

SECTION 07410

METAL WALL PANELS

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and Division-1 Specification sections, apply to work specified in this section.

1.02 SECTION INCLUDES

- A. Foamed insulation core horizontal and vertical metal wall panel assembly with integral reveals and profiled panels, and related trim and accessories; CENTRIA Formawall Dimension Series.
- B. Secondary metal framing support system.

1.03 RELATED REQUIREMENTS

- A. Section 07900 - Joint Sealers.

1.04 REFERENCE STANDARDS

- A. ASTM A 653 - Specification for Steel Sheet, Zinc-Coated (Galvanized) or Zinc-Iron Alloy-Coated (Galvannealed) by the Hot-Dip Process.
- B. ASTM A 755 - Specification for Steel Sheet, Metallic Coated by the Hot-Dip Process and Prepainted by the Coil-Coating Process for Exterior Exposed Building Products.
- C. ASTM C 1363 - Standard Test Method for thermal performance of building materials and envelope assemblies by means of a Hot Box Apparatus.
- D. ASTM C 920 - Specification for Elastomeric Joint Sealants.
- E. ASTM E 72 - Standard Test Methods of Conducting Strength Tests of Panels for Building Construction.
- F. ASTM E 84 - Test Methods for Surface Burning Characteristics of Building Materials.
- G. ASTM E 96 - Test Methods for Water Vapor Transmission of Materials.
- H. ASTM E 119 - Test Methods for Fire Tests of Building Construction and Materials.
- I. ASTM E 283 - Test Method for Determining the Rate of Air Leakage Through Exterior Windows, Curtain Walls, and Doors under Specified Pressure Differences across the Specimen.
- J. AAMA 501.1 - Standard Test Method for Exterior Windows, Curtain Walls and Doors for Water Penetration Using Dynamic Pressure.
- K. AAMA 501.2 - Quality Assurance and Diagnostic Water Leakage Field Check of Installed Storefronts, Curtain Walls and Sloped Glazing Systems.
- L. AAMA 508-07 - Voluntary Test Method and Specification for Pressure Equalized Rain Screen Wall Cladding Systems.
- M. AAMA 605.2 - Voluntary Specification for High Performance Organic Coatings.
- N. AAMA 2605 - Voluntary Specification, Performance Requirements and Test Procedures for Superior Performing Organic Coatings on Aluminum Extrusions and Panels.
- O. ASCE 7- Minimum Design Loads for Buildings and Other Structures.
- P. ANSI/FMG 4880 Standard for Evaluating Insulated Wall & Roof/Ceiling Assemblies.

1.05 PERFORMANCE REQUIREMENTS

- A. Air Infiltration: Maximum 0.06 cfm/sf (0.3 L/s per sq. m) per ASTM E 283 at a static-air-pressure difference of 6.24 lbf/sf (300 Pa), using minimum 10 feet by 10 feet (3050 mm by 3050 mm) test panel that includes horizontal and vertical joints.
- B. Water Penetration:
 - 1. Wall panel system for this application shall perform to ASTM E331 for static pressures and AAMA 501.1 for dynamic pressures at 15psf.
 - 2. Standard horizontal and vertical joints shall perform to ASTM E331 for static pressure at 40 psf on a minimum 10 foot by 10 foot laboratory mockup.
 - 3. Horizontal joint design shall demonstrate pressure equalization in accordance with AAMA 508-07, which includes static and dynamic testing with imperfect air barriers. A third party test indicating successful passing of this test must be submitted prior to bid.
 - a. Bidders supplying Panel systems that have not successfully passed AAMA508-07 shall provide a backup system consisting of 5/8" exterior grade gypsum and a membrane that meets the air and water infiltration values as listed in above in section 1.4 A & 1.4 B.
- C. Structural Performance: Provide metal wall panel assemblies capable of withstanding the effects of indicated loads and stresses within limits and under conditions indicated, per ASTM E 72:
 - 1. Wind Loads: Determine loads based on uniform pressure indicated on Drawings or calculated per IBC 2003 whichever is more stringent.
 - 2. Deflection Limits: Withstand test pressures of inward and outward wind-load design pressures with maximum deflection of L/180 of the span with no failure.
 - 3. Secondary Framing: Design secondary framing system according to AISI "Standard for Cold-Formed Steel Framing - General Provisions." Provide bearing surface for metal wall panels at the following locations:
 - a. Horizontal Panel System: At vertical joints 4 inches minimum (102 mm).
 - b. Vertical Panel System: At horizontal stack joints 4 inches minimum (102 mm).

1.06 SUBMITTALS

- A. Product Data: Manufacturer's data sheets for metal wall panels and accessories.
- B. Product Test Reports: Indicating compliance of products with requirements, from a qualified independent testing agency.
- C. Shop Drawings: Prepared by manufacturer or factory trained authorized dealer. Include elevations showing metal wall panels, and details of each condition of installation and attachment. Indicate coordination dimensions related to structural support system elements provided by others.
- D. Verification Samples: For each finish product specified, two samples, minimum size 6 inches (150 mm) square, representing actual product, color, and patterns.

1.07 QUALITY ASSURANCE

- A. Manufacturer/Source: Provide metal wall panel system and panel accessories from a single manufacturer.
- B. Installer Qualifications: Experienced Installer with minimum of 5 successful completed projects of similar materials and scope, approved by manufacturer, and employing workers trained by manufacturer to install specified products.
- C. Fire Resistance Ratings: Where indicated by design designations, provide metal wall panels tested per ASTM E 119 or UL Standard 263 by a testing and inspecting agency acceptable to authorities having jurisdiction.

1.08 MOCK-UP

- A. Provide a mock-up for evaluation of surface preparation techniques and application workmanship.
 - 1. Do not proceed with remaining work until workmanship, color, and sheen are approved by Architect.
 - 2. Refinish mock-up area as required to produce acceptable work.

1.09 DELIVERY, STORAGE, AND HANDLING

- A. Protect panels from accelerated weathering by removing or venting sheet plastic shipping wrap.
- B. Store prefinished material off ground and protected from weather. Prevent twisting, bending, or abrasion, and provide ventilation to stored materials. Slope metal sheets to ensure drainage.
- C. Prevent contact with materials that may cause discoloration or staining of products.

1.10 WARRANTY

- A. Standard Manufacturer's Warranty: Manufacturer shall warrant for a period of two years that the wall system materials will be free from defects. The wall systems contractor shall warrant for a period of one year that the installation workmanship will be free from defects.
- B. Special Panel Finish Warranty: On manufacturer's standard form, in which manufacturer agrees to repair or replace metal wall panels that evidence deterioration of fluoropolymer finish within 20 years from date of Substantial Completion.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Centria;; Product Formawall System.(Basis of Design)

2.02 FOAMED INSULATION CORE METAL WALL PANELS

- A. Panel System Product:
 - 1. FormaWall Dimension Series 2 (2 inches (51 mm) thick panel).
 - 2. Factory-foamed horizontal and vertical wall panel system consisting of an exterior metal sheet with interior metal liner panel, bonded to factory foamed-in-place core in thermally-separated profile, with factory sealed tongue-and-groove and rainscreen-design pressure-equalized-chamber horizontal joint, and attached to supports using concealed fasteners.
 - 3. Foamed Insulation Core: Urethane or isocyanurate, density 2.7 lb/cu. ft. min (43.4 kg/cu. m), min compressive strength 20 lb/sq. in. (137.9 kPa), and containing no CFC or HCFC compounds.
 - 4. Thermal performance of the wall panels shall be based on tests in accordance with ASTM C236 corrected to 15 mph outside and still air inside. Tests shall include side-joint, standard fastening and integral reveals or profiling. Where reveals exceed the standards, the manufacturer shall provide similar testing to document any adjustments required to the standard conditions.
 - a. R value for Series 2 flat panel shall be 14.
- B. Face Sheet:
 - 1. Steel Thickness: 24 gage (0.024 inches (0.60 mm)).
- C. Panel System Design:
 - 1. Panel Width and Length: Refer to the Drawings.
- D. Trim: Same material, thickness and finish as exterior sheets; brake formed to required profiles.
- E. Anchors: Stainless steel.

2.03 MATERIALS

- A. Metallic-Coated Steel Face Sheet, Coil Coated: ASTM A 755/A 755M.
 - 1. Zinc-Coated (Galvanized) Steel Face Sheet: ASTM A 653/A 653M, G90, structural quality.
 - a. Finish: Standard fluoropolymer two-coat system consisting of 0.2 mil primer with 0.8 mil 70 percent PVDF fluoropolymer color coat. Color to be selected from full range of all colors and finishes.

2.04 ACCESSORIES

- A. Metal Wall Panel Accessories:
 - 1. Provide complete metal wall panel assembly including trim, copings, fascia, parapet caps, soffits, sills, inside and outside corners, jambs, and miscellaneous flashings. Include required fasteners, gaskets, closure strips, and sealants.
 - 2. Fabricate accessories listed above from aluminum extrusions, 6063-T5 unless noted otherwise on the Drawings.
 - 3. Finish exposed trim and extrusions to match panels.

2.05 MISCELLANEOUS MATERIALS

- A. Fasteners: Self-tapping screws, bolts, nuts, and other acceptable fasteners recommended by panel manufacturer. Where exposed fasteners cannot be avoided, supply corrosion-resistant fasteners with heads matching color of metal wall panels by means factory-applied coating.

2.06 FABRICATION

- A. Form sections true to shape, accurate in size, square, and free from distortion or defects.

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verify that building framing members are ready to receive panels.

3.02 PREPARATION

- A. Install subgirts perpendicular to panel length, securely fastened to substrates and shimmed and leveled to uniform plane. Space at intervals indicated.

3.03 INSTALLATION

- A. Install panels on walls in accordance with manufacturer's instructions.
- B. Protect surfaces in contact with cementitious materials and dissimilar metals with bituminous paint. Allow to dry prior to installation.
- C. Fasten panels to structural supports; aligned, level, and plumb.
- D. Use concealed fasteners unless otherwise approved by Murray Associates Architects.
- E. Seal and place gaskets to prevent weather penetration. Maintain neat appearance.

3.04 ACCESSORY INSTALLATION

- A. General: Install metal wall panel accessories with positive anchorage to building and weathertight mounting and provide for thermal expansion. Coordinate installation with flashings and other components.
 - 1. Install components required for a complete metal wall panel assembly, including trim, copings, corners, seam covers, flashings, sealants, gaskets, fillers, closure strips, and similar items.
 - 2. Comply with performance requirements and manufacturer's written installation instructions.
 - 3. Provide concealed fasteners except where noted on approved shop drawings.

3.05 CLEANING

- A. Remove temporary protective films. Clean finished surfaces as recommended by metal wall panel manufacturer. Clear weep holes and drainage channels of obstructions, dirt, and sealant. Maintain in a clean condition during construction.
- B. Replace damaged panels and accessories that cannot be repaired by finish touch-up or minor repair.
- C. Clean and wash prefinished surfaces with mild soap and water; rinse with clean water.

END OF SECTION

- C. Mounting heights for hardware from finished floor to center line of hardware item:
 1. Mount hardware units at heights indicated in "Recommended Locations for Builders Hardware for Standard Steel Doors and Frames" by the Door and Hardware Institute, except as specifically indicated or required to comply with governing regulations, and except as may be otherwise directed by Architect.
 2. Install each hardware item in compliance with the manufacturer's instructions and recommendations. Wherever cutting and fitting is required to install hardware onto or into surfaces which are later to be painted or finished in another way, coordinate removal, storage and reinstallation or application of surface protections with finishing work specified in the Division -9 sections. Do not install surface-mounted items until finishes have been completed on the substrate.
 3. Set units level, plumb and true to line and location. Adjust and reinforce the attachment substrate as necessary for proper installation and operation.
 4. Drill and countersink units which are not factory-prepared for anchorage fasteners. Space fasteners and anchors in accordance with industry standards.
 5. Set thresholds for exterior doors in full bed of butyl-rubber or polyisobutylene mastic sealant.

3.03 FIELD QUALITY CONTROL

3.04 ADJUSTING

- A. Adjust and check each operating item of hardware and each door, to ensure proper operation or function of every unit. Replace units which cannot be adjusted to operate freely and smoothly as intended for the application made.
- B. Clean adjacent surfaces soiled by hardware installation.
- C. Final Adjustment: Wherever hardware installation is made more than one month prior to acceptance or occupancy of a space or area, return to the work during the week prior to acceptance or occupancy, and make final check and adjustment of all hardware items in such space or area. Clean operating items as necessary to restore proper function and finish of hardware and doors. Adjust door control devices to compensate for final operation of heating and ventilating equipment.
- D. Instruct Owner's Personnel in proper adjustment and maintenance of hardware and hardware finishes, during the final adjustment of hardware.
- E. Continued Maintenance Service: Approximately six months after the acceptance of hardware in each area, the installer, accompanied by the representative of the latch and lock manufacturer, shall return to the project and re-adjust every item of hardware to restore proper function of doors and hardware. Consult with and instruct Owner's personnel in recommended additions to the maintenance procedures. Replace hardware items which have deteriorated or failed due to faulty design, materials or installation of hardware units. Prepare a written report of current and predictable problems (of substantial nature) in the performance of the hardware.

3.05 PROTECTION

- A. Do not permit adjacent work to damage hardware or finish.

3.06 SCHEDULE - See Door schedule in DRM.

Hardware Set 1

Doors: 100/1, 101/1

NOTE:

FURNISH NEW CYLINDERS FOR EXISTING DOORS. FIELD CHECK TYPE & FINISH.

Each to Receive:

2	EA	CYLINDER	TYPE & FINISH AS REQUIRED	BEST LOCK CORP
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Hardware Set 2

Doors: ST-2/2

NOTE:

IF THE DOOR IS FIRE RATED, FURNISH FIRE RATED MULLION AND EXIT DEVICES.

Each to Receive:

2	EA	CONT. HINGE	780-224HD	CLEAR	ROTON
1	EA	KEYED MULLION	KR4954	SP28	VON DUPRIN INC.
1	EA	EXIT DEVICE	CD99NL-OP	26D	VON DUPRIN INC.
1	EA	EXIT DEVICE	CD99EO	26D	VON DUPRIN INC.
1	EA	RIM CYLINDER	1E72	26D	BEST LOCK CORP
3	EA	MORTISE CYL.	1E74	26D	BEST LOCK CORP
2	EA	DOOR PULL	BF168 x 12HD MTG.	32D316	ROCKWOOD
2	EA	O/H STOP	900-S	32D	GLYNN-JOHNSON CO.
2	EA	DOOR CLOSER	4111EDA x ST2730	AL	LCN
2	EA	KICK PLATE	K1050 8" x 1" LDW	32D	ROCKWOOD
1	EA	THRESHOLD	2005AKT x SS/MS&ES25 PEMKOTE	AK	PEMKO
1	EA	GASKETING	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	RAIN DRIP	346C	C	PEMKO
1	EA	MULLION	GASKETING 5110	BL	PEMKO

APPLY TO MULLION.

Hardware Set 3

Doors: 121/3

Each to Receive:

1	EA	CONT. HINGE	780-224HD	CLEAR	ROTON
1	EA	EXIT DEVICE	CD99NL-OP	26D	VON DUPRIN INC.
1	EA	RIM CYLINDER	1E72	26D	BEST LOCK CORP
1	EA	MORTISE CYL	1E74	26D	BEST LOCK CORP
1	EA	DOOR PULL	BF168 x 12HD MTG.	32D316	ROCKWOOD
1	EA	O/H HOLDER	900-H	32D	GLYNN-JOHNSON CO.
1	EA	DOOR CLOSER	4111EDA x ST2730	AL	LCN
1	EA	ARMOR PLATE	K1060 34 x 2" LDW	32D	ROCKWOOD
1	EA	THRESHOLD	1715AKT x SS/MS&ES25 PEMKOTE	AK	PEMKO
1	EA	GASKETING	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	RAIN DRIP	346C	C	PEMKO
1	EA	DOOR SWEEP	29326CNB	C	PEMKO

Hardware Set 4

Doors: 121/2

Each to Receive:

2	EA	CONT. HINGE	780-224HD	CLEAR	ROTON
1	EA	KEYED MULLION	KR4954	SP28	VON DUPRIN INC.
1	EA	EXIT DEVICE	CD99NL-OP	26D	VON DUPRIN INC.

1	EA	EXIT DEVICE	CD99EO	26D	VON DUPRIN INC.
1	EA	RIM CYLINDER	1E72	26D	BEST LOCK CORP
3	EA	MORTISE CYL.	1E74	26D	BEST LOCK CORP
2	EA	DOOR PULL	BF168 x 12HD MTG.	32D316	ROCKWOOD
2	EA	O/H HOLDER	900-H	32D	GLYNN-JOHNSON CO.
2	EA	DOOR CLOSER	4111EDA x ST2730	AL	LCN
2	EA	ARMOR PLATE	K1050 34" x 1" LDW	32D	ROCKWOOD
1	EA	THRESHOLD	2005AKT x SS/MS&ES25 PEMKOTE	AK	PEMKO
1	EA	GASKETING	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	MULLION	GASKETING 5110	BL	PEMKO

APPLY TO MULLION.

Hardware Set 5

Doors: 124/4

Each to Receive:

2	EA	CONT. HINGE	780-224HD	CLEAR	ROTON
2	EA	FLUSH BOLTS	555	26D	ROCKWOOD
1	EA	STOREROOM LOCK	45H-7-D-15H	32D	BEST LOCK CORP
2	EA	O/H HOLDER	100-H	32D	GLYNN-JOHNSON CO.
1	EA	DOOR CLOSER	4011	AL	LCN
		ACTIVE DOOR.			
1	EA	MOUNTING PLATE	4020-18	AL	LCN

1	EA	THRESHOLD	1715AKT x SS/MS&ES25 PEMKOTE	AK	PEMKO
1	EA	GASKETING	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	RAIN DRIP	346C	C	PEMKO
2	EA	DOOR SWEEP	29326CNB	C	PEMKO
1	EA	ASTRAGAL	SP357 x S88D		PEMKO

Hardware Set 6

Doors: 118/1, 121/1, 121/4, 121/5, 124/2, 124/3, 127/3

NOTE:

BALANCE OF THE HARDWARE BY THE DOOR MFG.

Each to Receive:

1	EA	CYLINDER	TYPE & FINISH AS REQUIRED		BEST LOCK CORP
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Hardware Set 7

Doors: 300/1

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	25D	HAGER
1	EA	STOREROOM LOCK	45H-7-D-15H	32D	BEST LOCK CORP
1	EA	DOOR CLOSER	4011-DEL	AL	LCN
1	EA	KICK PLATE	K1050 8" x 2" LDW	32D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO

Hardware Set 8

Doors: ST-2/1, ST-2/3

Each to Receive:

1	EA	CONT. HINGE	780-224HD x ULFF	CLEAR	ROTON
1	EA	EXIT DEVICE	99L-F	26D	VON DUPRIN INC.
1	EA	RIM CYLINDER	1E72	26D	BEST LOCK CORP
1	EA	DOOR CLOSER	4011-DEL	AL	LCN
1	EA	KICK PLATE	K1050 8" x 2" LDW	32D	ROCKWOOD
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	FLOOR STOP	481	26D	ROCKWOOD

DOOR ST-2/23

1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
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Hardware Set 9

Doors: 105/1, 106/1, 107/1, 126/1, 205/1, 206/1, 248/1

NOTE:

DOUBLE CYLINDER CLASSROOM INTRUDER LOCK FOR SECURITY.

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	INTRUDER LOCK	CLASSROOM 93K-7-IN-15D	26D	BEST LOCK CORP
1	EA	DOOR CLOSER	4011-DEL	AL	LCN
1	EA	KICK PLATE	K1050 8" x 2" LDW	32D	ROCKWOOD
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD

1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
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Hardware Set 10

Doors: 140/1

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	STOREROOM LOCK	93K-7-D-15D	26D	BEST LOCK CORP
1	EA	DOOR CLOSER	4111-DEL	AL	LCN
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	AUTO DR. BTM.	4131CPKL	C	PEMKO

Hardware Set 11

Doors: 103/1, 104/1, 112/1, 113/1

OPERATION: PUSHING ACTUATOR RELEASES ELECTRIC STRIKE AND ACTIVATES AUTOMATIC OPERATOR TO OPEN

THE

DOOR.

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1168	26D	HAGER
1	EA	LATCHSET	93K-0-N-15D	26D	BEST LOCK CORP
1	EA	ELECTRIC STRIKE	1006-J x FAIL SECURE x 2005 SMART PAC	32D	HES
1	EA	AUTO OPERATOR	4642(CS)	AL	LCN
2	EA	ACTUATOR	8310-853T x 867F	32D	LCN
1	EA	KICK PLATE	K1050 8" x 2" LDW	32D	ROCKWOOD

1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	DIAGRAM	SYSTEM WIRING DIAGRAM		LCN

Hardware Set 12

Doors: 212/1

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	OFFICE LOCK	93K-7-AB-15D	26D	BEST LOCK CORP
1	EA	DOOR CLOSER	4011-DEL	AL	LCN
1	EA	KICK PLATE	K1050 8" x 2" LDW	32D	ROCKWOOD
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	AUTO DR. BTM.	MORTISE 411APKL	A	PEMKO

Hardware Set 13

Doors: 115/2, 250/1

NOTE: DOUBLE CYLINDER EXIT DEVICE FOR INTRUDER SECURITY.

Each to Receive:

1	EA	CONT. HINGE	780-224HD x UL/FF	CLEAR	ROTON
1	EA	EXIT DEVICE	99L-2-F x DOUBLE CYLINDER	26D	VON DUPRIN INC.
2	EA	RIM CYLINDER	1E72	26D	BEST LOCK CORP

1	EA	DOOR CLOSER	4111-EDA-DEL	AL	LCN
1	EA	KICK PLATE	K1050 8" x 2" LDW	32D	ROCKWOOD
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO

Hardware Set 14

Doors: 115/1, 124/1, 127/1, 127/2

NOTE: DOUBLE CYLINDER EXIT DEVICE FOR INTRUDER SECURITY.

Each to Receive:

2	EA	CONT. HINGE	780-224HD x UL/FF	CLEAR	ROTON
1	EA	KEYED MULLION	REMOVABLE KR-9954	SP28	VON DUPRIN INC.
2	EA	EXIT DEVICE	99L-2 DOUBLE CYLINDER	26D	VON DUPRIN INC.
4	EA	RIM CYLINDER	1E72	26D	BEST LOCK CORP
1	EA	MORTISE CYL.	1E74	26D	BEST LOCK CORP
2	EA	DOOR CLOSER	4111-EDA-DEL	AL	LCN
2	EA	KICK PLATE	K1050 8" x 1" LDW	32D	ROCKWOOD
2	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
2	EA	SMOKE ASTRAGAL	PK55D APPLY TO FACE OF MULLION	D	PEMKO

Hardware Set 15

Doors: 118/2

Each to Receive:

6	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
2	EA	FLUSH BOLTS	555	26D	ROCKWOOD
1	EA	DUST STRIKE	570	26D	ROCKWOOD
1	EA	CLASSROOM LOCK	93K-7-R-15D	26D	BEST LOCK CORP
1	EA	DOOR CLOSER	4111-SCUSH-DEL	ALUM	LCN
		ACTIVE DOOR.			
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
2	EA	SMOKE ASTRAGAL	29310CS	C	PEMKO

Hardware Set 16

Doors: 119/1

Each to Receive:

6	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	SET	SELF LATCHING	BOLTS 845	32D	DCI
1	EA	DUST STRIKE	82	26D	DCI
1	EA	STOREROOM LOCK	93K-7-D-15D x 3/4" FIRE LATCH	26D	BEST LOCK CORP
1	EA	COORDINATOR	672 x 2-AB BRACKETS	PC	DCI
2	EA	DOOR CLOSER	4111-EDA-DEL	AL	LCN

2	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	ASTRAGAL	SP357 x S88D		PEMKO

Hardware Set 17

Doors: 122/1

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	STOREROOM LOCK	93K-7-D-15D	26D	BEST LOCK CORP
1	EA	DOOR CLOSER	4111-SCUSH-DEL	ALUM	LCN
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO

Hardware Set 18

Doors: 123/1

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	STOREROOM LOCK	93K-7-D-15D	26D	BEST LOCK CORP
1	EA	DOOR CLOSER	4011-DEL	AL	LCN
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	AUTO DR. BTM.	4131CPKL	C	PEMKO

Hardware Set 19

Doors: 130/1

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1168	26D	HAGER
1	EA	INTRUDER LOCK	CLASSROOM 93K-7-IN-15D	26D	BEST LOCK CORP
1	EA	OH STOP	100-S	26D	GLYNN-JOHNSON CO.
1	EA	MOUNTING PLATE	4020-1B	AL	LCN
1	EA	DOOR CLOSER	4011-DEL	AL	LCN
1	EA	KICK PLATE	K1050 8" x 2" LDW	32D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO

Hardware Set 20

Doors: 131/1, 135/1, 239/1, 240/1, 240/2

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	OFFICE LOCK	93K-7-AB-15D	26D	BEST LOCK CORP
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SOUND GASKETING	PK55D(HEAD & JAMBS)	D	PEMKO
1	EA	AUTO DR. BTM.	MORTISE 411APKL	A	PEMKO

Hardware Set 21

Doors: 132/1

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	OFFICE LOCK	93K-7-AB-15D	26D	BEST LOCK CORP
1	EA	DOOR CLOSER	4111-DEL	AL	LCN
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO

Hardware Set 22

Doors: 134/1

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	LATCHSET	93K-0-N-15D	26D	BEST LOCK CORP
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
3	EA	SILENCERS	Q146		STEELCRAFT MFG.

Hardware Set 23

Doors: 110/1, 136/1

Each to Receive:

2	EA	CONT. HINGE	780-224HD x UL/FF	CLEAR	ROTON
2	EA	EXIT DEVICE	9927L-F x LBR	26D	VON DUPRIN INC.
2	EA	RIM CYLINDER	1E72	26D	BEST LOCK CORP
2	EA	DOOR CLOSER	4111-EDA-DEL	AL	LCN

2	EA	KICK PLATE	K1050 8" x 1" LDW	32D	ROCKWOOD
2	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
2	EA	SMOKE ASTRAGAL	29310CS	C	PEMKO

Hardware Set 24

Doors: 137/1, 138/1

Each to Receive:

6	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	DUST STRIKE	82	26D	DCI
1	SET	SELF LATCHING	BOLTS 945	32D	DCI
1	EA	STOREROOM LOCK	93K-7-D-15D x 3/4" FIRE LATCH	26D	BEST LOCK CORP
1	EA	COORDINATOR	672 x 2-AB BRACKETS	PC	DCI
2	EA	DOOR CLOSER	4111-SCUSH-DEL	ALUM	LCN
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	SMOKE ASTRAGAL	S77C	C	PEMKO

Hardware Set 25

Doors: 203/1, 204/1

NOTE: CARD READER BY OTHERS RELEASES ELECTRIC STRIKE FOR ACCESS.

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	STOREROOM LOCK	93K-7-D-15D	26D	BEST LOCK CORP

1	EA	ELECTRIC STRIKE	1006J x 2005 SMART PAC	32D	HES
1	EA	DOOR CLOSER	4011-DEL	AL	LCN
1	EA	KICK PLATE	K1050 8" x 2" LDW	32D	ROCKWOOD
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	POWER SUPPLY	BPS24-1		SECURITRON
1	EA	DIAGRAM	SYSTEM WIRING DIAGRAM		SECURITRON

Hardware Set 26

Doors: 108A/1, 108B/1, 208/1, 209/1, 210/1, 211/1, 215/1, 216/1, 220/1, 221/1, 223/1

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	OFFICE LOCK	93K-7-AB-15D	26D	BEST LOCK CORP
1	EA	DOOR CLOSER	4011-DEL	AL	LCN
1	EA	KICK PLATE	K1050 8" x 2" LDW	32D	ROCKWOOD
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO

Hardware Set 27

Doors: 244/1

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
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1	EA	OFFICE LOCK	93K-7-AB-15D	26D	BEST LOCK CORP
1	EA	DOOR CLOSER	4011-DEL	AL	LCN
1	EA	KICK PLATE	K1050 8" x 2" LDW	32D	ROCKWOOD
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO

Hardware Set 28

Doors: 217/1, 218/1

OPERATION: PUSHING ACTUATOR RELEASES ELECTRIC STRIKE AND ACTIVATES AUTOMATIC OPERATOR TO OPEN THE DOOR.

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1168	26D	HAGER
1	EA	LATCHSET	93K-0-N-15D	26D	BEST LOCK CORP
1	EA	ELECTRIC STRIKE	1006-J x FAIL SECURE x 2005 SMART PAC	32D	HES
2	EA	ACTUATOR	8310-853T x 867F	32D	LCN
1	EA	AUTO OPERATOR	4631(CS)	AL	LCN
1	EA	KICK PLATE	K1050 8" x 2" LDW	32D	ROCKWOOD
1	EA	MOP PLATE	K1050 4" x 1" LDW	32D	ROCKWOOD
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	DIAGRAM	SYSTEM WIRING DIAGRAM		LCN

Hardware Set 29

Doors: 232/1, 237/1

Each to Receive:

1	EA	CONT. HINGE	780-224HD x UL/FF	CLEAR	ROTON
1	EA	EXIT DEVICE	99L-2-F x DOUBLE CYLINDER	26D	VON DUPRIN INC.
2	EA	RIM CYLINDER	1E72	26D	BEST LOCK CORP
1	EA	DOOR CLOSER	4111-EDA-DEL	AL	LCN
1	EA	KICK PLATE	K1050 8" x 2" LDW	32D	ROCKWOOD
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO

Hardware Set 30

Doors: 246/1, 246/2

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	INTRUDER LOCK	CLASSROOM 93K-7-IN-15D	26D	BEST LOCK CORP
1	EA	DOOR CLOSER	4011-DEL	AL	LCN
1	EA	KICK PLATE	K1050 8" x 2" LDW	32D	ROCKWOOD
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO

Hardware Set 31

Doors: 224/1, 225/1, 226/1

Each to Receive:

6	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
2	EA	FLUSH BOLTS	555	26D	ROCKWOOD
1	EA	DUST STRIKE	570	26D	ROCKWOOD
1	EA	OFFICE LOCK	93K-7-AB-15D	26D	BEST LOCK CORP
1	EA	O/H STOP	900-S	26D	GLYNN-JOHNSON CO.
		INACTIVE DOOR.			
1	EA	DOOR CLOSER	4111-SCUSH-DEL	ALUM	LCN
		ACTIVE DOOR.			
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	SMOKE ASTRAGAL	S77C	C	PEMKO

Hardware Set 32

Doors: 214/1

OPERATION: OUTSIDE LEVER LOCKED BY SWITCHING OFF 24 VOLTS DC. UNLOCKED BY APPLYING 24 VOLTS DC.

Each to Receive:

5	EA	HINGES	4 1/2 x 4 1/2 BB1168	26D	HAGER
1	EA	ELECTRIC HINGE	4 1/2 x 4 1/2 BB1168 x ETW-4	26D	HAGER
1	EA	DUST STRIKE	82	26D	DCI
1	SET	SELF LATCHING	BOLTS 945	32D	DCI
1	EA	ELECTRIC LOCK	93KW-7-DEU-15D x 3/4" FIRE LATCH	26D	BEST LOCK CORP

VERIFY FAIL SECURE EU.

1.	EA	COORDINATOR	672 x 2-AB BRACKETS	PC	DCI
2	EA	DOOR CLOSER	4111-SCUSH-DEL	ALUM	LCN
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	SMOKE ASTRAGAL	S77C	C	PEMKO
1	EA	POWER SUPPLY	BPS24-1		SECURITRON
1	EA	DIAGRAM	SYSTEM WIRING DIAGRAM		SECURITRON

Hardware Set 33

Doors: 213/1

Each to Receive:

6	EA	HINGES	4 1/2 x 4 1/2 BB1168	26D	HAGER
1	EA	DUST STRIKE	82	26D	DCI
1	SET	SELF LATCHING	BOLTS 945	32D	DCI
1	EA	STOREROOM LOCK	93K-7-D-15D x 3/4" FIRE LATCH	26D	BEST LOCK CORP
1	EA	COORDINATOR	672 x 2-AB BRACKETS	PC	DCI
2	EA	DOOR CLOSER	4111-SCUSH-DEL	ALUM	LCN
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	SMOKE ASTRAGAL	S77C	C	PEMKO

Hardware Set 34

Doors: 202/1, 228/1

Each to Receive:

2	EA	CONT. HINGE	780-224HD x UL/FF	CLEAR	ROTON
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2	EA	EXIT DEVICE	9927L-F x LBR x SLM	26D	VON DUPRIN INC.
2	EA	RIM CYLINDER	1E72	26D	BEST LOCK CORP
2	EA	DOOR CLOSER	4111-EDA-DEL	AL	LCN
2	EA	KICK PLATE	K1050 8" x 1" LDW	32D	ROCKWOOD
2	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
2	EA	SMOKE ASTRAGAL	29310CS	C	PEMKO

Hardware Set 35

Doors: 228E/1

OPERATION: OUTSIDE LEVER LOCKED BY SWITCHING OFF 24 VOLTS DC.

Each to Receive:

5	EA	HINGES	4 1/2 x 4 1/2 BB1168	26D	HAGER
1	EA	ELECTRIC HINGE	4 1/2 x 4 1/2 BB1168 x ETW-4	26D	HAGER
1	EA	DUST STRIKE	82	26D	DCI
1	SET	SELF LATCHING	BOLTS 945	32D	DCI
1	EA	ELECTRIC LOCK	93KW-7-DEU-15D x 3/4" FIRE LATCH	26D	BEST LOCK CORP

VERIFY FAIL SECURE EU.

1	EA	COORDINATOR	672 x 2-AB BRACKETS	PC	DCI
2	EA	DOOR CLOSER	4111-SCUSH-DEL	ALUM	LCN
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	SMOKE ASTRAGAL	S77C	C	PEMKO

1	EA	POWER SUPPLY	BPS24-1		SECURITRON
1	EA	DIAGRAM	SYSTEM WIRING DIAGRAM		SECURITRON

Hardware Set 36

Doors: 251/1

NOTE: REUSE BALANCE OF EXISTING HARDWARE.

Each to Receive:

1	EA	PERMANENT CORE	1C-7 x COMBINED	26D	BEST LOCK CORP
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Hardware Set 37

Doors: 219/1

Each to Receive:

6	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	DUST STRIKE	82	26D	DCI
1	SET	SELF LATCHING	BOLTS 945	32D	DCI
1	EA	STOREROOM LOCK	93K-7-D-15D x 3/4" FIRE LATCH	26D	BEST LOCK CORP
1	EA	COORDINATOR	672 x 2-AB BRACKETS	PC	DCI
2	EA	DOOR CLOSER	4111-SCUSH-DEL	ALUM	LCN
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	SMOKE ASTRAGAL	S77C	C	PEMKO

Hardware Set 38

Doors: 121A/1, 121B/1

Each to Receive:

2	EA	CONT. HINGE	780-224HD	CLEAR	ROTON
2	EA	FLUSH BOLTS	555	26D	ROCKWOOD
1	EA	STOREROOM LOCK	45H-7-D-15H	32D	BEST LOCK CORP
2	EA	O/H HOLDER	900-H	26D	GLYNN-JOHNSON CO.
1	EA	DOOR CLOSER	4111EDA x ST2730	AL	LCN
		ACTIVE DOOR.			
1	EA	THRESHOLD	1715AKT x SS/MS&ES25 PEMKOTE	AK	PEMKO
1	EA	GASKETING	PK55D (HEAD & JAMBS)	D	PEMKO
1	EA	RAIN DRIP	346C	C	PEMKO
2	EA	DOOR SWEEP	29326CNB	C	PEMKO
1	EA	ASTRAGAL	SP357 x S88D		PEMKO

Hardware Set 39

Doors: 125/1, 128/1, 129/1

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	OFFICE LOCK	93K-7-AB-15D	26D	BEST LOCK CORP
1	EA	DOOR CLOSER	4011-DEL	AL	LCN
1	EA	KICK PLATE	K1050 8" x 2" LDW	32D	ROCKWOOD

1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO

Hardware Set 40

Doors: 234/1, 235/1, 236/1, 238/1, 246/3

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	OFFICE LOCK	93K-7-AB-15D	26D	BEST LOCK CORP
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
3	EA	SILENCERS	Q146		STEELCRAFT MFG.

Hardware Set 41

Doors: 139A/1, 139A/2

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	OFFICE LOCK	93K-7-AB-15D	26D	BEST LOCK CORP
1	EA	DOOR CLOSER	4011-DEL	AL	LCN
1	EA	KICK PLATE	K1050 8" x 2" LDW	32D	ROCKWOOD
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO

Hardware Set 42

Doors: 249/1

NOTE:

DOUBLE CYLINDER CLASSROOM INTRUDER LOCK FOR SECURITY.

Each to Receive:

3	EA	HINGES	4 1/2 x 4 1/2 BB1279	26D	HAGER
1	EA	INTRUDER LOCK	CLASSROOM 93K-7-IN-15D	26D	BEST LOCK CORP
1	EA	DOOR CLOSER	4111-EDA-DEL	AL	LCN
1	EA	KICK PLATE	K105D 8" x 2" LDW	32D	ROCKWOOD
1	EA	WALL STOP	400 SERIES CAST	26D	ROCKWOOD
1	EA	SMOKE GASKET	PK55D (HEAD & JAMBS)	D	PEMKO

END OF SECTION

SECTION 10810

TOILET ACCESSORIES

PART 1 GENERAL

1.01 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General Conditions, Owner's Contract Documents, and Division 1 Specification Sections, apply to this Section.

1.02 SECTION INCLUDES

- A. Toilet Room Accessories.
- B. Utility Room Accessories.

1.03 RELATED SECTIONS

- A. Section 09260 - Gypsum Board Assemblies.
- B. Section 09300 - Tile.
- C. Section 10170 - Plastic Toilet Compartments.

1.04 REFERENCES

- A. ATBCB ADAAG - Americans with Disabilities Act Accessibility Guidelines; US Architectural and Transportation Barriers Compliance Board; 2004.
- B. ASTM A 240/A 240M - Standard Specification for Chromium and Chromium-Nickel Stainless Steel Plate, Sheet, and Strip for Pressure Vessels and for General Applications; 2005.
- C. ASTM A 554 - Standard Specification for Welded Stainless Steel Mechanical Tubing; 2003.
- D. ASTM C 1036 - Standard Specification for Flat Glass; 2001.
- E. ASTM F 446 - Standard Consumer Safety Specification for Grab Bars and Accessories Installed in the Bathing Area; 1985 (Reapproved 2004).

1.05 SUBMITTALS

- A. Product Data: Manufacturer's product data for products specified, indicating selected options and accessories.
- B. Shop Drawings:
 - 1. Plans: Locate each specified unit in project.
 - 2. Elevations: Indicate mounting height of each specified unit in project.
 - 3. Details: Indicate anchoring and fastening details, required locations and types of anchors and reinforcement, and materials required for correct installation of specified products not supplied by manufacturer of products of this section.
- C. Verification Samples: Two sample chips of each specified color and finish.
- D. Quality Assurance Submittals:
 - 1. Manufacturer's printed installation instructions for each specified product.
 - 2. Documentation of manufacturer's qualifications, specified in QUALITY ASSURANCE Article of this section.
- E. Closeout Submittals: Warranty documents, issued and executed by manufacturer of products of this section, and countersigned by Contractor.

1.06 QUALITY ASSURANCE

- A. Manufacturer Qualifications: Minimum five (5) years of documented experience producing products of the types specified in this section.

1.07 DELIVERY, STORAGE, AND HANDLING

- A. Factory-apply strippable protective vinyl coating to sight-exposed surfaces after finishing of products; ship products in manufacturer's standard protective packaging.
- B. Storage and Protection: Store products in manufacturer's protective packaging until installation.

1.08 SEQUENCING

- A. Supply locating and sizing templates, and other requirements, to fabricators and installers of products referenced in RELATED SECTIONS Article for building in products of this section.
- B. Supply reinforcing and anchoring devices required for installation of products of this section to fabricators and installers of products referenced in RELATED SECTIONS Article.

1.09 WARRANTY

- A. Manufacturer's standard warranty against defects in product workmanship and materials.

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Acceptable Manufacturer: ASI-American Specialties, Inc; 441 Saw Mill River Road, Yonkers NY 10701-9986; Telephone (914) 476-9000, FAX (914) 476-0688.
- B. Bobrick Washroom Equip., Inc (Basis of Design)
- C. Supply all products of this section from a single manufacturer.

2.02 MATERIALS

- A. Stainless Steel Sheet: ASTM A 240/A 240M, Type 304, 18-8 alloy.

2.03 TOILET ACCESSORIES

- A. Basic Construction Requirements:
 - 1. Doors: Fabricated from minimum 0.0313 inch (0.79 mm) stainless steel sheet, formed hems at sight-exposed edges; welded corners, finished to match sheet finish.
 - 2. Cabinets: Fabricated from minimum 0.0313 inch (0.79 mm) stainless steel sheet, formed hems at sight-exposed edges; all joints welded, sight-exposed welds finished to match sheet finish.
 - 3. Hinges: Stainless steel piano hinge, 3/16 inch (5 mm) diameter barrel, full length of cabinet; hinge leaves spot-welded to door and cabinet body.
 - 4. Locks: Tumbler locks, keyed alike other toilet accessory locks, with two keys for each lock.
 - 5. Stainless Steel Finish: No.4 satin.
- B. Folding Shelf Model B-287
- C. Mop Holder: Model B-239 x 34".

2.04 MIRRORS

- A. Mirror: Model B-292.
 - 1. Frame: Welded Channel.
 - 2. Mirror: Plate glass.
 - 3. Shelf.
 - 4. Size: As indicated on drawings.
 - 5. Finish: No.4 satin stainless steel.

- B. Channel Mirror Frames: Fabricated from 0.0375 inch (0.95 mm) stainless steel, formed to 1/2 by 1/2 by 1/2 inch (13 by 13 by 13 mm) channel; finished to match sheet finish; concealed mounting brackets with tamper-proof fasteners.
- C. Plate Glass Mirror: 1/4 inch (6 mm) thick polished plate glass, ASTM C 1036, Type I, Class 1, quality Q1 mirror select; silver-coated, hermetically sealed with uniform electrolytically-deposited copper plating.
- D. Mirror Shelves: Fabricated from 0.050 inch (1.27 mm) stainless steel sheet, finish matching mirror frame, formed to 5 inches (127 mm) deep ledge with return and hemmed edges; spot-welded to mirror frame and gussets at corners, finished to match sheet finish.

2.05 GRAB BARS

- A. Grab Bars - Basic Requirements: Fabricated to comply with ASTM F 446 and to withstand a 900 pound (4 000 N) force, from ASTM A 554 stainless steel tubing, 0.050 inch (1.27 mm), Type 304, 18-8 alloy; formed 1-1/2 inch (38 mm) radius return to wall at each end; each end heliarc-welded to minimum 11 gage stainless steel circular flange; welds finished to match tube finish.
- B. Grab Bars: Series B-6806
 - 1. Sizes and configurations: As indicated on drawings.

2.06 ACCESSORIES SUPPLIED BY OWNER

- A. Installed by Contractor
 - 1. Toilet Paper Dispenser
 - 2. Sanitary Napkin Dispenser
 - 3. Paper Towel Dispenser.
 - 4. Napkin Dispenser

PART 3 EXECUTION

3.01 EXAMINATION

- A. Verification of Conditions:
 - 1. Prepared openings are sized and located in accordance with shop drawings.
 - 2. Reinforcement and anchoring devices are correct type and are located in accordance with shop drawings.
- B. Installer's Examination:
 - 1. Have installer of this section examine conditions under which construction activities of this section are to be performed, then submit written notification if such conditions are unacceptable.
 - 2. Transmit two copies of installer's report to Murray Associates Architects within 24 hours of receipt.
 - 3. Beginning construction activities of this section before unacceptable conditions have been corrected is prohibited.
 - 4. Beginning construction activities of this section indicates installer's acceptance of conditions.

3.02 INSTALLATION

- A. Install toilet accessories plumb and level in accordance with manufacturer's printed installation instructions.
- B. Locate toilet accessories at heights specified by Americans with Disabilities Act (ADA).

3.03 CLEANING

- A. Remove manufacturer's protective vinyl coating from sight-exposed surfaces 24 hours before final inspection.
- B. Clean surfaces in accordance with manufacturer's recommendations.

3.04 PROTECTION OF INSTALLED PRODUCTS

- A. Protect products from damage caused by subsequent construction activities.
- B. Field repair of damaged product finishes is prohibited; replace products having damaged finishes caused by subsequent construction activities.

END OF SECTION

SECTION 16425**SWITCHBOARDS****1 GENERAL****1.1 SUMMARY****A. Section Includes:**

1. Distribution Switchboards, free-standing, dead-front type, utilizing fixed, individually mounted main and group mounted feeder circuit protective devices; complete, ready for operation, including all necessary parts, accessories, connections and equipment.

B. Related Sections:

1. Section 16050 - Basic Electrical Materials and Methods
2. Section 16280 - Integrated Surge Protection Devices

1.2 QUALITY ASSURANCE**A. The distribution switchboards and all associated components shall be designed, manufactured, installed and tested in accordance with the latest editions of the following codes and standards:**

1. National Fire Protection Association (NFPA) 70, National Electrical Code (NEC)
2. National Electrical Manufacturers Association (NEMA) PB 2 – Dead-Front Distribution Switchboards; PB 2.1 – General Instructions for Proper Handling, Installation, Operation, and Maintenance of Dead-Front Distribution Switchboards Rated 600 Volts or Less.
3. Underwriters Laboratory (UL) listed and labeled.

B. The manufacturer of the assembly shall be the manufacturer of the circuit protective devices within the assembly.**C. For the equipment specified herein, the manufacturer shall be ISO 9000, 9001 or 9002 certified.****D. The manufacturer of this equipment shall have produced similar electrical equipment for a minimum period of five (5) years. When requested by the Engineer, an acceptable list of installations with similar equipment shall be provided demonstrating compliance with this requirement.****1.3 SUBMITTALS****A. Switchboard shop drawings must be stamped approved by the Architect, Engineer and Local Area Utility Company prior to fabrication.****B. Submit to Engineer the following information in accordance with the requirements of section 16050 and General Conditions of Contract:**

1. Master drawing index
2. Front view elevation

3. Floor plan
 4. Top view
 5. Single line diagram
 6. Schematic diagram
 7. Nameplate schedule
 8. Component list
 9. Conduit entry/exit locations
 10. Assembly ratings including:
 - a. Short-circuit rating
 - b. Voltage
 - c. Continuous current
 11. Major component ratings including:
 - a. Voltage
 - b. Continuous current
 - c. Interrupting ratings
 12. Cable terminal sizes
- C. Where applicable, submit the following additional information:
1. Busway connection

1.4 OPERATION AND MAINTENANCE DATA

- A. Submit to Engineer the following operation and maintenance information in accordance with the requirements of section 16050 and General Conditions of Contract:
1. Instruction books and/or leaflets
 2. Recommended renewal parts list
 3. Final as-built drawings
 4. Complete Wiring diagrams
 5. Certified production test reports
 6. Installation information
 7. Seismic certification and equipment anchorage details

2 PRODUCTS

2.1 MANUFACTURERS

- A. Acceptable Manufacturers (No Exceptions):
1. Square D

2.2 RATINGS

- A. The assembly shall be rated to withstand mechanical forces exerted during short-circuit conditions when connected directly to a power source having available fault current as shown on the drawings.
- B. Voltage rating to be as indicated on the drawings.

2.3 CONSTRUCTION

- A. Switchboard shall consist of the required number of vertical sections bolted together to form a rigid assembly. Removable steel base channels (1.5 inch floor sills) shall be bolted to the frame to rigidly support the entire shipping section for moving on rollers and floor mounting. Assembly shall be provided with adequate lifting means. The sides and rear shall be covered with removable bolt-on covers. All edges of front covers or hinged front panels shall be formed. Provide adequate ventilation within the enclosure. Front covers shall be screw removable with a single tool and all doors shall be hinged with removable hinge pins.
- B. All sections of the switchboard shall be front and rear aligned with maximum depth as shown on the drawings. All feeder protective devices shall be group mounted unless greater than 1200A frame. Feeder protective devices greater than 1200A frame shall be individually mounted. Devices shall be front removable and load connections front and rear accessible. Rear access shall be provided.
- C. Where required, the switchboard shall be suitable for use as service entrance equipment and be labeled in accordance with UL requirements.
- D. Utility Metering Compartment: The utility current transformer compartment shall comply with the local utility construction specifications.

2.4 BUS

- A. All bus bars shall be silver-plated copper. Plating shall be applied continuously to all bus work. Main horizontal bus bars shall be mounted with all three phases arranged in the same vertical plane. Bus sizing shall be based on NEMA standard temperature rise criteria of 65 degrees C over a 40 degrees C ambient (outside the enclosure).
- B. All vertical and horizontal distribution bussing shall be rated for the full ampacity of the line-up. Tapered bus is not acceptable.
- C. Provide full ampacity horizontal neutral bus(es).
- D. A copper ground bus (minimum 1/4 x 2 inch), shall be furnished firmly secured to each vertical section structure and shall extend the entire length of the switchboard.
- E. All hardware used on conductors shall be high-tensile strength and zinc-plated. All bus joints shall consist of Grade 5 hardware and Bellville washers to withstand mechanical forces exerted during short circuits. All runbacks from the circuit breaker compartment to the cable compartment shall be insulated.
- F. "Space" as indicated on the drawings shall mean to fully equip with bussing and provisions to allow future installation of additional circuit breakers of the indicated frame sizes without any modifications of the switchboard.

2.5 WIRING/TERMINATIONS

- A. Small wiring, necessary fuse blocks and terminal blocks within the switchboard shall be furnished as required. Control components mounted within the assembly, such as fuse blocks, relays, pushbuttons, switches, etc., shall be suitably marked for identification corresponding to appropriate designations on manufacturer's wiring diagrams.
- B. Mechanical-type terminals shall be provided for all line and load terminations suitable for copper or aluminum cable rated for 75 degrees C of the size as indicated on the drawings.
- C. Lugs shall be provided in the incoming line section for connection of the main grounding conductor. Additional lugs for connection of other grounding conductors shall be provided as required or indicated on the drawings.
- D. All control wire shall be type SIS, bundled and secured with nylon ties. Insulated locking spade terminals shall be provided for all control connections, except where saddle type terminals are provided integral to a device. All current transformer secondary leads shall first be connected to conveniently accessible short-circuit terminal blocks before connecting to any other device. All groups of control wires leaving the switchboard shall be provided with terminal blocks with suitable numbering strips. Provide wire markers at each end of all control wiring.

2.6 MOLDED CASE PROTECTIVE DEVICES

- A. Main and Feeder protective devices shall be molded case circuit breakers with tripping characteristics as indicated on the drawings and herewithin. Circuit breakers shall have ground fault protection where indicated or as required by NEC.
- B. Circuit breakers shall be operated by a toggle-type handle and shall have a quick-make/quick-break over-center switching mechanism that is mechanically trip-free. Automatic tripping of the breaker shall be clearly indicated by the handle position. Contacts shall be nonwelding silver alloy, and arc extinction shall be accomplished by means of arc chutes. A push-to-trip button on the front of the circuit breaker shall provide a local manual means to exercise the trip mechanism.
- C. Circuit breakers shall have a minimum symmetrical interrupting capacity as indicated on the drawings.
- D. Series rated circuit breakers shall not be acceptable.
- E. Where indicated, circuit breakers shall be current limiting.
- F. Where indicated, provide circuit breakers UL listed for application at 100% of their continuous ampere rating in their intended enclosure.
- G. Circuit breakers shall consist of thermal-magnetic trip units and inverse time-current characteristics.

2.7 ACCESSORIES

- A. Provide shunt trips, bell alarms and auxiliary switches as shown on the contract drawings.
- B. Where indicated on the drawings, provide integrated surge protection device as specified in Section 16280.

2.8 MISCELLANEOUS DEVICES

- A. Key interlocks shall be provided as indicated on the drawings.
- B. Control power transformers with primary and secondary protection shall be provided, as indicated on the drawings, or as required for proper operation of the equipment. Control power transformers shall have adequate capacity to supply power to the transformer cooling fans, where applicable.
- C. For switchboards installed outdoor only, provide thermostatically-controlled electric heaters in each section. Power for the space heaters shall be obtained from a control power transformer within the switchboard. Supply voltage shall be 120V AC.

2.9 UTILITY METERING

- A. Furnish a separate barriered-off Utility Metering Compartment complete with hinged sealable door. Bus work shall include provisions for mounting utility company current transformers and potential transformers or potential taps as required by the utility company. Provide Service Entrance Label and provide necessary applicable service entrance features per NEC and local code requirements.

2.10 ENCLOSURE

- A. NEMA 1 Enclosure unless located outdoors or noted otherwise.
- B. NEMA 3R Enclosure:
 - 1. Outdoor enclosure shall be non-walk-in and meet applicable NEMA 3R UL requirements.
 - 2. Enclosure roof shall slope downward toward rear.
 - 3. Outer sections shall be the same widths as indoor structures, except each end of the outdoor assembly shall have an end trim.
 - 4. The enclosure shall be provided with rear hinged doors for each section.
 - 5. Doors shall have provisions for padlocking.
 - 6. Ventilating openings shall be provided complete with replaceable fiberglass air filters.
 - 7. Provide space heaters thermostatically controlled for each structure with adequate wattage to prevent the accumulation of moisture.
 - 8. Power for space heaters, lights and receptacles shall be obtained from a control power transformer within the switchboard. Supply voltage shall be 120V AC.

2.11 NAMEPLATES

- A. Engraved nameplates, mounted on the face of the assembly, shall be furnished for all main and feeder circuits as indicated on the drawings. Nameplates shall be laminated plastic, black characters on white background. Characters shall be 3/16-inch high, minimum. Nameplates shall give item designation and circuit number as well as frame ampere size and appropriate trip rating. Furnish master nameplate giving switchboard designation, voltage ampere rating, short-circuit rating, manufacturer's name, general order number, and item number.

- B. Control components mounted within the assembly, such as fuse blocks, relays, pushbuttons, switches, etc., shall be suitably marked for identification corresponding to appropriate designations on manufacturer's wiring diagrams.

2.12 FINISH

- A. All exterior and interior steel surfaces of the switchboard shall be properly cleaned and provided with a rust-inhibiting phosphatized coating. Color and finish of the switchboard shall be ANSI 61 light gray.

3 EXECUTION

3.1 INSTALLATION

- A. Install in accordance with Section 16050, and per manufacturer's recommendations.
- B. The assembly shall be provided with adequate lifting means and shall be capable of being moved into installation position and bolted directly to contractor supplied floor sills to be set level in concrete per manufacturer's recommendations. All necessary hardware to secure the assembly in place shall be provided by the Contractor.
- C. Locate switchboard(s) where indicated on the drawings. Clearance from walls (not rear accessible) shall be minimum ½" for indoor locations, and 6" for outdoor and/or wet locations.
- D. Locate conduit stub ups or floor openings so that they are in the area specified by the manufacturer's drawings. In the absence of drawings, locate conduits or floor openings so as to provide proper cable bending space and clearances to energized parts or other obstructions.
- E. Install the switchboard in its final position, progressively leveling each section and bolting frames together, if split. Grout channel sills to surface of floor or housekeeping pad.

3.2 TESTS

- A. The following standard factory tests shall be performed on the equipment provided under this section. All tests shall be in accordance with the latest applicable ANSI and NEMA standards:
 - 1. The switchboard shall be completely assembled, wired, adjusted, and tested at the factory. After assembly, the complete switchboard will be tested for operation under simulated service conditions to assure the accuracy of the wiring and the functioning of all equipment. The main circuits shall be given a dielectric test of 2200 volts for one (1) minute between live parts and ground, and between opposite polarities. The wiring and control circuits shall be given a dielectric test of 1500 volts for one (1) minute between live parts and ground.
 - 2. The manufacturer shall provide three (3) certified copies of factory test reports.
- B. Before energizing equipment, perform the following:
 - 1. Tighten all accessible electrical connections to manufacturer's specified torques.
 - 2. Remove all blocking or other shipping components.
 - 3. Manually exercise all switches, circuit breakers, and other operating mechanisms.

4. Conduct an electrical insulation resistance test to ensure switchboard is free from short circuits and unwanted grounds.
5. Check electrical relays, meters, and instrumentation to ensure that correct connections are made and that devices function properly.
6. Set any adjustable time-current trip devices to proper settings.
7. Check to determine that all grounding and bonding connections are made properly.
8. Verify that field wiring is clear of energized parts and physically secured. Make certain that conductors are not pinched by covers and/or doors.

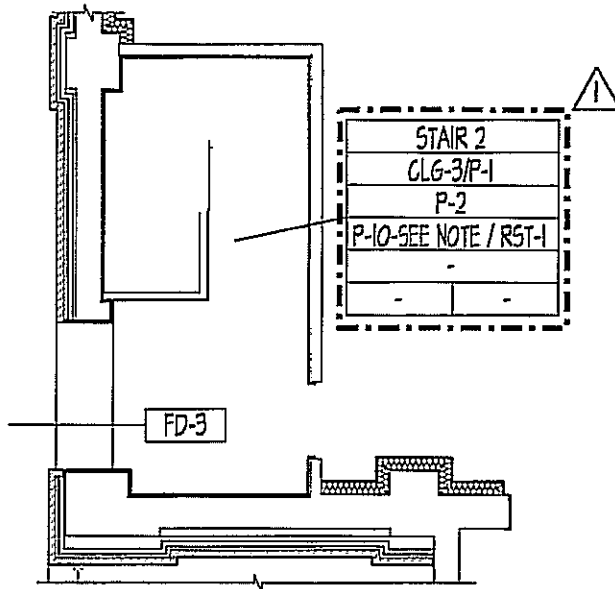
3.3 FIELD ADJUSTMENTS

- A. Perform field adjustments of the protective devices as required to place the equipment in final operating condition.
- B. Necessary field settings of devices and adjustments and minor modifications to equipment to accomplish conformance with an approved short circuit and protective device coordination study shall be carried out by the Contractor at no additional cost to the owner.

3.4 TRAINING

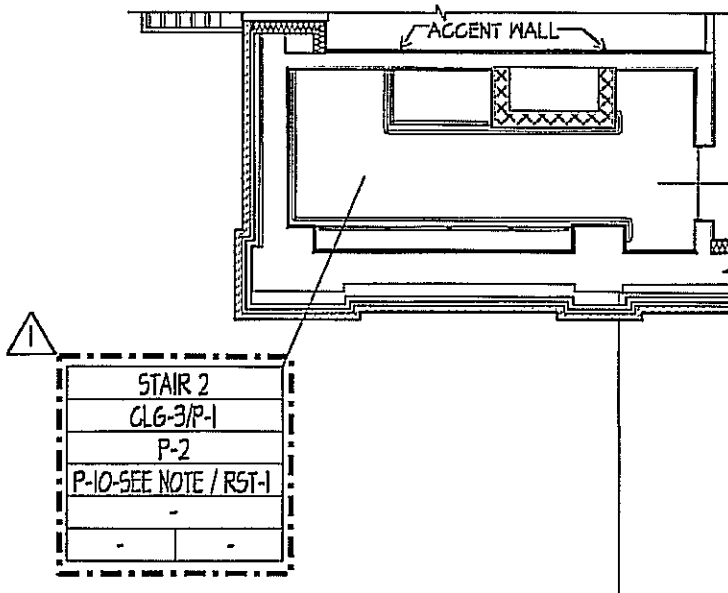
- A. Provide a training session for up to three (3) owner's representatives for one (1) normal workday at a jobsite location determined by the owner.
- B. The training session shall be conducted by a manufacturer's qualified representative. The training program shall consist of instruction on operation of the assembly, circuit breakers, fused switches, and major components within the assembly.

END OF SECTION



PARTIAL FIRST FLOOR FINISH PLAN

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



PARTIAL SECOND FLOOR FINISH PLAN

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

NSEW REFERS TO THE NORTH ARROW FOR ACCENT WALL LOCATIONS.

PAINT GYPSUM BOARD ON UNDERSIDE OF STAIR #1- P-2

ALL STAIR HANDRAILS AND GUARDRAILS TO BE PAINTED- P-2

ALL EXPOSED STEEL COLUMNS TO BE PAINTED - P-2

▲ PAINT ENCLOSED COLUMNS - P-2

▲ PAINT STRINGER OF STAIR #2- P-10

INTERIORS WOOD DOORS TO HAVE D-1

REVISIONS:		
▲	3/24/09	ADDENDUM #1

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PARTIAL FIRST AND SECOND
FLOOR FINISH PLANS

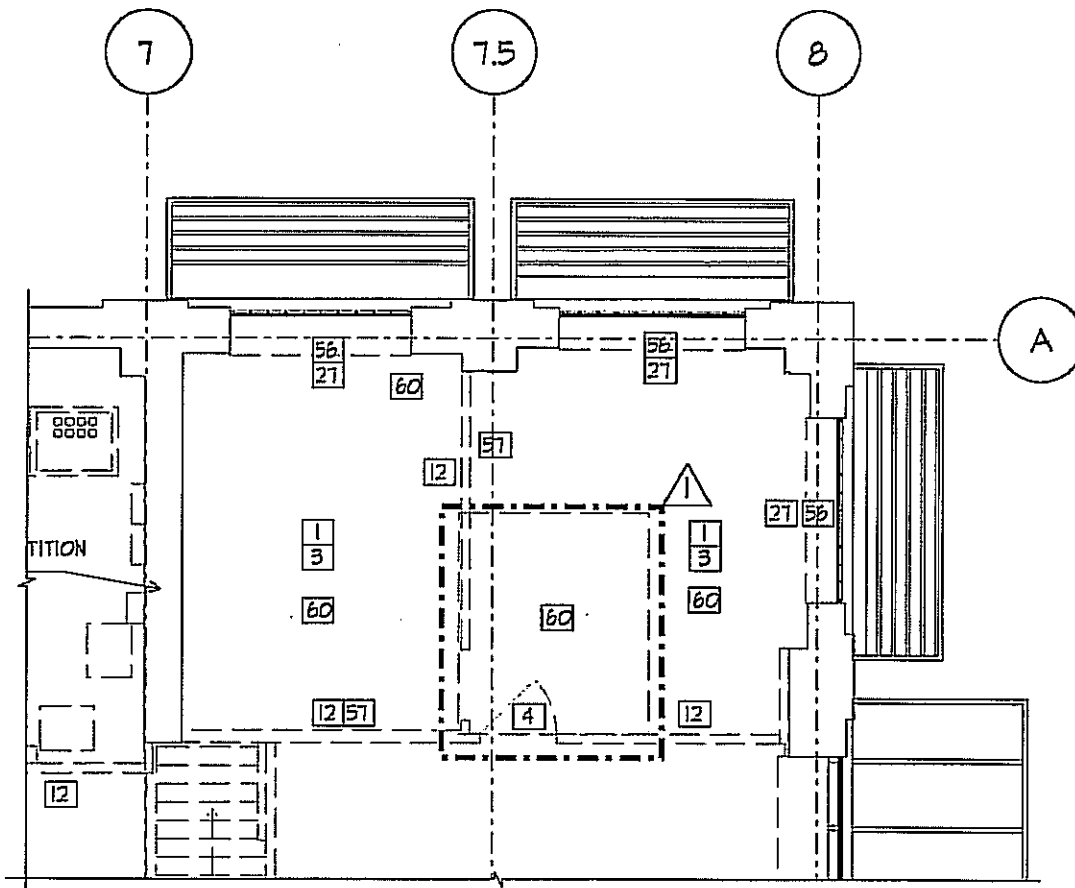
CONSTRUCTION DOCUMENTS

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PROJECT NO.
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DRAWING NO.
SKA-1

REFER TO DWG A11 & A12



**PARTIAL SECOND FLOOR
DEMOLITION PLAN**
SCALE: 1/8" = 1'-0"

REVISIONS:	
△	1/24/08 ADDendum #1

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PARTIAL SECOND FLOOR
DEMOLITION PLAN

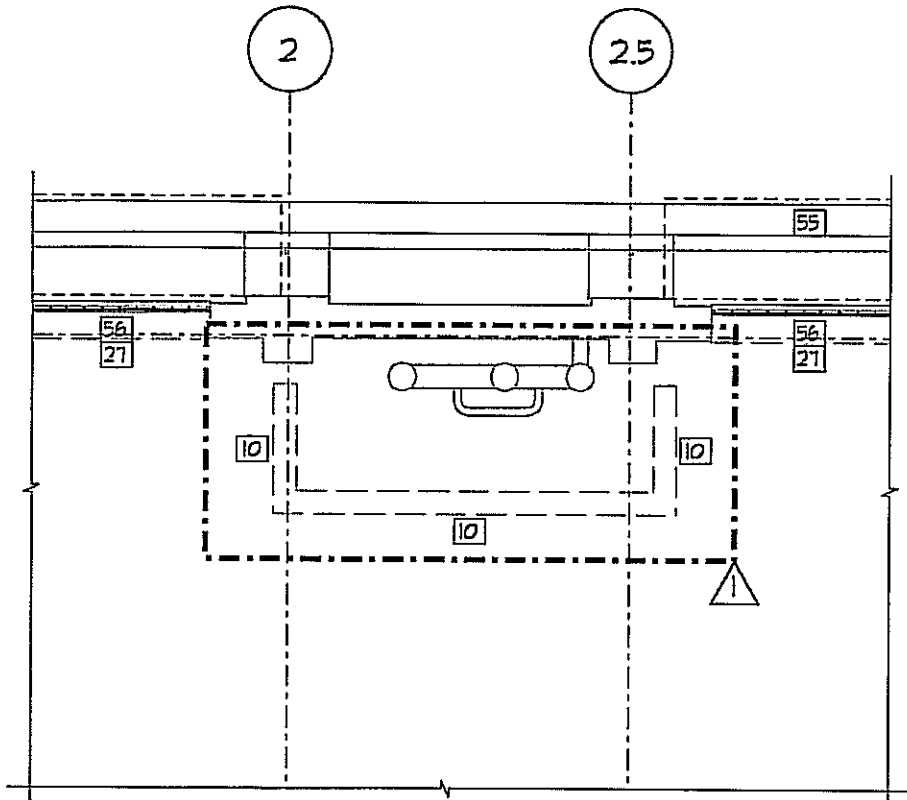
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SKA-2

REFER TO DNS X12



**PARTIAL FIRST FLOOR
DEMOLITION PLAN**
SCALE: 1/8" = 1'-0"

REVISIONS:		
△	4/24/09	ADDENDUM #1

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PARTIAL FIRST FLOOR
DEMOLITION PLAN

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PLOT NO. SKA-3_1B	DATE APRIL 17, 2009
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PROJECT NO.
3226

DRAWING NO.
SKA-3

REFER TO DWG XQ1

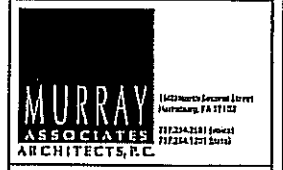
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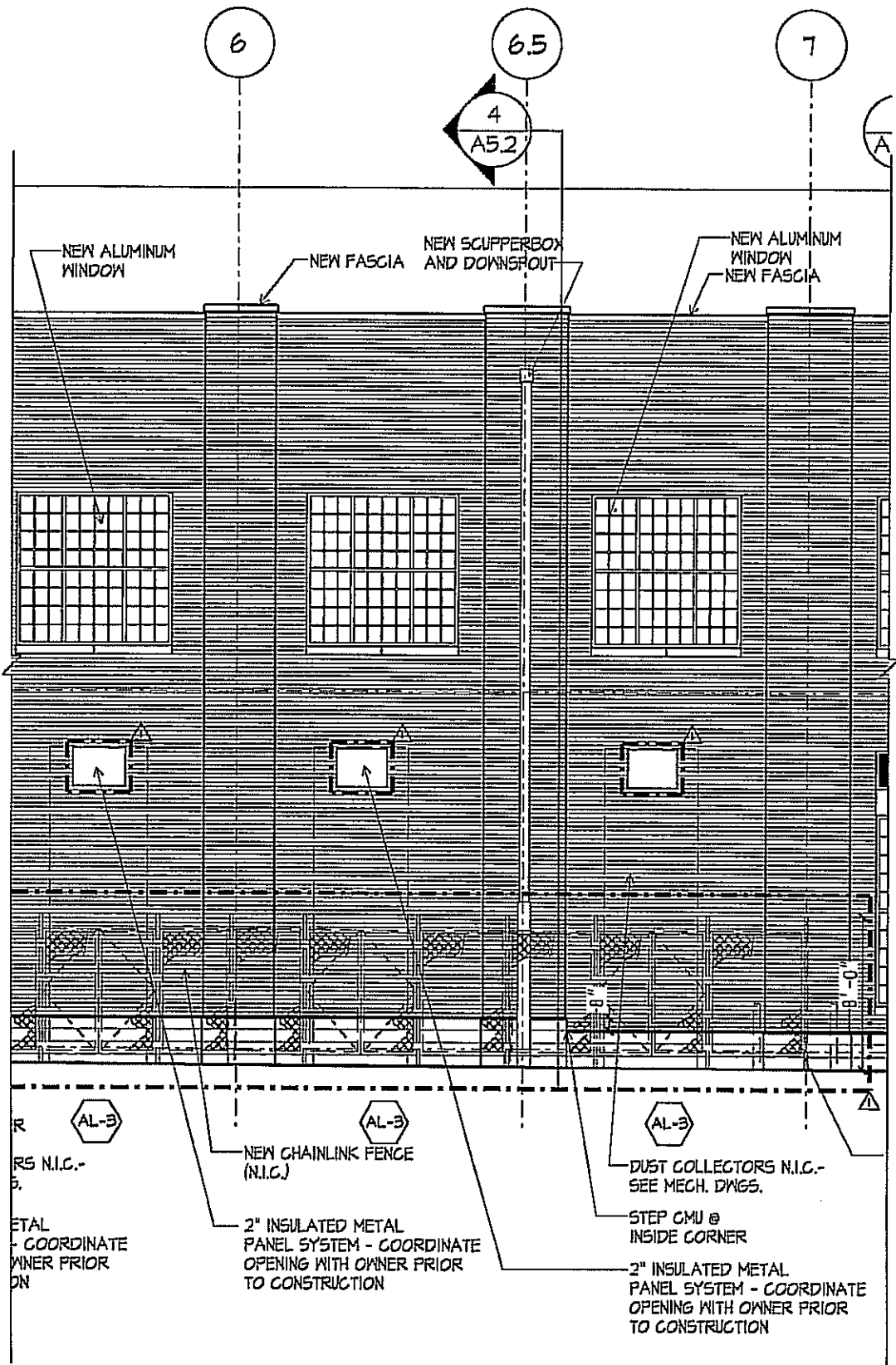
PARTIAL EXTERIOR
 ELEVATION

CONSTRUCTION DOCUMENTS

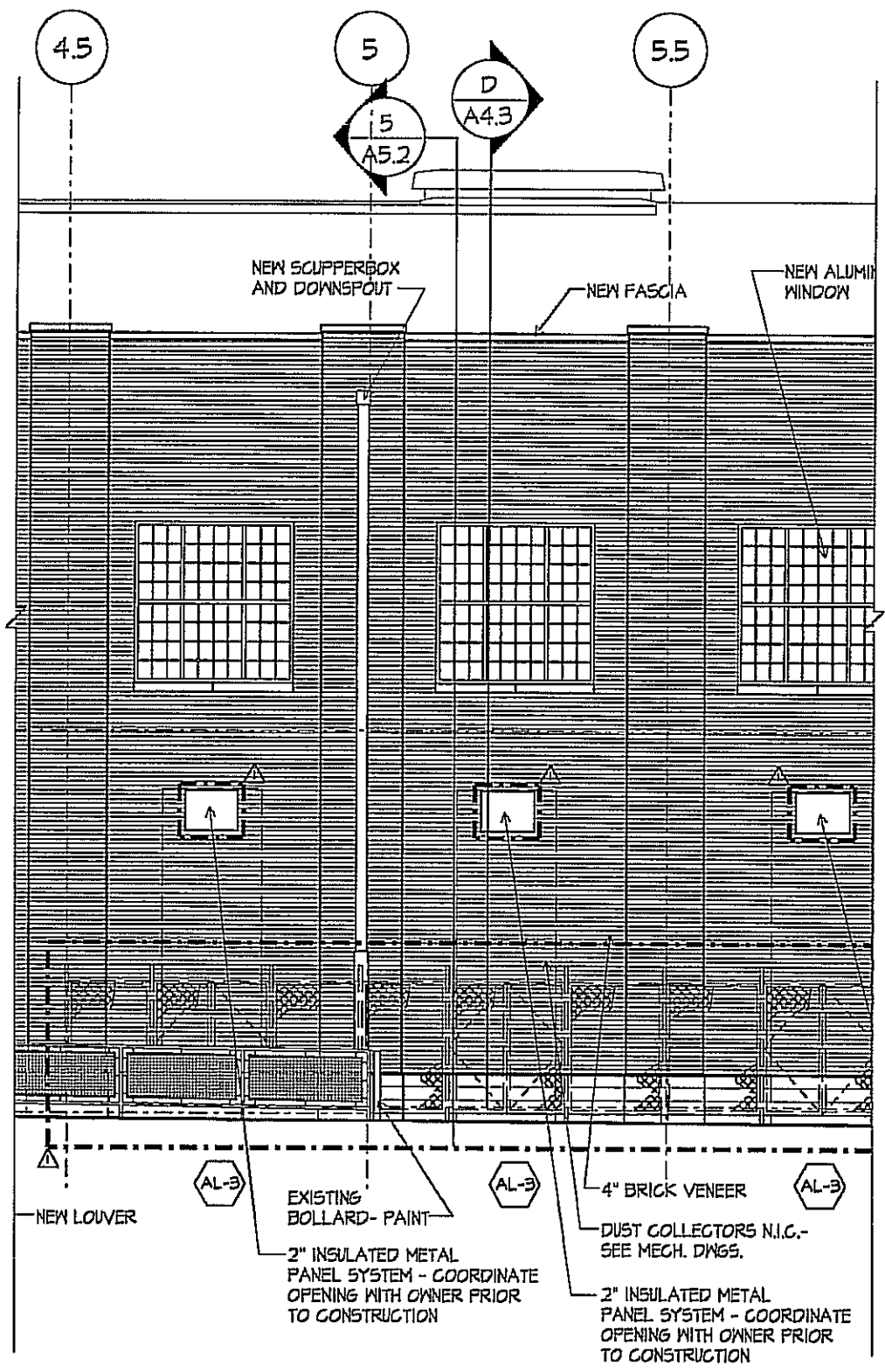
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SKA-4
 REFER TO DWG A31



PARTIAL EXTERIOR ELEVATION
 SCALE: 1/8" = 1'-0"



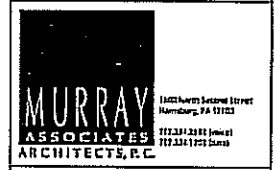
PARTIAL EXTERIOR ELEVATION
 SCALE: 1/8" = 1'-0"

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△	4/19/09 ADDENDUM #1

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PARTIAL EXTERIOR
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CONSTRUCTION DOCUMENTS

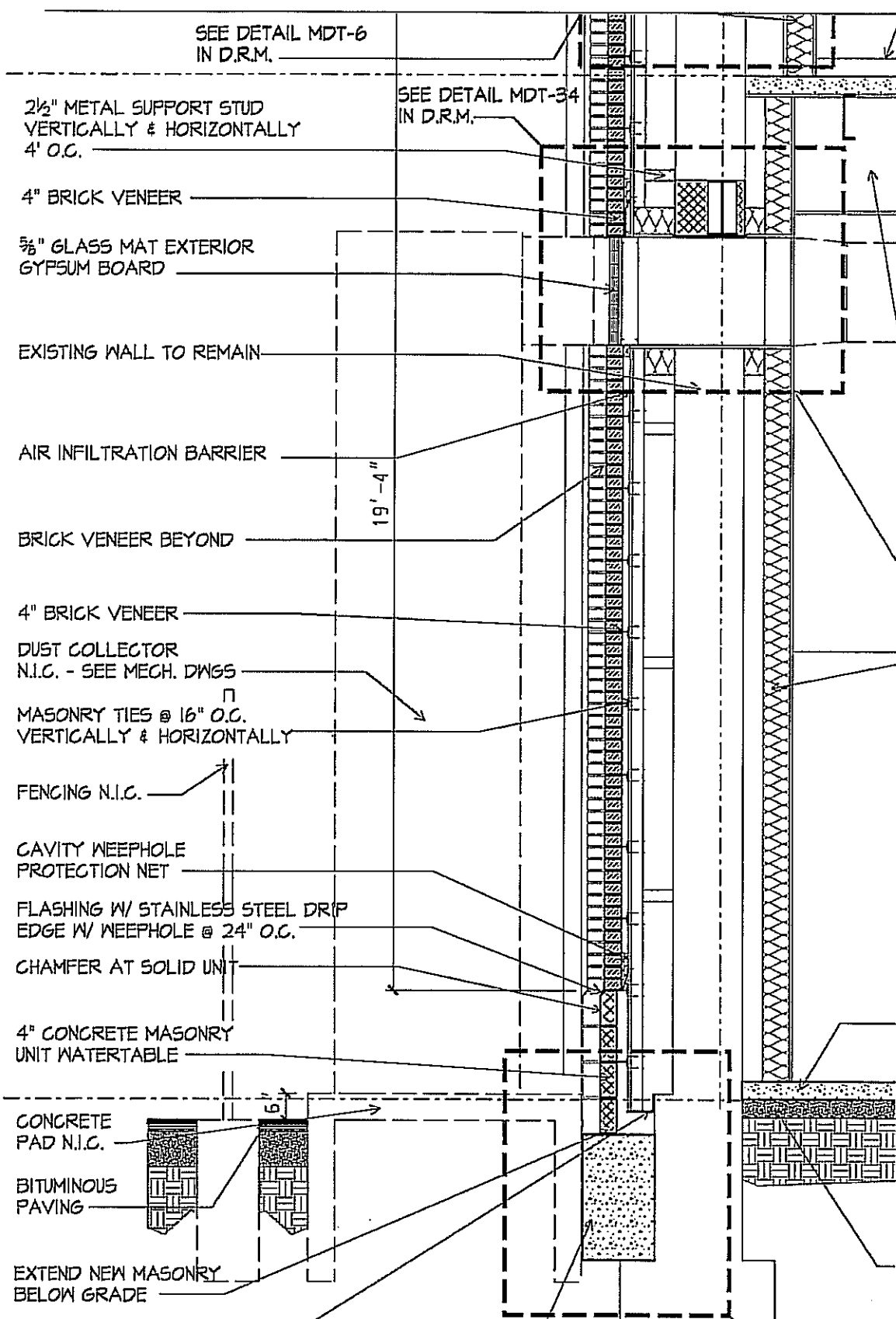
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PLOT NO. SKA-5_1B	DATE APRIL 17, 2009
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PROJECT NO.
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DRAWING NO.
 SKA-5

REFER TO DWG A9J



SEE DETAIL MDT-6
IN D.R.M.

SEE DETAIL MDT-34
IN D.R.M.

2 1/2" METAL SUPPORT STUD
VERTICALLY & HORIZONTALLY
4' O.C.

4" BRICK VENEER

5/8" GLASS MAT EXTERIOR
GYPSUM BOARD

EXISTING WALL TO REMAIN

AIR INFILTRATION BARRIER

BRICK VENEER BEYOND

4" BRICK VENEER

DUST COLLECTOR
N.I.C. - SEE MECH. DWGS

MASONRY TIES @ 16" O.C.
VERTICALLY & HORIZONTALLY

FENCING N.I.C.

CAVITY WEEPHOLE
PROTECTION NET

FLASHING W/ STAINLESS STEEL DRIP
EDGE W/ WEEPHOLE @ 24" O.C.

CHAMFER AT SOLID UNIT

4" CONCRETE MASONRY
UNIT WATERTABLE

CONCRETE
PAD N.I.C.

BITUMINOUS
PAVING

EXTEND NEW MASONRY
BELOW GRADE

19' - 4"

**PARTIAL
WALL SECTION**
SCALE: 3/8" = 1'-0"

5
A5.2

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△	4/23/04	ADDENDUM #1

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CONSTRUCTION DOCUMENTS

PARTIAL WALL SECTION

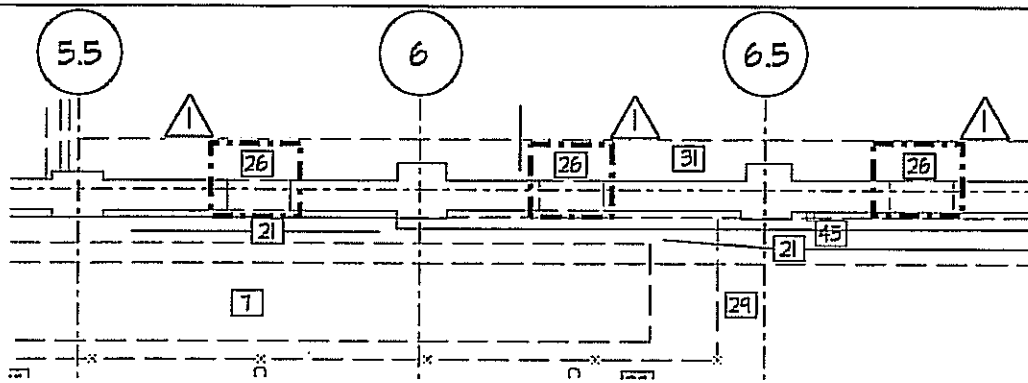
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PROJECT NO.
3226

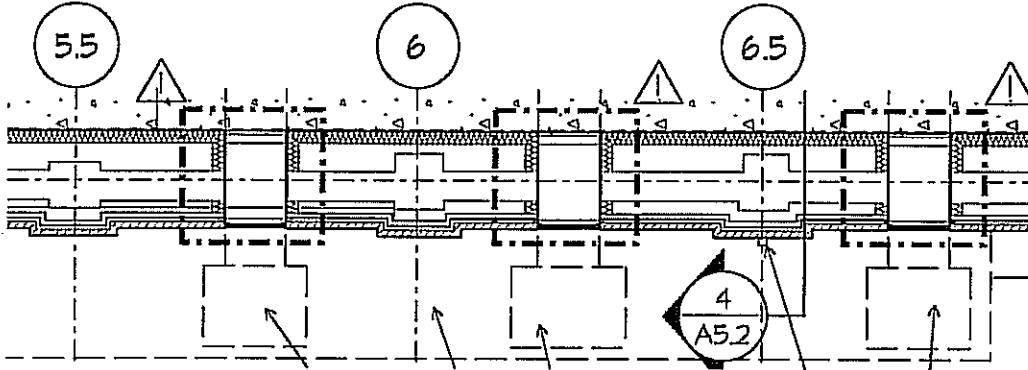
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SKA-6

REFER TO DWG A5.2



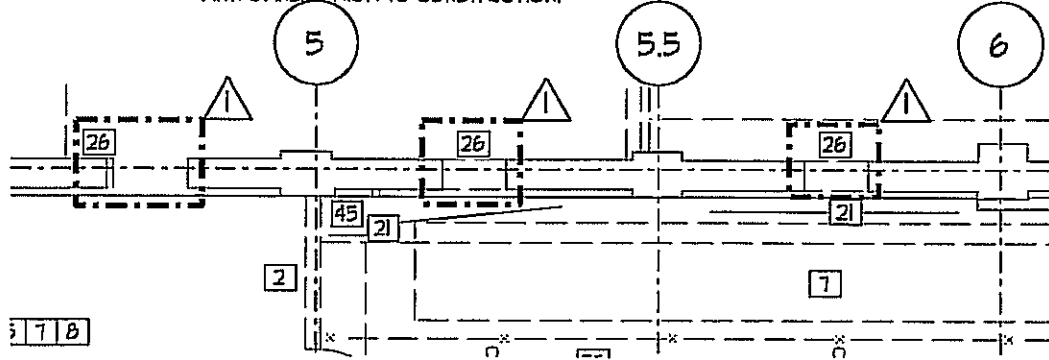
PARTIAL FIRST FLOOR DEMOLITION PLAN

SCALE: 1/8" = 1'-0" NOTE: FINAL LOCATION OF OPENINGS TO BE COORDINATED WITH OWNER PRIOR TO CONSTRUCTION.



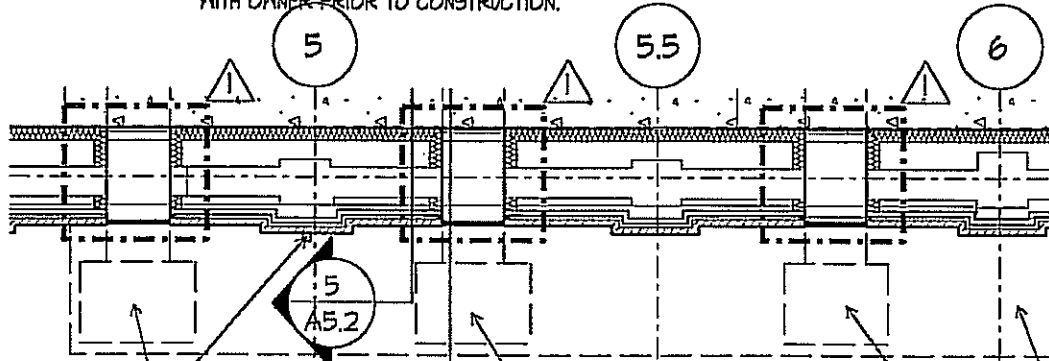
PARTIAL FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0" NOTE: FINAL LOCATION OF OPENINGS TO BE COORDINATED WITH OWNER PRIOR TO CONSTRUCTION.



PARTIAL FIRST FLOOR DEMOLITION PLAN

SCALE: 1/8" = 1'-0" NOTE: FINAL LOCATION OF OPENINGS TO BE COORDINATED WITH OWNER PRIOR TO CONSTRUCTION.



PARTIAL FIRST FLOOR PLAN

SCALE: 1/8" = 1'-0" NOTE: FINAL LOCATION OF OPENINGS TO BE COORDINATED WITH OWNER PRIOR TO CONSTRUCTION.

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NO.	DATE	DESCRIPTION

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PARTIAL FIRST FLOOR
AND DEMOLITION PLANS

CONSTRUCTION DOCUMENTS

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SKA-1,1B

DATE
APRIL 11, 2004

PROJECT NO.

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DRAWING NO.

SKA-7

REFER TO DWG X2J & A2J

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PHASE II
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PARTIAL EXTERIOR
 ELEVATION

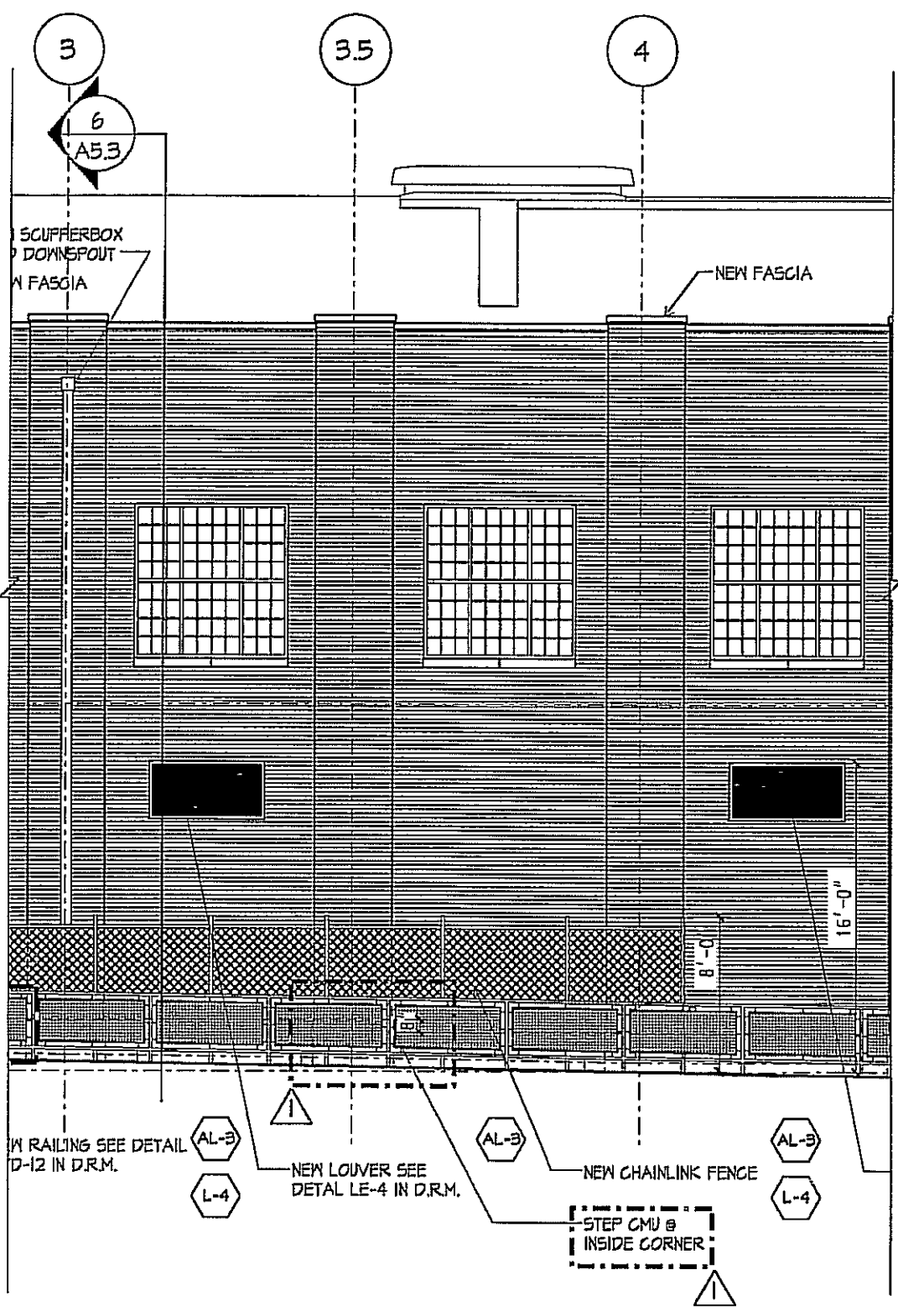
CONSTRUCTION DOCUMENTS

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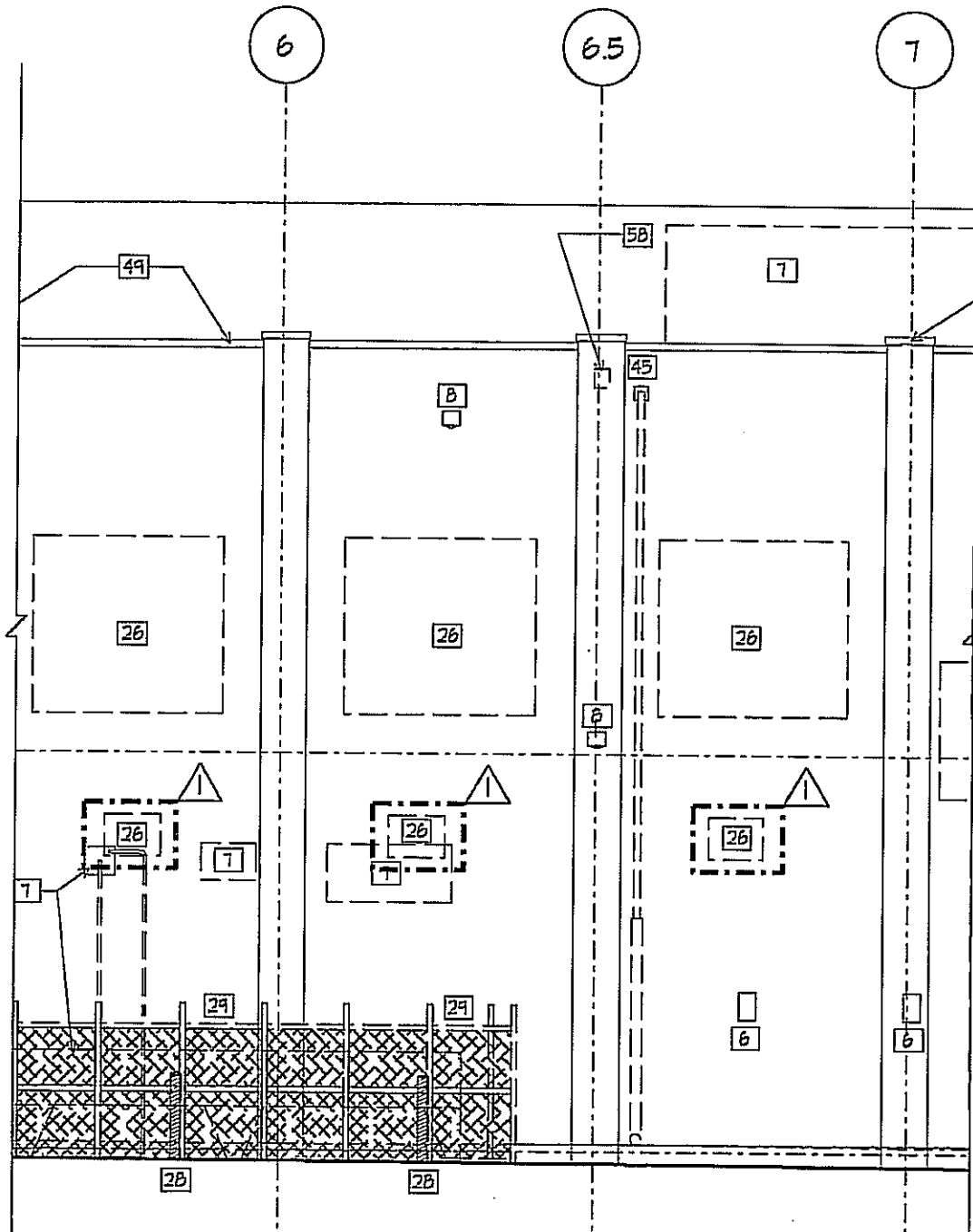
PROJECT NO.
 3226

DRAWING NO.
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REFER TO DWG A3.1



PARTIAL EXTERIOR ELEVATION
 SCALE: 1/8" = 1'-0"



**PARTIAL EXTERIOR ELEVATION
- DEMOLITION**

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

REVISIONS:	
Δ	DATE/DESCRIPTION

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**PARTIAL EXTERIOR
ELEVATION - DEMOLITION**

CONSTRUCTION DOCUMENTS

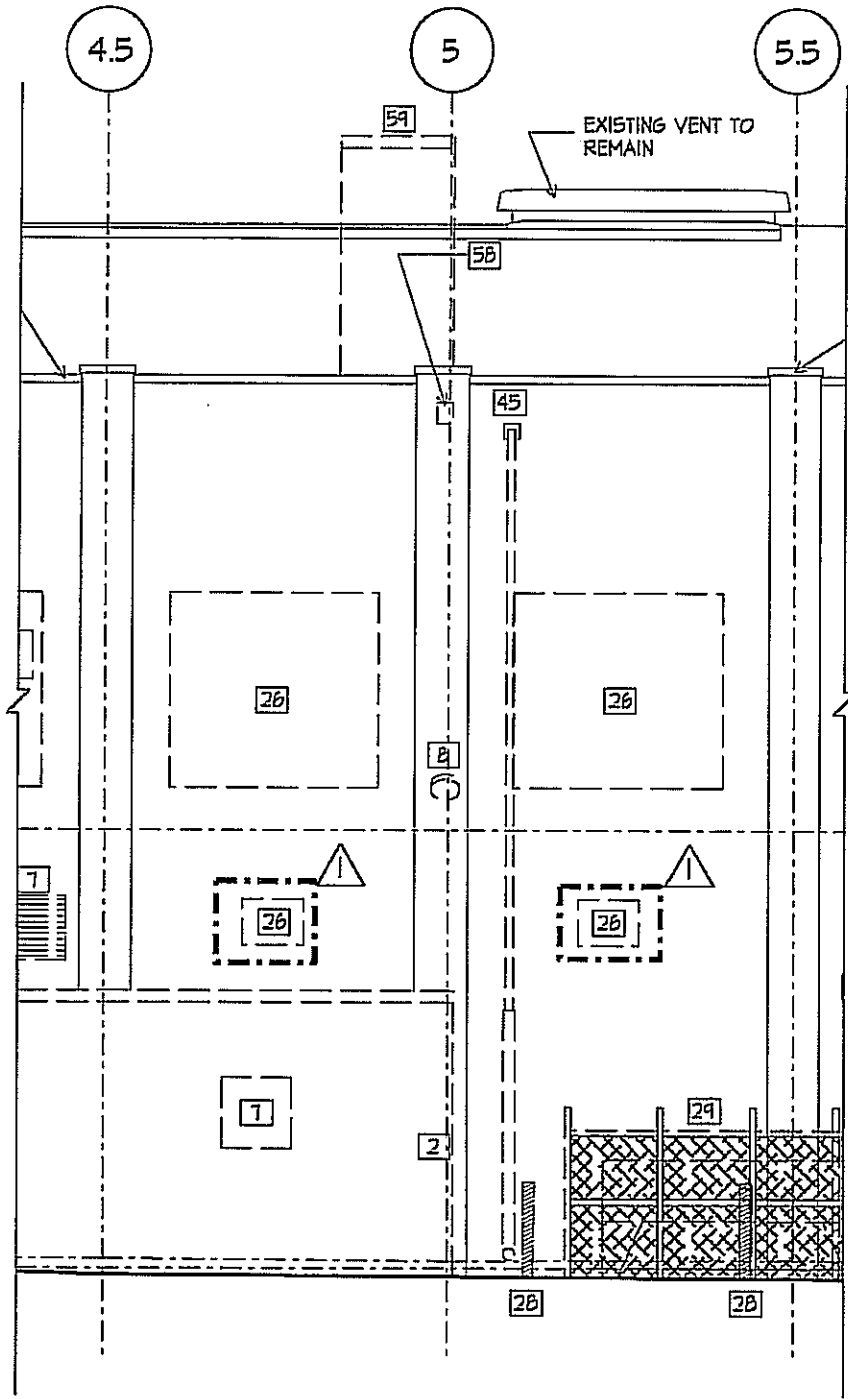
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PLOT NO. SKA-9_1B	DATE APRIL 17, 2009
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PROJECT NO.
3226

DRAWING NO.
SKA-9

REFER TO DWG X9J



PARTIAL EXTERIOR ELEVATION
- DEMOLITION
 SCALE: 1/8" = 1'-0"

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PARTIAL EXTERIOR
 ELEVATION - DEMOLITION

CONSTRUCTION DOCUMENTS

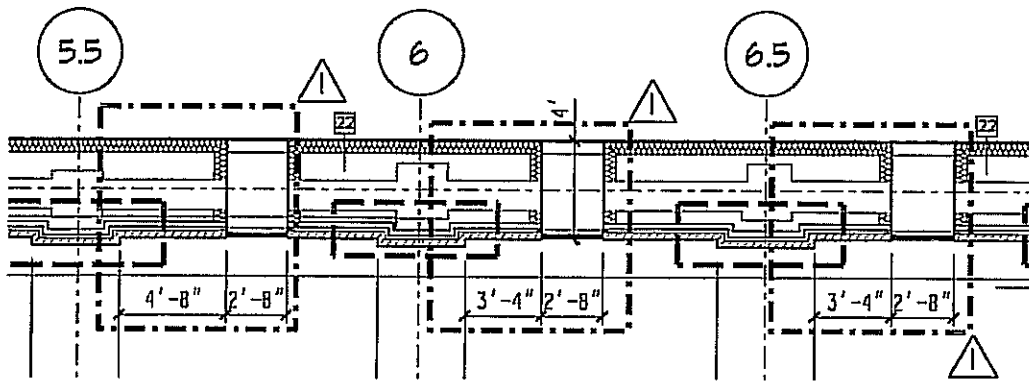
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PLOT NO. SKA-10 JB	DATE APRIL 17, 2009
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PROJECT NO.
3226

DRAWING NO.
SKA-10

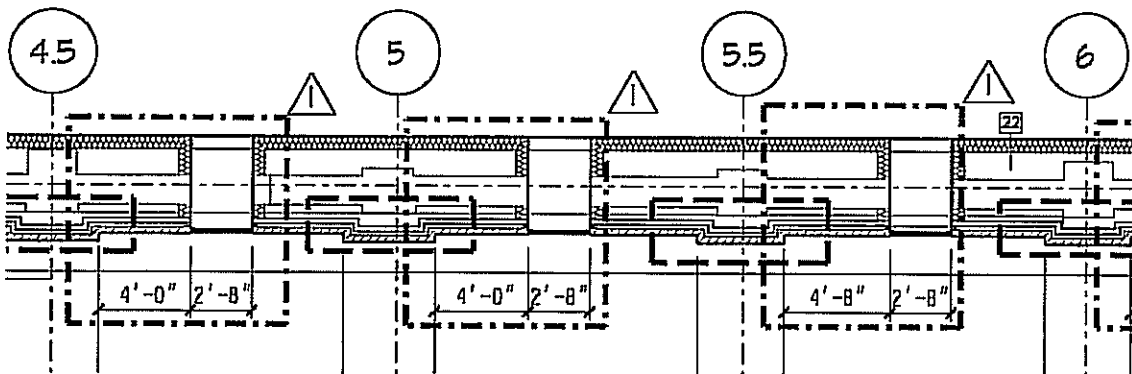
REFER TO DWS X3.1



PARTIAL FIRST FLOOR DIMENSION PLAN

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

NOTE: FINAL LOCATION OF OPENINGS TO BE COORDINATED WITH OWNER PRIOR TO CONSTRUCTION.



PARTIAL FIRST FLOOR DIMENSION PLAN

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

NOTE: FINAL LOCATION OF OPENINGS TO BE COORDINATED WITH OWNER PRIOR TO CONSTRUCTION.

REVISIONS:	
▲	4/24/04 ADDENDUM #1

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717-830-6032

CONSULTANT: H/E/P ENGINEER

GATTER & DIEHL, INC.

2400 PARK DRIVE
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717-651-9100

PHASE II
CCTA
HARRISBURG AREA
COMMUNITY COLLEGE
HARRISBURG, PA

PARTIAL FIRST FLOOR
AND DEMOLITION PLANS

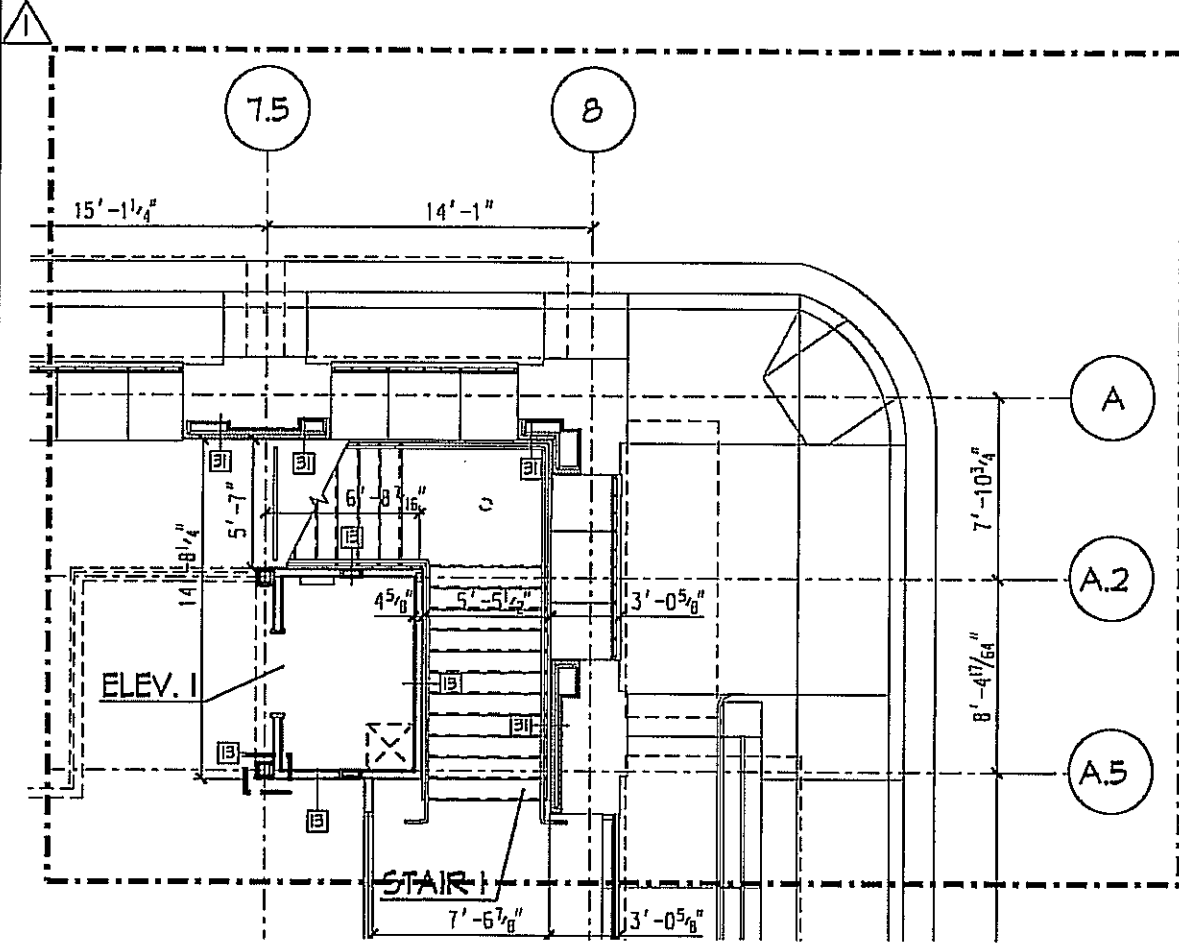
CONSTRUCTION DOCUMENTS

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PLOT NO. SKA-II_1B	DATE APRIL 17, 2004

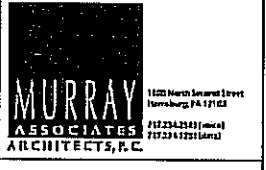
PROJECT NO.
3226

DRAWING NO.
SKA-II

REFER TO DWS A21-D



PARTIAL FIRST FLOOR DIMENSION PLAN
 SCALE: 1/8" = 1'-0"

REVISIONS: ▲ H/24/04 ADDENDUM #1	
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CONSULTANT: M/E/P ENGINEER GATTER & DIEHL, INC. 2400 PARK DRIVE HARRISBURG, PA. 17120 717-651-4100	
	
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PARTIAL FIRST FLOOR DIMENSION PLAN	
CONSTRUCTION DOCUMENTS	
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PLOT NO. SKA-12_1B	DATE APRIL 17, 2004
PROJECT NO. 3226	
DRAWING NO. SKA-12	
REFER TO DWG A21-D	

ARCHITECTURAL DRAWING LIST

PLANS

COVER SHEET

INDEX DRAWING LIST



A0.1 CODE REVIEW

FIRE RATING PLANS

- A0.2 FIRST FLOOR FIRE RATING PLAN
- A0.3 SECOND FLOOR FIRE RATING PLAN
- A0.4 ATTIC FLOOR FIRE RATING PLAN

PHASING PLANS

- A0.5 FIRST FLOOR PHASING PLAN
- A0.6 MEZZANINE PHASING PLAN
- A0.7 SECOND FLOOR PHASING PLAN
- A0.8 ATTIC FLOOR PHASING PLAN
- A0.9 ROOF PHASING PLAN

PARTIAL DRAWING INDEX

REVISIONS:	
▲	4/23/09 ADDENDUM #1

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 HARRISBURG, PA

PARTIAL DRAWING INDEX

CONSTRUCTION DOCUMENTS

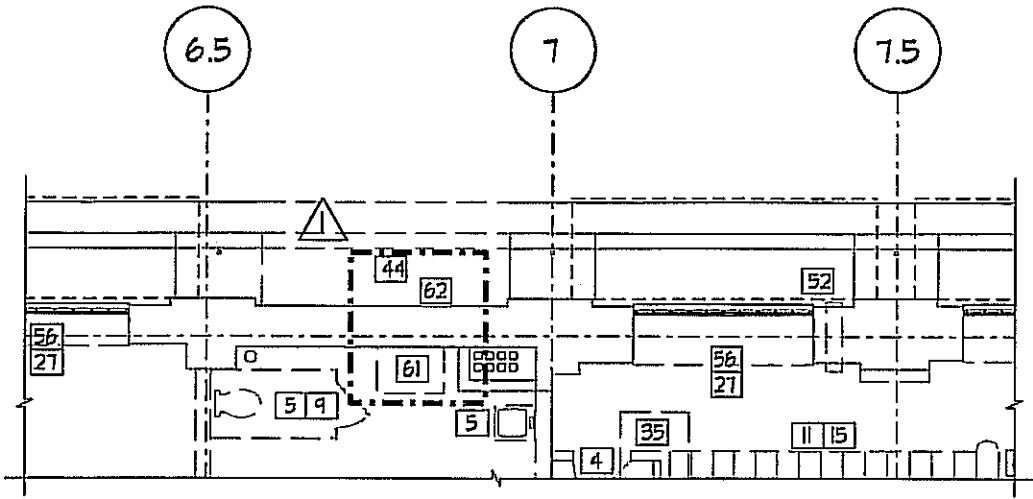
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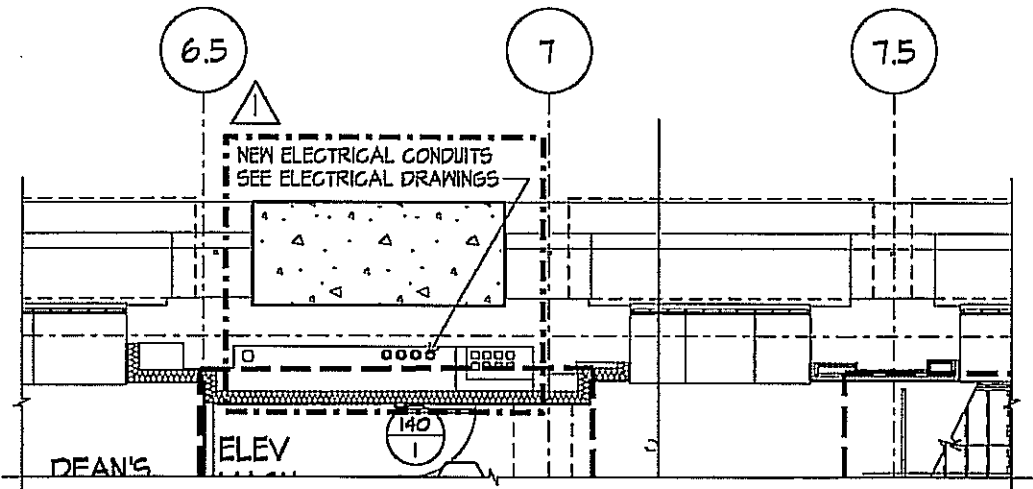
PROJECT NO.
3226

DRAWING NO.
SKA-13

REFER TO DWS INDEX

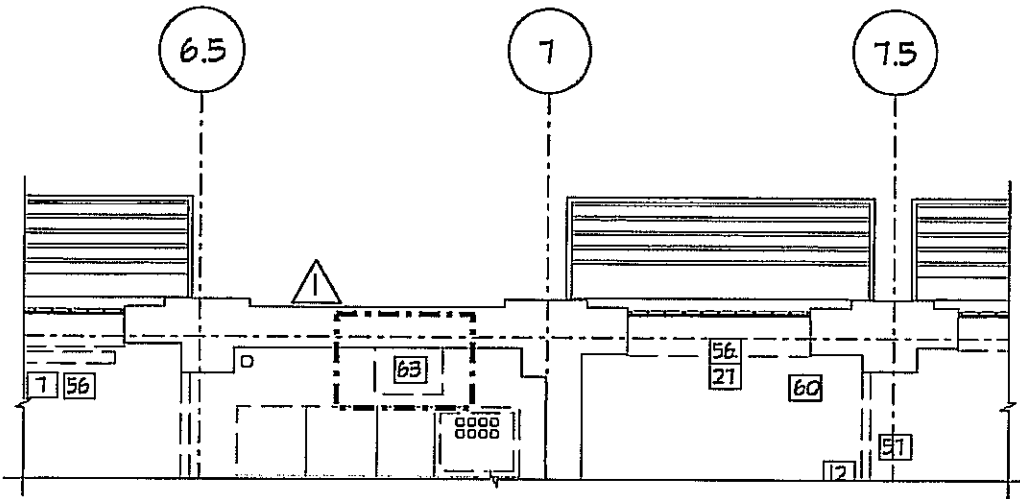


**PARTIAL FIRST FLOOR
DEMOLITION PLAN**
SCALE: 1/8" = 1'-0"

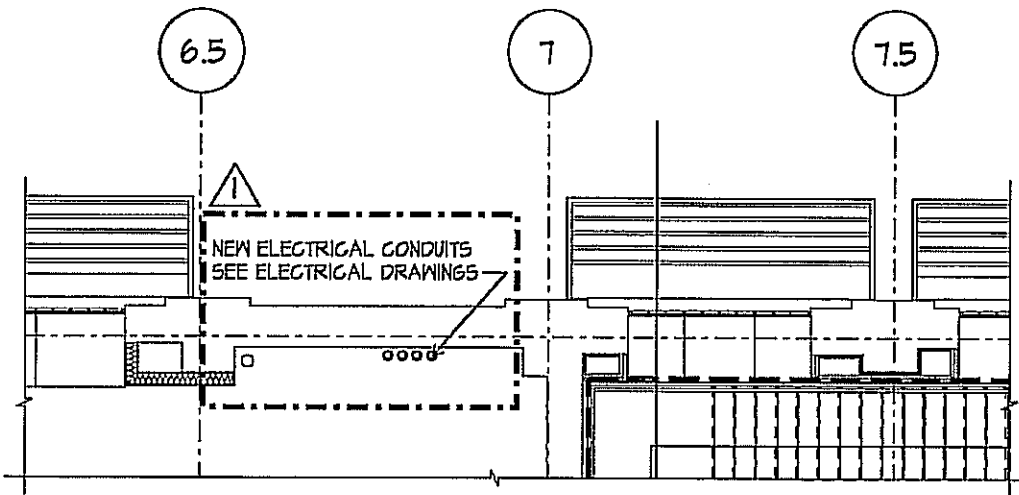


PARTIAL FIRST FLOOR PLAN
SCALE: 1/8" = 1'-0"

REVISIONS:	
△	4/24/09 AGGENDUM #1
<p>THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS AND EXISTING CONDITIONS AT THE SITE BEFORE PROCEEDING WITH EACH PHASE OF HIS WORK. THIS DRAWING, AS AN INSTRUMENT OF SERVICE, IS AND SHALL REMAIN THE PROPERTY OF THE ARCHITECT.</p> <p>© Murray Associates Architects, P.C.</p>	
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<p>PHASE II CCTA HARRISBURG AREA COMMUNITY COLLEGE HARRISBURG, PA</p>	
<p>PARTIAL FIRST FLOOR DEMOLITION AND FLOOR PLAN</p>	
<p>CONSTRUCTION DOCUMENTS</p>	
DRAWN BY ALS	CHECKED BY BHD
FLOT NO. SKA-14_1B	DATE APRIL 17, 2009
<p>PROJECT NO. 3226</p>	
<p>DRAWING NO. SKA-14</p>	
<p>REFER TO DWG X3J AND A3J</p>	



**PARTIAL SECOND FLOOR
DEMOLITION PLAN**
SCALE: 1/8" = 1'-0"



PARTIAL SECOND FLOOR PLAN
SCALE: 1/8" = 1'-0"

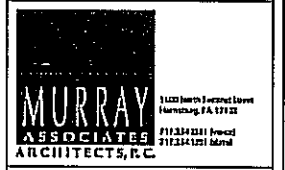
REVISIONS:		
△	4/24/09	ADDENDUM #1

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PARTIAL SECOND FLOOR
DEMOLITION AND
FLOOR PLAN

CONSTRUCTION DOCUMENTS

DRAWN BY ALS	CHECKED BY BHD
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PLOT NO. SKA-15_13	DATE APRIL 17, 2009
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PROJECT NO.
3226

DRAWING NO.
SKA-15

REFER TO DWS X2.3 & A2.2

DEMOLITION NOTES

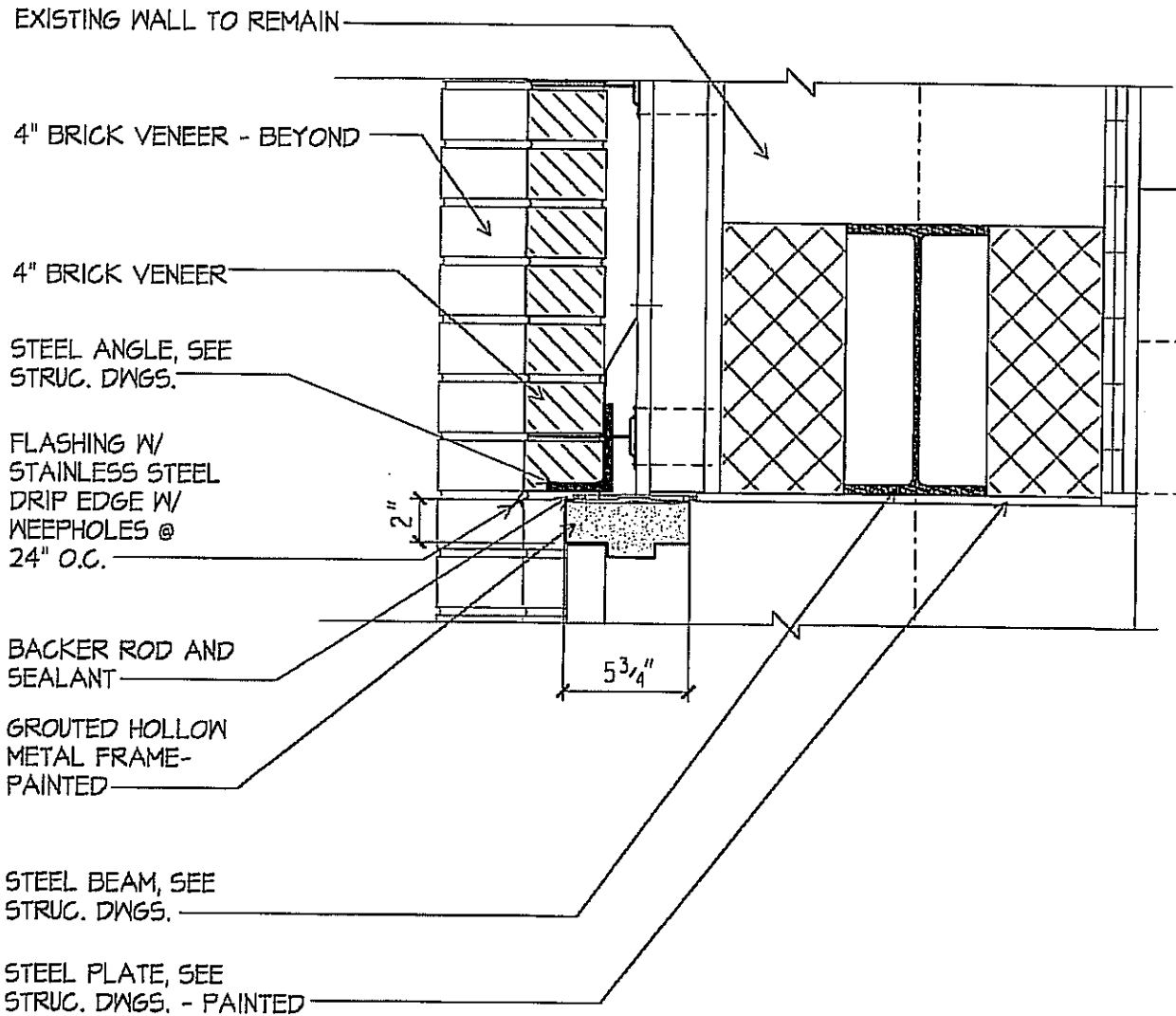
- 1 REMOVE EXISTING FLOORING.
- 2 REMOVE EXISTING CMU PARTITION.
- 3 REMOVE EXISTING CEILING TILE AND GRID SYSTEM.
- 4 REMOVE EXISTING DOOR, FRAME AND HARDWARE.
- 5 REMOVE EXISTING PLUMBING FIXTURES, SUPPLY PIPING BY PLUMBING CONTRACTOR; SEE PLUMBING DRAWINGS.
- 6 REMOVE ALL EXISTING INTERIOR/EXTERIOR SIGNAGE.
- 7 EXISTING MECHANICAL EQUIPMENT TO BE REMOVED BY MECHANICAL CONTRACTOR; SEE HVAC DRAWINGS.
- 8 EXISTING ELECTRICAL EQUIPMENT TO BE REMOVED BY ELECTRICAL CONTRACTOR; SEE ELECTRICAL DRAWINGS.
- 9 REMOVE EXISTING TOILET PARTITIONS.
- 10 SAW CUT EXISTING CONCRETE SLAB FOR INSTALLATION OF PIPING TRENCH.
- 11 REMOVE EXISTING CONCRETE STAIR.
- 12 REMOVE EXISTING DRYWALL PARTITION.
- 13 REMOVE EXISTING CHALKBOARD/WHITE BOARD OR TACK BOARD, TURN OVER TO OWNER.
- 14 REMOVE EXISTING BULKHEAD, FRAMING, ETC. IN ITS ENTIRETY.
- 15 REMOVE EXISTING HANDRAIL.
- 16 REMOVE EXISTING CASEWORK.
- 17 REMOVE EXISTING CONCRETE PAD/ SIDEWALK.
- 18 REMOVE EXISTING METAL POST.
- 19 REMOVE EXISTING RAMP.
- 20 REMOVE EXISTING PLUMBING VENT TO BE REMOVED BY PLUMBING CONTRACTOR; SEE PLUMBING DWGS.
- 21 REMOVE EXISTING BITUMINOUS PAVING AND STONE BASE.
- 22 REMOVE WOOD POST.
- 23 REMOVE EXISTING WOOD STAIRS.
- 24 REMOVE EXISTING ELEVATOR.
- 25 REMOVE EXISTING ROOF AND POSTS.
- 26 PARTIALLY REMOVE EXTERIOR WALL AS REQUIRED FOR NEW CONSTRUCTION.
- 27 REMOVE EXISTING FLYWOOD SILL.
- 28 REMOVE EXISTING BOLLARDS.
- 29 REMOVE EXISTING METAL FENCING AND POSTS.
- 30 REMOVE EXISTING DOCK SHELTER.
- 31 REMOVE EXISTING CONCRETE CURB.
- 32 REMOVE EXISTING PARTITION.
- 33 REMOVE EXISTING WINDOW AND FRAME.
- 34 REMOVE EXISTING METAL LADDER.
- 35 REMOVE EXISTING CONCRETE SLAB AS REQUIRED FOR NEW CONSTRUCTION; SEE STRUCTURAL DRAWINGS.
- 36 REMOVE EXISTING SECURITY DEVICES.
- 37 REMOVE EXISTING METAL PLATES.
- 38 REMOVE EXISTING CATWALK.
- 39 REMOVE EXISTING WOOD FLOORING AND INSULATION IN ITS ENTIRETY.
- 40 REMOVE EXISTING ROOF STRUCTURE AND ROOFING SYSTEM AS REQUIRED FOR NEW CONSTRUCTION.
- 41 REMOVE EXISTING MECHANICAL UNITS AND CURB.
- 42 SAW CUT EXISTING SLAB
- 43 REMOVE EXISTING ROOF HATCH, STORE FOR REINSTALLATION
- 44 REMOVE EXISTING CONCRETE SIDEWALK AND CURB AS REQUIRED
- 45 REMOVE EXISTING SCUPPER BOXES AND DOWNSPOUTS, STORE FOR REINSTALLATION
- 46 REMOVE PORTION OF EXISTING METAL FENCING AND RELOCATE EXISTING POST.
- 47 SAW CUT EXISTING CONCRETE SLAB FOR INSTALLATION OF NEW PARTITION
- 48 REMOVE PORTION OF WALL FOR LOUVER INSTALLATION
- 49 REMOVE EXISTING FASCIA & BLOCKING
- 50 SAW CUT EXISTING CONCRETE PAVING EXCAVATE AREA FOR NEW FOUNDATION
- 51 REMOVE, REWORK & REINSTALL EXISTING LINEAR METAL CEILING. CENTERING THE OPENINGS FOR LIGHT FIXTURES
- 52 CORE DRILL MASONRY TO ALLOW PLUMBING SLEEVE, SEE PLUMBING DRAWINGS
- 53 REMOVE EXISTING CMU WING WALLS TO BELOW GRADE
- 54 REMOVE EXISTING STOREFRONT, STORE FOR REINSTALLATION
- 55 REMOVE EXISTING SUNSHADE, STORE FOR REINSTALLATION
- 56 REMOVE EXISTING ROLLING BLINDS, STORE FOR REINSTALLATION
- 57 REMOVE EXISTING STEEL FRAMING, SEE STRUCTURAL DRAWING
- 58 REMOVE PORTION OF EXISTING ROOFING SYSTEM AND MASONRY PARAPET AS REQUIRED FOR NEW NEW SCUPPER BOX INSTALLATION
- 59 REMOVE MASONRY CHIMNEY
- 60 REMOVE EXISTING CONCRETE SLAB AND STEEL FRAMING - SEE STRUCTURAL DRAWINGS
- 61 REMOVE EXISTING CONCRETE SLAB AS REQUIRED FOR NEW ELECTRICAL CONDUIT - SEE ELECTRICAL DRAWINGS.
- 62 CORE EXISTING FOUNDATION AS REQUIRED FOR NEW ELECTRICAL CONDUIT - SEE ELECTRICAL DRAWINGS.
- 63 CORE EXISTING CONCRETE SLAB AS REQUIRED FOR NEW ELECTRICAL CONDUIT - SEE ELECTRICAL DRAWINGS.



ADDENDUM #1 / APRIL 29, 2009
 CONSTRUCTION DOCUMENTS
 A226NOI_3 / APRIL 17, 2009
 MURRAY ASSOCIATES ARCHITECTS, P.C.

BASE BID

N-2



HOLLOW METAL DETAIL

SCALE: 1 1/2" = 1'-0"

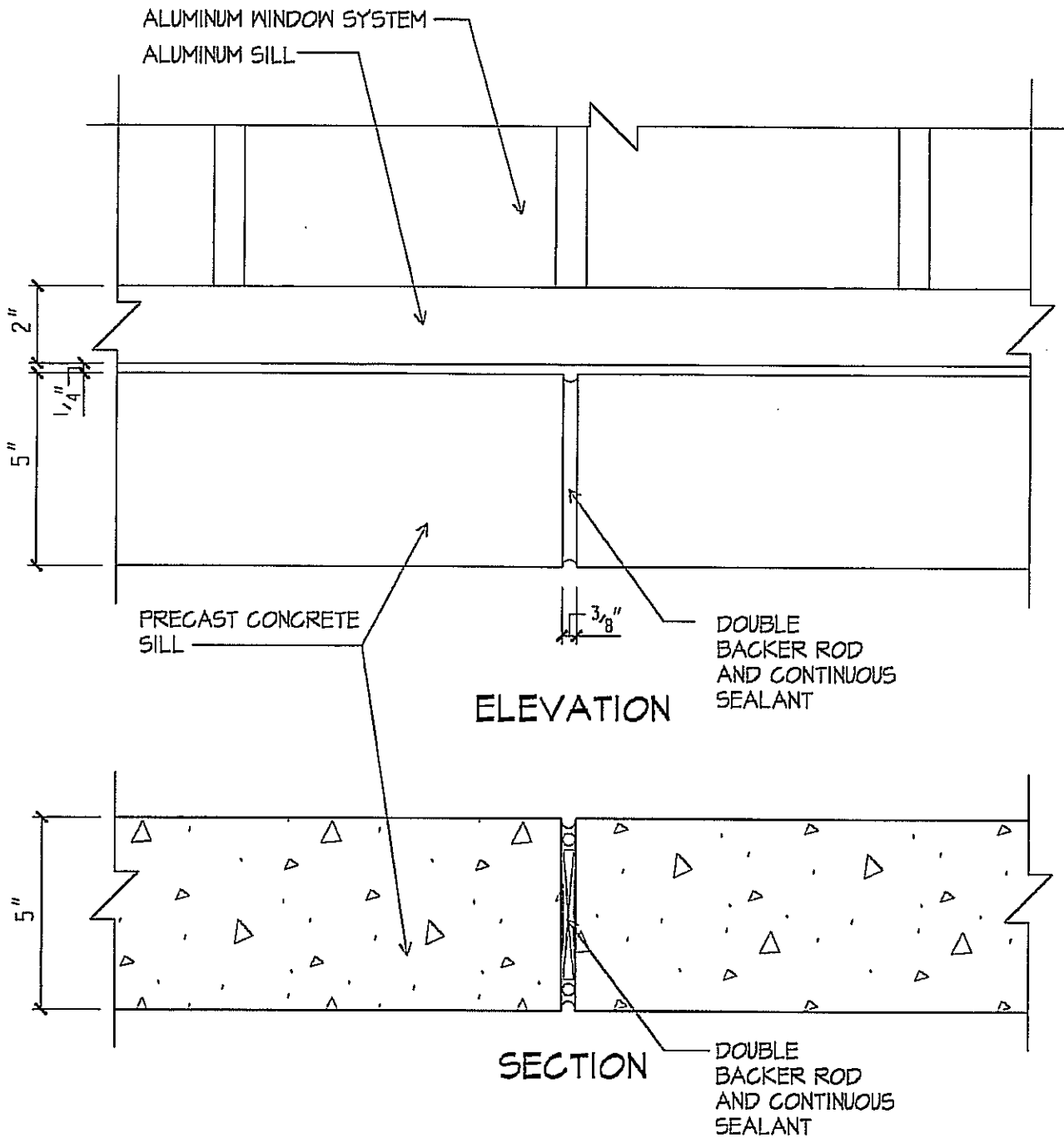
ADDENDUM #1 / APRIL 29, 2009
CONSTRUCTION DOCUMENTS

A226HMDO3_112 / APRIL 17, 2009

MURRAY ASSOCIATES ARCHITECTS, P.C.

BASE

HMD-29



SEALANT JOINT @ EXTERIOR
PRECAST CONCRETE SILL

MISCELLANEOUS DETAIL

SCALE: 3" = 1'-0"

ADDENDUM #1 / APRIL 29, 2009

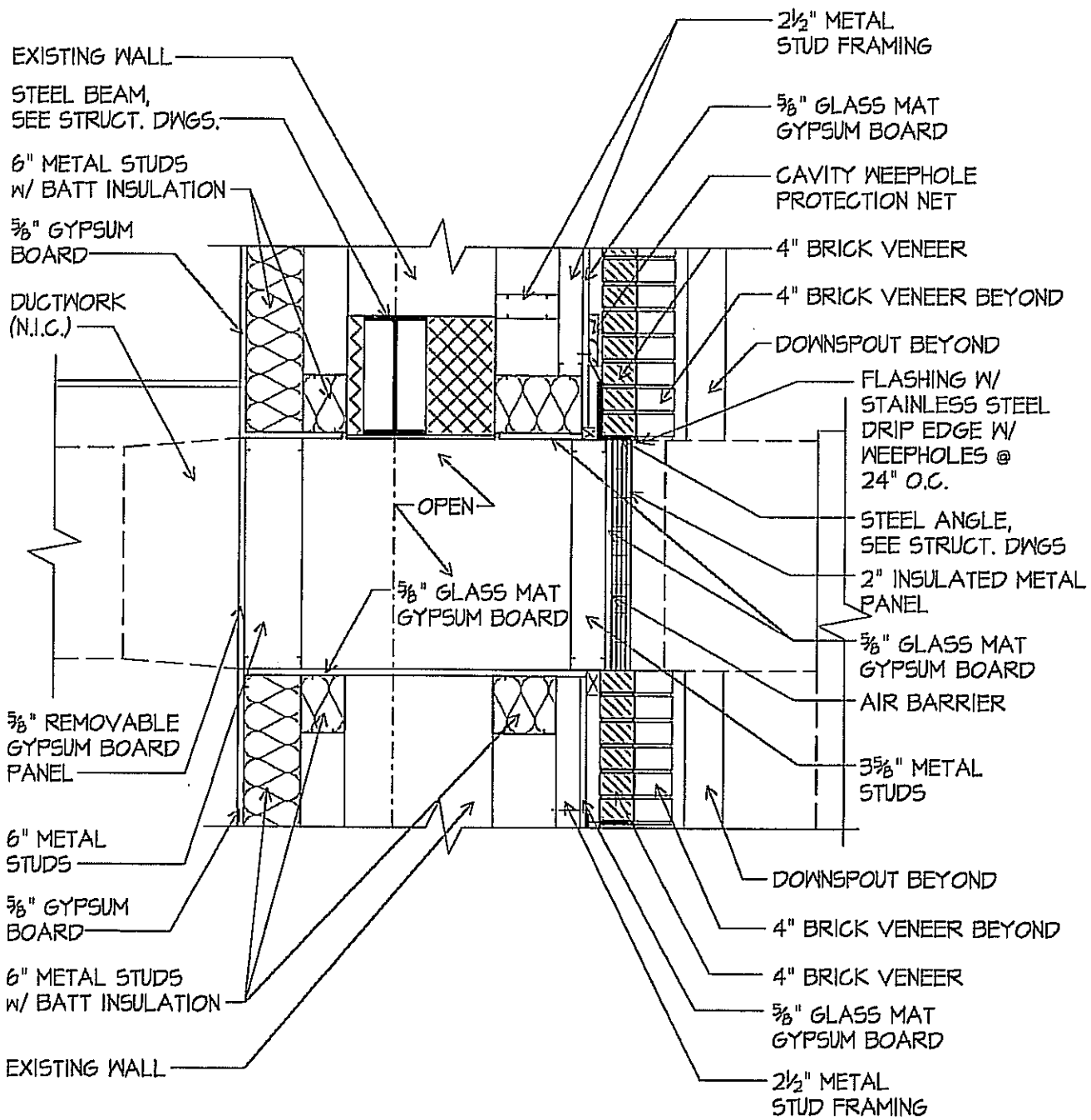
CONSTRUCTION DOCUMENTS

A226MDT02_3 / APRIL 17, 2009

MURRAY ASSOCIATES ARCHITECTS, P.C.

BASE BID

MDT-17



LOCATION AND SIZE OF OPENINGS ARE TO BE COORDINATED WITH THE OWNER PRIOR TO THEIR CONSTRUCTION.

MISCELLANEOUS DETAIL

SCALE: 3/4" = 1'-0"

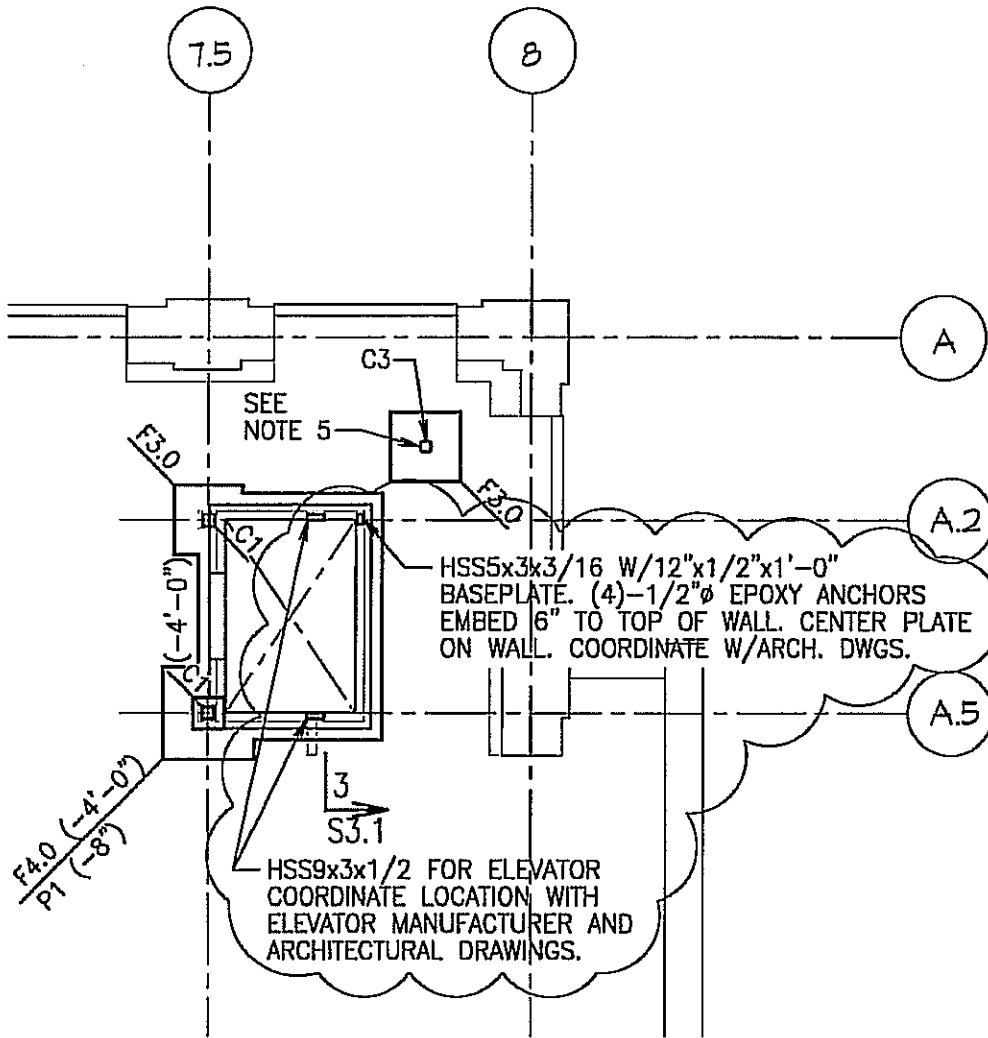
ADDENDUM #1 / APRIL 29, 2009

A226MDT03_34

MURRAY ASSOCIATES ARCHITECTS, P.C.

BASE BID

MDT-34



REF. S1.1 & S1.1A

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

REVISIONS:		
△	4/24/09	ADDENDUM #1

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PHASE II
CCTA
HARRISBURG AREA
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HARRISBURG, PA

PARTIAL FOUNDATION
PLAN - SECTION U

CONSTRUCTION DOCUMENTS

DRAWN BY
CKM

CHECKED BY
TMS

PLOT NO.

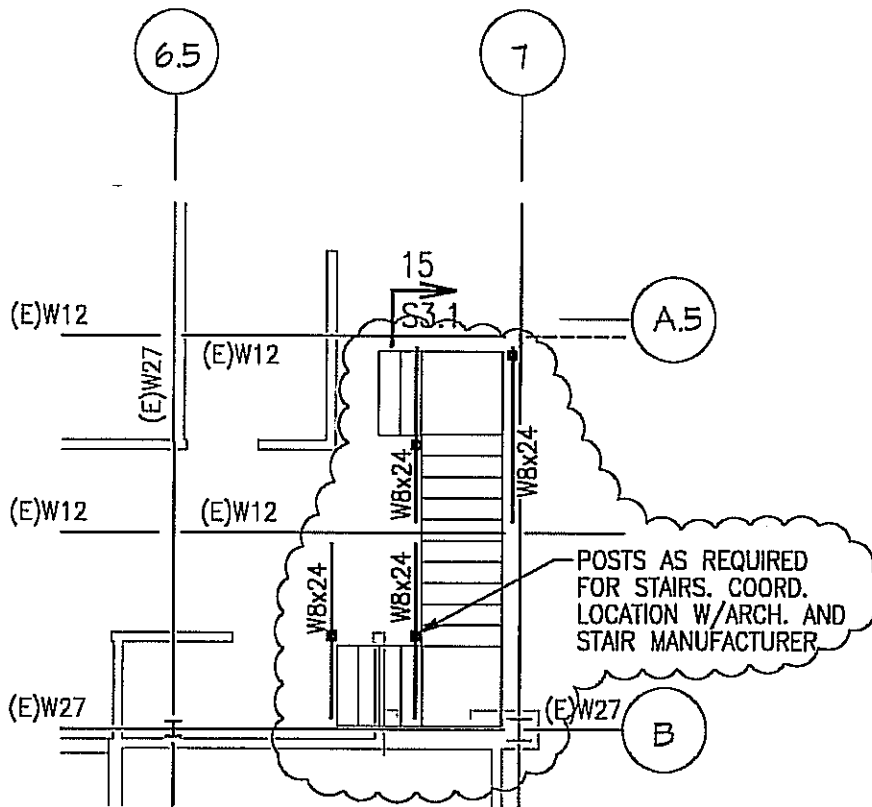
DATE
APRIL 17, 2009

PROJECT NO.

3226

DRAWING NO.

SKS-1



REF. S1.2 & S1.2A

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

REVISIONS:	
▲	4/24/09 ADDendum #1

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PHASE II
 CCTA
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 COMMUNITY COLLEGE
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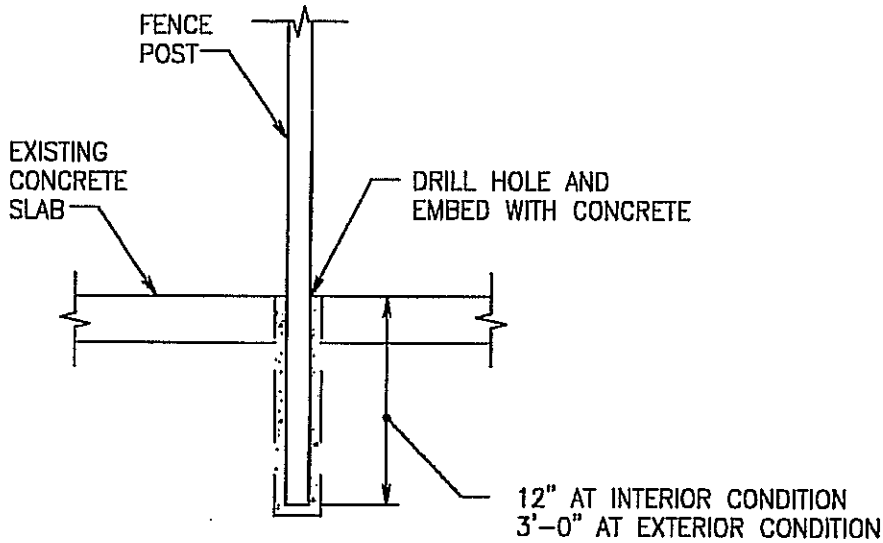
PARTIAL FOUNDATION
 PLAN - SECTION U

CONSTRUCTION DOCUMENTS

DRAWN BY CRH	CHECKED BY TMS
PLOT NO.	DATE APRIL 17, 2009

PROJECT NO.
 3226

DRAWING NO.
 SK5-3



TYPICAL FENCE POST ANCHORAGE

28
S2.2

DETAIL

NOT TO SCALE

REF. S2.2

REVISIONS:	
▲	4/24/09 ADDENDUM #1

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HARRISBURG, PA

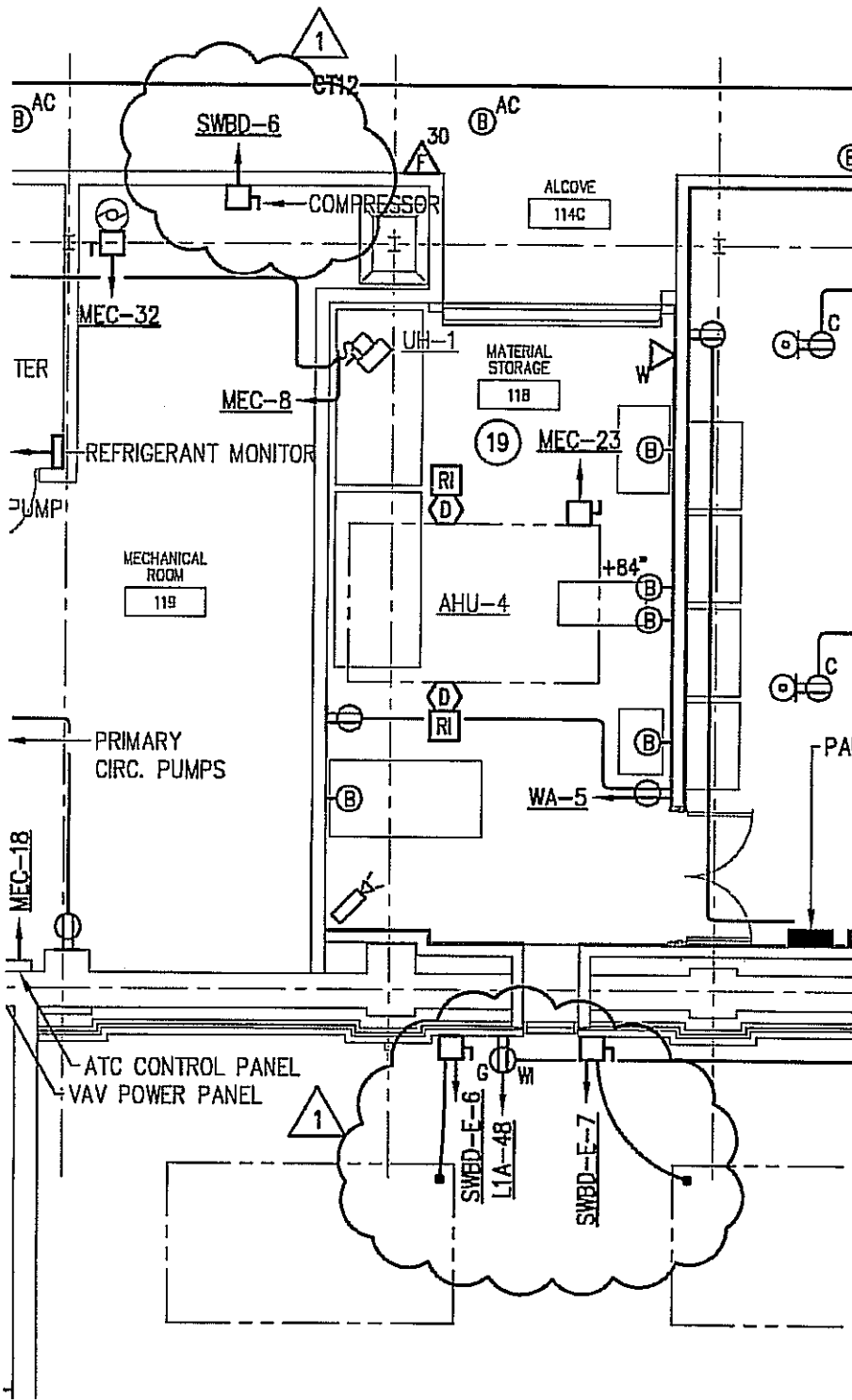
PARTIAL FOUNDATION
PLAN - SECTION U

CONSTRUCTION DOCUMENTS

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FLOT NO.	DATE APRIL 17, 2009


PROJECT NO.
3226

DRAWING NO.
SKS-4



PARTIAL FIRST FLOOR PLAN – POWER & SYSTEMS

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

REVISIONS:	
1	4/20/09 ADDENDUM #1
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<p>CONSULTANT: H/E/P ENGINEER</p> <p>GÄTTER & DIEHL, INC.</p> <p>2400 PARK DRIVE HARRISBURG, PA. 17109 717-657-4700</p>	
	
<p>PHASE II CCTA HARRISBURG AREA COMMUNITY COLLEGE HARRISBURG, PA</p>	
<p>PARTIAL FIRST FLOOR PLAN POWER & SYSTEMS</p>	
<p>CONSTRUCTION DOCUMENTS</p>	
<p>DRAWN BY RHL</p>	<p>CHECKED BY J.G.</p>
<p>PLOT NO.</p>	<p>DATE APRIL 17, 2009</p>
<p>PROJECT NO. 3226</p>	
<p>DRAWING NO. SKE-1</p>	

REVISIONS:		
NO.	DATE	DESCRIPTION

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 CAMP HILL, PA. 17021
 TF-750-5032

CONSULTANT: M/E/P ENGINEER
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 HARRISBURG, PA. 17109
 TF-651-4100



PHASE II
 CCTA
 HARRISBURG AREA
 COMMUNITY COLLEGE
 HARRISBURG, PA

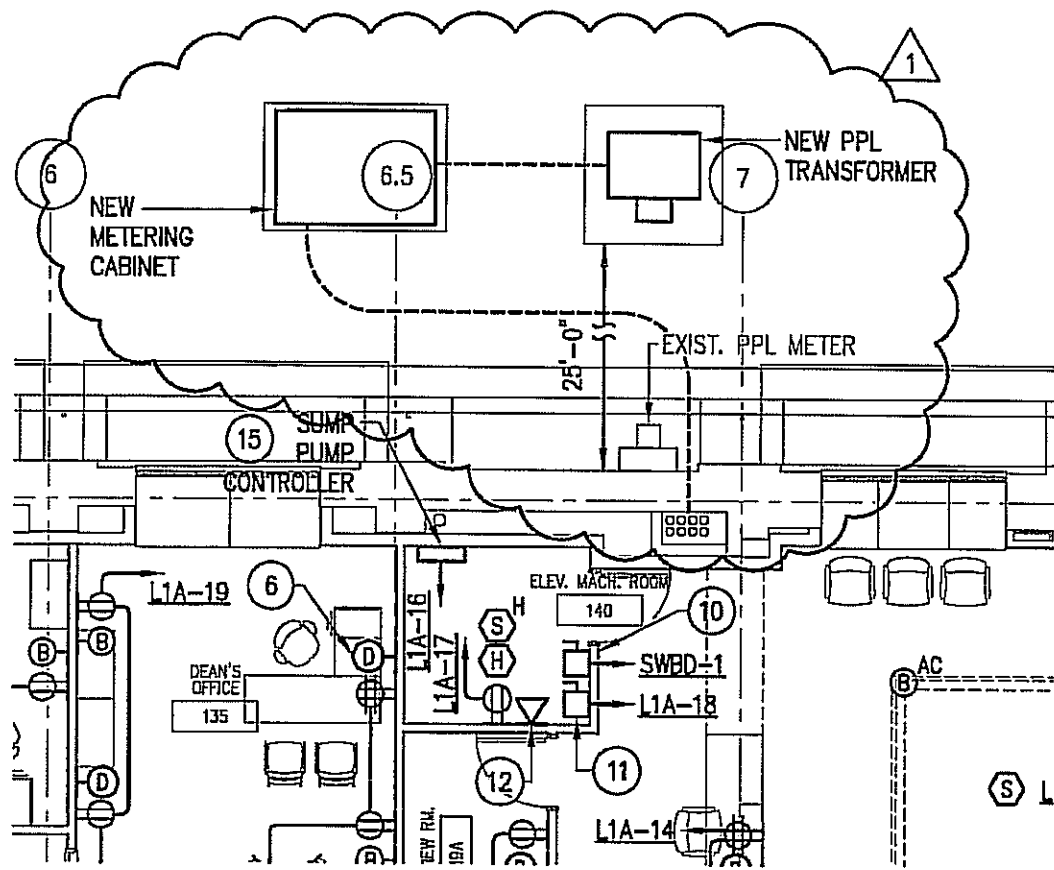
PARTIAL FIRST FLOOR PLAN
 POWER & SYSTEMS

CONSTRUCTION DOCUMENTS

DRAWN BY R.H.	CHECKED BY J.G.
PLOT NO.	DATE APRIL 17, 2004

PROJECT NO.
3226

DRAWING NO.
SKE-2



PARTIAL FIRST FLOOR PLAN – POWER & SYSTEMS

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

DISTRIBUTION SWITCHBOARD 'SWBD'

PANEL NAME	CIRCUIT NUM.	CIRCUIT BREAKER		FEEDER	CONDUIT	EQUIPMENT	CONNECTED LOAD (kVA)
		POLES	TRIP				
	1	3	125A	3φ, 1φIG	1-1/4"	ELEVATOR #1 (20 HP)	60A
	2	3	150A	3φ/D, 1φ/DG	1-1/2"	ELEVATOR #2 (30 HP) *	88A
	3	3	400A	4φ500, 1φ3G	4"	EXISTING TRANSFORMER	150A
	4	3	225A	4φ/D, 1φ4G	2-1/2"	PANEL 'MA'	150A
	5	3	225A	4φ/D, 1φ4G	2-1/2"	PANEL 'MA'	137A
	6	3	175A	3φ2/D, 1φ5G	2"	AIR COMPRESSOR	91A
	7	3	150A	4φ/D, 1φ5G	2"	PANEL 'LA'	65A
	8	3	175A	4φ2/D, 1φ5G	2"	PANEL 'LA'	72A
	9	3	150A	4φ/D, 1φ5G	2"	PANEL 'LA'	28A
	10	3	400A	4φ500, 1φ3G	4"	PANEL 'MA'	400A
	11	3	600A	2 SETS OF 4φ350, 1φIG	(2)2-1/2"	PANEL 'MC'	483A
	12	3	175A	4φ2/D, 1φ5G	2"	PANEL 'LA'	107A
	13	3	175A	4φ2/D, 1φ5G	2"	PANEL 'LA'	78A
	14	3	100A	4φ, 1φ3G	1-1/2"	PANEL 'UPS'	18A
	15	3	225A	-	-	SPACE	-
	16	3	225A	-	-	SPACE	-
	17	3	100A	-	-	SPACE	-
	18	3	-	-	-	SPACE	-
	19	3	-	-	-	SPACE	-
	22	3	-	-	-	SPACE	-
	22	3	-	-	-	SPACE	-
	22	3	-	-	-	SPACE	-
	24	3	-	-	-	SPACE	-

120/208V, 3 PHASE, 4 WIRE, 4000A BUS WITH 4000A (100% RATED) M.C.B. INTERNAL TVSS & CUSTOMER METERING FRONT ACCESSIBLE, 60K A.I.C.

* DENOTES THAT THIS CIRCUIT BREAKER SHALL BE A 3-POLE SPACE UNDER BASE BID & INSTALLED/INCLUDED IN ALTERNATE #5

DISTRIBUTION SWITCHBOARD 'SWBD-E'

PANEL NAME	CIRCUIT NUM.	CIRCUIT BREAKER		FEEDER	CONDUIT	EQUIPMENT	CONNECTED LOAD (kVA)
		POLES	TRIP				
	1	3	225A**	4φ/D, 1φ4G	2-1/2"	PANEL 'WA'	33A
	2	3	400A**	4φ500, 1φ3G	4"	PANEL 'WB'	400A
	3	3	400A**	4φ500, 1φ3G	4"	PANEL 'WC'	400A
	4	3	400A**	4φ500, 1φ3G	4"	PANEL 'WD'	400A
	5	3	400A**	4φ500, 1φ3G	4"	PANEL 'WE'	-
	6	3	500A	2 SETS OF 3φ250, 1φ2G	(2)2-1/2"	AIR COOLED CONDENSER	432A
	7	3	500A	2 SETS OF 3φ250, 1φ2G	(2)2-1/2"	AIR COOLED CONDENSER	432A
	8	3	60A	-	-	TVSS	-
	9	3	225A	-	-	EXISTING SPARE ***	-
	10	3	225A	-	-	EXISTING SPARE ***	-
	11	3	100A	-	-	EXISTING SPARE ***	-
	-	3	-	-	-	ALL OTHERS SHALL BE SPACES	-

** DENOTES SHUNT TRIP CIRCUIT BREAKER.
 *** DENOTES TO UTILIZE EXISTING BREAKERS MADE AVAILABLE FROM DEMOLITION

REVISIONS:
Δ 4/24/09 ADDRESS #1

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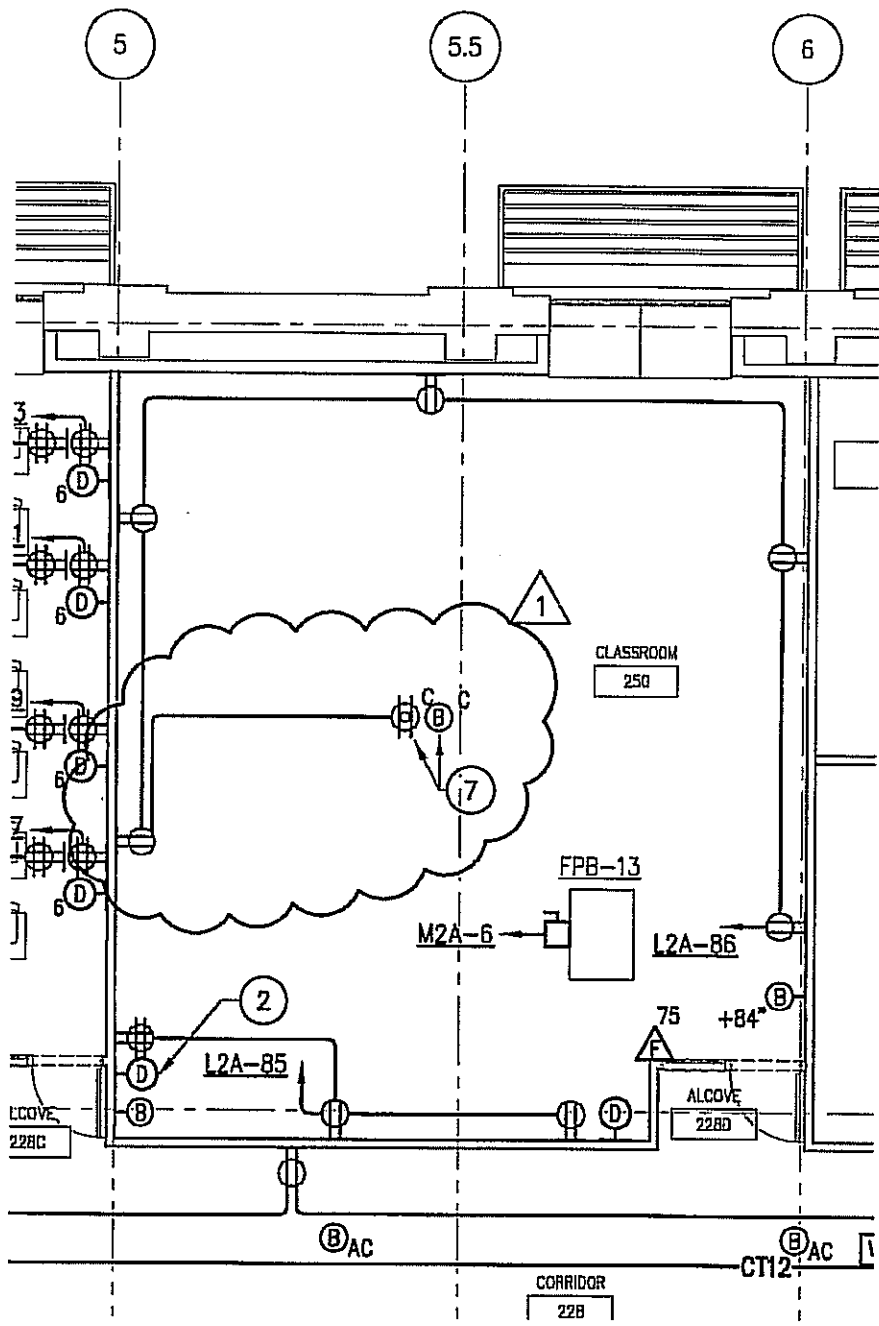
SCHEDULES

CONSTRUCTION DOCUMENTS

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PLOT NO.	DATE APRIL 17, 2009

PROJECT NO.
3226

DRAWING NO.
SKE-10



PARTIAL SECOND FL. PLAN — POWER & SYSTEMS
 SCALE: 1/8" = 1'-0"

REVISIONS:	
▲	A/2404 ADDENDUM #1

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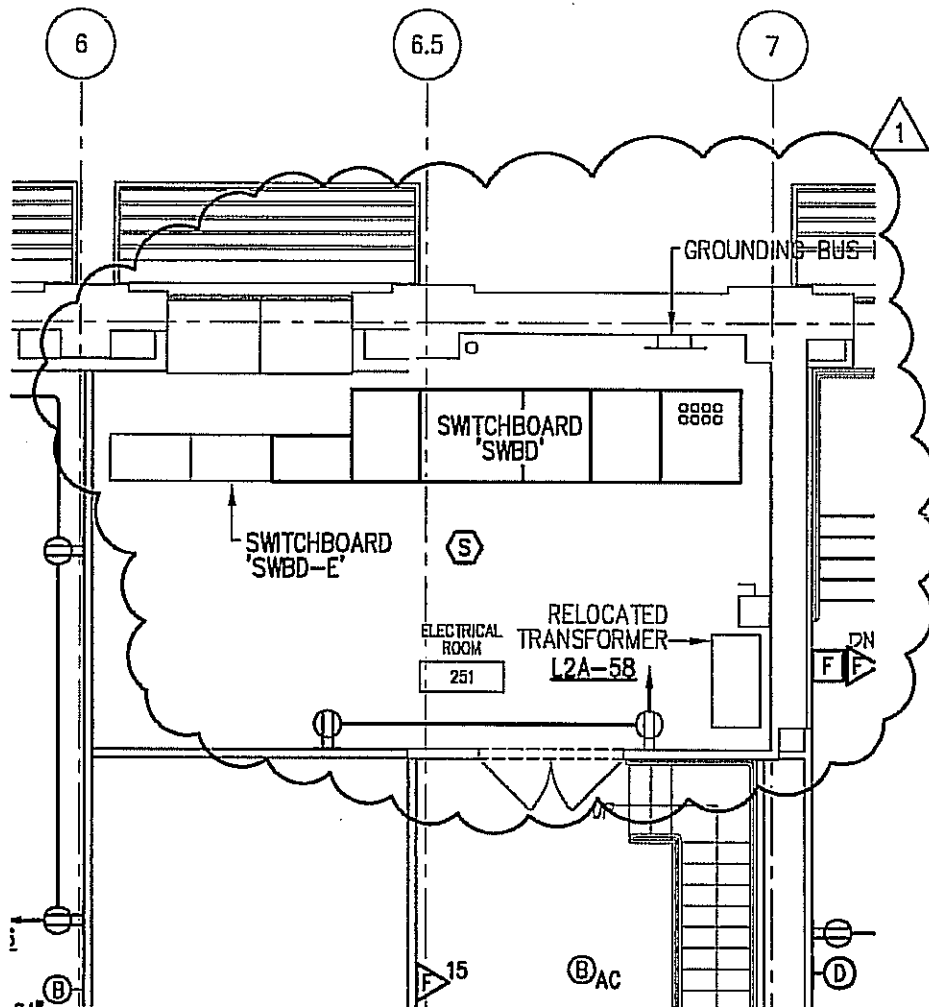
**PARTIAL SECOND FL. PLAN
 POWER & SYSTEMS**

CONSTRUCTION DOCUMENTS

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DRAWING NO.
SKE-3



PARTIAL SECOND FL. PLAN — POWER & SYSTEMS

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

REVISIONS	
1	ADD ADDRESS #

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**PARTIAL SECOND FL. PLAN
POWER & SYSTEMS**

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REVISIONS:	
1	ADD SECTION 9

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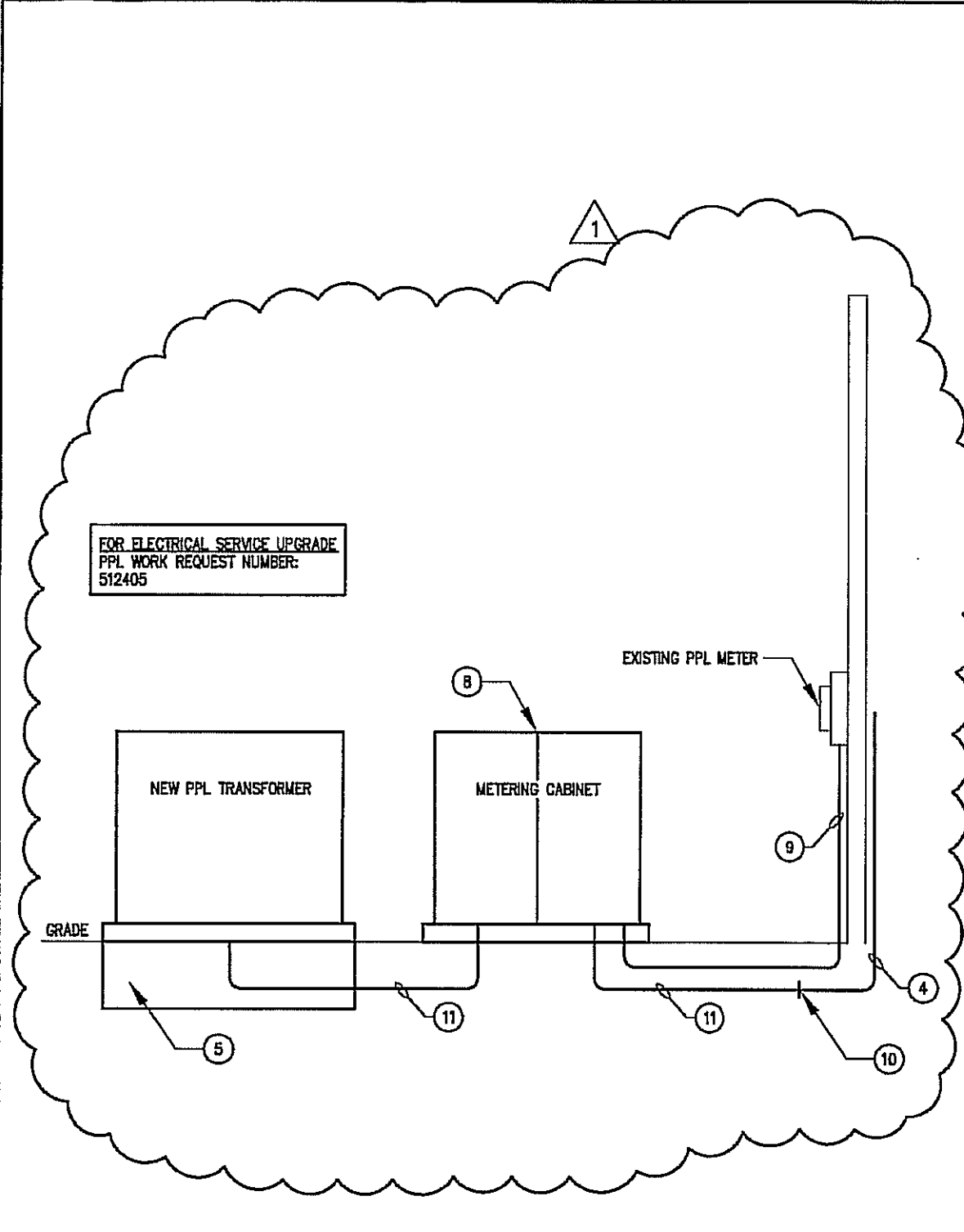
PARTIAL POWER
 RISER DIAGRAM

CONSTRUCTION DOCUMENTS

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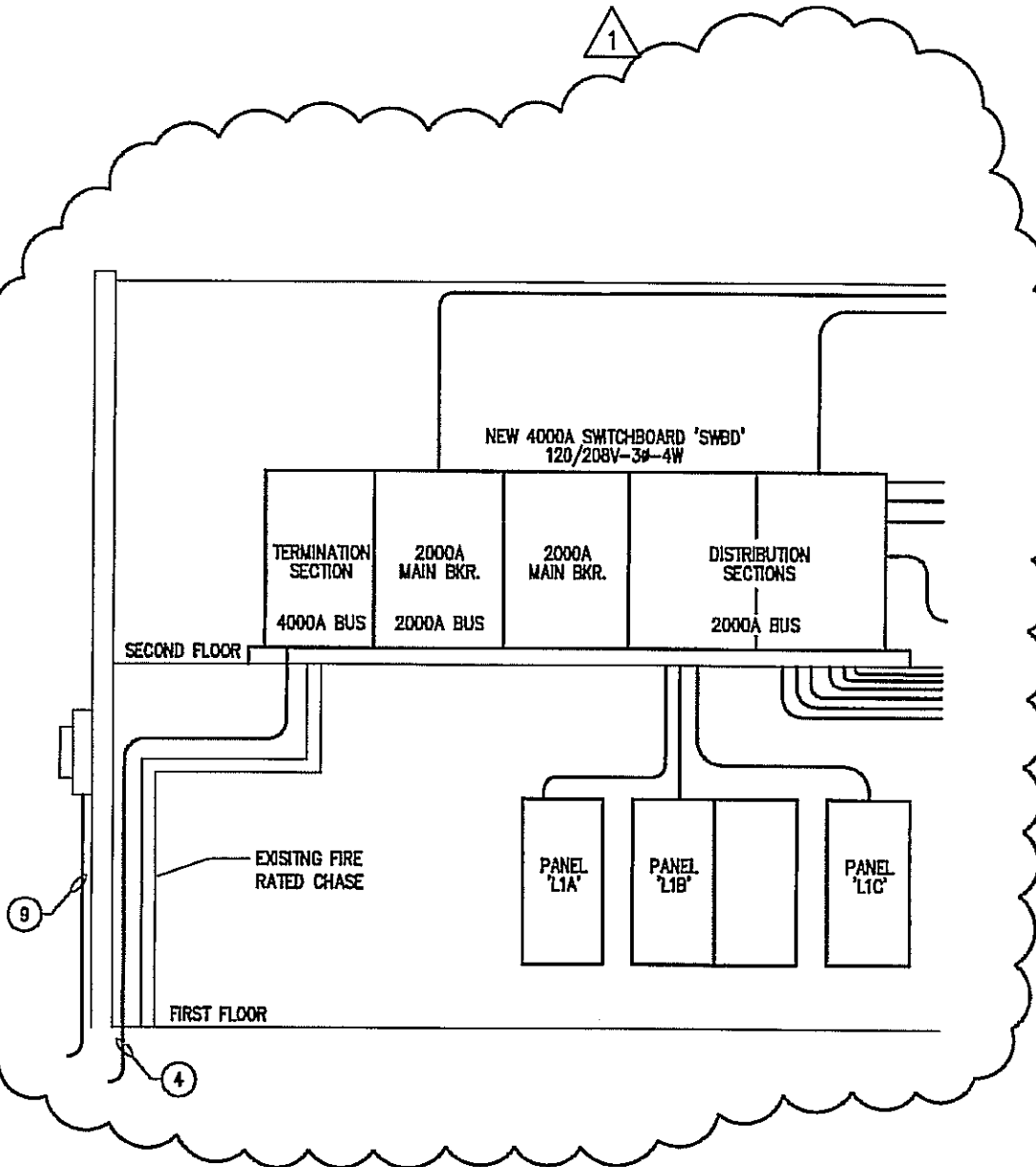
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PARTIAL POWER RISER DIAGRAM

1



PARTIAL POWER RISER DIAGRAM

REVISIONS		
Δ	4/24/04	ADDENDUM #1

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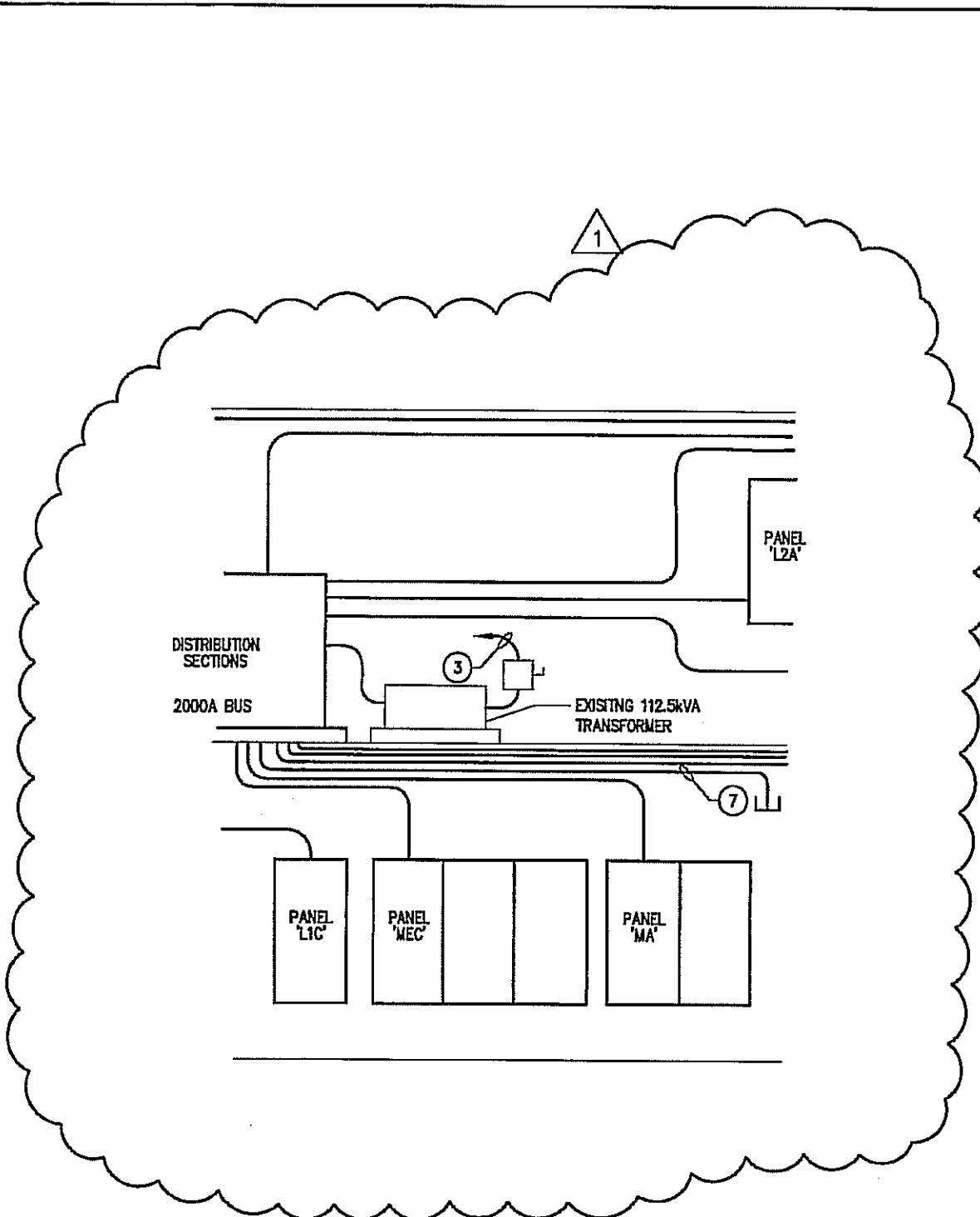
PARTIAL POWER
RISER DIAGRAM

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PARTIAL POWER RISER DIAGRAM

REVISIONS:	
1	ADDENDUM #1

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PARTIAL POWER
RISER DIAGRAM

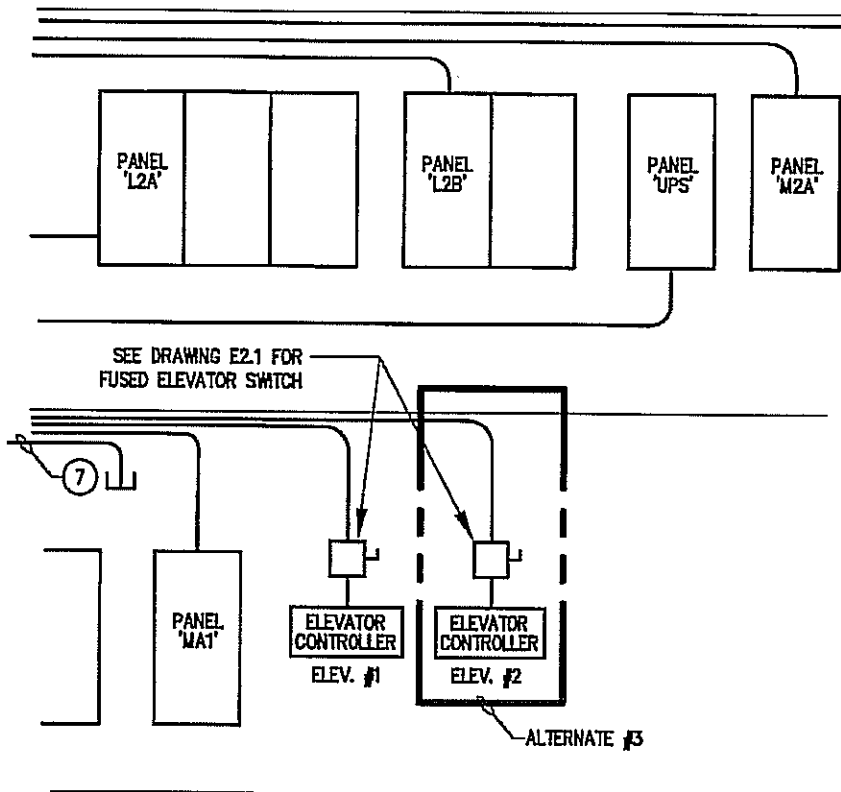
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1



PARTIAL POWER RISER DIAGRAM

REVISIONS:	
▲	ADDENDUM #1

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PARTIAL POWER
RISER DIAGRAM

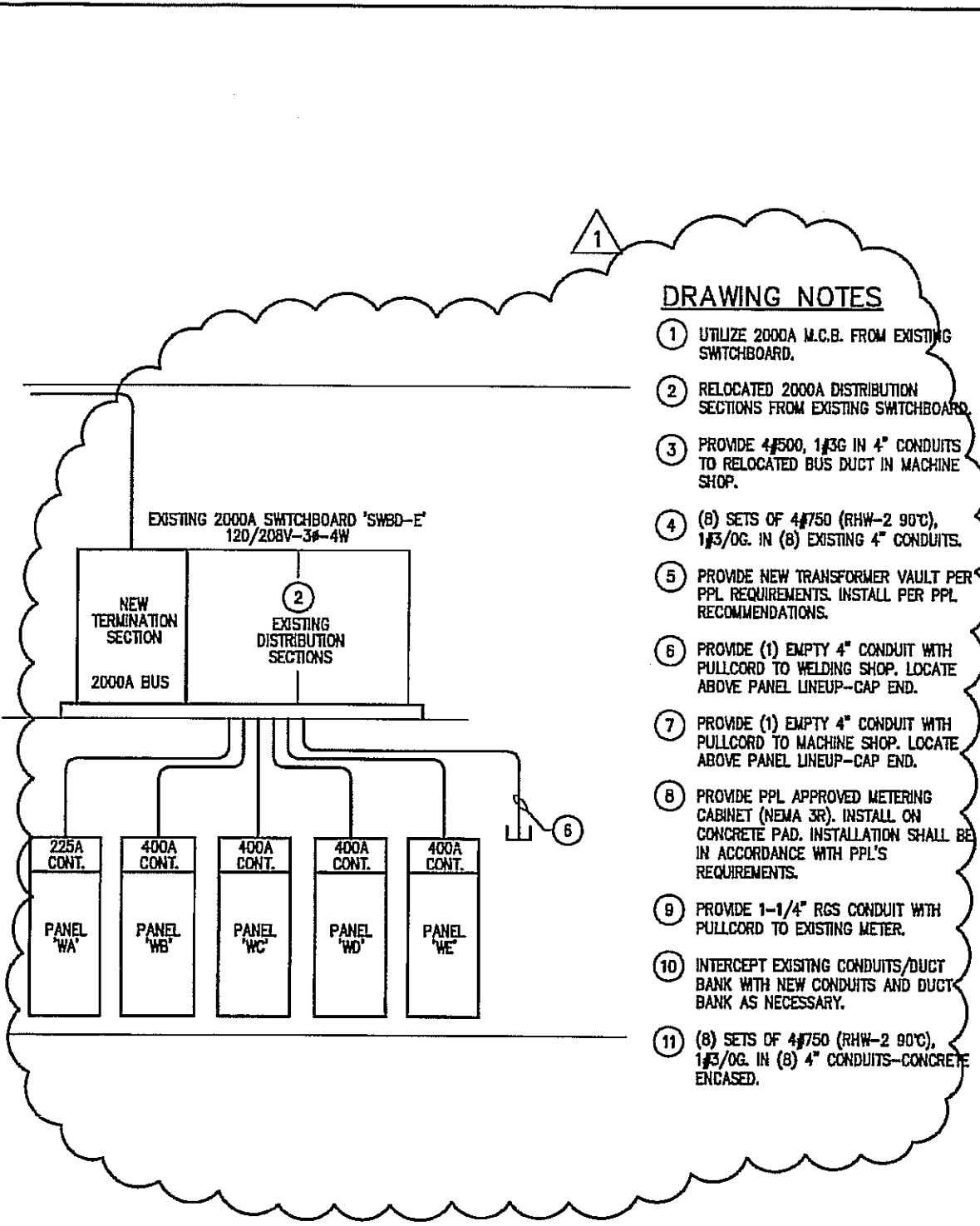
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PARTIAL POWER RISER DIAGRAM

DRAWING NOTES

- ① UTILIZE 2000A M.C.B. FROM EXISTING SWITCHBOARD.
- ② RELOCATED 2000A DISTRIBUTION SECTIONS FROM EXISTING SWITCHBOARD.
- ③ PROVIDE 4#500, 1#3G IN 4" CONDUITS TO RELOCATED BUS DUCT IN MACHINE SHOP.
- ④ (8) SETS OF 4#750 (RHW-2 90°C), 1#3/0G. IN (8) EXISTING 4" CONDUITS.
- ⑤ PROVIDE NEW TRANSFORMER VAULT PER PPL REQUIREMENTS. INSTALL PER PPL RECOMMENDATIONS.
- ⑥ PROVIDE (1) EMPTY 4" CONDUIT WITH PULLCORD TO WELDING SHOP. LOCATE ABOVE PANEL LINEUP-CAP END.
- ⑦ PROVIDE (1) EMPTY 4" CONDUIT WITH PULLCORD TO MACHINE SHOP. LOCATE ABOVE PANEL LINEUP-CAP END.
- ⑧ PROVIDE PPL APPROVED METERING CABINET (NEMA 3R). INSTALL ON CONCRETE PAD. INSTALLATION SHALL BE IN ACCORDANCE WITH PPL'S REQUIREMENTS.
- ⑨ PROVIDE 1-1/4" RGS CONDUIT WITH PULLCORD TO EXISTING METER.
- ⑩ INTERCEPT EXISTING CONDUITS/DUCT BANK WITH NEW CONDUITS AND DUCT BANK AS NECESSARY.
- ⑪ (8) SETS OF 4#750 (RHW-2 90°C), 1#3/0G. IN (8) 4" CONDUITS-CONCRETE ENCASED.

REVISIONS:	
Δ	ADD APPENDIX #1

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PARTIAL POWER
RISER DIAGRAM

CONSTRUCTION DOCUMENTS

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SKE-9

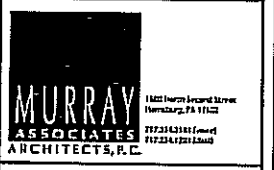
REVISIONS:	
△	ADDENDUM #1

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DUCT BANK DETAIL

CONSTRUCTION DOCUMENTS

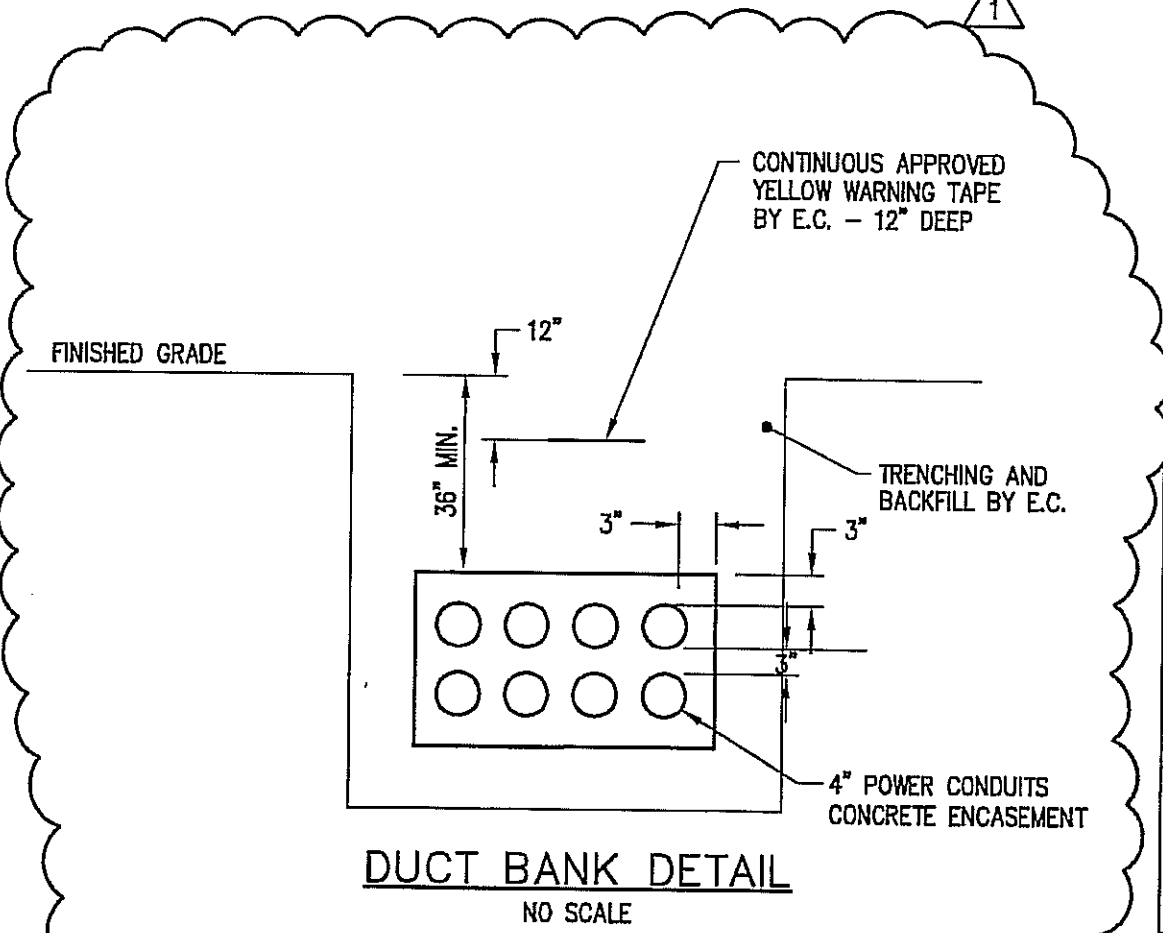
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DRAWING NO.
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1



DUCT BANK DETAIL
 NO SCALE

NOTES:

1. CONDUIT BENDS SHALL HAVE MINIMUM 48" RADIUS.