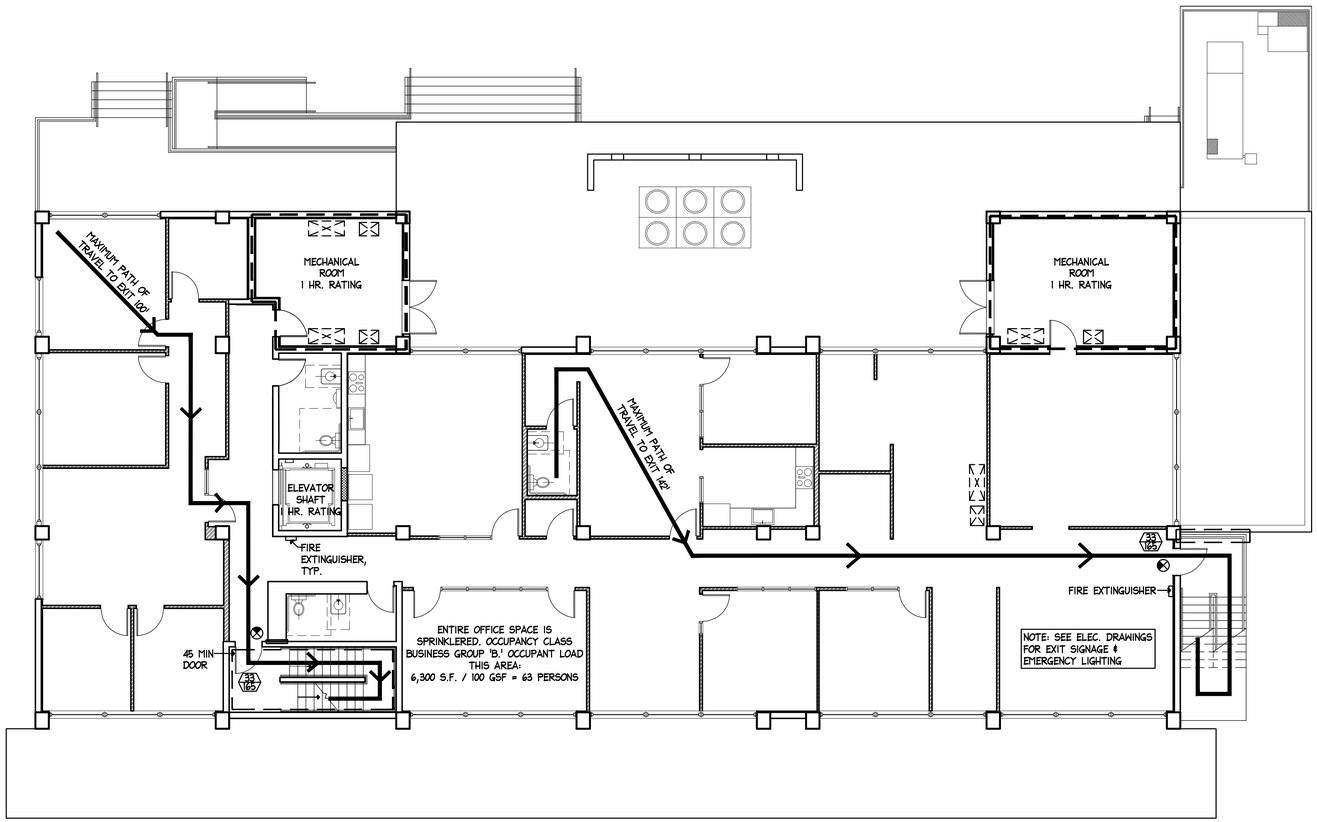
Bender & Associates ARCHITECTS *p.a.*

Project №: 1310

LIFE SAFETY PLAN

Date: 8/17/14

A13.1



1 A13.1 SECOND FLOOR LIFE SAFETY PLAN
SCALE: 1/8"=1'-0"

PROJECT NORTH

CITY COMMISSION 9.16.14

KEYS ENERGY SERVICES - T&D BUILDING
LIFE SAFETY CODE CALCULATIONS
FLORIDA BUILDING CODE 2010, BUILDING

2010 BUILDING CODE SECTION — Occupancy Classification:

Section 304 — Offices: Group 'B' Business

Building Area:

1st Floor:	7,800 s.f.
2nd Floor:	6,300 s.f.
3rd Floor:	5,400 s.f.
Total:	19,500 s.f.

Table 601 — Construction Type: Type II-B construction, sprinklered.

Primary structural frame:	0 hours.
Exterior / Interior Bearing walls:	0 hours.
Exterior Non-bearing walls:	0 hours.
Interior Non-bearing walls:	0 hours.
Floor construction / Secondary members:	0 hours.
Roof construction / secondary members:	0 hours.

Table 503 — Allowable Building Heights & Areas:
(Automatic sprinkler system increase per Section 504.2)

Group	# Stories Allowed:	Area:	Bldg. Height:
B	4	19,000sf/floor	75'

Table 1004.1.1 — Occupancy Loads:

1st Floor: B Business
7,800 s.f. / 100 gross = 78 persons
2nd floor: B Business
6,300 s.f. / 100 gross = 63 persons
3rd Floor: B Business
5,400 s.f. / 100 gross = 54 persons

Table 707.3.9 — Fire Resistant Separations:

Group:	Separation:
B- Business	2 hours.

Table 1021.1 — Number of Exits Required:

1st floor: 2
2nd floor: 2
3rd floor: 2

Table 1016.1 — Exit Access Travel Distance:

Occupancy Group:	Travel Distance:
B-Business	135' (300' allowable) OK.

Section 1005.1 — Egress Width:
Existing Building:
1st Floor: 80 persons x .3" = 24": (36" provided)
2nd Floor: 64 persons x .3" = 19.2" (36" provided)
3rd Floor: 56 persons x .3" = 16.8" (36" provided)

Section 1009.1 — Minimum Stair Width: 44" clear (EXISTING)

Section 705.8.1, Exception 2. — Allowable Area of Openings:
Buildings whose exterior bearing walls, exterior nonbearing walls and exterior primary structural frame are not required to be fire resistance rated shall be permitted to have unlimited unprotected openings.

Plumbing, Table 403.1 — Plumbing Fixtures:
Business Occupancy:
Water Closets: 1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50.

6 required, 8 provided (4 male, 4 female)

Lavatories: 1 per 40 for the first 80 & 1 per 80 for the remainder.

4 required, 8 provided (4 male, 4 female)

Drinking Fountains: 1 per 100.

2 required, 2 provided (1 barrier free)

LIFE SAFETY LEGEND

- 1 HR RATED WALL / PARTITION
- XX CLR EGRESS WIDTH (INCHES)
- XX EGRESS CAPACITY (# OF PERSONS)
- COMMON PATH
- FIRE EXTINGUISHER CABINET (RECESSED)
- FIRE ALARM HORN / VISUAL ALARM
- FIRE PULL STATION
- SPEAKER (PUBLIC ANNOUNCEMENT)
- STROBE LIGHT
- SMOKE DETECTOR
- HEAT DETECTOR
- EMERGENCY EXIT
- EMERGENCY LIGHTING FIXTURE
- FIRE SPRINKLER HEAD

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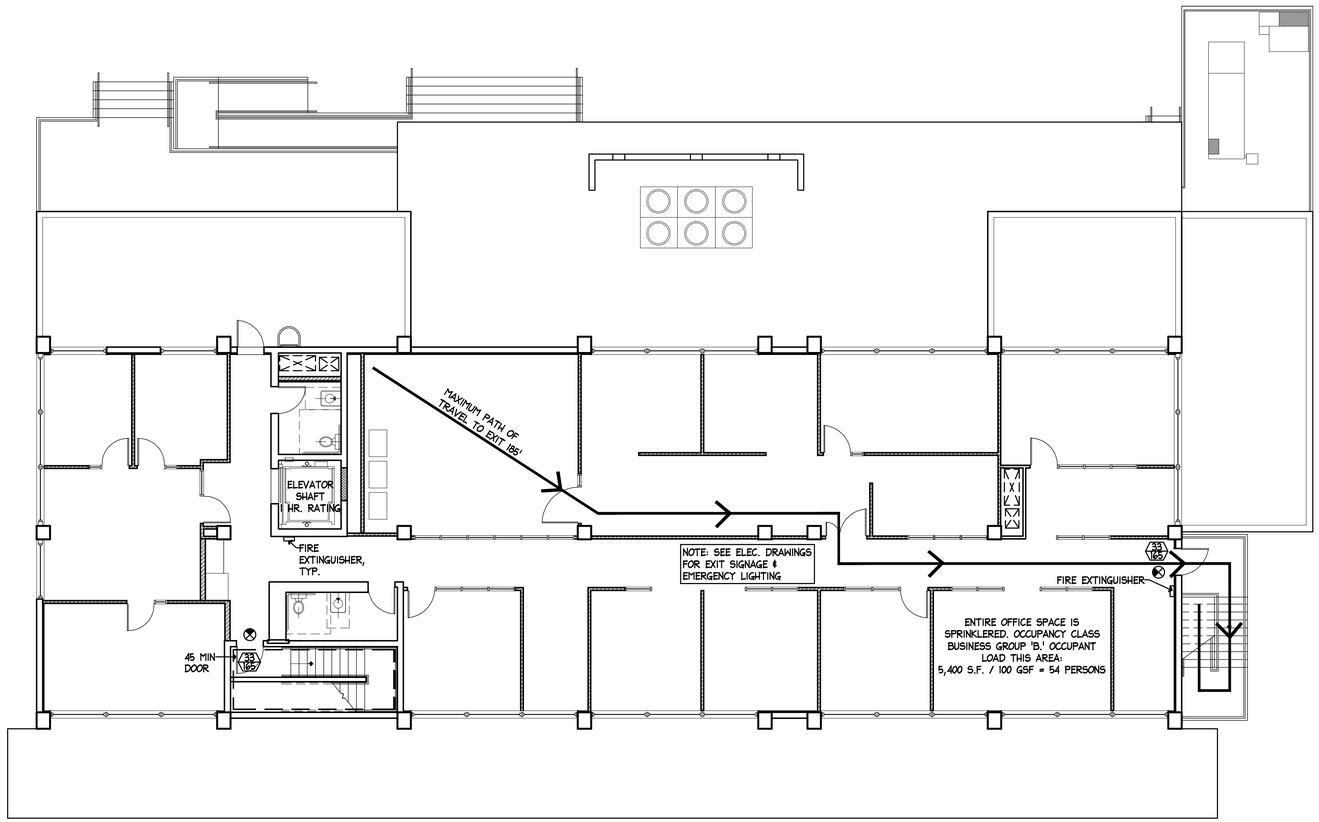
Bender & Associates ARCHITECTS *p.a.*

Project №: 1310

LIFE SAFETY PLAN

Date: 8/17/14

A13.2



1 A13.1 THIRD FLOOR LIFE SAFETY PLAN

SCALE: 1/8"=1'-0"

PROJECT NORTH

CITY COMMISSION 9.16.14

KEYS ENERGY SERVICES - T&D BUILDING
LIFE SAFETY CODE CALCULATIONS
FLORIDA BUILDING CODE 2010, BUILDING

2010 BUILDING CODE SECTION — Occupancy Classification:

Section 304 — Offices: Group 'B' Business

Building Area:

1st Floor:	7,800 s.f.
2nd Floor:	6,300 s.f.
3rd Floor:	5,400 s.f.
Total:	19,500 s.f.

Table 601 — Construction Type: Type II-B construction, sprinklered.

Primary structural frame:	0 hours.
Exterior / Interior Bearing walls:	0 hours.
Exterior Non-bearing walls:	0 hours.
Interior Non-bearing walls:	0 hours.
Floor construction / Secondary members:	0 hours.
Roof construction / secondary members:	0 hours.

Table 503 — Allowable Building Heights & Areas:
(Automatic sprinkler system increase per Section 504.2)

Group	# Stories Allowed:	Area:	Bldg. Height:
B	4	19,000sf/floor	75'

Table 1004.1.1 — Occupancy Loads:

1st Floor: B Business
7,800 s.f. / 100 gross = 78 persons
2nd floor: B Business
6,300 s.f. / 100 gross = 63 persons
3rd Floor: B Business
5,400 s.f. / 100 gross = 54 persons

Table 707.3.9 — Fire Resistant Separations:

Group:	Separation:
B- Business	2 hours.

Table 1021.1 — Number of Exits Required:

1st floor: 2
2nd floor: 2
3rd floor: 2

Table 1016.1 — Exit Access Travel Distance:

Occupancy Group:	Travel Distance:
B-Business	135' (300' allowable) OK.

Section 1005.1 — Egress Width:
Existing Building:
1st Floor: 80 persons x .3" = 24": (36" provided)
2nd Floor: 64 persons x .3" = 19.2" (36" provided)
3rd Floor: 56 persons x .3" = 16.8" (36" provided)

Section 1009.1 — Minimum Stair Width: 44" clear (EXISTING)

Section 705.8.1, Exception 2. — Allowable Area of Openings:
Buildings whose exterior bearing walls, exterior nonbearing walls and exterior primary structural frame are not required to be fire resistance rated shall be permitted to have unlimited unprotected openings.

Plumbing, Table 403.1 — Plumbing Fixtures:
Business Occupancy:
Water Closets: 1 per 25 for the first 50 and 1 per 50 for the remainder exceeding 50.

6 required, 8 provided (4 male, 4 female)

Lavatories: 1 per 40 for the first 80 & 1 per 80 for the remainder.

4 required, 8 provided (4 male, 4 female)

Drinking Fountains: 1 per 100.

2 required, 2 provided (1 barrier free)

LIFE SAFETY LEGEND

- 1 HR RATED WALL / PARTITION
- CLR EGRESS WIDTH (INCHES)
- EGRESS CAPACITY (# OF PERSONS)
- COMMON PATH
- FIRE EXTINGUISHER CABINET (RECESSED)
- FIRE ALARM HORN / VISUAL ALARM
- FIRE PULL STATION
- SPEAKER (PUBLIC ANNOUNCEMENT)
- STROBE LIGHT
- SMOKE DETECTOR
- HEAT DETECTOR
- EMERGENCY EXIT
- EMERGENCY LIGHTING FIXTURE
- FIRE SPRINKLER HEAD

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Bender & Associates ARCHITECTS p.a.

Project №: 1310

LIFE SAFETY PLAN

Date: 8/17/14

A13.3

100% SUBMITTAL

LUMINAIRE SCHEDULE

Symbol	Label	Qty	Catalog Number	Description	Lamp	File	Lumens	LLF	Watts
□	S1	5	LITHONIA DSX1 LED 60C 1000 40K T2S MVOLT HS MOUNTED 25' AFG ON CONCRETE POLE	DSX1 LED WITH (2) 30 LED LIGHT ENGINES, TYPE T2S OPTIC, 4000K, @ 1050mA WITH HOUSE SIDE SHIELD	LED	DSX1_LED_60C_1000_40K_T2S_MVOLT_HS.ies	Absolute	0.85	209
⊡	S2	3	LITHONIA DSXB LED 16C 530 40K SYM MOUNTED ON GROUND AS INDICATED IN DWGS.	D-SERIES BOLLARD WITH 16 4000K LEDS OPERATED AT 530mA AND SYMMETRIC DISTRIBUTION	LED	DSXB_LED_16C_530_40K_SYM.ies	Absolute	0.85	28
○	S3	5	KENALL TD17-XX-5N-TA-XX-80L40K-DV	ROUND LED SURFACE MOUNT LUMINAIRE	LED, QTY-48, Cree XPE HEW, 4000K, 70 CRI	TD17-5N-TA-80L40K.ies	Absolute	0.85	78.5

STATISTICS

Description	Symbol	Avg	Max	Min	Max/Min
PARKING AREA (Z='0')	+	3.5 fc	6.0 fc	0.5 fc	12.0:1
UNDER CANOPY (Z='0')	+	6.9 fc	12.7 fc	3.2 fc	4.0:1

SURFACE SCHEDULE

Name	Reflectances Front	Back	Normal X	Y	Z	Area (ft²)
BLDG	30%	30%				
CANOPY	40%	40%	0.0	-1.0	0.0	0.65
CANOPY	40%	40%	0.0	1.0	0.0	0.8
CANOPY	40%	40%	1.0	0.0	0.0	2.0
CANOPY	40%	40%	1.0	0.0	0.0	2.0
CANOPY	40%	40%	0.0	1.0	0.0	27.05
DUMPSTER	0%	0%				

LUMINAIRE LOCATIONS

No.	Label	Location X	Y	Z	MH	Orientation	Tilt	Aim X	Y	Z
1	S1	590.9	-2565.6	25.0	25.0	0.0	0.0	590.9	-2564.4	0.0
2	S1	664.0	-2565.3	25.0	25.0	0.0	0.0	664.0	-2564.1	0.0
3	S1	676.4	-2641.0	25.0	25.0	90.0	0.0	677.6	-2641.0	0.0
4	S1	590.9	-2509.2	25.0	25.0	180.0	0.0	590.9	-2510.4	0.0
5	S1	663.7	-2506.7	25.0	25.0	180.0	0.0	663.7	-2507.9	0.0
6	S2	538.7	-2673.4	3.0	3.0	0.0	0.0	538.7	-2673.4	0.0
7	S2	561.0	-2673.4	3.0	3.0	0.0	0.0	561.0	-2673.4	0.0
8	S3	536.0	-2659.0	11.0	11.0	0.0	0.0	536.0	-2659.0	0.0
9	S3	566.0	-2659.0	11.0	11.0	0.0	0.0	566.0	-2659.0	0.0
10	S3	596.0	-2659.0	11.0	11.0	0.0	0.0	596.0	-2659.0	0.0
11	S3	626.0	-2659.0	11.0	11.0	0.0	0.0	626.0	-2659.0	0.0
12	S3	656.0	-2659.0	11.0	11.0	0.0	0.0	656.0	-2659.0	0.0
13	S2	721.0	-2669.4	3.0	3.0	0.0	0.0	721.0	-2669.4	0.0

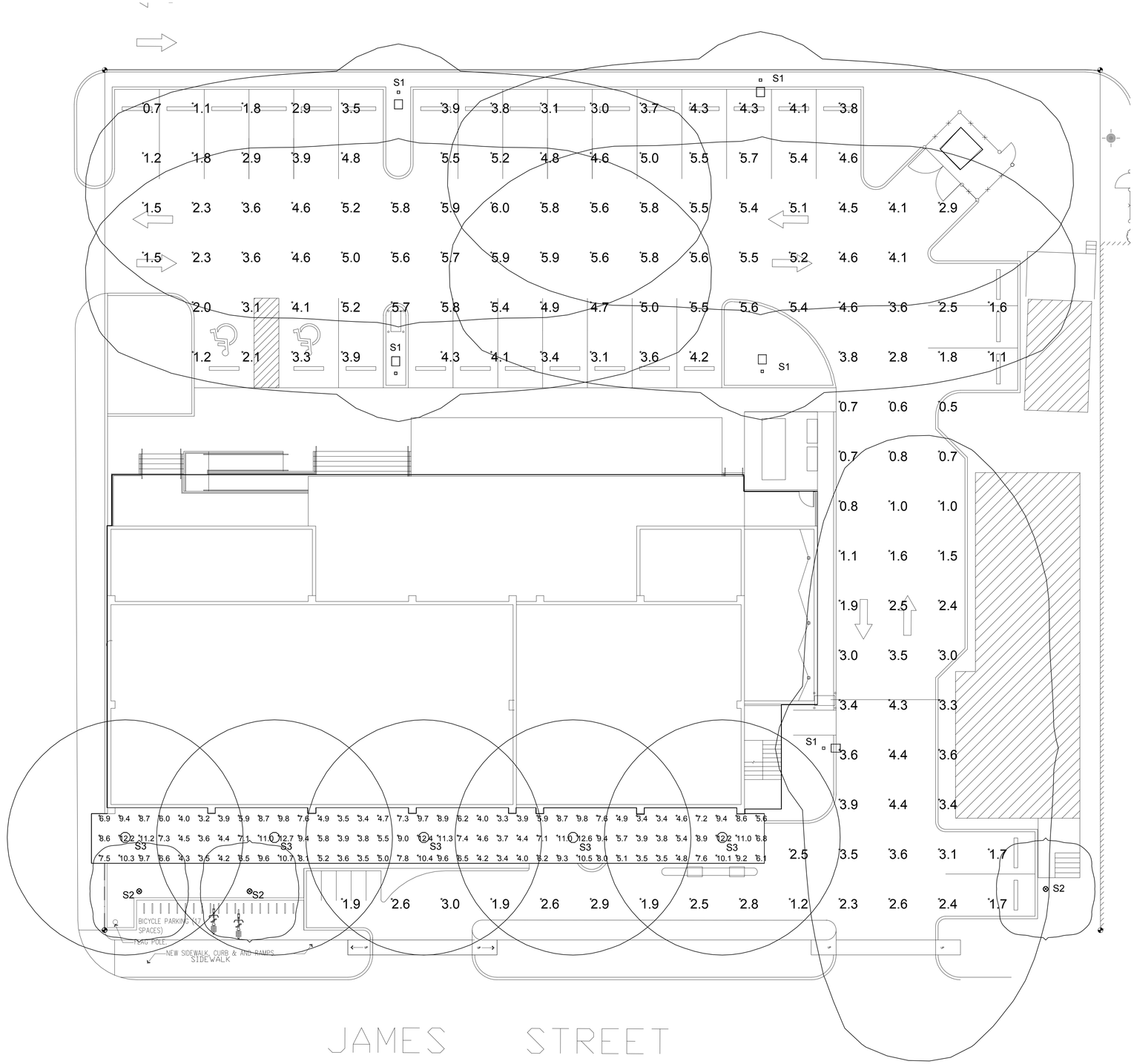
NOTES

1. CALCULATIONS HAVE BEEN PERFORMED ACCORDING TO IES STANDARDS AND PRACTICE. SOME DIFFERENCES BETWEEN MEASURED VALUES AND CALCULATED RESULTS MAY OCCUR DUE TO TOLERANCES IN CALCULATION METHODS, TESTING PROCEDURES, COMPONENT PERFORMANCES, MEASURED CONDITIONS SUCH AS TECHNICAL AND FIELD VOLTAGES AND TEMPERATURE VARIATIONS. INPUT DATA SUCH AS ROOM DIMENSIONS, REFLECTANCES, FURNITURE, LIGHT LOSS FACTOR, FURNITURE, ARCHITECTURAL ELEMENTS AND FOLIAGE SIGNIFICANTLY AFFECT THE LIGHTING CALCULATIONS. IF THE REAL ENVIRONMENT DO NOT MATCH INPUT DATA DIFFERENCES WILL OCCUR BETWEEN MEASURED AND CALCULATED VALUES.

2. CONCRETE POLES ARE TO BE 34' OVERALL LENGTH AND 25' ABOVE GROUND OR AS INDICATED BY BORING TEST RESULTS - SUPPLIED BY OTHERS.

3. WIND LOAD CALCULATIONS, TO MEET SOUTH FLORIDA WIND LOAD REQUIREMENTS, MUST BE PREPARED AND SUBMITTED AS PART OF THE SUBMITTAL PROCESS. SAID CALCULATIONS MUST BE SIGNED AND SEALED BY FLORIDA REGISTERED ENGINEER.

4. POINT-BY-POINT CALCULATIONS PROGRAM USED - VISUAL SERIAL # 5101 5260 4589 0193, VERSION 2.06.0211



SCALE: 3/32"=1'-0"

PROJECT NORTH

1
E-0P

HUFSEY ◦ NICOLAIDES ◦ GARCIA ◦ SUAREZ
CONSULTING ENGINEERS
HNGS # 13-0027
4800 SOUTH WEST 74 COURT
MIAMI, FLORIDA 33155 (305) 270-9935 Fax (305)666-5891
☐ ENRIQUE J. SUAREZ, P.E. (MECHANICAL) FL REG.#0015794
☐ CARLOS GARCIA, P.E. (ELECTRICAL) FL REG.#0014104

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Bender & Associates ARCHITECTS *p.a.*

Project N º 1310

SITE LIGHTING PHOTOMETRIC PLAN

Date: 6/30/14

E-0P

MILLENIUM EDGE™

MR13/MR17 SERIES – FLAT FACE LOW PROFILE

PROJECT INFORMATION

Job Name _____

Fixture Type _____

Catalog Number _____

Approved by _____

PRODUCT FEATURES:

» Surface mount – ceiling or wall;
13"Dia.×3"D (MR13FFL), 17"Dia.×4"D (MR17FFL)

» Peace of Mind Guarantee® against breakage available

» Dust and water protected to IP64 standards

» Full cut-off for IDA-Approved™ Dark Sky installations

» ADA compliant

SPECIFICATIONS:

BASEPLATE: Marine grade die-cast aluminum. Integral heat sinks. Baseplate flange interlocks and wraps around lens base producing maximum moisture deflection and resistance to prying. Baseplate provided with four-point mounting holes, one wireway hole and temporary junction box mounting breakouts. Standard black or white exterior TGIC polyester powder coat – 5-step pre-treatment. Dark bronze optional finish.

REFLECTOR: Full reflector/wire cover – 92% reflectivity.

LENS: UV-stabilized, high impact resistant, virgin injection molded polycarbonate. Close tolerance push/turn/lock-in-place mating of injection molded lens and lens base. Lens and lens base secured with one concealed captive Torx® with center pin fastener.

LENS BASE: Lens base shields lamp from viewing angles. High impact resistant, injection molded opaque black, bronze or white polycarbonate.

GASKETING: Die-cut, closed cell neoprene self adhesive gasket seals baseplate to mounting surface. Closed cell, silicone "O" ring gaskets positioned and friction secured in gasket channels of lens base, baseplate and optional surface adapter.

HARDWARE: One stainless steel Torx® with center pin fastener.

ELECTRICAL: Fluorescent magnetic ballasts – 120V/277V power factor corrected, fluorescent electronic 120/277/347 and dual voltage ballasts high power factor (<10%THD). Replaceable high-brightness ANSI 3500K (80 CRI min.), 4000K (70 CRI min.), or 5000K (70 CRI min.) white LED array. 120-277VAC, high power factor electronic driver. See options for higher CRI lamp availability.

WARRANTY: One (1) year warranty against defects in materials and workmanship.
Five (5) year warranty on LED lamps and driver for defects resulting in a fixture lumen depreciation of 30% or greater.

LISTINGS: Luminaire is certified to UL Standards by either Underwriters Laboratory or Intertek Testing Laboratory for wet location. (listing includes Emergency Battery Pack "EL" option). UL certified IP64 per IEC 60598. IESNA-designated full cut-off. IDA-Approved™ Dark-Sky Friendly Fixture. All Kenall SSL Luminaires are tested to the IESNA LM-79-08 standard requiring spectroradiometric measurements for CRI and CCT as well as goniophotometric measurements for lighting distributions and total luminous flux.

LED | PEACE OF MIND Guarantee® | c UL us | c ETL us | IP64 | ADA | ida

ORDERING INFORMATION (Ex: MR13FFD-PP-DB-20L50K-1-DCC-DV)

Model	Lens Type	Finish	Lamp Type	Lamp Qty	Lamp Type	Voltage	Options	Accessories
	PP							

Model
MR13FFL 13"Dia.
MR17FFL 17"Dia.

Lens Type
PP Pearlescent Polycarbonate

Finish
MB Matte Black
MW Matte White
DB Dark Bronze

Lamp Type (Qty/Ballast/Volt./Starting Temp)
20L35K 20 Watt 3500K LED (1/120-277V/-22°F) MR13FFL only
20L40K 20 Watt 4000K LED (1/120-277V/-22°F) MR13FFL only
20L50K 20 Watt 5000K LED (1/120-277V/-22°F) MR13FFL only
40L35K 40 Watt 3500K LED (1/120-277V/-22°F) MR17FFL only
40L40K 40 Watt 4000K LED (1/120-277V/-22°F) MR17FFL only
40L50K 40 Watt 5000K LED (1/120-277V/-22°F) MR17FFL only
40L57K 40 Watt 5700K LED (1/120-277V/-22°F) MR17FFL only

Lamp Type (Qty/Ballast/Voltage/Starting Temp)
7 7 Watt Twin (1,2/MB/120,277/0°F)
13 ▼ 13 Watt Twin (1,2/MB/120,32°F) (277V requires a diecast surface adapter)
13Q 13 Watt Quad (1,2/RS/120,277,347/0°F) (MR17FFL only)
18Q 18 Watt Quad (1,2/RS/120,277,347/0°F) (MR17FFL only)
26Q 26 Watt Quad (1,2/RS/120,277,347/0°F) (MR17FFL only)

Lamp Quantity
1 One Lamp
2 Two Lamps

Driver Type (LED only)
DCC Dimming Constant Current
SCC Standard Constant Current

Voltage
120 120 Volts
277 277 Volts
347▲ 347 Volts
DV▲ 120-277 Volts, electronic ballasts & LED driver only

Options
EL* One-Lamp WL Emergency Pack (32°F) with Die-Cast Surface Adapter (SA)- Non ADA
EL/SR*‡ One-Lamp WL Emergency Pack (32°F) with Recessed Backbox – ADA Compliant (n/a with 347V & LED)
LEL LED Emergency Battery Backup with Die-cast Surface Adapter (SA)- Non ADA
BPC Photo Control – Shielded Button Type (Requires Surface Adapter)
Adapter (SA) – Non ADA (120 or 277V only)
FS Single Fuse & Holder
NAT Natatorium Environment Option
R80 Minimum 80 CRI (4000K LED only)
RMP‡ Retrofit Mounting Plate (See Tech Sheet)
WMR‡ Wiremold 500 Ready (See Tech Sheet)

Accessories
SA Die-Cast Surface Adapter
9500 Torx® Screwdriver

* Max. 14 total system watts for MR13FFL or 36 total system watts for MR17FFL
▼ 277 volts surface adapter required
‡ n/a with Surface Adapter
▲ n/a with BPC

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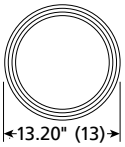
When you see this image, you will know the Kenall product shown or described is designed and manufactured in the USA with components purchased from US suppliers, and meets the Buy American requirements under the ARRA. Kenall has not determined the origin of its domestically purchased components or the subcomponents thereof.

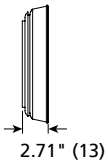
MILLENIUM EDGE™

MR13/MR17 SERIES – FLAT FACE LOW PROFILE HOUSING

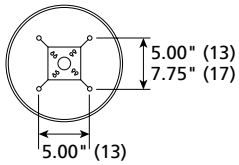
DIMENSIONAL DATA

FRONT & SIDE VIEW

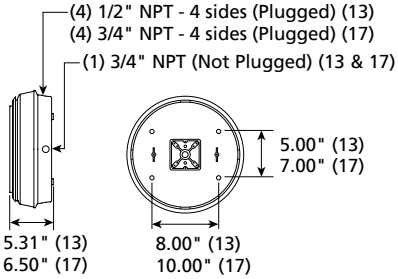




BACK VIEW



SURFACE ADAPTER (SA) SIDE & BACKVIEW



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MILLENIUM FINITE™

FN SERIES – LOW PROFILE

PROJECT INFORMATION

Job Name _____

Fixture Type _____

Catalog Number _____

Approved by _____

PRODUCT FEATURES:

» Surface wall mount; 9" & 15"

» Full cutoff Type II, III, IV or IVN optic patterns

» Dark-Sky friendly

» Designlights Consortium listed (DLC)

» Peace of Mind Guarantee®

FN9L **FN15L**

SPECIFICATIONS

HOUSING: High-impact resistant, UV-stabilized injection molded polycarbonate. Marine-grade die-cast aluminum ballast/driver housing.

DOOR: High-impact resistant, UV-stabilized injection molded polycarbonate with detachable hinge. Secured to housing with four (4) captive, recessed Torx® (or optional Phillips head) stainless steel screws. Lens sealed with closed-cell silicone gasket and secured to door frame with heavy gauge stainless steel brackets.

GASKETING: Closed cell, silicone "O" ring gasket seals joint between polycarbonate housing and die-cast aluminum ballast housing and joint between polycarbonate housing and polycarbonate lens frame assembly. Thick gauge, die-cut, closed cell neoprene with self-adhesive gasket seals joint between housing and mounting surface or accessory surface conduit adapter.

ELECTRICAL: LED: Replaceable high-brightness ANSI 4000K (65 CRI min.), 5000K (65 CRI min.), and 5700K (70 CRI min.) white LED array. See Options for higher CRI lamp availability. 120-277VAC High Power Factor Electronic Dimming Constant Current driver. Fluorescent electronic 120/277/347 and dual voltage ballasts high power factor (<10% THD), HID ballasts high power factor. Metal halide lamps utilize pulse start technology. Shock absorbing, medium base lamp sockets provided for HID lamps. See Lamp Type for electronic halide ballast option.

INSTALLATION: Fixture is factory pre-wired and includes gasketed, 16-gauge stainless steel quick mounting plate. Once four-point mounted to wall (required for Peace of Mind Guarantee®) or accessory surface conduit adapter, allows quick mounting with hook-and-lock mechanism. Quick mounting plate bolts to wall (fasteners by other), fixture attaches to mounting plate with two (2) captive Torx® (or optional Phillips head) screws, which are concealed but accessible from bottom.

SURFACE CONDUIT ADAPTER (ACCESSORY): Marine-grade die-cast aluminum construction includes die-cut gaskets and two ¾" threaded connection ports. Once four-point mounted to wall (required for Peace of Mind Guarantee®) allows same quick mounting (hook-and-lock) capability as described in the Installation section above.

PHOTOMETRICS: Photometry tested to the IESNA LM-79-08 standard by an ILAC/ISO17025 accredited laboratory. For additional photometric information, go to www.kenall.com.

WARRANTY: One (1) year warranty against defects in materials and workmanship. Five (5) year warranty on LED lamps and driver for defects resulting in a fixture lumen depreciation of 30% or greater.

LISTINGS: Luminaire is certified to UL Standards by either Underwriters Laboratory or Intertek Testing Laboratory for wet location. UL certified IP64 per IEC 60598. IESNA-designated full cut-off. IDA-Approved™ Dark-Sky Friendly Fixture. Product listed on Designlights Consortium QPL.

LED · PEACE OF MIND Guarantee® · ETL LISTED · cULus · IP64 · IDA APPROVED · DESIGNLIGHTS CONSORTIUM

ORDERING INFORMATION (Ex: FN9L-4-7-MB-26L50K-DV-FS)

Model	Optic System	Lens Type	Finish	Lamp Type	Lamp Qty	Voltage	Options	Accessories

Model
FN9L 9" Full Cutoff Low Profile
FN15L 15" Full Cutoff Low Profile

Optic System
2 Type II
3 Type III (LED only)
4 Type IV (LED only)
(Available with one lamp only on the 15")
4N Type IV Narrow (LED only)

Lens Type
7 .187" Clear Polycarbonate
(n/a with two lamps or HID)
A .250" Clear Tempered Glass (STD w/HID)

Finish
DB Dark Bronze
MB Matte Black
MW Matte White
CC Custom Color (Consult factory)

Lamp Type (Qty/Ballast/Volt/Starting Temp)
9"
26L40K 26 Watt 4000K LED
26L50K 26 Watt 5000K LED
26L57K 26 Watt 5700K LED
18Q 18 Watt Quad (2/RS/120/277,347/0°F)
26P 26 Watt PLT (1,2/RS/120/277,347/0°F)
32P 32 Watt PLT (1/RS/120/277,347/0°F)

15"
26L40K 26 Watt 4000K LED
26L50K 26 Watt 5000K LED
26L57K 26 Watt 5700K LED
50L40K 50 Watt 4000K LED
50L50K 50 Watt 5000K LED
50L57K 50 Watt 5700K LED
80L40K 80 Watt 4000K LED
80L50K 80 Watt 5000K LED
80L57K 80 Watt 5700K LED
26Q 26 Watt Quad (1,2/RS/120,277,347/0°F)
32P 32 Watt PLT (1,2/RS/120,277,347/0°F)
42P 42 Watt PLT (1,2/RS/120,277,347/0°F)
50M 50 Watt MH (1/HPF/120,277,347/-20°F)
50S 50 Watt HPS (1/HPF/120,277,347/-40°F)
70M 70 Watt MH (1/HPF/120,277,347/-20°F)
70ME 70 Watt MH (1/EB/120,277/-20°F)
70S 70 Watt HPS (1/HPF/120,277,347/-40°F)

Lamp Quantity (See Lamp Type)
1 One Lamp
2* Two Lamps

Voltage
120 120 Volts
277 277 Volts
347* 347 Volts
DV 120-277 Volts (fluorescent or LED only)

Options
LEL Integral Emergency Battery Backup
(Available with FN15L, 26 Watt LED only)
2C Two Circuit Wiring (2 Lamp Quantity only) (n/a in LED)
FS Single Fuse & Holder
PH Phillips Head Fasteners
QRC Hot/Cold Quartz Restrike (15" only) (HID only)
QS2 Two Quartz sockets (max. 50W ea.) (15" only) (HID only)

Accessories
50QL 50 Watt DC Bayonet Base Quartz Lamp (15" only)
9500 Torx® Screwdriver
SA Die-Cast Surface Adapter

* n/a with LED Option

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MILLENIUM FINITE™

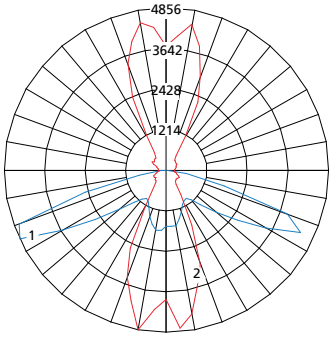
FN SERIES – Technical Data

PERFORMANCE

		Initial Delivered Lumens (lm)							
Model	Lamp Type	Type 2	Type 3	Type 4	Type 4N	Efficacy (lm/W)	Input Power (W)	Drive Current (mA)	Estd. L_{70} LED Life (hrs)
FN9L	26L40K	1699	1741	1695	1783	58-61	29	350	60,000
	26L50K	1811	1855	1806	1900	62-66	29	350	60,000
	26L57K	1936	1983	1931	2031	67-70	29	350	60,000
FN15L	26L40K	1769	1907	1842	1788	61-66	29	350	60,000
	26L50K	1884	2032	1963	1905	65-70	29	350	60,000
	26L57K	2015	2172	2098	2037	69-75	29	350	60,000
	50L40K	3685	3618	3705	3556	65-67	55	350	60,000
	50L50K	3927	3856	3948	3789	69-72	55	350	60,000
	50L57K	4199	4122	4221	4057	74-77	55	350	60,000
	80L40K	4653	4569	4679	4490	58-61	77	525	50,000
	80L50K	4958	4868	4985	4784	62-65	77	525	50,000
	80L57K	5301	5205	5330	5115	66-69	77	525	50,000

Information above was tested with the Clear Polycarbonate lens. Subject to change without notice. Visit www.kenall.com for IES files and additional information.

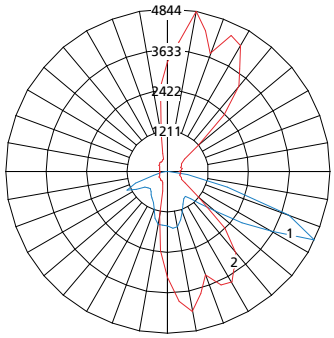
Model: FN15L-2-7-xx-80L50K-DV



Maximum Candela = 4856 Located At Horizontal Angle = 260, Vertical Angle = 65

1 - Vertical Plane Through Horizontal Angles (260-80) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

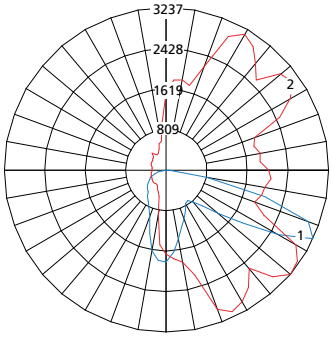
Model: FN15L-3-7-xx-80L50K-DV



Maximum Candela = 4844 Located At Horizontal Angle = 80, Vertical Angle = 65

1 - Vertical Plane Through Horizontal Angles (80-260) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

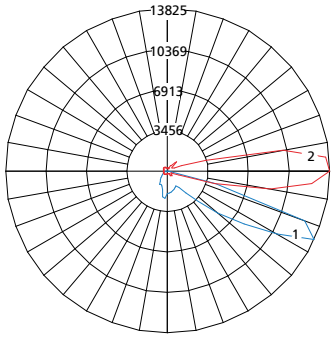
Model: FN15L-4-7-xx-80L50K-DV



Maximum Candela = 3237 Located At Horizontal Angle = 320, Vertical Angle = 65

1 - Vertical Plane Through Horizontal Angles (320-140) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

Model: FN15L-4N-7-xx-80L50K-DV



Maximum Candela = 13825 Located At Horizontal Angle = 0, Vertical Angle = 65

1 - Vertical Plane Through Horizontal Angles (0-180) (Through Max. Cd.)
2 - Horizontal Cone Through Vertical Angle (65) (Through Max. Cd.)

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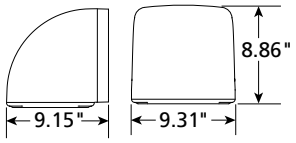
MILLENIUM FINITE™

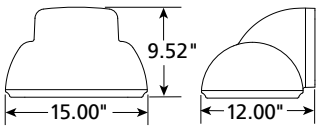
FN SERIES – Technical Data

DIMENSIONAL DATA

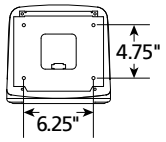
FN9L CROSS SECTION



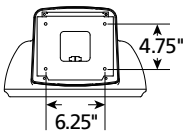
FN15L CROSS SECTION



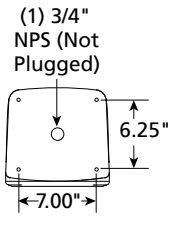
MOUNTING HOLES



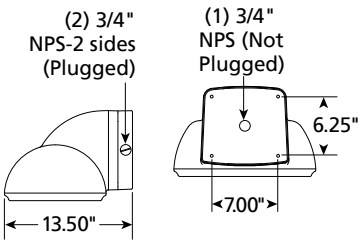
MOUNTING HOLES



SURFACE ADAPTER



SURFACE ADAPTER



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D-Series Size 1
LED Area Luminaire

d-series

Catalog Number

Notes

Type

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

Specifications

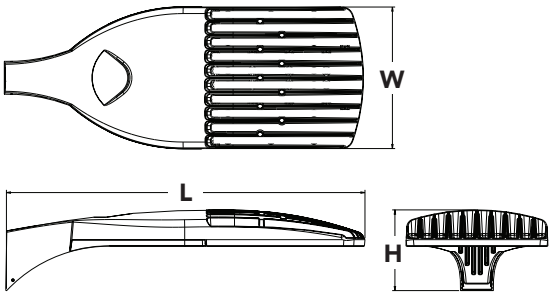
EPA: 1.2 ft² (0.11 m²)

Length: 33" (83.8 cm)

Width: 13" (33.0 cm)

Height: 7-1/2" (19.0 cm)

Weight (max): 27 lbs (12.2 kg)



Introduction

The modern styling of the D-Series is striking yet unobtrusive - making a bold, progressive statement even as it blends seamlessly with its environment.

The D-Series distills the benefits of the latest in LED technology into a high performance, high efficacy, long-life luminaire. The outstanding photometric performance results in sites with excellent uniformity, greater pole spacing and lower power density. It is ideal for replacing 100 – 400W metal halide in pedestrian and area lighting applications with typical energy savings of 65% and expected service life of over 100,000 hours.

Ordering Information

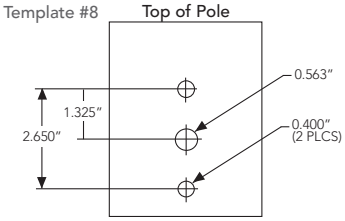
EXAMPLE: DSX1 LED 60C 1000 40K T3M MVOLT SPA DDBXD

DSX1 LED

Series	LEDs	Drive current	Color temperature	Distribution	Voltage	Mounting	Control options	Other options	Finish *(required)*
DSX1 LED	**Forward optics** 30C 30 LEDs (one engine) 40C 40 LEDs (two engines) 60C 60 LEDs (two engines) **Rotated optics** [1] 60C 60 LEDs (two engines)	530 530 mA 700 700 mA 1000 1000 mA (1 A)	30K 3000 K (80 CRI min.) 40K 4000 K (70 CRI min.) 50K 5000 K(70 CRI) AMBPC Amber phosphor converted [2]	T1S Type I short T2S Type II short T2M Type II medium T3S Type III short T3M Type III medium T4M Type IV medium TFTM Forward throw medium T5VS Type V very short T5S Type V short T5M Type V medium T5W Type V wide	MVOLT [3] 120 [3] 208 [3] 240 [3] 277 [3] 347 [4] 480 [4]	**Shipped included** SPA Square pole mounting RPA Round pole mounting WBA Wall bracket SPUMBA Square pole universal mounting adaptor [5] RPUMBA Round pole universal mounting adaptor [5] KMA8 DDBXD U Mast arm mounting bracket adaptor (specify finish) [6]	**Shipped installed** PER NEMA twist-lock receptacle only (no controls) [7] DMG 0-10V dimming driver (no controls) [8] DCR Dimmable and controllable via ROAM® (no controls) [9] DS Dual switching [10,11] PIR Motion sensor, 8-15' mounting height [12] PIRH Motion sensor, 15-30' mounting height [12] BL30 Bi-level switched dimming, 30% [11,13] BL50 Bi-level switched dimming, 50% [11,13]	**Shipped installed** HS House-side shield [14] WTB Utility terminal block [15] SF Single fuse (120, 277, 347V) [16] DF Double fuse (208, 240, 480V) [16] L90 Left rotated optics [17] R90 Right rotated optics [17]	DDBXD Dark bronze DBLXD Black DNAXD Natural aluminum DWHXD White DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

Drilling

Template #8 — Top of Pole



DSX1 shares a unique drilling pattern with the AERIS™ family. Specify this drilling pattern when specifying poles, per the table below.

DM19AS	Single unit	**DM29AS**	2 at 90° *
DM28AS	2 at 180°	**DM39AS**	3 at 90° *
DM49AS	4 at 90° *	**DM32AS**	3 at 120° **

Example: SSA 20 4C **DM19AS** DDBXD

Visit Lithonia Lighting's POLES CENTRAL to see our wide selection of poles, accessories and educational tools.

**Round pole top must be 3.25" O.D. minimum.*
***For round pole mounting (RPA) only.*

Accessories

Ordered and shipped separately.

DLL127F 1.5 JU	Photocell - SSL twist-lock (120-277V) [18]
DLL347F 1.5 CUL JU	Photocell - SSL twist-lock (347V) [18]
DLL480F 1.5 CUL JU	Photocell - SSL twist-lock (480V) [18]
SC U	Shorting cap [18]
DSX1HS 30C U	House-side shield for 30 LED unit
DSX1HS 40C U	House-side shield for 40 LED unit
DSX1HS 60C U	House-side shield for 60 LED unit
PUMBA DDBXD U*	Square and round pole universal mounting bracket adaptor (specify finish)
KMA8 DDBXD U	Mast arm mounting bracket adaptor (specify finish) [6]

For more control options, visit DTL and ROAM online.

Tenon Mounting Slipfitter**

Tenon O.D.	Single Unit	2 at 180°	2 at 90°	3 at 120°	3 at 90°	4 at 90°
2-3/8"	AST20-190	AST20-280	N/A	N/A	N/A	N/A
2-7/8"	AST25-190	AST25-280	N/A	AST25-320	N/A	N/A
4"	AST35-190	AST35-280	AST35-290	AST35-320	AST35-390	AST35-490

NOTES

1. Rotated optics only available with 60C.
2. AMBPC only available with 530mA or 700mA.
3. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options).
4. Not available with single board, 530mA product (30C 530, or 60C 530 DS). Not available with DCR, BL30 or BL50.
5. Available as a separate combination accessory: PUMBA (finish) U.
6. Requires "SPA" mounting option. Must be ordered as a separate accessory; see Accessories information. For use with 2-3/8" mast arm (not included).
7. Photocell ordered and shipped as a separate line item from Acuity Brands Controls. See accessories. Not available with DS option.
8. DMG option for 347v or 480v requires 1000mA
9. Specifies a ROAM® enabled luminaire with 0-10V dimming capability; PER option required. Not available with 347 or 480V. Additional hardware and services required for ROAM® deployment; must be purchased separately. Call 1-800-442-6745 or email: sales@roamservices.net. N/A with BL30, BL50, DS, PIR or PIRH.
10. Requires 40C or 60C. Provides 50/50 luminaire operation via two independent drivers on two separate circuits. N/A with PER, DCR, WTB, PIR, or PIRH.
11. Requires an additional switched circuit.
12. PIR specifies the SensorSwitch SBGR-10-ODP control; PIRH specifies the SensorSwitch SBGR-6-ODP control; see Motion Sensor Guide for details. Dimming driver standard. Not available with DS or DCR.
13. Dimming driver standard. MVOLT only. Not available with DCR.
14. Also available as a separate accessory; see Accessories information.
15. WTB not available with DS.
16. Single fuse (SF) requires 120, 277 or 347 voltage option. Double fuse (DF) requires 208, 240 or 480 voltage option.
17. Available with 60 LEDs (60C option) only.
18. Requires luminaire to be specified with PER option. Ordered and shipped as a separate line item from Acuity Brands Control.

LITHONIA LIGHTING

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Performance Data

Lumen Output

Lumen values are from photometric tests performed in accordance with IESNA LM-79-08. Data is considered to be representative of the configurations shown, within the tolerances allowed by Lighting Facts. Actual performance may differ as a result of end-user environment and application. Actual wattage may differ by +/- 8% when operating between 120-480V +/-10%. Contact factory for performance data on any configurations not shown here.

LEDs	Drive Current (mA)	System Watts	Dist. Type	30K (3000 K, 80 minimum CRI)					40K (4000 K, 70 minimum CRI)					50K (5000 K, 70 CRI)				
				Lumens	B	U	G	LPW	Lumens	B	U	G	LPW	Lumens	B	U	G	LPW
30C (30 LEDs)	700 mA	68 W	T1S	5,290	1	0	1	78	6,524	2	0	2	96	7,053	2	0	2	104
			T2S	5,540	1	0	1	81	6,833	2	0	2	100	7,387	2	0	2	109
			T2M	5,360	1	0	2	79	6,611	2	0	2	97	7,147	2	0	2	105
			T3S	5,479	1	0	1	81	6,757	1	0	2	99	7,305	2	0	2	107
			T3M	5,452	1	0	2	80	6,724	2	0	2	99	7,269	2	0	2	107
			T4M	5,461	1	0	2	80	6,736	2	0	2	99	7,282	2	0	2	107
			TFTM	5,378	1	0	2	79	6,633	1	0	2	98	7,171	1	0	2	105
			T5VS	5,708	2	0	0	84	7,040	3	0	0	104	7,611	3	0	1	112
			T5S	5,639	2	0	0	83	6,955	2	0	0	102	7,519	3	0	0	111
			T5M	5,710	3	0	1	84	7,042	3	0	1	104	7,613	3	0	2	112
			T5W	5,551	3	0	1	82	6,847	3	0	2	101	7,401	3	0	2	109
	1000 mA	105 W	T1S	7,229	2	0	2	69	9,168	2	0	2	87	9,874	2	0	2	94
			T2S	7,572	2	0	2	72	9,603	2	0	2	91	10,342	2	0	2	98
			T2M	7,325	2	0	2	70	9,291	2	0	2	88	10,005	2	0	3	95
			T3S	7,488	2	0	2	71	9,496	2	0	2	90	10,227	2	0	2	97
			T3M	7,451	2	0	2	71	9,450	2	0	2	90	10,177	2	0	2	97
			T4M	7,464	2	0	2	71	9,467	2	0	2	90	10,195	2	0	2	97
			TFTM	7,351	1	0	2	70	9,323	2	0	2	89	10,040	2	0	3	96
			T5VS	7,801	3	0	1	74	9,894	3	0	1	94	10,655	3	0	1	101
			T5S	7,803	3	0	2	74	9,774	3	0	1	93	10,526	3	0	1	100
			T5M	7,707	3	0	0	73	9,897	3	0	2	94	10,658	4	0	2	102
			T5W	7,586	3	0	2	72	9,621	4	0	2	92	10,363	4	0	2	99
40C (40 LEDs)	700 mA	89 W	T1S	6,876	2	0	2	77	8,639	2	0	2	97	9,345	2	0	2	105
			T2S	7,202	2	0	2	81	9,049	2	0	2	102	9,788	2	0	2	110
			T2M	6,968	2	0	2	78	8,755	2	0	2	98	9,469	2	0	3	106
			T3S	7,122	2	0	2	80	8,948	2	0	2	101	9,679	2	0	2	109
			T3M	7,088	2	0	2	80	8,905	2	0	2	100	9,632	2	0	2	108
			T4M	7,100	2	0	2	80	8,920	2	0	2	100	9,649	2	0	2	108
			TFTM	6,992	1	0	2	79	8,785	2	0	2	99	9,502	2	0	2	107
			T5VS	7,421	3	0	0	83	9,323	3	0	1	105	10,085	3	0	1	113
			T5S	7,331	2	0	0	82	9,210	3	0	1	103	9,962	3	0	1	112
			T5M	7,423	3	0	2	83	9,326	3	0	2	105	10,087	4	0	2	113
			T5W	7,216	3	0	2	81	9,066	4	0	2	102	9,807	4	0	2	110
	1000 mA	138 W	T1S	9,521	2	0	2	69	11,970	2	0	2	87	12,871	3	3	0	93
			T2S	9,972	2	0	2	72	12,558	3	0	3	91	13,481	3	0	3	98
			T2M	9,648	2	0	3	70	12,149	3	0	3	88	13,043	3	0	3	95
			T3S	9,862	2	0	2	71	12,418	2	0	2	90	13,331	2	0	2	97
			T3M	9,814	2	0	2	71	12,358	3	0	3	90	13,267	3	0	3	96
			T4M	9,831	2	0	2	71	12,379	2	0	3	90	13,290	2	0	3	96
			TFTM	9,681	2	0	2	70	12,191	2	0	3	88	13,087	2	0	3	95
			T5VS	10,275	3	0	1	74	12,937	3	0	1	94	13,890	4	0	1	101
			T5S	10,150	3	0	1	74	12,782	3	0	1	93	13,721	3	0	1	99
			T5M	10,278	4	0	2	74	12,942	4	0	2	94	13,894	4	0	2	101
			T5W	9,991	4	0	2	72	12,582	4	0	2	91	13,507	4	0	2	98
60C (60 LEDs)	700 mA	131 W	T1S	10,226	2	0	2	78	12,871	3	0	3	98	13,929	3	0	3	106
			T2S	10,711	2	0	2	82	13,481	3	0	3	103	14,589	3	0	3	111
			T2M	10,363	2	0	3	79	13,043	3	0	3	100	14,115	3	0	3	108
			T3S	10,592	2	0	2	81	13,331	2	0	2	102	14,427	3	0	3	110
			T3M	10,541	2	0	2	80	13,267	3	0	3	101	14,357	3	0	3	110
			T4M	10,559	2	0	2	81	13,290	2	0	3	101	14,382	3	0	3	110
			TFTM	10,398	2	0	3	79	13,087	2	0	3	100	14,163	2	0	3	108
			T5VS	11,036	3	0	1	84	13,890	4	0	4	106	15,032	4	0	1	115
			T5S	10,902	3	0	1	83	13,721	3	0	1	105	14,849	4	0	1	113
			T5M	11,039	4	0	2	84	13,894	4	0	2	106	15,036	4	0	2	115
			T5W	10,732	4	0	2	82	13,507	4	0	2	103	14,617	4	0	2	112
	1000 mA	209 W	T1S	14,017	3	0	3	67	17,632	3	0	3	84	19,007	3	0	3	91
			T2S	14,681	3	0	3	70	18,467	3	0	3	88	19,908	3	0	3	95
			T2M	14,204	3	0	3	68	17,867	3	0	3	85	19,260	3	0	3	92
			T3S	14,518	3	0	3	69	18,262	3	0	3	87	19,687	3	0	3	94
			T3M	14,448	3	0	3	69	18,173	3	0	4	87	19,591	3	0	4	94
			T4M	14,473	3	0	3	69	18,205	3	0	3	87	19,625	3	0	4	94
			TFTM	14,253	2	0	3	68	17,928	3	0	4	86	19,326	3	0	4	92
			T5VS	15,127	4	0	1	72	19,028	4	0	1	91	20,512	4	0	1	98
			T5S	14,943	4	0	1	71	18,797	4	0	1	90	20,263	4	0	1	97
			T5M	15,131	4	0	2	72	19,033	4	0	2	91	20,517	5	0	3	98
			T5W	14,710	4	0	2	70	18,503	5	0	3	89	19,946	5	0	3	95

Note: Available with phosphor-converted amber LED's (nomenclature AMBPC). These LED's produce light with 97+% >530 nm. Output can be calculated by applying a 0.7 factor to 4000 K lumen values and photometric files.

Performance Data

Lumen Ambient Temperature (LAT) Multipliers

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

Ambient		Lumen Multiplier
0°C	32°F	1.02
10°C	50°F	1.01
20°C	68°F	1.00
25°C	**77°F**	**1.00**
30°C	86°F	1.00
40°C	104°F	0.99

Electrical Load

			Current (A)					
Number of LEDs	Drive Current (mA)	System Watts	120	208	240	277	347	480
30	530	52	0.52	0.30	0.26	0.23	--	--
	700	68	0.68	0.39	0.34	0.30	0.24	0.17
	1000	105	1.03	0.59	0.51	0.45	0.36	0.26
40	530	68	0.67	0.39	0.34	0.29	0.23	0.17
	700	89	0.89	0.51	0.44	0.38	0.31	0.22
	1000	138	1.35	0.78	0.67	0.58	0.47	0.34
60	530	99	0.97	0.56	0.48	0.42	0.34	0.24
	700	131	1.29	0.74	0.65	0.56	0.45	0.32
	1000	209	1.98	1.14	0.99	0.86	0.69	0.50

Projected LED Lumen Maintenance

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

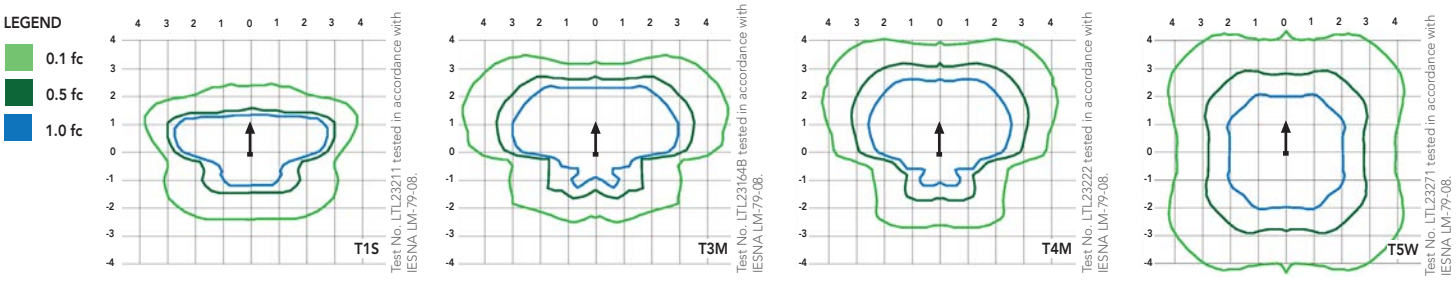
To calculate LLF, use the lumen maintenance factor that corresponds to the desired number of operating hours below. For other lumen maintenance values, contact factory.

Operating Hours	0	25,000	50,000	100,000
Lumen Maintenance Factor	DSX1 LED 60C 1000			
	1.0	0.95	0.93	0.88
	DSX1 LED 60C 700			
	1.0	0.99	0.98	0.96

Photometric Diagrams

To see complete photometric reports or download .ies files for this product, visit Lithonia Lighting's D-Series Area Size 1 homepage.

Isofootcandle plots for the DSX1 LED 60C 1000 40K. Distances are in units of mounting height (20').



FEATURES & SPECIFICATIONS

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

CONSTRUCTION
Single-piece die-cast aluminum housing has integral heat sink fins to optimize thermal management through conductive and convective cooling. Modular design allows for ease of maintenance and future light engine upgrades. The LED driver is mounted in direct contact with the casting to promote low operating temperature and long life. Housing is completely sealed against moisture and environmental contaminants (IP65). Low EPA (1.2 ft^2) for optimized pole wind loading.

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

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

ELECTRICAL
Light engine configurations consist of 30, 40 or 60 high-efficacy LEDs mounted to metal-core circuit boards to maximize heat dissipation and promote long life (up to L96/100,000 hours at 25°C). Class 1 electronic drivers are designed to have a power factor >90%, THD <20%, and an expected life of 100,000 hours with <1% failure rate. Easily serviceable 10kV or 6kV surge protection device meets a minimum Category C Low operation (per ANSI/IEEE C62.41.2).

INSTALLATION
Included mounting block and integral arm facilitate quick and easy installation. Stainless steel bolts fasten the mounting block securely to poles and walls, enabling the D-Series Size 1 to withstand up to a 3.0 G vibration load rating per ANSI C136.31. The D-Series Size 1 utilizes the AERIS™ series pole drilling pattern. Optional terminal block, tool-less entry, and NEMA photocontrol receptacle are also available.

LISTINGS
UL Listed for wet locations. Light engines are IP66 rated; luminaire is IP65 rated. Rated for -40°C minimum ambient. U.S. Patent No. D672,492 S. International patent pending.

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

WARRANTY
Five-year limited warranty. Full warranty terms located at:
www.acuitybrands.com/CustomerResources/Terms_and_conditions.aspx

Note: Specifications subject to change without notice.

LITHONIA LIGHTING

D-Series LED Bollard Luminaire

Designed to Perform. Built to Last. The D-Series LED Bollard is designed to perform the way a bollard should – with zero uplight. An optical leap forward, this luminaire will meet the most stringent of lighting codes. The D-Series LED Bollard's rugged construction, durable finish and long-lasting LEDs will provide years of maintenance-free service.

Quick **FACTS**

- Replaces up to 100W MH
- Lumen packages up to 2,245 lumens
- Input watts from 16 - 39W
- Asymmetric and Symmetric optical distributions
- Available in 3000K, 4000K & 5000K CCT
- Super durable finish for enhanced color and gloss retention

Key **FEATURES**

- Energy savings of 70% vs. 100W metal halide bollards
- 20+ years expected service life with outstanding lumen maintenance
- Sturdy 8" aluminum shaft is rugged and durable, matching existing bollard dimensions while lasting much longer
- Three-point mounting is both secure and adjustable, allowing for easy leveling and 360° rotation during installation
- Optional cold temperature (-20C) emergency battery backup provides illumination along paths of egress during times of power loss

D-SERIES LED BOLLARD		
DISTRIBUTION	SYMMETRIC	ASYMMETRIC
LUMENS (4000K)	2,064	1,588
INPUT WATTS	39W	31W

d-series
better lighting from every angle™

AcuityBrands.

D-Series LED Bollard Luminaire

ORDERING INFORMATION

EXAMPLE: DSXB LED 16C 700 40K SYM MVOLT DDBXD

DSXB LED								
Series	**LEDs**	**Drive current**	**Color temperature**	**Distribution**	**Voltage**	**Control options**	**Other options**	**Finish** (required)
DSXB LED	**Asymmetric** 12C 12 LEDs[1] **Symmetric** 16C 16 LEDs[2]	350 350 mA 450 450 mA[3] 530 530 mA 700 700 mA	30K 3000K 40K 4000K 50K 5000K AMBLW Amber limited wavelength[4]	ASY Asymmetric[1] SYM Symmetric[2]	MVOLT[5] 120[5] 208[5] 240[5] 277[5] 347	**Shipped installed** PE Photoelectric cell, button type DMG 0-10V dimming driver (no controls) ELCW Emergency battery backup[6]	**Shipped installed** SF Single fuse (120, 277, 347V)[7] DF Double fuse (208, 240V)[7] H24 24" overall height H30 30" overall height H36 36" overall height FG Ground-fault festoon outlet L/AB Without anchor bolts	DWHXD White DNAXD Natural aluminum DDBXD Dark bronze DBLXD Black DDBTXD Textured dark bronze DBLBXD Textured black DNATXD Textured natural aluminum DWHGXD Textured white

Accessories

Ordered and shipped separately.

MRAB U Anchor bolts for DSXB

NOTES

1. Only available in the 12C, ASY version.
2. Only available in the 16C, SYM version.
3. 450mA is only available with AMBLW.
4. AMBLW is only available with 450mA.
5. MVOLT driver operates on any line voltage from 120-277V (50/60 Hz). Specify 120, 208, 240 or 277 options only when ordering with fusing (SF, DF options), or photocontrol (PE option).
6. Not available with 347V.
7. Single fuse (SF) requires 120, 277, or 347 voltage option. Double fuse (DF) requires 208 or 240 voltage option.

LITHONIA LIGHTING

One Lithonia Way | Conyers, Georgia 30012 | Phone: 800.279.8041 | Fax: 770.918.1209 | www.lithonia.com

BILTMORE
CONSTRUCTION

August 19, 2014

Bender & Associates
Haven Burkee

Please see my responses below to Donna Bosold's e-mail received earlier today 8/19/14.

Please see the anticipated dates listed below for the Keys Energy Services Renovation project located at 1001 James Street Key West, FL.

1. Anticipated date for City Commission Approval September 16, 2014
2. Anticipated date for Appeal date Closure November 4, 2014
3. Anticipated date of GMP completion October 1, 2014
4. Anticipated date of GMP Approval October 15, 2014
5. Anticipated date of Permit Submittal October 15, 2014
6. Anticipated date of Construction Commencement January 4, 2015
7. Anticipated date of Construction Completion March 30, 2016
8. Anticipated date of Occupancy April 4, 2016

At this time Biltmore Construction Co., Inc. does not anticipate any weekend or Holiday work on this project. If weekend work is needed it will be performed within restricted working hours of 8:00am to 4:00pm.

Biltmore Construction co., Inc will be installing construction site fencing around the entire site with a dust and site screening attached.

Respectfully

Tony Jenkins
Biltmore Construction Co., Inc.

1055 Ponce de Leon Boulevard – Belleair, Florida 33756 – 727.585.2084 - Fax 727.585.2088