ADDENDUM NO. 2

BAGGAGE CLAIM BUILDING REMODEL
GMIA Project No. A042-06415

GENERAL MITCHELL INTERNATIONAL AIRPORT
5300 SOUTH HOWELL AVENUE
MILWAUKEE WISCONSIN 53207

OFFICIAL NOTICE NO. 6714

GENERAL MITCHELL INTERNATIONAL AIRPORT
Milwaukee County, Wisconsin

Prepared By: MILWAUKEE COUNTY DEPARTMENT OF ADMINISTRATION
ARCHITECTURE, ENGINEERING, AND ENVIRONMENTAL SERVICES
AIRPORT ENGINEERING UNIT
5300 SOUTH HOWELL AVENUE
MILWAUKEE, WI 53207
Telephone 414-747-5230

DATE OF ADDENDUM: April 24, 2013

BIDS CLOSE: 2:00 P.M., Wednesday, May 1, 2013.

TO ALL BIDDERS:

Each bidder shall read this Addendum in its entirety to determine to what extent his proposal and the contract conditions will be affected. This Addendum to the Contract Documents is issued to modify, explain, or correct the original documents and is hereby made part of the Contract Documents.

RECEIPT - Sign the following receipt and attach to submitted Proposal Form.

Receipt of Addendum No. 2, consisting of fifteen (15) pages, for the Baggage Claim Building Remodel, Official Notice No.6714, at General Mitchell International Airport, Milwaukee, Wisconsin, dated April 24, 2013, is acknowledged.

Date _____ Firm _____

Per _____ Address _____

BAGGAGE CLAIM BUILDING REMODEL
Project No. A042-06415

TO ALL DOCUMENT HOLDERS:

This addendum is issued to modify, explain or correct the Bidding Documents issued for the referenced project. Attach this addendum or transfer its information to the documents in your possession. Acknowledge receipt of this addendum in the appropriate places on the Bid Form. Each Bidder shall carefully read all items in their entirety and thoroughly examine the Contract Documents to determine to what extent the addendum affects the Bids.

PART 1 - CLARIFICATIONS

1.1 FIREPROOFING

A. Refer to Table H/A002 for structural fireproofing requirements.
   1. Primary structural framing requires fireproofing.
   2. This includes, but is not limited to, existing and new: metal deck, columns (wide flange and tube), beams, bracing members, exterior and interior bearing walls, floor and roof construction.
   3. Fireproofing is by Section 07 81 00 Applied Fireproofing and Section 07 81 23 Intumescent Mastic Fireproofing.
   4. See Part 2 – Revisions to the Project Manual for Section revisions.

1.2 BSO PODIUMS

A. Refer to Section Summary 01 10 00-4, 1.7, D.10 and General Phasing Requirements Page 2, Area-Phase C-5:

   BSO podiums must be provided for each Airline BSO to maintain normal operations throughout construction. The project allows an existing BSO podium to be reused and relocated during construction or for a temporary BSO podium to be constructed, if the existing podium is either unable to be reused in its temporary location or is damaged during relocation.

PART 2 - REVISIONS TO THE PROJECT MANUAL

2.1 SECTION 00 01 00 – TABLE OF CONTENTS

A. Revise the following section from the Table of Contents:

"00 92 50 General Decision No. wi1-2013-01-18" to "00 92 50 General Decision No. wi1-2013-04-05".

B. Remove the following section from the Table of Contents:

"01 10 00.04 Thurnner Hangar Site 01 10 00.04-1 thru -1"

C. Revise the following section from the Table of Contents:

"23 09 15 Points List 23 09 15-1 thru 23 09 15-8"

D. Add the following section to the Table of Contents in Volumes 1, 2, and 3:

"32 31 13 Chain Link Fence 32 31 13-1 thru 4"

E. Add the following section to the Table of Contents in Volumes 1, 2, and 3:

"32 31 35 Ramp Pipe Gate 32 31 35-1 thru 1".

2.2 SECTION 00 04 00 – BID FORM

A. Remove Section 00 40 00 Bid Form in its entirety and replace with Revised Section 00 40 00 dated April 24, 2013 and attached to Addendum No. 2, for revisions to Alternates.

2.3 SECTION 00 92 50 – GENERAL DECISION NO. WI1-2013-04-05

A. Remove Section 00 92 50 General Decision No. wi130001 dated 02/15/2013 in its entirety and replace with updated Section 00 92 50 wi130001 dated 04/05/2013 and attached to Addendum No. 2.

2.4 SECTION 01 10 00 - SUMMARY

A. Page 01 10 00-10, 1.12, GG: Add the following sentence at the end of note GG:

"Contractor is required to provide isolation and containment for all demo and construction areas and provide negative pressurization and HEPA filtration of same areas to prevent unwanted contamination of areas outside area of containment".

2.5 SECTION 01 10 00.04 – THURNNER HANGAR SITE

A. Remove Section 01 10 00.04 in its entirety. It is replaced by new Sheet C012.

2.6 SECTION 01 23 00 - ALTERNATES

A. Remove Section 01 23 00 Alternates in its entirety and replace with Revised Section 01 23 00 dated April 24, 2013 and attached to Addendum No. 2, for revisions to Alternates.

2.7 SECTION 05 75 00 – DECORATIVE FORMED METAL

A. Page 05 75 00-5, 2.4, C: Add note 2:

"2. Custom Metal Grommet.
   a. Location: Structural steel tie-rod locations at Gathering space skylight.
   b. Finish: Painted white to match beam enclosure."

2.8 SECTION 07 81 23 – INTUMESCENT MASTIC FIREPROOFING

A. Page 07 81 23-4, 3.3, 1: At Schedule add note:

"d. Tie Rods at Gathering space skylights".

2.9 SECTION 08 44 13 – GLAZED ALUMINUM CURTAIN WALLS

A. Page 08 44 13-6, 2.3, A: Add new framing system to read,

"3. Architectural Curtain Wall #3 "ACW-3": 2-1/2" x 7-1/2" exterior-set butt-glazed Non-Blast-Resistant framing system at Transportation Booth, as shown on drawings."

B. Page 08 44 13-7, 2.4: Add new paragraph to read,

"D. Structural Glazing Sealants: ASTM C 1184, chemically curing silicone formulation that is compatible with system components with which it comes in contact, specifically formulated and tested for use as structural and weather sealant and approved by structural-sealant manufacturer for use in curtain-wall assembly indicated.
   1) Color: Gray."

2.10 SECTION 08 63 00 – METAL FRAMED SKYLIGHTS

A. Page 08 63 00-3, 2.1, A: Add the following manufacturer:

"8. Acurlite Structural Skylights, Inc."

2.11 SECTION 09 51 13 – ACOUSTIC PANEL CEILINGS

A. Page 09 51 13-4, 2.5, A: Add the following manufacturer:

"3. Acoustigreen. www.acousticgreen.com."

B. Page 09 51 13-4, 2.5, B: Add the following product,

"Product: Wood Veneer Ceiling units, Acoustigreen - Fusion, FSC certified."

2.12 SECTION 13 34 13 – SPECIALTY GLAZED STRUCTURE

A. Page 13 34 13-5, 2.1, B: Add the following note:

"1. Equal: Any proposed substitute shall completely comply with all design, fabrication, and installation requirements of the product listed as the Basis of Design."

"2. Equal: APG International."

B. Page 13 34 13-14, 3.5, A: Add the following sentences at the end of the paragraph,

"Specialty Glazed Structure Contractor shall be responsible for final touch up of all installed pre-finished or painted electrical and plumbing components. Such touch-up work shall be done in accordance with the manufacturer's instructions. Electrical and plumbing components include, but are not limited to, miscellaneous piping, galvanized fittings, conduit, straps, and other fasteners."

2.13 SECTION 23 09 15 – POINTS LIST

A. Remove Section 23 09 15 in its entirety and replace with revised Section 23 09 15, dated April 24, 2013 and attached to Addendum No. 2.

2.14 SECTION 23 09 23 – DIRECT DIGITAL CONTROL SYSTEM FOR HVAC

A. Page 23 09 23-2, 1.6, A: Add the following to list of approved manufacturers:

"Schneider Electric StructureWare by Kain Energy Corporation."

2.15 SECTION 25 63 10 – BAGGAGE INFORMATION DISPLAY

A. Remove Section 25 63 10 Baggage Information Display in its entirety and replace with Revised Section 25 63 10 dated April 24, 2013 and attached to Addendum No. 2.

2.16 SECTION 26 05 19 – LOW VOLTAGE ELECTRICAL POWER CONDUCTORS AND CABLES

A. Page 26 05 19-3, 3.3 Installation – Add the following specification:

"K. The use of single-phase, multi-wire branch circuits with a common neutral is not permitted. All single-phase branch circuits shall be furnished and installed with an individual accompanying neutral, sized the same as the phase conductors."

2.17 SECTION 26 05 33 – RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS

A. Page 26 05 33-3, 2.6, A Factory Finishes: – Add note as follows: "Gray finish for raceways, enclosures, and cabinets installed indoors in unfinished spaces. White finish for raceways, enclosures, and cabinets installed outdoors."

B. Page 26 05 33-3, 3.1, A Outdoors – Add the following specification:

7. Fished between access points through concealed spaces: LFMC (white color).

8. All exposed raceway, fittings and boxes to be manufacturer's prefinished white or painted white prior to installation.

C. Page 26 05 33-5, 3.2, I Installation – Add the following specification:

3. Installation and routing of all exposed conduit on canopy structure shall be subject to approval by the Architect.

2.18 SECTION 26 56 00 – EXTERIOR LIGHTING

A. Page 26 56 00-5, 2.1,L,b, 5 TYPE EX8: Revise as follows:

a.) Delivered lumens: 7818 minimum
b.) Lumens per watt: 53 minimum
c.) Total luminaire wattage: 140W max

2.19 SECTION 28 25 00 – PAGING

A. Page 28 25 00 – 16 W. Loudspeaker Type 4 , 1 Add:

b) Atlas Sound SM52T-W or approved equal.

2.20 SECTION 28 31 11 – FIRE ALARM

A. Page 28 31 11-6, 2.5, D Duct Smoke Detectors - Add the following specification:

11. Each duct smoke detector to be provided with a remote keyed test switch and alarm LED indicator. Keyed test switches and alarm LED indicators for duct detectors shall be grouped on a stainless steel cover plate located in the mechanical penthouse containing the associated air handling unit served by the duct smoke detectors. Each LED shall be labeled with the detector's loop and address. A floor plan showing the detectors and addresses shall be located adjacent to the cover plate. Cover plate with test switches and floor plan to be located adjacent to the main mechanical penthouse entry door.

2.21 SECTION 32 31 13 – CHAIN LINK FENCE

A. Insert new specification section, 32 31 13 Chain Link Fence.

2.22 SECTION 32 31 35 – RAMP PIPE GATE

A. Insert new specification section, 32 31 35 Ramp Gate.

PART 3 - REVISIONS TO THE DRAWINGS

3.1 SHEET T101 – TITLE SHEET

A. Remove Sheet T101 in its entirety and replace with new Sheet T101.

3.2 SHEET T102 – TITLE SHEET

A. Remove Sheet T102 in its entirety and replace with new Sheet T102.

3.3 SHEET C005 – SOUTH PAVING/GRADING PLAN

A. Remove Sheet C005 in its entirety and replace with new Sheet C005, indicating the Contractors Staging and Laydown Area and Ramp Gate location.

3.4 SHEET C010 – CONSTRUCTION DETAILS

A. For the Typical Pavement Section, the width dimensions shown for the Canopy and Crash Wall Foundation are incorrect. For the correct dimensions see Detail 8/A553. Modify civil detail to match architectural detail: The bottom width is 1′-11″, the top width is 1′-3″, and the step width is 8″.

3.5 SHEET C012 – CONSTRUCTION DETAILS

A. Insert new Sheet C012 indicating the Contractors Staging and Laydown Area, Perimeter Fence details and Ramp Gate details.

B. Sheet C012 replaces Specification Section 01 10 00.04 Thurnner Hanger Site.

3.6 SHEET A121 - SECOND FLOOR & LOWER ROOF PLAN - NORTH

A. At Column Line 31A, change railing detail from "6/A541" to read, "14/A541".

B. At Column Line 29A, change note from "PIPE AND TUBE RAILING" to read, "ALUMINUM GUARDRAIL".

3.7 SHEET A212 – FIRST FLOOR RCP CENTER

A. Remove Sheet A212 in its entirety and replace with new Sheet A212.

B. For new tie-rods at Gathering space skylights.

3.8 SHEET A213 – FIRST FLOOR RCP SOUTH

A. Remove Sheet A213 in its entirety and replace with new Sheet A213.

B. For beam enclosure on Column Line 5.

3.9 SHEET A301 – ENLARGED PLANS – ENTRANCES & ELEVATORS

A. Remove Sheet A301 in its entirety and replace with new Sheet A301.

B. At Detail 3/A301, for new note near Column Line 14.

C. At Detail 5/A301, for new note near Column Line 28.

3.10 SHEET A501 – WALL SECTIONS

A. Remove Sheet A501 in its entirety and replace with new Sheet A501.

B. At Detail 1/A501, to modify sill condition.

C. At Detail 2/A501, for canopy coordination.

3.11 SHEET A511 – PLAN & SECTION DETAILS

A. Remove Sheet A511 in its entirety and replace with new Sheet A501, for revisions to roof top aluminum guardrail.

3.12 SHEET A515 – PLAN & SECTION DETAILS

A. Remove Sheet A515 in its entirety and replace with new Sheet A515, to add Detail 17/A515 for aluminum guardrail.

3.13 SHEET A541 – ROOF DETAILS

A. Omit "Detail 6/A541 ROOF CURB AT COLUMN 31-RAIL" from Sheet. Duplicates information.

3.14 SHEET A542 – ROOF DETAILS

A. Remove Sheet A542 in its entirety and replace with new Sheet A542, to revise Detail 10/A542 for tie-rod and metal grommet.

3.15 SHEET A543 – ROOF DETAILS

A. Remove Sheet A543 in its entirety and replace with new Sheet A543, to revise Detail 5/A543.

3.16 SHEET A551 – CANOPY SECTIONS AND DETAILS

A. Remove Sheet A551 in its entirety and replace with new Sheet A551, to revise Detail 1/A551, near Column Line A, for signage.

3.17 SHEET A552 – CANOPY SECTIONS AND DETAILS

A. Remove Sheet A552 in its entirety and replace with new Sheet A552.

B. Revise Detail 1/A552 for signage.

C. For new Detail 8/A552 for signage.

3.18 SHEET A554 – CANOPY SECTIONS AND DETAILS

A. Remove Sheet A554 in its entirety and replace with new Sheet A554, to revise Detail 5/A554, for fasteners.

3.19 SHEET A631 – CEILING AND SOFFIT DETAILS

A. At Detail 9/A631: Change note from, "CLIENT SERVER AND MOUNTING BRACKET" to read "CONVERTER AND MOUNTING BRACKET"

3.20 SHEET A701 – ROOM FINISH SCHEDULE

A. At Room B101 Office Corridor: Change all four wall designations from RWC-1 to: "RWC-1/PT-3".

3.21 SHEET A744 – EQUIPMENT AND SIGNAGE SCHEDULES

A. At ELECTRICAL SIGNAGE – DIGITAL DISPLAY SCHEDULE, DD-02: Change note from, "Manufactured Wall System" to read "Movable Wall System".

3.22 SHEET A807 – INTERIOR ELEVATIONS

A. Remove Sheet A807 in its entirety and replace with new Sheet A807.

B. For new beam enclosure at Column Line 5 at Details 2/A807, 3/A807, 8/A807.

3.23 SHEET A814 – MOVABLE WALL SYSTEM ELEVATIONS

A. Add new Sheet A814 for Movable Wall System Elevations.

3.24 SHEET A911 – INTERIOR CONSTRUCTION DETAILS

A. At Detail 12/A911: Change note from, "CLIENT SERVER AND MOUNTING BRACKET" to read "CONVERTER AND MOUNTING BRACKET

3.25 SHEET A932 – INTERIOR SIGNAGE TYPES

A. Remove Sheet A932 in its entirety and replace with new Sheet A932 for revisions to Detail 1/A932.

3.26 SHEET A941 – EXTERIOR SIGNAGE TYPES

A. At Detail 5, change dimension between struts from 3'-2 ¾" to read, "VERIFY".

B. At Detail 10, change dimension between struts from 4'-4" to read, "VERIFY".

3.27 SHEET S101 – FOUNDATION PLAN NORTH

A. At Caissons on Column Line 29AA through 22AA, add the following note:

"T/CAISSON 671'=9".

3.28 SHEET S102 – FOUNDATION PLAN CENTER

A. At Caissons on Column Line 23AA through 10AA, add the following note:

"T/CAISSON 671'=9".

B. At Caissons on Column Line 15BB and 14BB, add the following note:

"EXISTING 42" DIAMETER CAISSON TYPICAL. SEE DETAIL 9/S412 SIM. FIELD VERIFY SIZE AND LOCATION."

3.29 SHEET S103 – FOUNDATION PLAN SOUTH

A. At Caissons on Column Line 11AA through 3AA, add the following note:

"T/CAISSON 671'=9".

3.30 SHEET S121 – LOW ROOF FRAMING PLAN NORTH

A. Remove Sheet S121 in its entirety and replace with new Sheet S121.

B. For new Details 2/S121, 3/S121, and 4/S121 for Aluminum Guardrail.

C. For new Notes 14 and 15 with regard to Aluminum Guardrail.

D. For new Note 16 with regard to Structural Fireproofing requirements.

3.31 SHEET S122 – LOW ROOF FRAMING PLAN CENTER

A. Add new Note 12 as follows:
"Refer to Table H/A002 for structural fireproofing requirements. Primary structural framing requires fireproofing. This includes, but is not limited to, existing and new metal deck, columns (wide flange and tube), beams, bracing members (HSS, angles, tie-rods), exterior and interior bearing walls, floor and roof construction. Refer to architectural specifications for type of fireproofing."

3.32 SHEET S123 – LOW ROOF FRAMING PLAN SOUTH

A. Remove Sheet S123 in its entirety and replace with new Sheet S123.

B. For new Detail 2/S123.

C. For new Note 20 with regard to Structural Fireproofing requirements.

3.33 SHEET S131 – MID ROOF FRAMING PLAN NORTH

A. Add new Note 8 as follows:
"Refer to Table H/A002 for structural fireproofing requirements. Primary structural framing requires fireproofing. This includes, but is not limited to, existing and new metal deck, columns (wide flange and tube), beams, bracing members (HSS, angles, tie-rods), exterior and interior bearing walls, floor and roof construction. Refer to architectural specifications for type of fireproofing."

3.34 SHEET S132 – MID ROOF FRAMING PLAN CENTER

A. Remove Sheet S132 in its entirety and replace with new Sheet S132.

B. For new Details 4/S132 and 5/S132.

C. For new Note 11 with regard to Structural Fireproofing requirements.

3.35 SHEET S132A – MID ROOF FRAMING PLAN CENTER – ALTERNATE

A. Remove Sheet S132a in its entirety and replace with new Sheet S132a.

B. For new Note 10 with regard to Structural Fireproofing requirements.

3.36 SHEET S133 – MID ROOF FRAMING PLAN SOUTH

A. Remove Sheet S133 in its entirety and replace with new Sheet S133.

B. For revisions to structure west of Column Line B.5 between Column Lines 4 through 1.

C. For new Note 10 with regard to Structural Fireproofing requirements.

3.37 SHEET S141 – HIGH ROOF FRAMING PLANS

A. Remove Sheet S141 in its entirety and replace with new Sheet S141.

B. At Detail 1/S141 for Aluminum Guardrail.

C. At Detail 1/S141 for new Note 7 with regard to Structural Fireproofing requirements.

D. At Detail 2/S141 for Aluminum Guardrail.

E. At Detail 2/S141 for new Note 7 with regard to Structural Fireproofing requirements.

F. At Detail 3/S141 for Aluminum Guardrail.

G. At Detail 3/S141 for new Note 8 with regard to Structural Fireproofing requirements.

H. For new Detail 8/S141.

3.38 SHEET S412 – FOUNDATION SECTION AND DETAILS

A. At Detail 9/S412 add the following elevation tag at top of caisson:

"T/CAISSON 671′-9".

3.39 SHEET S450 – HIGH ROOF SECTION AND DETAILS

A. Remove Sheet S450 in its entirety and replace with new Sheet S450.

B. For revision to Detail 7/S450.

3.40 SHEET S501 – BID ALTERNATE 1 – BUILDING SECTIONS

A. Revise all references at Sheet Title, Detail Titles, and Detail Notes from BID ALTERNATE A to read, "BID ALTERNATE 1".

3.41 SHEET SC351 – CANOPY ROOF FRAMING PLANS

A. Remove Sheet SC351 in its entirety and replace with new Sheet SC351.

B. For revisions to Detail 3/SC351.

C. For revisions to Notes 12 and 13.

3.42 SHEET SC551 – CANOPY SECTIONS & FRAMING DETAILS

A. Remove Sheet SC551 in its entirety and replace with new Sheet SC551.

B. For revisions to Detail 1/SC551.

C. For revisions to Notes 12 and 13.

3.43 SHEET SC552 – CANOPY FRAMING DETAILS

A. Remove Sheet SC552 in its entirety and replace with new Sheet SC552.

B. For new Detail 20/SC552.

3.44 SHEET PD103 - LOWER LEVEL DEMO PLAN –SOUTH - PLUMBING

A. Remove Sheet PD103 in its entirety and replace with new Sheet PD103 for revisions to piping.

3.45 SHEET P103 – LOWER LEVEL PLAN –SOUTH - PLUMBING

A. Remove Sheet P103 in its entirety and replace with new Sheet P103 for revisions to piping.

3.46 SHEET M113L – LOWER FIRST FLOOR PLAN – SOUTH – HVAC

A. Remove Sheet M113L in its entirety and replace with new Sheet M113L with revised Keyed Note #17 and new Keyed Note #26 indicating installation of flexible duct connections in supply and return ducts crossing the building expansion joint.

3.47 SHEET M113U – UPPER FIRST FLOOR PLAN – SOUTH - HVAC

A. Remove Sheet M113U in its entirety and replace with new Sheet M113U with revised Keyed Note #14 support requirements for return branch duct and new Keyed Notes #56 and #57 indicating installation of flexible duct connections in supply and return ducts and flexible piping connections in hot water supply and return piping crossing the building expansion joint.

3.48 SHEET E002 – LIGHTING FIXTURE SCHEDULE

A. Remove sheet E002 and replace with new sheet E002.

B. Revise fixture type F7A to the following: Input Watts: 15VA, Manufacturer: LSI, Catalog Number: V-LX2060-D-4X-M4-XX-5A.

C. Revise fixture type F7B to the following: Input Watts: 15VA, Manufacturer: LSI, Catalog Number: V-LX2060-D-4X-M1-XX-5A.

3.49 SHEET E017 – ELECTRICAL SITE PLAN – STAGING AREA

A. Insert new Sheet E017 – ELECTRICAL SITE PLAN – STAGING AREA to show the relocation of existing pole mounted camera from the Contractor's staging and lay-down area into the AOA side of the new perimeter fence.

3.50 SHEET ED114 – MAIN TERMINAL/D CONCOURSE STEM DEMO FLOOR PLAN

A. Insert new Sheet ED114 – MAIN TERMINAL/D CONCOURSE STEM DEMOLITION FLOOR PLAN to show the demolition work associated with existing Panel EM/MDP located in Rm. D100A.

3.51 SHEET E101 - LOWER LEVEL POWER PLAN - NORTH

A. Replace sheet E101 with new sheet E101 to show the location of existing electrical UPS and CRAC equipment located inside and outside of main data room 51B and associated work to refeed this equipment from new Panel MDP/CH/BBA.

3.52 SHEET E111 - FIRST FLOOR POWER PLAN - NORTH

A. Replace sheet E111 with new sheet E111. Revisions to sheet E111 include the following:
1. Delete SPO #145 located at the west end of Escalator Corridor B130.
2. Add SPO #145 in Office Corridor B101.
3. Relocate SPO #114 from south face of beam at column line 23 to south face of beam at column line 22.
4. Relocate the two receptacles for vending machines in Vending B102 from the east wall to the north wall.
5. Receptacle for waste compactor located outside of Vending B102 to be on circuit number 13/K-36.

3.53 SHEET E112 - FIRST FLOOR POWER PLAN - CENTER

A. Replace sheet E112 with new sheet E112. Revisions to sheet E112 include the following:
1. Relocate SPO #114 from south face of beam at column line 23 to south face of beam at column line 22.
2. Relocate SPO #195 and key note symbol #10 from the north side of column line 15 to the south side of column line 14.

3.54 SHEET E113 - FIRST FLOOR POWER PLAN - SOUTH

A. Replace sheet E113 with new sheet E113. Revisions to sheet E113 include the following:
1. Delete SPO #145 located at the west end of Escalator Corridor B170.
2. Change SPO #32 in Entry E-2 to SPO #33.
3. Relocate SPO #102 from south face of beam at column line 9 to south face of beam at column line 8.
4. Add SPO #178 in Switchgear Rm. B198.
5. Add SPO #66 at south entry drive pedestrian crosswalk.

3.55 SHEET E123 - SECOND LEVEL POWER PLAN - SOUTH

A. Replace sheet E123 with new sheet E123. Delete motors #46 and #47 located on the roof.

3.56 SHEET E700 - ELECTRICAL SCHEDULES

A. Replace sheet E700 with new sheet E700. Revisions to sheet E700 include the following:
1. Change tag I. D. numbers for exterior signage SPO #54, #56, #57, #58, #60, #61, #62, #64, and #65.
2. Change location room number for SPO #118, #119, #191, and #193 to Rm. 41A.
3. Change SPO Schedule note number reference for SPO #127, #128, #129, #130, and #131 from note #6 to note #28.
4. SPO #138 – Add tag I.D. “NIC-12” to outlet description.
5. SPO #145 – Add location B101. Change circuit number to 13/L-31.
6. SPO #148 – Change KW rating to 0.170.

7. SPO Schedule Notes – Change note #6 to read "Provide (2) duplex receptacles. Receptacles to be concealed within the signage/monitor housing for the two monitors and illuminated signage panel. See interior sign type J."
8. SPO Schedule Notes – Add note #28 to read "Direct connection to LED driver for the static edge-lit display."
9. Add SPO #66 – Exterior Signage P-201.

3.57 SHEET E701 - EXISTING ELECTRICAL PANEL SCHEDULES

A. Replace sheet E701 with new sheet E701. Revisions to sheet E701 include the following:
   1. Existing Panel 13/L – Add circuit #31. Circuit description – "Poster Lighted Frame (SPO #145)."
   2. Existing Panel 13/L – Add circuit #33. Circuit description –"Building Energy Display Monitor (SPO #148)."

3.58 SHEET E804 - ELECTRICAL DATA ROOM EXPANDED VIEWS AND ELEVATIONS

A. Replace Sheet E804 with new Sheet E804. PC's for the Baggage Information Display for the baggage carousels 3, 4, and 5 shall be mounted in Racks B2 and B3 in data room 41. Refer to Detail 1. Revise Detail Note 2 to read: "Mount (3) PC's for Baggage Carousel 3, 4, and 5 Baggage Information Display. Each PC shall connect by VGA Cable to a single VGA Video Extender Remote Receiver."A Cat 6 conductor shall be extended from the remote receiver to a Video Extender/splitter at each Baggage Carousel Directory Display. Cat 6 cable shall terminate in a RJ-45 fitting. Connect back to back monitors with HDMI cables. The Remote receiver shall be mounted in the rack. One receiver for each PC. Refer to Specification Section 25 63 10 - Baggage Information Display.

B. PC's for the Baggage Information Display for the baggage carousels 1 and 2 shall be mounted Racks D2 and D3 in data room 82. Refer to Detail 5. Revise Detail Note 2 to read: "Mount (2) PC's for Baggage Carousel 1 and 2 Baggage Information Display. Each PC shall connect by VGA Cable to a single VGA Video Extender Remote Receiver." A Cat 6 conductor shall be extended from the remote receiver to a Video Extender/splitter at each Baggage Carousel Directory Display. Cat 6 cable shall terminate in a RJ-45 fitting. Connect back to back monitors with HDMI cables. The Remote receiver shall be mounted in the rack. One receiver for each PC. Refer to Specification Section 25 63 10 – Baggage Information Display.

3.59 SHEET E806 - GMIA BAGGAGE HANDLING AND DISPLAY CONNECTIONS NETWORK RISER DIAGRAM

A. Replace Sheet E806 with new Sheet E806. Install Baggage Claim PC's in racks in rooms 41 and 82. Install Video Extender Remote Receivers in rack in rooms 41 and 82.

END OF ADDENDUM NO.2

SECTION 00 40 00 - BID FORM (REVISED)

for GMIA Baggage Claim Building Remodel

Project No. A042-06415

Bids Due: 2:00 P.M. Wednesday, May 1, 2013

Contract 1: General Construction

At the Office of: MILWAUKEE COUNTY CLERK
Room 105 - Courthouse
901 North 9th Street
Milwaukee, Wisconsin 53233

We, _____
(A Corporation)(A Partnership)(An Individual)-(Cross Out Inapplicable)

of _____
Street

_____
City State Zip Code

_____
Telephone No. Fax Number email address

hereby agree to execute contract and furnish a satisfactory surety bond in the amount specified to complete the above project in strict accordance with Contract Documents dated July 16, 2012.

CONTRACT 1: General Construction
Base Bid: All Work, excluding the following items to be covered in separate contract or in the various bid alternates:

- Direct Digital Control System for HVAC (Spec Section 23 09 23)
- Modular Indoor Central Station Air-Handling Units (Spec Section 23 73 13)
- Electric Medium Voltage Switch Gear (Spec Section 26 13 16)
- Inbound Baggage Handling System - Contract 2 - (Spec Section 14 50 00)

for the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

Miscellaneous Allowance (Add to Base Bid from Section 012100) $ 500,000.00

Permit Allowance (Add to Base Bid from Section 012100) $ 20,000.00

TOTAL BASE BID:_____
(In words)

_____ **Dollars $** _____
(In figures)

ALTERNATIVES
Fill in Alternatives as listed. Where no change in base Bid occurs for Alternative, mark "No Change" or if "Add to or Deduct from base Bid occurs, cross out the description that does not apply. See Section 012300. If an Alternative is left blank it shall mean Contractor shall perform the Work without addition or deduction in the Contract sum.

ALTERNATIVE #1: Second Floor Offices
Add to or deduct from Total Base Bid if Work is done, the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

ALTERNATIVE #2: Glass Panel Infill at Traffic Island Canopy
Add to or deduct from Total Base Bid if Work is done, the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

ALTERNATIVE #3: Metal Panel Wall System at Elevator/Stair Towers
Add to or deduct from Total Base Bid if Work is done, the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

ALTERNATIVE #4: Electrical Panel Upgrade
Add to or deduct from Total Base Bid if Work is done, the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

ALTERNATIVE #5: Lithocrete Sidewalk
Add to or deduct from Total Base Bid if Work is done, the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

ALTERNATIVE #6: S&C Switchgear
Add to Total Base Bid if **S&C Electric Medium Voltage Switch Gear** is used, the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

ALTERNATIVE #7: Square D Switchgear
Add to Total Base Bid if **Square D Medium Voltage Switch Gear** is used, the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

ALTERNATIVE #8: General Electric Switchgear
Add to Total Base Bid if **General Electric Medium Voltage Switch Gear** is used, the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

ALTERNATIVE #9: Russelectric Transfer Switches
Add to Total Base Bid if **Russelectric Automatic Transfer Switches** are used, the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

ALTERNATIVE #10: Emerson ASCO Power Technologies Transfer Switches
Add to Total Base Bid if **Emerson; ASCO Power Technologies Automatic Transfer Switches** are used, the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

ALTERNATIVE #11: Carrier Air Handling Units
Add to Total Base Bid if **Carrier Air Handling Units** are used, the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

ALTERNATIVE #12: McQuay Air Handling Units
Add to Total Base Bid if **McQuay Air Handling Units** are used, the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

ALTERNATIVE #13: Trane Air Handling Units
Add to Total Base Bid if **Trane Air Handling Units** are used, the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

ALTERNATIVE #14: York Air Handling Units
Add to Total Base Bid if **York Air Handling Units** are used, the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

ALTERNATIVE #15: Johnson Controls HVAC DDC
Add to Total Base Bid if **Johnson Controls Direct Digital Control System for HVAC** is used, the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

ALTERNATIVE #16: EMCOR HVAC DDC
Add to Total Base Bid if **EMCOR Services Direct Digital Control System for HVAC** is used, the sum of:

_____
(In words)

_____ Dollars $ _____

(In figures)

ALTERNATIVE #17: Kain Energy/Schneider Electric HVAC DDC
Add to Total Base Bid if **Kain Energy/Schneider Electric Services Direct Digital Control System for HVAC** is used, the sum of:

_____
(In words)

_____ Dollars $ _____

(In figures)

ALTERNATIVE #18: Owner-Direct Purchase of DIRTT Wall System
Deduct from Total Base Bid if Owner purchases and furnishes **DIRRT Wall System**, the sum of:

_____
(In words)

_____ Dollars $ _____
(In figures)

SUBSTITUTION OF MATERIALS

For use by Bidders at their option the following substitutions from specifically named materials or items.

MANUFACTURER'S NAME	MATERIAL	ADD/DEDUCT

ADDENDUM RECEIPT

We acknowledge the receipt of Addendum _____ to _____ inclusive.

BID SECURITY ACCOMPANYING PROPOSAL

NOTE! See Instructions to Bidders - Article 9, Bid Security, subparagraph 9.1.1, filing original bid bond.

The amount and type of bid security is as follows:

_____

COMMENCEMENT AND COMPLETION OF CONTRACT WORK

The undersigned agrees, if signatory to the Contract, to commence work upon receipt of Notice to Proceed and achieve Substantial Completion of the Work within **640 calendar days**.

The undersigned understands and agrees that a Contract will be awarded by Milwaukee County subject to the availability of Project Funding, the provisions of all applicable Federal, State, and County rules, regulations, statutes, and ordinances, and the requirements of this Project Manual. Bidder also agrees to commence work upon execution of the Owner-Contractor Agreement and a Notice to Proceed and Complete Work per the Contract Specifications.

NOTE! See Document 008000 - Supplementary Conditions – 8.2.3, for Liquidated Damages associated with the contract work.

BIDDER'S CERTIFICATE - Section 66.0901(7), Wisconsin Statues

_____ certifies that they have examined and carefully prepared this bid from Bid Documents and have checked same in detail before submitting bid to Milwaukee County.

_____
(Signature of Authorized Representative)

_____
(Title)

Subscribed and sworn to before me this _____ day of _____, 20_____.

My commission expires _____, 20_____.

_____
(Notary Public)

AFFIDAVIT

State of _____

County of _____

_____ being duly sworn, deposes and states that
(Name)

they are the _____ of
(Official Capacity)

_____
(Name of Firm)

and that Contractors Qualification Statement filed with County Clerk on

_____ for said firm remains true and correct. I understand that the willful falsification of information may result in a civil or criminal penalty pursuant to Chapter 101 Statutes.

_____
(Signature and Title)

Subscribed and sworn to before me this _____ day of _____, 20_____.

My commission expires _____, 20_____.

_____
(Notary Public)

If a qualification statement has been filed more than 3 years before the opening of this bid, submit a new qualification statement not less than five days before the opening of this bid.

General Decision Number: WI130001 04/05/2013 WI1

Superseded General Decision Number: WI20120001

State: Wisconsin

Construction Type: Building

Counties: Milwaukee, Ozaukee, Washington and Waukesha
Counties in Wisconsin.

BUILDING CONSTRUCTION PROJECTS (Does not include residential
construction consisting of single family homes and apartments
up to and including 4 stories)

Modification Number	Publication Date
0	01/04/2013
1	01/18/2013
2	02/15/2013
3	03/08/2013
4	04/05/2013

ASBE0205-001 06/01/2001

	Rates	Fringes
Asbestos Removal worker/hazardous material handler Includes preparation, wetting, stripping, removal, scrapping, vacuuming, bagging and disposing of all insulation materials from mechanical systems, whether they contain asbestos or not	$ 17.90	4.45

BOIL0107-001 01/01/2013

	Rates	Fringes
BOILERMAKER		
Boilermaker	$ 31.09	27.11
Small Boiler Repair (under 25,000 lbs/hr)	$ 26.91	16.00

BRWI0005-001 06/01/2011

	Rates	Fringes
TERRAZZO WORKER	$ 30.70	15.75
TILE LAYER	$ 29.70	15.75

BRWI0008-001 06/01/2011

	Rates	Fringes

BRICKLAYER.....$ 35.58 16.07

BRWI0008-003 06/01/2011

	Rates	Fringes
Marble Mason.....	$ 35.58	16.07

CARP0264-001 06/01/2009

	Rates	Fringes
Carpenter & Soft Floor Layer (Including Acoustical work and Drywall hanging; Excluding Batt Insulation).....	$ 31.38	16.03

CARP2337-002 06/01/2009

	Rates	Fringes
MILLWRIGHT.....	$ 28.30	20.70

CARP2337-008 06/01/2009

	Rates	Fringes
PILEDRIVERMAN.....	$ 28.11	21.08

ELEC0494-001 06/01/2012

	Rates	Fringes
ELECTRICIAN.....	$ 32.20	21.64

ELEC0494-003 06/01/2012

	Rates	Fringes
Sound & Communications		
Installer.....	$ 16.47	14.84
Technician.....	$ 24.75	16.04

Installation, testing, maintenance, operation and servicing of all sound, intercom, telephone interconnect, closed circuit TV systems, radio systems, background music systems, language laboratories, electronic carillion, antenna distribution systems, clock and program systems and low-voltage systems such as visual nurse call, audio/visual nurse call systems, doctors entrance register systems. Includes all wire and cable carrying audio, visual, data, light and radio frequency signals. Includes the installation of conduit, wiremold, or raceways in existing structures that have been occupied for six months or more where required for the protection of the wire or cable, but does not mean a complete conduit or raceway system. work covered does not include the installation of conduit, wiremold or any raceways in any new construction, or the installation of power supply outlets by means of which external electric power is supplied to any of the foregoing equipment or

products

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* ELEV0015-001 01/01/2013

	Rates	Fringes
ELEVATOR MECHANIC	$ 43.21	25.185

FOOTNOTE:
PAID VACATION: 8% of regular basic for employees with more than 5 years of service, and 6% for 6 months to 5 years of service.
PAID HOLIDAYS: New Years Day, Memorial Day, Independence Day, Labor Day, Veterans Day, Thanksgiving Day, Friday after Thanksgiving, and Christmas Day.

ENGI0139-001 06/01/2012

KENOSHA, MILWAUKEE, OZAUKEE, RACINE, WASHINGTON, AND WAUKESHA COUNTIES

	Rates	Fringes
Power Equipment Operator		
Group 1	$ 39.16	18.85
Group 2	$ 38.66	18.85
Group 3	$ 38.16	18.85
Group 4	$ 37.47	18.85
Group 5	$ 35.59	18.85
Group 6	$ 30.44	18.85

HAZARDOUS WASTE PREMIUMS:
EPA Level "A" Protection: $3.00 per hour
EPA Level "B" Protection: $2.00 per hour
EPA Level "C" Protection: $1.00 per hour

POWER EQUIPMENT OPERATORS CLASSIFICATIONS

GROUP 1: Cranes, Tower Cranes, Pedestal Tower Cranes and Derricks with or w/o attachments with a lifting capacity of over 100 tons; or Cranes, Tower Cranes, Pedestal Tower Cranes and Derricks with boom, leads, and/or jib lengths measuring 176 feet or longer; Self-Erecting Tower Cranes over 4000 lbs lifting capacity; All Cranes with Boom Dollies; Boring Machines (directional); Master Mechanic. $0.50 additional per hour per 100 tons or 100 ft of boom over 200 ft or lifting capacity of crane over 200 tons to a maximum of 300 tons or 300 ft. Thereafter an increase of $0.01 per ft or ton, whichever is greater.

GROUP 2: Cranes, Tower Cranes, Pedestal Tower Cranes and Derricks with or without attachments with a lifting capacity of 100 tons or less; or Cranes, Tower Cranes Portable Tower Cranes, Pedestal Tower Cranes and Derricks with boom, leadsand/or jib lengths measuring 175 feet or less; Backhoes (excavators) 130,000 lbs and over; Caisson Rigs; Pile Drivers; Boring Machines (vertical or horizontal), Versi-Lift, Tri-Lift, Gantry 20,000 lbs & over.

GROUP 3: Backhoe (excavator) under 130,000 lbs;Self-erecting Tower Crane 4000 lbs & under lifting capacity;Traveling Crane (bridge type); Skid Rigs; Dredge Operator; Mechanic; Concrete Paver (over 27E); Concrete Spreader and Distributor; Forklift/ Telehandler (machinery- moving / steel erection); Hydro Blaster, 10,000 psi and over

GROUP 4: Material Hoists; Stack Hoists; Hydraulic Backhoe (tractor or truck mounted); Hydraulic Crane, 5 tons or under (tractor or truck mounted); Hoist (tuggers 5 tons & over); Hydro-Excavators/Daylighters; Concrete Pumps Rotec type Conveyors; Tractor/Bulldozer/End Loader (over 40 hp); Motor Patrol; Scraper Operator; Sideboom; Straddle Carrier; Welder; Bituminous Plant and Paver Operator; Roller over 5 tons; Rail Leveling Machine (Railroad); Tie Placer; Tie Extractor; Tie Tamper; Stone Leveler; Rotary Drill Operator and Blaster; Percussion Drill Operator; Air Track Drill and/or Hammers; Gantrys (under 20,000 lbs); Tencher (wheel type or chain type having 8 inch or larger bucket); Milling Machine; Off-Road Material Haulers.

GROUP 5: Backfiller; Concrete Auto Breaker (large); Concrete Finishing Machines (road type); Rubber Tired Roller; Concrete Batch Hopper; Concrete Conveyor Systems; Grout Pumps; Concrete Mixers (14S or over); Screw Type Pumps and Gypsum Pumps; Tractor, Bulldozer, End Loader (under 40 hp); Trencher (chain type, bucket under 8 inch); Industrial Locomotives; Rollers under 5 tons; Stump Grinder/Chipper (Large); Timber Equipment; Firemen (pile drivers and derricks); Personnel Hoist, Telehandler over 8000 lbs; Robotic Tool Carrier with or without attachments

GROUP 6: Tampers - Compactors (riding type); Assistant Engineer; A-Frames and Winch Trucks; Concrete Auto Breaker; Hydrohammers (small); Brooms and Sweepers; Hoist (tuggers under 5 tons); Boats (Tug, Safety, Work Barges, Launch); Shouldering Machine Operator; Prestress Machines; Screed Operator; Stone Crushers and Screening Plants; Screed Operators (milling machine), Farm or Industrial Tractor Mounted Equipment; Post Hole Digger; Fireman (asphalt plants); Air Compressors over 400 CFM; Generators, over 150 KW; Augers (vertical and horizontal); Air, Electric, Hydraulic Jacks (slipform); Skid Steer Loaders (with or without attachments); Boiler Operators (temporary heat); Refrigeration Plant/Freeze Machines; Power Pack Vibratory/Ultra Sound Drivers and Extractors; Welding Machines; Heaters (mechanical); Pumps; Winches (small electric); Oiler and Greaser; Rotary Drill Tender; Conveyor; Forklifts/Telehandler 8000 lbs & under; Elevators: Automatic Hoists; Pumps (well points); Combination Small Equipment Operators

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IRON0008-005 07/01/2012

	Rates	Fringes
IRONWORKER.....	$ 30.51	22.72

Paid Holidays: New Year's Day, Memorial Day, July 4th, Labor

Day, Thanksgiving Day & Christmas Day.

LABO0113-001 06/06/2011

	Rates	Fringes
LABORER		
(1) General Laborer (Including Plaster Tender)..	$ 28.82	15.61
(2) Air & Electric Equipment, Mortar Mixer, Scaffold Builder, Erector, and Swing Stage.....	$ 28.93	15.61
(3) Jackhammer Operator, Gunnite Machine Man.....	$ 29.04	15.61
(4) Caisson Worker - Topman.	$ 29.13	15.61
(5) Construction Specialist.	$ 29.29	15.61
(6) Nozzleman.....	$ 29.33	15.61
(7) Caisson Work.....	$ 29.48	15.61
(8) Barco Tamper.....	$ 30.04	15.61

LABO0113-010 06/06/2011

	Rates	Fringes
Asbestos Laborer		
Asbestos Abatement [Preparation, removal, and encapsulation of hazardous materials from non-mechanical systems].....	$ 28.82	15.61

PAIN0781-001 06/01/2012

	Rates	Fringes
Painters:		
(1) Brush, Roller.....	$ 29.52	18.79
(2) Spray & Sandblast.....	$ 30.27	18.79
(3) Drywall Taper/Finisher..	$ 29.87	18.79

PAIN1204-002 06/01/2012

	Rates	Fringes
GLAZIER.....	$ 34.19	18.25

PLAS0599-004 05/31/2010

	Rates	Fringes
CEMENT MASON/CONCRETE FINISHER...	$ 30.87	16.33

PLAS0599-005 07/01/2012

	Rates	Fringes
PLASTERER.....	$ 31.56	18.18

PLUM0075-001 01/01/2013

	Rates	Fringes
PLUMBER (Including HVAC work)....	$ 37.97	17.97

PLUM0601-001 01/01/2013

	Rates	Fringes
PIPEFITTER (Including HVAC work).....	$ 39.26	19.91

SFWI0183-001 01/01/2013

	Rates	Fringes
SPRINKLER FITTER.....	$ 38.50	21.03

SHEE0018-001 06/01/2011

	Rates	Fringes
Sheet Metal Worker (Including HVAC duct work and Technicians).....	$ 37.20	17.01

SUWI2002-002 01/23/2002

	Rates	Fringes
Asbestos Worker/Heat and Frost Insulator.....	$ 25.36	8.37
Laborers:		
Concrete Worker.....	$ 16.34	3.59
Landscape.....	$ 8.73	8.40
ROOFER.....	$ 18.01	3.28
Tile & Marble Finisher.....	$ 13.89	7.43

TEAM0039-004 05/01/2010

	Rates	Fringes
TRUCK DRIVER		
1 & 2 Axles.....	$ 25.09	15.20
3 or more Axles.....	$ 25.24	15.20

WELDERS - Receive rate prescribed for craft performing operation to which welding is incidental.

Unlisted classifications needed for work not included within the scope of the classifications listed may be added after award only as provided in the labor standards contract clauses (29CFR 5.5 (a) (1) (ii)).

The body of each wage determination lists the classification and wage rates that have been found to be prevailing for the cited type(s) of construction in the area covered by the wage determination. The classifications are listed in alphabetical order of "identifiers" that indicate whether the particular rate is union or non-union.

Union Identifiers

An identifier enclosed in dotted lines beginning with characters other than "SU" denotes that the union classification and rate have found to be prevailing for that classification. Example: PLUM0198-005 07/01/2011. The first four letters , PLUM, indicate the international union and the four-digit number, 0198, that follows indicates the local union number or district council number where applicable , i.e., Plumbers Local 0198. The next number, 005 in the example, is an internal number used in processing the wage determination. The date, 07/01/2011, following these characters is the effective date of the most current negotiated rate/collective bargaining agreement which would be July 1, 2011 in the above example.

Union prevailing wage rates will be updated to reflect any changes in the collective bargaining agreements governing the rates.

0000/9999: weighted union wage rates will be published annually each January.

Non-Union Identifiers

Classifications listed under an "SU" identifier were derived from survey data by computing average rates and are not union rates; however, the data used in computing these rates may include both union and non-union data. Example: SULA2004-007 5/13/2010. SU indicates the rates are not union majority rates, LA indicates the State of Louisiana; 2004 is the year of the survey; and 007 is an internal number used in producing the wage determination. A 1993 or later date, 5/13/2010, indicates the classifications and rates under that identifier were issued as a General Wage Determination on that date.

Survey wage rates will remain in effect and will not change until a new survey is conducted.

WAGE DETERMINATION APPEALS PROCESS

1.) Has there been an initial decision in the matter? This can

be:

* an existing published wage determination
* a survey underlying a wage determination
* a Wage and Hour Division letter setting forth a position on a wage determination matter
* a conformance (additional classification and rate) ruling

On survey related matters, initial contact, including requests for summaries of surveys, should be with the Wage and Hour Regional Office for the area in which the survey was conducted because those Regional Offices have responsibility for the Davis-Bacon survey program. If the response from this initial contact is not satisfactory, then the process described in 2.) and 3.) should be followed.

With regard to any other matter not yet ripe for the formal process described here, initial contact should be with the Branch of Construction Wage Determinations. Write to:

Branch of Construction Wage Determinations
Wage and Hour Division
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

2.) If the answer to the question in 1.) is yes, then an interested party (those affected by the action) can request review and reconsideration from the Wage and Hour Administrator (See 29 CFR Part 1.8 and 29 CFR Part 7). Write to:

Wage and Hour Administrator
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

The request should be accompanied by a full statement of the interested party's position and by any information (wage payment data, project description, area practice material, etc.) that the requestor considers relevant to the issue.

3.) If the decision of the Administrator is not favorable, an interested party may appeal directly to the Administrative Review Board (formerly the Wage Appeals Board). Write to:

Administrative Review Board
U.S. Department of Labor
200 Constitution Avenue, N.W.
Washington, DC 20210

4.) All decisions by the Administrative Review Board are final.

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END OF GENERAL DECISION

SECTION 01 23 00 ALTERNATES

PART 1 GENERAL

1.1 SECTION INCLUDES

A. Related documents.

B. Summary.

C. Definitions

D. Acceptance of alternates

E. Procedures

F. Schedule of alternates

1.2 RELATED DOCUMENTS

A. Drawings and general provisions of the Contract, including general and Supplementary Conditions and other Division 1 Specification Sections, apply to this Section.

1.3 SUMMARY

A. Related Sections.

1. Division 0 Section 001000 - "Instructions to Bidders" for Instructions for preparation of pricing for alternates.

2. Division 0 Section 004000 - "Bid Form" for list of alternates as supplement to Bid Form.

3. Document A201-1997 Agreement: Incorporating monetary value of accepted alternates.

4. Divisions 2 through 33 Sections: Coordinate Sections that specify or relate to items included in an alternate with this section.

1.4 DEFINITIONS

A. Alternate: An amount proposed by bidders and stated on the Bid Form for certain work defined in the Bidding Requirements that may be added to or deducted from the base bid amount if Owner decides to accept a corresponding change either in the amount of construction to be completed or in the products, materials, equipment, systems, or installation methods described in the Contract Documents.

1. The cost or credit for each alternate is the net addition to or deduction from the Contract Sum to incorporate alternate into work. No other adjustments are made to Contract Sum.

1.5 ACCEPTANCE OF ALTERNATES

A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at the Owner's option and in the Owner's sole discretion up to and including the date the Owner-Contractor Agreement is presented to an identified bidder for signature. The Alternates selected by the Owner will be identified in the Owner-Contractor Agreement.

1.6 PROCEDURES

A. Coordination: modify or adjust affected adjacent work as necessary to completely integrate work of the alternate into Project.

1. Include as part of each alternate, miscellaneous devices, accessory objects, and similar items incidentals to or required for a complete installation whether or not indicated as part of alternate.

B. Notification: Immediately following award of the Contract, notify each party involved, in writing, of the status of each alternate. Indicate if alternates have been accepted, rejected, or deferred for later consideration. Include a complete description of negotiated modifications to alternates.

C. Execute accepted alternates under the same conditions as other work of the Contract.

D. Schedule: A schedule of alternates is included at the end of this Section. Specification Sections referenced in schedule contain requirements for materials necessary to achieve the work describ3ed under the same alternate.

PART 2 PRODUCTS – (Not Used)

PART 3 EXECUTION

3.1 SCHEDULE OF ALTERNATES

A. Alternate 1: **Second Floor Offices**: Add complete architectural and engineering build-out inclusive of exterior envelope, interior finished spaces, structural, mechanical, electrical power and data, plumbing, fire protection, fire alarm, and lighting systems. Refer to drawings and specifications for scope of work.

B. Alternate 2: **Glass Panel Infill at Traffic Island Canopy**: Central glass panel located between column lines AA and A for the overall length of the traffic island canopy. Refer to drawings and specifications for scope of work.

C. Alternate 3: **Metal Panel Wall System at Elevator/Stair Towers**: Metal Panel Wall System, inclusive of all back-up support, to clad all exposed elevations at the north and south poured in place concrete elevator/stair towers. Refer to drawings and specifications for scope of work.

D. Alternate 4: **Electrical Panel Upgrade**: Complete electrical service upgrade for designated electrical panels located in the lower level and first floor level of the Baggage Claim Building. Refer to drawings and specifications for scope of work.

E. Alternate 5: **Lithocrete Sidewalk**: Provide full depth lithocrete sidewalk in place of standard concrete sidewalk at building. Refer to drawing and specifications for limits and scope of work.

F. Alternate 6: **S&C Switchgear:** Additional cost to base bid for the complete furnish, installation, testing and commissioning of medium voltage switchgear manufactured by S&C. Refer to spec section 26 13 16 and drawings for complete scope of work.

G. Alternate 7: **Square D Switchgear:** Additional cost to base bid for the complete furnish, installation, testing and commissioning of medium voltage switchgear manufactured by Square D. Refer to spec section 26 13 16 and drawings for complete scope of work.

H. Alternate 8: **General Electric Switchgear**: Additional cost to base bid for the complete furnish, installation, testing and commissioning of medium voltage switchgear manufactured by General Electric. Refer to spec section 26 13 16 and drawings for complete scope of work.

I. Alternate 9: **Russelectric Transfer Switches**: Additional cost to base bid for the complete furnish, installation, testing and commissioning of automatic transfer switches manufactured by Russelectric. Refer to spec section 26 36 23 and drawings for complete scope of work.

J. Alternate 10: **Emerson ASCO Power Technologies Transfer Switches**: Additional cost to base bid for the complete furnish, installation, testing and commissioning of automatic transfer switches manufactured by Emerson ASCO Power Technologies. Refer to spec section 26 36 23 and drawings for complete scope of work.

K. Alternate 11: **Carrier Air Handling Units**: Additional cost to base bid for the complete furnish, installation, testing and commissioning of modular indoor central station air-handling units manufactured by Carrier. Refer to spec section 23 73 13 and drawings for complete scope of work.

L. Alternate 12: **McQuay Air Handling Units**: Additional cost to base bid for the complete furnish, installation, testing and commissioning of modular indoor central station air-handling units manufactured by McQuay. Refer to spec section 23 73 13 and drawings for complete scope of work.

M. Alternate 13: **Trane Air Handling Units**: Additional cost to base bid for the complete furnish, installation, testing and commissioning of modular indoor central station air-handling units manufactured by Trane. Refer to spec section 23 73 13 and drawings for complete scope of work.

N. Alternate 14: **York Air Handling Units:** Additional cost to base bid for the complete furnish, installation, testing and commissioning of modular indoor central station air-handling units manufactured by York. Refer to spec section 23 73 13 and drawings for complete scope of work.

O. Alternate 15: **Johnson Controls HVAC Direct Digital Control**: Additional cost to base bid for the complete furnish, installation, testing and commissioning of a direct digital control system for HVAC by Johnson Controls. Refer to spec section 29 09 23 and drawings for complete scope of work.

P. Alternate 16: **EMCOR HVAC Direct Digital Control**: Additional cost to base bid for the complete furnish, installation, testing and commissioning of a direct digital control system for HVAC by EMCOR. Refer to spec section 29 09 23 and drawings for complete scope of work.

Q. Alternate 17: **Kain Energy/Schneider Electric Direct Digital Control**: Additional cost to base bid for the complete furnish, installation, testing and commissioning of a direct digital control system for HVAC by Kain Energy/Schneider Electric. Refer to spec section 29 09 23 and drawings for complete scope of work.

R. Alternate 18: **Owner Direct Purchase of DIRTT Wall System**: Reduction in cost to base bid if the DIRRT wall system are directly purchased by owner as indicated in spec section 01 10 00 Summary Refer to spec section 10 22 20 and drawings for complete scope of work.

END OF SECTION 01 23 00

SECTION 23 09 15 – POINT LIST

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SCOPE

A. Information in this Section indicated control, monitoring and alarm points from the DDC automatic temperature control system that are to be mapped and displayed at the DDC automatic temperature system operator workstations.

PART 1 - General
- 1.1 Related Documents
- 1.2 Scope
- 1.3 Related Work

PART 2 - Products - Not Applicable

PART 3 - Execution
- 3.1 Point Lists
  - (a) Hot Water Pumps, Radiation, Cabinet Unit Heaters
  - (b) VAV Supply Terminals
  - (c) AHU 1 & 2
  - (d) Switchgear AHU/ATS Room Ventialation
  - (e) Data Room Air Conditioning
  - (f) ERU 1 & 2, Relocated Exhaust Fans,Roadway Sump Pumps & Energy Metering

1.3 SCOPE

A. Applicable provisions of Division 1 govern work under this Section.

B. Section 23 09 14 - Pneumatic and Electric Instrumentation and Control Devices for HVAC

C. Section 23 09 93 - Control Sequences

D. Division 23 - HVAC - Equipment provided to be controlled or monitored

E. Division 26 - Electrical - Equipment provided to be controlled or monitored

END OF SECTION 23 09 15

DDC INPUT / OUTPUT SUMMARY TABLE

Milw. Cnty Proj No. A042-06415

PROJECT:
EA # 102053
GMIA Baggage Claim

LOCATION
GMIA
4300 S. Howell
Milwaukee, Wisconsin

SYSTEM: Hot Water Pumps, Radiation, Cabinet/ Unit Heaters

	HARDWARE																				SOFTWARE																									
	OUTPUT								INPUT												ALARMS							ENERGY MANAGEMENT SYSTEM FUNCTIONS																			
	DIGITAL				ANALOG				DIGITAL						ANALOG						DIGITAL			ANALOG																						
POINT DESCRIPTION	Control Relay	Solenoid	Contactor	2-Pos Actuator	Elect/PneuTransducr	Tristate Actuator	4-20 mA	0-10 VDC	Current Sensing Switch	Control Relay Contact	Switch Closure	Auxiliary Contact	Diff Pressure Switch	Flow Switch	Temperature	Relative Humidity	Differential Pressure	Actuator Feedback	Static Pressure	Valve Position	Equipment Status	Maintenance	Pressure	High Limit	Low Limit	Run Time		Day/Night Setback	Demand Limiting	Dial-up I/O	Duty Cycling	Scheduled Start/Stop	Point History	Start/Stop Program	Totalization	Trend		Lighting Integration	Fire Alarm Integration	Security/Access Integration	Elect PQM Integration	Chiller Integration		HW/OA Reset	CHW Reset	Smoke Control	Fire Alarm Override	**Comments**
P-1A/B, 2A/B, 3A/B & 4A/B																																														Typical for EA Pump Set
Pump A Command	X																																X		X											
Pump A Output	X							X																									X		X											
Pump A Status								X					X								X														X											
Pump B command	X																																X		X											
Pump B Output	X							X																									X		X											
Pump B Status								X					X								X														X											
HWS Temperature															X									X	X										X											
HWS Temperature															X									X	X										X											
3 Way Auto Valve								X												X																						X				
OA Temperature															X																				X											
Radiation (Stand Alone)																																														
Space Temperature															X									X	X																					
Hot Water Control Valve						X	X	X																																						
Cab/ Htrs (CUH-1,7&8)																																														
Space Temperature															X									X	X																					
Hot Water Control Valve						X	X	X																																						
Unit Fan	X																																													
Cab. Htrs (CUH 2-6)																																														
Space Temperature															X									X	X																					
Discharge Temperature															X									X	X																					
Heating Coil Auto Valve						X	X	X										X																												
Unit Fan	X								X												X																									

DDC INPUT / OUTPUT SUMMARY TABLE

Milw. Cnty Proj No. A042-06415

PROJECT:
EA # 102053
GMIA Baggage Claim

LOCATION:
GMIA
4300 S. Howell
Milwaukee, Wisconsin

SYSTEM: Supply VAV Terminals (See plans for Qty)

	HARDWARE																				SOFTWARE																								
	OUTPUT								INPUT												ALARMS																								
	DIGITAL				ANALOG				DIGITAL						ANALOG						DIGITAL			ANALOG				ENERGY MANAGEMENT SYSTEM FUNCTIONS																	
POINT DESCRIPTION	Control Relay	Solenoid	Contactor	24 VAC	Tri-State Actuator	Duration Adjust Actuator	4-20 mA	0-10 VDC	Current Sensing Switch	Control Relay Contact	Switch Closure	Auxiliary Contact	Diff Pressure Switch	Flow Switch	Temperature	Resistive	Differential Pressure	Actuator Feedback	Static Pressure	Flow	Equipment Status	Maintenance	Pressure	High Limit	Low Limit			Day/Night Setback	Demand Limiting	Dial-up I/O	Duty Cycling	Optimum Start/Stop	Scheduled Occ/Unoc	Totalization	Trend	Redundancy Control	Lighting Integration	Fire Alarm Integration	Security/Access Integration	Elect PQM Integration	Chiller Integration	CFM Offset	OA Lockout	CHW Reset	Smoke Control	Fire Alarm Override	**Comments**
Hardware Points																																													
Zone Temperature															X									X	X										X											
Temperature Setpoint Adjust[5]																X																													Integral w/Sensor
Unnocupied Override Button											X																																		Integral w/Sensor
Occupancy Sensor												X																																	
Supply Air Damper [1 & 2]					X	X	X	X										X																											
Supply Air Flow																				X															X											
Discharge Air Temperature															X																				X											
Reheat Valve [1]					X	X	X	X										X																	X											
HW Radiation ACV [3]								X																											X							X				
Software Points [4]																																													
Occupied Heating Setpoint																																													
Occupied Cooling Setpoint																																													
Unoccupied Heating Setpoint																																													
Unoccupied Cooling Setpoint																																													
OccMin Clg Flow Setpoint																																													
Occ Min Htg Flow Setpoint																																													
Unocc Min Clg Flow Setpoint																																													
Unocc Min Htg Flow Setpoint																																													
Radiation Lockout Command																																													
Occupied/Unoccupied Command [7 & 10]																																X													
Actual Flow Setpoint																																			X											
Actual Heating Setpoint																																			X											
Actual Cooling Setpoint																																			X											
Temperature Setpoint Adjust Range[5]																																													

Notes:

1. Analog outputs must utilize a calculated proportional command from software. Actual output can be any type but floating outputs shall have feedback from the acutator so actual actuator position is known
2. Damper actuators can utilize stepper type motors.
3. Can be tri-state or proportional actuation.
4. The minimum software points listed, if necessary to the application, shall be mapped. Any additional software points that are available and requested by the user Agency shall be mapped by the DDC contractor.
5. Separate heating and cooling setpoints are preferred. If temperature setpoint is a single input that will offset the heating and cooling supervisory setpoints up or down together by an adjustable range.

DDC INPUT / OUTPUT SUMMARY TABLE

Milw. Cnty Proj No. A042-06415

PROJECT:
EA # 102053
GMIA Baggage Claim

LOCATION:
GMIA
4300 S. Howell
Milwaukee, Wisconsin

SYSTEM: AHU-1 & 2

HARDWARE

POINT DESCRIPTION	Control Relay	24VAC	Contactor	2-Pos Actuator	Tri-State Actuator	Duration Adjust Actuator	4-20 mA	0-10 VDC	Current Sensing Switch	Control Relay Contact	Switch Closure	Auxiliary Contact	Diff Pressure Switch	Flow Switch	Temperature	Relative Humidity	Differential Pressure	Gauge Pressure	Static Pressure	Carbon Dioxide	Flow
	OUTPUT DIGITAL				OUTPUT ANALOG				INPUT DIGITAL						INPUT ANALOG						
Supply Air Temperature															X						
Mixed Air Temperature															X						
Return Air Temperature															X						
Supply Air Flow																					X
Heating Coil Valve								X													
Hot Water Pump S/S	X																				
Hot Wated Pump Status									X												
Hot Water Flow																					X
Hot Water Supply Temp															X						
Hot Water Return Temp															X						
Chilled Water Coil Valve								X													
Chilled Water Flow																					X
Chilled Water Supply Temp															X						
Chilled Water Return Temp															X						
Return Air Damper								X													
Relief Air Damper								X													
Minimum OA Damper								X													
Economizer OA Damper								X													
Minimum OA Flow																					X
Supply Fan VFD Speed								X													
Supply Fan VFD Fault												X									
Supply Fan Status									X												
Supply Fan Start/Stop	X																				
Supply Air Static Pressure																			X		
Return Fan VFD Speed								X													
Return Fan VFD Fault												X									
Return Fan Status									X												
Return Fan Start/Stop	X																				
Return Air Flow																					X
Prefilter Differential Pressure																	X				
Final-filter Differential Pressure																	X				
Space CO2 Sensor																				X	
High Press Static Shutdown												X									
Freeze Stat												X									
Fire Alarm Shutdown												X									
Service Shutdown Switch											X										
Shutdown Reset Switch											X										

SOFTWARE

POINT DESCRIPTION	Equipment Status	Maintenance	Pressure	High Limit	Low Limit	Maintenance		Day/Night Setback	Demand Limiting	Dial-up I/O	Duty Cycling	Optimum Start/Stop	Scheduled Start/Stop	Totalization	Trend		Lighting Integration	Fire Alarm Integration	Security/Access Integration	Elect PQM Integration	Chiller Integration	Dry-bulb Economizer	HW/OA Reset	CHW Reset	Smoke Control	Fire Alarm Override	Comments
	ALARMS DIGITAL			ALARMS ANALOG				ENERGY MANAGEMENT SYSTEM FUNCTIONS																			
Supply Air Temperature				X	X										X												
Mixed Air Temperature				X	X										X												
Return Air Temperature				X	X										X												
Supply Air Flow				X											X												
Heating Coil Valve																											
Hot Water Pump S/S																											
Hot Wated Pump Status	X													X	X												
Hot Water Flow														X	X												
Hot Water Supply Temp															X												
Hot Water Return Temp															X												
Chilled Water Coil Valve															X												
Chilled Water Flow														X	X												
Chilled Water Supply Temp															X												
Chilled Water Return Temp															X												
Return Air Damper															X							X					
Relief Air Damper															X							X					
Minimum OA Damper															X												
Economizer OA Damper															X							X					
Minimum OA Flow				X	X										X												
Supply Fan VFD Speed																											
Supply Fan VFD Fault	X																										
Supply Fan Status	X														X												
Supply Fan Start/Stop												X	X														
Supply Air Static Pressure				X											X												
Return Fan VFD Speed																											
Return Fan VFD Fault	X																										
Return Fan Status	X														X												
Return Fan Start/Stop												X	X														
Return Air Flow				X											X												
Prefilter Differential Pressure				X		X																					
Final-filter Differential Pressure				X		X																					
Space CO2 Sensor															X												See Note #1.
High Press Static Shutdown	X		X																								
Freeze Stat	X																										Electric freezestat
Fire Alarm Shutdown	X																									X	
Service Shutdown Switch																											
Shutdown Reset Switch																											Reset latchout of supply fans.

Note:
1. - Locate two sensors for each air handler in the baggage area served by respective AHU. Average readings.

DDC INPUT / OUTPUT SUMMARY TABLE

Milw. Cnty Proj No. A042-06415

PROJECT:
EA # 102053
GMIA Baggage Claim

LOCATION
GMIA
4300 S. Howell
Milwaukee, Wisconsin

SYSTEM: Switch Gear AHU / ATS Room Ventilation

	HARDWARE																				SOFTWARE																											
	OUTPUT								INPUT												ALARMS																											
	DIGITAL				ANALOG				DIGITAL						ANALOG						DIGITAL			ANALOG				ENERGY MANAGEMENT SYSTEM FUNCTIONS																				
POINT DESCRIPTION	Control Relay	Solenoid	Contactor	2-Pos Actuator	Elect/PneuTransducr	Electric Actuator	4-20 mA	0-10 VDC	Current Sensing Switch	Control Relay Contact	Switch Closure	Auxiliary Contact	Diff Pressure Switch	Flow Switch	Temperature	Relative Humidity	Differential Pressure	Gauge Pressure	Static Pressure	Flow	Equipment Status	Maintenance	Pressure	High Limit	Low Limit	Run Time		Day/Night Setback	Demand Limiting	Dial-up I/O	Duty Cycling	Scheduled Start/Stop	Point History	Scheduled Start/Stop	Totalization	Trend		Lighting Integration	Fire Alarm Integration	Security/Access Integration	Elect PQM Integration	Chiller Integration		HW/OA Reset	CHW Reset	Smoke Control	Fire Alarm Override	Comments
Switchgear AHU																																																
Supply Air Temperature															x																					x												
Outside Air Temperature															x																					x												
Space Temperature															x																					x												
Supply Air Flow								x																												x												
Return Air Damper								x																												x												
Outside Air Damper								x																												x												
Relief Air Damper								x																												x												
Supply Fan VFD								x																																								
Supply Fan VFD Fault												x									x																											
Supply Fan Status									x												x															x												
Supply Fan Start/Stop	x																																															
Filter Press. Differential													x								x		x																									
Freeze Stat												x									x																											Electric Freezestat
Service Shutdown											x																																					
Shutdown Reset SW											x																																					Reset Latchout of Supply Fan
ATS Room Ventlation																																																
Supply Air Temperature															x																					x												
Outside Air Temperature															x																					x												
Space Temperature															x																					x												
Return Air Damper								x																												x												
Outside Air Damper								x																												x												
Relief Air Damper								x																												x												
Supply Fan Status																					x															x												
Supply Fan Start/Stop																																																
Filter Press. Differential													x								x		x																									

DDC INPUT / OUTPUT SUMMARY TABLE

Milw. Cnty Proj No. A042-06415

PROJECT:
EA # 102053
GMIA Baggage Claim

LOCATION:
GMIA
4300 S. Howell
Milwaukee, Wisconsin

SYSTEM:
Data Room 41 & 82 Air Conditioning

	HARDWARE																										SOFTWARE																					
	OUTPUT								INPUT												ALARMS																											
	DIGITAL				ANALOG				DIGITAL						ANALOG						DIGITAL			ANALOG				ENERGY MANAGEMENT SYSTEM FUNCTIONS																			
POINT DESCRIPTION	Control Relay	Solenoid	Contactor	2-Pos Actuator	Elect/PneuTransducr	Electric Actuator	4-20 mA	0-10 VDC	Current Sensing Switch	Control Relay Contact	Switch Closure	Auxiliary Contact	Diff Pressure Switch	Flow Switch	Temperature	Relative Humidity	Differential Pressure	Gauge Pressure	Static Pressure	Flow	Equipment Status	Maintenance	Pressure	High Limit	Low Limit	Run Time		Day/Night Setback	Demand Limiting	Dial-up I/O	Duty Cycling	Optimum Start/Stop	Point History	Scheduled Start/Stop	Totalization	Trend		Lighting Integration	Fire Alarm Integration	Security/Access Integration	Elect PQM Integration	Chiller Integration		HW/OA Reset	CHW Reset	Smoke Control	Fire Alarm Override	**Comments**
Temperature																																																
Supply Air Over Temperature																																																Binary
Return Air Over Temperature																																																Binary
Remote Sensor Max																																																Analog
Remote Sensor Min																																																Analog
Remote Sensor Ave																																																Analog
Setpoint																																																Analog
Cooling Prop. Range																																																Analog
Heating Prop. Range																																																Analog
Deadband																																																Analog
Humidity																																																
High Humidity																																																Binary
Low Humidity																																																Binary
Return Humidity																																																Analog
Fans																																																
Loss of Air Flow																																																Binary
Fan Hours Exceeded																																																Binary
Top Fan Trouble																																																Binary
Bottom Fan Trouble																																																Binary
Fan Speed Prop. Band																																																Analog
Fan Speed Stpt. Man.																																																Analog
Fan Speed Stpt. Max.																																																Analog
Fan Speed Stpt. Min.																																																Analog
Compressor																																																
High Head Pressure																																																Binary
Low Head Pressure																																																Binary
Comp. Hours Exceeded																																																Binary
Comp. Temp. Sens. Trouble																																																Binary
Comp. Temp. High Limit																																																Binary

PROJECT:
EA # 102053
GMIA Baggage Claim

LOCATION:
GMIA
4300 S. Howell
Milwaukee, Wisconsin

SYSTEM:
Data Room 41 & 82 Air Conditioning

	HARDWARE																				SOFTWARE																									
	OUTPUT								INPUT												ALARMS																									
	DIGITAL				ANALOG				DIGITAL						ANALOG						DIGITAL			ANALOG				ENERGY MANAGEMENT SYSTEM FUNCTIONS																		
POINT DESCRIPTION	Control Relay	Solenoid	Contactor	2-Pos Actuator	Elect/PneuTransducr	Electric Actuator	4-20 mA	0-10 VDC	Current Sensing Switch	Control Relay Contact	Switch Closure	Auxiliary Contact	Diff Pressure Switch	Flow Switch	Temperature	Relative Humidity	Differential Pressure	Gauge Pressure	Static Pressure	Flow	Equipment Status	Maintenance	Pressure	High Limit	Low Limit	Run Time		Day/Night Setback	Demand Limiting	Dial-up I/O	Duty Cycling	Optimum Start/Stop	Point History	Scheduled Start/Stop	Totalization	Trend		Lighting Integration	Fire Alarm Integration	Security/Access Integration	Elect PQM Integration	Chiller Integration		HW/OA Reset	CHW Reset	Smoke Control	Fire Alarm Override	**Comments**
Comp. Status																																														Binary
Condenser																																														
Condenser Trouble																																														Binary
Chilled Water Supply Overtemp.																																														Binary
Chilled Water Valve Position																																														Binary
Chilled Water Loss of Flow																																														Binary
Chilled Water Temperature																																														Analog
Chld. Wtr. Temp. Over Threshold																																														Analog
System																																														
Service Required																																														Binary
Loss of Power																																														Binary
Unit Status																																														Binary
Unit Shutdown																																														Binary
Filter Status																																														Binary
Fan Speed																																														Analog
Comp. Loading																																														Analog
Reheat Status																																														Analog
Air Temp. Control Sensor																																														MDS
Remote Sensor Calc.																																														MDS
Fan Control Sensor																																														MDS
Remote Sensor 1																																														MDS
Remote Sensor 2																																														MDS
Remote Sensor 3																																														MDS
System Status																																														MDS
System Control Mode																																														MDS
System On/Off Control																																														MDS
Event Acknowlegement/Reset																																														MDS
Addnl. Field Wired Points																																														
Proof of Chilled Water Flow													X																																	
Isolation Dmpr. Sup. Fan Interlock										X																																				

IDS: Muliple Digital Selection/Indication

DDC INPUT / OUTPUT SUMMARY TABLE

Milw. Cnty Proj No. A042-06415

PROJECT: EA # 102053 GMIA Baggage Claim	**HARDWARE**																				**SOFTWARE**																										z e
LOCATION: GMIA 4300 S. Howell Milwaukee, Wisconsin	**OUTPUT**								**INPUT**												**ALARMS**																										
	DIGITAL				**ANALOG**				**DIGITAL**						**ANALOG**						**DIGITAL**			**ANALOG**				**ENERGY MANAGEMENT SYSTEM FUNCTIONS**																			
SYSTEM: ERU 1 & 2 / EF - 1, 2 & 3 / Roadway Sump Pumps **POINT DESCRIPTION**	Control Relay	24VAC	Contactor	2-Pos Actuator	Tri-State Actuator	Duration Adjust Actuator	4-20 mA	0-10 VDC	Current Sensing Switch	Control Relay Contact	Switch Closure	Auxiliary Contact	Diff Pressure Switch	Flow Switch	Temperature	Relative Humidity	Differential Pressure	Gauge Pressure	Static Pressure	Flow	Equipment Status	Maintenance	High Water	High Limit	Low Limit	Maintenance		Day/Night Setback	Demand Limiting	Dial-up I/O	Duty Cycling	Optimum Start/Stop	Scheduled Start/Stop	Totalization	Trend		Lighting Integration	Fire Alarm Integration	Security/Access Integration	Elect PQM Integration	Chiller Integration	Dry-bulb Economizer	HW/OA Reset	CHW Reset	Smoke Control	Fire Alarm Override	**Comments**
ERU-1 & 2																																															
Supply Air Temperature															X									X	X																						
Outdoor Air Temperature															X									X	X																						A global point is acceptable
Entering Exh Air Temperature															X									X	X																						
Outdoor air damper				X																																											
Ret/exh air damper				X																																											
Fan start/stop	X																																														Supply and Exhaust Fan
Fan Status									X																																						Supply and Exhaust Fan
Supply Filter Pressure													X											X		X																					
Exhaust Filter Pressure													X											X		X																					
Relocated Exhaust Fans																																															3 Fans Total
Fan Start/Stop	X																																X														Reconnect To Exising Control
Fan Status									X												X																										
Exterior Sump Pump																																															
High Water Alarm	X																						X																								Extend Signal from Unit Panel
DW/HW/CW Metering																																															
Domestic Water														X																																	
Hot Water							X	X							X					X																											
Chilled Water							X	X							X					X																											

SECTION 25 63 10 - BAGGAGE INFORMATION DISPLAY

PART 1 - GENERAL

1.1. SUMMARY OF WORK.

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

B. This Section of the Specification forms part of the Contract Documents and are to be read, interpreted and coordinated with all other parts.

C. Provide design, equipment, software integration and system programming to add baggage information processing and display to the existing Com-Net flight information system.

D. The Contractor must supply all components necessary for a fully functional system.

E. Any questions regarding the building site, design environment, or performance requirements shall be submitted promptly to the Owner's Representative for clarification.

F. Related Sections:
1. Division 00 for procurement and contracting requirements.
2. Division 01 for general requirements.
3. Division 10 14 23 “Panel Signage” for overhead display enclosures
4. Division 10 12 00 “Information Display System” for freestand display mounts
5. Division 10 22 20 “Movable Wall Systems” for displays mounted in walls
6. Division 26, 27, 28 for all general electrical materials and methods.

1.2. REFERENCES.

A. The design, fabrication and construction including all manufactured components, fittings, and hardware shall conform to one or more of the codes and standards in accordance with DIVISION 1, and as referenced within the body of this specification, as applicable and as referenced to herein. All standards and codes referred to above and throughout this Specification will be of the latest revision in effect.

B. Industry Standards
1. National Electrical Manufacturer's Association (NEMA).
2. Institute of Electrical & Electronic Engineers (IEEE)
3. International Organization for Standardization (ISO).
   a. ISO 9001; Quality Assurance in Design/Development, Production, Installation, and Servicing
   b. ISO 9003; Quality Assurance in Final Inspection and Test
   c. ISO 9004; Quality Management and Quality System Elements Guidelines

1.3. SYSTEM DESCRIPTION.

A. The system required is a turnkey extension to the existing Com-Net Flight Information System that adds Carrousel Information Displays, Carrousel Wayfinding Displays, Directory Displays indicating flight/carrousel assignments, and additional Arrivals Information Display screens in the bag claim area.

B. System Components
1. Baggage Input Consoles

2. Flight Information Displays showing arrivals
3. Baggage Directory Displays showing carrousel/Flight assignments
4. Carrousel overhead displays showing baggage availability at each carrousel
5. Display Client Adapters
6. Mounting Brackets

C. Functional Requirements
1. All inbound baggage is point-to-point; one drop point per carrousel with no conveyor rerouting.
2. Each drop point has a baggage input console. At minimum the BIC must accept the following inputs into the Com-Net flight information Database:
   a. Airline code
   b. Flight Number
   c. Unload Started (First Bag)
   d. Unload Finished (Last Bag)
3. After code, flight number and "Unload Started" is entered and confirmed by the Com-Net software, a signal or contact closure provided to the baggage handling controls allows start of the conveyor system.
4. The carrousel assignments are stored in the Com-Net database, and the information appears on directory displays and carrousel overhead displays when the plane has landed.
   a. The directory displays shall show at a minimum Airline name and logo, originating city, flight number and carrousel number
   b. The overhead carrousel display shall show at a minimum airline and originating city. If more than one flight is in service at a carrousel, the flights shall rotate full lines vertically at a configurable rate.
5. When “Unload Started” is entered, the directory displays and the displays at the carrousel will indicate “unloading” or equivalent term selected by the owner, and when “Unload Finished” is entered, the displays will indicate “unloading complete” or equivalent term selected by the owner.
6. After a configurable delay following “Unloading Complete”, the flight will be removed from the directories and the carrousels.
7. The airport will supply policies for assignment and usage of the carrousels by the airlines.
8. When carrousel displays are not in use they shall be programmed to display default images, advertising, or other information as determined by the airport.
9. Web sites or other information display locations that currently exist shall be revised to display bag claim information as appropriate for good wayfinding practice.

1.4. COMPLETE SYSTEM

A. The Contractor shall deliver a complete and fully functional system. Any components or configuration work not specifically addressed in this section but necessary for a complete system shall be included.

B. To be provided by the electrical Contractor
1. Comm Room racks, ladders, patch panels, etc
2. Fiber terminations
3. Cat 6 terminations
4. 100% cable/termination test
5. UPS & rack PDUs
6. Cisco Network Switches
7. Power for Baggage Input Console

8. Installation & configuration of network switches

C. To be provided by the baggage handling system Contractor
1. Enclosures for baggage input consoles

D. To be coordinated with GMIA IT Department
1. PC Manufacturer for Display Controllers
2. Configuration of new VLANs
3. Approval of the Final Acceptance Testing of display system function

1.5. SUBMITTALS

A. System Architecture schematics showing existing system components and integration of new baggage information display components.

B. Product Data: Specifications and data sheets for each product specified.

C. Shop Drawings: Full-scale details to indicate installation or interface with other components.

D. Full functional description of any custom software components required to meet the functional requirements of this specification.

E. Screen Images showing the appearance, graphics and information for each of the following
1. Baggage Directory Displays
2. Carrousel Overhead Displays
3. Flight Information Arrivals Displays

F. Quality Control Submittals.
1. Manufacturer's Instructions: Inspection, preparation and installation instructions.

G. Contract Closeout Submittals.
1. Project Record Documents.
2. Operation and Maintenance Data.
3. Warranty.

1.6. QUALITY ASSURANCE.

A. Qualifications.
1. Manufacturer shall have a minimum 10 years documented experience successfully manufacturing products of similar scope and complexity in material, design, to that indicated for this Project.
2. Installer shall have a minimum 10 years documented experience successfully assembling, and installing work of similar scope and complexity in material, design, to that indicated for this Project. Installer shall be approved by manufacturer for installation of products specified. Certification of acceptability to be included with Qualification Data Submittal.
3. Installer shall assign a lead staff member to the project with a minimum 3 years documented experience successfully completing work of similar scope and complexity in material, design, to that indicated for this Project

1.7. DELIVERY, STORAGE, AND HANDLING

A. Deliver materials to Project site in original containers with seals unbroken and labeled with manufacturer's name, product brand name and type, date of manufacture, and directions for storing and or mixing with other components.

1.8. PROJECT/SITE CONDITIONS.

A. Do not install materials or components until the installation site is physically secure and free of construction dust and debris.

1.9. SEQUENCING AND SCHEDULING.

A. Schedule and phasing is specified in Divisions 0 and 1

1.10. WARRANTY

A. General Warranty:
   1. Provide written 12-month warranty against all material and labor defects in the installed system and components.
   2. Warranty period shall commence on the date of substantial completion.
   3. Submit under the provisions of Section 017000 – Warranties.

1.11. MAINTENANCE

A. Maintenance Services. Add all equipment and software maintenance to existing owner maintenance contracts.

PART 2 - PRODUCTS.

2.1. SOFTWARE

A. Com-Net
   1. The existing software implementation shall be used, with only those modifications or upgrades necessary to support the added baggage information system functions.

2.2. BAGGAGE INPUT CONSOLES

A. QTerm G72 with Com-Net Baggage Input Console firmware.

2.3. DISPLAYS AND CONTROLLERS

A. NEC Configuration
   1. Baggage Directory Displays shall be NEC model X462S fitted with NEC model OPS-PCAF-WH single board computer display controllers
   2. Flight Information Displays shall be NEC model X462S fitted with NEC model OPS-PCAF-WH single board computer display controllers

B. LG Configuration
   1. Carrousel Overhead Displays shall be LG model 38WR50MS. Each pair of displays mounted back-to-back shall connect by VGA cable to a single VGA Video Extender Remote Receiver, StarTech ST121R or approved equal.
   2. Controllers for LG displays shall be located in racks in the indicated communication room. Each PC shall connect by VGA cable to a single 4 Port VGA Video Extender Transmitter, StarTech ST1214T or approved equal. Minimum controller PC shall be shall be:
      a. 1.5 GHz AMD or Intel Dual Core processor
      b. 160 GB hard disk drive
      c. 2 GB DDR3 RAM
      d. Gigabit Ethernet
      e. USB 2.0

f. 1080P video capability implemented in hardware with VGA and DVI outputs

3. Coordinate manufacturer and specific installation location with GMIA IT Department.

2.4. SURFACE MOUNTING BRACKETS

A. Lucasey

B. Approved equal

PART 3 - EXECUTION

3.1. DESIGN

A. The Contractor shall complete the design of the Information Display System described in this functional specification based on their proprietary standard hardware and software offerings.

1. Design of functions required by this specification that are not part of the standard product offering shall be submitted for approval by the engineer prior to implementation.

3.2. INSTALLATION.

A. Coordinate all work with the electrical Contractor for data and power connectivity. Coordinate network configuration issues with the owner IT department.

B. Installation of equipment, components, software, and wiring will be in accordance with manufacturer's specifications and in compliance with governmental codes and regulations.

C. Prior to installation, the Contractor will coordinate Network requirements with the General Contractor, Owner's Representative and airport IT Director

D. Grounding and Bonding shall conform to all applicable provisions of the appropriate electrical safety codes.

E. The Contractor shall install all hardware required in this specification in accordance with the manufacturer's installation instructions. Final placement of equipment shall be approved by the Owner.

F. The Contractor shall be responsible for incorrect installations, defective equipment items, or collateral damage as a result of any Contractor work/equipment and replace or correct to comply with this specification.

3.3. FIELD QUALITY CONTROL

A. Acceptance Testing

1. The Contractor shall develop a System Acceptance Test plan that is approved by the Owner at least 30 days prior to the test date.

a. The plan shall address all requirements identified in the Specifications and test all Contractor supplied cabling, hardware, and software components. The plan shall follow accepted industry testing practices and have a method of independent verification described.

2. Any specified item that does not satisfy the requirements of the Specifications shall be replaced, upgraded, or added by the Contractor as necessary to correct the noted deficiencies. After correction of a noted deficiency, re-testing shall be performed to verify the effectiveness of the corrective action.

3.4. CONFIGURATION

A. The Contractor shall deliver a turnkey system fully configured to airport operational requirements.

B. The Contractor shall program or configure the software systems such that directory displays and carrousel displays indicate the correct flight / carrousel assignments and are synchronized with the flight information system.

C. The Contractor shall program or configure the software systems such the carrousel assignments comply with the airport policies on carrousel usage

D. New Flight Information Displays shall be configured to show arrivals only, and identical to the display content of those currently existing.

3.5. PROTECTION

A. Protect installed work from subsequent operations.

PART 4 - SCHEDULES

4.1. COMPONENT COUNTS

		Displays		*Display Controllers*				*Com-Net*			
Location	*Purpose*	*NEC X462S*	*LG 38WR50-MS*	*NEC OPS-PCAF-WH*	*Rack Mounted PC*	*Startech ST121R (or eq)*	*Startech ST1214T (or eq)*	*Qterm G70 BIC*	*Active Cat6*	*Spare Cat6*	*Circuits (120v 20A)*
Displays											
North Escalator	BDD	1		1					1	4	3
South Escalator	BDD	1		1					1	4	3
North Circulation	2-BDD; 1-FID	3		3					3	1	2
South Circulation	2-BDD; 1-FID	3		3					3	1	2
Entry 1	FID	1		1					1	1	1
Entry 2	FID	1		1					1	1	1
Entry 3	FID	1		1					1	1	1
Entry 4	FID	1		1					1	1	1
Entry 5	FID	1		1					1	1	1
North Elevator Lobby	BDD	1		1					1	1	1
South Elevator Lobby	BDD	1		1					1	1	1
O/H Carrousel 1	BDD		2			1			2	1	1
O/H Carrousel 2	BDD		2			1			2	1	1
O/H Carrousel 3	BDD		2			1			2	1	1
O/H Carrousel 4	BDD		2			1			2	1	1
O/H Carrousel 5	BDD		2			1			2	1	1
North End Wall	LEED	1		1					1	1	1
South End Wall	LEED	1		1					1	1	1
BHS											
Bag Conveyor 1	BIC							1	1	1	1
Bag Conveyor 2	BIC							1	1	1	1
Bag Conveyor 3	BIC							1	1	1	1
Bag Conveyor 4	BIC							1	1	1	1
Bag Conveyor 5	BIC							1	1	1	1
Network											
Data Center											
Comm 41					3		3				
Comm 82					2		2				
Spares		1	1	1		1	1	1			
		18	11	18	5	1	6	6	32	29	29

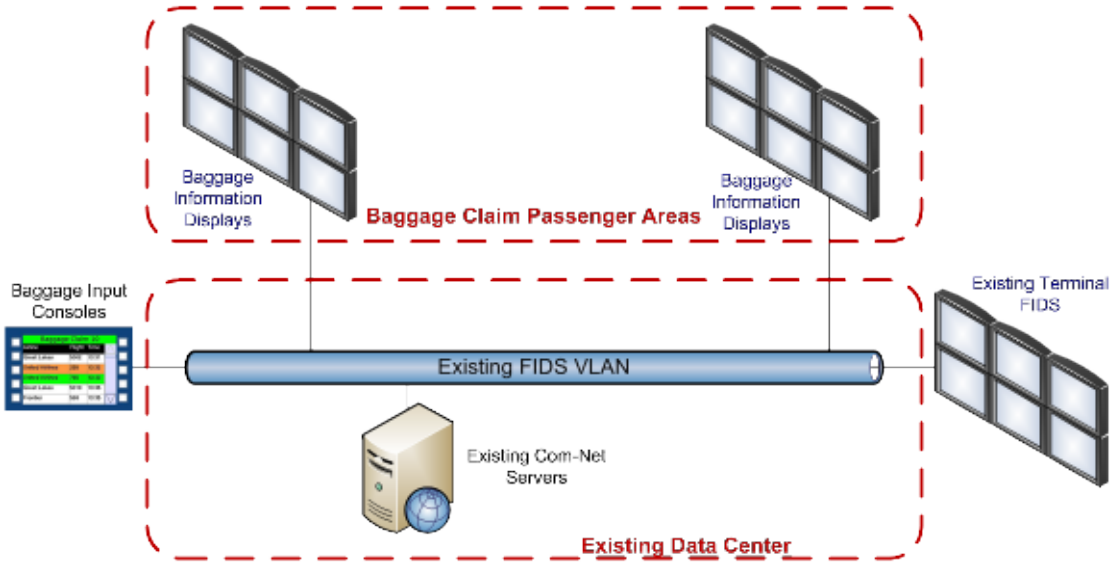
4.2. POWER CONSUMPTION

Location	*NEC X462S w/ OPS_PCAF*		*LG 38WR50MS*		*ST121R (or eq)*		*ST1214T (or eq)*		*Network*		*Total Power (W)*
Displays											
North Escalator	1	170									170
South Escalator	1	170									170
North Circulation	3	170									510
South Circulation	3	170									510
Entry 1	1	170									170
Entry 2	1	170									170
Entry 3	1	170									170
Entry 4	1	170									170
Entry 5	1	170									170
North Elevator Lobby	1	170									170
South Elevator Lobby	1	170									170
O/H Carrousel 1			2	90	1	6					186
O/H Carrousel 2			2	90	1	6					186
O/H Carrousel 3			2	90	1	6					186
O/H Carrousel 4			2	90	1	6					186
O/H Carrousel 5			2	90	1	6					186
North End Wall	1	170									170
South End Wall	1	170									170
Existing Data Center											0
Comm 41							2	6	1	1100	1112
Comm 82							3	6	1	1100	1118

PART 5 - SUPPLEMENTARY INFORMATION

A. Information in this section is intended as supplementary information to assist the Contractor in understanding the system function for preparation of accurate pricing and subsequent submittals.

5.1. DISPLAY ARCHITECTURE



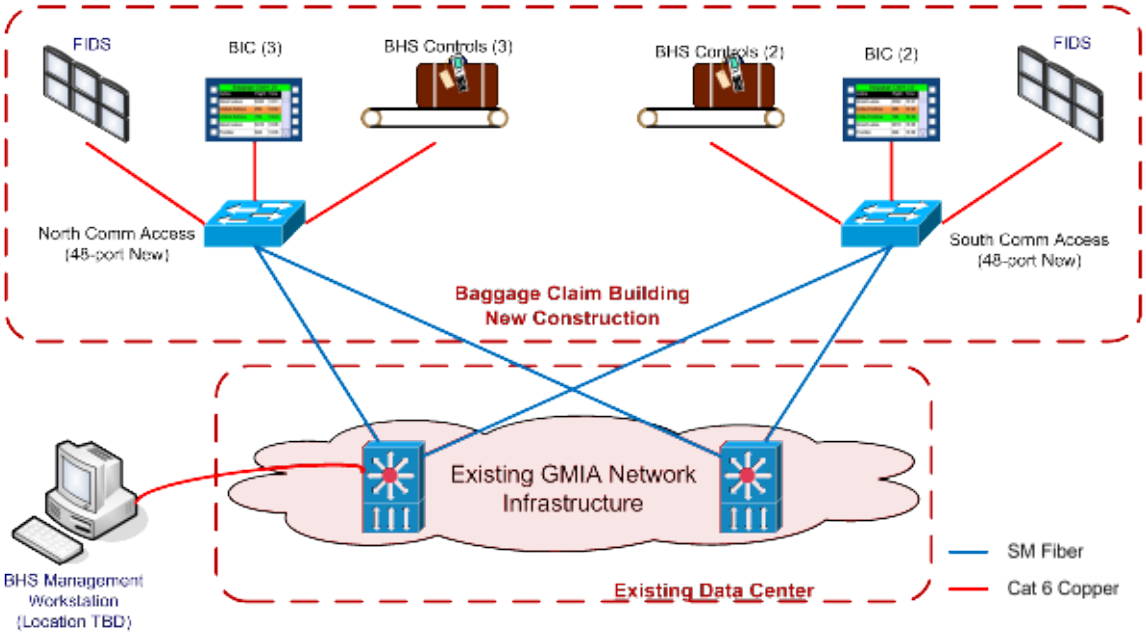
A. The primary information display is the 46" NEC X462S LCD display. At the owner request they are LED backlit for energy savings and reliability. They are mounted in both portrait and landscape format depending on the surrounding architectural features.

B. Displays identifying each carrousel status are 38″ LG 38WR50MS wide-aspect ratio devices. They are mounted back-to-back at each of the five carrousels. The 11.3" case height of these devices allow them to fit below the low ceiling height of the bag claim hall. The 1920x502 pixel canvas permits high information display density.

C. Display Controllers
   1. Display Controllers for all NEC displays are NEC OPS-PCAF single board computers installed in the controller slot of the display.
   2. Display controllers for LG displays are conventional PCs located in the nearest communication room, connected to the remote displays by VGA video extenders.

D. Baggage Input Consoles
   1. There is one Baggage Input Console for each conveyor line. The BICs are installed by the Contractor in a common NEMA enclosure along with the controls for the baggage handling system. Locations are shown on the drawings.
   2. Each BIC location is supplied with a primary and spare ethernet connection, and BICs are connected to the existing Com-Net VLAN.

5.2. NETWORK ARCHITECTURE



A. The displays will operate on the existing airport network extended under this project into the baggage handling building. To implement this, two additional Cisco managed network switches will be required, one located in each of the two data rooms. The options and IOS of these new switches are specified for compatibility with existing equipment.

B. The existing VLAN infrastructure supporting the Com-Net FIDS must be reconfigured by GMIA IT Department to extend into the new facility.

C. The GMIA IT Department must create additional VLANs for:
   1. Baggage Handling System Management

END OF SECTION 25 63 10

SECTION 32 31 13 CHAIN LINK FENCE

PART 1 - GENERAL

1.1 SUMMARY OF WORK

A. This item shall consist of furnishing and erecting a chain-link fence with fabric buried two feet (2'-0") underground in accordance with these specifications and the details shown on the plans and in conformity with the lines and grades shown on the plans or established by the engineer.

PART 2 - MATERIALS

2.1 FABRIC

A. The fabric shall be woven with a 9-gauge galvanized steel wire in a 2-inch (50mm) mesh and shall meet the requirements of ASTM A 392, Class 2.

2.2 BARBED WIRE

A. Barbed wire shall be 2-strand 12-1/2 gauge zinc-coated wire with 4-point barbs and shall conform to the requirements of ASTM A 121, Class 3, Chain link fence grade.

2.3 POSTS, RAILS AND BRACES

A. Line posts, rails and braces shall be galvanized steel pipe conforming to the requirements of ASTM F 1083. The steel used in all structural shapes shall conform to the requirements of ASTM A 572, Grade 45, and shall be galvanized in accordance with the requirements of ASTM F 1043, Type A. Roll-formed sections shall be fabricated from material meeting the requirements of ASTM A 570, Grade 45, and shall be galvanized in accordance with the requirements of ASTM F 1043, Type A. The dimensions of the posts, rails, and braces shall be accordance with those shown on the plans.

2.4 WIRE TIES AND TENSION WIRES

A. Wire ties for use in conjunction with a given type of fabric shall be of the same material and coating weight identified with the fabric type. Wire fabric ties shall be hog rings of galvanized steel wire not less than 9-guage. Tension wire shall be 7-gauge marcelled steel wire with the same coating as the fabric type and shall conform to ASTM A 824.

2.5 MISCELLANEOUS FITTINGS AND HARDWARE

A. Miscellaneous steel fittings and hardware for use with galvanized steel fabric shall be of commercial grade steel or better quality, wrought or cast as appropriate to the article, and sufficient in strength to provide a balanced design when used in conjunction with fabric posts, and wires of the quality specified herein. All steel fittings and hardware shall be protected with a zinc coating applied in conformance with ASTM A 153. Barbed wire support arms shall withstand a load of 250 (113kg) pounds applied vertically to the outermost end of the arm. Barbed wire support arms shall be two feet (2'-0") high applied at a 45 degree angle.

2.6 CONCRETE

A. Concrete shall be of a commercial grade with a minimum 28-day compressive strength of 3,000 psi.

2.7 MARKING

A. Each roll of fabric shall carry a tag showing the kind of base metal (steel, aluminum, or aluminum alloy number), kind of coating, the gauge of the wire, the length of fencing in the roll, and the name of the manufacturer. Posts, wire, and other fittings shall be identified as to manufacturer, kind of base metal (steel, aluminum, or aluminum alloy number), and kind of coating.

PART 3 – EXECUTION

3.1 CLEARING FENCE LINE

A. All trees, brush, stumps, logs, and other debris which would interfere with the proper construction of the fence in the required location shall be removed a minimum width of 5 feet on each side of the fence centerline before starting fencing operations. The cost of removing and disposing of the material shall not constitute a pay item and shall be considered incidental to fence construction unless otherwise noted on the plan sets and/or on the bid schedule.

3.2 INSTALLING POSTS

A. All posts shall be set in concrete at the required dimension and depth and at the spacing shown on the plans. Posts should be spaced not more than 10 feet (3m) apart and should be set a minimum of 48 inches in concrete footings. If the frost depth is greater than 48 inches, the posts should be set accordingly. The posts holes shall be in proper alignment so that there is a minimum of 3 inches (75mm) of concrete on all sides of the posts.

B. The concrete shall be thoroughly compacted around the posts by tamping or vibrating and shall have a smooth finish slightly higher than the ground and sloped to drain away from the posts. All posts shall be set plumb and to the required grade and alignment. No materials shall be installed on the posts, nor shall the posts be disturbed in any manner within 7 days after the individual post footing is completed.

C. Should rock be encountered at a depth less than the planned footing depth, a hole 2 inches larger than the greatest dimension of the posts shall be drilled to a depth of 12 inches. After the posts are set, the remainder of the drilled hole shall be filled with grout, composed of one part Portland cement and two parts mortar sand. Any remaining space above the rock shall be filled with concrete in the manner described above.

D. In lieu of drilling, the rock may be excavated to the required footing depth. No extra compensation shall be made for rock excavation.

3.3 INSTALLING TOP RAILS

A. The top rail shall be continuous and shall pass through the post tops. The coupling used to join the top rail lengths shall allow for expansion.

3.4 INSTALLING BRACES

A. Horizontal brace rails, with diagonal truss rods and turnbuckles, shall be installed at all terminal posts.

3.5 INSTALLING FABRIC

A. The wire fabric shall be firmly attached to the posts and braced. All wire shall be stretched taut and shall be installed to the required elevations. The fence shall generally follow the contour of the ground. Excavate ground to the depth required for proper installation of the fabric. Obtain Engineer's approval of depth of excavation before placing the wire fabric. Place the fabric and lap splice it to existing fence fabric and tie with wire ties at 2 foot 0 inch spacing. Cut wire fabric around fence post footing to allow proper placement. Backfill with native soil to original grade. Compact all backfill and fill to attain 90% of AASHTO T-180. The bottom of the fence fabric shall be buried no less than 2'-0" from the ground surface. Grading shall be performed where necessary to provide a neat appearance.

3.6 ELECTRICAL GROUNDS

A. Electrical grounds shall be constructed where a power line passes over the fence. The ground shall be installed directly below the point of crossing. The ground shall be accomplished with a copper clad rod 8 feet long and a minimum 5/8 inch in diameter driven vertically until the top 6 inches below the ground surface. A No.6 solid copper conductor shall be clamped to the rod and to the fence in such a manner that each element of the fence is grounded. Installation of ground rods shall not constitute a pay item and shall be incidental to fence construction.

PART 4 - MATERIAL REQUIREMENTS

ASTM A 121	Zinc-Coated (Galvanized) Steel Barbed Wire
ASTM A 123	Zinc (Hot Galvanized) Coatings on Products Fabricated from Rolled, Pressed, and Forged Steel Shapes, Plates, Bars, and Strip
ASTM A 153	Zinc Coating (Hot-Dip) on Iron and Steel Hardware
ASTM A 392	Zinc-Coated Steel Chain-Link Fence Fabric
ASTM A 446	Specification for Steel Sheet, Zinc-Coated (Galvanized) by the Hot-Dip Process,Structural (Physical) Quality
ASTM A 569	Steel, Carbon (0.15 Maximum, Percent), Hot Rolled Sheet and Strip Commercial Quality
ASTM A 570	Hot Rolled Carbon Steel Sheet and Strip Structural Quality
ASTM A 572	High-Strength Low-Alloy Columbium-Vanadium Steels of Structural Quality
ASTM A 585	Aluminum-Coated Steel Barbed Wire
ASTM A 824	Metallic-Coated Steel Marcelled Tension Wire for Use With Chain Link Fence
ASTM B 117	Standard Test Method of Salt Spray (Fog) Testing
ASTM F 1043	Strength and Protective Coatings on Metal Industrial Chain Link Fence Framework

ASTM F 1083	Pipe, Steel, Hot-Dipped Zinc-coated (galvanized) Welded, for Fence Structures
ASTM F 1234	Protective Coatings on Steel Framework for Fences
ASTM G 23	Operating Light-Exposure Apparatus (Carbon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials
ASTM G 26	Operating Light-Exposure Apparatus (Xenon-Arc Type) With and Without Water for Exposure of Nonmetallic Materials
ASTM G 53	Operating Light- and Water-Exposure Apparatus (Fluorescent UV-Condensation Type) for Exposure of Nonmetallic Materials

END OF SECTION 32 31 13

SECTION 32 31 35 - RAMP PIPE GATE

PART 1 - GENERAL

1.1 SUMMARY OF WORK.

A. This item shall consist of furnishing and erecting a double pipe gate at the entrance to the south ramp in accordance with these specifications and the details shown on the plans and in conformity with the lines and grades shown on the plans or established by the engineer.

PART 2 - MATERIALS

2.1 POSTS, RAILS AND BRACES

A. All posts and gate pipes shall be Schedule 80 pipe. All brackets shall be ASTM A36. All bolts, washers and nuts shall be ASTM A325. All metal shall be cleaned by sandblasting to a SSPC-10, commercial blast finish. All metal shall be painted with a zinc rich primer and one coat of epoxy finish paint. A second finish coat shall be field applied after installation. Finish color shall be grey. The dimensions of the posts, rails, and braces shall be accordance with those shown on the plans.

2.2 CONCRETE

A. Concrete shall be of a commercial grade with a minimum 28-day compressive strength of 3,000 psi.

PART 3 – EXECUTION

3.1 INSTALLING POSTS

A. All posts shall be set in concrete at the required dimension and depth and at the spacing shown on the plans. The posts holes shall be in proper alignment so that there is a minimum of 4 inches of concrete on all sides of the posts.

B. The concrete shall be thoroughly compacted around the posts by tamping or vibrating and shall have a smooth finish slightly higher than the ground and sloped to drain away from the posts. All posts shall be set plumb and to the required grade and alignment. No materials shall be installed on the posts, nor shall the posts be disturbed in any manner within 7 days after the individual post footing is completed.

3.2 INSTALLING GATES

A. The double pipe gates shall be installed plumb and level. The gate shall be diagonally trussed and all hardware shall be installed as per the plans.

END OF SECTION 32 31 35

PROJECT

G.M.I.A. - Baggage Claim Building Remodel

Milwaukee, WI

Engberg Anderson
MILWAUKEE • MADISON • TUCSON

SEAL

CONSULTANTS

DRAWINGS

Civil
Volume 1

EMCS, Inc.
1300 West Canal Street
Suite 200
Milwaukee, WI 53233
Ph 414-347-1607
Fx 414-347-1347

-	SURVEY
C001	SITE DEMOLITION PLAN
C002	OVERALL SITE PLAN
C003	EROSION CONTROL PLAN
C004	NORTH PAVING/GRADING PLAN
C005	SOUTH PAVING/GRADING PLAN
C006	NORTH PAVEMENT MARKING/SIGNING PLAN
C007	SOUTH PAVEMENT MARKING/SIGNING PLAN
C008	NORTH UTILITY PLAN
C009	SOUTH UTILITY PLAN
C010	CONSTRUCTION DETAILS
C011	CONSTRUCTION DETAILS
2 C012	CONSTRUCTION DETAILS

Architectural
Volume 1

Engberg Anderson
320 East Buffalo Street
Suite 500
Milwaukee, Wisconsin 53202
Ph 414-944-9000
Fx 414-944-9100

G001	COVER SHEET - VOLUME 1
G002	COVER SHEET - VOLUME 2
T101	TITLE SHEET - VOLUME 1
T102	TITLE SHEET - VOLUME 2
A001	ABBREVIATIONS
A002	CODE CONFORMANCE DATA
A003	CODE CONFORMANCE PLANS
1 A004	CODE CONFORMANCE PLAN
D100	LOWER LEVEL DEMO PLAN OVERALL
D101	LOWER LEVEL DEMO PLAN NORTH
D102	LOWER LEVEL DEMO PLAN CENTER
D103	LOWER LEVEL DEMO PLAN SOUTH
D110	FIRST FLOOR DEMO PLAN OVERALL
D111	FIRST FLOOR DEMO PLAN NORTH
D112	FIRST FLOOR DEMO PLAN CENTER
D113	FIRST FLOOR DEMO PLAN SOUTH
D120	ROOF DEMO PLAN OVERALL
D121	ROOF DEMO PLAN NORTH
D122	ROOF DEMO PLAN CENTER
D122A	SECOND FLOOR DEMO PLAN - ALT #1
D123	ROOF DEMO PLAN SOUTH
1 D124	MEZZANINE LEVEL DEMO PLAN
D211	FIRST FLOOR DEMO RCP NORTH
D212	FIRST FLOOR DEMO RCP CENTER
D213	FIRST FLOOR DEMO RCP SOUTH
A100	LOWER LEVEL PLAN OVERALL
A101	LOWER LEVEL PLAN NORTH
A102	LOWER LEVEL PLAN CENTER
A103	LOWER LEVEL PLAN SOUTH
A110	FIRST FLOOR PLAN OVERALL
A111	FIRST FLOOR PLAN NORTH
A112	FIRST FLOOR PLAN CENTER
A113	FIRST FLOOR PLAN SOUTH
A120	SECOND FLOOR & LOWER ROOF PLAN OVERALL
A121	SECOND FLOOR & LOWER ROOF PLAN NORTH
A122	SECOND FLOOR & LOWER ROOF PLAN CENTER
A122A	SECOND FLOOR & LOWER ROOF PLAN CENTER - ALT#1
A123	SECOND FLOOR & LOWER ROOF PLAN SOUTH
1 A124	MEZZANINE PLAN
A130	ROOF PLAN OVERALL
A131	ENLARGED ROOF PLANS
A132	PRE-VEGETATED GREEN ROOF PLANS
A211	FIRST FLOOR RCP NORTH
A212	FIRST FLOOR RCP CENTER
A213	FIRST FLOOR RCP SOUTH
A221	SECOND FLOOR RCP
A301	ENLARGED PLANS - ENTRANCES & ELEVATORS
A303	ENLARGED PLANS - STAIRS
A304	ENLARGED PLANS - TOILET ROOMS
A305	ENLARGED PLAN - TRANSPORTATION BOOTH
A351	ENLARGED PLANS - CANOPY
A401	EXTERIOR ELEVATIONS
A402	EXTERIOR ELEVATIONS
A403	EXTERIOR ELEVATIONS
A404	EXTERIOR ELEVATIONS
A405	EXTERIOR ELEVATIONS
A411	PARTIAL ELEVATIONS
A412	PARTIAL ELEVATIONS
A420	BUILDING SECTIONS
A421	BUILDING SECTIONS
A422	BUILDING SECTIONS
A423	BUILDING SECTIONS
A424	BUILDING SECTIONS
A431	WINDOW ELEVATIONS
A501	WALL SECTIONS
A502	WALL SECTIONS
A503	WALL SECTIONS
A504	WALL SECTIONS
A505	WALL SECTIONS
A511	PLAN & SECTION DETAILS
A512	PLAN & SECTION DETAILS
A513	PLAN & SECTION DETAILS
A514	PLAN & SECTION DETAILS
A515	PLAN & SECTION DETAILS
A541	ROOF DETAILS
A542	ROOF DETAILS
A543	ROOF DETAILS
A551	CANOPY SECTIONS & DETAILS
A552	CANOPY SECTIONS & DETAILS
A553	CANOPY SECTIONS & DETAILS
A554	CANOPY SECTIONS & DETAILS
A601	WALL TYPES
A602	WALL TYPES & DETAILS
A621	COLUMN DETAILS
A631	CEILING & SOFFIT DETAILS
A641	DOOR SCHEDULE, TYPES, FRAMES & DETAILS
A701	ROOM FINISH SCHEDULE
A711	FIRST FLOOR FINISH PLAN NORTH
A712	FIRST FLOOR FINISH PLAN CENTER
A713	FIRST FLOOR FINISH PLAN SOUTH
A714	FIRST FLOOR BSO FINISH PLAN
A721	SECOND FLOOR FINISH PLAN
A731	EQUIPMENT AND SIGNAGE PLAN NORTH
A732	EQUIPMENT AND SIGNAGE PLAN CENTER
A733	EQUIPMENT AND SIGNAGE PLAN SOUTH
A741	EQUIPMENT AND SIGNAGE RCP NORTH
A742	EQUIPMENT AND SIGNAGE RCP CENTER
A743	EQUIPMENT AND SIGNAGE RCP SOUTH
A744	EQUIPMENT AND SIGNAGE SCHEDULES
A791	FURNITURE PLAN NORTH
A792	FURNITURE PLAN CENTER
A793	FURNITURE PLAN SOUTH
A801	INTERIOR ELEVATIONS
A802	INTERIOR ELEVATIONS
A803	INTERIOR ELEVATIONS
A804	INTERIOR ELEVATIONS
A806	INTERIOR ELEVATIONS
A807	INTERIOR ELEVATIONS
A811	INTERIOR ELEVATIONS
A812	INTERIOR ELEVATIONS
A813	INTERIOR ELEVATIONS
2 A814	MOVABLE WALL SYSTEM ELEVATIONS
A901	CASEWORK - AMERICAN EAGLE, DELTA, US AIRWAYS
A902	CASEWORK - FRONTIER
A903	CASEWORK - UNITED
A904	CASEWORK - SOUTHWEST AIRTRAN
A905	CASEWORK - GO RITEWAY
A906	RESTROOM DETAILS
A911	INTERIOR CONSTRUCTION DETAILS
A912	INTERIOR CONSTRUCTION DETAILS
A931	INTERIOR SIGNAGE TYPES
A932	INTERIOR SIGNAGE TYPES
A941	EXTERIOR SIGNAGE TYPES

Structural
Volume 1

Bloom Consultants, LLC
10501 West Research Drive
Suite 100
Milwaukee, WI 53226
Ph 414-292-4515
Fx 414-771-4490

SD113	FOUNDATION DEMOLITION PLAN SOUTH
SD121	STEEL DEMOLITION PLAN NORTH
SD122	STEEL DEMOLITION PLAN CENTER
SD123	STEEL DEMOLITION PLAN SOUTH
S001	GENERAL NOTES
S101	FOUNDATION PLAN NORTH
S102	FOUNDATION PLAN CENTER
S103	FOUNDATION PLAN SOUTH
S111	FIRST FLOOR PLAN NORTH
S112	FIRST FLOOR PLAN CENTER
S113	FIRST FLOOR PLAN SOUTH
S121	LOW ROOF FRAMING PLAN NORTH
S122	LOW ROOF FRAMING PLAN CENTER
S123	LOW ROOF FRAMING PLAN SOUTH
S131	MID ROOF FRAMING PLAN NORTH
S132	MID ROOF FRAMING PLAN CENTER
S132A	MID ROOF FRAMING PLAN CENTER - ALTERNATE
S133	MID ROOF FRAMING PLAN SOUTH
S141	HIGH ROOF FRAMING PLANS
S301	ENTRY STEEL PLANS
S305	TRANSPORTATION BOOTH PLANS AND DETAILS
S400	DEMO SECTIONS AND DETAILS
S410	FOUNDATION SECTIONS AND DETAILS
S411	FOUNDATION SECTIONS AND DETAILS
S412	FOUNDATION SECTIONS AND DETAILS
S420	FIRST FLOOR SECTIONS AND DETAILS
S430	LOW ROOF SECTIONS AND DETAILS
S431	LOW ROOF SECTIONS AND DETAILS
S440	MID ROOF SECTIONS AND DETAILS
S450	HIGH ROOF SECTIONS AND DETAILS
S500	BUILDING SECTIONS
S501	BID ALTERNATE A - BUILDING SECTIONS

Structural - Canopy
Volume 1

Pierce Engineers, Inc.
241 N. Broadway
Suite 500
Milwaukee, WI 53202
Ph 414-278-6060
Fx 414-278-6061

SC002	CANOPY NOTES & SCHEDULES
SC351	CANOPY ROOF FRAMING PLANS
SC551	CANOPY SECTIONS & FRAMING DETAILS
SC552	CANOPY FRAMING DETAILS

Fire Protection
Volume 2

PSJ Engineering, Inc.
7665 N. Port Washington Road
Milwaukee, WI 53217
Ph 414-352-2211
Fx 414-351-8823

F000	COVER SHEET - FIRE PROTECTION
F001	DETAILS - FIRE PROTECTION
FD101	LOWER LEVEL DEMO PLAN - NORTH - FIRE PROTECTION
FD102	LOWER LEVEL DEMO PLAN - CENTRAL - FIRE PROTECTION
FD103	LOWER LEVEL DEMO PLAN - SOUTH - FIRE PROTECTION
FD111	FIRST FLOOR DEMO PLAN - NORTH - FIRE PROTECTION
FD113	FIRST FLOOR DEMO PLAN - SOUTH - FIRE PROTECTION
F101	LOWER LEVEL PLAN - NORTH - FIRE PROTECTION
F102	LOWER LEVEL PLAN - CENTRAL - FIRE PROTECTION
F103	LOWER LEVEL PLAN - SOUTH - FIRE PROTECTION
F111	FIRST FLOOR PLAN - NORTH - FIRE PROTECTION
F112	FIRST FLOOR PLAN - CENTRAL - FIRE PROTECTION
F113	FIRST FLOOR PLAN - SOUTH - FIRE PROTECTION
F114	FIRST FLOOR INT'L SPACE - PLAN - NORTH - FIRE PROTECTION
F115	FIRST FLOOR INT'L SPACE - PLAN - CENTRAL - FIRE PROTECTION
F116	FIRST FLOOR INT'L SPACE - PLAN - SOUTH - FIRE PROTECTION
F121	SECOND FLOOR PLAN - NORTH - FIRE PROTECTION
F122	SECOND FLOOR PLAN - CENTRAL - FIRE PROTECTION
F123	SECOND FLOOR PLAN - SOUTH - FIRE PROTECTION

Plumbing
Volume 2

PSJ Engineering, Inc.
7665 N. Port Washington Road
Milwaukee, WI 53217
Ph 414-352-2211
Fx 414-351-8823

P001	COVER SHEET - PLUMBING
P002	SCHEDULES - PLUMBING
PD101	LOWER LEVEL DEMO PLAN - NORTH - PLUMBING
PD102	LOWER LEVEL DEMO PLAN - CENTRAL - PLUMBING
PD103	LOWER LEVEL DEMO PLAN - SOUTH - PLUMBING
PD111	FIRST FLOOR DEMO PLAN - NORTH - PLUMBING
PD112	FIRST FLOOR DEMO PLAN - CENTRAL - PLUMBING
PD113	FIRST FLOOR DEMO PLAN - SOUTH - PLUMBING
PD121	ROOF - DEMO PLAN - NORTH - PLUMBING
PD122	ROOF - DEMO PLAN - CENTRAL - PLUMBING
PD123	ROOF - DEMO PLAN - SOUTH - PLUMBING
P101	LOWER LEVEL PLAN - NORTH - PLUMBING
P102	LOWER LEVEL PLAN - CENTRAL - PLUMBING
P103	LOWER LEVEL PLAN - SOUTH - PLUMBING
P111	FIRST FLOOR PLAN - NORTH - PLUMBING
P112	FIRST FLOOR PLAN - CENTRAL - PLUMBING
P113	FIRST FLOOR PLAN - SOUTH - PLUMBING
P121	SECOND FLOOR PLAN - NORTH - PLUMBING
P122	SECOND FLOOR PLAN - CENTRAL - PLUMBING
P122A	ALTERNATE SECOND FLOOR PLAN - CENTRAL - PLUMBING
P123	SECOND FLOOR PLAN - SOUTH - PLUMBING
P131	ROOF PLAN - NORTH - PLUMBING
P200	DETAILS - PLUMBING
P300	WATER ISOMETRIC - PLUMBING
P400	DRAIN WASTE & VENT ISOMETRIC - PLUMBING

Mechanical
Volume 2

PSJ Engineering, Inc.
7665 N. Port Washington Road
Milwaukee, WI 53217
Ph 414-352-2211
Fx 414-351-8823

M001	COVER SHEET - HVAC
MD101	LOWER LEVEL DEMO PLAN - NORTH - HVAC
MD102	LOWER LEVEL DEMO PLAN - CENTRAL - HVAC
MD103	LOWER LEVEL DEMO PLAN - SOUTH - HVAC
MD111	FIRST FLOOR DEMO PLAN - NORTH - HVAC
MD112	FIRST FLOOR DEMO PLAN - CENTRAL - HVAC
MD113	FIRST FLOOR DEMO PLAN - SOUTH - HVAC
MD121	SECOND FLOOR AND PARTIAL ROOF DEMO PLAN - NORTH - HVAC
MD122	SECOND FLOOR AND PARTIAL ROOF DEMO PLAN - CENTRAL - HVAC
MD123	SECOND FLOOR AND PARTIAL ROOF DEMO PLAN - SOUTH - HVAC
1 MD124	MEZZANINE LEVEL DEMO PLAN - HVAC
M101	LOWER LEVEL PLAN - NORTH - HVAC
M102	LOWER LEVEL PLAN - CENTRAL - HVAC
M103	LOWER LEVEL PLAN - SOUTH - HVAC
M111L	LOWER FIRST FLOOR PLAN - NORTH - HVAC
M112L	LOWER FIRST FLOOR PLAN - CENTRAL - HVAC
M113L	LOWER FIRST FLOOR PLAN - SOUTH - HVAC
M111U	UPPER FIRST FLOOR PLAN - NORTH - HVAC
M112U	UPPER FIRST FLOOR PLAN - CENTRAL - HVAC
M113U	UPPER FIRST FLOOR PLAN - SOUTH- HVAC
M121	SECOND FLOOR PLAN - NORTH - HVAC
M122	SECOND FLOOR PLAN - CENTRAL - HVAC
M123	SECOND FLOOR PLAN - SOUTH - HVAC
1 M124	MEZZANINE LEVEL PLAN - HVAC
M112A	FIRST FLOOR PLAN - ALTERNATE - HVAC
M122A	SECOND FLOOR PLAN - ALTERNATE - HVAC
M200	SECTIONS - HVAC
M300	DETAILS - HVAC
M301	DETAILS - HVAC
M400	SCHEDULES - HVAC
M401	SCHEDULES - HVAC

Electrical
Volume 2

IBC Engineering Services, Inc.
N8 W22195 Johnson Drive
Suite 180
Waukesha, WI 53186
Ph 262-549-1190
Fx 262-549-1620

E001	ELECTRICAL SYMBOLS, ABBREVIATIONS, GENERAL NOTES, SCHEDULES
E002	LIGHTING FIXTURE SCHEDULE
E003	ELECTRICAL LIGHTING CONTROL SCHEDULE FIRST FLOOR AND MEZZANINE SOUTH
E004	ELECTRICAL LIGHTING CONTROL SCHEDULE FIRST FLOOR AND MEZZANINE SOUTH
E005	ELECTRICAL LIGHTING CONTROL SCHEDULE BASEMENT, EXTERIOR, AND 2ND FLOOR OFFICE ALTERNATE 1
E010	ELECTRICAL SITE PLAN - NORTH
E011	ELECTRICAL SITE PLAN - SOUTH
E012	ELECTRICAL DUCT BANK SECTIONS AND SG/1 MODIFICATIONS
E013	ONE-LINE 5KV POWER MANHOLE/PULL BOX DIAGRAM
E014	DUCT BANK PLAN AND PROFILE
E015	DUCT BANK PLAN AND PROFILE
E016	DUCT BANK PLAN AND PROFILE
2 E017	ELECTRICAL SITE PLAN - STAGING AREA
ED101	ELECTRICAL DEMOLITION LOWER LEVEL PLAN - NORTH
ED102	ELECTRICAL DEMOLITION LOWER LEVEL PLAN - CENTER
ED103	ELECTRICAL DEMOLITION LOWER LEVEL PLAN - SOUTH
ED111	ELECTRICAL DEMOLITION FIRST FLOOR PLAN - NORTH
ED112	ELECTRICAL DEMOLITION FIRST FLOOR PLAN - CENTER
ED113	ELECTRICAL DEMOLITION FIRST FLOOR PLAN - SOUTH
2 ED114	MAIN TERMINAL/ D CONCOURSE STEM DEMO FLOOR PLAN
1 ED124	ELECTRICAL DEMOLITION MEZZANINE LEVEL PLAN
ED601	ELECTRICAL DEMOLITION BAGGAGE CLAIM EXISTING UNIT SUBSTATION RISER DIAGRAM
E101	LOWER LEVEL POWER PLAN - NORTH
E102	LOWER LEVEL POWER PLAN - CENTER
E103	LOWER LEVEL POWER PLAN - SOUTH
E104	LOWER LEVEL POWER PLAN - TUG TUNNEL & TICKETING
E111	FIRST FLOOR POWER PLAN - NORTH
E112	FIRST FLOOR POWER PLAN - CENTER
E113	FIRST FLOOR POWER PLAN - SOUTH
E121	SECOND LEVEL POWER PLAN - NORTH
E122	SECOND LEVEL POWER PLAN - CENTER
1 E122A	SECOND LEVEL POWER PLAN - CENTER - ALTERNATE #1
E123	SECOND LEVEL POWER PLAN - SOUTH
E124	MEZZANINE LEVEL POWER, LIGHTING, SYSTEMS PLAN
E200	LOWER LEVEL LIGHTING PLAN AND ENLARGED PLANS
E211	FIRST FLOOR LIGHTING PLAN - NORTH
E212	FIRST FLOOR LIGHTING PLAN - CENTER
E213	FIRST FLOOR LIGHTING PLAN - SOUTH
E221	SECOND LEVEL LIGHTING PLAN - NORTH
E222A	SECOND LEVEL LIGHTING PLAN - CENTER - ALTERNATE #1
E223	SECOND LEVEL LIGHTING PLAN - SOUTH
E301	LOWER LEVEL SYSTEMS AND FIRE ALARM PLAN - NORTH
E302	LOWER LEVEL SYSTEMS AND FIRE ALARM PLAN - CENTER
E303	LOWER LEVEL SYSTEMS AND FIRE ALARM PLAN - SOUTH
E311	FIRST FLOOR SYSTEMS AND FIRE ALARM PLAN - NORTH
E312	FIRST FLOOR SYSTEMS AND FIRE ALARM PLAN - CENTER
E313	FIRST FLOOR SYSTEMS AND FIRE ALARM PLAN - SOUTH
E321	SECOND LEVEL SYSTEMS AND FIRE ALARM PLAN - NORTH
E322A	SECOND LEVEL SYSTEMS AND FIRE ALARM PLAN - CENTER - ALTERNATE #1
E323	SECOND LEVEL SYSTEMS AND FIRE ALARM PLAN - SOUTH
E600.1	GMIA POWER HOUSE SG/1 ONE LINE DIAGRAM
E600.2	GMIA ELECTRICAL DISTRIBUTION BUILDING SG/2 ONE LINE DIAGRAM
E602	BAGGAGE CLAIM SUBSTATION SG/13 RISER DIAGRAM
E603	TERMINAL/BAGGAGE CLAIM EXISTING EMERGENCY RISER DIAGRAM - MODIFICATIONS
E604	BAGGAGE CLAIM EMERGENCY POWER RISER DIAGRAM
E700	ELECTRICAL SCHEDULES
E701	EXISTING ELECTRICAL PANEL SCHEDULES
E702	EXISTING ELECTRICAL PANEL SCHEDULES
E703	EXISTING ELECTRICAL PANEL SCHEDULES
E704	EXISTING ELECTRICAL PANEL SCHEDULES
E705	ELECTRICAL PANEL SCHEDULES
E706	ELECTRICAL PANEL SCHEDULES
1 E707	ELECTRICAL PANEL SCHEDULES
E708	ELECTRICAL PANEL SCHEDULES
E709	ELECTRICAL PANEL SCHEDULES
E710	EXISTING ELECTRICAL PANEL SCHEDULES
E800	SWITCHGEAR SG/13 ELEVATIONS AND ELECTRICAL DETAILS
E801	ELECTRICAL GROUNDING PLANS AND GROUNDING DETAILS
E802	LIGHTING CONTROL WIRING DIAGRAM AND ELECTRICAL DETAILS
E803	ELECTRICAL DETAILS
E804	ELECTRICAL DATA ROOM EXPANDED VIEWS AND ELEVATIONS
E805	ENLARGED PLANS, SECTIONS, ELEVATIONS
E806	GMIA BAGGAGE HANDLING AND DISPLAY CONNECTIONS NETWORK RISER DIAGRAM
E807	SYSTEMS AND FIRE ALARM DETAILS
E808	GMIA PAGING SYSTEM AND ENERGY MONITORING RISER DIAGRAMS

CONTRACT 2

Baggage Handling
Volume 2

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, MO 64114
Ph 816-333-9400 Fx 816-822-3523

BD100	LOWER LEVEL DEMO PLAN
BD110	FIRST FLOOR DEMO PLAN
B100	LOWER LEVEL OVERALL PLAN
B101	LOWER LEVEL PLAN NORTH
B102	LOWER LEVEL PLAN CENTER
B103	LOWER LEVEL PLAN SOUTH
B110	FIRST FLOOR OVERALL PLAN
B111	FIRST FLOOR PLAN NORTH
B112	FIRST FLOOR PLAN CENTER
B113	FIRST FLOOR PLAN SOUTH
B501	SECTION VIEWS CAROUSELS C1, C2, C3
B502	SECTION VIEWS CAROUSELS C4, C5
B503	DETAILS AND SECTION VIEWS CONVEYOR BELT

DRAWINGS FOR REFERENCE ONLY - CONTRACT 2 - SEE FTP SITE

GENERAL MITCHELL INTERNATIONAL AIRPORT
Baggage Claim Building Remodel
5300 S. Howell Ave. Milwaukee, WI 53207

Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 1	4/11/2013
2	Addendum No. 2	4/24/2013

CONSULTANTS

Electronic Signage

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, MO 64114
Ph 816-333-9400 Fx 816-822-3523

Commissioning Authority

E3 Group
W234 N2830 Paul Road
Pewaukee, WI 53072
Ph 262-522-7177

Energy Model Daylight Model

Energy Center of Wisconsin
455 Science Drive
Suite 200
Madison, WI 53711
Ph 608-238-8276
Fx 608-238-0523

Blast Consulting

Hinman Consulting Engineers, Inc.
225 Reinekers Lane
Suite 250
Alexandria, VA 22314
Ph 703-416-6780
Fx 703-836-4423

Cost Estimating

The Concord Group
161 North Clark St.
Suite 2050
Chicago, IL 60601
Ph 312-424-0250
Fx 312-424-0252

Public Art Coordinator

Quorum Architects, Inc.
3112 W. Highland Blvd.
Milwaukee, WI 53208
Ph 414-265-9265
Fx 414-265-9465

ISSUED FOR:
Construction

DATE:
July 16, 2012

PROJECT:
A042-06415

SITE NO:
290

BUILDING NO:
209

TITLE SHEET - VOLUME 1 | T101

PROJECT

G.M.I.A. - Baggage Claim Building Remodel

Milwaukee, WI

Engberg Anderson
MILWAUKEE • MADISON • TUCSON

SEAL

CONSULTANTS

DRAWINGS

Civil
Volume 1

EMCS, Inc.
1300 West Canal Street
Suite 200
Milwaukee, WI 53233
Ph 414-347-1607
Fx 414-347-1347

-	SURVEY
C001	SITE DEMOLITION PLAN
C002	OVERALL SITE PLAN
C003	EROSION CONTROL PLAN
C004	NORTH PAVING/GRADING PLAN
C005	SOUTH PAVING/GRADING PLAN
C006	NORTH PAVEMENT MARKING/SIGNING PLAN
C007	SOUTH PAVEMENT MARKING/SIGNING PLAN
C008	NORTH UTILITY PLAN
C009	SOUTH UTILITY PLAN
C010	CONSTRUCTION DETAILS
C011	CONSTRUCTION DETAILS
2 C012	CONSTRUCTION DETAILS

Architectural
Volume 1

Engberg Anderson
320 East Buffalo Street
Suite 500
Milwaukee, Wisconsin 53202
Ph 414-944-9900
Fx 414-944-9100

G001	COVER SHEET - VOLUME 1
G002	COVER SHEET - VOLUME 2
T101	TITLE SHEET - VOLUME 1
T102	TITLE SHEET - VOLUME 2
A001	ABBREVIATIONS
A002	CODE CONFORMANCE DATA
A003	CODE CONFORMANCE PLANS
1 A004	CODE CONFORMANCE PLAN
D100	LOWER LEVEL DEMO PLAN OVERALL
D101	LOWER LEVEL DEMO PLAN NORTH
D102	LOWER LEVEL DEMO PLAN CENTER
D103	LOWER LEVEL DEMO PLAN SOUTH
D110	FIRST FLOOR DEMO PLAN OVERALL
D111	FIRST FLOOR DEMO PLAN NORTH
D112	FIRST FLOOR DEMO PLAN CENTER
D113	FIRST FLOOR DEMO PLAN SOUTH
D120	ROOF DEMO PLAN OVERALL
D121	ROOF DEMO PLAN NORTH
D122	ROOF DEMO PLAN CENTER
D122A	SECOND FLOOR DEMO PLAN - ALT #1
D123	ROOF DEMO PLAN SOUTH
1 D124	MEZZANINE LEVEL DEMO PLAN
D211	FIRST FLOOR DEMO RCP NORTH
D212	FIRST FLOOR DEMO RCP CENTER
D213	FIRST FLOOR DEMO RCP SOUTH
A100	LOWER LEVEL PLAN OVERALL
A101	LOWER LEVEL PLAN NORTH
A102	LOWER LEVEL PLAN CENTER
A103	LOWER LEVEL PLAN SOUTH
A110	FIRST FLOOR PLAN OVERALL
A111	FIRST FLOOR PLAN NORTH
A112	FIRST FLOOR PLAN CENTER
A113	FIRST FLOOR PLAN SOUTH
A120	SECOND FLOOR & LOWER ROOF PLAN OVERALL
A121	SECOND FLOOR & LOWER ROOF PLAN NORTH
A122	SECOND FLOOR & LOWER ROOF PLAN CENTER
A122A	SECOND FLOOR & LOWER ROOF PLAN CENTER - ALT#1
A123	SECOND FLOOR & LOWER ROOF PLAN SOUTH
1 A124	MEZZANINE PLAN
A130	ROOF PLAN OVERALL
A131	ENLARGED ROOF PLANS
A132	PRE-VEGETATED GREEN ROOF PLANS
A211	FIRST FLOOR RCP NORTH
A212	FIRST FLOOR RCP CENTER
A213	FIRST FLOOR RCP SOUTH
A221	SECOND FLOOR RCP
A301	ENLARGED PLANS - ENTRANCES & ELEVATORS
A303	ENLARGED PLANS - STAIRS
A304	ENLARGED PLANS - TOILET ROOMS
A305	ENLARGED PLAN - TRANSPORTATION BOOTH
A351	ENLARGED PLANS - CANOPY
A401	EXTERIOR ELEVATIONS
A402	EXTERIOR ELEVATIONS
A403	EXTERIOR ELEVATIONS
A404	EXTERIOR ELEVATIONS
A405	EXTERIOR ELEVATIONS
A411	PARTIAL ELEVATIONS
A412	PARTIAL ELEVATIONS
A420	BUILDING SECTIONS
A421	BUILDING SECTIONS
A422	BUILDING SECTIONS
A423	BUILDING SECTIONS
A424	BUILDING SECTIONS
A431	WINDOW ELEVATIONS
A501	WALL SECTIONS
A502	WALL SECTIONS
A503	WALL SECTIONS
A504	WALL SECTIONS
A505	WALL SECTIONS
A511	PLAN & SECTION DETAILS
A512	PLAN & SECTION DETAILS
A513	PLAN & SECTION DETAILS
A514	PLAN & SECTION DETAILS
A515	PLAN & SECTION DETAILS
A541	ROOF DETAILS
A542	ROOF DETAILS
A543	ROOF DETAILS
A551	CANOPY SECTIONS & DETAILS
A552	CANOPY SECTIONS & DETAILS
A553	CANOPY SECTIONS & DETAILS
A554	CANOPY SECTIONS & DETAILS
A601	WALL TYPES
A602	WALL TYPES & DETAILS
A621	COLUMN DETAILS
A631	CEILING & SOFFIT DETAILS
A641	DOOR SCHEDULE, TYPES, FRAMES & DETAILS
A701	ROOM FINISH SCHEDULE
A711	FIRST FLOOR FINISH PLAN NORTH
A712	FIRST FLOOR FINISH PLAN CENTER
A713	FIRST FLOOR FINISH PLAN SOUTH
A714	FIRST FLOOR BSO FINISH PLAN
A721	SECOND FLOOR FINISH PLAN
A731	EQUIPMENT AND SIGNAGE PLAN NORTH
A732	EQUIPMENT AND SIGNAGE PLAN CENTER
A733	EQUIPMENT AND SIGNAGE PLAN SOUTH
A741	EQUIPMENT AND SIGNAGE RCP NORTH
A742	EQUIPMENT AND SIGNAGE RCP CENTER
A743	EQUIPMENT AND SIGNAGE RCP SOUTH
A744	EQUIPMENT AND SIGNAGE SCHEDULES
A791	FURNITURE PLAN NORTH
A792	FURNITURE PLAN CENTER
A793	FURNITURE PLAN SOUTH
A801	INTERIOR ELEVATIONS
A802	INTERIOR ELEVATIONS
A803	INTERIOR ELEVATIONS
A804	INTERIOR ELEVATIONS
A806	INTERIOR ELEVATIONS
A807	INTERIOR ELEVATIONS
A811	INTERIOR ELEVATIONS
A812	INTERIOR ELEVATIONS
A813	INTERIOR ELEVATIONS
2 A814	MOVABLE WALL SYSTEM ELEVATIONS
A901	CASEWORK - AMERICAN EAGLE, DELTA, US AIRWAYS
A902	CASEWORK - FRONTIER
A903	CASEWORK - UNITED
A904	CASEWORK - SOUTHWEST AIRTRAN
A905	CASEWORK - GO RITEWAY
A906	RESTROOM DETAILS
A911	INTERIOR CONSTRUCTION DETAILS
A912	INTERIOR CONSTRUCTION DETAILS
A931	INTERIOR SIGNAGE TYPES
A932	INTERIOR SIGNAGE TYPES
A941	EXTERIOR SIGNAGE TYPES

Structural
Volume 1

Bloom Consultants, LLC
10501 West Research Drive
Suite 100
Milwaukee, WI 53226
Ph 414-292-4515
Fx 414-771-4490

SD113	FOUNDATION DEMOLITION PLAN SOUTH
SD121	STEEL DEMOLITION PLAN NORTH
SD122	STEEL DEMOLITION PLAN CENTER
SD123	STEEL DEMOLITION PLAN SOUTH
S001	GENERAL NOTES
S101	FOUNDATION PLAN NORTH
S102	FOUNDATION PLAN CENTER
S103	FOUNDATION PLAN SOUTH
S111	FIRST FLOOR PLAN NORTH
S112	FIRST FLOOR PLAN CENTER
S113	FIRST FLOOR PLAN SOUTH
S121	LOW ROOF FRAMING PLAN NORTH
S122	LOW ROOF FRAMING PLAN CENTER
S123	LOW ROOF FRAMING PLAN SOUTH
S131	MID ROOF FRAMING PLAN NORTH
S132	MID ROOF FRAMING PLAN CENTER
S132A	MID ROOF FRAMING PLAN CENTER - ALTERNATE
S133	MID ROOF FRAMING PLAN SOUTH
S141	HIGH ROOF FRAMING PLANS
S301	ENTRY STEEL PLANS
S305	TRANSPORTATION BOOTH PLANS AND DETAILS
S400	DEMO SECTIONS AND DETAILS
S410	FOUNDATION SECTIONS AND DETAILS
S411	FOUNDATION SECTIONS AND DETAILS
S412	FOUNDATION SECTIONS AND DETAILS
S420	FIRST FLOOR SECTIONS AND DETAILS
S430	LOW ROOF SECTIONS AND DETAILS
S431	LOW ROOF SECTIONS AND DETAILS
S440	MID ROOF SECTIONS AND DETAILS
S450	HIGH ROOF SECTIONS AND DETAILS
S500	BUILDING SECTIONS
S501	BID ALTERNATE A - BUILDING SECTIONS

Structural - Canopy
Volume 1

Pierce Engineers, Inc.
241 N. Broadway
Suite 500
Milwaukee, WI 53202
Ph 414-278-6060
Fx 414-278-6061

SC302	CANOPY NOTES & SCHEDULES
SC351	CANOPY ROOF FRAMING PLANS
SC551	CANOPY SECTIONS & FRAMING DETAILS
SC552	CANOPY FRAMING DETAILS

Fire Protection
Volume 2

PSJ Engineering, Inc.
7665 N. Port Washington Road
Milwaukee, WI 53217
Ph 414-352-2211
Fx 414-351-8823

F000	COVER SHEET - FIRE PROTECTION
F001	DETAILS - FIRE PROTECTION
FD101	LOWER LEVEL DEMO PLAN - NORTH - FIRE PROTECTION
FD102	LOWER LEVEL DEMO PLAN - CENTRAL - FIRE PROTECTION
FD103	LOWER LEVEL DEMO PLAN - SOUTH - FIRE PROTECTION
FD111	FIRST FLOOR DEMO PLAN - NORTH - FIRE PROTECTION
FD113	FIRST FLOOR DEMO PLAN - SOUTH - FIRE PROTECTION
F101	LOWER LEVEL PLAN - NORTH - FIRE PROTECTION
F102	LOWER LEVEL PLAN - CENTRAL - FIRE PROTECTION
F103	LOWER LEVEL PLAN - SOUTH - FIRE PROTECTION
F111	FIRST FLOOR PLAN - NORTH - FIRE PROTECTION
F112	FIRST FLOOR PLAN - CENTRAL - FIRE PROTECTION
F113	FIRST FLOOR PLAN - SOUTH - FIRE PROTECTION
F114	FIRST FLOOR INT'L SPACE - PLAN - NORTH - FIRE PROTECTION
F115	FIRST FLOOR INT'L SPACE - PLAN - CENTRAL - FIRE PROTECTION
F116	FIRST FLOOR INT'L SPACE - PLAN - SOUTH - FIRE PROTECTION
F121	SECOND FLOOR PLAN - NORTH - FIRE PROTECTION
F122	SECOND FLOOR PLAN - CENTRAL - FIRE PROTECTION
F123	SECOND FLOOR PLAN - SOUTH - FIRE PROTECTION

Plumbing
Volume 2

PSJ Engineering, Inc.
7665 N. Port Washington Road
Milwaukee, WI 53217
Ph 414-352-2211
Fx 414-351-8823

P001	COVER SHEET - PLUMBING
P002	SCHEDULES - PLUMBING
PD101	LOWER LEVEL DEMO PLAN - NORTH - PLUMBING
PD102	LOWER LEVEL DEMO PLAN - CENTRAL - PLUMBING
PD103	LOWER LEVEL DEMO PLAN - SOUTH - PLUMBING
PD111	FIRST FLOOR DEMO PLAN - NORTH - PLUMBING
PD112	FIRST FLOOR DEMO PLAN - CENTRAL - PLUMBING
PD113	FIRST FLOOR DEMO PLAN - SOUTH - PLUMBING
PD121	ROOF - DEMO PLAN - NORTH - PLUMBING
PD122	ROOF - DEMO PLAN - CENTRAL - PLUMBING
PD123	ROOF - DEMO PLAN - SOUTH - PLUMBING
P101	LOWER LEVEL PLAN - NORTH - PLUMBING
P102	LOWER LEVEL PLAN - CENTRAL - PLUMBING
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P121	SECOND FLOOR PLAN - NORTH - PLUMBING
P122	SECOND FLOOR PLAN - CENTRAL - PLUMBING
P122A	ALTERNATE SECOND FLOOR PLAN - CENTRAL - PLUMBING
P123	SECOND FLOOR PLAN - SOUTH - PLUMBING
P131	ROOF PLAN - NORTH - PLUMBING
P200	DETAILS - PLUMBING
P300	WATER ISOMETRIC - PLUMBING
P400	DRAIN WASTE & VENT ISOMETRIC - PLUMBING

Mechanical
Volume 2

PSJ Engineering, Inc.
7665 N. Port Washington Road
Milwaukee, WI 53217
Ph 414-352-2211
Fx 414-351-8823

M001	COVER SHEET - HVAC
MD101	LOWER LEVEL DEMO PLAN - NORTH - HVAC
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MD121	SECOND FLOOR AND PARTIAL ROOF DEMO PLAN - NORTH - HVAC
MD122	SECOND FLOOR AND PARTIAL ROOF DEMO PLAN - CENTRAL - HVAC
MD123	SECOND FLOOR AND PARTIAL ROOF DEMO PLAN - SOUTH - HVAC
1 MD124	MEZZANINE LEVEL DEMO PLAN - HVAC
M101	LOWER LEVEL PLAN - NORTH - HVAC
M102	LOWER LEVEL PLAN - CENTRAL - HVAC
M103	LOWER LEVEL PLAN - SOUTH - HVAC
M111L	LOWER FIRST FLOOR PLAN - NORTH - HVAC
M112L	LOWER FIRST FLOOR PLAN - CENTRAL - HVAC
M113L	LOWER FIRST FLOOR PLAN - SOUTH - HVAC
M111U	UPPER FIRST FLOOR PLAN - NORTH - HVAC
M112U	UPPER FIRST FLOOR PLAN - CENTRAL - HVAC
M113U	UPPER FIRST FLOOR PLAN - SOUTH- HVAC
M121	SECOND FLOOR PLAN - NORTH - HVAC
M122	SECOND FLOOR PLAN - CENTRAL - HVAC
M123	SECOND FLOOR PLAN - SOUTH - HVAC
1 M124	MEZZANINE LEVEL PLAN - HVAC
M112A	FIRST FLOOR PLAN - ALTERNATE - HVAC
M122A	SECOND FLOOR PLAN - ALTERNATE - HVAC
M200	SECTIONS - HVAC
M300	DETAILS - HVAC
M301	DETAILS - HVAC
M400	SCHEDULES - HVAC
M401	SCHEDULES - HVAC

Electrical
Volume 2

IBC Engineering Services, Inc.
N8 W22195 Johnson Drive
Suite 180
Waukesha, WI 53186
Ph 262-549-1190
Fx 262-549-1620

E001	ELECTRICAL SYMBOLS, ABBREVIATIONS, GENERAL NOTES, SCHEDULES
E002	LIGHTING FIXTURE SCHEDULE
E003	ELECTRICAL LIGHTING CONTROL SCHEDULE FIRST FLOOR AND MEZZANINE SOUTH
E004	ELECTRICAL LIGHTING CONTROL SCHEDULE FIRST FLOOR AND MEZZANINE SOUTH
E005	ELECTRICAL LIGHTING CONTROL SCHEDULE BASEMENT, EXTERIOR, AND 2ND FLOOR OFFICE ALTERNATE 1
E010	ELECTRICAL SITE PLAN - NORTH
E011	ELECTRICAL SITE PLAN - SOUTH
E012	ELECTRICAL DUCT BANK SECTIONS AND SG/1 MODIFICATIONS
E013	ONE-LINE 5KV POWER MANHOLE/PULL BOX DIAGRAM
E014	DUCT BANK PLAN AND PROFILE
E015	DUCT BANK PLAN AND PROFILE
E016	DUCT BANK PLAN AND PROFILE
2 E017	ELECTRICAL SITE PLAN - STAGING AREA
ED101	ELECTRICAL DEMOLITION LOWER LEVEL PLAN - NORTH
ED102	ELECTRICAL DEMOLITION LOWER LEVEL PLAN - CENTER
ED103	ELECTRICAL DEMOLITION LOWER LEVEL PLAN - SOUTH
ED111	ELECTRICAL DEMOLITION FIRST FLOOR PLAN - NORTH
ED112	ELECTRICAL DEMOLITION FIRST FLOOR PLAN - CENTER
ED113	ELECTRICAL DEMOLITION FIRST FLOOR PLAN - SOUTH
2 ED114	MAIN TERMINAL/ D CONCOURSE STEM DEMO FLOOR PLAN
1 ED124	ELECTRICAL DEMOLITION MEZZANINE LEVEL PLAN
ED601	ELECTRICAL DEMOLITION BAGGAGE CLAIM EXISTING UNIT SUBSTATION RISER DIAGRAM
E101	LOWER LEVEL POWER PLAN - NORTH
E102	LOWER LEVEL POWER PLAN - CENTER
E103	LOWER LEVEL POWER PLAN - SOUTH
E104	LOWER LEVEL POWER PLAN - TUG TUNNEL & TICKETING
E111	FIRST FLOOR POWER PLAN - NORTH
E112	FIRST FLOOR POWER PLAN - CENTER
E113	FIRST FLOOR POWER PLAN - SOUTH
E121	SECOND LEVEL POWER PLAN - NORTH
E122	SECOND LEVEL POWER PLAN - CENTER
E122A	SECOND LEVEL POWER PLAN - CENTER - ALTERNATE #1
E123	SECOND LEVEL POWER PLAN - SOUTH
E124	MEZZANINE LEVEL POWER, LIGHTING, SYSTEMS PLAN
E200	LOWER LEVEL LIGHTING PLAN AND ENLARGED PLANS
E211	FIRST FLOOR LIGHTING PLAN - NORTH
E212	FIRST FLOOR LIGHTING PLAN - CENTER
E213	FIRST FLOOR LIGHTING PLAN - SOUTH
E221	SECOND LEVEL LIGHTING PLAN - NORTH
E222A	SECOND LEVEL LIGHTING PLAN - CENTER - ALTERNATE #1
E223	SECOND LEVEL LIGHTING PLAN - SOUTH
E301	LOWER LEVEL SYSTEMS AND FIRE ALARM PLAN - NORTH
E302	LOWER LEVEL SYSTEMS AND FIRE ALARM PLAN - CENTER
E303	LOWER LEVEL SYSTEMS AND FIRE ALARM PLAN - SOUTH
E311	FIRST FLOOR SYSTEMS AND FIRE ALARM PLAN - NORTH
E312	FIRST FLOOR SYSTEMS AND FIRE ALARM PLAN - CENTER
E313	FIRST FLOOR SYSTEMS AND FIRE ALARM PLAN - SOUTH
E321	SECOND LEVEL SYSTEMS AND FIRE ALARM PLAN - NORTH
E322A	SECOND LEVEL SYSTEMS AND FIRE ALARM PLAN - CENTER - ALTERNATE #1
E323	SECOND LEVEL SYSTEMS AND FIRE ALARM PLAN - SOUTH
E600.1	GMIA POWER HOUSE SG/1 ONE LINE DIAGRAM
E600.2	GMIA ELECTRICAL DISTRIBUTION BUILDING SG/2 ONE LINE DIAGRAM
E602	BAGGAGE CLAIM SUBSTATION SG/13 RISER DIAGRAM
E603	TERMINAL/BAGGAGE CLAIM EXISTING EMERGENCY RISER DIAGRAM - MODIFICATIONS
E604	BAGGAGE CLAIM EMERGENCY POWER RISER DIAGRAM
E700	ELECTRICAL SCHEDULES
E701	EXISTING ELECTRICAL PANEL SCHEDULES
E702	EXISTING ELECTRICAL PANEL SCHEDULES
E703	EXISTING ELECTRICAL PANEL SCHEDULES
E704	EXISTING ELECTRICAL PANEL SCHEDULES
E705	ELECTRICAL PANEL SCHEDULES
E706	ELECTRICAL PANEL SCHEDULES
E707	ELECTRICAL PANEL SCHEDULES
1 E708	ELECTRICAL PANEL SCHEDULES
E709	ELECTRICAL PANEL SCHEDULES
E710	EXISTING ELECTRICAL PANEL SCHEDULES
E800	SWITCHGEAR SG/13 ELEVATIONS AND ELECTRICAL DETAILS
E801	ELECTRICAL GROUNDING PLANS AND GROUNDING DETAILS
E802	LIGHTING CONTROL WIRING DIAGRAM AND ELECTRICAL DETAILS
E803	ELECTRICAL DETAILS
E804	ELECTRICAL DATA ROOM EXPANDED VIEWS AND ELEVATIONS
E805	ENLARGED PLANS, SECTIONS, ELEVATIONS
E806	GMIA BAGGAGE HANDLING AND DISPLAY CONNECTIONS NETWORK RISER DIAGRAM
E807	SYSTEMS AND FIRE ALARM DETAILS
E808	GMIA PAGING SYSTEM AND ENERGY MONITORING RISER DIAGRAMS

CONTRACT 2
Baggage Handling
Volume 2

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, MO 64114
Ph 816-333-9400 Fx 816-822-3523

BD100	LOWER LEVEL DEMO PLAN
BD110	FIRST FLOOR DEMO PLAN
B100	LOWER LEVEL OVERALL PLAN
B101	LOWER LEVEL PLAN NORTH
B102	LOWER LEVEL PLAN CENTER
B103	LOWER LEVEL PLAN SOUTH
B110	FIRST FLOOR OVERALL PLAN
B111	FIRST FLOOR PLAN NORTH
B112	FIRST FLOOR PLAN CENTER
B113	FIRST FLOOR PLAN SOUTH
B501	SECTION VIEWS CAROUSELS C1, C2, C3
B502	SECTION VIEWS CAROUSELS C4, C5
B503	DETAILS AND SECTION VIEWS CONVEYOR BELT

DRAWINGS FOR REFERENCE ONLY - CONTRACT 2 - SEE FTP SITE

GENERAL MITCHELL
INTERNATIONAL AIRPORT
Baggage Claim Building Remodel
5300 S. Howell Ave. Milwaukee, WI 53207

Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 1	4/11/2013
2	Addendum No. 2	4/24/2013

CONSULTANTS

Electronic Signage

Burns & McDonnell Engineering Co., Inc.
9400 Ward Parkway
Kansas City, MO 64114
Ph 816-333-9400 Fx 816-822-3523

Commissioning Authority

E3 Group
W234 N2830 Paul Road
Pewaukee, WI 53072
Ph 262-522-7177

Energy Model Daylight Model

Energy Center of Wisconsin
455 Science Drive
Suite 200
Madison, WI 53711
Ph 608-238-8276
Fx 608-238-0523

Blast Consulting

Hinman Consulting Engineers, Inc.
225 Reinekers Lane
Suite 250
Alexandria, VA 22314
Ph 703-416-6780
Fx 703-836-4423

Cost Estimating

The Concord Group
161 North Clark St.
Suite 2050
Chicago, IL 60601
Ph 312-424-0250
Fx 312-424-0252

Public Art Coordinator

Quorum Architects, Inc.
3112 W. Highland Blvd.
Milwaukee, WI 53208
Ph 414-265-9265
Fx 414-265-9465

ISSUED FOR:
Construction

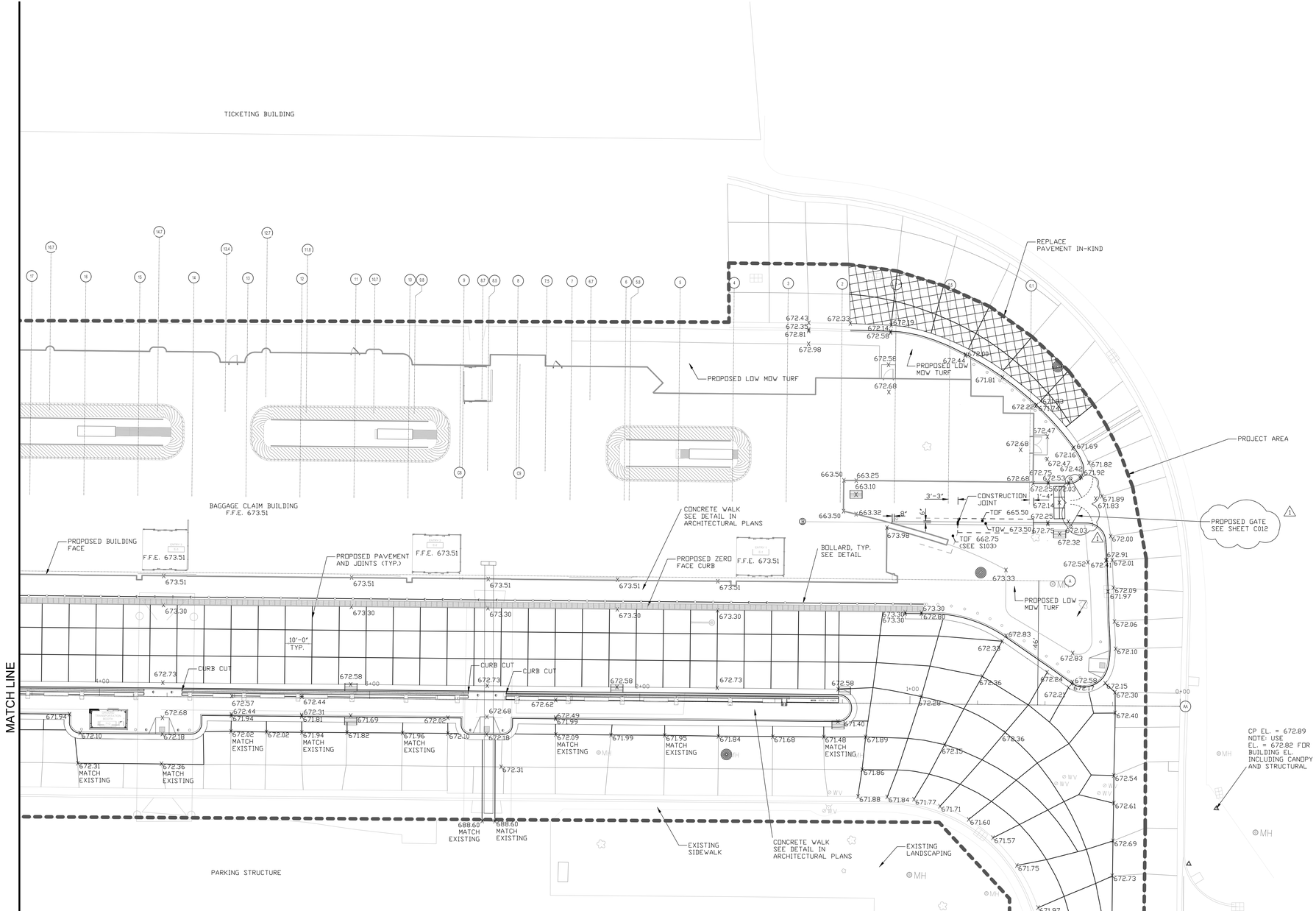
DATE:
July 16, 2012

PROJECT:
A042-06415

SITE NO:
290

BUILDING NO:
209

TITLE SHEET - VOLUME 2 | T102



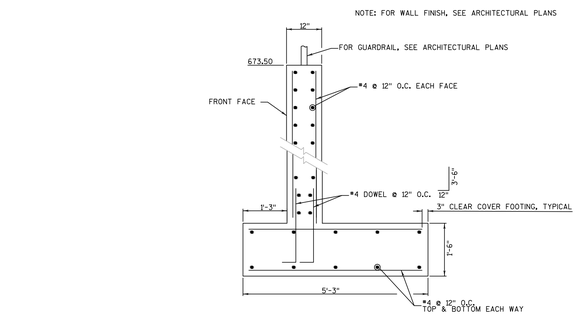
NOTE:
1. CIVIL STATIONING RELATES TO ARCHITECTURAL COLUMNS.

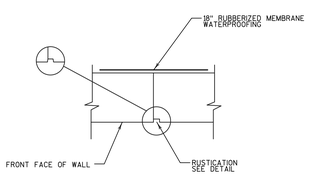
COLUMN	STATION
3	1+45.53
C9	2+45.53
C8	2+67.53
14	3+66.53
15	3+86.53

2. REFER TO CONSTRUCTION DETAILS, SHEETS C010 AND C011, FOR SPECIFIC DESIGN DETAILS.

LEGEND

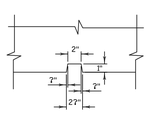
- EXISTING JOINT
- PROPOSED JOINT
- PROPOSED CURB
- PROPOSED BOLLARD
- PROPOSED MANHOLE
- PROPOSED INLET
- MH EXISTING MANHOLE
- EXISTING INLET





VERTICAL CONSTRUCTION JOINT

DO NOT RUN ANY BAR STEEL THROUGH JOINT



RUSTICATION DETAIL

CONTRACTOR'S STAGING AND LAY DOWN AREA SEE SHEET C012

1:200

SOUTH PAVING/GRADING PLAN

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Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

No.	DESCRIPTION	DATE
1	Addendum No.2	4/24/2013

ISSUED FOR:
CONSTRUCTION

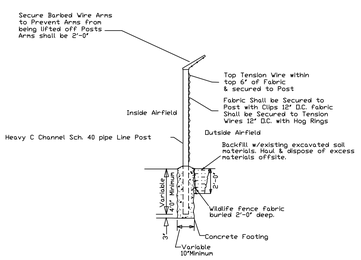
DATE:
July 16, 2012

PROJECT:
A042-06415

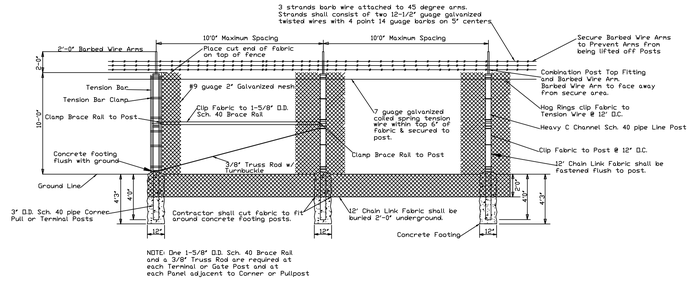
SITE NO:
290

BUILDING NO:
209

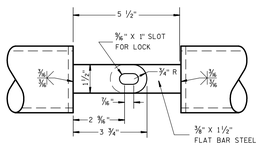
C005



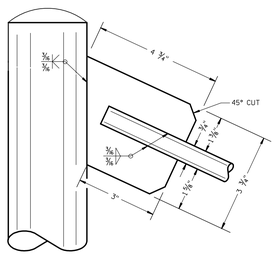
TYPICAL 12' HIGH FENCE SECTION
(NOT TO SCALE)



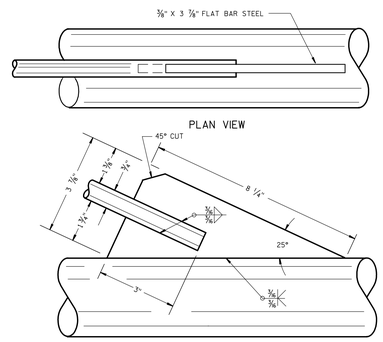
12'-0" HIGH CHAIN LINK FENCE
(2' BURIED FABRIC)
(NOT TO SCALE)



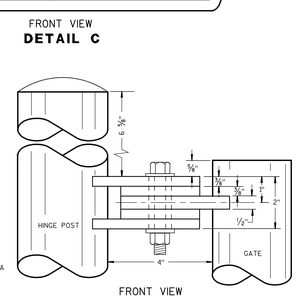
PLAN VIEW
DETAIL A



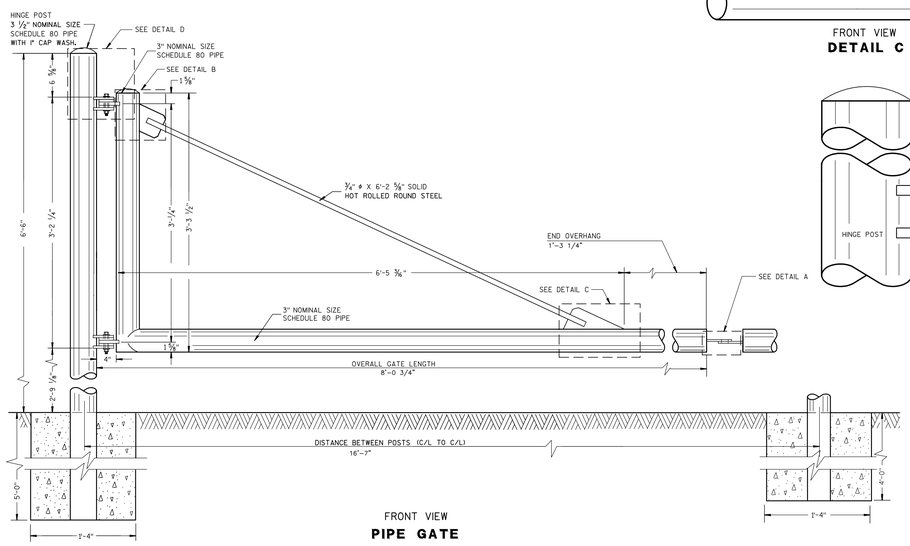
FRONT VIEW
DETAIL B



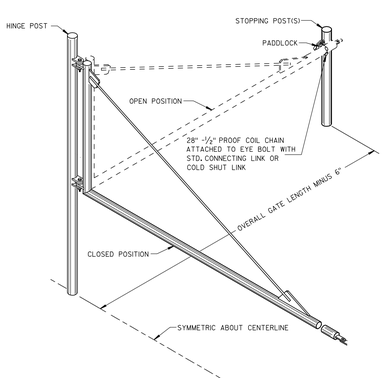
FRONT VIEW
DETAIL C



FRONT VIEW
DETAIL D



FRONT VIEW
PIPE GATE
(ONE SIDE ONLY)



ISOMETRIC VIEW
PIPE GATE PARTIAL LAYOUT (ONE SIDE ONLY)

GENERAL NOTES

ALL PIPE POSTS SHALL HAVE OPEN BOTTOMS.

ALL OTHER EXPOSED ENDS SHALL BE CAPPED AND SEALED TO PREVENT WATER FROM ENTERING.

ALL STEEL BRACKETS SHALL BE ASTM A36.

ALL UNITS SHALL BE SHOP FABRICATED.

POSTS SHALL BE PLACED IN CONCRETE IN ACCORDANCE WITH THE DETAILED PLANS.

ALL METAL SHALL BE CLEANED BY SANDBLASTING TO A SSPC-10, COMMERCIAL BLAST FINISH.

ALL METAL SHALL BE PAINTED WITH A ZINC RICH PRIMER AND ONE COAT OF EPOXY FINISH PAINT. A SECOND FINISH COAT SHALL BE FIELD APPLIED AFTER INSTALLATION. FINISH COLOR: GREY.

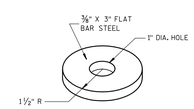
GATE LOCK CAN BE MASTER KEYED AND SHALL HAVE THE FOLLOWING MINIMUM DIMENSIONS: SHACKLE DIA. OF 3/8", VERTICAL CLEARANCE OF 1 1/2", HORIZONTAL CLEARANCE OF 1 3/4".

HINGE BOLT THREADS SHALL BE PEINED OR SPOT WELDED IN PLACE TO PREVENT REMOVAL.

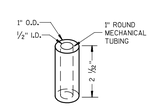
HOLE IN HINGE BRACKETS SHALL BE LARGE ENOUGH SO THAT 1" OD PIPE COLLAR JUST SLIDES THROUGH OPENING.

ALL BOLTS, WASHERS AND NUTS SHALL BE UNL ASTM A325.

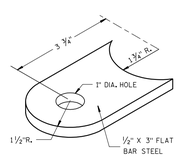
16'-0" PIPE GATE DETAILS DUAL OPENING



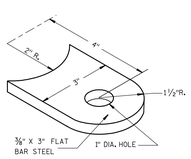
ISOMETRIC VIEW
SPACING RING
4 REQUIRED



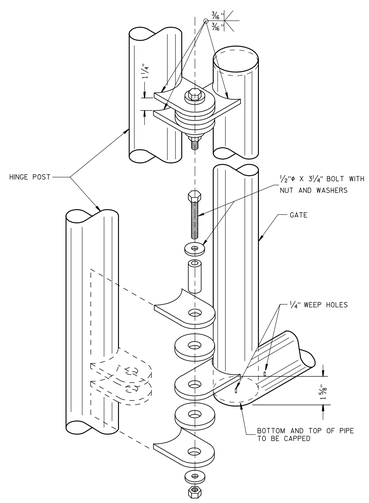
ISOMETRIC VIEW
SLEEVE
2 REQUIRED



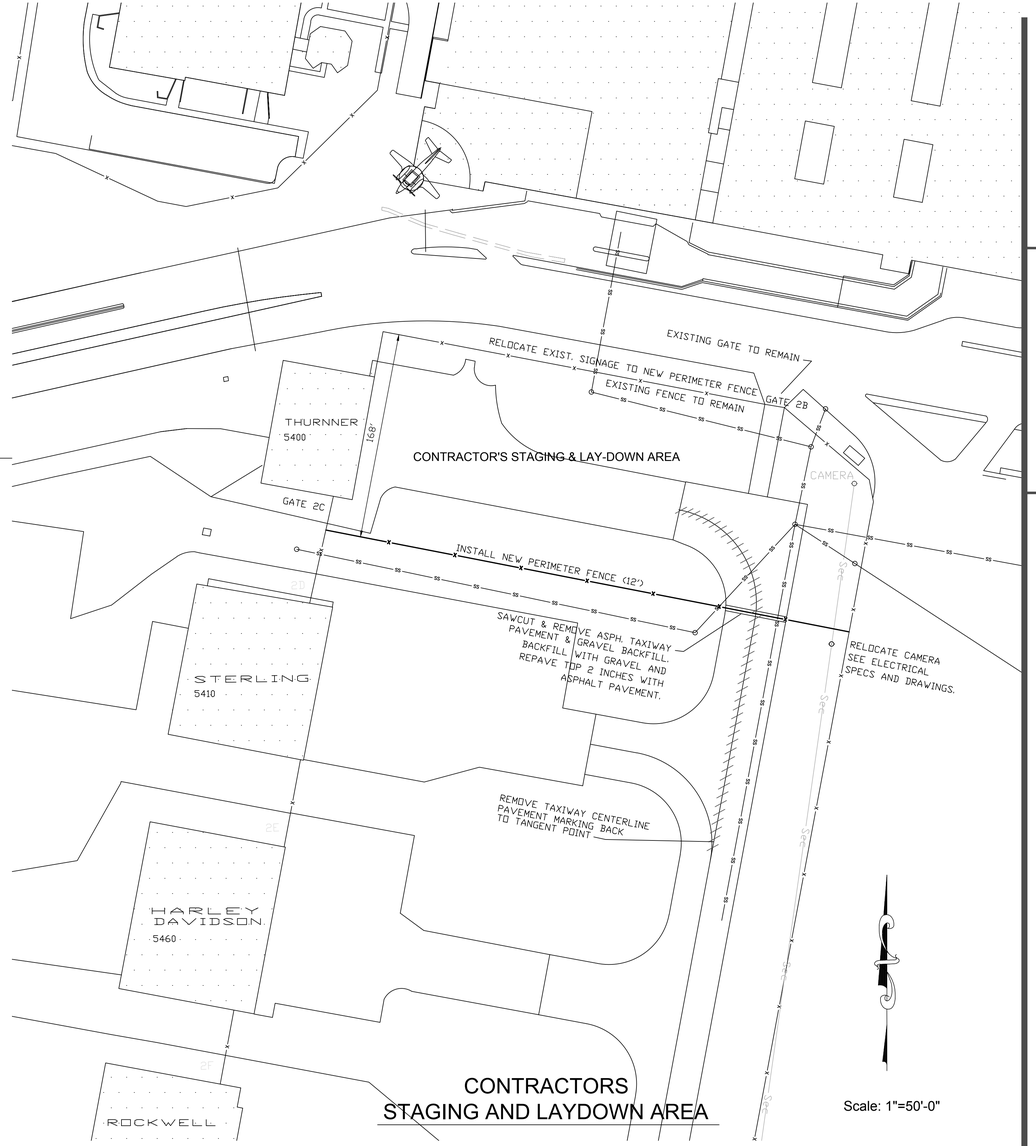
ISOMETRIC VIEW
SWING ARM BRACKET
2 REQUIRED



ISOMETRIC VIEW
POST BRACKET
4 REQUIRED



ISOMETRIC VIEW
HINGE ASSEMBLY



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Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 2	4/24/2013

ISSUED FOR:
CONSTRUCTION

DATE:
April 24, 2013

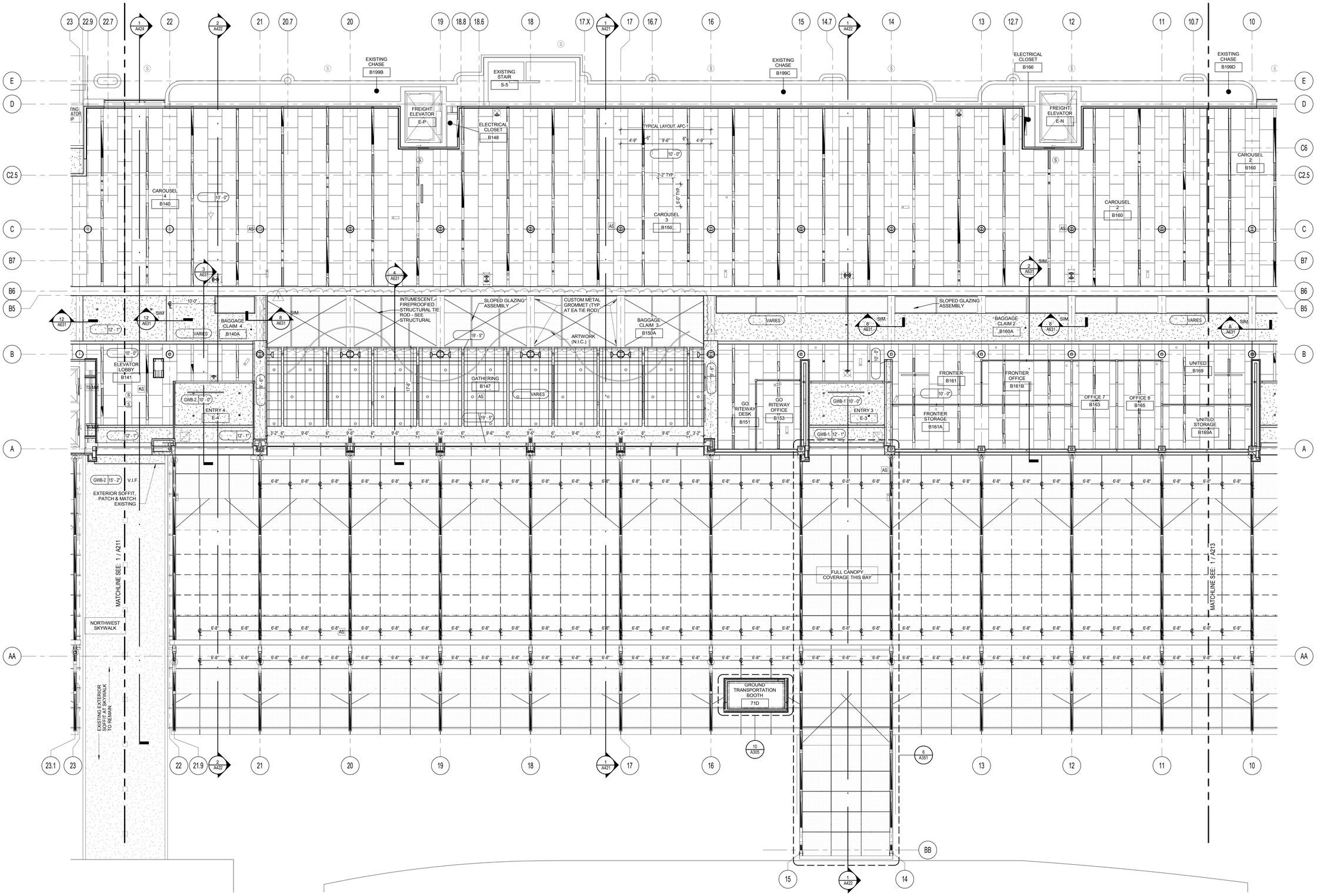
PROJECT:
A042-06415

SITE NO:
290

BUILDING NO:
209

C012

CONSTRUCTION DETAILS



1 FIRST FLOOR RCP - CENTER
SCALE: 1/8" = 1'-0"

GENERAL NOTES - CEILING PLANS

1. REFER TO SHEET A211 FOR CEILING PLANS LEGEND

Plan North

FIRST FLOOR RCP CENTER

A212

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Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 2	4/24/2013

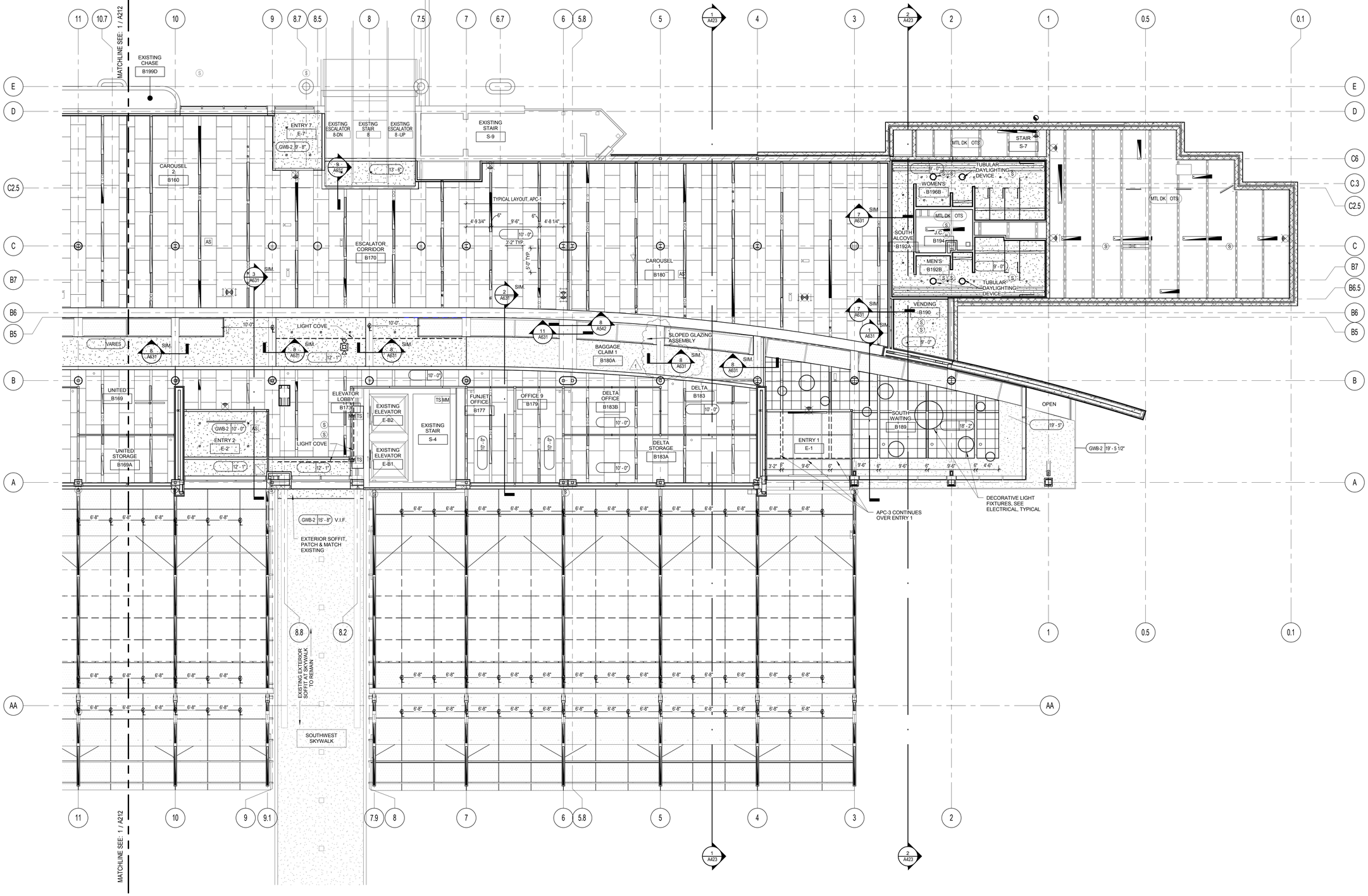
ISSUED FOR:
Construction

DATE:
July 16, 2012

PROJECT:
A042-06415

SITE NO:
290

BUILDING NO:
209



1 FIRST FLOOR RCP - SOUTH
SCALE: 1/8" = 1'-0"

GENERAL NOTES - CEILING PLANS

1. REFER TO SHEET A211 FOR CEILING PLANS LEGEND

Plan North

FIRST FLOOR RCP SOUTH

A213

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290

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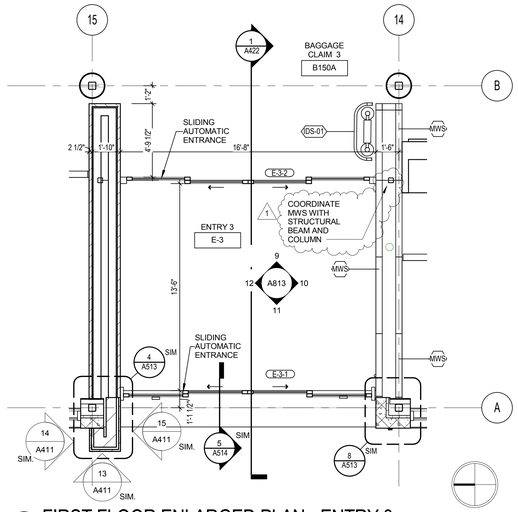
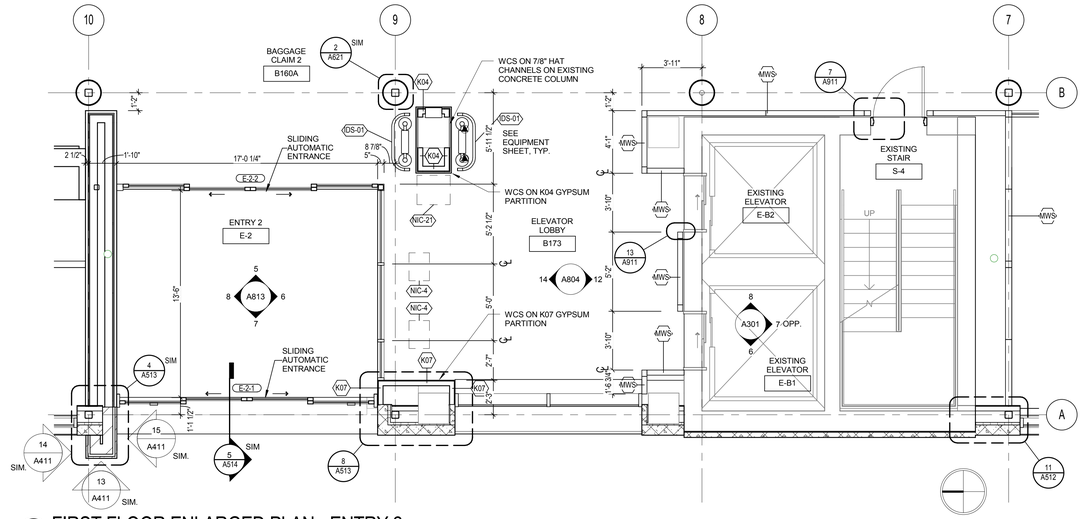
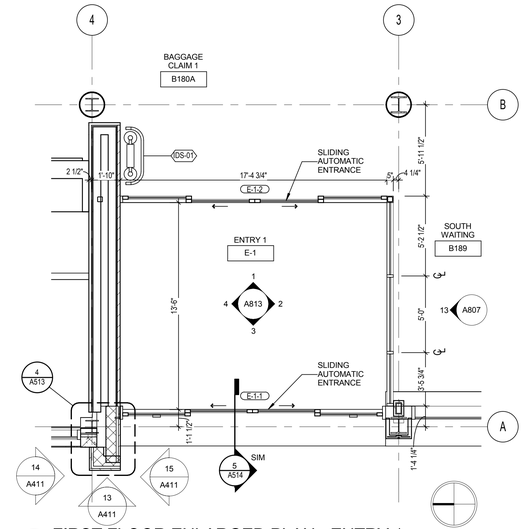
209



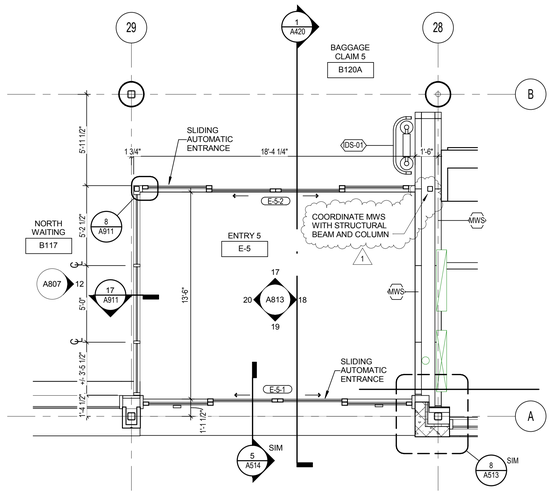
3 FIRST FLOOR ENLARGED PLAN - ENTRY 3
SCALE: 1/4" = 1'-0"



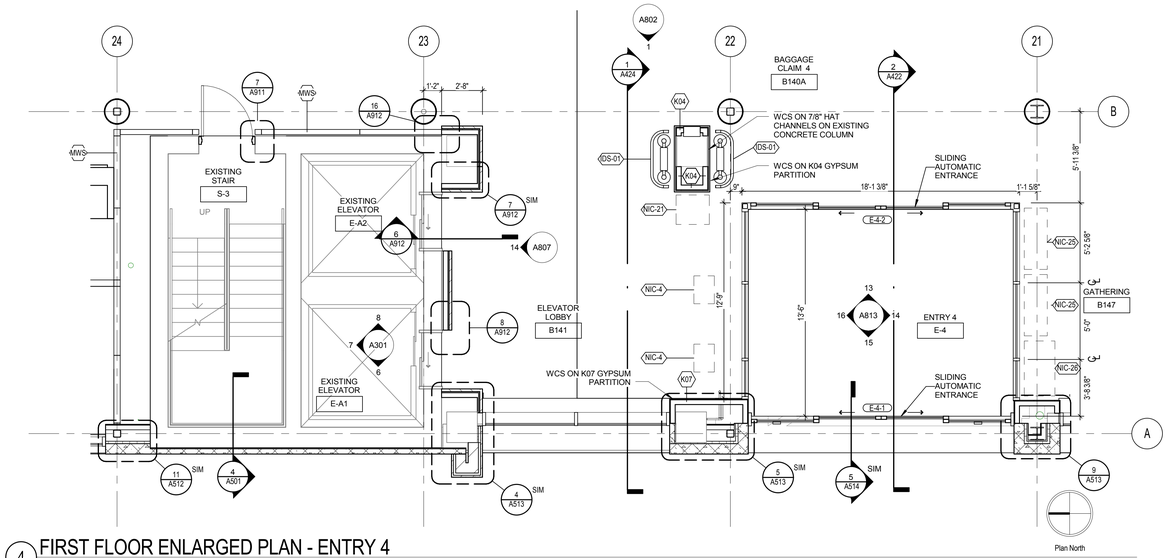
2 FIRST FLOOR ENLARGED PLAN - ENTRY 2
SCALE: 1/4" = 1'-0"



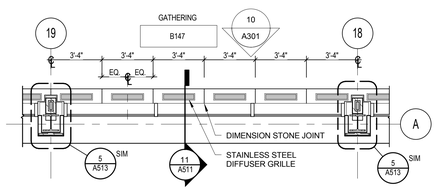
1 FIRST FLOOR ENLARGED PLAN - ENTRY 1
SCALE: 1/4" = 1'-0"



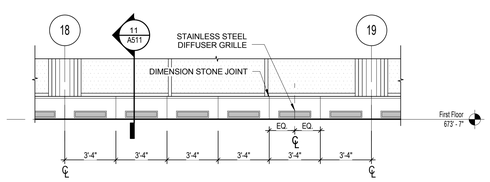
5 FIRST FLOOR ENLARGED PLAN - ENTRY 5
SCALE: 1/4" = 1'-0"



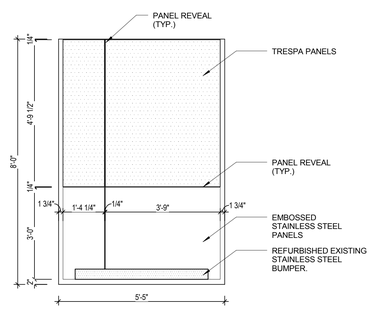
4 FIRST FLOOR ENLARGED PLAN - ENTRY 4
SCALE: 1/4" = 1'-0"



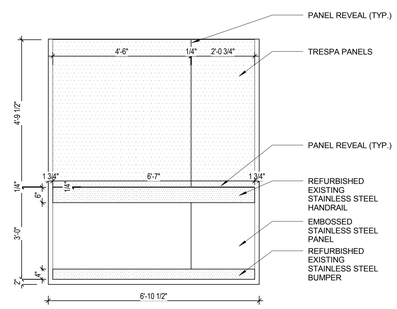
9 TYPICAL DIMENSION STONE SILL @ GATHERING
SCALE: 1/4" = 1'-0"



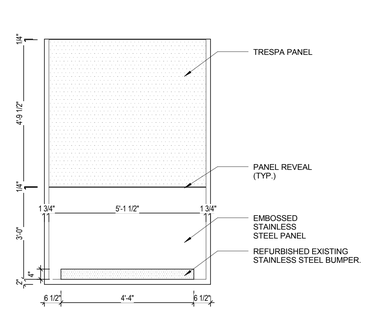
10 TYPICAL SILL ELEVATION @ GATHERING
SCALE: 1/4" = 1'-0"



8 EAST ELEVATOR ELEVATION
SCALE: 1/2" = 1'-0"



7 NORTH ELEVATOR ELEVATION
SCALE: 1/2" = 1'-0"



6 WEST ELEVATOR ELEVATION
SCALE: 1/2" = 1'-0"

Plan North

ENLARGED PLANS - ENTRANCES & ELEVATORS

A301

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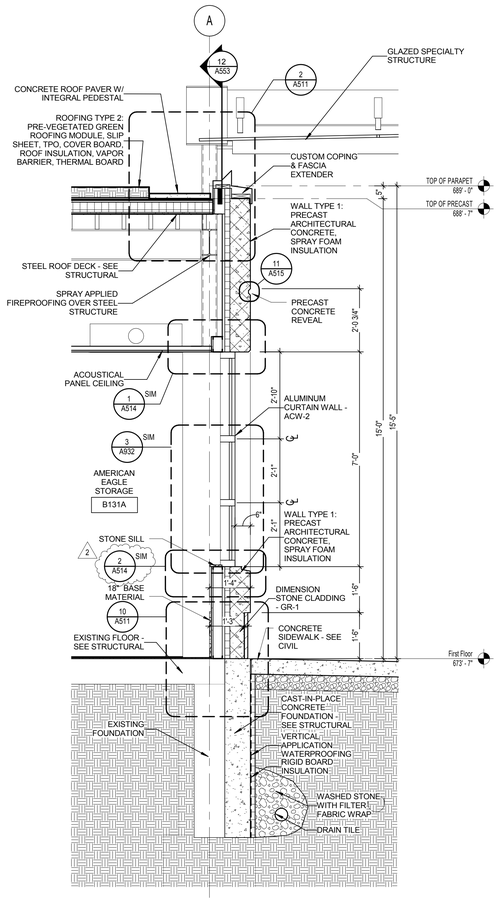
GENERAL MITCHELL INTERNATIONAL AIRPORT
Baggage Claim Building Remodel
5300 S. Howell Ave. Milwaukee, WI 53207

Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

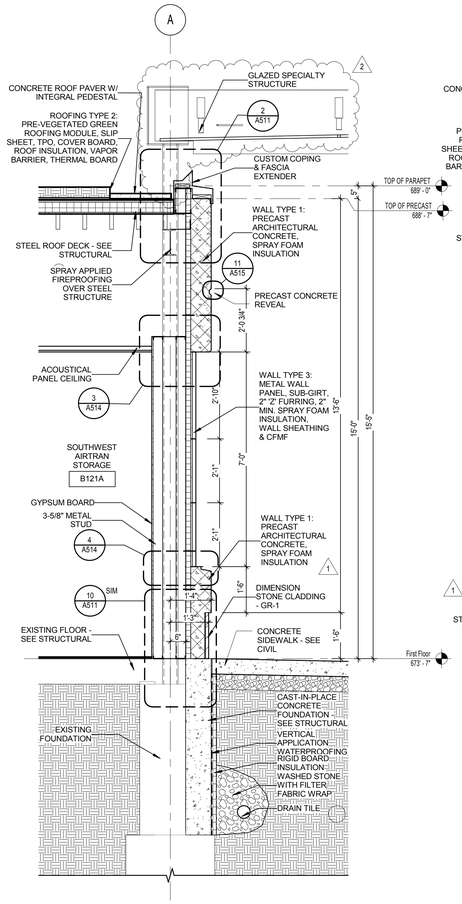
REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 2	4/24/2013

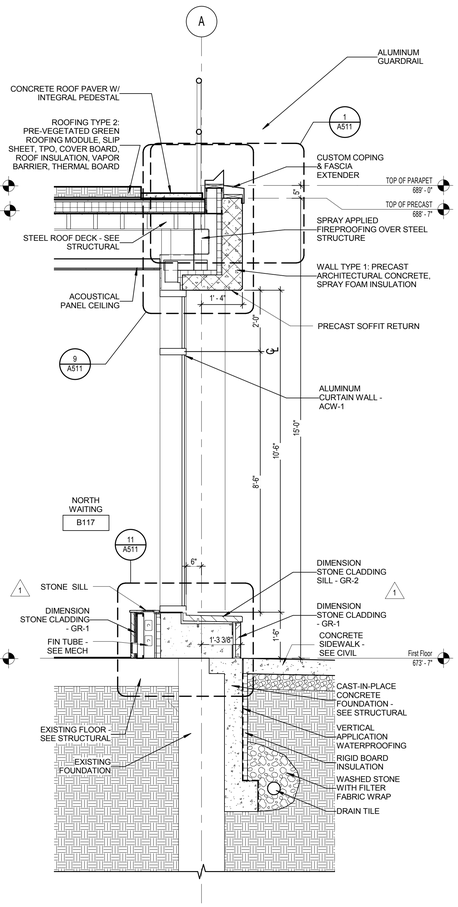
ISSUED FOR: **Construction**
DATE: **July 16, 2012**
PROJECT: **A042-06415**
SITE NO: **290**
BUILDING NO: **209**



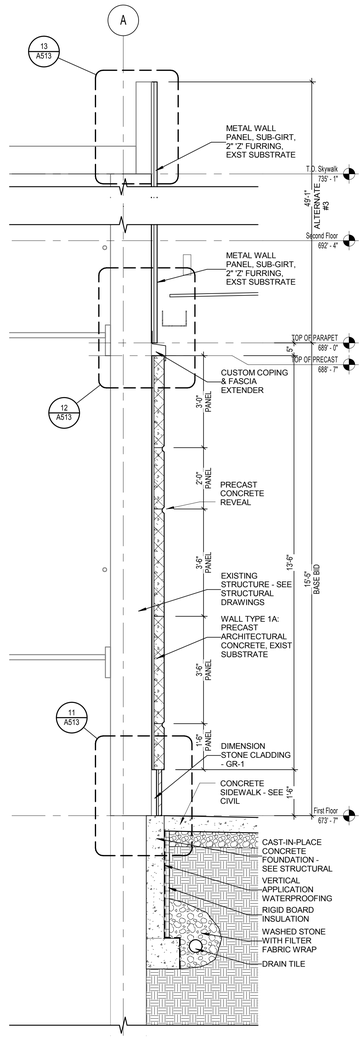
1 WALL SECTION @ 'A' LINE
SCALE: 1/2" = 1'-0"



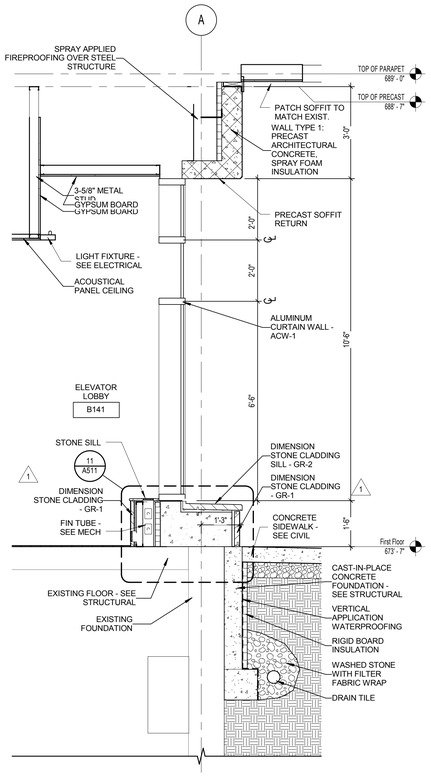
2 WALL SECTION @ DROP-OFF
SCALE: 1/2" = 1'-0"



3 WALL SECTION @ NORTH WAITING
SCALE: 1/2" = 1'-0"



4 WALL SECTION @ STAIR
SCALE: 1/2" = 1'-0"



5 WALL SECTION @ SKYWALK
SCALE: 1/2" = 1'-0"

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REVISION:

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1	Addendum No. 1	4/11/2013
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ISSUED FOR:
Construction

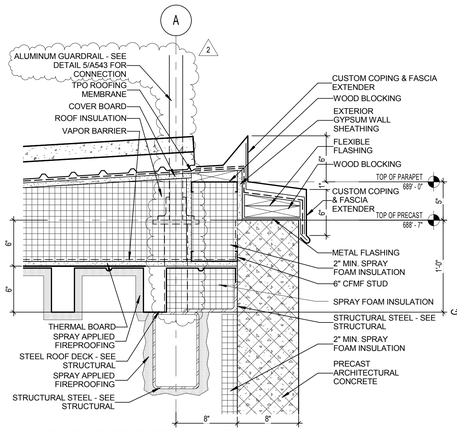
DATE:
July 16, 2012

PROJECT:
A042-06415

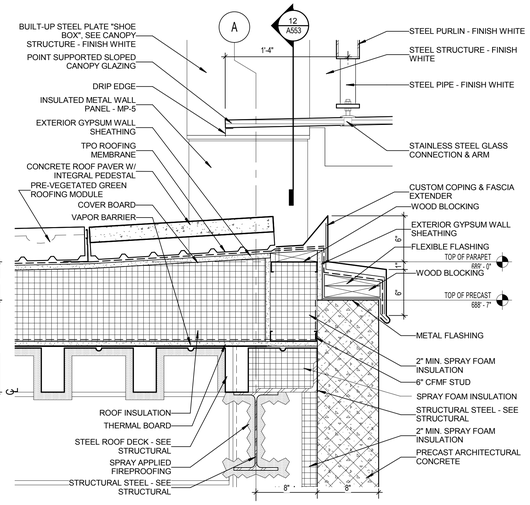
SITE NO:
290

BUILDING NO:
209

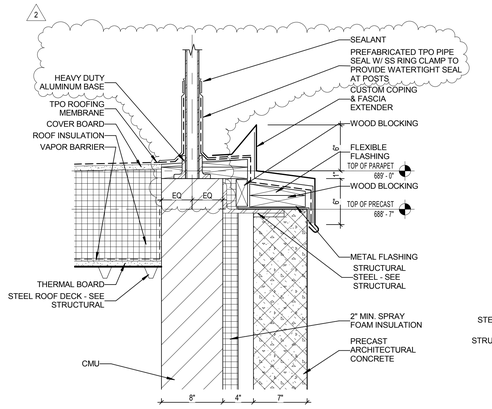
WALL SECTIONS | A501



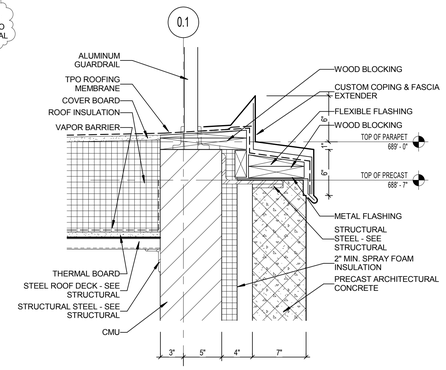
1 PARAPET DETAIL @ FASCIA
SCALE: 1 1/2" = 1'-0"



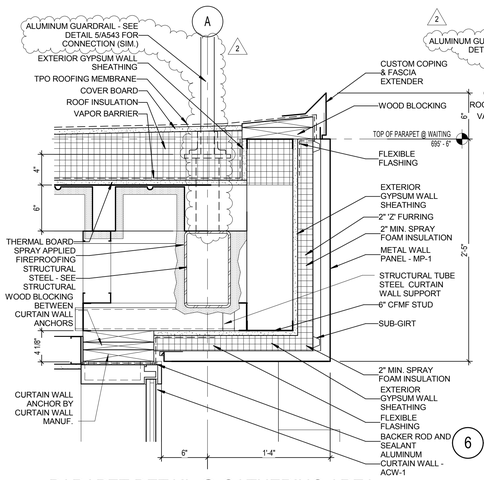
2 PARAPET DETAIL @ CANOPY
SCALE: 1 1/2" = 1'-0"



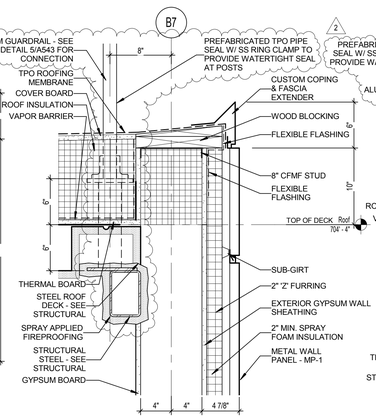
3 PARAPET DETAIL @ EAST ELEVATION
SCALE: 1 1/2" = 1'-0"



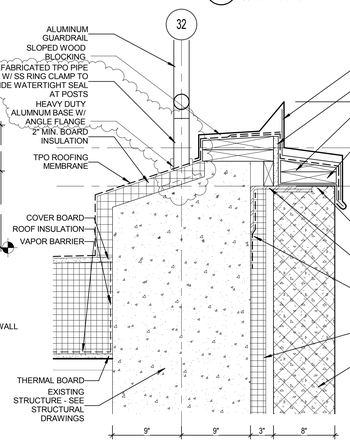
4 PARAPET DETAIL @ CMU WALL
SCALE: 1 1/2" = 1'-0"



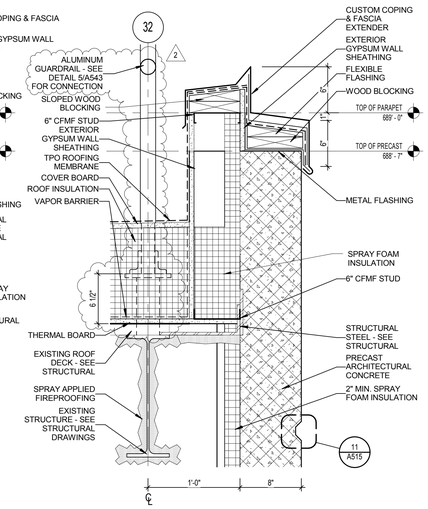
5 PARAPET DETAIL @ GATHERING AREA
SCALE: 1 1/2" = 1'-0"



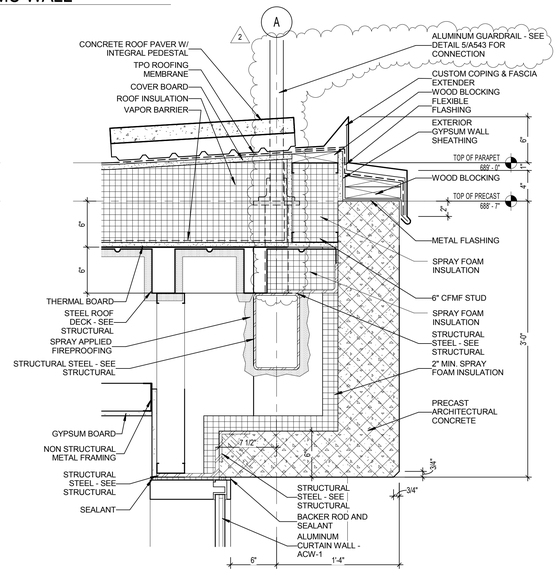
6 PARAPET DETAIL @ METAL PANEL
SCALE: 1 1/2" = 1'-0"



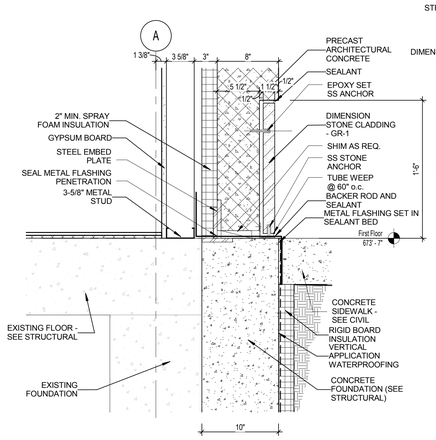
7 PARAPET DETAIL @ COLUMN 32
SCALE: 1 1/2" = 1'-0"



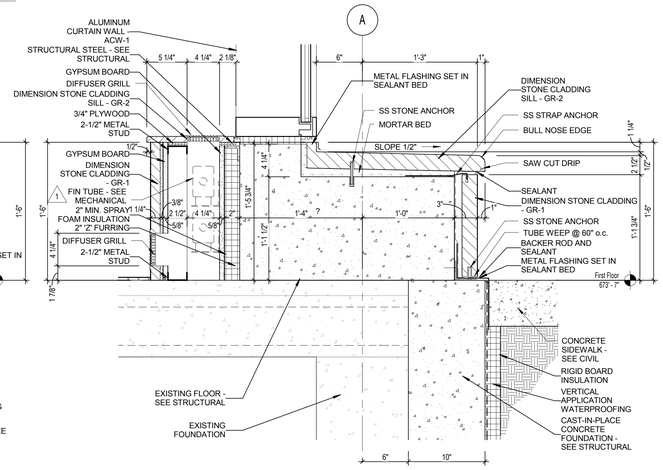
8 PARAPET DETAIL @ NORTH WALL
SCALE: 1 1/2" = 1'-0"



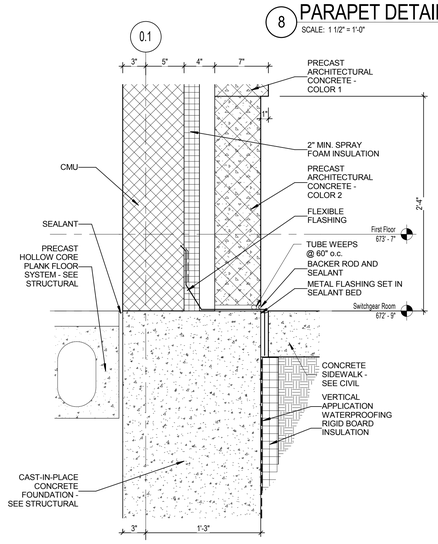
9 SOFFIT RETURN @ PRECAST
SCALE: 1 1/2" = 1'-0"



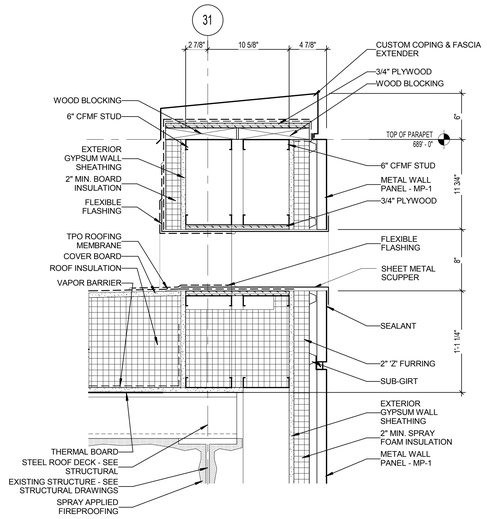
10 BASE DETAIL
SCALE: 1 1/2" = 1'-0"



11 BASE DETAIL @ GATHERING AREA
SCALE: 1 1/2" = 1'-0"



12 BASE DETAIL @ EAST ELEVATION
SCALE: 1 1/2" = 1'-0"



13 PARAPET DETAIL @ OVERFLOW SCUPPER
SCALE: 1 1/2" = 1'-0"

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ISSUED FOR:
Construction

DATE:
July 16, 2012

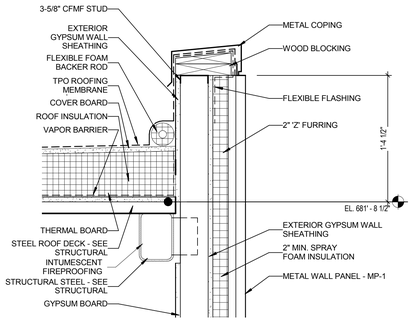
PROJECT:
A042-06415

SITE NO:
290

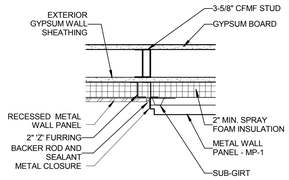
BUILDING NO:
209

PLAN & SECTION DETAILS

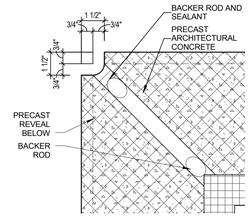
A511



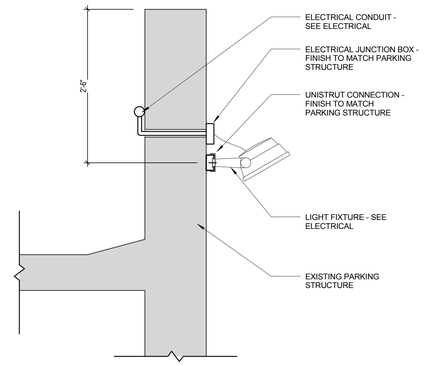
1 PARAPET DETAIL @ TRANS. BOOTH
SCALE: 1 1/2" = 1'-0"



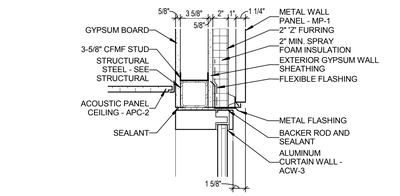
5 RECESSED PANEL DETAIL @ TRANS. BOOTH
SCALE: 1 1/2" = 1'-0"



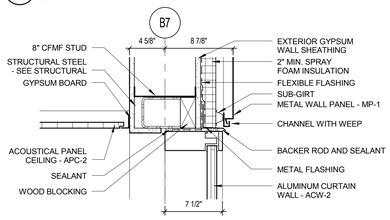
9 PRECAST CORNER DETAIL
SCALE: 3" = 1'-0"



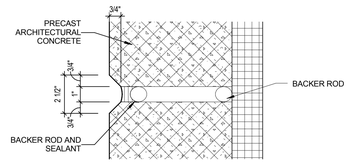
12 LIGHT @ PARKING STRUCTURE WALL
SCALE: 1" = 1'-0"



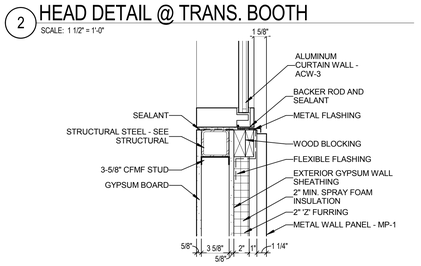
2 HEAD DETAIL @ TRANS. BOOTH
SCALE: 1 1/2" = 1'-0"



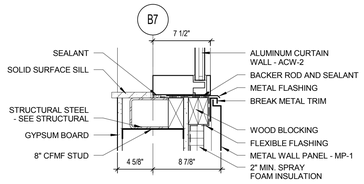
6 RIBBON WINDOW HEAD AT MTL. PANEL
SCALE: 1 1/2" = 1'-0"



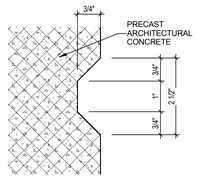
10 PRECAST JOINT DETAIL
SCALE: 3" = 1'-0"



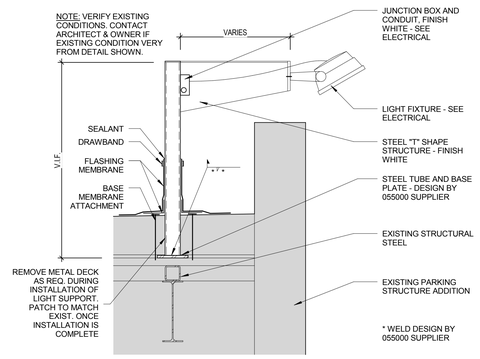
3 SILL DETAIL @ TRANS. BOOTH
SCALE: 1 1/2" = 1'-0"



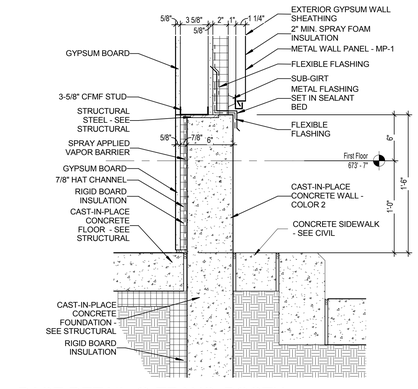
7 RIBBON WINDOW SILL AT MTL. PANEL
SCALE: 1 1/2" = 1'-0"



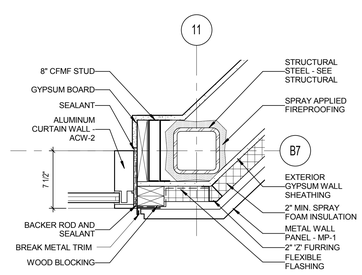
11 PRECAST REVEAL DETAIL
SCALE: 6" = 1'-0"



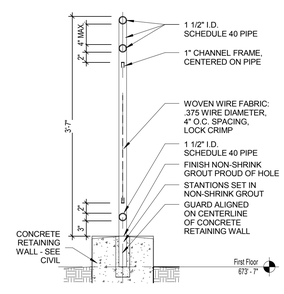
13 LIGHT @ PARKING STRUCTURE ROOF
SCALE: 1" = 1'-0"



4 BASE DETAIL @ TRANS. BOOTH
SCALE: 1 1/2" = 1'-0"

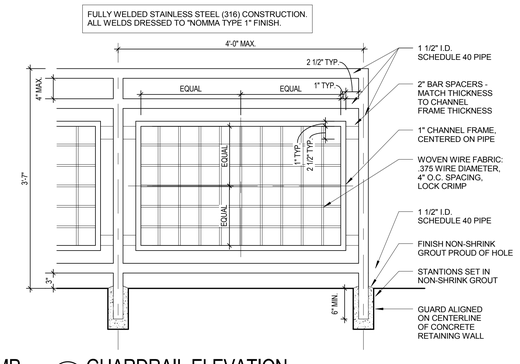


8 RIBBON WINDOW JAMB AT MTL. PANEL
SCALE: 1 1/2" = 1'-0"

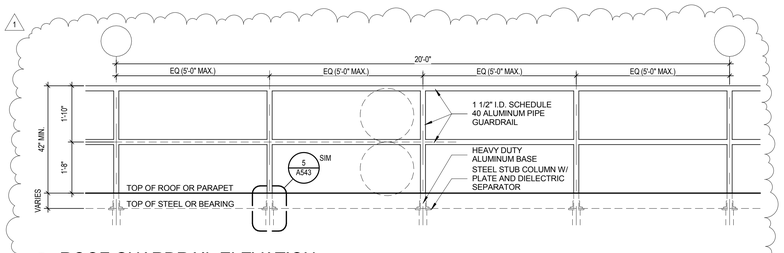


14 GUARDRAIL DETAIL @ EXTERIOR RAMP
SCALE: 1" = 1'-0"

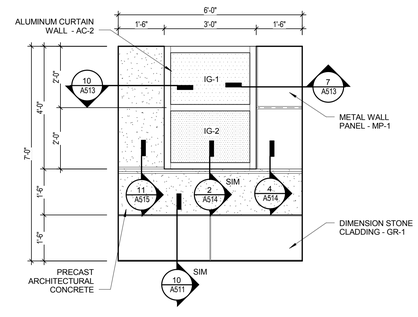
FULLY WELDED STAINLESS STEEL (316) CONSTRUCTION.
ALL WELDS DRESSED TO "NOMMA TYPE 1" FINISH.



15 GUARDRAIL ELEVATION
SCALE: 1" = 1'-0"



17 ROOF GUARDRAIL ELEVATION
SCALE: 1/2" = 1'-0"



16 MOCK-UP ELEVATION
SCALE: 1/2" = 1'-0"

PLAN & SECTION DETAILS | A515

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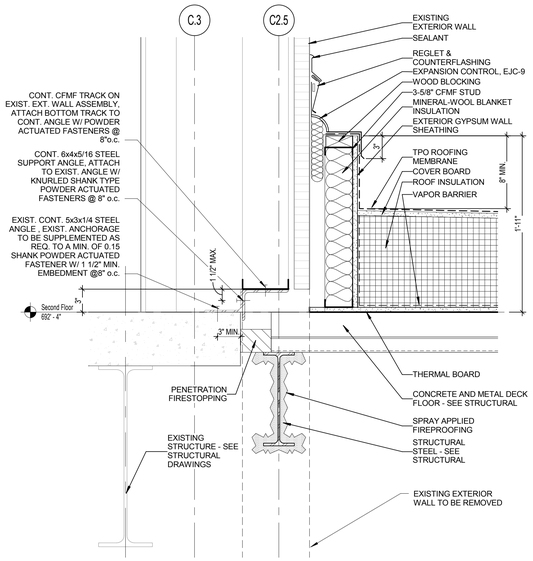
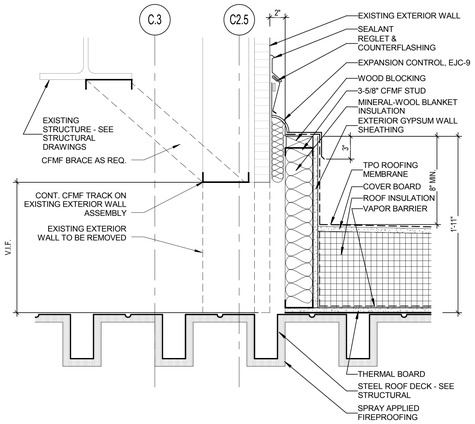
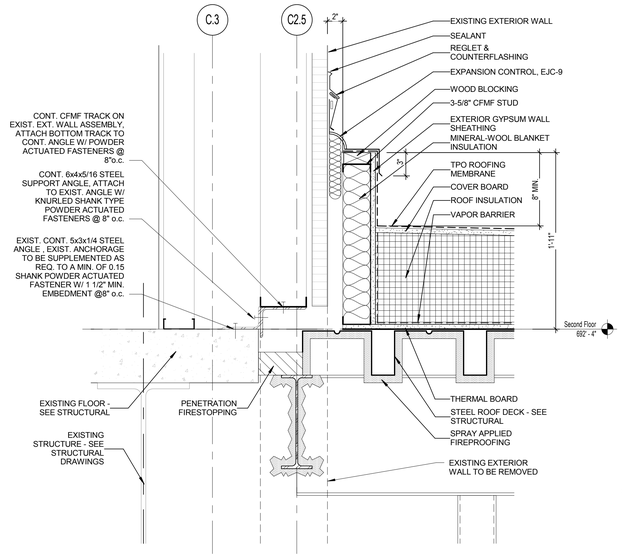


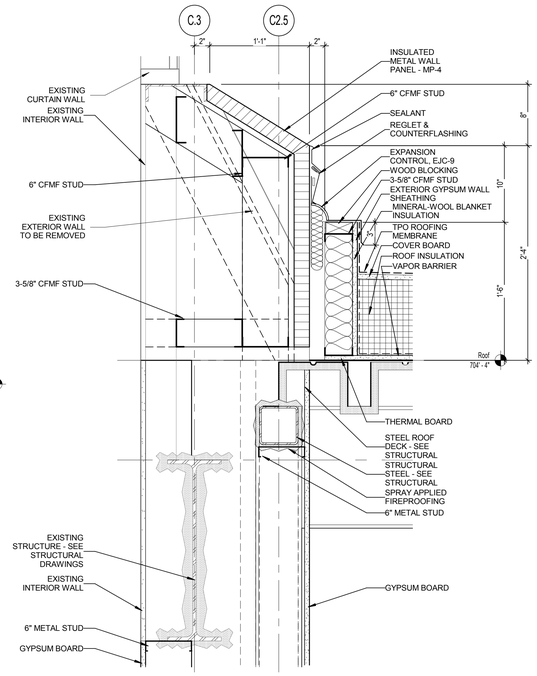
1 ROOF EDGE @ EXIST. BUILDING CENTER
SCALE: 1 1/2" = 1'-0"



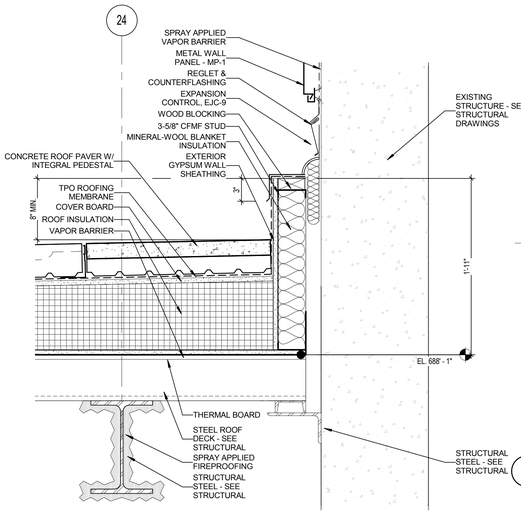
2 ROOF EDGE @ EXIST. BUILDING NORTH
SCALE: 1 1/2" = 1'-0"



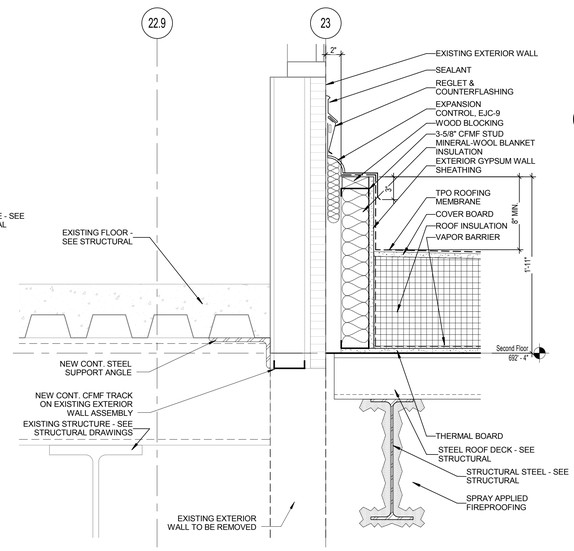
3 ROOF EDGE @ SKYWALK COLUMN C.3
SCALE: 1 1/2" = 1'-0"



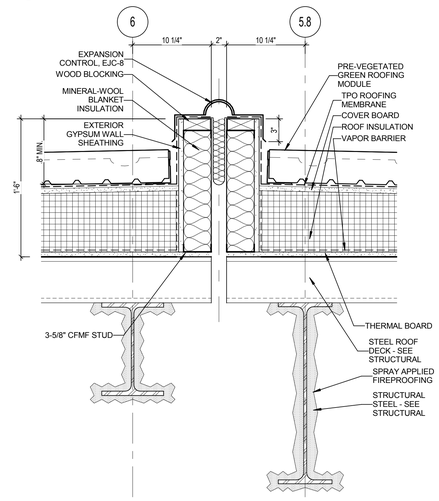
4 ROOF DETAIL @ EXIST. WALL
SCALE: 1 1/2" = 1'-0"



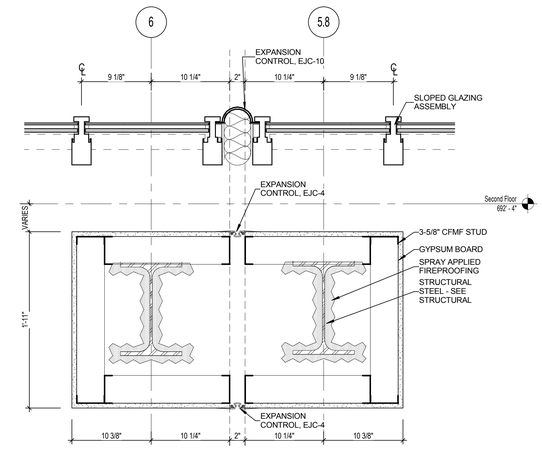
5 ROOF CURB @ STAIR TOWER
SCALE: 1 1/2" = 1'-0"



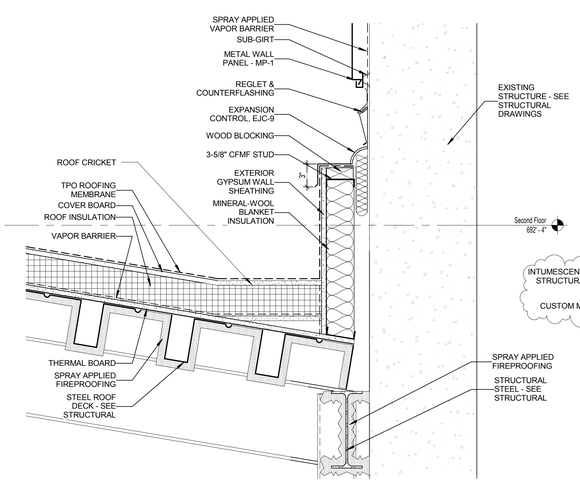
6 ROOF DETAIL @ EXIST. CONNECTOR
SCALE: 1 1/2" = 1'-0"



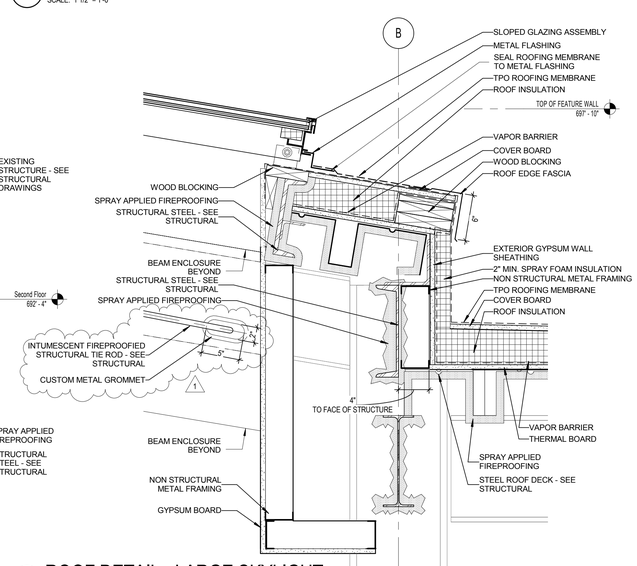
7 ROOF EXPANSION JOINT DETAIL @ GREEN ROOF
SCALE: 1 1/2" = 1'-0"



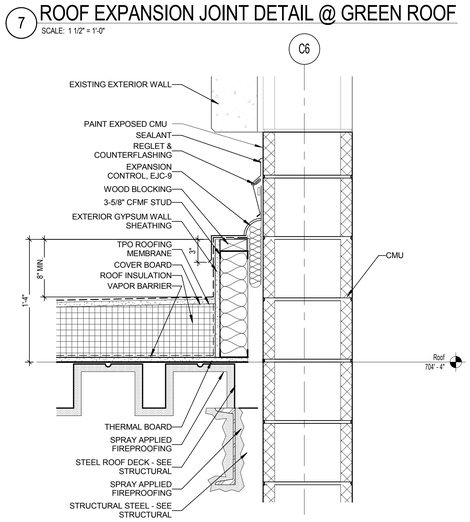
8 ROOF EXPANSION JOINT DETAIL @ SKYLIGHT
SCALE: 1 1/2" = 1'-0"



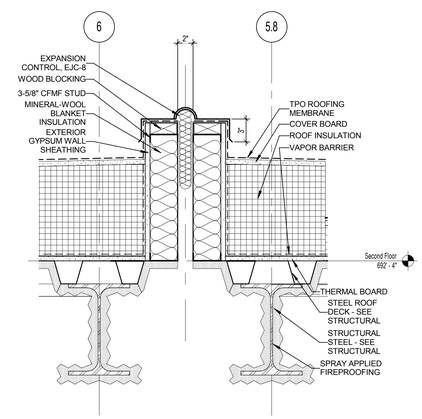
9 ROOF CURB @ STAIR TOWER CRICKET
SCALE: 1 1/2" = 1'-0"



10 ROOF DETAIL - LARGE SKYLIGHT
SCALE: 1 1/2" = 1'-0"



11 ROOF EXPANSION JOINT DETAIL @ STAIR S-9
SCALE: 1 1/2" = 1'-0"



12 ROOF EXPANSION JOINT DETAIL
SCALE: 1 1/2" = 1'-0"

ROOF DETAILS

A542

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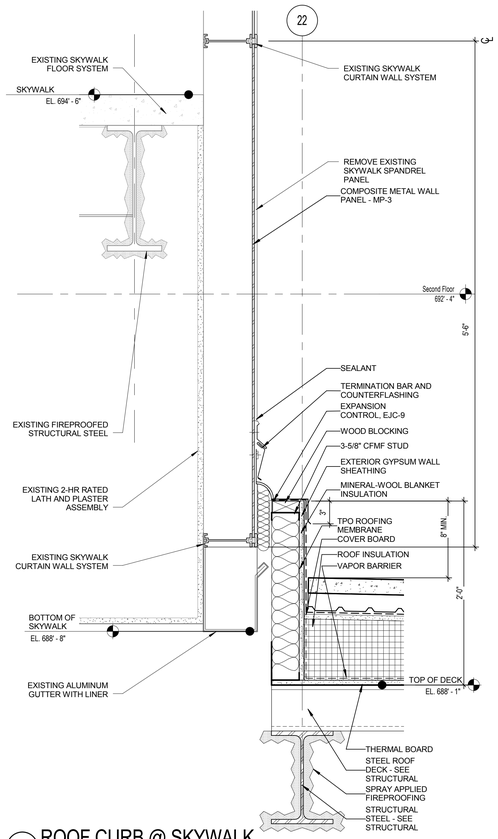
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST. - 2ND FLOOR MILWAUKEE, WI 53208

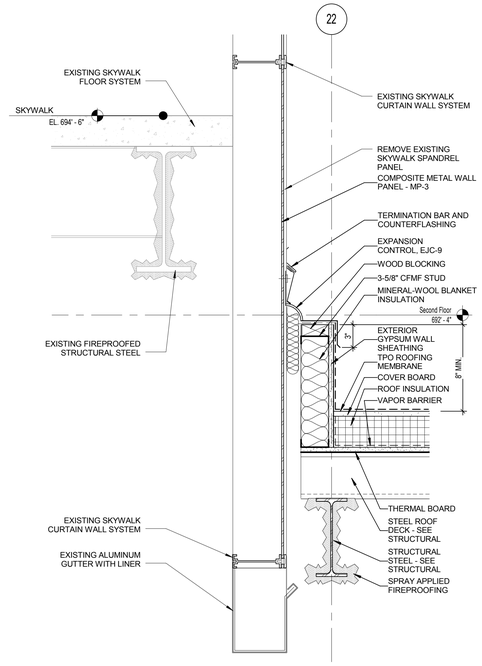
REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 2	4/24/2013

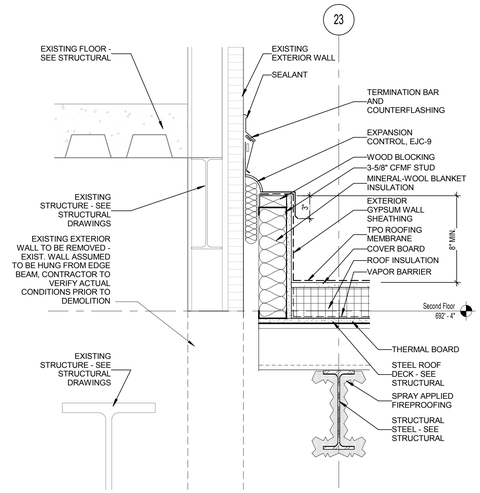
ISSUED FOR: **Construction**
DATE: **July 16, 2012**
PROJECT: **A042-06415**
SITE NO: **290**
BUILDING NO: **209**



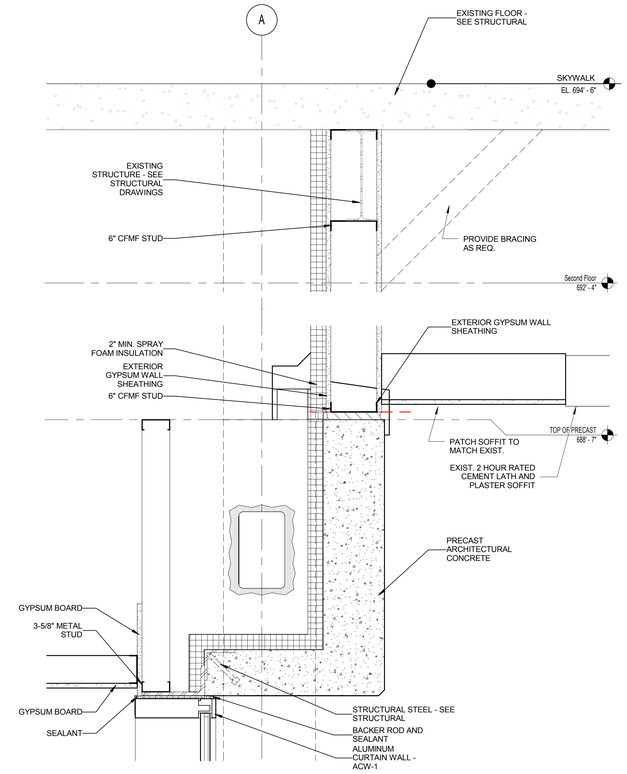
1 ROOF CURB @ SKYWALK
SCALE: 1 1/2" = 1'-0"



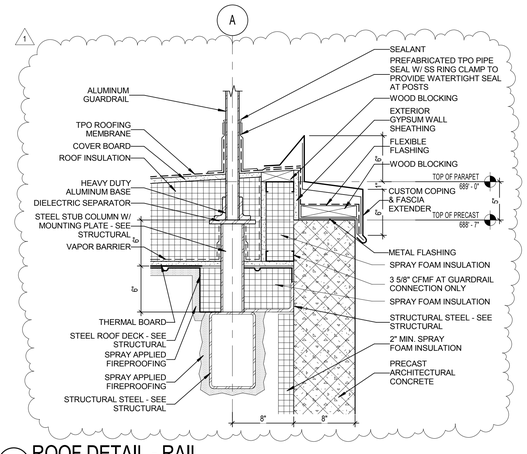
2 ROOF TRANSITION @ SKYBRIDGE CURTAINWALL
SCALE: 1 1/2" = 1'-0"



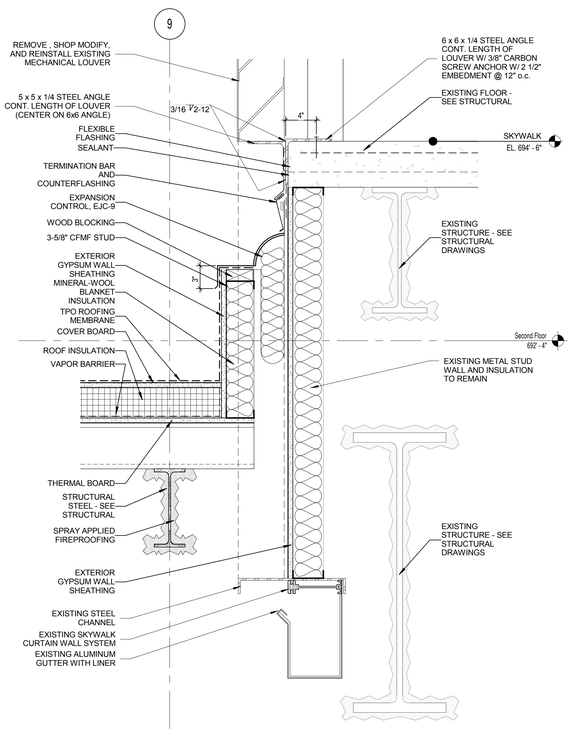
3 ROOF EDGE @ SKYWALK SLOPED ROOF
SCALE: 1 1/2" = 1'-0"



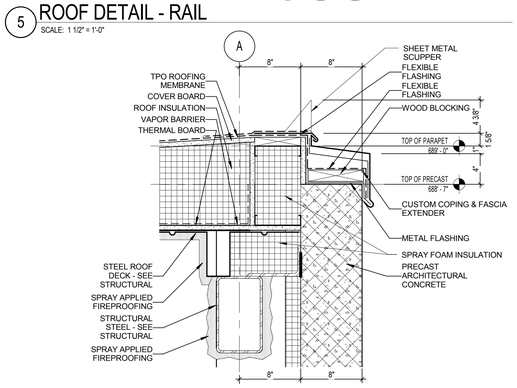
4 PARAPET DETAIL @ SKYWALK
SCALE: 1 1/2" = 1'-0"



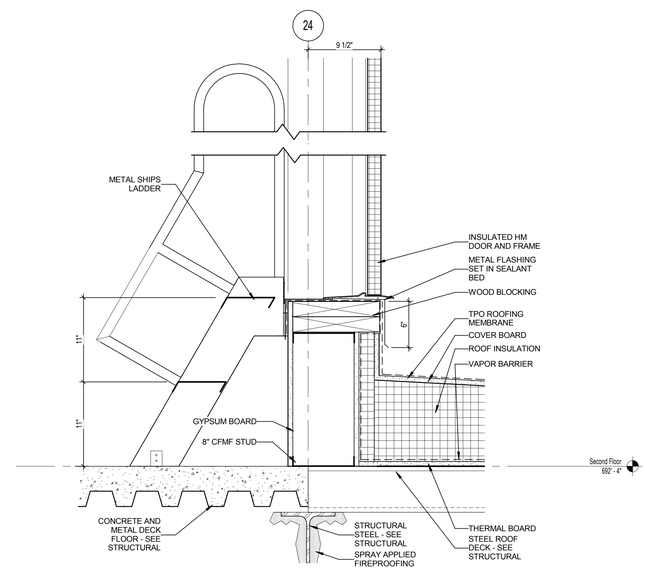
5 ROOF DETAIL - RAIL
SCALE: 1 1/2" = 1'-0"



7 ROOF DETAIL @ SKYWALK LOUVER
SCALE: 1 1/2" = 1'-0"



6 ROOF DETAIL @ GRAVEL STOP SCUPPER
SCALE: 1 1/2" = 1'-0"



8 SILL DETAIL @ PENTHOUSE DOOR
SCALE: 1 1/2" = 1'-0"

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REVISION:

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1	Addendum No. 2	4/24/2013

ISSUED FOR:
Construction

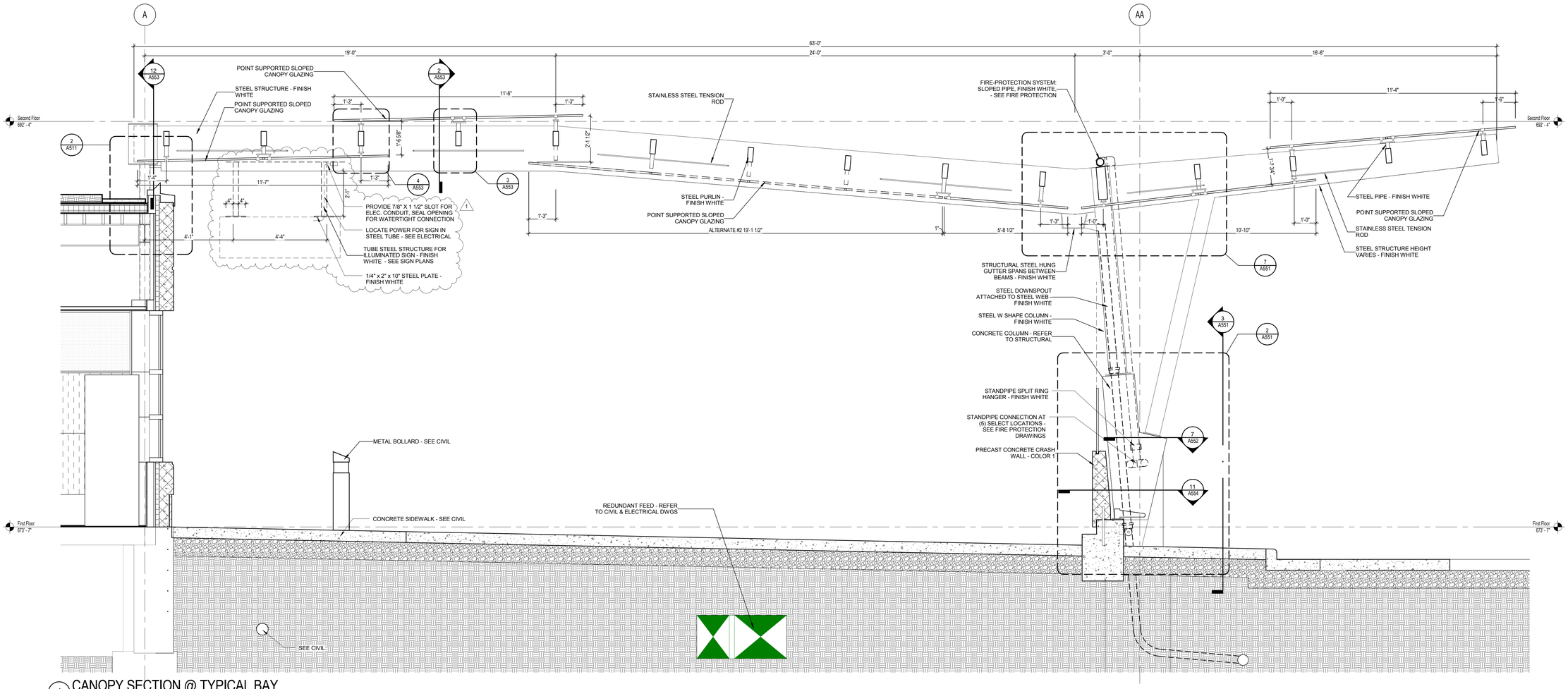
DATE:
July 16, 2012

PROJECT:
A042-06415

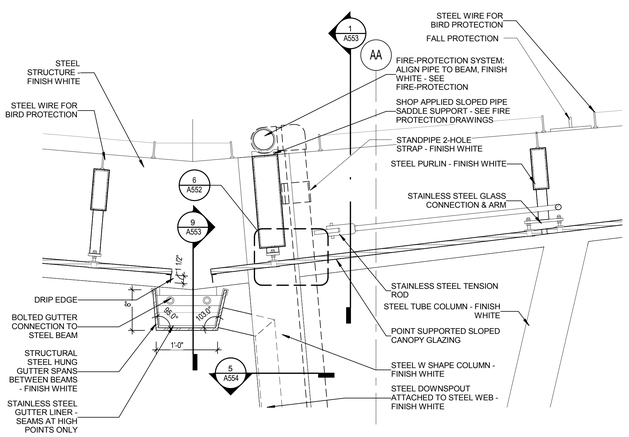
SITE NO:
290

BUILDING NO:
209

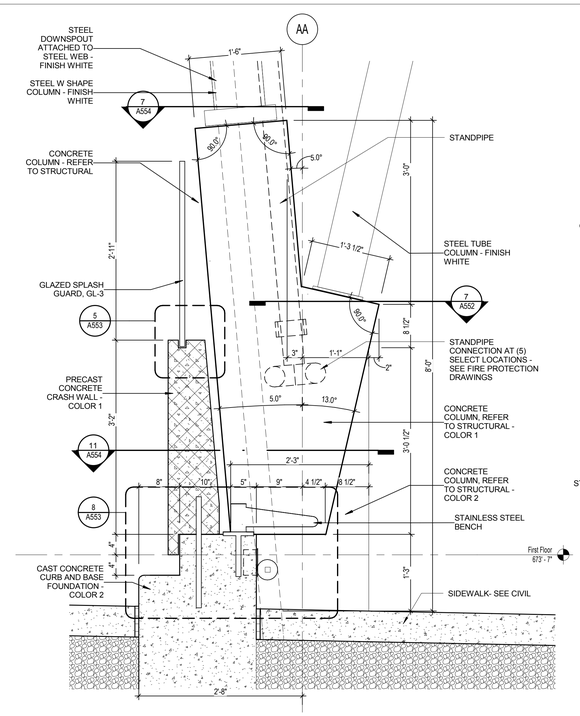
ROOF DETAILS | A543



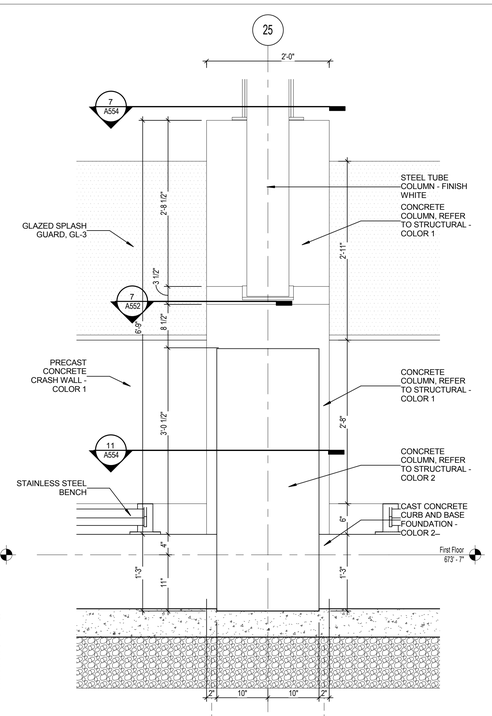
1 CANOPY SECTION @ TYPICAL BAY
SCALE: 1/2" = 1'-0"



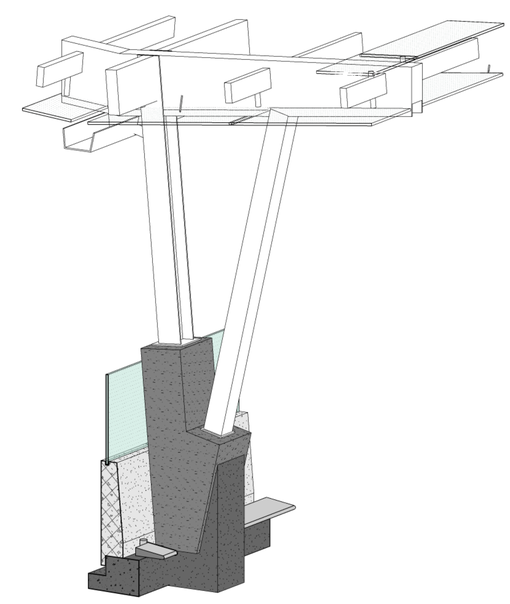
7 CANOPY @ UPPER COLUMN
SCALE: 1" = 1'-0"



2 CANOPY SECTION @ TYPICAL COLUMN
SCALE: 1" = 1'-0"



3 CANOPY SECTION @ COLUMN ELEVATION
SCALE: 1" = 1'-0"



6 Canopy Column 3D
SCALE: NOT TO SCALE

CANOPY SECTIONS & DETAILS

A551

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No.	DESCRIPTION	DATE
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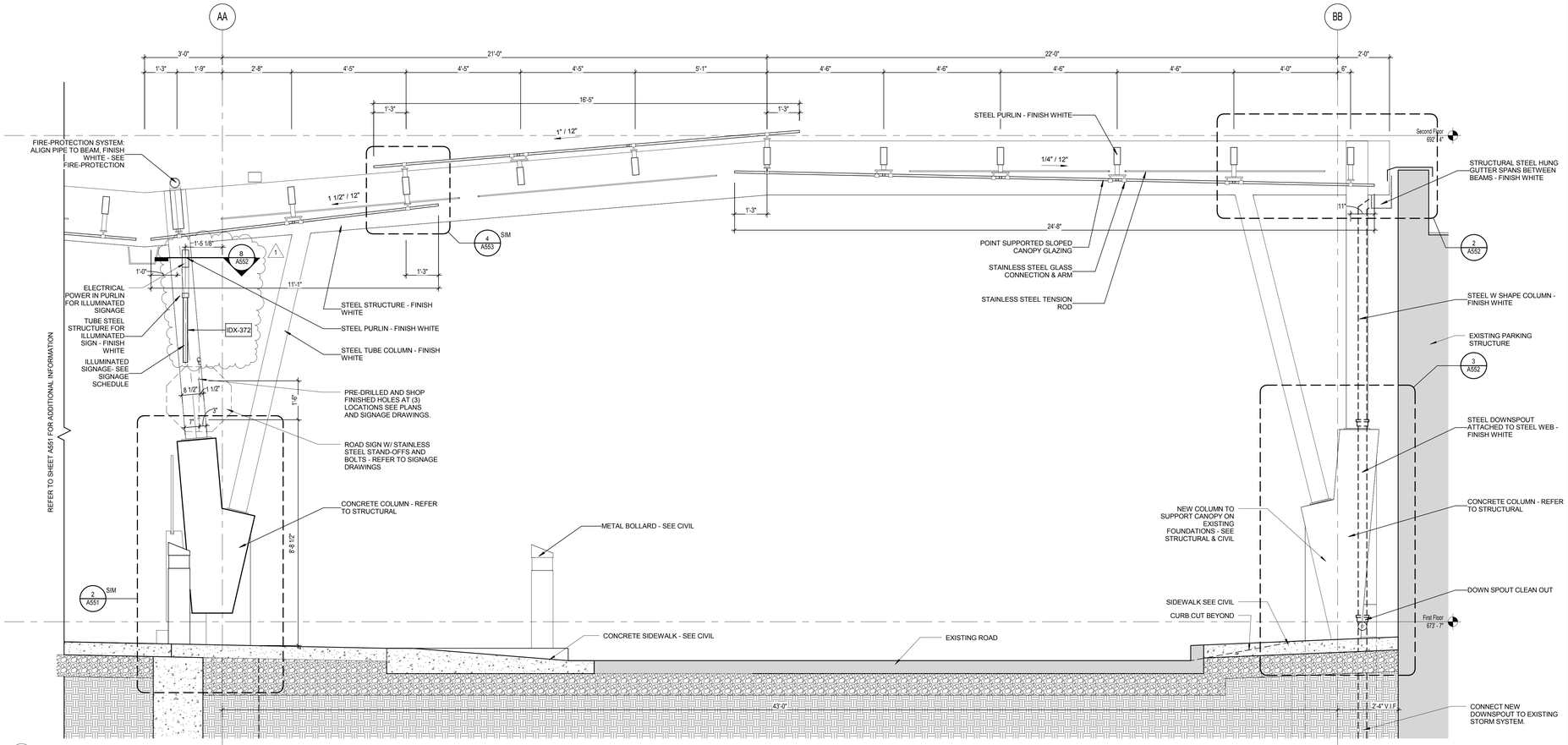
ISSUED FOR:
Construction

DATE:
July 16, 2012

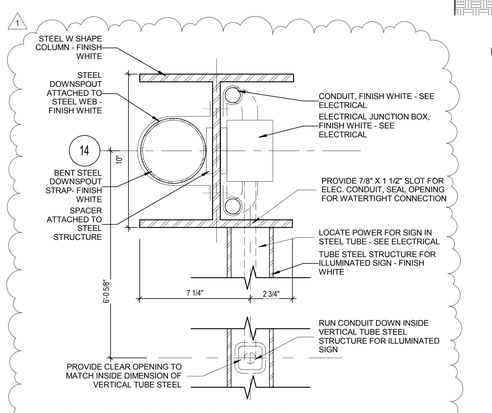
PROJECT:
A042-06415

SITE NO:
290

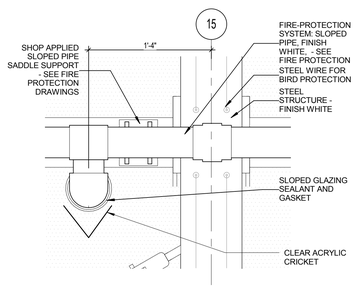
BUILDING NO:
209



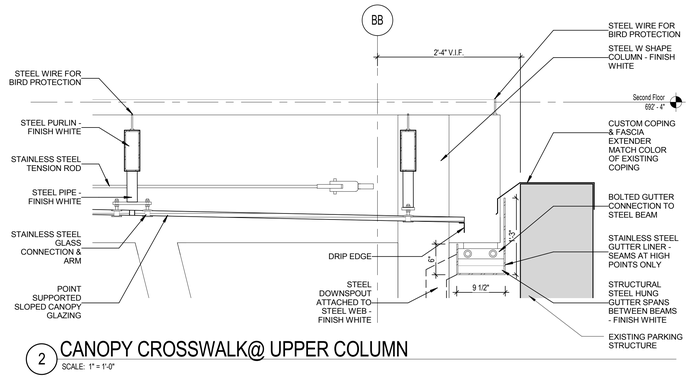
1 CANOPY SECTION @ CROSSWALK
SCALE: 1/2" = 1'-0"



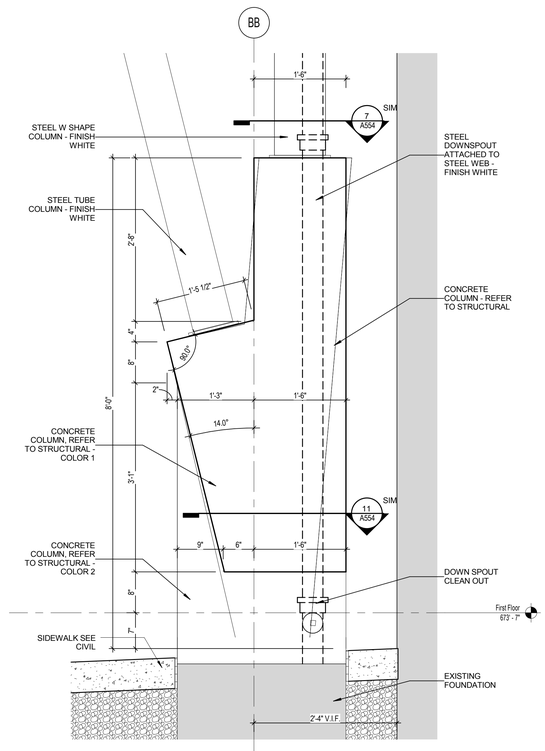
8 CANOPY @ SIGN SUPPORT
SCALE: 3" = 1'-0"



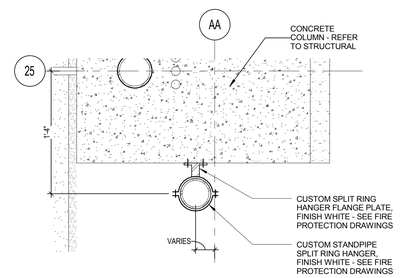
5 CANOPY @ FIRE PROTECTION PLAN DETAIL
SCALE: 1 1/2" = 1'-0"



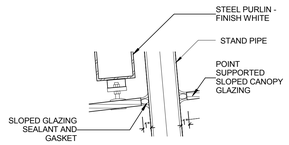
2 CANOPY CROSSWALK@ UPPER COLUMN
SCALE: 1" = 1'-0"



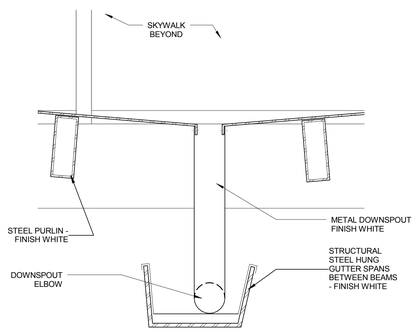
3 CANOPY @ CROSSWALK COLUMN
SCALE: 1" = 1'-0"



7 CANOPY @ STANDPIPE CONNECTION
SCALE: 1 1/2" = 1'-0"



6 CANOPY @ STANDPIPE SECTION
SCALE: 1 1/2" = 1'-0"



4 CANOPY @ SKYWALK DOWNSPOUT
SCALE: 1 1/2" = 1'-0"

CANOPY SECTIONS & DETAILS

A552

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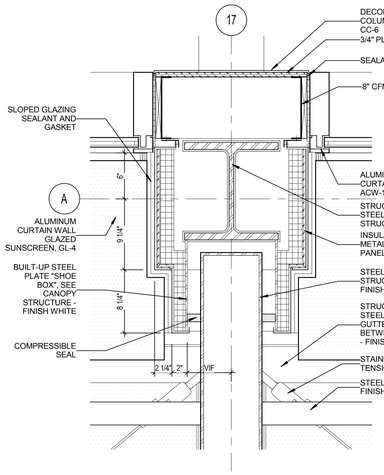
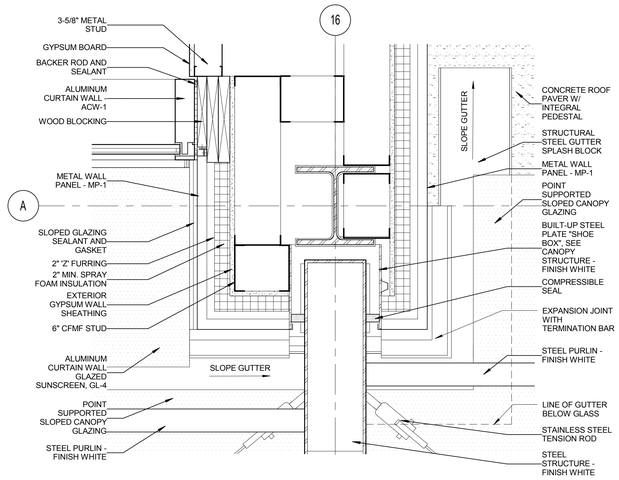
REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 2	4/24/2013

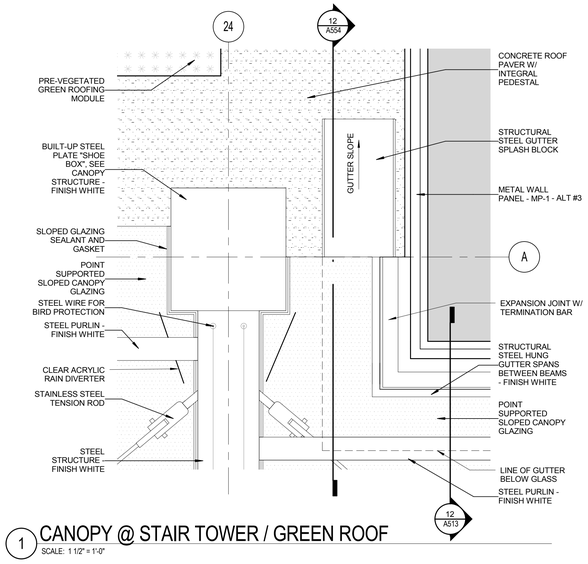
ISSUED FOR: **Construction**
DATE: **July 16, 2012**
PROJECT: **A042-06415**
SITE NO: **290**
BUILDING NO: **209**



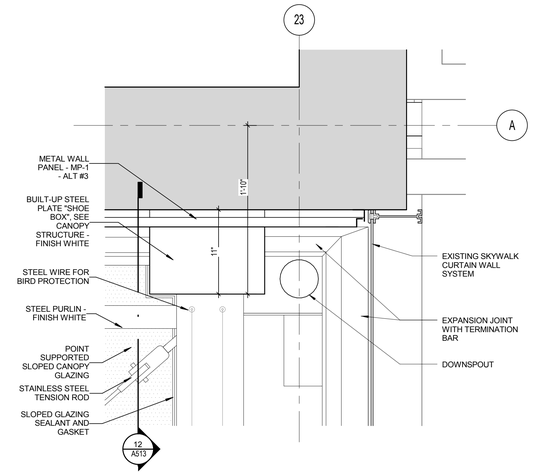
3 CANOPY @ GATHERING AREA COLUMN
SCALE: 1 1/2" = 1'-0"



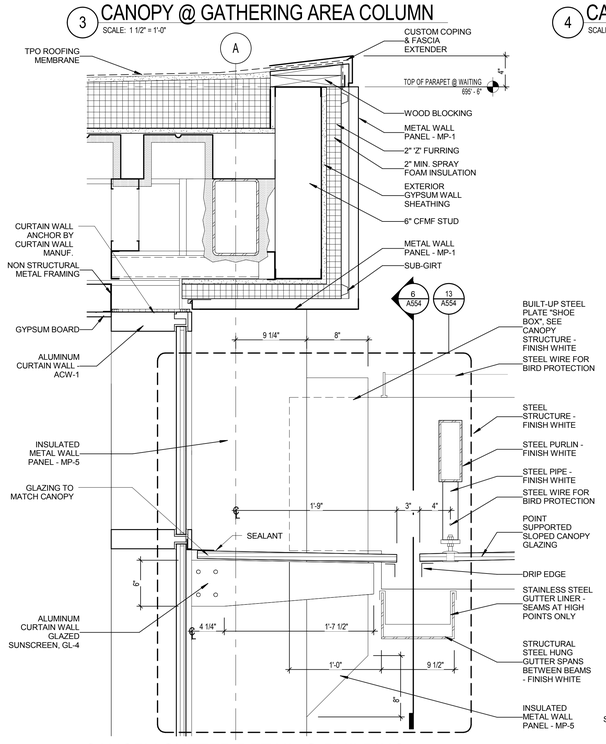
4 CANOPY @ GATHERING / GREEN ROOF
SCALE: 1 1/2" = 1'-0"



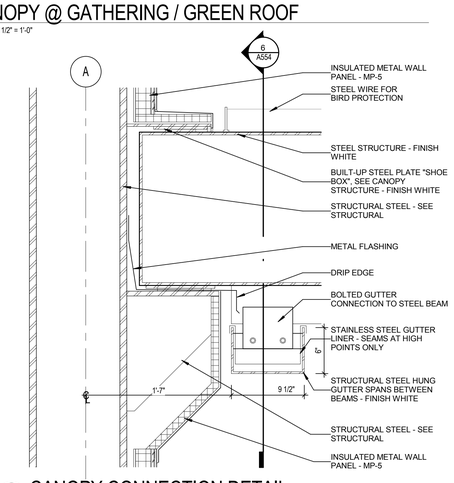
1 CANOPY @ STAIR TOWER / GREEN ROOF
SCALE: 1 1/2" = 1'-0"



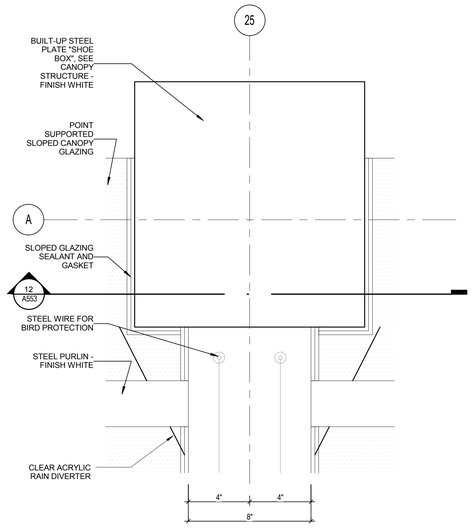
2 CANOPY @ STAIR TOWER / SKYWALK
SCALE: 1 1/2" = 1'-0"



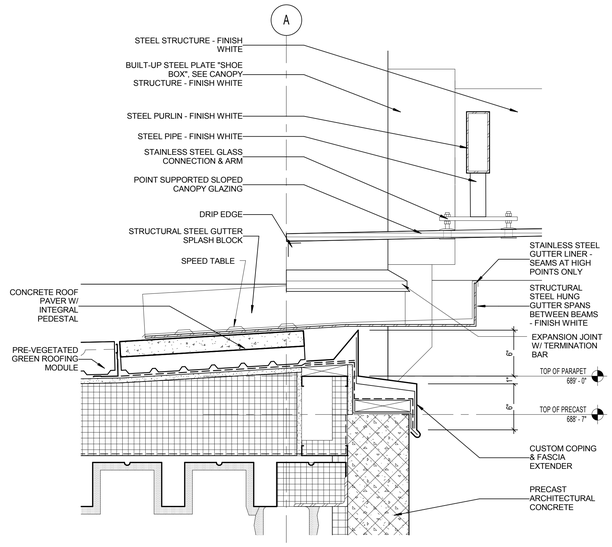
10 CANOPY GUTTER DETAIL @ BUILDING
SCALE: 1 1/2" = 1'-0"



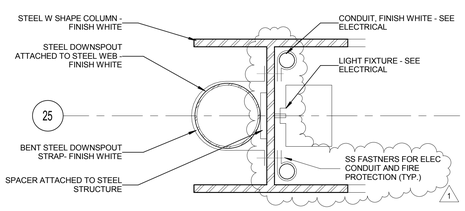
13 CANOPY CONNECTION DETAIL
SCALE: 1 1/2" = 1'-0"



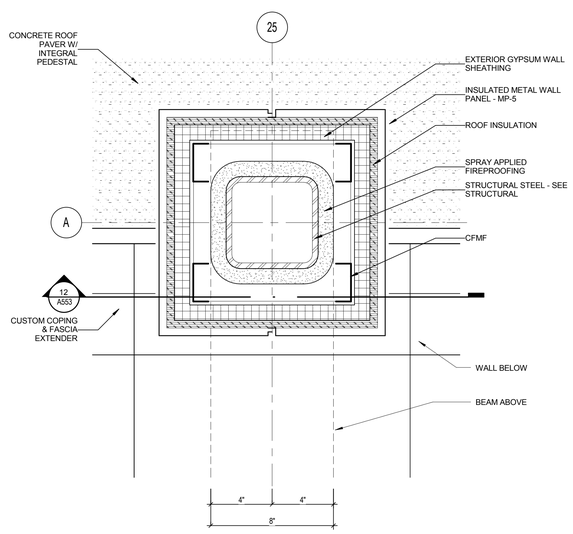
8 CANOPY @ BUILDING CONNECTION PLAN
SCALE: 3" = 1'-0"



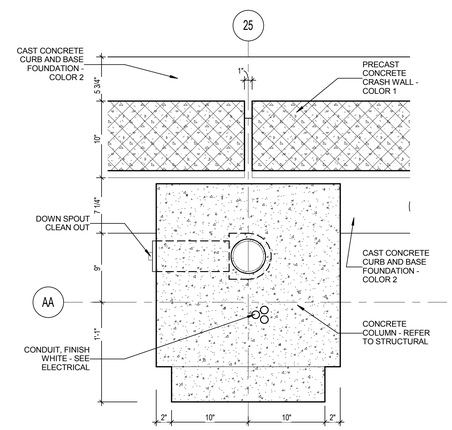
12 CANOPY GUTTER DETAIL @ STAIR TOWER
SCALE: 1 1/2" = 1'-0"



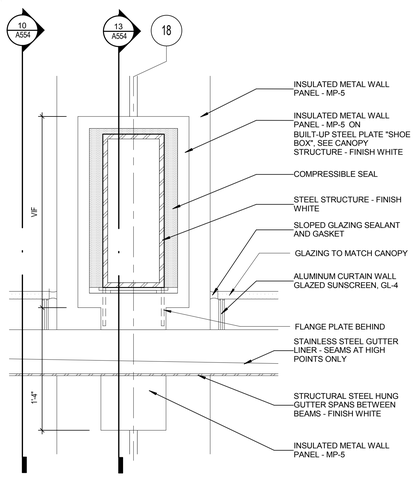
5 CANOPY @ COLUMN UPPER DETAIL
SCALE: 3" = 1'-0"



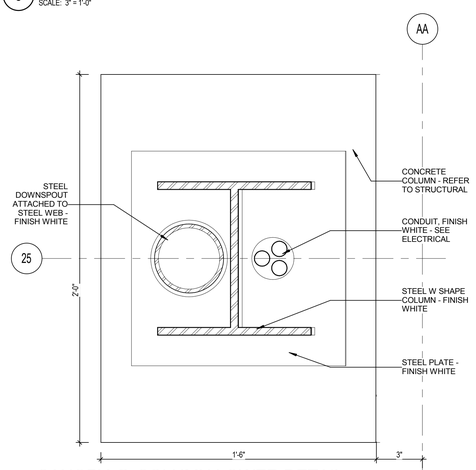
9 CANOPY @ BUILDING CONNECTION
SCALE: 3" = 1'-0"



11 CANOPY @ CONCRETE COLUMN PLAN
SCALE: 1 1/2" = 1'-0"



6 CANOPY CONNECTION ELEVATION @ BUILDING
SCALE: 1 1/2" = 1'-0"



7 CANOPY @ COLUMN LOWER DETAIL
SCALE: 3" = 1'-0"

CANOPY SECTIONS & DETAILS

A554

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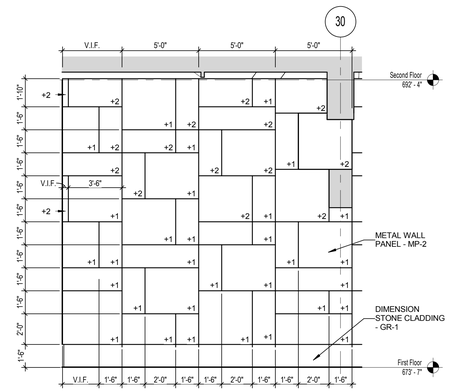
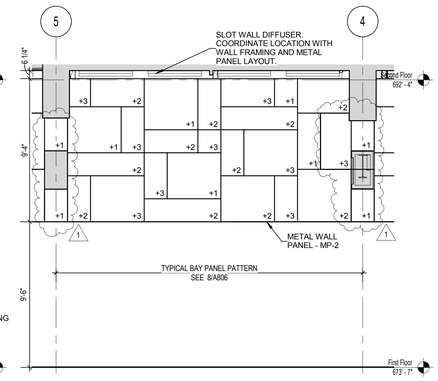
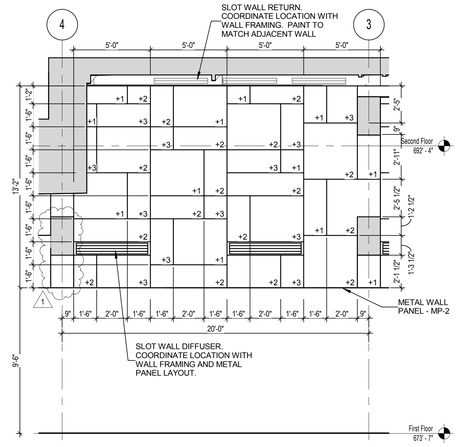
PROJECT: **A042-06415**
SITE NO: **290**
BUILDING NO: **209**



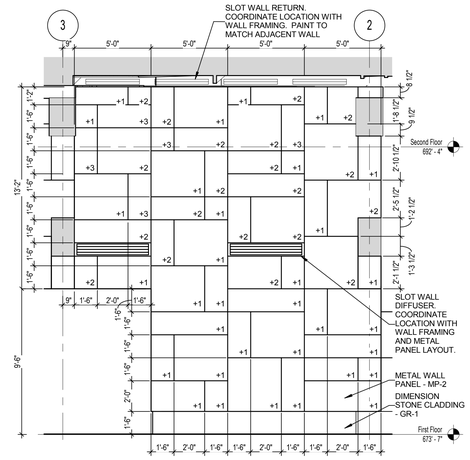
1 EAST FEATURE WALL ELEVATION - 30/31
SCALE: 1/4" = 1'-0"



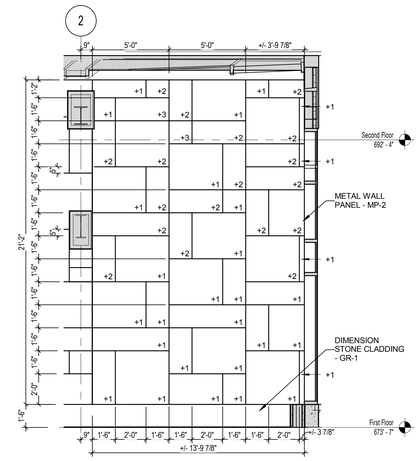
2 EAST FEATURE WALL ELEVATION - 4/5
SCALE: 1/4" = 1'-0"



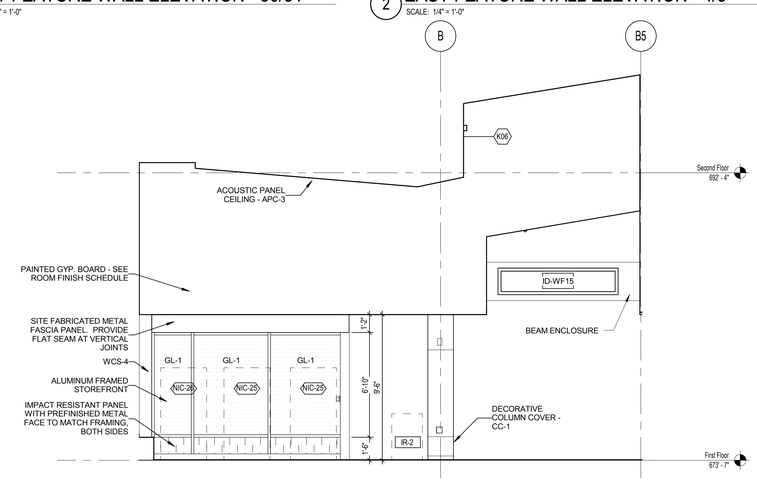
3 EAST FEATURE WALL ELEVATION - 3/4
SCALE: 1/4" = 1'-0"



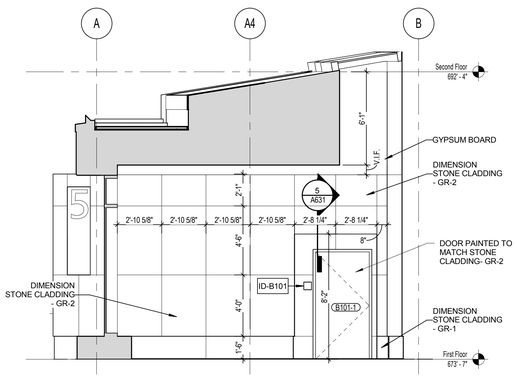
4 EAST FEATURE WALL ELEVATION - 2/3
SCALE: 1/4" = 1'-0"



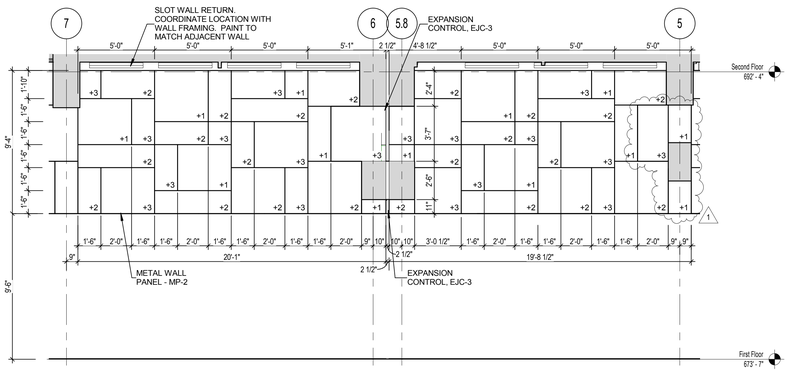
5 EAST FEATURE WALL ELEVATION - 1/2
SCALE: 1/4" = 1'-0"



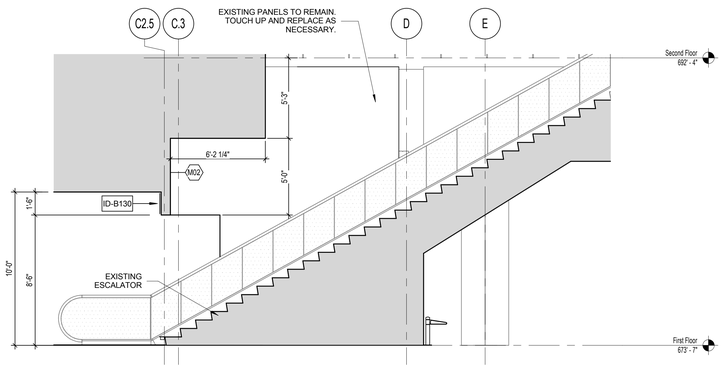
6 GATHERING B147 / ENTRY - SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



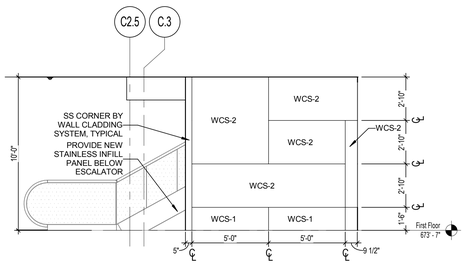
7 NORTH ELEVATION @ WAITING B117
SCALE: 1/4" = 1'-0"



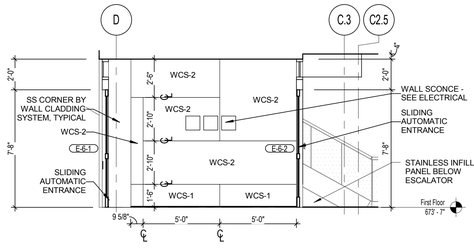
8 EAST FEATURE WALL ELEVATION - 5/7
SCALE: 1/4" = 1'-0"



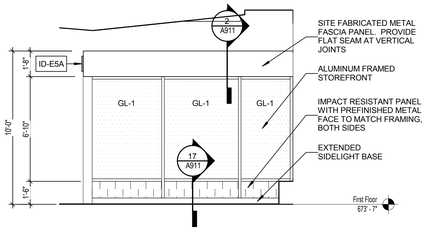
9 SOUTH ELEVATION @ NORTH ESCALATOR
SCALE: 1/4" = 1'-0"



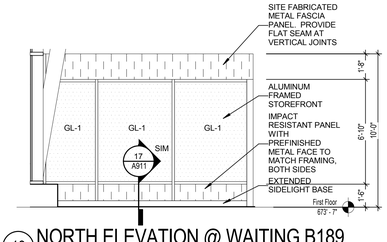
10 NORTH ELEVATION @ CAROUSEL 4
SCALE: 1/4" = 1'-0"



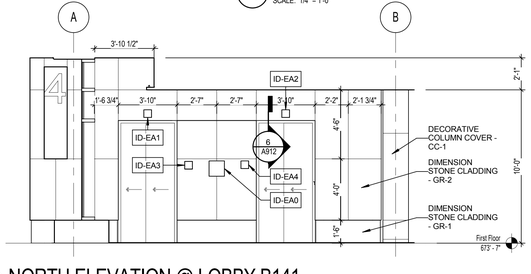
11 ENTRY 6/7 SOUTH ELEVATION
SCALE: 1/4" = 1'-0"



12 ENTRY 5 SIDE ELEVATION
SCALE: 1/4" = 1'-0"



13 NORTH ELEVATION @ WAITING B189
SCALE: 1/4" = 1'-0"



14 NORTH ELEVATION @ LOBBY B141
SCALE: 1/4" = 1'-0"

GENERAL NOTES

1. MOVABLE WALL SYSTEM (MWS) PANELS ARE HIDDEN BY COLUMNS IN ELEVATIONS. REFER TO PLANS.

2. EQUIPMENT SHOWN DASHED FOR CLARITY. REFER TO SHEETS A731-A744 FOR SIGNAGE AND EQUIPMENT.

WALL CLADDING SYSTEM PANEL TYPES

FOR REFERENCE ONLY. REFER TO SECTION 09-77-00 WALL CLADDING SYSTEMS FOR ADDITIONAL INFORMATION.

WCS-1 : STAINLESS STEEL PANEL
WCS-4 : CORIAN PANEL
WCS-2 : TRESPA PANEL
WCS-5 : TEMPERED GLASS
WCS-3 : SIGNAGE PANEL, SEE 18/A911

INTERIOR ELEVATIONS

A807

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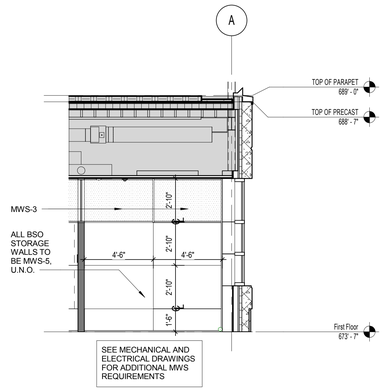
Baggage Claim Building Remodel
5300 S. Howell Ave. Milwaukee, WI 53207

Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

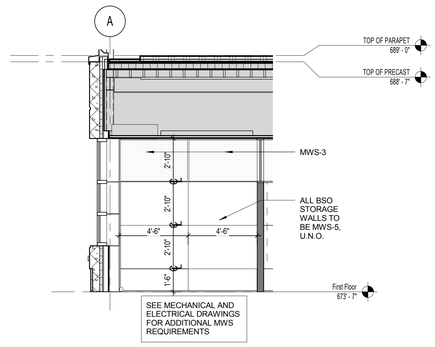
REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 2	4/24/2013

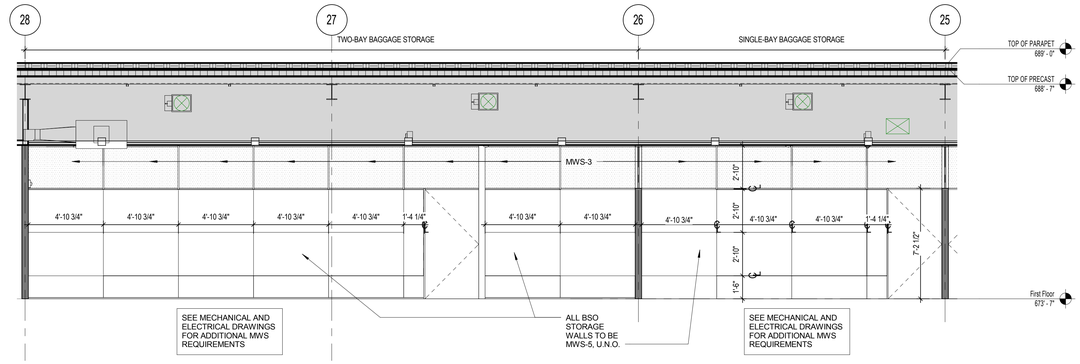
ISSUED FOR: **Construction**
DATE: **July 16, 2012**
PROJECT: **A042-06415**
SITE NO: **290**
BUILDING NO: **209**



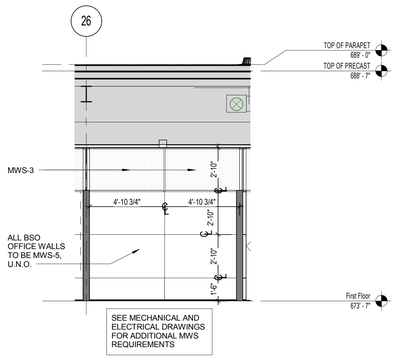
1 MWS - TYPICAL SOUTH STORAGE ELEVATION
SCALE: 1/4" = 1'-0"



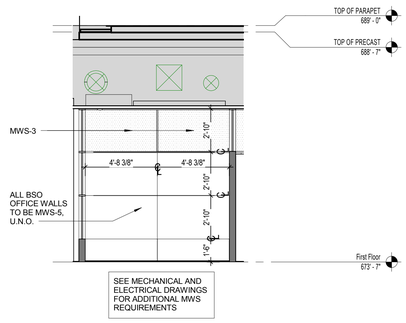
2 MWS - TYPICAL NORTH STORAGE ELEVATION
SCALE: 1/4" = 1'-0"



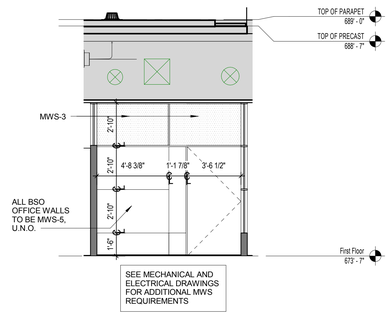
3 MWS - TYPICAL EAST STORAGE ELEVATION
SCALE: 1/4" = 1'-0"



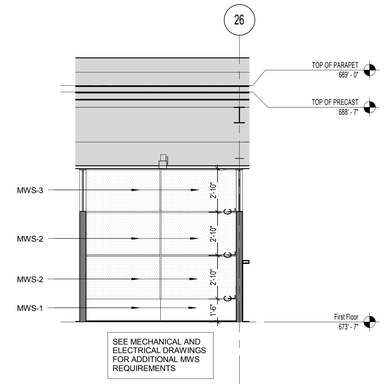
4 MWS - TYPICAL WEST OFFICE ELEVATION
SCALE: 1/4" = 1'-0"



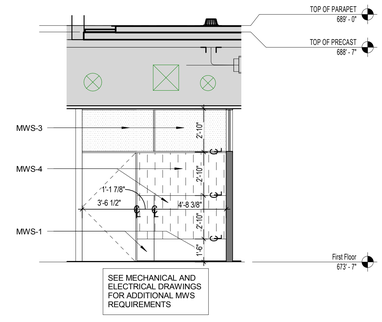
5 MWS - TYPICAL SOUTH OFFICE ELEVATION
SCALE: 1/4" = 1'-0"



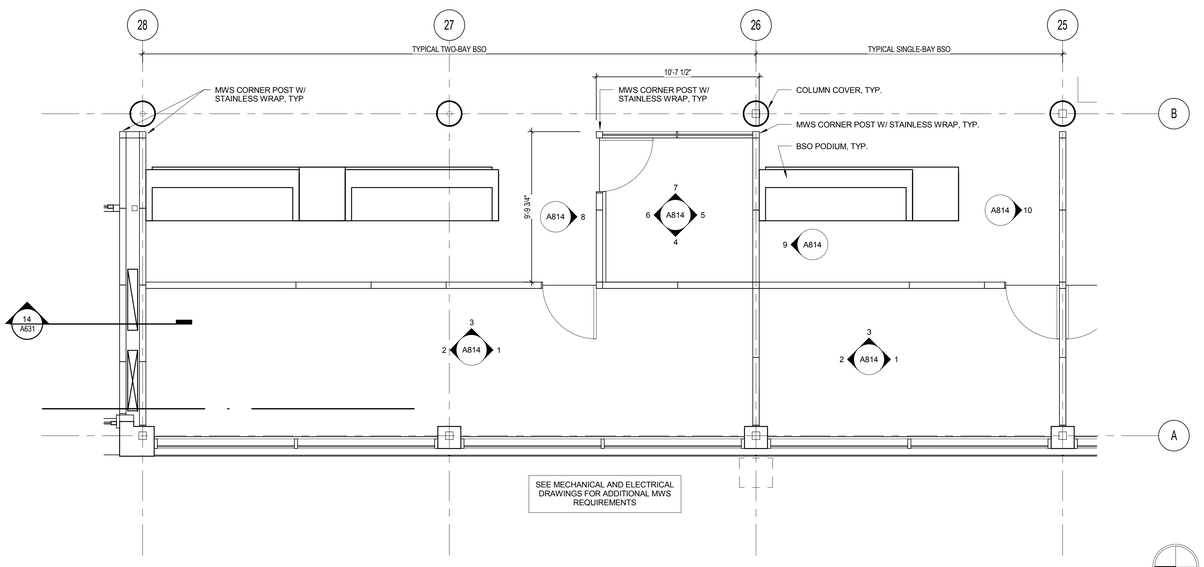
6 MWS - TYPICAL NORTH OFFICE ELEVATION
SCALE: 1/4" = 1'-0"



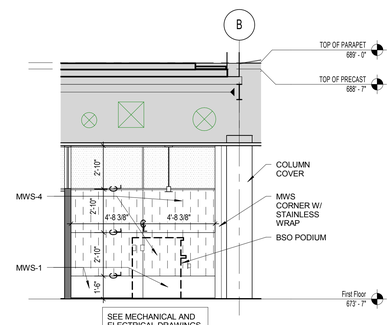
7 MWS - TYPICAL EAST OFFICE ELEVATION
SCALE: 1/4" = 1'-0"



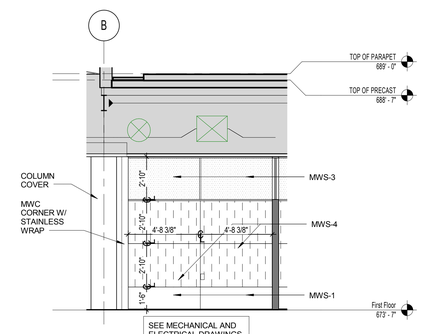
8 MWS - TYPICAL OFFICE EXTERIOR @ DOOR
SCALE: 1/4" = 1'-0"



12 MWS TYPICAL PLAN FOR DOUBLE & SINGLE BSO LAYOUTS
SCALE: 1/4" = 1'-0"



9 MWS - TYPICAL PODIUM WALL
SCALE: 1/4" = 1'-0"



10 MWS - TYPICAL PODIUM WALL OPPOSITE
SCALE: 1/4" = 1'-0"

NOTE: THESE DRAWINGS DEPICT TYPICAL CONFIGURATION(S) FOR MOVABLE WALL SYSTEM (MWS) INSTALLATIONS. NOT ALL CONDITIONS/LOCATIONS IN PROJECT ARE SHOWN ABOVE. THE MOVABLE WALL SYSTEM (MWS) CONTRACTOR SHALL INTERPRET AND EXTEND THE INTENT OF THESE DRAWINGS TO THE REMAINDER OF THE PROJECT AREA. REFER TO FULL DRAWING SET AND SPECIFICATIONS AS ADDITIONAL INFORMATION AFFECTING MOVABLE WALL SYSTEM (MWS) MAY BE DESCRIBED IN OTHER AREAS.

MOVABLE WALL SYSTEM PANEL TYPES

FOR REFERENCE ONLY. REFER TO SECTION 10-22-20 MOVABLE WALL SYSTEMS FOR ADDITIONAL INFORMATION.

MWS-1 : STAINLESS STEEL	MWS-5 : MDF PANEL
MWS-2 : TRANSLUCENT GLASS	MWS-6 : CUSTOM SIGNAGE PANEL, NON-LIT
MWS-3 : CLEAR GLASS	MWS-7 : CUSTOM SIGNAGE PANEL, LIT
MWS-4 : CORIAN PANEL	MWS-8 : TRESPA PANEL

MOVABLE WALL SYSTEM SCHEDULE
SCALE: 12" = 1'-0"

MOVABLE WALL SYSTEM ELEVATIONS

A814

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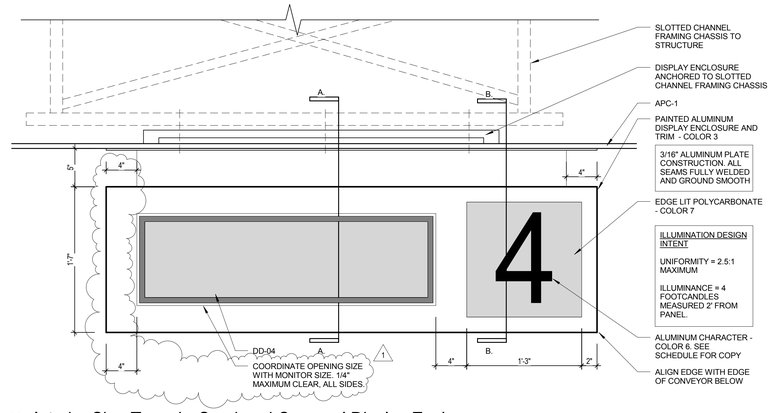
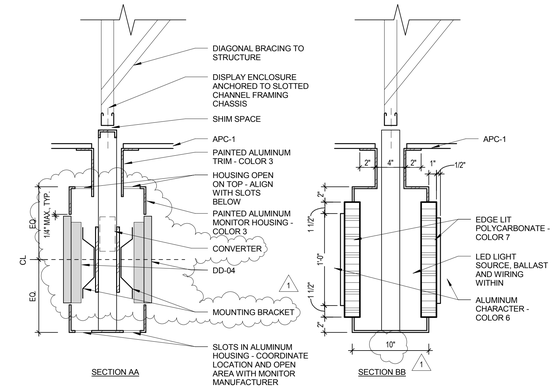
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST. - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 2	4/24/2013

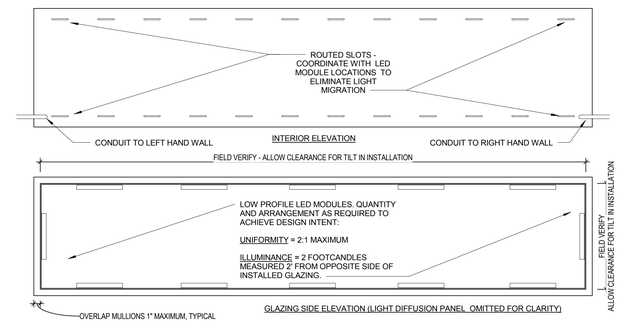
ISSUED FOR: **Construction**
DATE: **April 24, 2013**
PROJECT: **A042-06415**
SITE NO: **290**
BUILDING NO: **209**





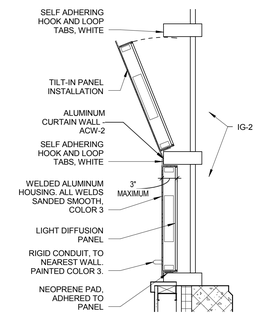
1 Interior Sign Type J - Overhead Carousel Display Enclosure

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



2 ILLUMINATED GLAZING PANEL

SCALE: 1" = 1'-0"



3 ILLUMINATED GLAZING PANEL

SCALE: 1" = 1'-0"

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FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST. - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 2	4/24/2013

ISSUED FOR: **Construction**

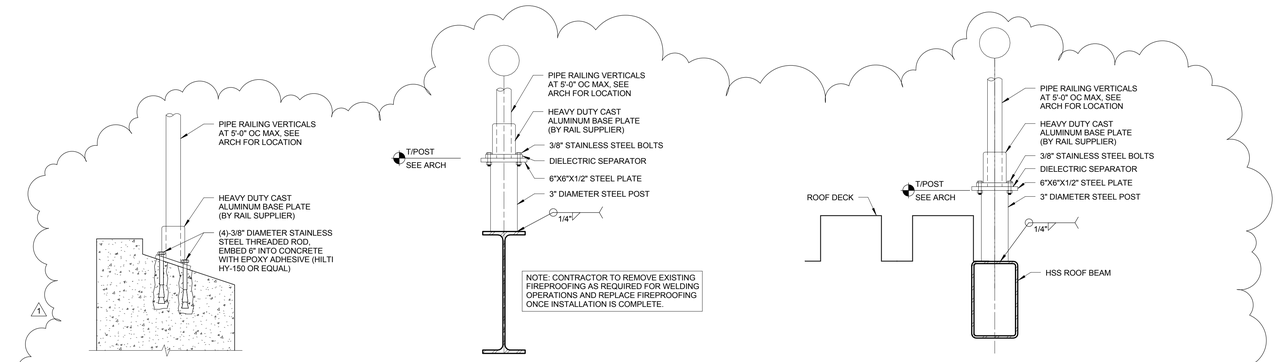
DATE: **July 16, 2012**

PROJECT: **A042-06415**

SITE NO: **290**

BUILDING NO: **209**

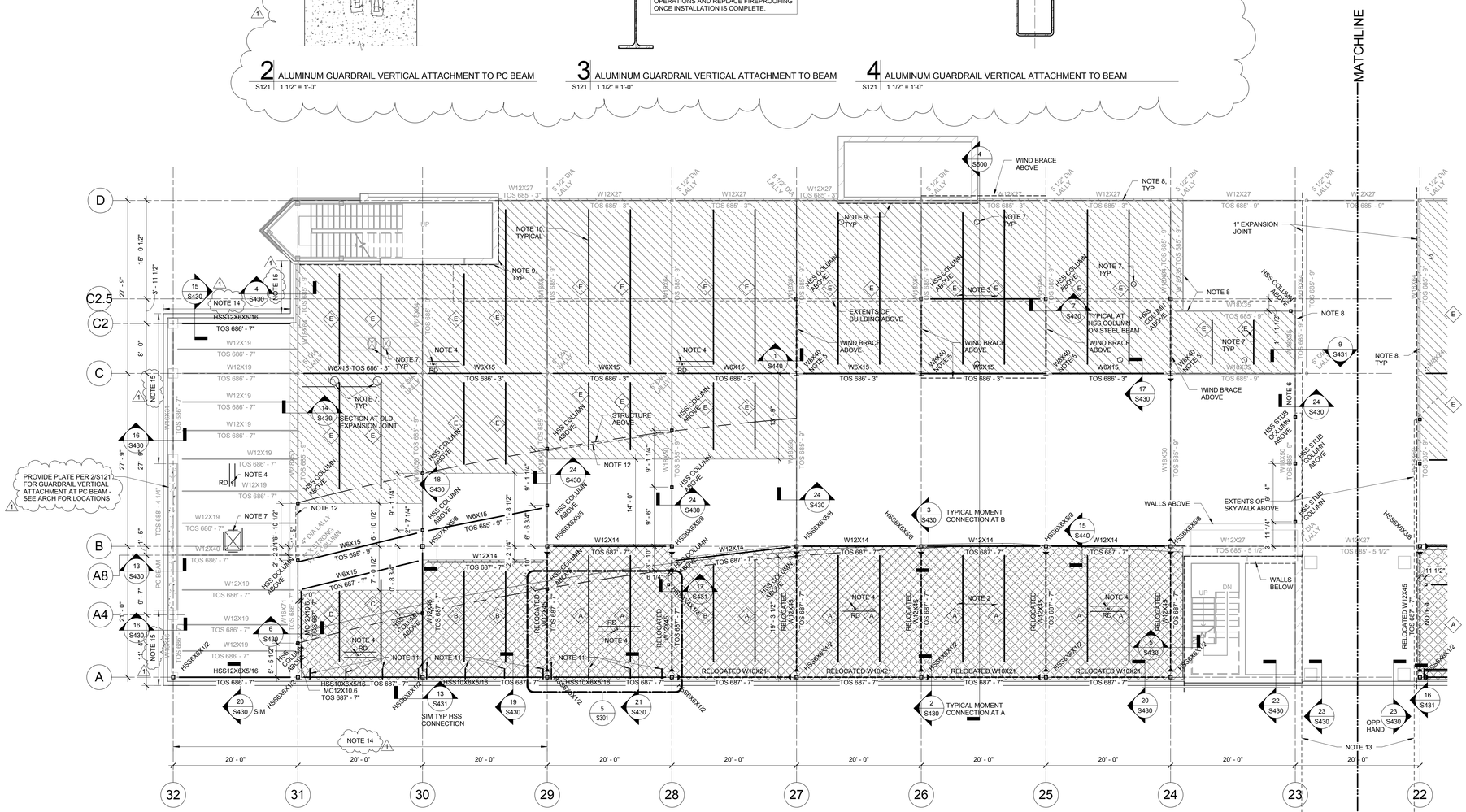
INTERIOR SIGNAGE TYPES | A932



2 S121 ALUMINUM GUARDRAIL VERTICAL ATTACHMENT TO PC BEAM 1 1/2" = 1'-0"

3 S121 ALUMINUM GUARDRAIL VERTICAL ATTACHMENT TO BEAM 1 1/2" = 1'-0"

4 S121 ALUMINUM GUARDRAIL VERTICAL ATTACHMENT TO BEAM 1 1/2" = 1'-0"



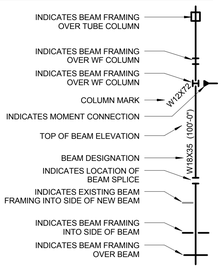
1 S121 LOW ROOF FRAMING PLAN NORTH 1/8" = 1'-0"

NOTES:

1. TOP OF STEEL ELEVATION SHOWN ON PLAN AS X'-X".
2. IN AREAS SHADED THUS ROOF DECK SHALL BE 6" - 14 GAGE GALVANIZED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE WITH ARC SPOT/SEAM WELDS WITH TOP SEAM WELDS AT 12" OC. ALL LAPS SHALL BE END LAPS. DECK SHALL HAVE THE FOLLOWING PROPERTIES :
   THICK = 0.075 IN Ip= 11.144 IN^4/FT Sp= 3.242 IN^3/FT
   Fy = 33 KSI In= 11.173 IN^4/FT Sn= 3.244 IN^3/FT

   IN AREAS SHADED THUS VERIFY EXTENTS OF GREEN ROOF AND PAVING WITH ARCH DRAWINGS. MAXIMUM WEIGHT OF FULLY SATURATED GREEN ROOF/PAVING MATERIAL SHALL NOT EXCEED 27 PSF.
3. IN AREAS SHADED THUS ROOF DECK SHALL BE 6" - 18 GAGE GALVANIZED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE WITH ARC SPOT/SEAM WELDS WITH TOP SEAM WELDS WITH BOTTOM PUNCH SIDELAP FASTENING AT 12" OC. ALL LAPS SHALL BE END LAPS. DECK SHALL HAVE THE FOLLOWING PROPERTIES :
   THICK = 0.0478 IN Ip= 6.319 IN^4/FT Sp= 2.018 IN /F^3
   Fy = 33 KSI In= 7.282 IN^4/FT Sn= 2.119 IN /F^3
4. ROOF DRAIN - PROVIDE FRAME PER 1/S450.
5. PROVIDE NEW CONNECTIONS ON NEW COLUMN FOR ATTACHMENT OF EXISTING BEAM. STEEL FABRICATOR TO FIELD VERIFY EXISTING BEAM CONNECTION AND NEW CONNECTION AS REQUIRED FOR SUPPORT.
6. EXISTING BEAM TO BE REINFORCED.
7. COORDINATE SIZE AND LOCATION OF ALL OPENINGS THRU DECK WITH MEP DRAWINGS. PROVIDE FRAME AROUND ALL OPENING IN EXCESS OF 10" DIAMETER PER 1/S450.
8. NEW METAL DECK TO EXTEND ACROSS WIDTH OF BEAM FLANGE.
9. PROVIDE NEW CONTINUOUS L3 1/2X2 1/2X1/4 (LLV) ANCHORED TO MASONRY WALLS USING 3/8" DIAMETER (BOLT SIZE) DROP IN ANCHOR AT 24" OC
10. MEP EQUIPMENT MAY NOT BE HUNG FROM THE DECK BUT MUST BE HUNG FROM SOME OTHER SUPPORTING STRUCTURE. UNITSTRUT ATTACHED TO UNDERSIDE OF HAVE BEEN PROVIDED FOR THIS PURPOSE TYPICAL. SEE 16/S450 FOR FURTHER INFORMATION.
11. HSS3X3X1/4 686'-9"
12. WIND BRACE ABOVE, PROVIDE 4"X14 GAGE COLD FORMED X-BRACE ON OUTSIDE OF STUDS SIM TO 4/S141.
13. PROVIDE NEW 5" DIAMETER HOLE IN EXISTING PLATE GIRDER. NEW HOLE IS TO BE FIELD DRILLED NOT TORCHED IN EXISTING BEAM. NEW HOLE SHALL BE LOCATED IN MIDDLE 1/3 OF DEPTH OF WEB AND IN MIDDLE 1/3 OF SPAN OF PLATE GIRDER.
14. PROVIDE GUARDRAIL VERTICAL ATTACHMENT PER 4/S121 TO HSS. SEE ARCH FOR SIZE AND LOCATION.
15. PROVIDE GUARDRAIL VERTICAL ATTACHMENT PER 3/S121 TO HSS. SEE ARCH FOR SIZE AND LOCATION.
16. REFER TO TABLE H/A002 FOR STRUCTURAL FIREPROOFING REQUIREMENTS. PRIMARY STRUCTURAL FRAMING REQUIRES FIREPROOFING. THIS INCLUDES, BUT IS NOT LIMITED TO, EXISTING AND NEW METAL DECK, COLUMNS (WIDE FLANGE AND TUBE), BEAMS, BRACING MEMBERS (HSS, ANGLES, TIE-RODS), EXTERIOR AND INTERIOR BEARING WALLS, FLOOR AND ROOF CONSTRUCTION. REFER TO ARCHITECTURAL SPECIFICATIONS FOR TYPE OF FIREPROOFING.

STRUCTURAL STEEL LEGEND



LOW ROOF HATCH LEGEND	
	6" X 14 GAGE METAL ROOF DECK
	GREEN ROOF
	6" X 18 GAGE METAL ROOF DECK

[redacted]

LOW ROOF FRAMING PLAN NORTH

S121

Engberg Anderson
MILWAUKEE • MADISON • TUCSON

BLOOM COMPANIES, LLC
Architecture • Construction • Property
10001 W. Research Drive Milwaukee, WI 53226
Phone: (414) 771-3300 Fax: (414) 771-4400
BLOOMPROJECT NO. 001-0007

GENERAL MITCHELL INTERNATIONAL AIRPORT
Baggage Claim Building Remodel
5300 S. Howell Ave. Milwaukee, WI 53207

Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

.	DESCRIPTION	DATE
1	Addendum No. 2	4/24/13

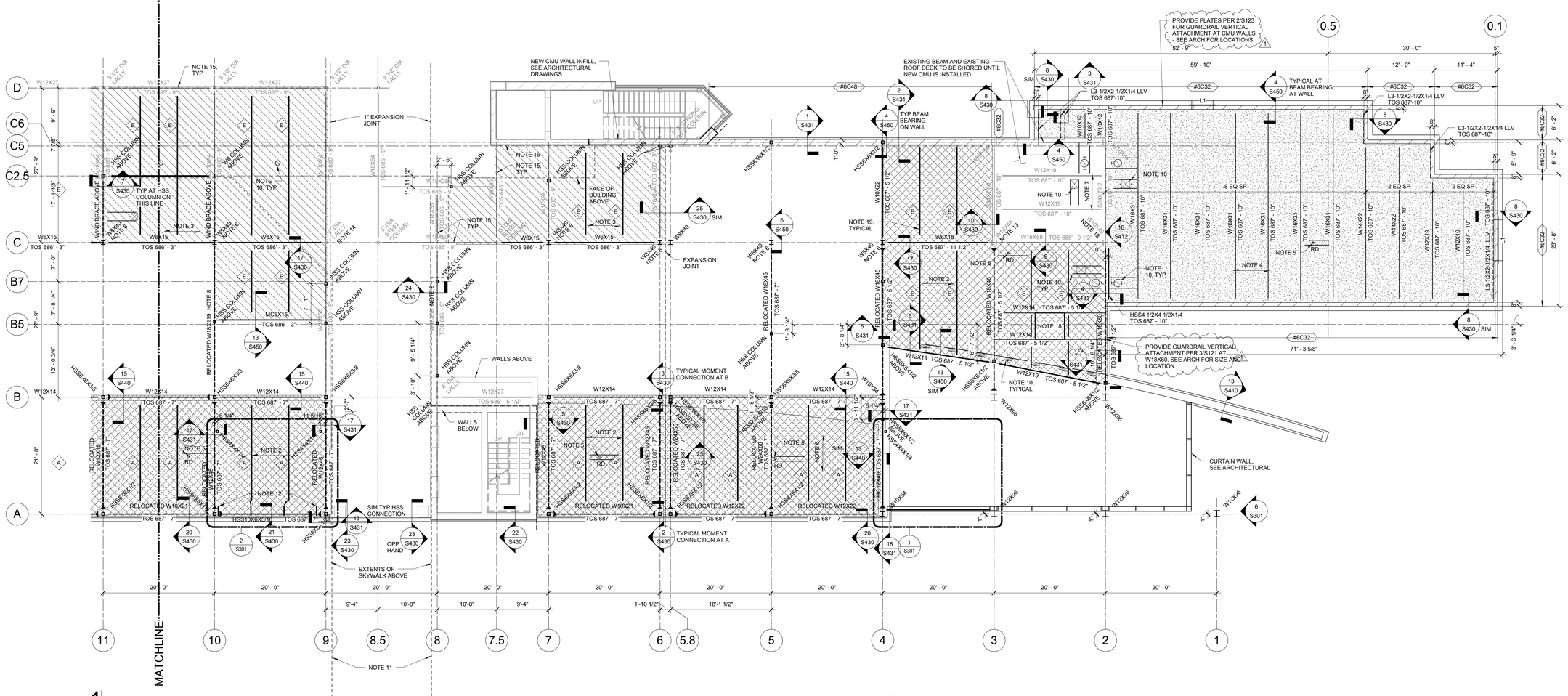
ISSUED FOR:
CONSTRUCTION

DATE:
JULY 16, 2012

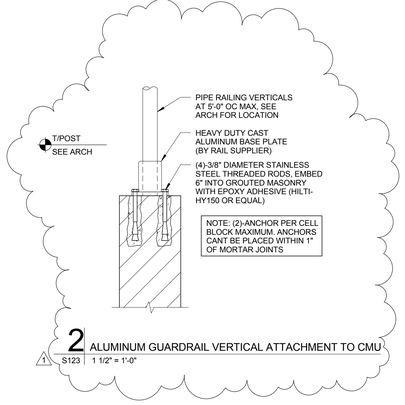
PROJECT:
A042-06415

SITE NO:
290

BUILDING NO:
209



1 LOW ROOF FRAMING PLAN SOUTH
S123 1/8" = 1'-0"

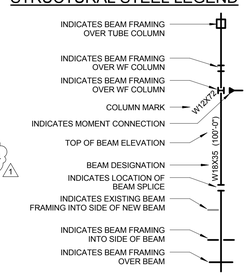


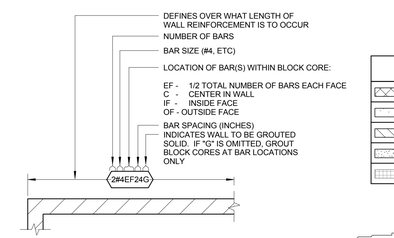
2 ALUMINUM GUARDRAIL VERTICAL ATTACHMENT TO CMU
S123 1 1/2" = 1'-0"

NOTES:

1. TOP OF STEEL ELEVATION SHOWN ON PLAN AS X'-X".
2. IN AREAS SHADED THUS, ROOF DECK SHALL BE 6" - 14 GAGE GALVANIZED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE WITH ARC SPOT/SEAM WELDS WITH TOP SEAM WELDS AT 12" OC. ALL LAPS SHALL BE END LAPS. DECK SHALL HAVE THE FOLLOWING PROPERTIES :
   THICK = 0.075 IN Ip= 11.144 IN^4/FT Sp= 3.242 IN^3/FT
   Fy = 33 KSI In= 11.173 IN^4/FT Sn= 3.244 IN^3/FT
   IN AREAS SHADED THUS, VERIFY EXTENTS OF GREEN ROOF AND PAVING WITH ARCH DRAWINGS. MAXIMUM WEIGHT OF FULLY SATURATED GREEN ROOF/PAVING MATERIAL SHALL NOT EXCEED 27 PSF.
3. IN AREAS SHADED THUS, ROOF DECK SHALL BE 6" - 18 GAGE GALVANIZED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE WITH ARC SPOT/SEAM WELDS WITH TOP SEAM WELDS WITH BOTTOM PUNCH SIDELAP FASTENING AT 12" OC. ALL LAPS SHALL BE END LAPS.DECK SHALL HAVE THE FOLLOWING PROPERTIES :
   THICK = 0.0478 IN Ip= 6.319 IN^4/FT Sp= 2.018 IN^3/FT
   Fy = 33 KSI In= 7.282 IN^4/FT Sn= 2.119 IN^3/FT
4. IN AREAS SHADED THUS, ROOF DECK SHALL BE 1 1/2" X 20 GAGE GALVANIZED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE USING 36/4 PATTERN WITH #10 TEK SIDELAP FASTENERS AT 12" OC. SEE DETAIL 3/S450 FOR ADDITIONAL ATTACHMENT INFORMATION. DECK SHALL HAVE THE FOLLOWING PROPERTIES :
   THICK = 0.0358 IN Ip= 0.212 IN^4/FT Sp= 0.234 IN^3/FT
   Fy = 33 KSI In= 0.212 IN^4/FT Sn= 0.247 IN^3/FT
5. ROOF DRAIN - PROVIDE FRAME PER 1/S450.
6. PROVIDE NEW CONNECTIONS ON NEW COLUMN FOR ATTACHMENT OF EXISTING BEAM. STEEL FABRICATOR TO FIELD VERIFY EXISTING BEAM CONNECTION AND NEW CONNECTION AS REQUIRED FOR SUPPORT.
7. EXISTING 1 1/2" METAL DECK.
8. EXISTING BEAM IS RELOCATED FROM GRID 20 BETWEEN A2 & C. SEE SD122 FOR ADDITIONAL INFORMATION.
9. EXISTING BEAM TO BE REINFORCED.
10. COORDINATE SIZE AND LOCATION OF ALL OPENINGS THRU DECK WITH MEP DRAWINGS. PROVIDE FRAME AROUND ALL OPENING IN EXCESS OF 10" DIAMETER PER 1/S450.
11. PROVIDE NEW 5" DIAMETER HOLE IN EXISTING PLATE GIRDER. NEW HOLE IS TO BE FIELD DRILLED NOT TORCHED IN EXISTING BEAM. NEW HOLE SHALL BE LOCATED IN MIDDLE 1/3 OF DEPTH OF WEB AND IN MIDDLE 1/3 OF SPAN OF PLATE GIRDER
12. HSS3X3X1/4 - TOS 686' - 9"
13. PROVIDE NEW CONNECTION AT EXISTING COLUMN TO SUPPORT RELOCATED BEAM. STEEL FABRICATOR TO FIELD VERIFY EXISTING BEAM CONNECTION AND REMOVE EXISTING AS REQUIRED TO INSTALL NEW.
14. FIELD VERIFY EXISTING CONDITIONS AND PROVIDE NEW CONNECTION FOR ATTACHMENT OF NEW BEAM.
15. NEW METAL DECK TO EXTEND ACROSS WIDTH OF BEAM FLANGE.
16. PROVIDE NEW CONTINUOUS L3 1/2X2 1/2X1/4 (LLV) ANCHORED TO MASONRY WALLS USING 3/8" DIAMETER (BOLT SIZE) DROP IN ANCHOR AT 24" OC
17. SEE S420 FOR ALL LOAD BEARING AND NON LOAD BEARING LINTEL SCHEDULES.
18. EXISTING RELOCATED ROOF RADIATOR. MAX OPERATING WEIGHT NOT TO EXCEED 4000#. COORDINATE LOCATION OF RADIATOR AND RADIATOR SUPPORT BEAMS WITH ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS.
19. MEP EQUIPMENT MAY NOT BE HUNG FROM THE DECK BUT MUST BE HUNG FROM SOME OTHER SUPPORTING STRUCTURE. UNITSTRUT ATTACHED TO UNDERSIDE OF DECK HAS BEEN PROVIDED FOR THIS PURPOSE TYPICAL. SEE 16/S450 FOR FURTHER INFORMATION.
20. REFER TO TABLE H/A002 FOR STRUCTURAL FIREPROOFING REQUIREMENTS. PRIMARY STRUCTURAL FRAMING REQUIRES FIREPROOFING. THIS INCLUDES, BUT IS NOT LIMITED TO, EXISTING AND NEW METAL DECK, COLUMNS (WIDE FLANGE AND TUBE), BEAMS, BRACING MEMBERS (HSS, ANGLES, TIE-RODS), EXTERIOR AND INTERIOR BEARING WALLS, FLOOR AND ROOF CONSTRUCTION. REFER TO ARCHITECTURAL SPECIFICATIONS FOR TYPE OF FIREPROOFING.

STRUCTURAL STEEL LEGEND





MASONRY WALL LEGEND

LOW ROOF HATCH LEGEND	
	6" X 14 GAGE METAL ROOF DECK
	GREEN ROOF
	6" X 18 GAGE METAL ROOF DECK
	1 1/2" X 20 GAGE METAL ROOF DECK
	EXISTING METAL DECK TO REMAIN

LOW ROOF FRAMING PLAN SOUTH

S123

Engberg Anderson
MILWAUKEE • MADISON • TUCSON

BLOOM COMPANIES, LLC
Developers • Owners • Operators
10001 W. Research Drive Milwaukee, WI 53226
Phone: (414) 771-3300 Fax: (414) 771-4400
BLOOMPROJECT NO. 001-1007

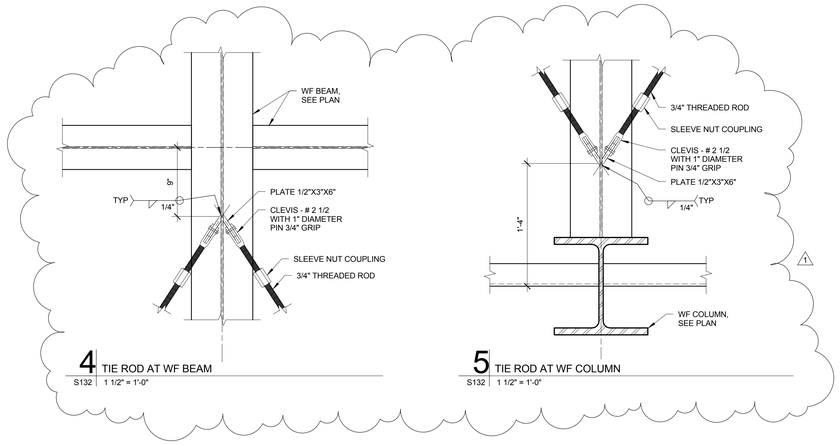
GENERAL MITCHELL INTERNATIONAL AIRPORT
Baggage Claim Building Remodel
5300 S. Howell Ave. Milwaukee, WI 53207

Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

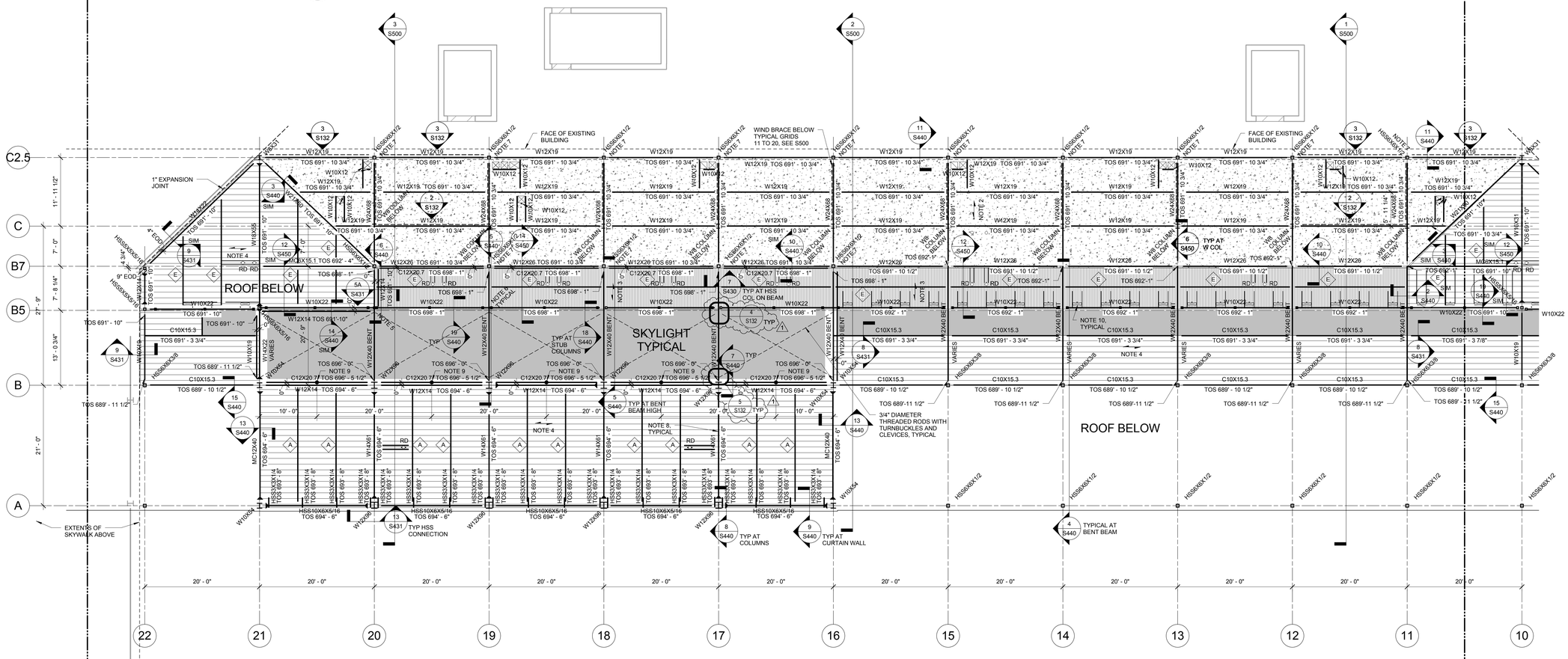
	DESCRIPTION	DATE
1	Addendum No. 2	4/24/13

ISSUED FOR:
CONSTRUCTION
DATE:
JULY 16, 2012
PROJECT:
A042-06415
SITE NO:
290
BUILDING NO:
209



4 TIE ROD AT WF BEAM
S132 | 1 1/2" = 1'-0"

5 TIE ROD AT WF COLUMN
S132 | 1 1/2" = 1'-0"



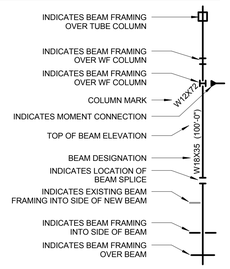
1 MID ROOF FRAMING PLAN CENTER
S132 | 1/8" = 1'-0"

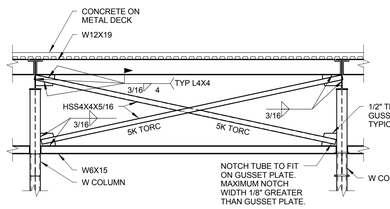
NOTES:

1. TOP OF STEEL ELEVATION SHOWN ON PLAN AS X'-X".
2. IN AREAS SHADED THUS, TYPICAL SLAB IS 5 1/4" THICK CONSISTING OF 3 1/4" LIGHTWEIGHT (115 DCF) CONCRETE WITH WWF 4X4 W2.9XW2.9 (FLAT SHEETS ONLY) ON 2" X 20 GAGE GALVANIZED COMPOSITE UNSHORED METAL FORM DECK FASTENED PER 2/S450 WITH THE FOLLOWING MINIMUM PROPERTIES:
   THICK = 0.0358 IN Ip= 0.418 IN^4/FT Sp= 0.355 IN^3/FT
   Fy = 40 KSI In= 0.415 IN^4/FT Sn= 0.360 IN^3/FT

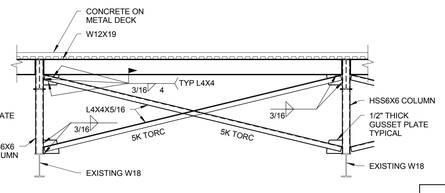
   DECK SHALL BE INSTALLED WITH 3 SPANS CONTINUOUS. DECK ASSEMBLY TO CONFORM WITH UL FIRE RATING DESIGN NO. D902 D902
3. IN AREAS SHADED THUS, ROOF DECKING SHALL BE 3" X 16 GAGE WIDE RIBBED GALVANIZED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE USING 24/4 PATTERN WITH #10 TEK SIDELAP FASTENERS AT 18" OC. SEE DETAIL 3/S450 FOR ADDITIONAL ATTACHMENT INFORMATION. DECK SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:
   THICK = 0.0598 IN Ip= 1.745 IN^4/FT Sp= 0.893 IN^3/FT
   Fy = 33 KSI In= 1.745 IN^4/FT Sn= 0.944 IN^3/FT
4. IN AREAS SHADED THUS, ROOF DECKING SHALL BE 6" - 16 GAGE GALVANIZED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE WITH ARC SPOT/SEAM WELDS WITH BOTTOM PUNCH SIDELAP FASTENING AT 12" OC. ALL LAPS SHALL BE END LAPS. DECK SHALL HAVE THE FOLLOWING PROPERTIES:
   THICK = 0.0598 IN Ip= 8.447 IN^4/FT Sp= 2.565 IN^3/FT
   Fy = 33 KSI In= 9.021 IN^4/FT Sn= 2.623 IN^3/FT
5. PROVIDE HSS4X4X1/4 HANGER. SEE SECTION 6/S440 FOR ADDITIONAL INFO.
6. PROVIDE HSS4X4X5/16 STUB COLUMNS PER 18/S440.
7. PROVIDE 3/8" THICK CAP PLATE AT TOP OF COLUMN.
8. MEP EQUIPMENT MAY NOT BE HUNG FROM THE DECK BUT MUST BE HUNG FROM SOME OTHER SUPPORTYING STRUCTURE. UNITSTRUT ATTACHED TO UNDERSIDE OF DECK HAS BEEN PROVIDED FOR THIS PURPOSE TYPICAL. SEE 16/S450 FOR FURTHER INFORMATION.
9. PROVIDE 1/2" DIAMETER EYEBOLT WITH SHOULDER AT LOCATIONS INDICATED FOR ARTWORK SUPPORT. EYEBOLTS SHALL HAVE A MINIMUM EYE DIAMETER OF 3/4"
10. COORDINATE SIZE AND LOCATION OF ALL OPENINGS THRU DECK WITH MEP DRAWINGS. PROVIDE FRAME AROUND ALL OPENING IN EXCESS OF 10" DIAMETER PER 1/S450.
11. REFER TO TABLE H/A002 FOR STRUCTURAL FIREPROOFING REQUIREMENTS. PRIMARY STRUCTURAL FRAMING REQUIRES FIREPROOFING. THIS INCLUDES, BUT IS NOT LIMITED TO: EXISTING AND NEW METAL DECK, COLUMNS (WIDE FLANGE AND TUBE), BEAMS, BRACING MEMBERS (HSS, ANGLES, TIE-RODS), EXTERIOR AND INTERIOR BEARING WALLS, FLOOR AND ROOF CONSTRUCTION. REFER TO ARCHITECTURAL SPECIFICATIONS FOR TYPE OF FIREPROOFING.

STRUCTURAL STEEL LEGEND





2 BRACING ELEVATION
S132 | 1/4" = 1'-0"



3 BRACING ELEVATION
S132 | 1/4" = 1'-0"

MID ROOF HATCH LEGEND	
	SKYLIGHT
	5 1/4" SLAB (3 1/4" CONCRETE + 2" DECK)
	3" X 16 GAGE METAL ROOF DECK
	6" X 16 GAGE METAL ROOF DECK

MID ROOF FRAMING PLAN CENTER

S132

Engberg Anderson
MILWAUKEE • MADISON • TUCSON

BLOOM COMPANIES, LLC
Architecture • Construction • Development
10001 W. Research Drive Milwaukee, WI 53226
Phone: (414) 771-3300 Fax: (414) 771-4400
BLOOMPROJECT NO. 001-0007

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Baggage Claim Building Remodel
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Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

·	DESCRIPTION	DATE
1	Addendum No. 2	4/24/13

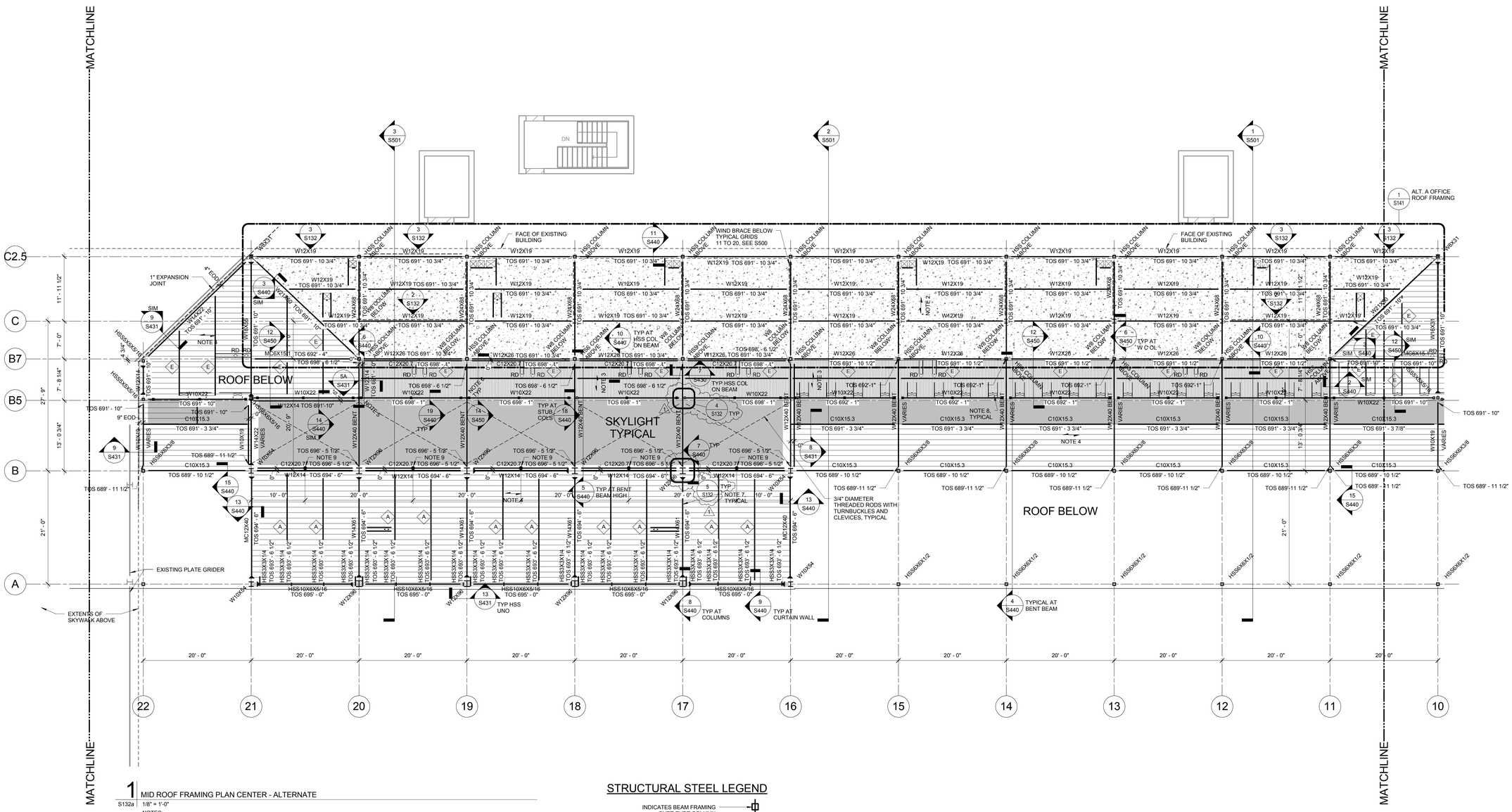
ISSUED FOR:
CONSTRUCTION

DATE:
JULY 16, 2012

PROJECT:
A042-06415

SITE NO:
290

BUILDING NO:
209



1 MID ROOF FRAMING PLAN CENTER - ALTERNATE

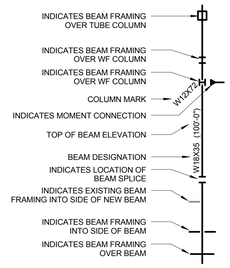
S132a 1/8" = 1'-0"

NOTES:

1. TOP OF STEEL ELEVATION SHOWN ON PLAN AS X'-X".
2. IN AREAS SHADED THUS TYPICAL SLAB IS 5 1/4" THICK CONSISTING OF 3 1/4" LIGHTWEIGHT (115 DCF) CONCRETE WITH WWF 4X4 W2.9XW2.9 (FLAT SHEETS ONLY) ON 2" X 20 GAGE GALVANIZED COMPOSITE UNSHORED METAL FORM DECK FASTENED PER 2/S450 WITH THE FOLLOWING MINIMUM PROPERTIES:
   THICK = 0.0358 IN Ip= 0.418 IN^4/FT Sp= 0.355 IN^3/FT
   Fy = 40 KSI In= 0.415 IN^4/FT Sn= 0.360 IN^3/FT

   DECK SHALL BE INSTALLED WITH 3 SPANS CONTINUOUS. DECK ASSEMBLY TO CONFORM WITH UL FIRE RATING DESIGN NO. D902
3. IN AREAS SHADED THUS ROOF DECKING SHALL BE 3" X 16 GAGE WIDE RIBBED GALVANIZED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE USING 24/4 PATTERN WITH #10 TEK SIDELAP FASTENERS AT 18" OC. SEE DETAIL 3/S450 FOR ADDITIONAL ATTACHMENT INFORMATION. DECK SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:
   THICK = 0.0598 IN Ip= 1.745 IN^4/FT Sp= 0.893 IN^3/FT
   Fy = 33 KSI In= 1.745 IN^4/FT Sn= 0.944 IN^3/FT
4. IN AREAS SHADED THUS ROOF DECKING SHALL BE 6" - 16 GAGE GALVANIZED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE WITH ARC SPOT/SEAM WELDS WITH BOTTOM PUNCH SIDELAP FASTENING AT 12" OC. ALL LAPS SHALL BE END LAPS. DECK SHALL HAVE THE FOLLOWING PROPERTIES:
   THICK = 0.0598 IN Ip= 8.447 IN^4/FT Sp= 2.565 IN^3/FT
   Fy = 33 KSI In= 9.021 IN^4/FT Sn= 2.623 IN^3/FT
5. PROVIDE HSS4X4X1/4 HANGER. SEE SECTION 6/S440 FOR ADDITIONAL INFO.
6. PROVIDE HSS4X4X5/16 STUB COLUMNS PER 18/S440.
7. MEP EQUIPMENT MAY NOT BE HUNG FROM THE DECK BUT MUST BE HUNG FROM SOME OTHER SUPPORTYING STRUCTURE. UNITSTRUT ATTACHED TO UNDERSIDE OF DECK HAS BEEN PROVIDED FOR THIS PURPOSE TYPICAL. SEE 16/S450 FOR FURTHER INFORMATION.
8. COORDINATE SIZE AND LOCATION OF ALL OPENINGS THRU DECK WITH MEP DRAWINGS. PROVIDE FRAME AROUND ALL OPENING IN EXCESS OF 10" DIAMETER PER 1/S450.
9. PROVIDE 1/2" DIAMETER EYEBOLT WITH SHOULDER AT LOCATIONS INDICATED. EYEBOLTS SHALL HAVE A MINIMUM EYE DIAMETER OF 3/4".
10. REFER TO TABLE H/A002 FOR STRUCTURAL FIREPROOFING REQUIREMENTS. PRIMARY STRUCTURAL FRAMING REQUIRES FIREPROOFING. THIS INCLUDES, BUT IS NOT LIMITED TO, EXISTING AND NEW METAL DECK, COLUMNS (WIDE FLANGE AND TUBE), BEAMS, BRACING MEMBERS (HSS, ANGLES, TIE-RODS), EXTERIOR AND INTERIOR BEARING WALLS, FLOOR AND ROOF CONSTRUCTION. REFER TO ARCHITECTURAL SPECIFICATIONS FOR TYPE OF FIREPROOFING.

STRUCTURAL STEEL LEGEND



MID ROOF HATCH LEGEND	
	SKYLIGHT
	5 1/4" SLAB (3 1/4" CONCRETE + 2" DECK)
	3" X 16 GAGE METAL ROOF DECK
	6" X 16 GAGE METAL ROOF DECK

MID ROOF FRAMING PLAN CENTER - ALTERNATE

S132a

Engberg Anderson
MILWAUKEE • MADISON • TUCSON

BLOOM COMPANIES, LLC
Architecture • Construction • Development
13001 W. Research Drive Milwaukee, WI 53226
Phone: (414) 771-3300 Fax: (414) 771-4460
BLOOMPROJECT NO. 001-0007

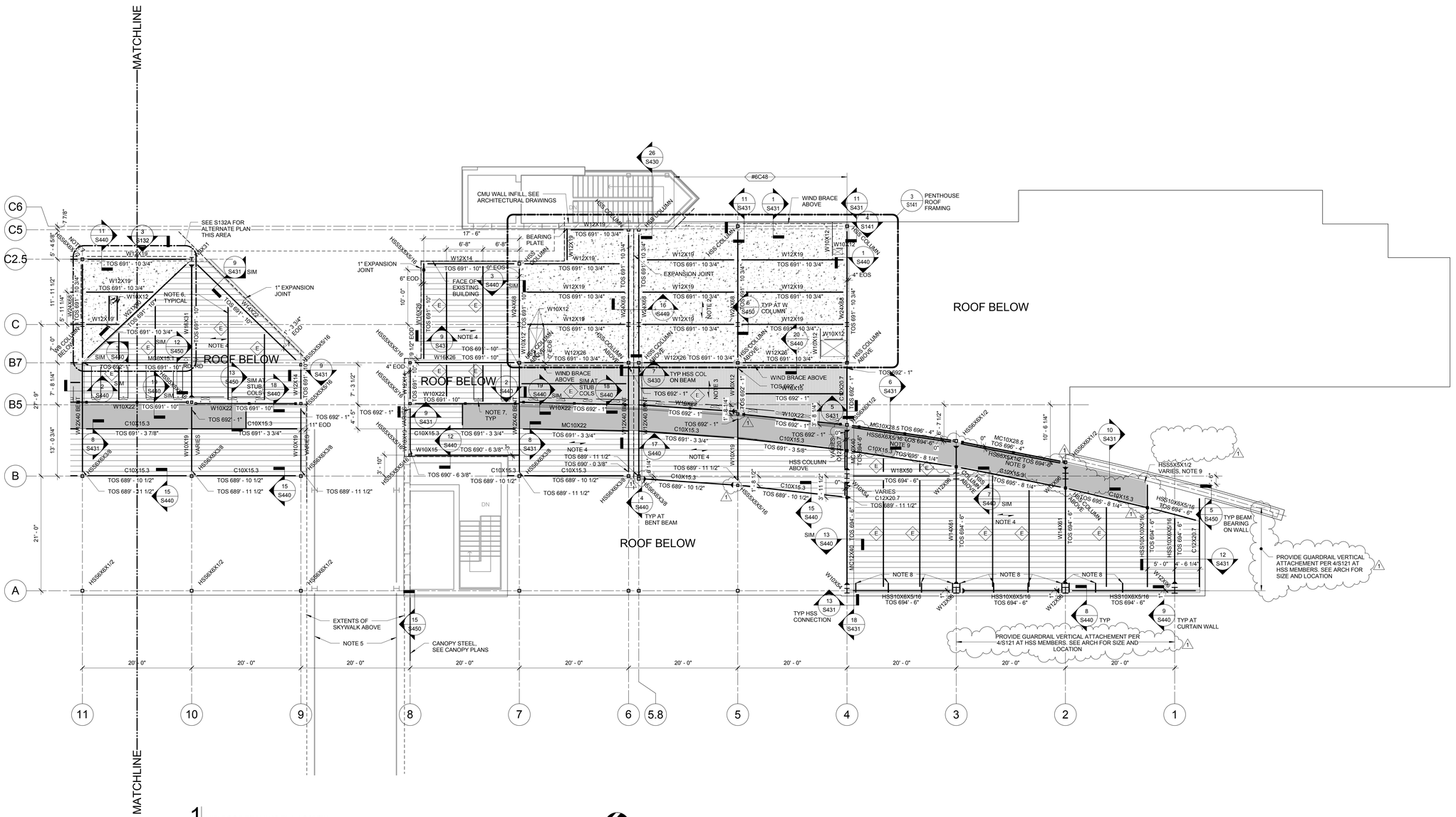
Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST. - 2ND FLOOR MILWAUKEE, WI 53208

GENERAL MITCHELL INTERNATIONAL AIRPORT
Baggage Claim Building Remodel
5300 S. Howell Ave. Milwaukee, WI 53207

REVISION:

.	DESCRIPTION	DATE
1	Addendum No. 2	4/24/13

ISSUED FOR: **CONSTRUCTION**
DATE: **JULY 16, 2012**
PROJECT: **A042-06415**
SITE NO: **290**
BUILDING NO: **209**



1 MID ROOF FRAMING PLAN SOUTH

S133 1/8" = 1'-0"

NOTES:

1. TOP OF STEEL ELEVATION SHOWN ON PLAN AS X'-X".

2. IN AREAS SHADED THUS, TYPICAL SLAB IS 5 1/4" THICK CONSISTING OF 3 1/4" LIGHTWEIGHT (115 DCF) CONCRETE WITH WWF 4X4 W2.9XW2.9 (FLAT SHEETS ONLY) ON 2" X 20 GAGE GALVANIZED COMPOSITE UNSHORED METAL FORM DECK FASTENED PER 2/S450 WITH THE FOLLOWING MINIMUM PROPERTIES:
   THICK = 0.0358 IN Ip= 0.418 IN^4/FT Sp= 0.355 IN^3/FT
   Fy = 40 KSI In= 0.415 IN^4/FT Sn= 0.360 IN^3/FT

   DECK SHALL BE INSTALLED WITH 3 SPANS CONTINUOUS. DECK ASSEMBLY TO CONFORM WITH UL FIRE RATING DESIGN NO. D902

3. IN AREAS SHADED THUS, ROOF DECKING SHALL BE 3" X 16 GAGE WIDE RIBBED GALVANIZED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE USING 2/44 PATTERN WITH #10 TEK SIDELAP FASTENERS AT 18" OC. SEE DETAIL 3/S450 FOR ADDITIONAL ATTACHMENT INFORMATION. DECK SHALL HAVE THE FOLLOWING MINIMUM PROPERTIES:
   THICK = 0.0598 IN Ip= 1.745 IN^4/FT Sp= 0.893 IN^3/FT
   Fy = 33 KSI In= 1.745 IN^4/FT Sn= 0.944 IN^3/FT

4. IN AREAS SHADED THUS, ROOF DECKING SHALL BE 6" - 16 GAGE GALVANIZED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE WITH ARC SPOTSEAM WELDS WITH BOTTOM PUNCH SIDELAP FASTENING AT 12" OC. ALL LAPS SHALL BE END LAPS. DECK SHALL HAVE THE FOLLOWING PROPERTIES:
   THICK = 0.0598 IN Ip= 8.447 IN^4/FT Sp= 2.565 IN^3/FT
   Fy = 33 KSI In= 9.021 IN^4/FT Sn= 2.623 IN^3/FT

5. PROVIDE NEW 5" DIAMETER HOLE IN EXISTING PLATE GIRDER. NEW HOLE IS TO BE FIELD DRILLED, NOT TORCHED, IN EXISTING BEAM. NEW HOLE SHALL BE LOCATED IN MIDDLE 1/3 OF DEPTH OF WEB AND IN MIDDLE 1/3 OF PLATE GIRDER.

6. MEP EQUIPMENT MAY NOT BE HUNG FROM THE DECK BUT MUST BE HUNG FROM SOME OTHER SUPPORTYING STRUCTURE. UNITSTRUT ATTACHED TO UNDERSIDE OF DECK HAS BEEN PROVIDED FOR THIS PURPOSE TYPICAL. SEE 16/S450 FOR FURTHER INFORMATION.

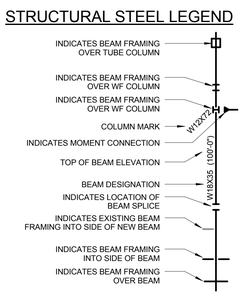
7. COORDINATE SIZE AND LOCATION OF ALL OPENINGS THRU DECK WITH MEP DRAWINGS. PROVIDE FRAME AROUND ALL OPENING IN EXCESS OF 10" DIAMETER PER 1/S450.

8. HSS8X3X1/4 693'-8"

9. PROVIDE 1/4" ALL AROUND WELD FROM HSS TO COLUMN.

10. REFER TO TABLE H/A002 FOR STRUCTURAL FIREPROOFING REQUIREMENTS. PRIMARY STRUCTURAL FRAMING REQUIRES FIREPROOFING. THIS INCLUDES, BUT IS NOT LIMITED TO, EXISTING AND NEW METAL DECK, COLUMNS (WIDE FLANGE AND TUBE), BEAMS, BRACING MEMBERS (HSS, ANGLES, TIE-RODS), EXTERIOR AND INTERIOR BEARING WALLS, FLOOR AND ROOF CONSTRUCTION. REFER TO ARCHITECTURAL SPECIFICATIONS FOR TYPE OF FIREPROOFING.

STRUCTURAL STEEL LEGEND



MID ROOF HATCH LEGEND	
	SKYLIGHT
	5 1/4" SLAB (3 1/4" CONCRETE + 2" DECK)
	3" X 16 GAGE METAL ROOF DECK
	6" X 16 GAGE METAL ROOF DECK

MID ROOF FRAMING PLAN SOUTH

S133

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MILWAUKEE • MADISON • TUCSON

BLOOM COMPANIES, LLC
Architecture / Construction / Property
10001 W. Research Drive Milwaukee, WI 53226
Phone: (414) 771-3300 Fax: (414) 771-4460
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PROJECT:
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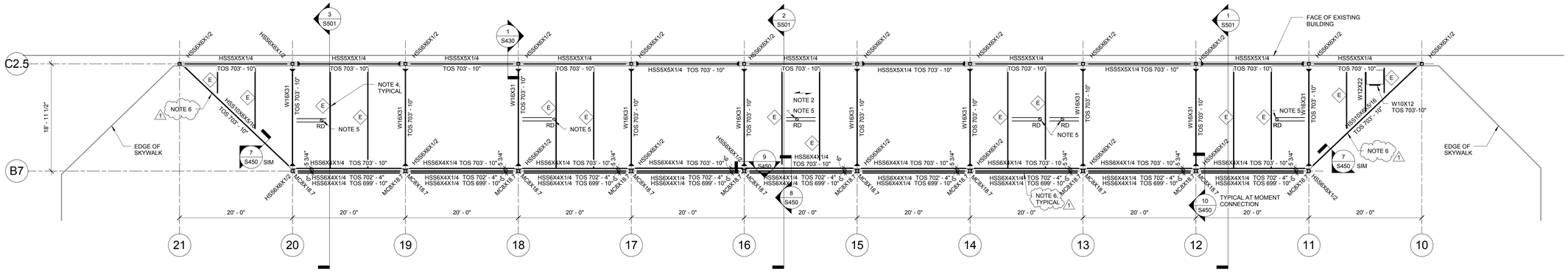


1 HIGH ROOF FRAMING PLAN CENTER - BID ALTERNATE A

S141 | 1/8" = 1'-0"

NOTES:
1. TOP OF STEEL ELEVATION SHOWN ON PLAN AS X'-X".

2. ROOF DECKING SHALL BE 7 1/2" - 14 GAGE GALVANIZED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE WITH ARC SPOT/SEAM WELDS WITH BUTTON PUNCH SIDELAP FASTENING AT 12" OC. ALL LAPS SHALL BE END LAPS. DECK SHALL HAVE THE FOLLOWING PROPERTIES:
   THICK = 0.675 IN Ip= 18.778 IN^4/FT Sp= 4.44 IN^3/FT
   Fy = 33 KSI In= 18.7 IN^4/FT Sn= 4.23 IN^3/FT

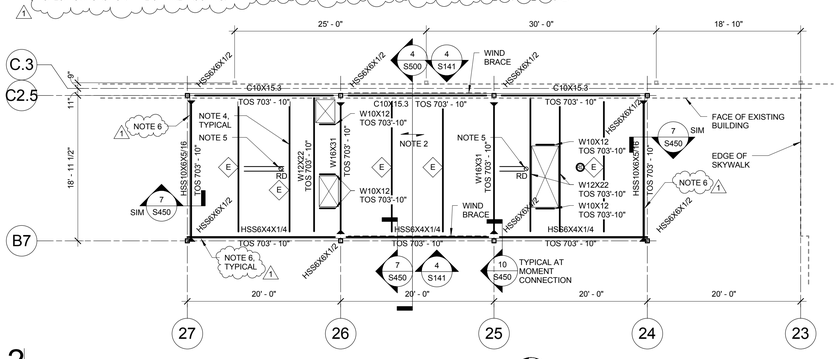
3. PROVIDE ANGLE FRAME SUPPORT AT ALL ROOF OPENINGS IN ACCORDANCE WITH DETAIL 1/S450

4. MEP EQUIPMENT MAY NOT BE HUNG FROM THE DECK BUT MUST BE HUNG FROM SOME OTHER SUPPORTING STRUCTURE. UNITSTRUT ATTACHED TO UNDERSIDE OF DECK HAS BEEN PROVIDED FOR THIS PURPOSE TYPICAL. SEE 16/S450 FOR FURTHER INFORMATION.

5. ROOF DRAIN - PROVIDE FRAME PER 1/S450.

6. PROVIDE GUARDRAIL VERTICAL ATTACHMENT PER 8/S141 TO HSS, SEE ARCH FOR SIZE AND LOCATION.

7. REFER TO TABLE H/A002 FOR STRUCTURAL FIREPROOFING REQUIREMENTS. PRIMARY STRUCTURAL FRAMING REQUIRES FIREPROOFING. THIS INCLUDES, BUT IS NOT LIMITED TO, EXISTING AND NEW METAL DECK, COLUMNS (WIDE FLANGE AND TUBE), BEAMS, BRACING MEMBERS (HSS, ANGLES, TIE-RODS), EXTERIOR AND INTERIOR BEARING WALLS, FLOOR AND ROOF CONSTRUCTION. REFER TO ARCHITECTURAL SPECIFICATIONS FOR TYPE OF FIREPROOFING.



2 HIGH ROOF FRAMING PLAN NORTH

S141 | 1/8" = 1'-0"

NOTES:
1. TOP OF STEEL ELEVATION SHOWN ON PLAN AS X'-X".

2. ROOF DECKING SHALL BE 7 1/2" - 14 GAGE GALVANIZED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE WITH ARC SPOT/SEAM WELDS WITH BUTTON PUNCH SIDELAP FASTENING AT 12" OC. ALL LAPS SHALL BE END LAPS. DECK SHALL HAVE THE FOLLOWING PROPERTIES:
   THICK = 0.675 IN Ip= 18.778 IN^4/FT Sp= 4.44 IN^3/FT
   Fy = 33 KSI In= 18.7 IN^4/FT Sn= 4.23 IN^3/FT

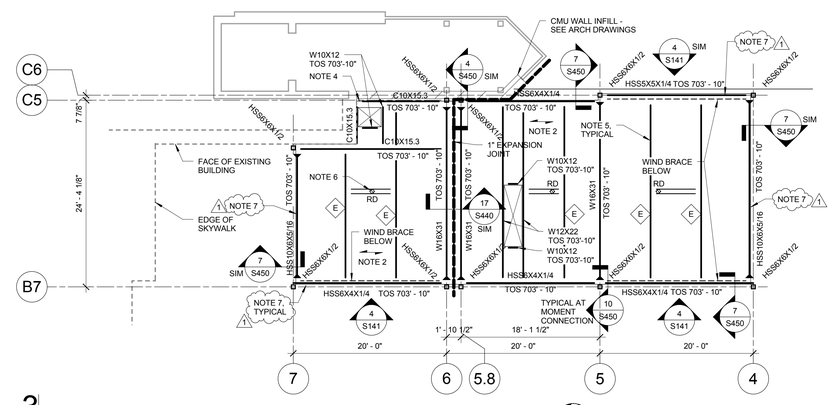
3. PROVIDE ANGLE FRAME SUPPORT AT ALL ROOF OPENINGS IN ACCORDANCE WITH DETAIL 1/S450

4. MEP EQUIPMENT MAY NOT BE HUNG FROM THE DECK BUT MUST BE HUNG FROM SOME OTHER SUPPORTING STRUCTURE. UNITSTRUT ATTACHED TO UNDERSIDE OF DECK HAS BEEN PROVIDED FOR THIS PURPOSE. SEE 16/S450 FOR FURTHER INFORMATION.

5. ROOF DRAIN - PROVIDE FRAME PER 1/S450.

6. PROVIDE GUARDRAIL VERTICAL ATTACHMENT PER 8/S141 TO HSS, SEE ARCH FOR SIZE AND LOCATION.

7. REFER TO TABLE H/A002 FOR STRUCTURAL FIREPROOFING REQUIREMENTS. PRIMARY STRUCTURAL FRAMING REQUIRES FIREPROOFING. THIS INCLUDES, BUT IS NOT LIMITED TO, EXISTING AND NEW METAL DECK, COLUMNS (WIDE FLANGE AND TUBE), BEAMS, BRACING MEMBERS (HSS, ANGLES, TIE-RODS), EXTERIOR AND INTERIOR BEARING WALLS, FLOOR AND ROOF CONSTRUCTION. REFER TO ARCHITECTURAL SPECIFICATIONS FOR TYPE OF FIREPROOFING.



3 HIGH ROOF FRAMING PLAN SOUTH

S141 | 1/8" = 1'-0"

NOTES:
1. TOP OF STEEL ELEVATION SHOWN ON PLAN AS X'-X".

2. ROOF DECKING SHALL BE 7 1/2" - 14 GAGE GALVANIZED METAL ROOF DECK FASTENED TO SUPPORTING STRUCTURE WITH ARC SPOT/SEAM WELDS WITH BUTTON PUNCH SIDELAP FASTENING AT 12" OC. ALL LAPS SHALL BE END LAPS. DECK SHALL HAVE THE FOLLOWING PROPERTIES:
   THICK = 0.675 IN Ip= 18.778 IN^4/FT Sp= 4.44 IN^3/FT
   Fy = 33 KSI In= 18.7 IN^4/FT Sn= 4.23 IN^3/FT

3. PROVIDE ANGLE FRAME SUPPORT AT ALL ROOF OPENINGS IN ACCORDANCE WITH DETAIL 1/S450

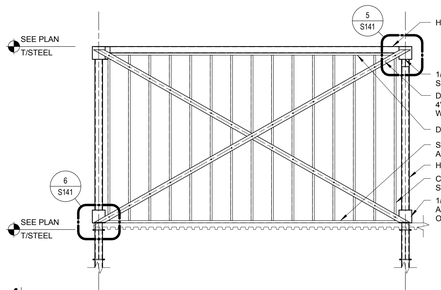
4. PROVIDE 1/2"X6"X6" BEARING PLATE WITH 1/2" DIAMETER X 4" HWS. GROUT CMU SOLID FOR 2 COURSES BELOW BEARING PLATE.

5. MEP EQUIPMENT MAY NOT BE HUNG FROM THE DECK BUT MUST BE HUNG FROM SOME OTHER SUPPORTING STRUCTURE. UNITSTRUT ATTACHED TO UNDERSIDE OF DECK HAS BEEN PROVIDED FOR THIS PURPOSE TYPICAL. SEE 16/S450 FOR FURTHER INFORMATION.

6. ROOF DRAIN - PROVIDE FRAME PER 1/S450.

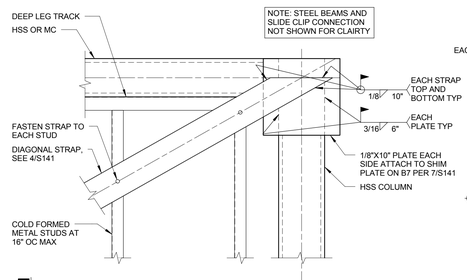
7. PROVIDE GUARDRAIL VERTICAL ATTACHMENT PER 8/S141 TO HSS, SEE ARCH FOR SIZE AND LOCATION.

8. REFER TO TABLE H/A002 FOR STRUCTURAL FIREPROOFING REQUIREMENTS. PRIMARY STRUCTURAL FRAMING REQUIRES FIREPROOFING. THIS INCLUDES, BUT IS NOT LIMITED TO, EXISTING AND NEW METAL DECK, COLUMNS (WIDE FLANGE AND TUBE), BEAMS, BRACING MEMBERS (HSS, ANGLES, TIE-RODS), EXTERIOR AND INTERIOR BEARING WALLS, FLOOR AND ROOF CONSTRUCTION. REFER TO ARCHITECTURAL SPECIFICATIONS FOR TYPE OF FIREPROOFING.



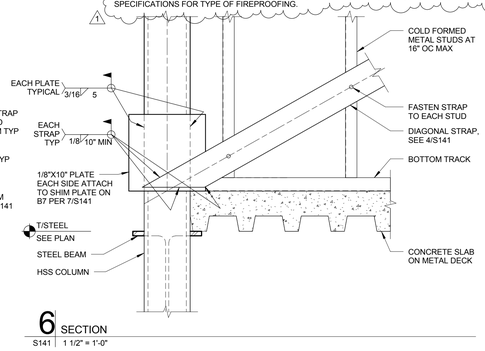
4 TYPICAL STUD SHEAR WALL DETAIL

S141 | 1/4" = 1'-0"



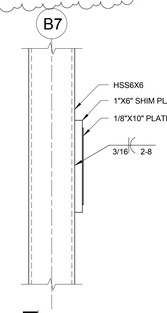
5 SECTION

S141 | 1 1/2" = 1'-0"



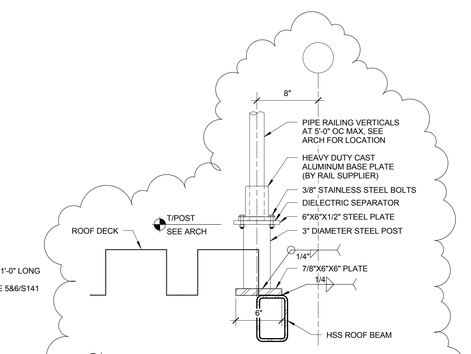
6 SECTION

S141 | 1 1/2" = 1'-0"



7 SECTION

S141 | 1 1/2" = 1'-0"



8 ALUMINUM GUADRAIL VERTICAL ATTACHMENT TO BEAM

S141 | 1 1/2" = 1'-0"

[redacted]

HIGH ROOF FRAMING PLANS

S141

Engberg Anderson
MILWAUKEE • MADISON • TUCSON

BLOOM COMPANIES, LLC
Architecture • Development • Property
10001 W. Research Drive Milwaukee, WI 53226
Phone: (414) 771-3300 Fax: (414) 771-4400
BLOOMPROJECT NO. 001-0007

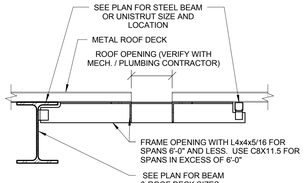
GENERAL MITCHELL INTERNATIONAL AIRPORT
Baggage Claim Building Remodel
5300 S. Howell Ave. Milwaukee, WI 53207

Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS Z711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

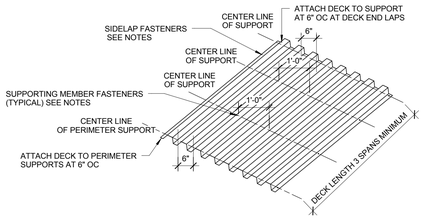
	DESCRIPTION	DATE
1	Addendum No. 2	4/24/13

ISSUED FOR: **CONSTRUCTION**
DATE: **JULY 16, 2012**
PROJECT: **A042-06415**
SITE NO: **290**
BUILDING NO: **209**



GC TO VERIFY SIZE, SHAPE, AND LOCATION OF ALL ROOF OPENINGS WITH APPROPRIATE TRADES PROVIDING TYPICAL FRAME AT ALL OPENINGS.
1) LARGER THAN 10" DIAMETER / SQUARE OR
2) SUPPORTING IN EXCESS OF 60 LBS. EQUIPMENT LOADS

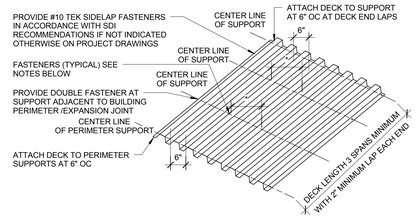
1 FRAMING AT ROOF OPENING
S450 | 1" = 1'-0"



* DECK MAY BE FASTENED TO SUPPORT MEMBERS BY ANY OF THE FOLLOWING METHODS:
1. WELDING (DEFAULT UNLESS NOTED OTHERWISE). ALL WELDS ARE TO BE 5/8" DIA. PUDDLE WELDS. FIELD PLACED HEADED WELDED STUDS MAY TAKE THE PLACE OF PUDDLE WELDS IN COMPOSITE CONSTRUCTION.
2. SCREWING, BUILDEX #12 TEK SCREWS OR EQUAL.

* SIDELAPS MAY BE FASTENED BY ANY OF THE FOLLOWING METHODS:
1. #10 TEK SCREWS.
2. CRIMP OR BUTTON PUNCH. FASTEN SIDELAPS AT INTERVALS NOT EXCEEDING 36".

2 COMPOSITE METAL DECK FASTENING DETAIL
S450 | 1/2" = 1'-0"



* SEE PLAN FOR TYPICAL FASTENER SPACING

FASTEN DECK TO SUPPORTING MEMBERS USING FASTENING METHOD INDICATED ON DRAWINGS (SEE A) BELOW) AND ACCORDING TO THE FOLLOWING REQUIREMENT:

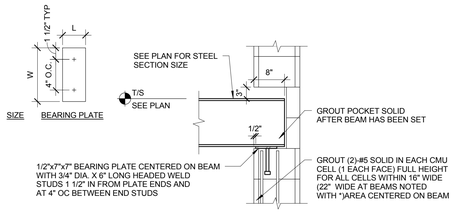
A) WELDING (DEFAULT UNLESS NOTED OTHERWISE): ALL WELDS ARE TO BE 5/8" DIAMETER PUDDLE WELDS. USE WELDING WASHERS ON ALL DECKS EQUAL TO OR LESS THAN 24 GAGE THICKNESS.

B) SCREWING: BUILDEX #12 TEK SCREWS OR EQUAL.

C) POWDER-ACTIVATED FASTENERS: HILTI ENP2 AND 3, RAMSET 265D, OR APPROVED EQUAL (SUBMIT MANUFACTURER LITERATURE FOR APPROVED ON EQUAL PRIOR TO USING PRODUCT).

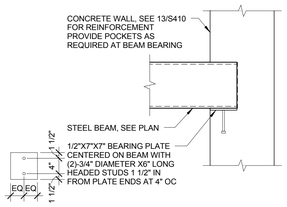
D) PNEUMATICALLY-DRIVEN FASTENERS: PNUETEK PINS OR EQUAL (SUBMIT MANUFACTURERS LITERATURE FOR APPROVED ON EQUAL PRIOR TO USING PRODUCT).

3 METAL DECK FASTENING DETAIL
S450 | 1/2" = 1'-0"

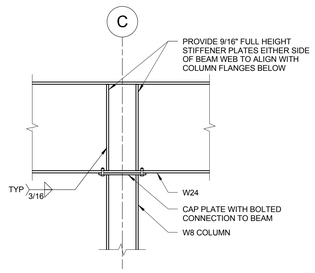


NOTES:
1. DETAIL APPLIES AT ALL BEAMS BEARING ON WALLS EXCEPT FOR LINTELS AND WHERE OTHERWISE NOTED.

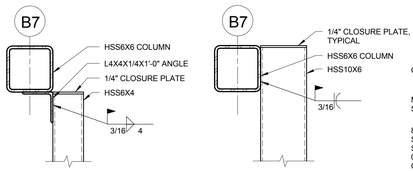
4 BEAM ON CMU WALL
S450 | 3/4" = 1'-0"

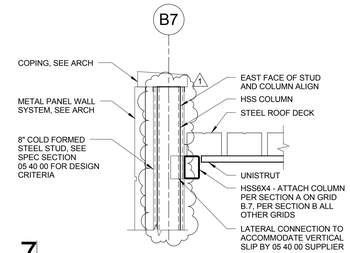


5 SECTION AT BEAM BEARING ON CONCRETE WALL
S450 | 3/4" = 1'-0"

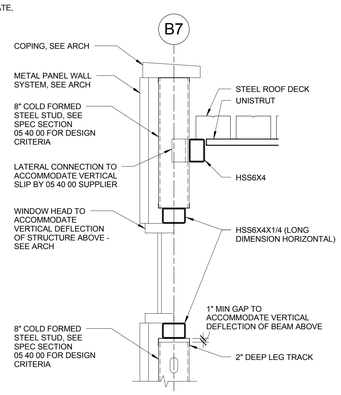


6 SECTION AT BEAM FRAMING OVER COLUMN
S450 | 3/4" = 1'-0"

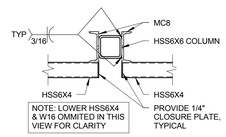




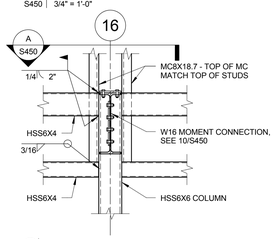
7 SECTION AT PH
S450 | 3/4" = 1'-0"



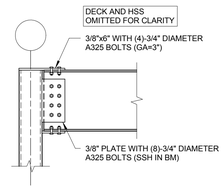
8 SECTION AT OFFICE
S450 | 3/4" = 1'-0"



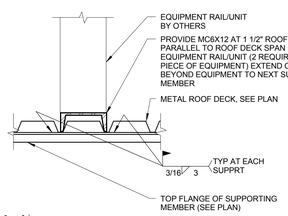
A SECTION
S450 | 3/4" = 1'-0"



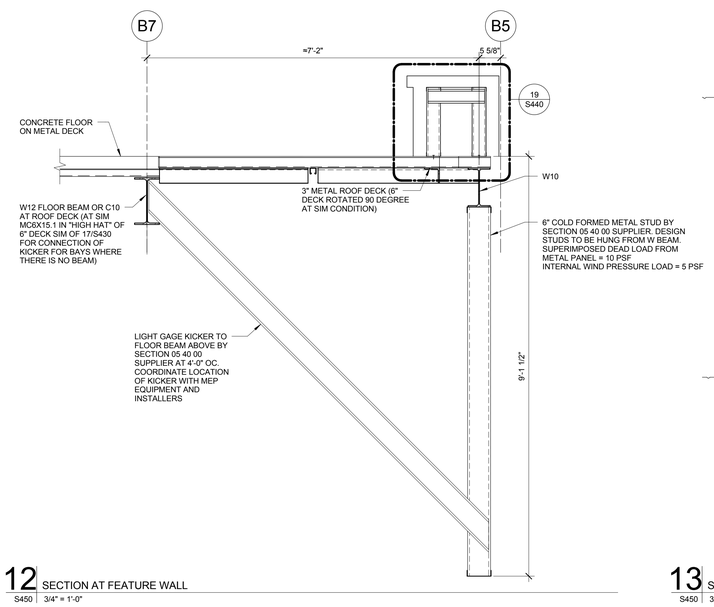
9 SECTION AT OFFICE RIBBON WINDOW
S450 | 3/4" = 1'-0"



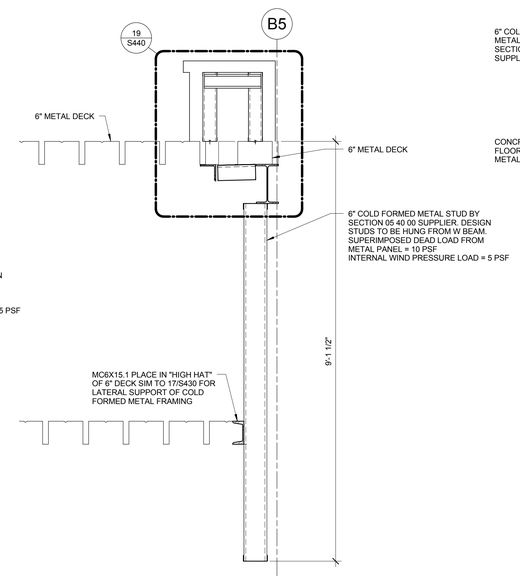
10 MOMENT CONNECTION AT MECH/OFFICE ROOF
S450 | 3/4" = 1'-0"



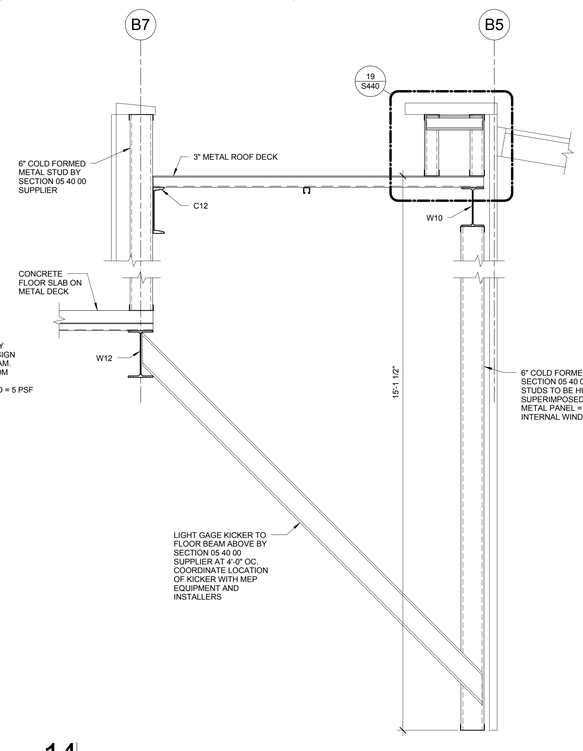
11 EQUIPMENT RAIL SUPPORT
S450 | 1 1/2" = 1'-0"



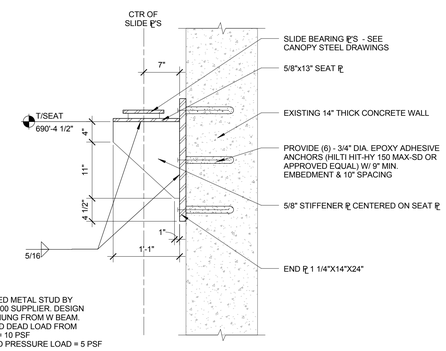
12 SECTION AT FEATURE WALL
S450 | 3/4" = 1'-0"



13 SECTION AT FEATURE WALL GRIDS 9-10, 21-22
S450 | 3/4" = 1'-0"



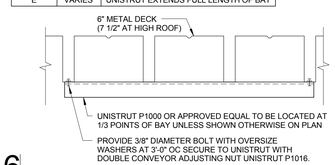
14 SECTION AT FEATURE WALL GATHERING SPACE
S450 | 3/4" = 1'-0"



15 BRACKET FOR CANOPY SUPPORT
S450 | 1" = 1'-0"

UNISTRUT MARK	LENGTH	NOTES
A	18'-0"	UNISTRUT STARTS 1'-0" +/- FROM GRID B
B	15'-6"	UNISTRUT STARTS 1'-0" +/- FROM GRID B
C	14'-2"	UNISTRUT STARTS 1'-0" +/- FROM GRID B
D	12'-6"	UNISTRUT STARTS 1'-0" +/- FROM GRID B
E	VARIES	UNISTRUT EXTENDS FULL LENGTH OF BAY

CONTRACTOR NOTE:
UNISTRUT MUST BE SECURED TO DECK PRIOR TO INSTALLATION OF ROOFING MATERIALS. MEP LOADS ARE NOT PERMITTED TO BE HUNG DIRECTLY FROM THE DECK.



16 SECTION @ MEP HANGER LOCS
S450 | 1 1/2" = 1'-0"

HIGH ROOF SECTIONS AND DETAILS

S450

Engberg Anderson
MILWAUKEE • MADISON • TUCSON

BLOOM COMPANIES, LLC
Architecture • Construction • Engineering
13001 W. Research Drive Milwaukee, WI 53226
Phone: (414) 771-3300 Fax: (414) 771-4400
BLOOMPROJECT NO. 9011.0007

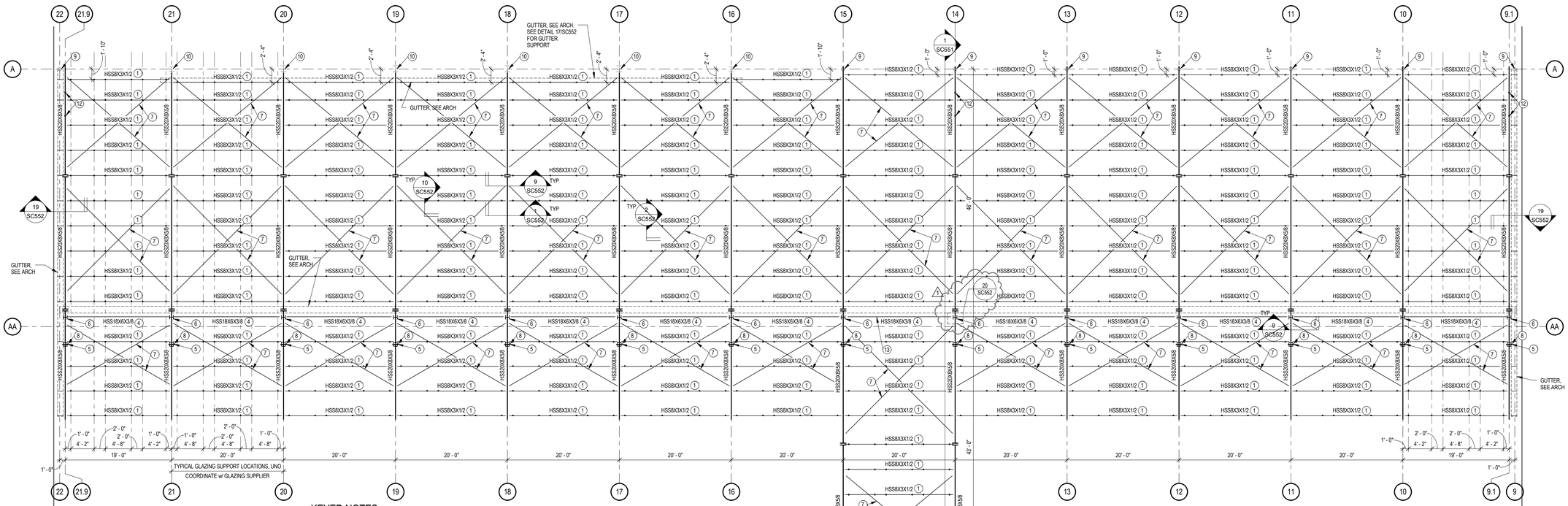
GENERAL MITCHELL INTERNATIONAL AIRPORT
Baggage Claim Building Remodel
5300 S. Howell Ave. Milwaukee, WI 53207

Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

	DESCRIPTION	DATE
1	Addendum No. 2	4/24/13

ISSUED FOR: **CONSTRUCTION**
DATE: **JULY 16, 2012**
PROJECT: **A042-06415**
SITE NO: **290**
BUILDING NO: **209**



KEYED NOTES

MARK	DESCRIPTION
1	HSS8X3X1/2 LONG FACE VERTICAL. SEE DETAIL 1/SC552 FOR CONN TO CROSS TUBE. PURLING ORIENTATION IS SQUARE TO CROSS BEAM HSS20X8. CAP EXPOSED IS TUBE END w/ 1/4" PLATE WELDED ALL AROUND.
2	GLAZING SUPPORT PIPE IN ALTERNATE #2. PIPES NOT SO MARKED ARE PART OF BASE BID.
3	NOT USED.
4	HSS18X6 LONG FACE VERTICAL. FRAME TO W10 COLUMN PER 4/SC552. ORIENTATION IS SQUARE WITH THE AXIS OF W10x COLUMN.
5	HSS8X8X1/2 COLUMN. FIELD SPLICE TO HSS20X8
6	W10X49 COLUMN. SHOP SPLICE TO HSS20X8
7	3/4" Ø A36 STAINLESS STEEL TIE RODS. PROVIDE STAINLESS STEEL TURNBUCKLE IN EACH ROD. PROVIDE #3 STAINLESS STEEL CLEVIS w/ 1 3/4" Ø SS PIN. SEE DETAIL 9/SC552. THE ROD BRACES WILL BE SUPPORTED FROM DROOPING PER DETAIL 10/SC552.
8	TIE-OFF: THIS IS A DELEGATED DESIGN ITEM AS SPECIFIED IN SPEC SECTION 13.
9	HSS COLUMN SPECIFIED IN 'S' DRAWINGS, SEE DETAIL 11/SC552
10	W COLUMN SPECIFIED IN 'S' DRAWINGS, SEE DETAIL 12/SC552
11	BRACKET ON CONCRETE WALL AS SPECIFIED IN 'S' DRAWINGS, SEE DETAIL 18/SC552
12	HSS2X2X1/4" DOWNRIGGER STEEL TUBES FOR SIGNAGE. SHOP ATTACHED TO MAIN SUPPORT TUBE. PROVIDE 1/4"x2"x10" BOTTOM PLATE ON DOWNRIGGER TUBES. SEE ARCH DRAWINGS FOR EXACT LOCATIONS. AT TYPICAL LOCATIONS, PROVIDE 7/8"x1 1/2" SLOT AT TOP OF DOWNRIGGER TUBE FOR ELEC. CONDUIT. THIS WILL OCCUR AT THE WESTERLY TUBE ONLY. ALSO PROVIDE A 7/8"x1 1/2" HOLE IN THE BOTTOM PLATE OF THE DOWNRIGGER TUBE TO ALLOW ELECTRICAL CONDUIT DOWN THRU.
13	HSS8X3X1/4" FOR LIGHTING. SEE ARCH DRAWINGS FOR POSITIONING. SEE 12 FOR DOWNRIGGERS FOR SIGN SUPPORT. PROVIDE A HOLE IN THE BOTTOM OF THE 8x3 TO ALIGN w/ THE INTERNAL SIZE OF THE HSS2x2 DOWNRIGGER. EASE THE EDGES. THESE HOLES WILL BE FOR THE ELECTRICAL ACCESS. VERIFY LOCATION w/ ELECTRICAL.

KEYED NOTES APPLY TO THE ENTIRE PROJECT. ALL NOTES DO NOT NECESSARILY APPLY TO ALL SHEETS.

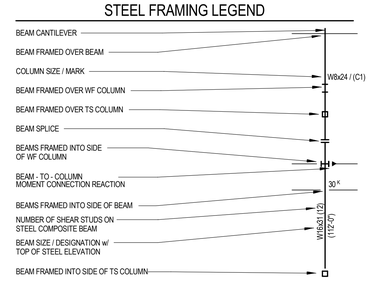
3 SC351 CANOPY ROOF MID-SECTION

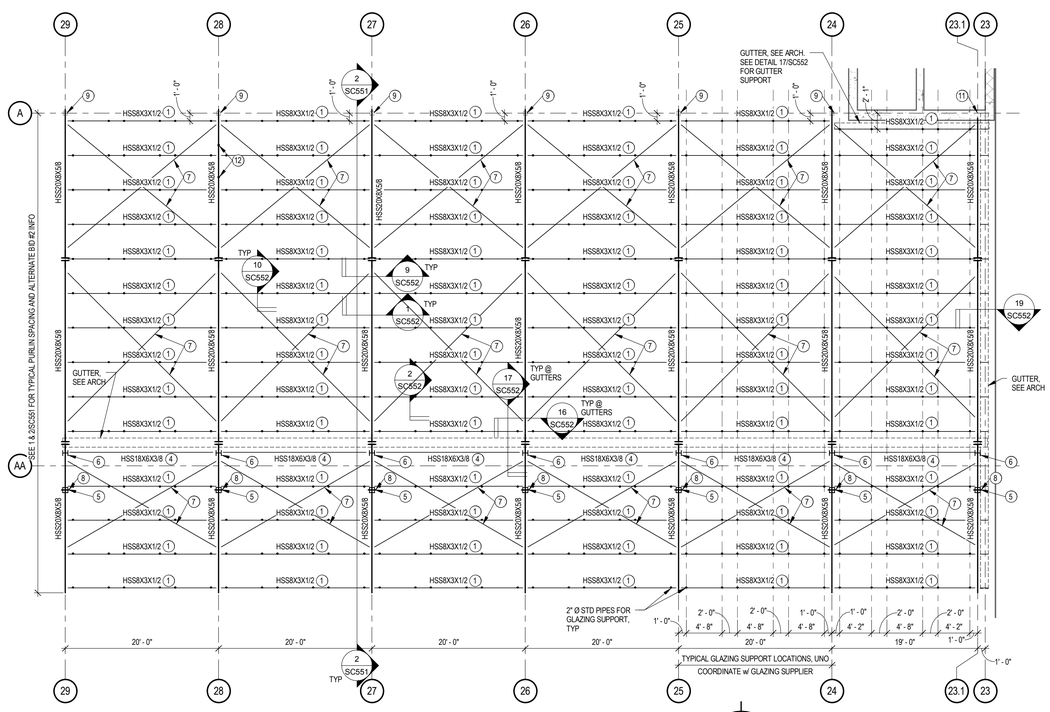
SCALE : 1/8" = 1'-0"

ALL INFORMATION CONCERNING EXISTING CONDITIONS SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION OR MATERIAL FABRICATION. NOTIFY ENGINEER FOR POSSIBLE REMEDIAL ACTION IF ACTUAL CONDITIONS DIFFER FROM THOSE SHOWN HERE.

REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION CONCERNING WORK OF OTHER TRADES.

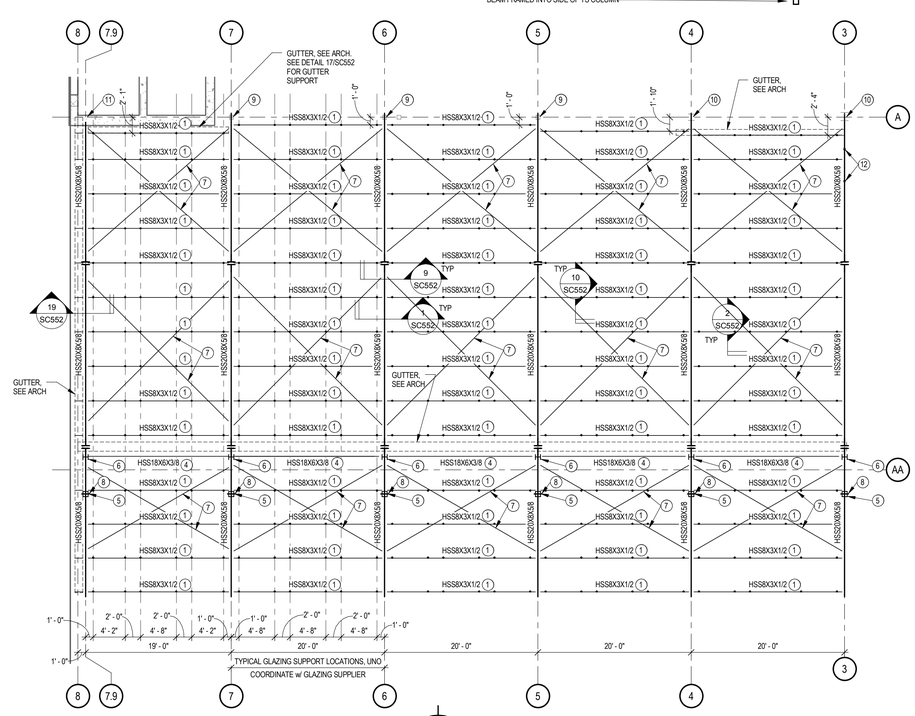
STEEL FRAMING LEGEND





2 SC351 CANOPY ROOF NORTH END

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



1 SC351 CANOPY ROOF SOUTH END

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

CANOPY ROOF FRAMING PLANS SC351

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PIERCE DRUMMERS, Inc.
311 North Milwaukee Street, Suite 500
Milwaukee, WI 53202
414.278.8500
414.278.8510 fax
PE Project: 11207

GENERAL MITCHELL INTERNATIONAL AIRPORT
Baggage Claim Building Remodel
5300 S. Howell Ave. Milwaukee, WI 53207

Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 2	4/24/2013

ISSUED FOR: **Construction**

DATE: **July 16, 2012**

PROJECT: **A042-06415**

SITE NO: **290**

BUILDING NO: **209**

NOTE:
IT IS THE INTENT THAT THE SINGLE SPAN CANOPY BE ONE PIECE INCLUDING THE W10x COLUMN. THE HSS8X8 COLUMN WILL BE FIELD FIT UP AND WELD. THE TWO SPAN CANOPY FRAME SHOWN IN 1/SC551 WILL HAVE A FIELD SPLICE IN THE BEAM WHERE SHOWN. AGAIN, THE W10 COLUMNS WILL BE INTEGRAL AND THE HSS8X8 FIELD APPLIED.

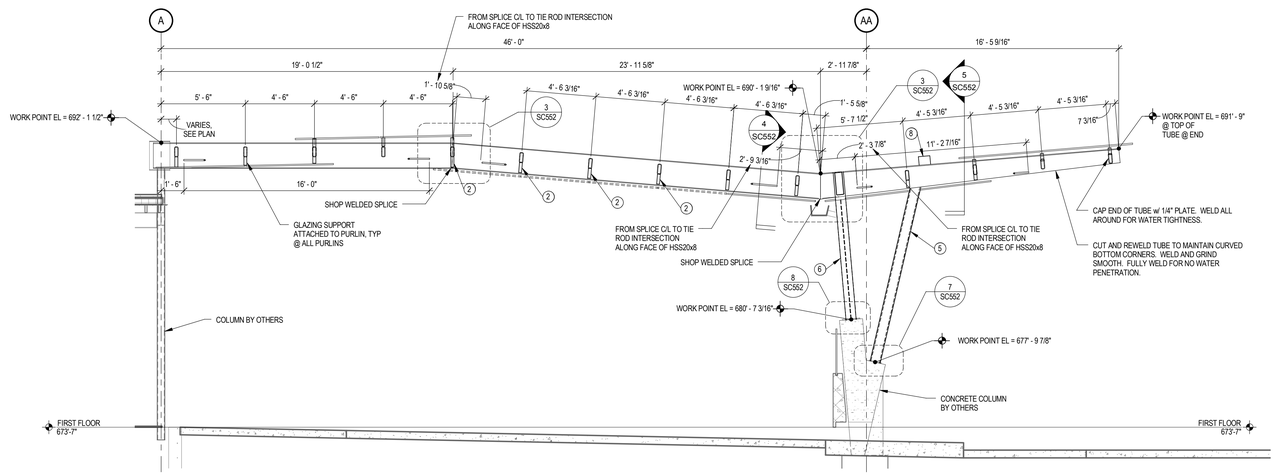
ALL INFORMATION CONCERNING EXISTING CONDITIONS SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION OR MATERIAL FABRICATION. NOTIFY ENGINEER FOR POSSIBLE REMEDIAL ACTION IF ACTUAL CONDITIONS DIFFER FROM THOSE SHOWN HERE.

REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION CONCERNING WORK OF OTHER TRADES.

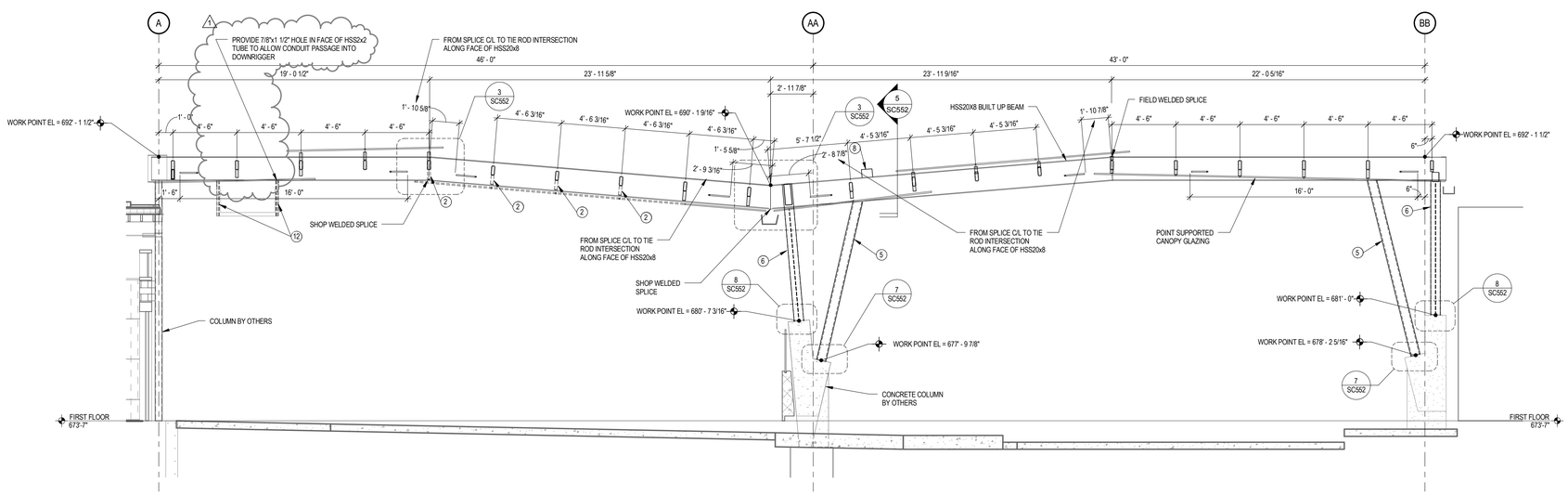
KEYED NOTES

MARK	DESCRIPTION
1	HSS8X3X1/2 LONG FACE VERTICAL. SEE DETAIL 1/SC552 FOR CONN TO CROSS TUBE. PURLING ORIENTATION IS SQUARE TO CROSS BEAM HSS20X8. CAP EXPOSED IS TUBE END w/ 1/4" PLATE WELDED ALL AROUND.
2	GLAZING SUPPORT PIPE IN ALTERNATE #2. PIPES NOT SO MARKED ARE PART OF BASE BID.
3	NOT USED.
4	HSS18X6 LONG FACE VERTICAL. FRAME TO W10 COLUMN PER 4/SC552. ORIENTATION IS SQUARE WITH THE AXIS OF W10x COLUMN.
5	HSS8X8X1/2 COLUMN. FIELD SPLICE TO HSS20X8
6	W10X49 COLUMN. SHOP SPLICE TO HSS20X8
7	3/4" Ø A36 STAINLESS STEEL TIE RODS. PROVIDE STAINLESS STEEL TURNBUCKLE IN EACH ROD. PROVIDE #3 STAINLESS STEEL CLEVIS w/ 1 3/4" Ø SS PIN. SEE DETAIL 9/SC552. THE ROD BRACES WILL BE SUPPORTED FROM DROOPING PER DETAIL 10/SC552.
8	TIE-OFF: THIS IS A DELEGATED DESIGN ITEM AS SPECIFIED IN SPEC SECTION 13.
9	HSS COLUMN SPECIFIED IN 'S' DRAWINGS, SEE DETAIL 11/SC552
10	W COLUMN SPECIFIED IN 'S' DRAWINGS, SEE DETAIL 12/SC552
11	BRACKET ON CONCRETE WALL AS SPECIFIED IN 'S' DRAWINGS, SEE DETAIL 18/SC552
12	HSS2X2X1/4" DOWNRIGGER STEEL TUBES FOR SIGNAGE. SHOP ATTACHED TO MAIN SUPPORT TUBE. PROVIDE 1/4"x2"x10" BOTTOM PLATE ON DOWNRIGGER TUBES. SEE ARCH DRAWINGS FOR EXACT LOCATIONS. AT TYPICAL LOCATIONS, PROVIDE 7/8"x1 1/2" SLOT AT TOP OF DOWNRIGGER TUBE FOR ELEC. CONDUIT. THIS WILL OCCUR AT THE WESTERLY TUBE ONLY. ALSO PROVIDE A 7/8"x1 1/2" HOLE IN THE BOTTOM PLATE OF THE DOWNRIGGER TUBE TO ALLOW ELECTRICAL CONDUIT DOWN THRU.
13	HSS8X3X1/4" FOR LIGHTING. SEE ARCH DRAWINGS FOR POSITIONING. SEE 12 FOR DOWNRIGGERS FOR SIGN SUPPORT. PROVIDE A HOLE IN THE BOTTOM OF THE 8x3 TO ALIGN w/ THE INTERNAL SIZE OF THE HSS2x2 DOWNRIGGER. EASE THE EDGES. THESE HOLES WILL BE FOR THE ELECTRICAL ACCESS. VERIFY LOCATION w/ ELECTRICAL.

KEYED NOTES APPLY TO THE ENTIRE PROJECT. ALL NOTES DO NOT NECESSARILY APPLY TO ALL SHEETS.



2 / SC551 TYPICAL SECTION
SCALE: NTS



1 / SC551 SECTION AT WALKWAY
SCALE: NTS

CANOPY SECTIONS & FRAMING DETAILS

SC551

Engberg Anderson
MILWAUKEE • MADISON • TUCSON

PIERCE ENGINEERS, Inc.
311 North Milwaukee Street, Suite 500
Milwaukee, WI 53202
414.278.0500
414.278.0505 fax
PE Project 11267

GENERAL MITCHELL INTERNATIONAL AIRPORT
Baggage Claim Building Remodel
5300 S. Howell Ave. Milwaukee, WI 53207

Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST. - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

No.	DESCRIPTION	DATE
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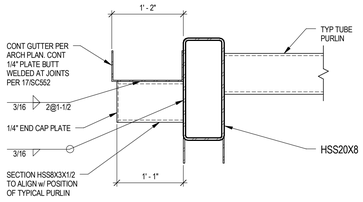
ISSUED FOR:
Construction

DATE:
July 16, 2012

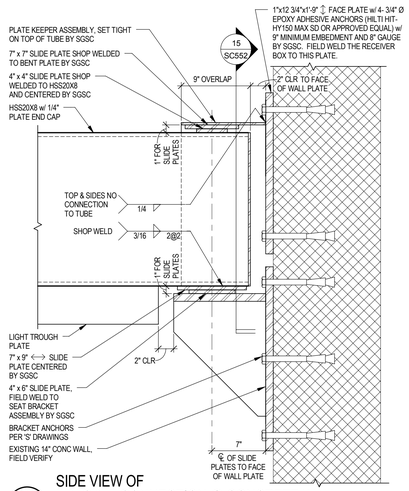
PROJECT:
A042-06415

SITE NO:
290

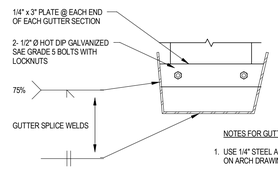
BUILDING NO:
209



19 SC552 GUTTER SECTION @ HSS20X8
SCALE: NTS



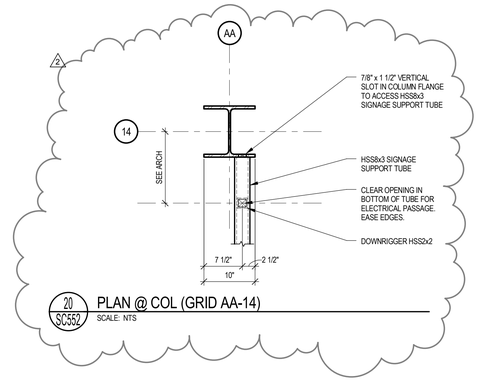
18 SC552 SIDE VIEW OF BRACKET CONNECTION @ CONCRETE WALL
SCALE: NTS



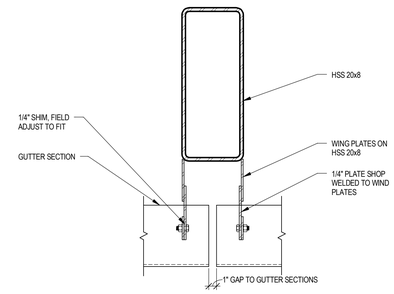
NOTES FOR GUTTER

1. USE 1/4" STEEL AND BEND TO PROFILE SHOWN ON ARCH DRAWINGS
2. BUTT WELD BRAKE BENT SECTIONS TO CREATE SINGLE SECTION TO SPAN BETWEEN SUPPORTS
3. GUTTER SECTIONS SHOP WELDED AND HOT DIP GALVANIZED TO SINGLE 20'± UNIT
4. SEE ARCH FOR GUTTER SLOPE

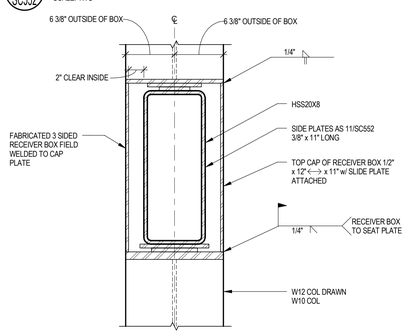
17 SC552 SECTION @ GUTTER SUPPORT
SCALE: NTS



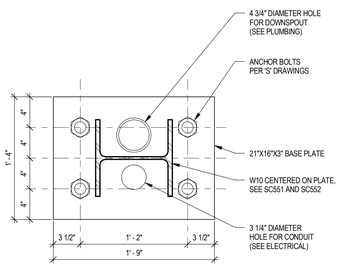
20 SC552 PLAN @ COL (GRID AA-14)
SCALE: NTS



16 SC552 ELEVATION OF GUTTER SUPPORT
SCALE: NTS

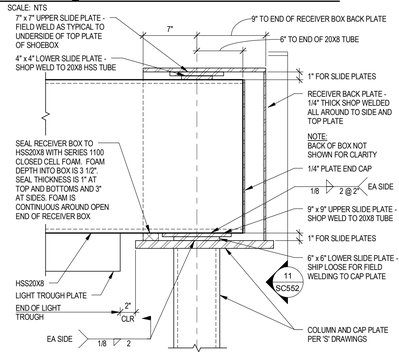


15 SC552 SECTION @ SEAT CONDITION
SCALE: NTS

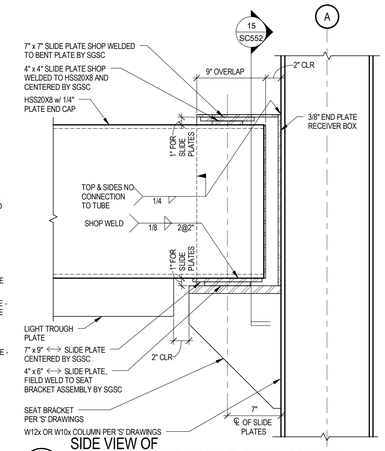


COORDINATE BASE PLATE TEMPLATES, SIZES AND LOCATION WITH CANOPY CONTRACTOR

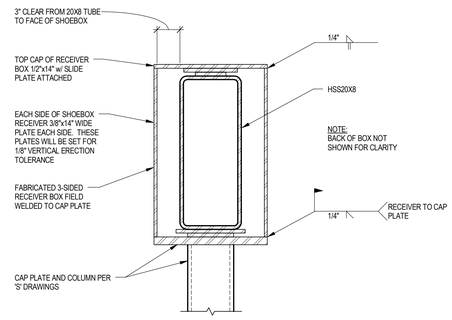
14 SC552 BASE PLATE DETAIL
SCALE: NTS



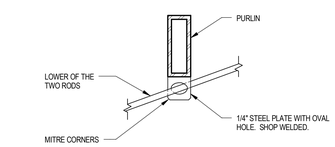
13 SC552 SIDE VIEW OF CONNECTION @ ISOLATED COLUMN
SCALE: NTS



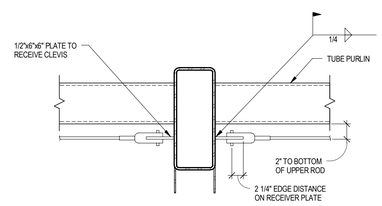
12 SC552 SIDE VIEW OF BRACKET CONNECTION @ STEEL COLUMN
SCALE: NTS



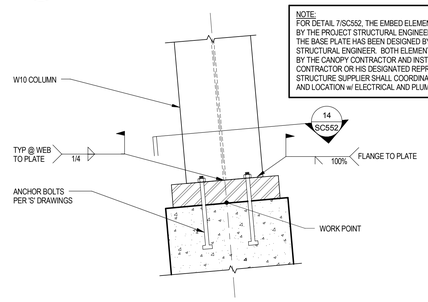
11 SC552 BACK ELEVATION
SCALE: NTS



10 SC552 PURLIN SECTION
SCALE: NTS

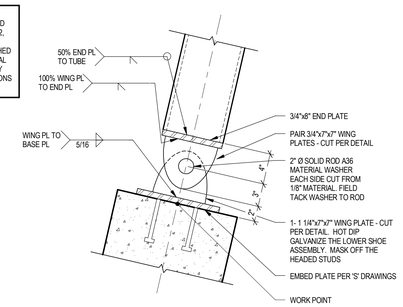


9 SC552 TIE ROD CONNECTION
SCALE: NTS

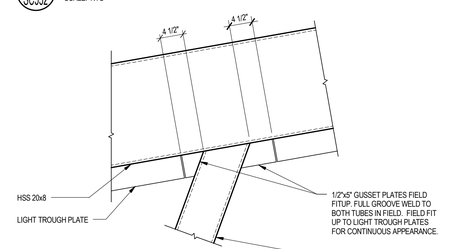


NOTE:
FOR DETAIL 7/SC552. THE EMBED ELEMENT HAS BEEN DESIGNED BY THE PROJECT STRUCTURAL ENGINEER. FOR DETAIL 8/SC552, THE BASE PLATE HAS BEEN DESIGNED BY THE PROJECT STRUCTURAL ENGINEER. BOTH ELEMENTS ARE TO BE FURNISHED BY THE CANOPY CONTRACTOR AND INSTALLED BY THE GENERAL CONTRACTOR OR HIS DESIGNATED REPRESENTATIVE. CANOPY STRUCTURE SUPPLIER SHALL COORDINATE ALL BASE DIMENSIONS AND LOCATION w/ ELECTRICAL AND PLUMBING CONTRACTORS

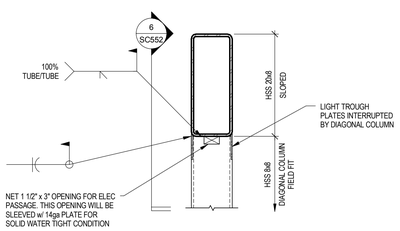
8 SC552 W10 COLUMN BASE
SCALE: NTS



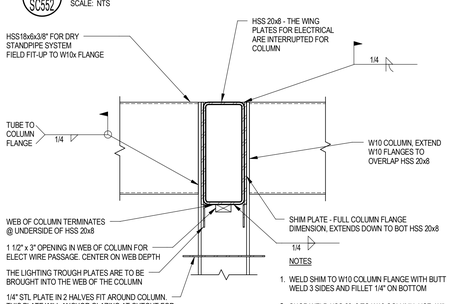
7 SC552 HSS COLUMN BASE
SCALE: NTS



6 SC552 ELEVATION @ HSS TUBE
SCALE: NTS



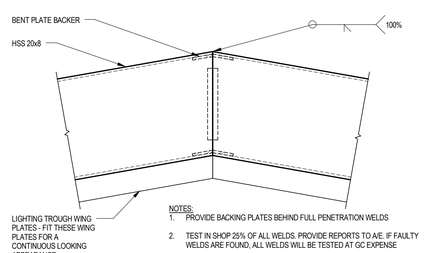
5 SC552 COLUMN CONNECTION
SCALE: NTS



NOTES

1. WELD SHIM TO W10 COLUMN FLANGE WITH BUTT WELD 3 SIDES AND FILLET 1/4" ON BOTTOM
2. SHOP WELD HSS 20x8 TO W10 COLUMN, USE 1/4" FILLET WELD AROUND SHIM/COLUMN FLANGE ASSEMBLY TO FACE OF HSS 20x8

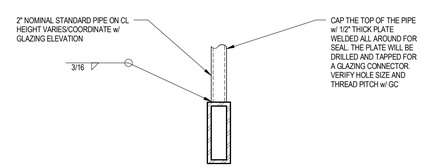
4 SC552 W10 COLUMN TO HSS 20x8
SCALE: NTS



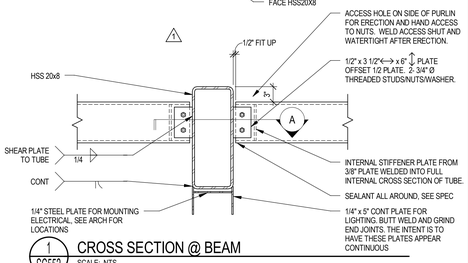
NOTES:

1. PROVIDE BACKING PLATES BEHIND FULL PENETRATION WELDS
2. TEST IN SHOP 25% OF ALL WELDS. PROVIDE REPORTS TO AIE. IF FAULTY WELDS ARE FOUND, ALL WELDS WILL BE TESTED AT GC EXPENSE
3. ALL WELDS WATER TIGHT.
4. THIS IS EITHER A FIELD OR SHOP SPLICE, SEE ELEVATIONS ON SC551 - FIELD AND SHOP.

3 SC552 SPLICE DETAIL
SCALE: NTS



2 SC552 SECTION @ PURLIN
SCALE: NTS



1 SC552 CROSS SECTION @ BEAM
SCALE: NTS

ALL INFORMATION CONCERNING EXISTING CONDITIONS SHALL BE FIELD VERIFIED PRIOR TO CONSTRUCTION OR MATERIAL FABRICATION. NOTIFY ENGINEER FOR POSSIBLE REMEDIAL ACTION IF ACTUAL CONDITIONS DIFFER FROM THOSE SHOWN HERE.

REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION CONCERNING WORK OF OTHER TRADES.

CANOPY FRAMING DETAILS

SC552

Engberg Anderson
MILWAUKEE • MADISON • TUCSON

PIERCE ENGINEERS, Inc.
241 North Broadway, Suite 500
Milwaukee, WI 53202
414.278.8500
414.278.8510 fax
PE Project 11267

GENERAL MITCHELL INTERNATIONAL AIRPORT
Baggage Claim Building Remodel
5300 S. Howell Ave. Milwaukee, WI 53207

Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

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2	Addendum No. 2	4/24/2013

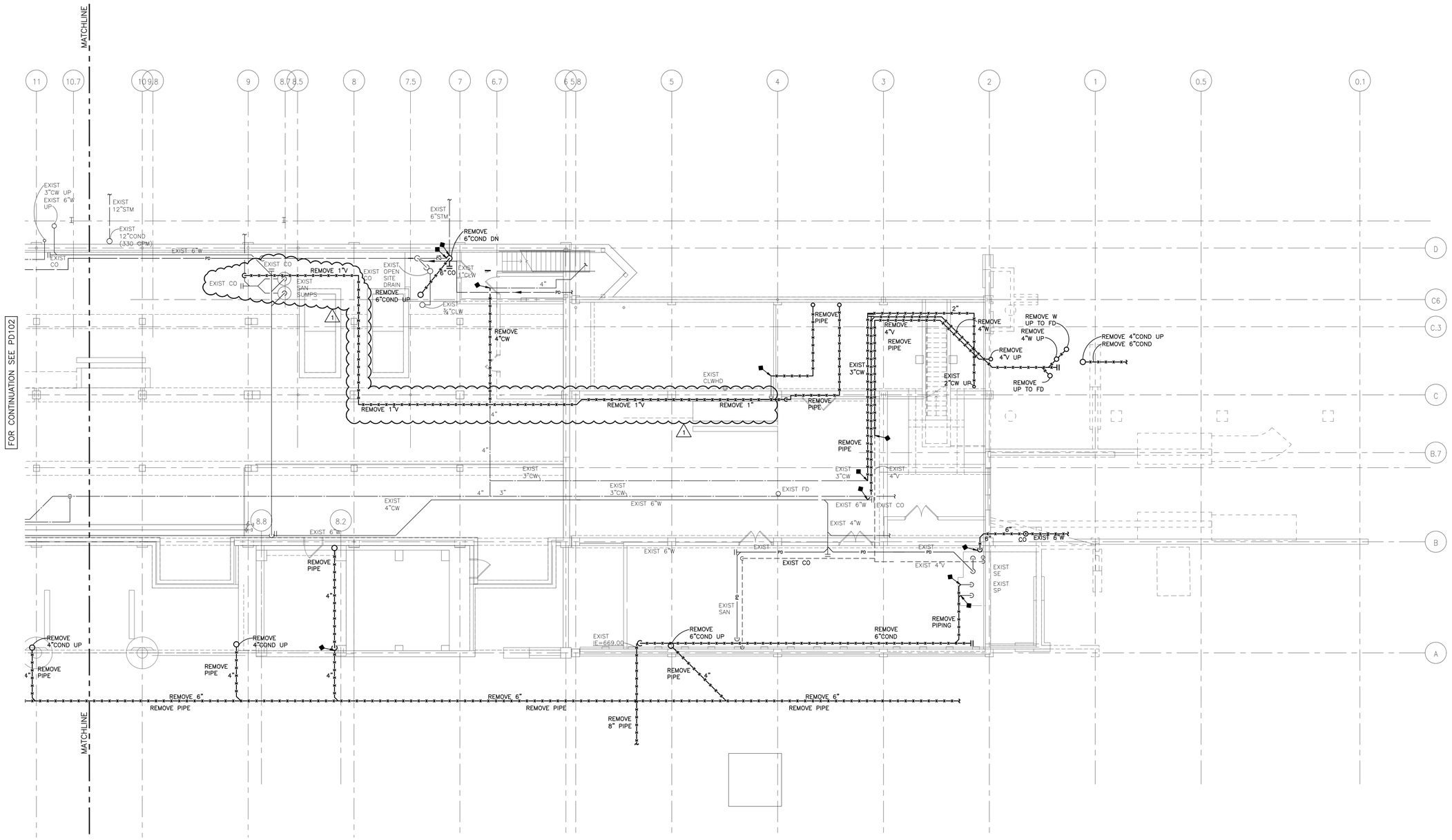
ISSUED FOR:
Construction

DATE:
July 16, 2012

PROJECT:
A042-06415

SITE NO:
290

BUILDING NO:
209



1 LOWER LEVEL DEMO PLAN - SOUTH - PLUMBING
SCALE: 1/8" = 1'-0"

Plan North

LOWER LEVEL DEMO PLAN - SOUTH - PLUMBING

PD103

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MILWAUKEE • MADISON • TUCSON

PSJ ENGINEERING, INC.
CONSULTING ENGINEERS
7665 N. PORT WASHINGTON RD.
MILWAUKEE, WI 53217
PH:(414)352-2211
FAX:(414)351-8823
130403

Design GMF
CAD GMF
Check JCP
App RJW
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GENERAL MITCHELL INTERNATIONAL AIRPORT
Baggage Claim Building Remodel
5300 S. Howell Ave. Milwaukee, WI 53207

Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

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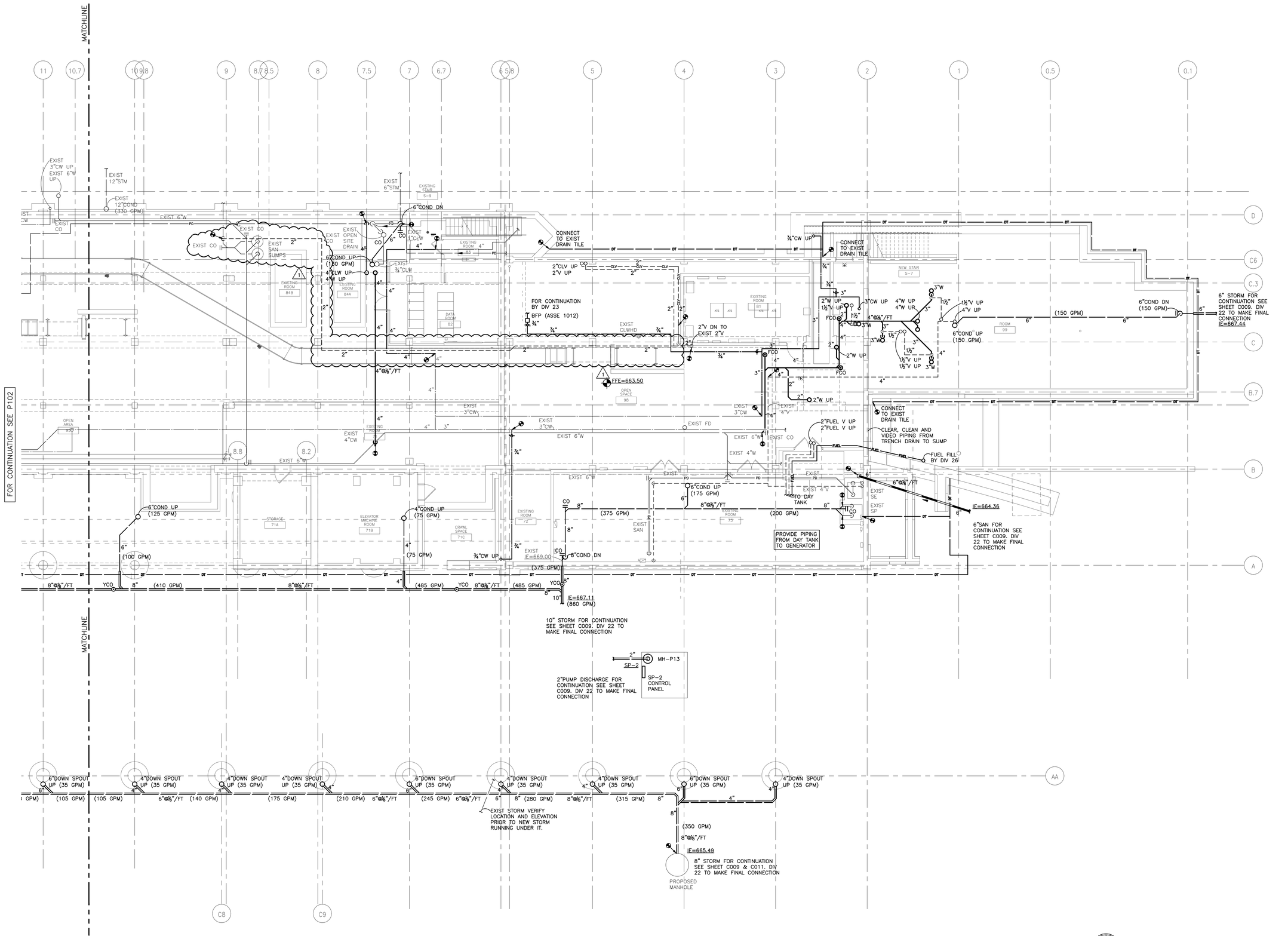
A042-06415
SITE NO:
290
BUILDING NO:
209



1 LOWER LEVEL PLAN - SOUTH - PLUMBING
SCALE: 1/8" = 1'-0"

LOWER LEVEL PLAN - SOUTH - PLUMBING

P103

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PSJ ENGINEERING, INC.
CONSULTING ENGINEERS
7665 N. PORT WASHINGTON RD.
MILWAUKEE, WI 53217
PH:(414)352-2211
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130403

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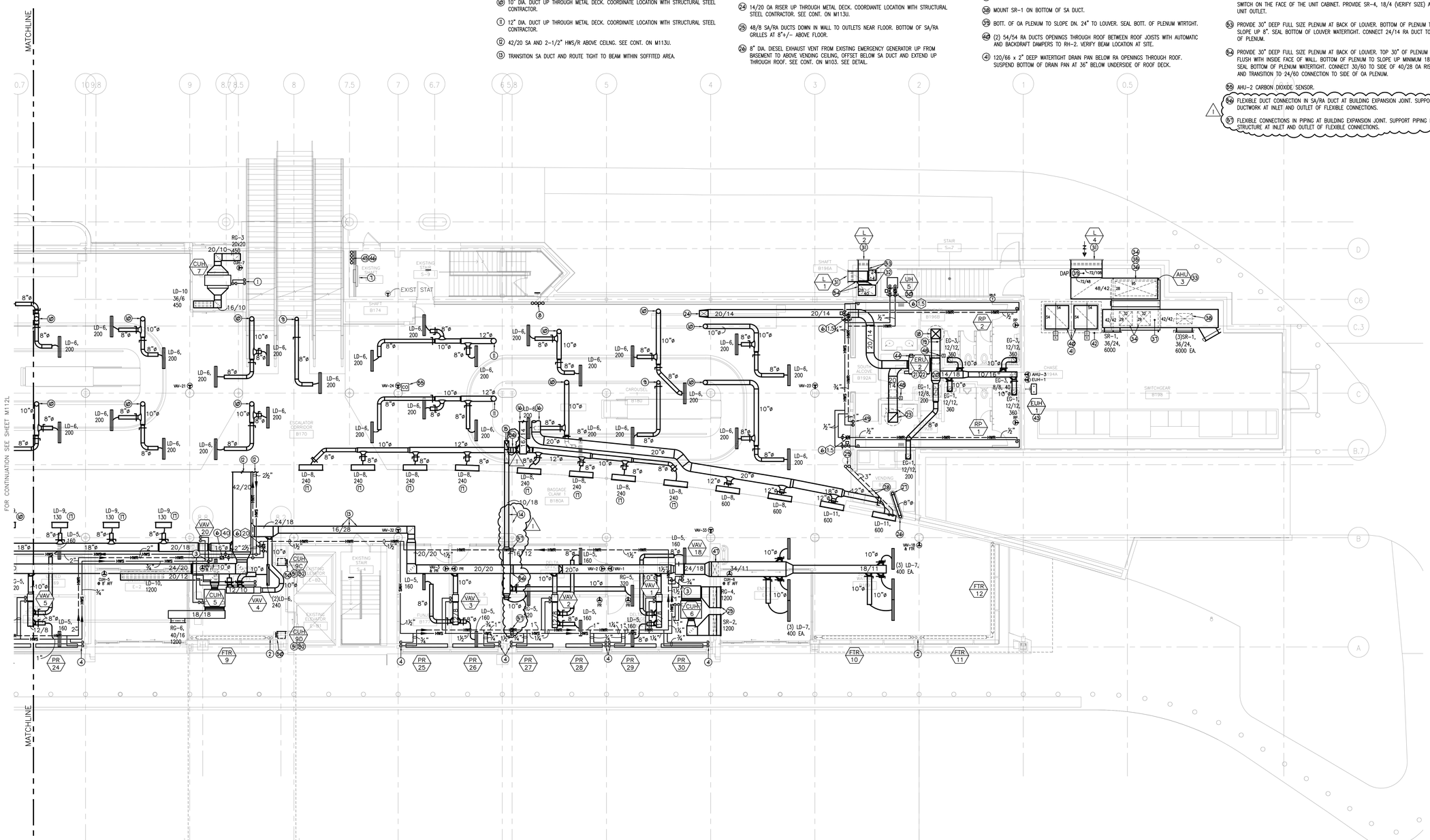
KEYED NOTES

1. ¾" HWS/R DOWN IN WALL/CHASE TO BASEMENT. SEE CONT. N M103.
2. 1" HWS/R DOWN THROUGH FLOOR TO BASEMENT. SEE CONT. ON M103.
3. ¾" BYPASS FROM END OF HWS TO HWR WITH BALL VALVE.
4. ¾" HWS/R DOWN IN FURRED SPACE AT COLUMN. OFFSET IN FURRED WALL BELOW WINDOW SILLE TO PANEL RADIATOR.
5. 1" HWS/R DOWN THROUGH FLOOR TO BASEMENT. SEE CONT ON M103.
6. LINE SIZED BALANCING VALVE, ADJUST TO GPM INDICATED.
7. EXISTING CUH TO REMAIN. RECONNECT TO HWS/R PIPING. SEE CONT. ON M103
8. REFRIGERANT PIPING: (2) ⅞" HOT GAS AND (2) ⅝" LIQUID UP FROM BASEMENT IN FURRED WALL. SEE CONT. ON M103 AND M113U.
9. 8" DIA. SA DUCT UP THROUGH METAL DECK. COORDINATE LOCATION WITH STRUCTURAL STEEL CONTRACTOR. SEE CONT. ON M113U.
10. 10" DIA. DUCT UP THROUGH METAL DECK. COORDINATE LOCATION WITH STRUCTURAL STEEL CONTRACTOR.
11. 12" DIA. DUCT UP THROUGH METAL DECK. COORDINATE LOCATION WITH STRUCTURAL STEEL CONTRACTOR.
12. 42/20 SA AND 2-1/2" HWS/R ABOVE CEILNG. SEE CONT. ON M113U.
13. TRANSITION SA DUCT AND ROUTE TIGHT TO BEAM WITHIN SOFFITED AREA.
14. TRANSITION 16/12 RA TO 10/18 AND ROUTE BETWEEN COLUMNS 5.8 AND 6 ACROSS CLEARSTORY. SUPPORT DUCTWORK COMPLETELY FROM ONE SIDE OF BUILDING EXPANSION JOINT. SUPPORTS SHALL NOT BRIDGE BUILDING EXPANSION JOINT.
15. 10/18 RA DUCT UP, OFFSET AROUND SA DUCT AND CONNECT TO BOTTOM OF RA MAIN. SEE CONT. ON M113U.
16. 16/14 AND 20" DIA. SA DUCTS ABOVE CEILING. SEE CONT. ON M113U.
17. GRILLE MFR. TO PROVIDE IMB METAL BLANK-OFF FOR ONE DIFFUSER SLOT.
18. 22/22 OA RISER UP THROUGH FOOR TO IH-1 WITH 2' DEEP WATERIGHT DRAIN PAN AT BASE OF RISER.
19. 20/14 OA DUCT ABOVE CEILNG TO ERU-2 INLET.
20. 24/16 OA AND EA PLENUMS AT INLET OF ERU-2.
21. SUPPORT UNIT FROM STRUCTURE ABOVE WITH HANGER RODS AND SPRING ISOLATORS.
22. LOCATE UNIT AND COORDINATE INSTALLATION WITH OTHER TRADES TO MAINTAIN REQUIRED SERVICE CLEARANCES.
23. 20/14 EA DUCT FROM OUTLET OF ERU-2 CONNECT TO 22/22 EA RISER UP THROUGH ROOF TO RH-1 WITH 2" DEEP WATERTIGHT DRAIN PAN AT BASE OF RISER.
24. 14/20 OA RISER UP THROUGH METAL DECK. COORDIANTE LOCATION WITH STRUCTURAL STEEL CONTRACTOR. SEE CONT. ON M113U.
25. 48/8 SA/RA DUCTS DOWN IN WALL TO OUTLETS NEAR FLOOR. BOTTOM OF SA/RA GRILLES AT 8"+/- ABOVE FLOOR.
26. 8" DIA. DIESEL EXHAUST VENT FROM EXISTING EMERGENCY GENERATOR UP FROM BASEMENT TO ABOVE VENDING CEILING, OFFSET BELOW SA DUCT AND EXTEND UP THROUGH ROOF. SEE CONT. ON M103. SEE DETAIL.
27. 8" DIA. EMERGENCY GENERATOR EXHAUST UP THROUGH ROOF. SEE CONT. ON M123. SEE DETAIL.
28. 3" EMERGENCY GENERATOR RADIATOR SUPPLY/RELURN PIPING UP FROM BASEMENT IN CHASE TO ABOVE CEILING, OFFSET BELOW SUPPLY DUCTWORK AS INDICATED.
29. 3" EMERGENCTY GENERATOR RADIATOR SUPPLY/RETURN PIPIN UP THROUGH ROOF. SEE CONT. ON M123.
30. MOUNT UNIT HEATER AT 12 FT. ABOVE BASEMENT FLOOR.
31. TOP OF LOUVER AT 12 FT. +/- ABOVE FLOOR. SEE ELEVATIONS ON SHEET A403.
32. 40/28 OA AND 14/24 RE RISERS IN CHASE.
33. MOUNT AHU ON 30" HIGH STEEL PIPE STAND AND FRAME.
34. CONNECT FULL SIZE OA/SA DUCTS TO AHU INLET/OUTLET WITH FLEXIBLE CONNECTIONS.
35. AHU ANGLED FILTER/MIXING SECTION WITH INTEGRAL TOP OA/BOTT. RA INLET CONNECTIONS WITH AUTOMATIC DAMPERS.
36. PROVIDE 1/2" MESH SCREEN OVER BOTTOM RA INLET.
37. ROUTE SA DUCT AS HIGH AS POSSIBLE.
38. MOUNT SR-1 ON BOTTOM OF SA DUCT.
39. BOTT. OF OA PLENUM TO SLOPE DN. 24" TO LOUVER. SEAL BOTT. OF PLENUM WTRTGHT.
40. (2) 54/54 RA DUCTS OPENINGS THROUGH ROOF BETWEEN ROOF JOISTS WITH AUTOMATIC AND BACKDRAFT DAMPERS TO RH-2. VERIFY BEAM LOCATION AT SITE.
41. 120/66 x 2" DEEP WATERTIGHT DRAIN PAN BELOW RA OPENINGS THROUGH ROOF. SUSPEND BOTTOM OF DRAIN PAN AT 36" BELOW UNDERSIDE OF ROOF DECK.
42. OUTLINE OF RH-2 ON ROOF.
43. MOUNT BOTTOM OF UNIT AT 8 FT. ABOVE FLOOR.
44. DOMESTIC WATER SYSTEM ENERGY METER. COORDINATE LOCATION W/ PLBG. CONTR.
45. 3" HWS/R AND 4" CWS/R UP FROM BASEMENT INTO EXISTING CHASE AND UP TO ABOVE CEILING. SEE CONT. ON M103 AND M113U.
46. CUT AND OPEN EXISTING MASONRY CHASE AS REQUIRED FOR INSULATION OF H/CWS/R RISERS. PATCH CHASE AND PAINT TO MATCH EXISITNG.
47. 34/11 SA DUCT UP IN CHASE IN WALL TO ABOVE GATHERING B189 CEILING. ROUTE SA DUCT ABOVE LOW POINT OF LAY IN CEILING.
48. 2 POSITION AUTOMATIC DAMPER AND DUCT ACCESS PANEL.
49. 1" HWS/R DOWN IN WALL THROUGH FLOOR TO BASEMENT. SEE CONT ON M103.
50. ½" HWS/R & ¾" VENT DOWN THROUGH FLOOR TO CRAWL SPACE. SEE CONT. ON M103.
51. HEATER AT FLOOR RECESSED INTO WALL.
52. PROVIDE CONTRACTOR FABRICATED SHEETMETAL STAND-OFF CHANNEL AROUND OUTLET OF HEATER OF ADEQUATE LENGTH SO AS NOT TO INTERFERE WITH THE UNIT MOUNTED SWITCH ON THE FACE OF THE UNIT CABINET. PROVIDE SR-4, 18/4 (VERIFY SIZE) AT UNIT OUTLET.
53. PROVIDE 30" DEEP FULL SIZE PLENUM AT BACK OF LOUVER. BOTTOM OF PLENUM TO SLOPE UP 8". SEAL BOTTOM OF LOUVER WATERTIGHT. CONNECT 24/14 RA DUCT TO SIDE OF PLENUM.
54. PROVIDE 30" DEEP FULL SIZE PLENUM AT BACK OF LOUVER. TOP 30" OF PLENUM TO BE FLUSH WITH INSIDE FACE OF WALL. BOTTOM OF PLENUM TO SLOPE UP MINIMUM 18". SEAL BOTTOM OF PLENUM WATERTIGHT. CONNECT 30/60 TO SIDE OF 40/28 OA RISER AND TRANSITION TO 24/60 CONNECTION TO SIDE OF OA PLENUM.
55. AHU-2 CARBON DIOXIDE SENSOR.
56. FLEXIBLE DUCT CONNECTION IN SA/RA DUCT AT BUILDING EXPANSION JOINT. SUPPORT DUCTWORK AT INLET AND OUTLET OF FLEXIBLE CONNECTIONS.
57. FLEXIBLE CONNECTIONS IN PIPING AT BUILDING EXPANSION JOINT. SUPPORT PIPING FROM STRUCTURE AT INLET AND OUTLET OF FLEXIBLE CONNECTIONS.



1 LOWER FIRST FLOOR PLAN - SOUTH - HVAC
SCALE: 1/8" = 1'-0"

Plan North

LOWER FIRST FLOOR PLAN - SOUTH - HVAC

M113L

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MILWAUKEE • MADISON • TUCSON

PSJ ENGINEERING, INC.
CONSULTING ENGINEERS
7665 N. PORT WASHINGTON RD.
MILWAUKEE, WI 53217
PHONE: (414)351-8822
FAX:(414)351-8823
130403

Designer CAD CWH
Check PSJ
App PSJ
10-038

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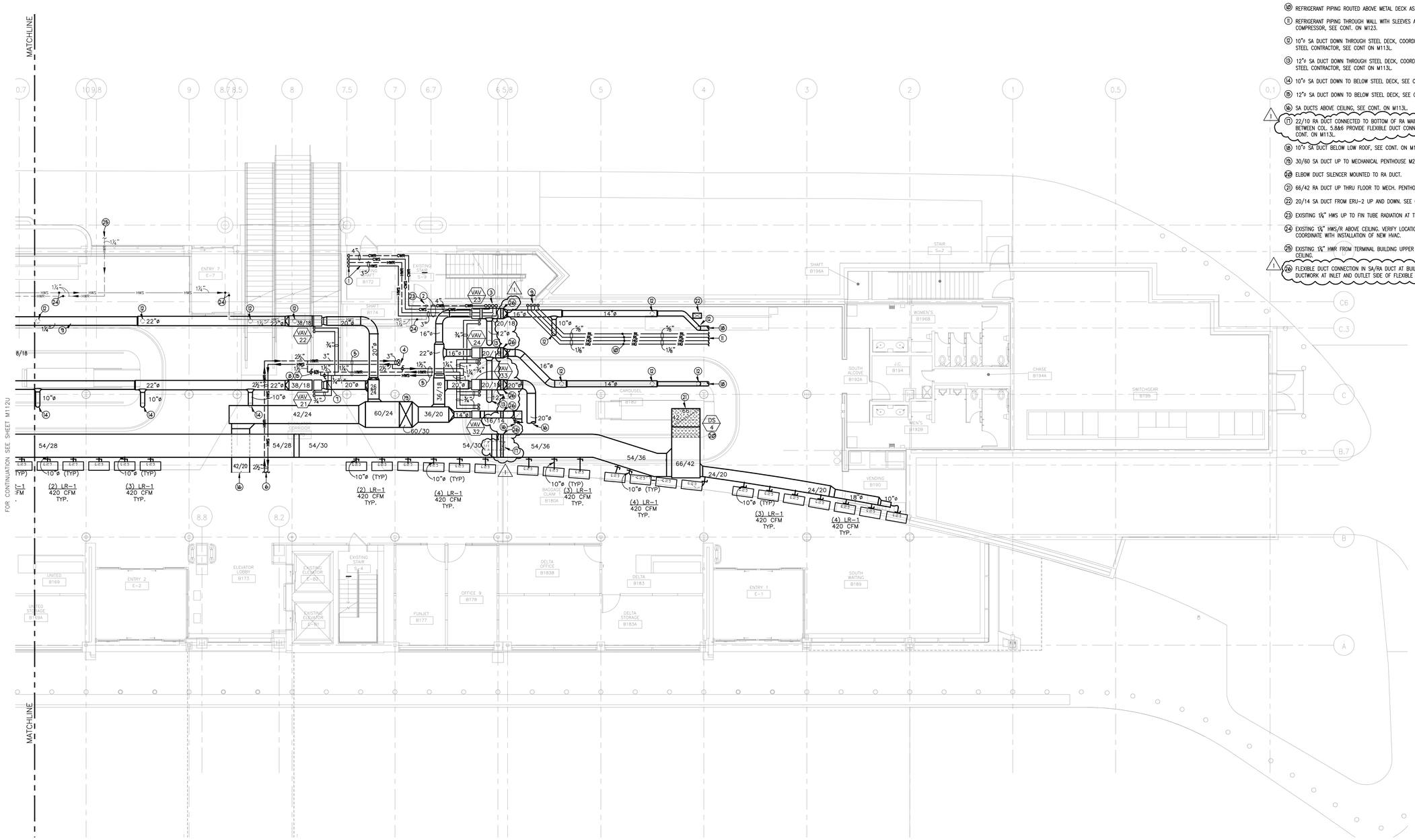
SITE NO:
290
BUILDING NO:
209



KEYED NOTES

1. 3" HWS/R & 4" CWS/R DN. IN EXISTING CHASE & THRU FLOOR TO BSMNT. PROVIDE CUTTING & PATCHING OF EXISTING MASONRY CHASE FOR INSTALLATION OF PIPE RISERS & COORDINATE PIPE ROUTING WITH EXISTING CONDITIONS. SEE CONT. ON M113L.
2. ROUTE H/CWS/R PIPING ABOVE METAL DECK, SUSPEND FROM STRUCTURE ABOVE.
3. 3" HWS/R AND 4" CWS/R UP THROUGH FLOOR TO MECHANICAL PENTHOUSE M298, SEE CONT ON M200.
4. 3" HWS/R UP THRU FLOOR TO MECHANICAL PENTHOUSE M298B, SEE CONT. ON M200.
5. SUPPORT HWS/R PIPING ON METAL DECK WITH UNISTRUT SUPPORTS AND PIPING ACCESSORIES.
6. 2 1/2" HWS/R ABOVE CEILING, SEE CONT. ON 113L.
7. ¾" BYPASS PIPE FROM HWS TO HWR WITH BALL VALVE.
8. LINE SIZE BALANCING VALVE, ADJUST TO GPM INDICATED.
9. REFRIG. PIPING (2) 1 1/8" HOT GAS & (2) 5/8" LIQUID FROM ROOM 81 COMPUTER ROOM AIR CONDITIONING UNIT UP FROM BSMT. IN FURRED WALL, SEE CONT. ON M113L.
10. REFRIGERANT PIPING ROUTED ABOVE METAL DECK AS HIGH AS POSSIBLE
11. REFRIGERANT PIPING THROUGH WALL WITH SLEEVES AND SEALS TO RROF MOUNTED AIR COMPRESSOR, SEE CONT. ON M123.
12. 10"ø SA DUCT DOWN THROUGH STEEL DECK, COORDINATE LOCATION WITH STRUCTURAL STEEL CONTRACTOR, SEE CONT ON M113L.
13. 12"ø SA DUCT DOWN THROUGH STEEL DECK, COORDINATE LOCATION WITH STRUCTURAL STEEL CONTRACTOR, SEE CONT ON M113L.
14. 10"ø SA DUCT DOWN TO BELOW STEEL DECK, SEE CONT. ON M113L.
15. 12"ø SA DUCT DOWN TO BELOW STEEL DECK, SEE CONT. ON M113L.
16. SA DUCTS ABOVE CEILING, SEE CONT. ON M113L.
17. 22/10 RA DUCT CONNECTED TO BOTTOM OF RA MAIN, OFFSET AND EXTEND DOWN BETWEEN COL. 5.8&6 PROVIDE FLEXIBLE DUCT CONNECTION NEAR BASE OF RISER. SEE CONT. ON M113L.
18. 10"ø SA DUCT BELOW LOW ROOF, SEE CONT. ON M113L.
19. 30/60 SA DUCT UP TO MECHANICAL PENTHOUSE M298, SEE CONT. ON M200.
20. ELBOW DUCT SILENCER MOUNTED TO RA DUCT.
21. 66/42 RA DUCT UP THRU FLOOR TO MECH. PENTHOUSE M298, SEE CONT. ON M200.
22. 20/14 SA DUCT FROM ERU-2 UP AND DOWN. SEE CONT. ON M200 AND M113U.
23. EXISITING 1¼" HWS UP TO FIN TUBE RADIATION AT TERMINAL BUILDING UPPER LEVEL.
24. EXISTING 1¼" HWS/R ABOVE CEILING. VERIFY LOCATION AND ROUTING AT SITE AND COORDINATE WITH INSTALLATION OF NEW HVAC.
25. EXISTING 1¼" HWR FROM TERMINAL BUILDING UPPER LEVEL FIN TUBE RADIATION ABOVE CEILING.
26. FLEXIBLE DUCT CONNECTION IN SA/RA DUCT AT BUILDING EXPANSION JOINT SUPPORT DUCTWORK AT INLET AND OUTLET SIDE OF FLEXIBLE CONNECTIONS.

Engberg Anderson
MILWAUKEE • MADISON • TUCSON

PSJ ENGINEERING, INC.
CONSULTING ENGINEERS
7845 N. PORT WASHINGTON Rd.
MILWAUKEE, WI 53217
PHONE:(414)351-7000
FAX:(414)351-8823
130403

Designing PSJ
CAD CWH
Check PSJ
App PSJ
10-038

GENERAL MITCHELL INTERNATIONAL AIRPORT
Baggage Claim Building Remodel
5300 S. Howell Ave. Milwaukee, WI 53207

Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 2	4/24/2013

ISSUED FOR:
Construction
DATE:
July 16, 2012
PROJECT:
A042-06415
SITE NO:
290
BUILDING NO:
209

Plan North

1 UPPER FIRST FLOOR PLAN - SOUTH - HVAC
SCALE: 1/8" = 1'-0"

UPPER FIRST FLOOR PLAN - SOUTH - HVAC

M113U

LIGHTING FIXTURE SCHEDULE

FIXTURE	DESCRIPTION	LAMP NO.	TYPE	INPUT WATT	VOLT	DRIVER OR BALLAST	MANUFACTURER	CATALOG NUMBER	MOUNTING	SEE KEY NOTE
AOR	LED AOR SIGN		LED	3 VA	UNV	ELECTRONIC SWITCHED DRIVER	ISOLITE	ELT-AC-R-1C-WH-XX-XX-CW (AREA OF REFUGE)	SURFACE OR WALL MOUNT AS REQUIRED	3, 25, 26
EBU	EMERGENCY BATTERY UNIT		LED	3.5 VA	UNV	---	PHILIPS DAY-BRITE	VU6LSD	WALL MOUNT AT 8' AFF	
EX1A	2' LINEAR WET RATED LED SLOT		LED	23 VA	UNV	LUTRON HI-LUME A DRIVER	AXIS	WBSLED-C-2-1000-4000-XX-UNV-LT-1-XX	RECESSED IN CHANNEL	13, 7, 20
EX1B	3' LINEAR WET RATED LED SLOT		LED	33 VA	UNV	LUTRON HI-LUME A DRIVER	AXIS	WBSLED-C-3-1000-4000-XX-UNV-LT-1-XX	RECESSED IN CHANNEL	13, 7, 20
EX1C	4' LINEAR WET RATED LED SLOT		LED	45 VA	UNV	LUTRON HI-LUME A DRIVER	AXIS	WBSLED-C-4-1000-4000-XX-UNV-LT-1-XX	RECESSED IN CHANNEL	13, 7, 20
EX1D	8' LINEAR WET RATED LED SLOT		LED	90 VA	UNV	LUTRON HI-LUME A DRIVER	AXIS	WBSLED-C-8-1000-4000-XX-UNV-LT-1-XX	RECESSED IN CHANNEL	13, 7, 20
EX2	4' LED SURFACE MOUNT LED TUBE		LED	40 VA	120-240	ELECTRONIC DRIVER WITH DMX INTERFACE	COLOR KINETICS	123-000018-01	VERTICAL SURFACE MOUNT AT 12'6" ON CENTER AT AGL	1, 7, 18, 20
EX3	LED BOLLARD		LED	12 VA	120	ELECTRONIC SWITCHED DRIVER		SEE CIVIL DRAWINGS C008 & C009 AND SPECIFICATION SECTION 32 39 14	SEE CIVIL SPECIFICATION SECTION 32 39 14	17
EX4	WALL MOUNT LED		LED	37 VA	UNV	ELECTRONIC SWITCHED DRIVER	GARDCO	121-CWL-MT-35LA-NW-UNV-WP	WALL MOUNT AT 10' AGL UNLESS OTHERWISE NOTED	17
EX5	TWO HEAD LED POLE MOUNT		LED	368 VA	UNV	ELECTRONIC SWITCHED DRIVER	LSI	(2) XAM3-2-LED-119-450-CW-UE-WHT BKS-NM-PA-40-WHT	POLE MOUNT ON 28' POLE WITH BASE	9, 17
EX6	LED CIRCULAR DOWNLIGHT		LED	32 VA	277	0-10V DIMMING DRIVER	PMC	6LEHP-2000-R-CW-1-D-2-XX	RECESSED IN CANOPY	27
EX7	LED CAST IN PLACE STEP LIGHT		LED	24 VA	UNV	ELECTRONIC SWITCHED DRIVER	Winona LED	LED-STEP03-12-L-002/HO-ND277-BSS-WL	RECESSED IN CONCRETE	20
EX8	WALL MOUNT AND OR POLE MOUNT LED NARROW SPOT		LED	140 VA	277	0-10V DIMMING DRIVER	LUMEN PULSE	LBX-277-40K-NF-SN-WH-DIM-XX	SEE KEYNOTE	19, 20, 22
F1A2	RECESSED REGRESSED FL SLOT	1	T8	22 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	AXIS	B6R-F-RG-2-T8-1-MO-C-UNV-DXX-1-TG	RECESSED IN TECHZONE	7, 16
F1A4	RECESSED REGRESSED FL SLOT	1	T8	35 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	AXIS	B6R-F-RG-4-T8-1-MO-C-UNV-DXX-1-TG	RECESSED IN TECHZONE	7, 16
F1A6	RECESSED REGRESSED FL SLOT	1	T8	57 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	AXIS	B6R-F-RG-6-T8-1S-MO-C-UNV-DXX-1-TG	RECESSED IN TECHZONE	7, 16
F1A8	RECESSED REGRESSED FL SLOT	1	T8	66 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	AXIS	B6R-F-RG-8-T8-1S-MO-C-UNV-DXX-1-TG	RECESSED IN TECHZONE	7, 16
F1A10	RECESSED REGRESSED FL SLOT	1	T8	88 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	AXIS	B6R-F-RG-S10-T8-1S-MO-C-UNV-DXX-1-TG	RECESSED IN TECHZONE	7, 16
F1A12	RECESSED REGRESSED FL SLOT	1	T8	94 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	AXIS	B6R-F-RG-S12-T8-1S-MO-C-UNV-DXX-1-TG	RECESSED IN TECHZONE	7, 16
F1A14	RECESSED REGRESSED FL SLOT	1	T8	116 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	AXIS	B6R-F-RG-S14-T8-1S-MO-C-UNV-DXX-1-TG	RECESSED IN TECHZONE	7, 16
F1A16	RECESSED REGRESSED FL SLOT	1	T8	132 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	AXIS	B6R-F-RG-S16-T8-1S-MO-C-UNV-DXX-1-TG	RECESSED IN TECHZONE	7, 16
F1A20	RECESSED REGRESSED FL SLOT	1	T8	167 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	AXIS	B6R-F-RG-S20-T8-1S-MO-C-UNV-DXX-1-TG	RECESSED IN TECHZONE	7, 16
F1B2	RECESSED REGRESSED FL SLOT	2	T8	42 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.17 BF	AXIS	B6R-F-RG-2-T8-2-MO-C-UNV-DXX-1-TG	RECESSED IN TECHZONE	7
F1B4	RECESSED REGRESSED FL SLOT	2	T8	75 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.17 BF	AXIS	B6R-F-RG-4-T8-2-MO-C-UNV-DXX-1-TG	RECESSED IN TECHZONE	7
F1B6	RECESSED REGRESSED FL SLOT	2	T8	117 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.17 BF	AXIS	B6R-F-RG-6-T8-2S-MO-C-UNV-DXX-1-TG	RECESSED IN TECHZONE	7
F1B8	RECESSED REGRESSED FL SLOT	2	T8	150 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.17 BF	AXIS	B6R-F-RG-8-T8-2S-MO-C-UNV-DXX-1-TG	RECESSED IN TECHZONE	7
F1C2	VERTICAL RECESSED REGRESS FL SLOT	1	T8	22 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	AXIS	B6RV-F-RG-2-T8-1-MO-C-UNV-DXX-1-DS	VERTICALLY RECESSED WITH CORNER MOUNT IN DRYWALL WALL	7, 20
F1C4	VERTICAL RECESSED REGRESS FL SLOT	1	T8	35 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	AXIS	B6RV-F-RG-4-T8-1-MO-C-UNV-DXX-1-DS	VERTICALLY RECESSED WITH CORNER MOUNT IN DRYWALL WALL	7, 20
F1C6	VERTICAL RECESSED REGRESS FL SLOT	1	T8	57 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	AXIS	B6RV-F-RG-6-T8-1S-MO-C-UNV-DXX-1-DS	VERTICALLY RECESSED WITH CORNER MOUNT IN DRYWALL WALL	7, 20
F1D4	RECESSED FLUSH FL SLOT	1	T8	40 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.17 BF	AXIS	BR6-F-FL-4-T8-1-MO-W-UNV-DXX-1-DS	RECESSED IN DRYWALL	5
F1D14	RECESSED FLUSH FL SLOT	1	T8	152 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.17 BF	AXIS	BR6-F-FL-S14-T8-1S-MO-W-UNV-DXX-1-DS	RECESSED IN DRYWALL	5
F1D15	RECESSED FLUSH FL SLOT	1	T8	152 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.17 BF	AXIS	BR6-F-FL-S15-T8-1S-MO-W-UNV-DXX-1-DS	RECESSED IN DRYWALL	5
F1D16	RECESSED FLUSH FL SLOT	1	T8	150 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.17 BF	AXIS	BR6-F-FL-S16-T8-1S-MO-W-UNV-DXX-1-DS	RECESSED IN DRYWALL	5
F2A	4" SQUARE LED DOWNLIGHT		LED	15 VA	277	LUTRON HI-LUME A DRIVER	PMC	4LE-SQXL-1000-R-CW-60-1-H-2-X-S	RECESSED IN TECHZONE OR DRYWALL	27
F2B	4" SQUARE LED WALL WASH DOWNLIGHT		LED	15 VA	277	LUTRON HI-LUME A DRIVER	PMC	4LE-SQXL-1000-R-CW-60-1-H-2-X-WLW-S	RECESSED IN DRYWALL	11, 27
F2C	4" SQUARE LED DOWNLIGHT		LED	15 VA	277	LUTRON HI-LUME A DRIVER	PMC	4LE-SQXL-1000-R-CW-20-1-H-2-X-S	RECESSED IN DRY WALL	27
F3	4" ROUND LED DOWNIGHT		LED	15 VA	277	LUTRON HI-LUME A DRIVER	PMC	4LE-XL-1000-R-CW-60-1-H-2-XX-S	RECESSED IN DRYWALL OR WOOD CEILING	28
F4	1' LINEAR LED UPLIGHT		LED	13 VA	UNV	REVERSE PHASE CONTROL DIMMING DRIVER	COLOR KINETICS	523-000065-15	SURFACE MOUNT IN CHANNEL AT TOP OF CAROUSEL	8, 20
F5	6" CIRCULAR LED DOWNLIGHT		LED	50 VA	277	0-10V DIMMING DRIVER	PMC	6LEHP-3000-R-CW-1-D-2-M	RECESSED IN WOOD CEILING	27
F7A	SURFACE MOUNT LED ADJUSTIBLE MED FLOOD		LED	15 VA	277	REVERSE PHASE CONTROL DIMMING DRIVER	LSI	V-LX2060-D-4X-M4-XX-5A	COLUMN MOUNT MONOPOINT AT 10' AFF. SEE NOTE FOR FURTHER INFORMATION.	10, 17, 20
F7B	SURFACE MOUNT LED ADJUSTIBLE SPOT		LED	15 VA	277	REVERSE PHASE CONTROL DIMMING DRIVER	LSI	V-LX2060-D-4X-M1-XX-5A	SURFACE MOUNT MONOPOINT ON CEILING	12, 17, 20
F8										
F9										
F10	LINEAR FL COVE LIGHT	1	T8		277	LUTRON ECOSYSTEM H SERIES/ 1.17 BF	ELIPTAPAR	F306-AXX-S-00-V LUTRON H SERIES-00-0	SURFACE MOUNT IN COVE	8
F11	LINEAR LED COVE LIGHT		LED	5 VA	277	0-10V DIMMING DRIVER	LUMENPULSE	LCSRO-277-12-40K-CL-XX-WH-DIM	SURFACE MOUNT IN COVE	8
F12	LED LINEAR DIRECT INDIRECT PENDENT		LED	60 VA	277	0-10V DIMMING DRIVER	BIRCHWOOD	K3UD-LED-HF2N-40-6-2-SC-CSS-XX-STND-SL-SC-SIW-SIC-2 CIRCUIT	CENTER LUMINAIRE ON UPPER TRANSACTION COUNTER AND PENDENT MOUNT AT 30" ABOVE.	21
F13A	4' LINEAR FLUORESCENT INDUSTRIAL	2	T8	70 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	NULITE	I-12-2-32T8-UNV-LUTRON ECOSYSTEM H SERIES-WG-3C	CHAIN HUNG AT 8' AFF UNLESS OTHERWISE NOTED ON DRAWINGS	
F13B	8' LINEAR FLUORESCENT INDUSTRIAL	2	T8	140 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	NULITE	I-12-2-32T8-8-UNV-LUTRON ECOSYSTEM H SERIES-WG-3C	CHAIN HUNG AT 8' AFF UNLESS OTHERWISE NOTED ON DRAWINGS	
F15A1	24" DECORATIVE CIRCULAR NEAR SURFACE MOUNT		LED	45 VA	277	ELECTRONIC DRIVER WITH DMX INTERFACE	BETA CALCO	D15SD163AE-DMX600/R-MEC1820-2	BOTTOM OF FIXTURE TO BE HORIZONTAL. PENDENT MOUNT BOTTOM OF FIXTURE AT 10' AFF	17, 18, 21
F15A2	24" DECORATIVE CIRCULAR PENDENT		LED	45 VA	277	ELECTRONIC DRIVER WITH DMX INTERFACE	BETA CALCO	D15SD163AE-DMX600/R-MEC1823AE-2	PENDENT MOUNT BOTTOM OF FIXTURE AT XX' AFF	6, 17, 18, 21, 22
F15B1	39" DECORATIVE CIRCULAR NEAR SURFACE MOUNT		LED	81 VA	277	ELECTRONIC DRIVER WITH DMX INTERFACE	BETA CALCO	D15SD164AE-DMX1000/R-MEC1820-2	BOTTOM OF FIXTURE TO BE HORIZONTAL. PENDENT MOUNT BOTTOM OF FIXTURE AT 10' AFF	17, 18, 21
F15B2	39" DECORATIVE CIRCULAR PENDENT		LED	81 VA	277	ELECTRONIC DRIVER WITH DMX INTERFACE	BETA CALCO	D15SD164AE-DMX1000/R-MEC1823AE-2	PENDANT MOUNT BOTTOM OF FIXTURE AT XX' AFF	6, 17, 18, 21, 22
F15C	70" DECORATIVE CIRCULAR PENDENT		LED	156 VA	277	ELECTRONIC DRIVER WITH DMX INTERFACE	BETA CALCO	D15SD165AE-DMX18000/R-MEC1823AE-2	PENDENT MOUNT BOTTOM OF FIXTURE AT XX' AFF	6, 17, 18, 21, 22
F16	WALL OR SURFACE MOUNT FLUOERSCENT	2	T8	66 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	PRUDENTIAL	P1220-2T8-04-WA-TMW-UNV-SUR-LUTRON H SERIES	WALL MOUNT AT 8' OR CEILING AS INDICATED ON DRAWINGS	5
F17	DECORATIVE LED WALL MOUNT		LED	3.7 VA	UNV	ELECTRONIC SWITCHED DRIVER	VISA	CV-2106-LEDCWT-BA-LP1000	WALL MOUNT AT 5'6" ON CENTER AT AFF	17
F18	4' ASYMETRIC INDUSTRIAL STRIP LUMINAIRE	2	T8	63 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	NULITE	I-12-2-32T8-UNV-LUTRON H SERIES-WG-MOD	45 DEGREE WALL MOUNT AT 7'6" AFF	15
F19A	2' LED SURFACE MOUNT GRAZING LUMINAIRE		LED	29 VA	UNV	0-10V DIMMING DRIVER	SPI	SEV11262-LED-FT-1W1034 - AN04 - PS13	SEE KEY NOTE	11, 14, 21
F19B	4' LED SURFACE MOUNT GRAZING LUMINAIRE		LED	58 VA	UNV	0-10V DIMMING DRIVER	SPI	SEV11264-LED-FT-1W1034 - AN04 - PS13	SEE KEY NOTE	11, 14, 21
F20	4' LINEAR UNDER CABINET LED LUMINAIRE		LED	20 VA	UNV	ELECTRONIC SWITCHED DRIVER	LUMENPULSE	LUC RO-24-40K-FR-WH - 1PSBOX60	MOUNT UNDER CABINET AS ILLUSTRATED ON ARCHITECTURAL DRAWINGS	
F21	8' LINEAR FLUORESCENT WALL MOUNT	2	T8	132 VA	UNV	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	AXIS	BBWD-F-8-T8-2S-M160-W-UNV-DXX-1-DS(EC-DIR-WH)	WALL MOUNT AT 8' AFF.	
F22	VERTICALLY MOUNTED LED SLOT	1	T8	35 VA	277	LUTRON ECOSYSTEM H SERIES/ 1.00 BF	SPI	AIW-10475-1F32-BAL-277-XX-ECOSYSTEM H SERIES BALLAST	WALL MOUNT AT 5' 6" ON CENTER AT AFF.	24
X1	LED EXIT SIGN		LED	3 VA	UNV	ELECTRONIC SWITCHED DRIVER	ISOLITE	ELT-AC-R-1C OR 2M-WH-XX-XX	RECESSED CEILING, SURFACE, WALL, OR PENDENT MOUNT AS REQUIRED. SEE NOTE FOR FURTHER INSTRUCTIONS	2, 3, 4, 23
X2	LED EXIT SIGN WITH BOTTOM MULLION MOUNT		LED	3 VA	UNV	ELECTRONIC SWITCHED DRIVER	ISOLITE	ELT-AC-R-1C-WH-MM-BOTTOM MOUNT	BOTTOM MOUNTED ON TOP OF DOOR. SEE ARCHITECTURAL DRAWINGS FOR EXACT MOUNTING HEIGHT.	2, 3, 4

LIGHTING FIXTURE SCHEDULE GENERAL NOTES:

NOTE A. CONTRACTOR SHALL CONFIRM CEILING TYPE REQUIREMENTS PRIOR TO RELEASE OF THE ORDER
NOTE B. CATALOG NUMBERS ARE TO PROIVDE GUIDANCE ONLY AND SHALL NOT BE CONSIDERED COMPLETE.
NOTE C. FIXTURES SPECIFIED TO MEET DESIGN INTENT. EQUALS MAY BE SUBSTITUTED SUBJECT TO DESIGN TEAM'S APPROVAL. SEE SPECIFICATIONS FOR PERFORMANCE CRITERIA EQUALS MUST MEET.
NOTE D. PROVIDE ALL PARTS AND PIECES NECESSARY FOR A COMPLETE AND FUNCTIONAL INSTALLATION.
NOTE E. ARCHITECT TO DETERMINE ALL FINISHES.
NOTE F. PROVIDE DRIVER OR BALLAST AS INDICICATED IN DRIVER/BALLAST COLUMN. LUTRON ECOSYSTEM CONTROLS SHALL BE THE BASIS OF DESIGN. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.
NOTE G. PROVIDE MULTILAMP BALLAST/DRIVER WHERE APPROPRIATE.
NOTE H. FLUORESCENT LAMPS PER CROSS SECTION.

LIGHTING FIXTURE SCHEDULE KEY NOTES:

NOTE 1. MOUNT FIXTURE IN COLUMN NICHE. SEE ARCHITECTURAL DETAILS FOR FURTHER MOUNTING INFORMATION.
NOTE 2. FIELD SELECTABLE CHEVRONS SHALL BE APPLIED OR INSTALLED/REMOVED AS REQUIRED.
NOTE 3. PROVIDE NUMBER OF FACES AS INDICATED ON PLANS AND AS REQUIRED BY ALL GOVERNING CODES.
NOTE 4. ALL EXIT SIGNS MUST MEET ALL CITY, STATE, AND NATIONAL CODES INCLUDING BUT NOT LIMITED TO IBC 1011 AND ANSI-A117 SEC 703.
NOTE 5. FIXTURE LENGTH AS SHOWN ON DRAWINGS. LENGTH SHOWN ON LIGHTING PLANS ARE DIAGRAMMATIC. SEE ARCHITECTURAL DRAWINGS FOR EXACT LENGTH REQUIRED.
NOTE 6. MOUNTING HEIGHT AS NOTED ON DRAWINGS.
NOTE 7. FINISH SHALL MATCH ARCHITECTURAL SAMPLE.
NOTE 8. LUMINAIRES SHALL FILL ENTIRE LENGTH OF COVE. PROVIDE ONE CONTINUOUS RUN OF LUMINAIRES. SEE ARCHITECTURAL DRAWINGS FOR COVE DETAILS AND TOTAL LENGTH.
NOTE 9. PROVIDE 28' ALUMINUM POLE ULS MODEL RTA-845282-VD-T2X4-KIM WHITE WITH A/B POLE TENON MOUNT TO MATCH LSI POLE MOUNTS ON SITE
NOTE 10. FIXTURE SHALL BE COLUMN MOUNTED IN RECESS. SEE ARCHTIECTRUAL DETAILS FOR FURTHER INFORMATION. LUMINAIRE SHALL BE ORIENTED AND LAMP SOURCE ADJUSTED TO BE AIMED AT AND HIGHLIGHT ARTWORK.
NOTE 11. LUMINAIRE SHALL BE ORIENTED AND LAMP SOURCE ADJUSTED TO BE AIMED AT WALL RELIEF.
NOTE 12. LUMINAIRE SHALL BE ORIENTED AND LAMP SOURCE ADJUSTED TO BE AIMED AT AND GRAZED ANGLED COLUMN.
NOTE 13. LUMINAIRE SHALL BE MOUNTED WITHIN CHANNEL TO UNDERSIDE OF TOP OF CHANNEL. PROVIDE RECESSED MOUNTING BRACET IN LIEU OF SURFACE MOUNT SUCH THAT FIXTURE IS FLUSH WITHIN CHANNEL. SEE ARCHITECTURAL DETAILS FOR FURTHER MOUNTING INFORMATION.
NOTE 14. FIXTURE SHALL BE WALL MOUNTED 6" BELOW SKYLIGHT. REMOTE DRIVER TO BE LOCATED ABOVE LOWER CEILING FOR ACCESSABILITY.
NOTE 15. PROVIDE ASYMMETRIC REFLECTOR AND 45 DEGREE WALL MOUNT BRACKET.
NOTE 16. WHERE NOTED ON PLANS PROVIDE LIT CORNER TO VERTICAL RECESSED BEAM IN WALL TYPE F1C2, 4, OR 6.
NOTE 17. PROVIDE SWITCHED OR DIMMING POWER MODULE, DMX INTERFACE AND OR ALL COMPONENTS NECESSARY TO ALLOW LULTRON ECOSYSTEM TO CONTROL LED LUMINAIRE.
NOTE 18. SEE LIGHTING CONTROL ONE-LINE DIAGRAM FOR FURTHER INFORMATION ON DMX CONTROLS.
NOTE 19. SEE SHEET E011 SOUTH SITE LIGHT PLAN FOR FURTHER MOUNTING AND CONTROL INFORMATION.
NOTE 20. SEE ARCHITECTURAL DRAWINGS FOR FURTHER MOUNTING INFORMATION.
NOTE 21. REMOTE DRIVER TO BE LOCATED IN ACCESSIBLE CEILING.
NOTE 22. VERIFY MOUNTING COMPONENT WITH ARCHITECT.
NOTE 23. ALL EXIT SIGNS IN PUBLIC AREAS SHALL BE CEILING MOUNTED UNLESS OTHERWISE NOTED ON PLANS.
NOTE 24. TYPE F22 LUMINAIRE SHALL FALL UNDER SECOND FLOOR OFFICE ALTERNATE BID 1.
NOTE 25. ALL AOR SIGNS MUST MEET ALL CIT, STATE, AND NATIONAL CODES INCLUDING BUT LIMITED TO IBC 107.6.5 AND ANSI-A117.1 SEC 703.
NOTE 26. ALL AOR SIGNS MUST READ "AREA OF REFUGE" AND HAVE THE INTERNATIONAL SYMBOL OF ACCESSIBLITY. MOUNT AT SAME HEIGHT AS ADJACENT EXIT SIGN.
NOTE 27. FINISH SHALL BE A HAZE REFLECTOR WITH CUSTOM PAINTED TRIM. TRIM FINISH SHALL MATCH ARCHITECTURAL SAMPLE. CUSTOM FINISH MAY DIFFER BETWEEN FIXTURE TYPES.
NOTE 28. WHEN LOCATED IN WOOD CEILING FINISH SHALL BE A HAZE REFLECTOR WITH CUSTOM PAINTED TRIM.. FOR ALL OTHER F3 FIXTURE TYPES FINISH SHALL BE A HAZE REFLECTOR WITH A DIFFERENT CUSTOM PAINTED TRIM. TRIM FINSIH SHALL MATCH ARCHITECTURAL SAMPLE.

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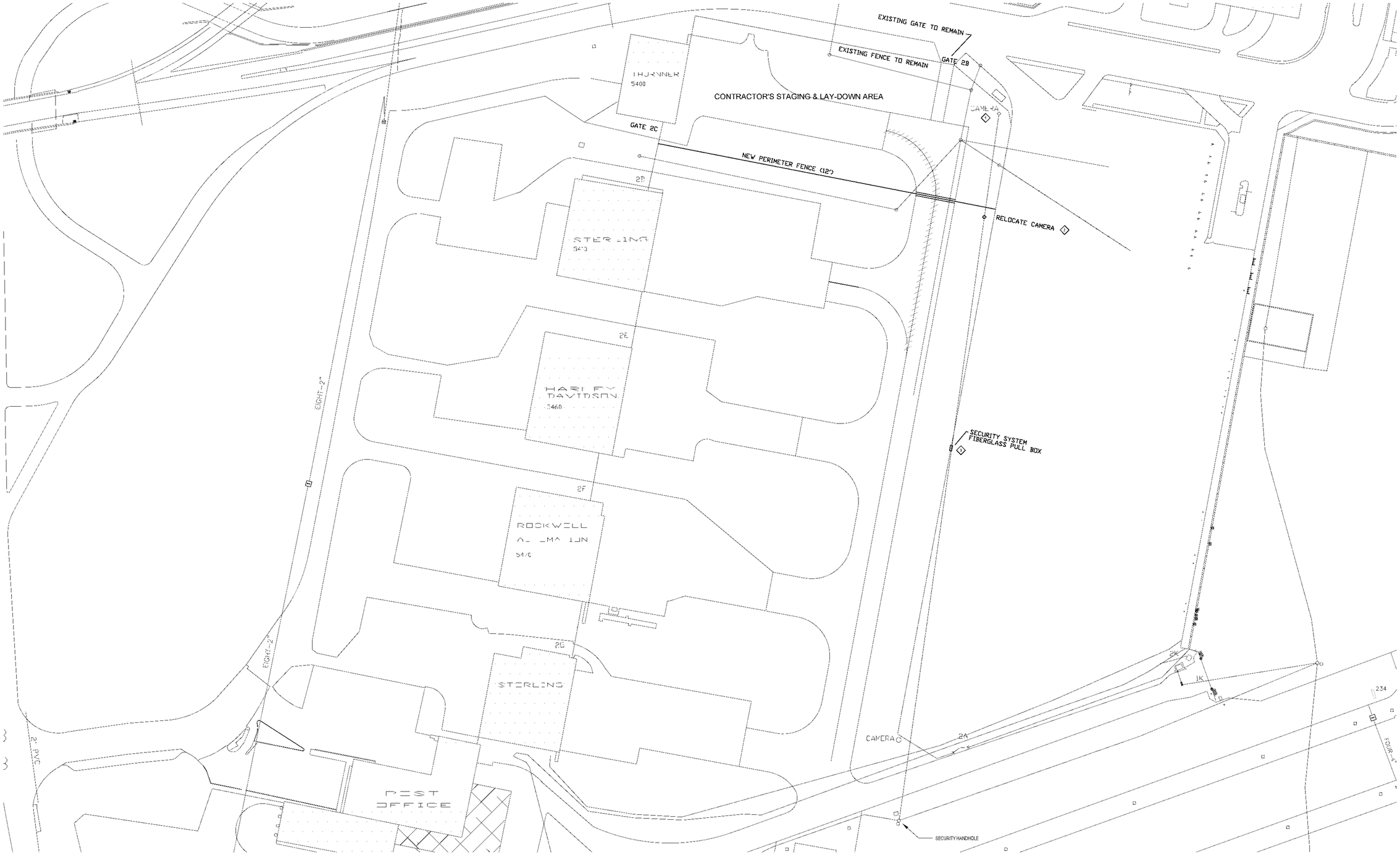
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 2	4/24/2013

ISSUED FOR: Construction
DATE: July 16, 2012
PROJECT: A042-06415
SITE NO: 290
BUILDING NO: 209

LIGHTING FIXTURE SCHEDULE E002

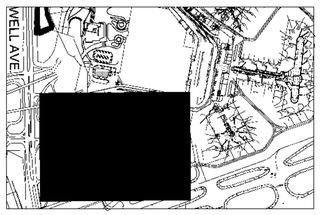


SHEET NOTES

1. PROVIDE ALL SAW CUTTING OF CONCRETE OUTSIDE BUILDING PERIMETER WALLS.
2. PROVIDE ALL TRENCHING FOR CONDUIT DUCT BANKS.
3. PROVIDE ALL CONCRETE WORK FOR ELECTRICAL DUCT BANKS.
4. PROVIDE ALL PATCHING OF CONCRETE WALKS, CURBS, DRIVES AND AIRPORT RAMPS.

KEY NOTES

1. EXISTING CAMERA AND POLE TO BE RELOCATED. DISCONNECT EXISTING POWER AND FIBER OPTIC CABLES AND PULL BACK TO NEAREST SECURITY HAND HOLE. REMOVE AND SALVAGE CAMERA, POLE, AND FIBER OPTIC TERMINATION BOX. DEMO EXISTING CONCRETE BASE.
2. NEW CAMERA LOCATION. INTERCEPT EXISTING (2) 1" UNDERGROUND SECURITY SYSTEM CONDUITS AND EXTEND TO NEW CAMERA. PROVIDE NEW CONCRETE BASE. (SIMILAR TO DETAIL 8/E800) RE-INSTALL SALVAGED CAMERA, POLE, AND FIBER TERMINATION BOX. REINSTALL EXISTING CAMERA POWER AND FIBER OPTIC CABLES AND RECONNECT TO CAMERA.
3. TEMPORARILY PULL BACK EXISTING CAMERA CABLES TO EXISTING SECURITY PULL BOX AND THEN REINSTALL CABLES TO NEW CAMERA LOCATION. EXCESS CABLE SLACK TO BE COILED UP IN THE PULL BOX.



1 ELECTRICAL SITE PLAN - STAGING AREA
1" = 50'-0"

ELECTRICAL SITE PLAN - STAGING AREA

E017

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REVISION

No.	DESCRIPTION	DATE
1	Addendum No. 2	4/24/2013

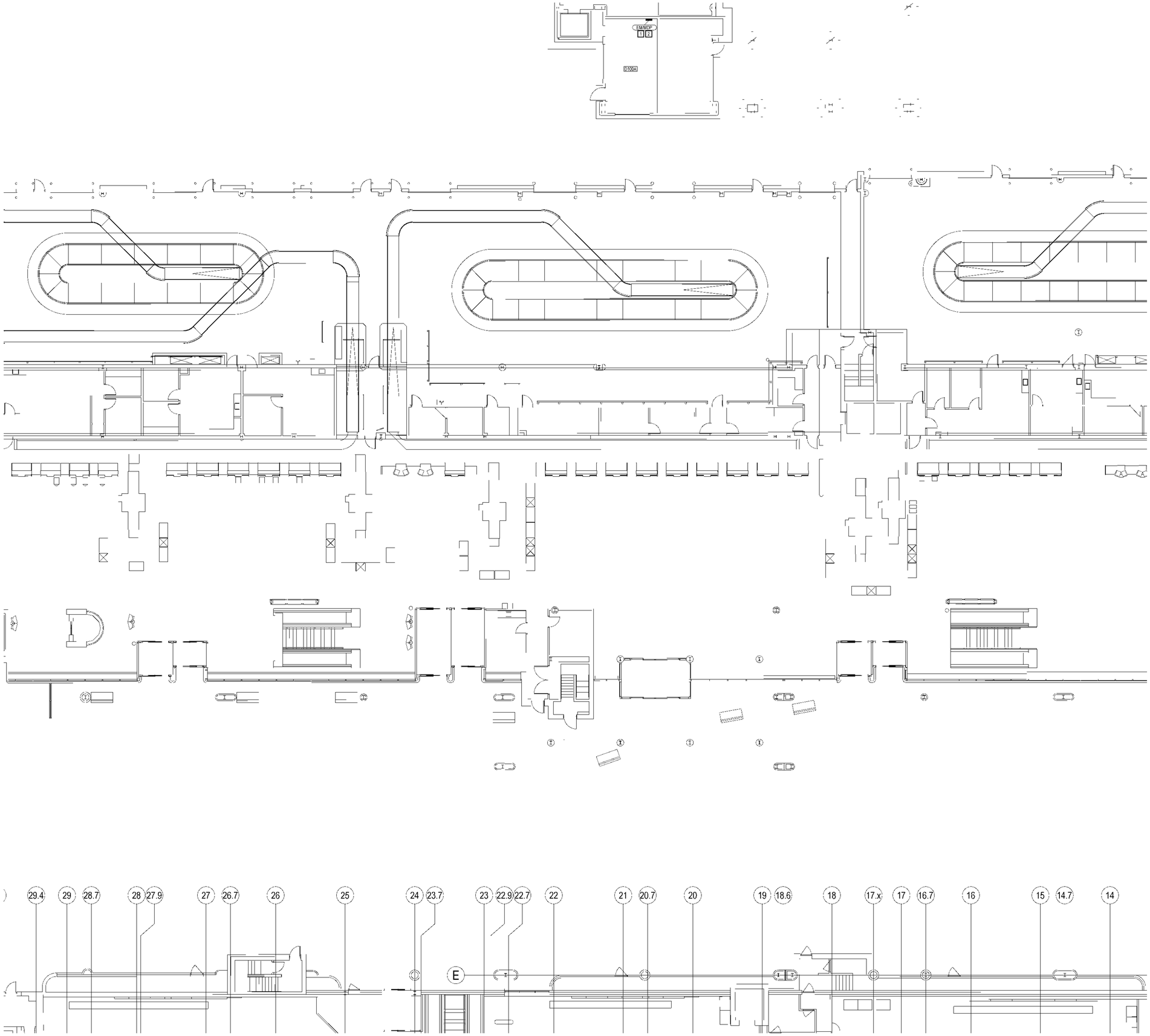
ISSUED FOR:
Construction

DATE:
April 24, 2013

PROJECT:
A042-06415

SITE NO:
290

BUILDING NO:
209



1 MAIN TERMINAL/D-CONCOURSE STEM DEMO FLOOR PLAN
SCALE: 3/32" = 1'-0"

DEMOLITION NOTES

1. DEMO EXISTING FEEDER FROM EM/MDP TO ATS/C LOCATED IN RM. 23. SEE SHEET E104 FOR ADDITIONAL REQUIREMENTS.
2. DEMO EXISTING FEEDER FROM EM/MDP TO ATS/X LOCATED IN RM. 23. SEE SHEET E104 FOR ADDITIONAL REQUIREMENTS.

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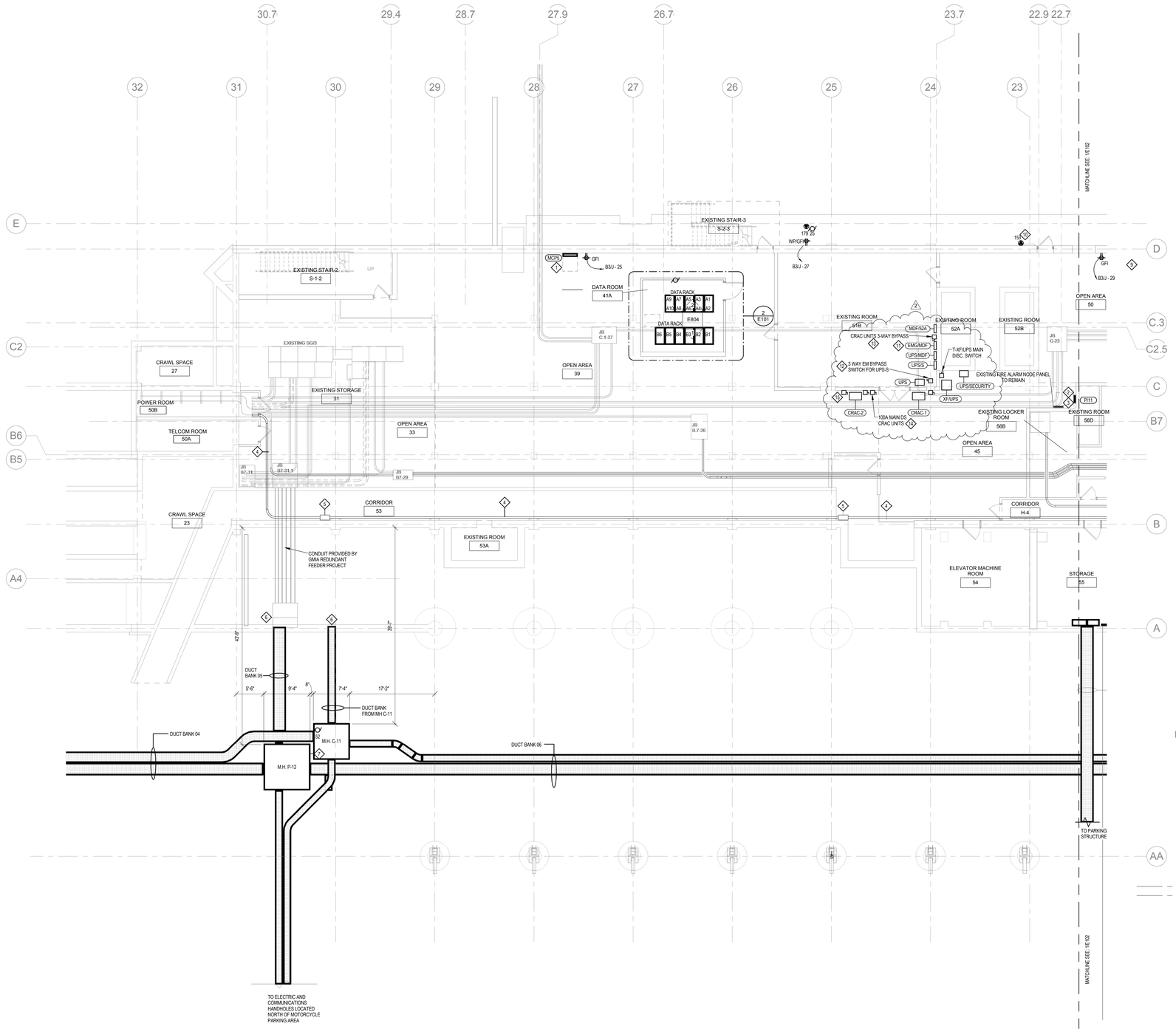
REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 2	4/24/2013

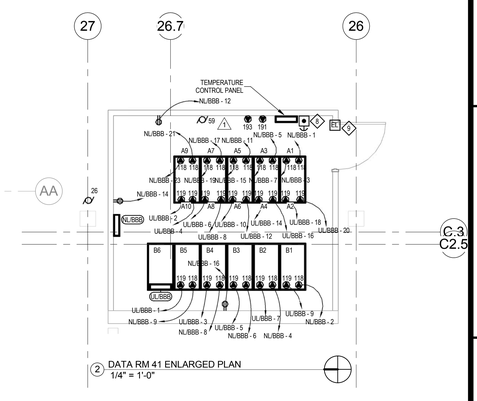
ISSUED FOR: Construction
DATE: April 24, 2013
PROJECT: A042-06415
SITE NO: 290
BUILDING NO: 209

MAIN TERMINAL/D-CONCOURSE STEM DEMO FLOOR PLAN

ED114 1



1 LOWER LEVEL POWER PLAN - NORTH
1/8" = 1'-0"



2 DATA RM 41 ENLARGED PLAN
1/4" = 1'-0"

KEY NOTES

1. PROVIDE NEW 480V FEEDER TO CONVEYOR/CAROUSEL MOTOR CONTROL PANEL, FROM SG/13.
2. PROVIDE NEW FEEDER FROM SG/13 TO EXISTING PANEL. REUSE EXISTING CONDUIT WHERE POSSIBLE. PROVIDE JUNCTION BOX AT INTERCEPT POINT AND EXTEND CONDUIT TO SG/13. PROVIDE NEW CONDUCTORS FROM SG/13 TO PANEL.
3. ADD ALTERNATE NO. 4 - REPLACE EXISTING ELECTRICAL PANEL WITH NEW PANEL. RECONNECT ALL EXISTING BRANCH CIRCUITS NOT BEING ABANDONED BY THIS REMODELING PROJECT. SEE PANEL SCHEDULE ON SHEETS E701 THROUGH E704.
4. REUSE EXISTING SPARE CONDUIT (FORMERLY USED FOR EXISTING FEEDER HOWELL AVE. SG/2 TO SG/8, FEEDER REMOVED BY GMIA REDUNDANT FEEDER PROJECT) FOR ROUTING OF NEW 5KV FEEDER FROM SG/1 TO SG/13-A. REPLACE EXISTING CONDUIT I.D. TAGS WITH NEW I.D. TAGS "SG/13-A FROM SG/1-21."
5. REUSE EXISTING 5KV PULL BOX FOR NEW FEEDER TO SG/13.
6. TERMINATE DUCT BANK 05 THROUGH FOUNDATION WALL WITH EXPANDABLE DUCT SEALS. COORDINATE ELEVATION OF DUCTS WITH PULL BOX TO BE PROVIDED BY GMIA REDUNDANT FEEDER PROJECT.
7. PROVIDE 2" LEADER PIPE BETWEEN THE POWER AND COMMUNICATIONS MANHOLES FOR DRAINAGE.
8. EMERGENCY PUSH BUTTON STATION TO PROVIDE SHUT-DOWN CONTROL FUNCTION FOR SHUNT TRIP BREAKER FOR UPS PANEL UL/BBB AND SHUNT TRIP BREAKERS FOR DATA ROOM AIR CONDITIONING UNITS (M25 AND M26).
9. PROVIDE 120/24VDC TRANSFORMER FOR POWER SUPPLY TO ELECTRIC DOOR LOCK.
10. REFER TO BAGGAGE HANDLING DRAWINGS FOR EXACT LOCATION.
11. DISCONNECT AND REMOVE EXISTING FEEDER TO PANEL EMG/MDF FROM PANEL DP/C LOCATED IN RM. 23. PROVIDE NEW FEEDER FROM PANEL MDP/CHVBBA.
12. DISCONNECT AND REMOVE EXISTING FEEDER TO XF/UPS 3 WAY EM BY-PASS (FOR UPS-S) FROM PANEL CP-1 LOCATED IN RM. 23. PROVIDE NEW FEEDER FROM PANEL MDP/CHVBBA.
13. DISCONNECT AND REMOVE EXISTING FEEDER FROM LOAD SIDE OF EXISTING CRAC UNITS 3-WAY BYPASS TO CRAC UNITS MAIN DISCONNECT SWITCH. PROVIDE NEW FEEDER TO LINE SIDE OF NEW 100A 3-WAY BYPASS SWITCH. SEE RISER DIAGRAM E604.
14. CONNECT LOAD SIDE OF NEW 3-WAY BY PASS SWITCH TO EXISTING CRAC UNITS MAIN DISCONNECT SWITCH. SEE RISER DIAGRAM ON E604.
15. NEW 100A 3-WAY BYPASS SWITCH FOR CRAC UNITS. CONNECT SOURCE-1 TO LOAD SIDE OF EXISTING CRAC UNITS 3-WAY BYPASS LOCATED IN RM. 51B. CONNECT SOURCE 2 TO NEW FEEDER FROM PANEL MDP/CHVBBA. CONNECT LOAD SIDE TO EXISTING CRAC UNITS MAIN DISC. SWITCH. SEE RISER DIAGRAM E604.

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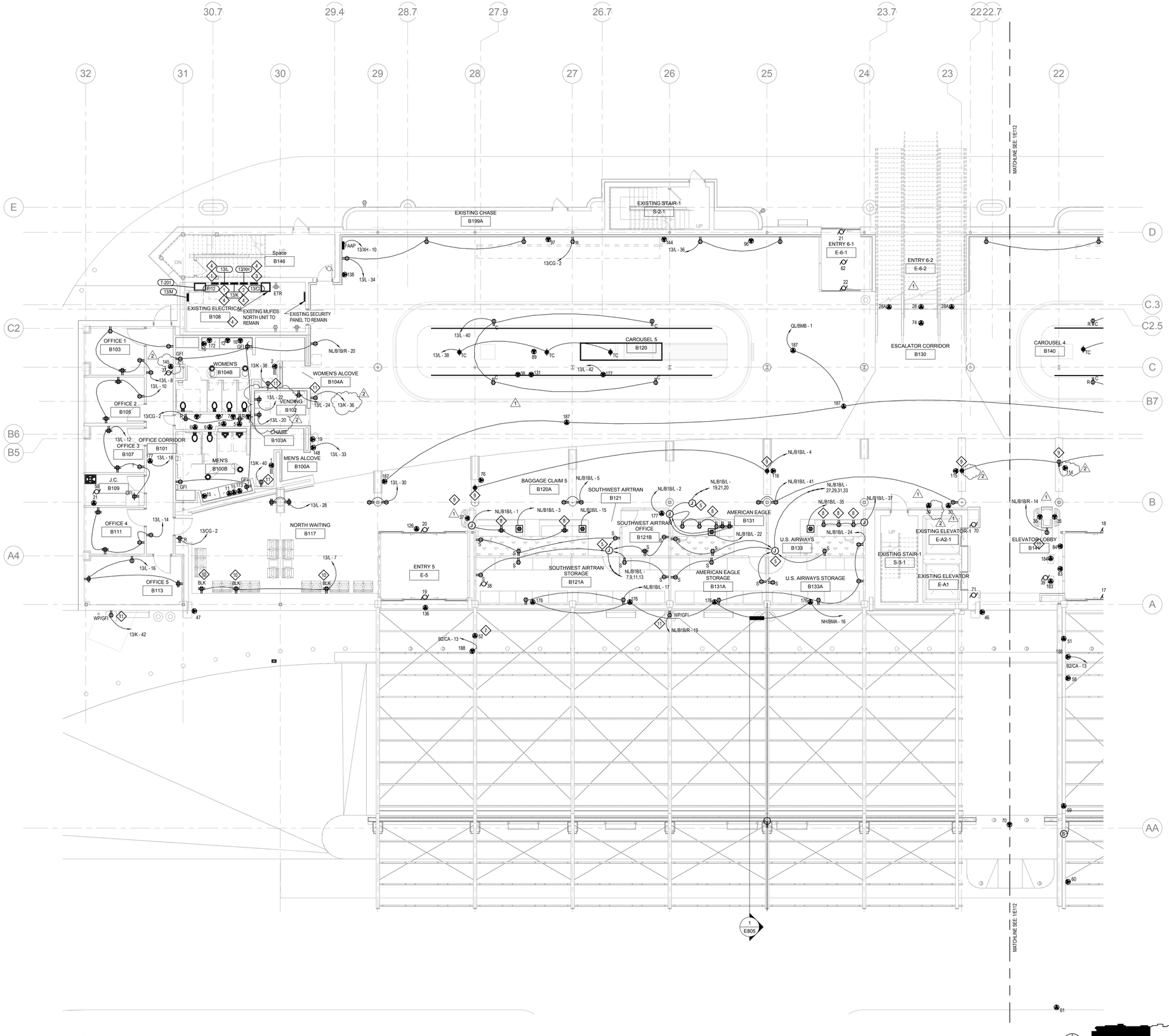
REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 1	4/11/2013
2	Addendum No. 2	4/24/2013

ISSUED FOR: **Construction**
DATE: **July 16, 2012**
PROJECT: **A042-06415**
SITE NO: **290**
BUILDING NO: **209**

LOWER LEVEL POWER PLAN - NORTH

E101



1 FIRST FLOOR POWER PLAN - NORTH
1/8" = 1'-0"

SHEET NOTES

1. REFER TO ARCHITECTURAL SHEETS A731-A733, A741-744, AND A751 FOR EQUIPMENT AND SIGNAGE PLANS, SCHEDULES, AND ELEVATIONS. COORDINATE RECEPTACLE AND SPECIAL OUTLET MOUNTING HEIGHTS, AND OTHER REQUIREMENTS WITH EQUIPMENT AND SIGNAGE PLANS, SCHEDULES, AND ELEVATIONS PRIOR TO INSTALLATION.
2. ALL EXPOSED CONDUIT, OUTLET BOXES, CONDUIT FITTINGS, ETC. MOUNTED ON CANOPY STRUCTURE SHALL BE PAINTED TO MATCH CANOPY STRUCTURE ARCHITECTURAL SAMPLE. FINISH AS DETERMINED BY ARCHITECT. ALL MOUNTING HARDWARE SHALL BE STAINLESS STEEL. PROVIDE MOCK UP OF ALL TYPICAL EXPOSED CONDUIT, BOXES, ETC, FOR ARCHITECTURAL APPROVAL.
3. ELECTRICAL OUTLET COVERS FOR COLUMN MOUNTED RECEPTACLES FURNISHED BY COLUM COVER MANUFACTURER, INSTALLED BY EC. REFER TO ARCHITECTURAL DETAILS ON SHEET A621.
4. PROVIDE FINAL CONNECTION OF ALL FLEXABLE WIRING TO OUTLETS IN THE SYSTEM WALL ASSEMBLIES.

KEY NOTES

1. PROVIDE NEW FEEDER FROM SG/13 TO EXISTING PANEL. REUSE EXISTING CONDUIT WHERE POSSIBLE. PROVIDE JUNCTION BOX AT INTERCEPT POINT AND EXTEND CONDUIT TO SG/13. PROVIDE NEW CONDUCTORS FROM SG/13 TO EXISTING PANEL.
2. PROVIDE NEW FEEDER FROM PANEL "MDP/XL/BBA" TO EXISTING PANEL. REUSE EXISTING CONDUIT WHERE POSSIBLE. PROVIDE JUNCTION BOX AT INTERCEPT POINT AND EXTEND CONDUIT TO PANEL "MDP/XL/BBA". PROVIDE NEW CONDUCTORS FROM "MDP/XL/BBA", TO EXISTING PANEL.
3. PROVIDE NEW FEEDER FROM PANEL "MDP/QL/BBA" TO EXISTING PANEL. REUSE EXISTING CONDUIT WHERE POSSIBLE. PROVIDE JUNCTION BOX AT INTERCEPT POINT AND EXTEND CONDUIT TO PANEL "MDP/QL/BBA". PROVIDE NEW CONDUCTORS FROM "MDP/QL/BBA" TO EXISTING PANEL.
4. ADD ALTERNATE #4 - REPLACE EXISTING ELECTRICAL PANEL WITH NEW PANEL. RECONNECT ALL EXISTING BRANCH CIRCUITS NOT BEING ABANDONED BY THIS REMODELING PROJECT. SEE PANEL SCHEDULE ON SHEETS E701 THROUGH E704.
5. POWER DISTRIBUTION BOX FOR PRE-MANUFACTURED, MODULAR, FLEXIBLE POWER DISTRIBUTION TO THE SYSTEM WALL ASSEMBLIES, FURNISHED BY MOVABLE WALL SYSTEM PROVIDER. INSTALL AND WIRE BOX ABOVE CEILING. FINAL ELECTRICAL CONNECTION TO DISTRIBUTION BOX SHALL BE BY ELECTRICAL CONTRACTOR.
6. NOT USED
7. POWER TO SIGN TO BE ROUTED THRU STEEL STRUCTURE FOR SIGN. SEE SHEET A551 FOR ADDITIONAL INFORMATION.
8. RECEPTACLE AND WIRING TO BE MOUNTED INSIDE OF MWS.
9. DUPLEX RECEPTICALE MOUNTED IN TOP OF BEAM. PROVIDE WEATHERPROOF COVER PLATE WITH SPRING-LOADED LIFT COVER. (FOR DUST PROTECTION).
10. RECEPTACLE TO BE A BLACK DEVICE WITH A BLACK METAL WALL PLATE. LOCATE IN WALL WITH STONE MASONRY VENEER ABOVE MECH. VENT. SEE ARCH. DETAIL ON SHEET A511.
11. RECEPTACLE FOR WASTE COMPACTOR.

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N16 W23135 JOHNSON DR., STE 180, 262-549-1290
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REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 1	4/11/2013
2	Addendum No. 2	4/24/2013

ISSUED FOR:
Construction

DATE:
July 16, 2012

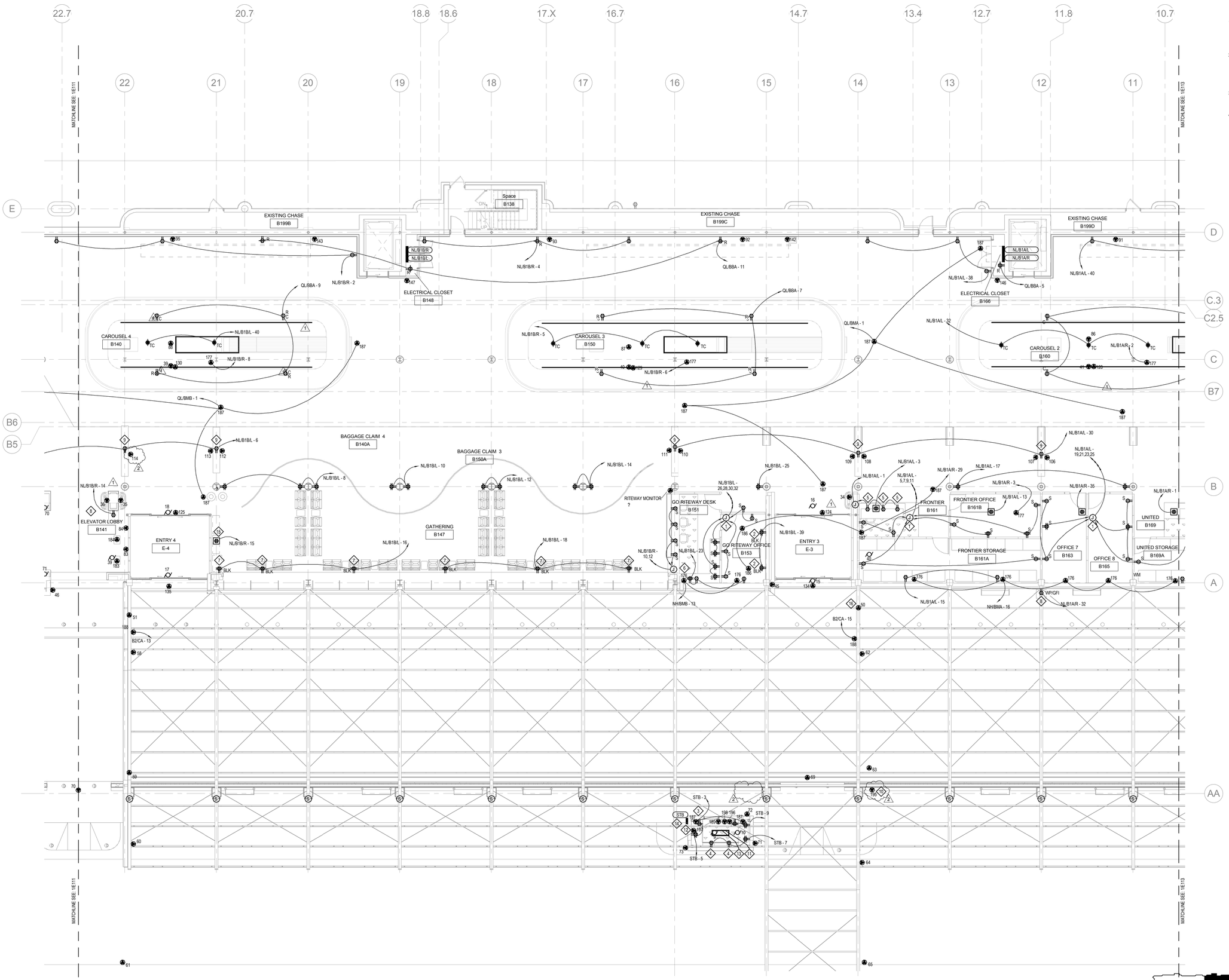
PROJECT:
A042-06415

SITE NO:
290

BUILDING NO:
209

FIRST FLOOR POWER PLAN - NORTH

E111



1 FIRST FLOOR POWERPLAN - CENTER
1/8" = 1'-0"

SHEET NOTES

1. REFER TO ARCHITECTURAL SHEETS A731-A733, A741-744, AND A751 FOR EQUIPMENT AND SIGNAGE PLANS, SCHEDULES, AND ELEVATIONS. COORDINATE RECEPTACLE AND SPECIAL OUTLET MOUNTING HEIGHTS, AND OTHER REQUIREMENTS WITH EQUIPMENT AND SIGNAGE PLANS, SCHEDULES, AND ELEVATIONS PRIOR TO INSTALLATION.
2. ALL EXPOSED CONDUIT, OUTLET BOXES, CONDUIT FITTINGS, ETC. MOUNTED ON CANOPY STRUCTURE SHALL BE PAINTED TO MATCH CANOPY STRUCTURE ARCHITECTURAL SAMPLE. FINISH AS DETERMINED BY ARCHITECT. ALL MOUNTING HARDWARE SHALL BE STAINLESS STEEL. PROVIDE MOCK UP OF ALL TYPICAL EXPOSED CONDUIT, BOXES, ETC, FOR ARCHITECTURAL APPROVAL
3. ELECTRICAL OUTLET COVERS FOR COLUMN MOUNTED RECEPTACLES FURNISHED BY COLUM COVER MANUFACTURER, INSTALLED BY EC. REFER TO ARCHITECTURAL DETAILS ON SHEET A621.
4. PROVIDE FINAL CONNECTION OF ALL FLEXABLE WIRING TO OUTLETS IN THE SYSTEM WALL ASSEMBLIES.

KEY NOTES

1. POWER DISTRIBUTION BOX FOR PRE-MANUFACTURED, MODULAR, FLEXIBLE POWER DISTRIBUTION TO THE SYSTEM WALL ASSEMBLIES. FURNISHED BY MOVABLE WALL SYSTEM PROVIDER. INSTALL AND WIRE BOX ABOVE CEILING. FINAL CONNECTION TO DISTRIBUTION BOX SHALL BE BY ELECTRICAL CONTRACTOR.
2. RECEPTACLE TO BE A BLACK DEVICE WITH A BLACK METAL WALL PLATE.
3. RECEPTACLE MOUNTED NEAR CEILING FOR BUG ZAPPER.
4. RECEPTACLE TO BE MOUNTED HORIZONTALLY BETWEEN COUNTERTOP AND WINDOW SILL.
5. RECEPTACLE AND WIRING MOUNTED INSIDE OF MWS.
6. POWER DISTRIBUTION BOX IN WALL FOR SYSTEM WALL ASSEMBLIES. FINAL CONNECTION OF FLEXIBLE POWER WIRING TO DISTRIBUTION BOX BY E.C.
7. RECEPTACLE TO BE BLACK DEVICE WITH A BLACK METAL COVER PLATE. LOCATE IN WALL WITH STONE MASONERY VENEER ABOVE MECH. VENT. SEE ARCH. DETAIL ON SHEET A511.
8. RECEPTACLE FOR WASTE COMPACTOR.
9. PROVIDE WEATHERPROOF COVER PLATE WITH SPRING-LOADED LIFT COVER FOR RECEPTACLE MOUNTED IN TOP OF BEAM. (FOR DUST PROTECTION).
10. EXISTING CAB VALIDATOR BOX TO BE REINSTALLED BY CPS. PROVIDE POWER AND FINAL CONNECTION TO EQUIPMENT. REFER TO SHEET E312 FOR DATA.
11. EXISTING INTERIOR CAB VALIDATOR BOX TO BE REINSTALLED BY CPS. PROVIDE POWER AND FINAL CONNECTION TO EQUIPMENT. REFER TO SHEET E312 FOR DATA.
12. EXISTING INTERIOR PARKING CONTROL EQUIPMENT TO BE REINSTALLED BY CPS. PROVIDE POWER FINAL CONNECTIONS TO EQUIPMENT. REFER TO SHEET E312 FOR DATA.
13. REINSTALL EXISTING CAB CALL BUTTON. INTERCEPT EXISTING UNDERGROUND CONDUIT TO CAB WAITING AREA AND PROVIDE NEW WIRING FROM CALL BUTTON TO SIGNAL DEVICE AT THE CAB WAITING AREA.
14. ELECTRICAL PANEL TO BE INSTALLED WITHIN AN ENCLOSURE LOCATED ON THE OUTSIDE OF THE BOOTH. REFER TO ARCHITECTURAL DRAWINGS.
15. POWER FED THROUGH FLOOR FOR INTERACTIVE KIOSK (NIC-26)
16. POWER TO SIGN TO BE ROUTED THRU STEEL STRUCTURE FOR SIGN. SEE SHEET A551 FOR ADDITIONAL INFORMATION.

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N16 W23135 JOHNSON DR., STE 140, 262-549-1390
WAUKESHA, WI 53186 FAX: 262-549-1393

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No.	DESCRIPTION	DATE
1	Addendum No. 1	4/11/2013
2	Addendum No. 2	4/24/2013

ISSUED FOR:
Construction

DATE:
July 16, 2012

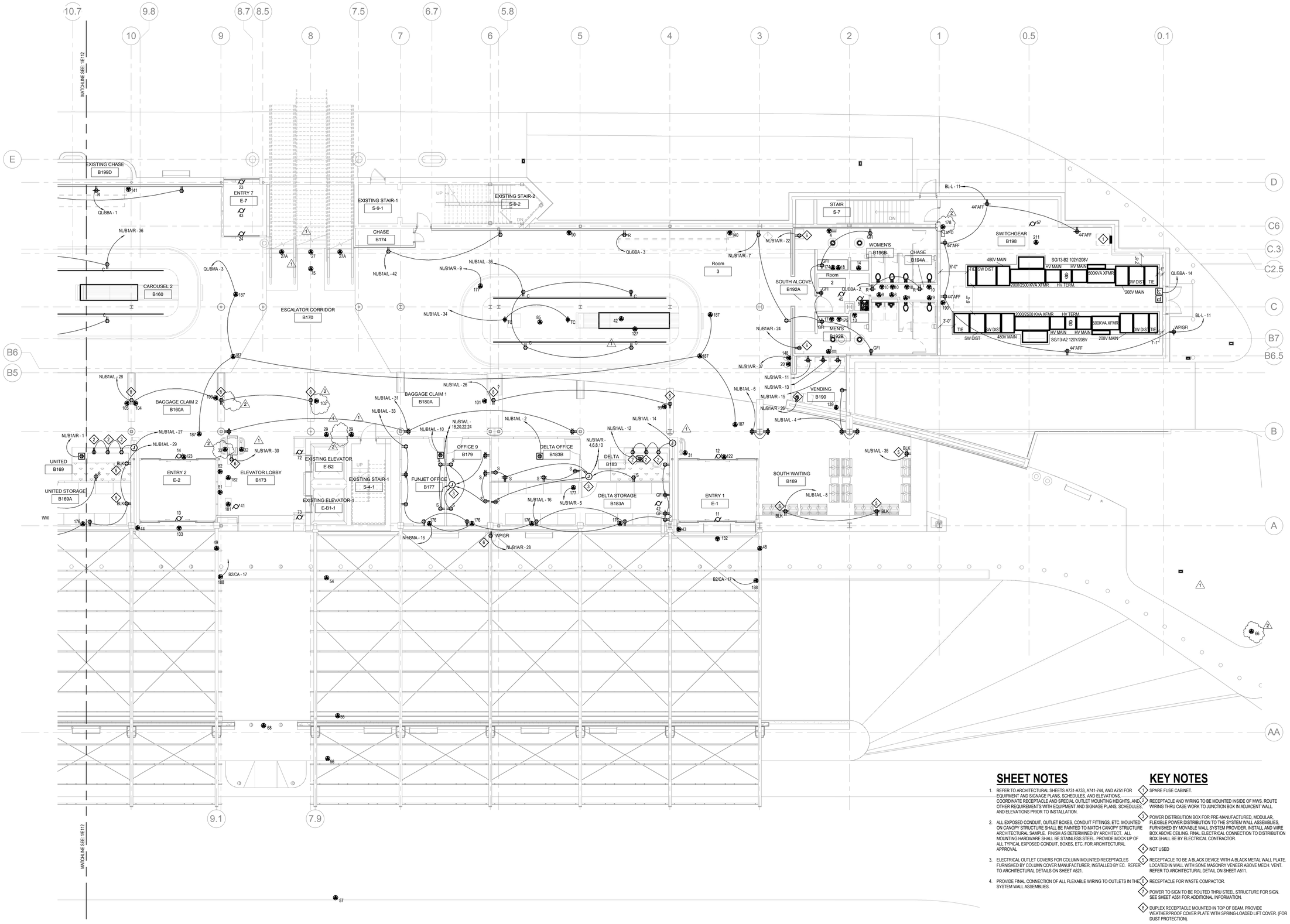
PROJECT:
A042-06415

SITE NO:
290

BUILDING NO:
209

FIRST FLOOR POWER PLAN - CENTER

E112



SHEET NOTES

1. REFER TO ARCHITECTURAL SHEETS A731-A733, A741-744, AND A751 FOR EQUIPMENT AND SIGNAGE PLANS, SCHEDULES, AND ELEVATIONS. COORDINATE RECEPTACLE AND SPECIAL OUTLET MOUNTING HEIGHTS, AND OTHER REQUIREMENTS WITH EQUIPMENT AND SIGNAGE PLANS, SCHEDULES, AND ELEVATIONS PRIOR TO INSTALLATION.
2. ALL EXPOSED CONDUIT, OUTLET BOXES, CONDUIT FITTINGS, ETC. MOUNTED ON CANOPY STRUCTURE SHALL BE PAINTED TO MATCH CANOPY STRUCTURE ARCHITECTURAL SAMPLE. FINISH AS DETERMINED BY ARCHITECT. ALL MOUNTING HARDWARE SHALL BE STAINLESS STEEL. PROVIDE MOCK UP OF ALL TYPICAL EXPOSED CONDUIT, BOXES, ETC, FOR ARCHITECTURAL APPROVAL
3. ELECTRICAL OUTLET COVERS FOR COLUMN MOUNTED RECEPTACLES FURNISHED BY COLUMN COVER MANUFACTURER, INSTALLED BY EC. REFER TO ARCHITECTURAL DETAILS ON SHEET A621.
4. PROVIDE FINAL CONNECTION OF ALL FLEXABLE WIRING TO OUTLETS IN THE SYSTEM WALL ASSEMBLIES.

KEY NOTES

1. SPARE FUSE CABINET.
2. RECEPTACLE AND WIRING TO BE MOUNTED INSIDE OF MWS. ROUTE WIRING THRU CASE WORK TO JUNCTION BOX IN ADJACENT WALL.
3. POWER DISTRIBUTION BOX FOR PRE-MANUFACTURED, MODULAR, FLEXIBLE POWER DISTRIBUTION TO THE SYSTEM WALL ASSEMBLIES, FURNISHED BY MOVABLE WALL SYSTEM PROVIDER. INSTALL AND WIRE BOX ABOVE CEILING. FINAL ELECTRICAL CONNECTION TO DISTRIBUTION BOX SHALL BE BY ELECTRICAL CONTRACTOR.
4. NOT USED
5. RECEPTACLE TO BE A BLACK DEVICE WITH A BLACK METAL WALL PLATE. LOCATED IN WALL WITH SONE MASONRY VENEER ABOVE MECH. VENT. REFER TO ARCHITECTURAL DETAIL ON SHEET A511.
6. RECEPTACLE FOR WASTE COMPACTOR.
7. POWER TO SIGN TO BE ROUTED THRU STEEL STRUCTURE FOR SIGN. SEE SHEET A551 FOR ADDITIONAL INFORMATION.
8. DUPLEX RECEPTACLE MOUNTED IN TOP OF BEAM. PROVIDE WEATHERPROOF COVER PLATE WITH SPRING-LOADED LIFT COVER. (FOR DUST PROTECTION).

1 FIRST FLOOR POWER PLAN - SOUTH
1/8" = 1'-0"

FIRST FLOOR POWER PLAN - SOUTH

E113

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Baggage Claim Building Remodel
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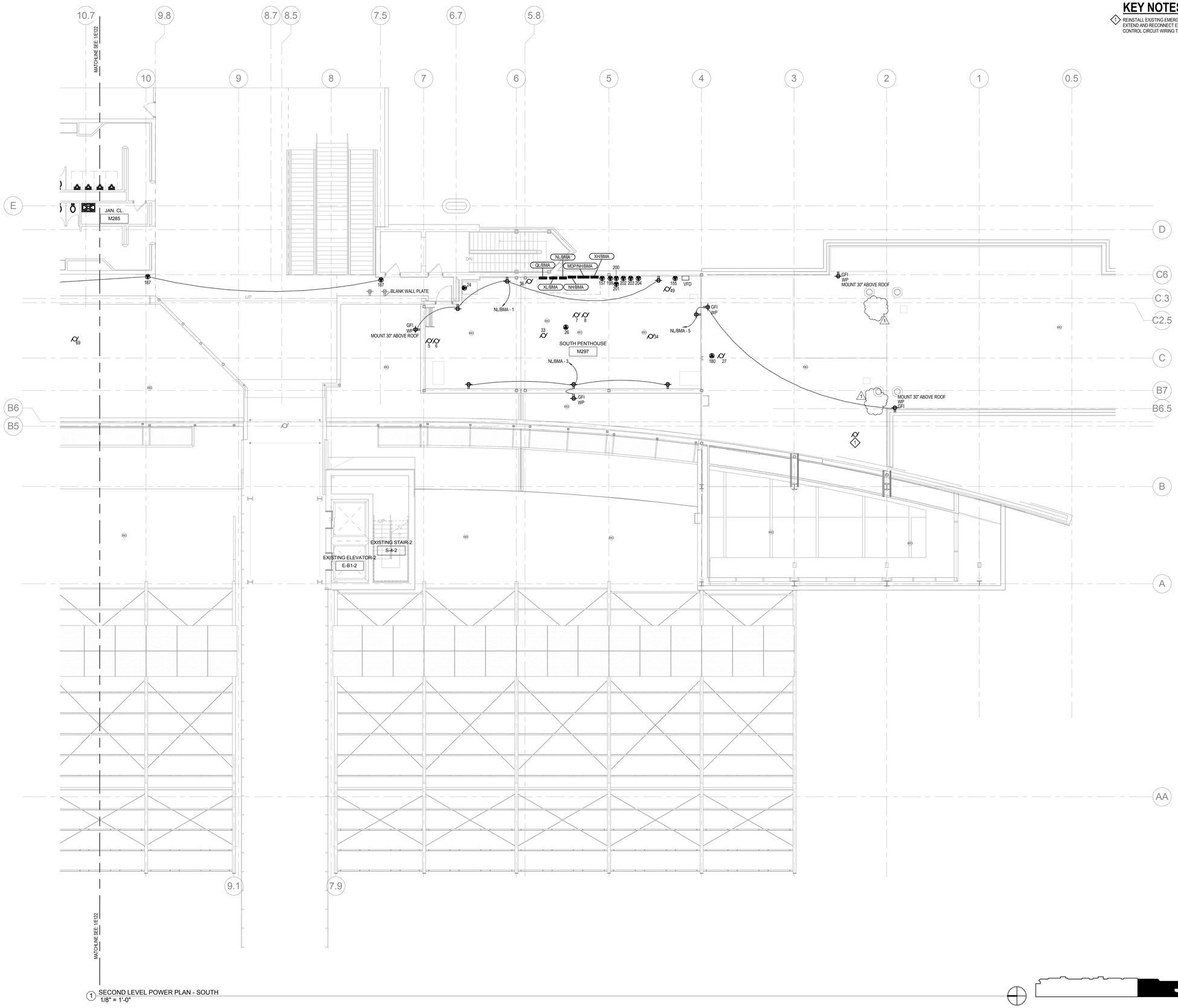
ISSUED FOR: Construction
DATE: July 16, 2012
PROJECT: A042-06415
SITE NO: 290
BUILDING NO: 209

KEY NOTES

1. REINSTALL EXISTING EMERGENCY GENERATOR REMOTE RADIATOR. EXTEND AND RECONNECT EXISTING POWER WIRING TO PANEL AND CONTROL CIRCUIT WIRING TO MDP/QH/BBB.



1 SECOND LEVEL POWER PLAN - SOUTH
1/8" = 1'-0"

SECOND LEVEL POWER PLAN - SOUTH

E123

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DATE: July 16, 2012
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SITE NO: 290
BUILDING NO: 209

MOTOR WIRING SCHEDULE

NO.	DRIVING	LOCATION	HP	FLA	VOLT	PH.	FEED FROM PANEL	FEED FROM CIRCUIT	BREAKER POLE	BREAKER AMP	STARTER TYPE	STARTER FURN	STARTER INS	STARTER WIRED	STARTER LOC.	DISCONNECT TYPE	DISCONNECT FURN	DISCONNECT INS	DISCONNECT WIRED	DISCONNECT LOC.	REMARKS
1	PUMP P-1A	NORTH PENTHOUSE M217	3	4.8	480	3	MDP/NH/BMB	1, 3, 5	3	15	C/MAG	MC	EC	EC	NU	FSS	MC	EC	EC	NU	3
2	PUMP P-1B	NORTH PENTHOUSE M217	3	4.8	480	3	MDP/NH/BMB	7, 9, 11	3	15	C/MAG	MC	EC	EC	NU	FSS	MC	EC	EC	NU	3
3	PUMP P-2A	NORTH PENTHOUSE M217	3/4	1.6	480	3	MDP/NH/BMB	13, 15, 17	3	15	C/MAG	MC	EC	EC	NU	FSS	MC	EC	EC	NU	3
4	PUMP P-2B	NORTH PENTHOUSE M217	3/4	1.6	480	3	MDP/NH/BMB	19, 21, 23	3	15	C/MAG	MC	EC	EC	NU	FSS	MC	EC	EC	NU	3
5	PUMP P-3A	SOUTH PENTHOUSE M297	2	3.4	480	3	MDP/NH/BMA	1, 3, 5	3	15	C/MAG	MC	EC	EC	NU	FSS	MC	EC	EC	NU	3
6	PUMP P-3B	SOUTH PENTHOUSE M297	2	3.4	480	3	MDP/NH/BMA	7, 9, 11	3	15	C/MAG	MC	EC	EC	NU	FSS	MC	EC	EC	NU	3
7	PUMP P-4A	SOUTH PENTHOUSE M297	3/4	1.6	480	3	MDP/NH/BMA	13, 15, 17	3	15	C/MAG	MC	EC	EC	NU	FSS	MC	EC	EC	NU	3
8	PUMP P-4B	SOUTH PENTHOUSE M297	3/4	1.6	480	3	MDP/NH/BMA	19, 21, 23	3	15	C/MAG	MC	EC	EC	NU	FSS	MC	EC	EC	NU	3
9	FC-1	TRANSPORTATION BOOTH - CLG		16.9	208	1	STB	4, 6	2	20	INTEGRAL	MFR	MFR	MFR	IU	NFSS	EC	EC	EC	NU	
10	CU-1	TRANSPORTATION BOOTH - ROOF		18.4	208	1	STB	8, 10	2	30	INTEGRAL	MFR	MFR	MFR	IU	INTEGRAL	MFR	MFR	MFR	IU	
11	ENTRY DOOR E-1-1	ENTRY E1	FRAC.		120	1	XL/BMA	2	1	20		MFR	MFR	PW	OU	NFSS	EC	EC	EC	OU	
12	ENTRY DOOR E-1-2	ENTRY E1	FRAC.		120	1	XL/BMA	4	1	20		MFR	MFR	PW	OU	NFSS	EC	EC	EC	OU	
13	ENTRY DOOR E-2-1	ENTRY E2	FRAC.		120	1	XL/BMA	6	1	20		MFR	MFR	PW	OU	NFSS	EC	EC	EC	OU	
14	ENTRY DOOR E-2-2	ENTRY E2	FRAC.		120	1	XL/BMA	8	1	20		MFR	MFR	PW	OU	NFSS	EC	EC	EC	OU	
15	ENTRY DOOR E-3-1	ENTRY E3	FRAC.		120	1	XL/BMA	10	1	20		MFR	MFR	PW	OU	NFSS	EC	EC	EC	OU	
16	ENTRY DOOR E-3-2	ENTRY E3	FRAC.		120	1	XL/BMA	12	1	20		MFR	MFR	PW	OU	NFSS	EC	EC	EC	OU	
17	ENTRY DOOR E-4-1	ENTRY E4	FRAC.		120	1	XL/BMB	2	1	20		MFR	MFR	PW	OU	NFSS	EC	EC	EC	OU	
18	ENTRY DOOR E-4-2	ENTRY E4	FRAC.		120	1	XL/BMB	4	1	20		MFR	MFR	PW	OU	NFSS	EC	EC	EC	OU	
19	ENTRY DOOR E-5-1	ENTRY E5	FRAC.		120	1	13/XH	2	1	20		MFR	MFR	PW	OU	NFSS	EC	EC	EC	OU	
20	ENTRY DOOR E-5-2	ENTRY E5	FRAC.		120	1	13/XH	4	1	20		MFR	MFR	PW	OU	NFSS	EC	EC	EC	OU	
21	ENTRY DOOR E-6-1	ENTRY E6	FRAC.		120	1	13/XH	6	1	20		MFR	MFR	PW	OU	NFSS	EC	EC	EC	OU	
22	ENTRY DOOR E-6-2	ENTRY E6	FRAC.		120	1	13/XH	8	1	20		MFR	MFR	PW	OU	NFSS	EC	EC	EC	OU	
23	ENTRY DOOR E-7-1	ENTRY E7	FRAC.		120	1	XL/BMA	14	1	20		MFR	MFR	PW	OU	NFSS	EC	EC	EC	OU	
24	ENTRY DOOR E-7-2	ENTRY E7	FRAC.		120	1	XL/BMA	16	1	20		MFR	MFR	PW	OU	NFSS	EC	EC	EC	OU	
25	DATA RM. A/C UNIT ACC-1	TUG TUNNEL COL. 25		4.8	480	3	MDP/QH/BBA	1, 3, 5	3	15	MAG	MFR	MFR	PW	IU		MFR	MFR	PW	OU	4, 8
26	DATA RM. A/C UNIT CAC-1	OPEN AREA 39		45.1	480	3	MDP/QH/BBA	7, 9, 11	3	50	MAG	MFR	MFR	PW	IU	NFSS	EC	EC	EC	NU	5, 8
27	DATA RM. A/C UNIT ACC-2	ROOF COL. 3.5/C		4.8	480	3	MDP/QH/BBA	13, 15, 17	3	15	MAG	MFR	MFR	PW	IU	NFSS	EC	EC	EC	NU	4, 8
28	DATA RM. A/C UNIT CAC-2	OPEN SPACE 98		45.1	480	3	MDP/QH/BBA	19, 21, 23	3	50	MAG	MFR	MFR	PW	IU	NFSS	EC	EC	EC	NU	5, 8
29																					
30																					
31	AHU-1 SUPPLY FAN SF-1	NORTH PENTHOUSE M217	40	52	480	3	MDP/NH/BMB	2, 4, 6	3	100	VFD	MC	EC	EC	NU	NFSS	EC	EC	EC	NU	6
32	AHU-1 RETURN FAN RF-1	NORTH PENTHOUSE M217	15	21	480	3	MDP/NH/BMB	8, 10, 12	3	45	VFD	MC	EC	EC	NU	NFSS	EC	EC	EC	NU	6
33	AHU-2 SUPPLY FAN SF-2	SOUTH PENTHOUSE M297	40	52	480	3	MDP/NH/BMA	2, 4, 6	3	100	VFD	MC	EC	EC	NU	NFSS	EC	EC	EC	NU	6
34	AHU-2 RETURN FAN RF-2	SOUTH PENTHOUSE M297	15	21	480	3	MDP/NH/BMA	8, 10, 12	3	45	VFD	MC	EC	EC	NU	NFSS	EC	EC	EC	NU	6
35	UNIT HEATER UH-1	NORTH PENTHOUSE M217	1/10		120	1	NL/BMB	2	1	15	MAN	MC	EC	EC	OU						2
36	UNIT HEATER UH-2	SOUTH PENTHOUSE M297	1/10		120	1	NL/BMA	2	1	15	MAN	MC	EC	EC	OU						2
37	CAB. UNIT HEATER CUH-1	B101	1/25		120	1	13/K	34	1	15	MAN	MFR	MFR	PW	IU	INTEGRAL	MFR	MFR	PW	IU	
38	CAB. UNIT HEATER CUH-2	B121A	3/4	1.6	480	3	MDP/NH/BMB	14, 16, 18	3	15	MAG	MFR	MFR	PW	IU	INTEGRAL	MFR	MFR	PW	IU	
39	CAB. UNIT HEATER CUH-3	B141	3/4	1.6	480	3	MDP/NH/BMB	20, 22, 24	3	15	MAG	MFR	MFR	PW	IU	INTEGRAL	MFR	MFR	PW	IU	
40	CAB. UNIT HEATER CUH-4	B161A	3/4	1.6	480	3	MDP/NH/BMA	14, 16, 18	3	15	MAG	MFR	MFR	PW	IU	INTEGRAL	MFR	MFR	PW	IU	
41	CAB. UNIT HEATER CUH-5	B173	3/4	1.6	480	3	MDP/NH/BMA	20, 22, 24	3	15	MAG	MFR	MFR	PW	IU	INTEGRAL	MFR	MFR	PW	IU	
42	CAB. UNIT HEATER CUH-6	B183A	3/4	1.6	480	3	MDP/NH/BMA	26, 28, 30	3	15	MAG	MFR	MFR	PW	IU	INTEGRAL	MFR	MFR	PW	IU	
43	CAB. UNIT HEATER CUH-7	ENTRY 7	1/6		120	1	NL/BIA	62	1	20	MAN	MFR	MFR	PW	IU	INTEGRAL	MFR	MFR	PW	IU	
44	ENERGY RECOVERY UNIT ERU-1	ROOF ABOVE B104B	(2) 2	7.9	480	3	MDP/QH/BBA	2, 4, 6	3	15	MAG	MFR	MFR	PW	IU	NFSS	MFR	MFR	MFR	OU	
45	ENERGY RECOVERY UNIT ERU-2	J.C. B194	(2) 2	7.9	480	3	MDP/QH/BBA	8, 10, 12	3	15	MAG	MFR	MFR	PW	IU	NFSS	MFR	MFR	MFR	OU	
46	NOT USED																				
47	NOT USED																				
48	EXHAUST FAN EF-4	NORTH PENTHOUSE M217	FRAC.	1.3	120	1	NL/BMB	4	1	20	-	-	-	-	-	TOGGLE	EC	EC	EC	NU	10
49	EXHAUST FAN EF-5	SOUTH PENTHOUSE M297	FRAC.	1.3	120	1	NL/BMA	4	1	20	-	-	-	-	-	TOGGLE	EC	EC	EC	NU	10
50	CIRC. PUMP CP-1	J.C. B109	1/25		120	1	13/K	32	1	15						TOGGLE	EC	EC	EC	NU	
51	CIRC. PUMP CP-2	J.C. B194	1/25		120	1	NL/BIA	60	1	15						TOGGLE	EC	EC	EC	NU	
52	SUMP PUMP SP-1	M.H. C-11	1/2	1.1	480	3	MDP/QH/BBB	1, 3, 5	3	15	MAG	MFR	MFR	MFR	C.P.	NFSS	EC	EC	EC	NU	
53	SUMP PUMP SP-2	M.H. P-13	1/2	1.1	480	3	MDP/QH/BBB	7, 9, 11	3	15	MAG	MFR	MFR	MFR	C.P.	NFSS	EC	EC	EC	NU	
54	NOT USED																				
55	NOT USED																				
56	OVERHEAD DOOR	RM 98	1/2	2.5	208	3	BL/L	14, 16, 18	3	15	MAG	MFR	MFR	MFR	OU	NFSS	EC	EC	EC	NU	7
57	SUPPLY FAN SF-3	B198	30	40	480	3	P/15	1, 3, 5	3	80	VFD	MC	EC	EC	NU	NFSS	EC	EC	EC	NU	
58	FUEL FILL PUMP	VERHEAD DR ENTR. - LOWER LEVE	1/3	7.2	120	1	BE/L	25	1	20	MAG	EC	EC	EC	RM 73	NFSS	EC	EC	EC	NU	
59	PRE-ACTION AIR COMPRESSOR	DATA RM 41A	FRAC.		120	1	B3/CB	10	1	20	MAG	MFR	MFR	PW	OU	NFSS	EC	EC	EC	NU	
60	PRE-ACTION AIR COMPRESSOR	DATA RM 82	FRAC.		120	1	QL/BBA	10	1	20	MAG	MFR	MFR	PW	OU	NFSS	EC	EC	EC	NU	
61	SUPPLY FAN SF-4	ATS RM 81	3/4		480	3	MDP/QH/BBA	14, 16, 18	3	15	MAG	MC	EC	EC	NU	FSS	EC	EC	EC	NU	3
62	CAB. UNIT HEATER CUH-8	ENTRY 6	1/6		120	1	NL/BIB	52	1	20	MAN	MFR	MFR	MFR	IU						2
63	UNIT HEATER UH-3	STOR. M235	1/20		120	1	NL/BMD	13	1	15	MAN	MC	EC	EC	OU						2
64	UNIT HEATER UH-4	STOR. M281	1/20		120	1	NL/BMC	19	1	15	MAN	MC	EC	EC	OU						2
65	UHIT HEATER UH-5	STAIR S7	1/20		120	1	BL/L	6	1	15	MAN	MC	EC	EC	OU						2
66	SUPPLY FAN SF-5	OPEN SPACE 98	(EXIST)		480	3	(EXISTING)				EXIT	-	EC	EC	NU	(EXIST)	-	EC	EC	NU	9
67	EXHAUST FAN EF-1	ROOF	1	1.8	480	3	P/S	14,16,18	3	15	MAG	MC	EC	EC	NU	FSS	MC	EC	EC	NU	3
68	EXHAUST FAN EF-2	ROOF	1	1.8	480	3	P/S	32,34,36	3	15	MAG	MC	EC	EC	NU	FSS	MC	EC	EC	NU	3
69	EXHAUST FAN EF-3	ROOF	3/4	1.6	480	3	P/S	38,40,32	3	15	MAG	MC	EC	EC	NU	FSS	MC	EC	EC	NU	3
70	CAB. UNIT HEATER CUH-9A	ELEVATOR LOBBY B141	FRAC.		120	1	NL/B1B/L	34	1	20	MAN	MC	EC	EC	NU						2
71	CAB. UNIT HEATER CUH-9B	ELEVATOR LOBBY B141	FRAC.		120	1	NL/B1B/L	34	1	20	MAN	MC	EC	EC	NU						2
72	CAB. UNIT HEATER CUH-9C	ELEVATOR LOBBY B173	FRAC.		120	1	NL/B1A/L	37	1	20	MAN	MC	EC	EC	NU						2
73	CAB. UNIT HEATER CUH-9D	ELEVATOR LOBBY B173	FRAC.		120	1	NL/B1A/L	37	1	20	MAN	MC	EC	EC	NU						2

MOTOR WIRING NOTES:

1. NOT USED.
2. MANUAL MOTOR STARTER WITH TOGGLE SWITCH.
3. COMBINATION MAG STARTER (FUSIBLE DISC. SWITCH TYPE) WITH H-O-A SELECTOR SWITCH AND PILOT LIGHT.
4. PROVIDE SEPARATE 120V CIRCUIT AT UNIT AND CONNECT TO LOW AMBIENT CONTROL PACKAGE.
5. PROVIDE WIRING FROM DATA ROOM FIRE SUPPRESSION SYSTEM ACTIVATION TO SHUT DOWN AC UNIT AND CLOSE DUCT ISOLATION DAMPERS.
6. PROVIDE DUCT SMOKE DETECTORS IN RETURN AIR DUCTS (3 DETECTORS FOR AHU-1: 4 DETECTORS FOR AHU-2) & CONTROL MODULES FOR AUTOMATIC SHUTDOWN CONTROL OF AIR HANDLING UNIT FROM FACP.
7. RECONNECT TO EXISTING CIRCUIT FOR EXISTING O.H. DOOR MOTOR.
8. PROVIDE SHUNT TRIP CIRCUIT BREAKER CONTROLLED BY EMERGENCY PUSH BUTTON STATION AND/OR FIRE SUPPRESSION SYSTEM.
9. ALTERNATE BID #1 SECOND FLOOR OFFICE ADDITION.
10. EXISTING EQUIPMENT TO BE RELOCATED, INCLUDING ASSOCIATED STARTER AND DISC. SWITCH INTERCEPT AND EXTEND EXISTING CIRCUIT TO NEW LOCATION.
11. INTERLOCK WITH ROOM LIGHTS

SPECIAL PURPOSE OUTLET SCHEDULE

MARK	TO FEED	LOCATION	KW	FLA	VOLT	PH	FEED FROM PANEL	FEED FROM CKT	BREAKER POLE	BREAKER AMP	TYPE RECPT	TYPE DIRECT	TYPE OTHER	SEE NOTE
1	HAND DRYER	MEN'S TOILET - B100B	1.5	12.5	120	1	13/L	2	1	20		X		1
2	HAND DRYER	WOMEN'S TOILET - B104B	1.5	12.5	120	1	13/L	4	1	20		X		1
3	HAND DRYER	MEN'S TOILET - B192B	1.5	12.5	120	1	NL/BIA	53	1	20		X		1
4	HAND DRYER	WOMEN'S TOILET - B196B	1.5	12.5	120	1	NL/BIA	55	1	20		X		1
5	URINAL FLUSH VALVE XFMR	CHASE B103A	50 VA		24/120	1	13/CG	6	1	20		X		2
6	TOILET FLUSH VALVE XFMR	CHASE B103A	50 VA		24/120	1	13/CG	6	1	20		X		2
7	TOILET FLUSH VALVE XFMR	CHASE B103A	50 VA		24/120	1	13/CG	10	1	20		X		2
8	URINAL FLUSH VALVE XFMR	CHASE B194A	50 VA		24/120	1	QL/BBA	2	1	20		X		2
9	TOILET FLUSH VALVE XFMR	CHASE B194A	50 VA		24/120	1	QL/BBA	2	1	20		X		2
10	TOILET FLUSH VALVE XFMR	CHASE B194A	50 VA		24/120	1	QL/BBA	4	1	20		X		2
11	SOAP DISPENSER	MEN'S TOILET - B100B	0.020		24/120	1	13/CG	8	1	20	X			3
12	SOAP DISPENSER	WOMEN'S TOILET - B104B	0.030		24/120	1	13/CG	12	1	20	X			3
13	SOAP DISPENSER	MEN'S TOILET - B192B	0.020		24/120	1	QL/BBA	6	1	20	X			3
14	SOAP DISPENSER	WOMEN'S TOILET - B196B	0.020		24/120	1	QL/BBA	8	1	20	X			3
15	PAPER TOWEL DISPENSER	MEN'S TOILET - B100B	0.025		120	1	13/CG	8	1	20		X		27
16	PAPER TOWEL DISPENSER	WOMEN'S TOILET - B104B	0.025		120	1	13/CG	12	1	20		X		27
17	PAPER TOWEL DISPENSER	MEN'S TOILET - B192B	0.025		120	1	QL/BBA	6	1	20		X		27
18	PAPER TOWEL DISPENSER	WOMEN'S TOILET - B196B	0.025		120	1	QL/BBA	8	1	20		X		27
19	ELECTRIC WATER COOLER EWC-1	ADJ. TO VENDING B102	0.37	4.0	120	1	13/L	26	1	20		X		4
20	ELECTRIC WATER COOLER EWC-1	ADJ. TO MEN'S B192A	0.37	4.0	120	1	NL/BIA	57	1	20		X		4
21	ELECTRIC WATER HEATER EWH-1	J.C. B109	9.0	25	208	3	13/K	26, 28, 30	3	40		X		
22	ELECTRIC WATER HEATER EWH-2	J.C. B194	9.0	25	208	3	NL/BIA	54, 56, 58	3	40		X		
23	ELECTRIC WATER HEATER EWH-3	NORTH PENTHOUSE M217	18.0	50	208	3	NL/BMB	8, 10, 12	3	80		X		
24	ELECTRIC WATER HEATER EWH-4	SOUTH PENTHOUSE M297	18.0	50	208	3	NL/BMA	8, 10, 12	3	80		X		
25	AHU #1 LIGHTS/RECEPT'S	NORTH PENTHOUSE M217	1.0		120	1	NL/BMB	6	1	20		X		
26	AHU #2 LIGHTS/RECEPT'S	SOUTH PENTHOUSE M297	1.0		120	1	NL/BMA	6	1	20		X		
27	DIGITAL DISPLAY DD-01	B170	0.17		120	1	QL/BMA	4	1	20	x			5
27A	DIGITAL DISPLAY DD-01 (FUTURE)	B170			120	1	QL/BMA	6, 8	(2) 1	(2) 20			X	14
28	DIGITAL DISPLAY DD-01	B130	0.17		120	1	QL/BMB	2	1	20	x			5
28A	DIGITAL DISPLAY DD-01 (FUTURE)	B130			120	1	QL/BMB	4, 6	(2) 1	(2) 20			X	14
29	DIGITAL DISPLAY DD-02	B170	0.17		120	1	QL/BMA	10, 12	(2) 1	(2) 20	(2) X			5
30	DIGITAL DISPLAY DD-02	B130	0.17		120	1	QL/BMB	8, 10	(2) 1	(2) 20	(2) X			5
31	DIGITAL DISPLAY DD-03	ENTRY E-1	0.17		120	1	QL/BMA	14	1	20	X			15
32	DIGITAL DISPLAY DD-03	B173	0.17		120	1	QL/BMA 16		1	20	X			15
33	DIGITAL DISPLAY DD-03	ENTRY E-2	0.17		120	1			1	20	X			15
34	DIGITAL DISPLAY DD-03	ENTRY E-3	0.17		120	1	QL/BMA	18	1	20	X			15
35	DIGITAL DISPLAY DD-03	ENTRY E-4	0.17		120	1	QL/BMB 12		1	20	X			15
36	DIGITAL DISPLAY DD-03	B141	0.17		120	1			1	20	X			15
37	DIGITAL DISPLAY DD-03	ENTRY E-5	0.17		120	1	13/CG	1	1	20	X			15
38	DIGITAL DISPLAY MONITOR DD-04	B120	0.18		120	1	13/CG	3	1	20	X			6
39	DIGITAL DISPLAY MONITOR DD-04	B140	0.18		120	1	QL/BMB	14	1	20	X			6
40	DIGITAL DISPLAY MONITOR DD-04	B150	0.18		120	1	QL/BMB	16	1	20	X			6
41	DIGITAL DISPLAY MONITOR DD-04	B160	0.18		120	1	QL/BMA	20	1	20	X			6
42	DIGITAL DISPLAY MONITOR DD-04	B180	0.18		120	1	QL/BMA	22	1	20	X			6
43	EXTERIOR SIGNAGE IDX-451	EXTR. - ENTRY E-1	0.072		120	1	QL/BMA	9	1	20		X		7, 18
44	EXTERIOR SIGNAGE IDX-452	EXTR. - ENTRY E-2	0.072		120	1	QL/BMA	13	1	20		X		7, 18
45	EXTERIOR SIGNAGE IDX-453	EXTR. - ENTRY E-3	0.072		120	1	QL/BMA	17	1	20		X		7, 18
46	EXTERIOR SIGNAGE IDX-454	EXTR. - ENTRY E-4	0.072		120	1	QL/BMB	7	1	20		X		7, 18
47	EXTERIOR SIGNAGE IDX-455	EXTR. - ENTRY E-5	0.072		120	1	QL/BMB	11	1	20		X		7, 18
48	EXTERIOR SIGNAGE IDX-401	CANOPY - ENTRY E-1	0.12		120	1	B2/CA	12	1	20		X		8
49	EXTERIOR SIGNAGE IDX-402	CANOPY - ENTRY E-2	0.12		120	1	B2/CA	16	1	20		X		8
50	EXTERIOR SIGNAGE IDX-403	CANOPY - ENTRY E-3	0.12		120	1	B2/CA	18	1	20		X		8
51	EXTERIOR SIGNAGE IDX-404	CANOPY - ENTRY E-4	0.12		120	1	B3/CB	18	1	20		X		8
52	EXTERIOR SIGNAGE IDX-405	CANOPY - ENTRY E-5	0.12		120	1	B3/CB	22	1	20		X		8
53	NOT USED													
54	EXTERIOR SIGNAGE P-101	PED. CROSSING -SOUTH	0.008		120	1	B2/CA	14	1	20		X		9
55	EXTERIOR SIGNAGE IDX-202	PED. CROSSING - SOUTH	0.008		120	1	B2/CA	14	1	20		X		9
56	EXTERIOR SIGNAGE P-102	PED. CROSSING - SOUTH	0.008		120	1	B2/CA	14	1	20		X		9
57	EXTERIOR SIGNAGE P-103	PED. CROSSING - SOUTH	0.008		120	1	B2/CA	14	1	20		X		9
58	EXTERIOR SIGNAGE P-104	PED. CROSSING - NORTH	0.008		120	1	B3/CB	20	1	20		X		9
59	EXTERIOR SIGNAGE IDX-206	PED. CROSSING - NORTH	0.008		120	1	B3/CB	20	1	20		X		9
60	EXTERIOR SIGNAGE P-105	PED. CROSSING - NORTH	0.008		120	1	B3/CB	20	1	20		X		9
61	EXTERIOR SIGNAGE P-106	PED. CROSSING - NORTH	0.008		120	1	B3/CB	20	1	20		X		9
62	EXTERIOR SIGNAGE P-202	PED. CROSSING - CENTER	0.008		120	1	B2/CA	14	1	20		X		9
63	EXTERIOR SIGNAGE IDX-253	PED. CROSSING - CENTER	0.008		120	1	B2/CA	14	1	20		X		9
64	EXTERIOR SIGNAGE P-203	PED. CROSSING - CENTER	0.008		120	1	B2/CA	14	1	20		X		9
65	EXTERIOR SIGNAGE P-204	PED. CROSSING - CENTER	0.008		120	1	B2/CA	14	1	20		X		9
66	EXTERIOR SIGNAGE P-201	PED. CROSSING - ENTR. DRIVE SOUTH	0.008		120	1	B2/CA	14	1	20		X		9
67	NOT USED													
68	EXTERIOR SIGNAGE IDX-371	SOUTH SKYBRIDGE	0.192		120	1	B2/CA	16	1	20		X		9
69	EXTERIOR SIGNAGE IDX-372	CANOPY - CENTERED PED CROSSING	0.192		120	1	B2/CA	18	1	20		X		
70	EXTERIOR SIGNAGE IDX-373	NORTH SKYBRIDGE	0.192		120	1	B3/CB	18	1	20		X		
71	EXTERIOR SIGNAGE IDX-601	GROUND TRANSPORTATION BOOTH	0.024		120	1	B2/CA	18	1	20		X		
72	EXTERIOR SIGNAGE IDX-602	GROUND TRANSPORTATION BOOTH	0.024		120	1	B2/CA	18	1	20		X		
73	EXTERIOR SIGNAGE IDX-603	GROUND TRANSPORTATION BOOTH	0.024		120	1	B2/CA	18	1	20		X		
74	ILLUM. SIGN ID-B130	B130	0.156		120	1	QL/BMB	9	1	20		X		
75	ILLUM. SIGN ID-B170	B170	0.156		120	1	QL/BMA	11	1	20		X		
76	WAYFINDING SIGNAGE ID-WF21	B120A - COL. 28	0.096		120	1	QL/BMB	9	1	20		X		
77	NOT USED													
78	NOT USED													
79	NOT USED													
80	NOT USED													
81	ADVERTISING KIOSK MONITOR NIC-5	B173			120	1	NL/BIA	69	1	20		X		17
82	ADVERTISING KIOSK MONITOR NIC-5	B173			120	1	NL/BIA	69	1	20		X		17
83	ADVERTISING KIOSK MONITOR NIC-5	B141			120	1	NL/BIB	55	1	20		X		17
84	ADVERTISING KIOSK MONITOR NIC-5	B141			120	1	NL/BIB	55	1	20		X		17
85	ADVERTISING SIGN NIC-2	B180			120	1	NL/BIA	59	1	20		X		26
86	ADVERTISING SIGN NIC-2	B160			120	1	NL/BIA	61	1	20		X		26
87	ADVERTISING SIGN NIC-2	B150			120	1	NL/BIB	43	1	20		X		26
88	ADVERTISING SIGN NIC-2	B140			120	1	NL/BIB	45	1	20		X		26
89	ADVERTISING SIGN NIC-2	B120			120	1	13/L	35	1	20		X		26
90	ADVERTISING BANNER NIC-1	B180 - EAST WALL			120	1	NL/BIA	63	1	20		X		10
91	ADVERTISING BANNER NIC-1	B160 - EAST WALL			120	1	NL/BIA	65	1	20		X		10
92	ADVERTISING BANNER NIC-1	B150 - EAST WALL			120	1	NL/BIB	47	1	20		X		10
93	ADVERTISING BANNER NIC-1	B150 - EAST WALL			120	1	NL/BIB	49	1	20		X		10
94	NOT USED													
95	ADVERTISING BANNER NIC-1	B140 - EAST WALL			120	1	NL/BIB	51	1	20		X		10
96	ADVERTISING BANNER NIC-1	B120 - EAST WALL			120	1	13/L	37	1	20		X		10
97	ADVERTISING BANNER NIC-1	B120 - EAST WALL			120	1	13/L	39	1	20		X		10
98	NOT USED													
99	WAYFINDING SIGNAGE ID-WF02	B180A - COL. 4	0.096		120	1	QL/BMA	11	1	20		X		7
100	NOT USED													
101	WAYFINDING SIGNAGE ID-WF04	B180A - COL. 6	0.096		120	1	QL/BMA	11	1	20		X		7
102	WAYFINDING SIGNAGE ID-WF05	B170 - COL. 8	0.096		120	1	QL/BMA	11	1	20		X		7
103	WAYFINDING SIGNAGE ID-WF06	B170 - COL. 9	0.096		120	1	QL/BMA	11	1	20		X		7
104	WAYFINDING SIGNAGE ID-WF07	B160A - COL. 10	0.096		120	1	QL/BMA	15	1	20		X		7
105	WAYFINDING SIGNAGE ID-WF08	B160A - COL. 10	0.096		120	1	QL/BMA	15	1	20		X		7
106	WAYFINDING SIGNAGE ID-WF09	B160A - COL. 12	0.096		120	1	QL/BMA	15	1	20		X		7
107	WAYFINDING SIGNAGE ID-WF10	B160A - COL. 12	0.096		120	1	QL/BMA	15	1	20		X		7
108	WAYFINDING SIGNAGE ID-WF11	B150A - COL. 14	0.096		120	1	QL/BMA	15	1	20		X		7
109	WAYFINDING SIGNAGE ID-WF12	B150A - COL. 14	0.096		120	1	QL/BMA	15	1	20		X		7
110	WAYFINDING SIGNAGE ID-WF13	B150A - COL. 16	0.096		120	1	QL/BMB	5	1	20		X		7
111	WAYFINDING SIGNAGE ID-WF14	B150A - COL. 16	0.096		120	1	QL/BMB	5	1	20		X		7
112	WAYFINDING SIGNAGE ID-WF15	B140A - COL. 21	0.096		120	1	QL/BMB	5	1	20		X		7
113	WAYFINDING SIGNAGE ID-WF16	B140A - COL. 21	0.096		120	1	QL/BMB	5	1	20		X		7
114	WAYFINDING SIGNAGE ID-WF17	B130 - COL. 22	0.096		120	1	QL/BMB	9	1	20		X		7
115	WAYFINDING SIGNAGE ID-WF18	B130 - COL. 23	0.096		120	1	QL/BMB	9	1	20		X		7
116	WAYFINDING SIGNAGE ID-WF19	B120A - COL. 25	0.096		120	1	QL/BMB	9	1	20		X		7
117	NOT USED													
118	DATA RACK PDU (NORMAL)	RM 41A	1.8	15	120	1	NL/BBB	SEE PLANS	1	20	X			11
119	DATA RACK PDU (UPS)	RM 41A	1.8	15	120	1	UL/BBB	SEE PLANS	1	20	X			11
120	DATA RACK PDU (NORMAL)	RM 82	1.8	15	120	1	NL/BBA	SEE PLANS	1	20	X			11
121	DATA RACK PDU (UPS)	RM 82	1.8	15	120	1	UL/BBA	SEE PLANS	1	20	X			11
122	SIGNAGE ID-E1A	B180A	0.084		120	1	QL/BMA	9	1	20		X		10
123	SIGNAGE ID-E2A	B160A	0.084		120	1	QL/BMA	13	1	20		X		10
124	SIGNAGE ID-E3A	B150A	0.084		120	1	QL/BMA	17	1	20		X		10
125	SIGNAGE ID-E4A	B140A	0.084		120	1	QL/BMB	7	1	20		X		10
126	SIGNAGE ID-E5A	B120A	0.084		120	1	QL/BMB	11	1	20		X		10
127	SIGNAGE ID-E1B	B180	0.024		120	1	QL/BMA	11	1	20		X		28
128	SIGNAGE ID-E2B	B160	0.024		120	1	QL/BMA	15	1	20		X		28
129	SIGNAGE ID-E3B	B150	0.024		120	1	QL/BMB	5	1	20		X		28
130	SIGNAGE ID-E4B	B140	0.024		120	1	QL/BMB	5	1	20		X		28
131	SIGNAGE ID-E5B	B120	0.024		120	1	QL/BMB	9	1	20		X		28
132	EXTR. SIGNAGE IDX-651	ENTRY 1	0.084		120	1	B2/CA	12	1	20		X		10
133	EXTR. SIGNAGE IDX-652	ENTRY 2	0.084		120	1	B2/CA	16	1	20		X		10
134	EXTR. SIGNAGE IDX-653	ENTRY 3	0.084		120	1	B2/CA	18	1	20		X		10
135	EXTR. SIGNAGE IDX-654	ENTRY 4	0.084		120	1	B3/CB	18	1	20		X		10
136	EXTR. SIGNAGE IDX-655	ENTRY 5	0.084		120	1	B3/CB	22	1	20		X		10
137	NOT USED													
138	TTD-TTY DEVICE NIC-12	B120			120	1	13/CG	11	1	20		X		
139	PHONE CARD MACHINE NIC-11	B190			120	1	NL/BIA	24	1	20		X		
140	BAGGAGE CART DISPENSER NIC-6	B180	0.4		120	1	NL/BIA	67	1	20		X		
141	BAGGAGE CART DISPENSER NIC-7	B160	0.4		120	1	NL/BIA	67	1	20		X		
142	BAGGAGE CART DISPENSER NIC-8	B150	0.4		120	1	NL/BIB	53	1	20		X		
143	BAGGAGE CART DISPENSER NIC-9	B140	0.4		120	1	NL/BIB	53	1	20		X		
144	BAGGAGE CART DISPENSER NIC-10	B120	0.4		120	1	13/L	41	1	20		X		
145	POSTER LIGHTED FRAME OSP-1	B101	0.1		120	1	13/L	31	1	20		X		10
146	PRIMEX WIRELESS CLOCK SC-1	B160		0.13	120	1	QL/BBA	5	1	20	X			12
147	PRIMEX WIRELESS CLOCK SC-1	B140/B150		0.13	120	1	QL/BBA	11	1	20	X			12
148	UILDING ENERGY DISPLAY MONITOR DD-0	SEE PLANS	0..170		120	1	SEE PLANS	SEE PLANS	1	20	X			5
149	CONVEYOR 1 BAGGAGE INPUT CONSOLE	LOWER LEVEL COL. G/12.7			120	1	B2/G	8	1	20		X		
150	CONVEYOR 2 BAGGAGE INPUT CONSOLE	LOWER LEVEL COL. E/16			120	1	B2/G	10	1	20		X		

SPECIAL PURPOSE OUTLET SCHEDULE

MARK	TO FEED	LOCATION	KW	FLA	VOLT	PH	FEED FROM PANEL	FEED FROM CKT	BREAKER POLE	BREAKER AMP	TYPE RECPT	TYPE DIRECT	TYPE OTHER
151	CONVEYOR 3 BAGGAGE INPUT CONSOLE	LOWER LEVEL COL. E/19			120	1	QL/BBA	13	1	20		X	
152	CONVEYOR 4 BAGGAGE INPUT CONSOLE	LOWER LEVEL COL. E/20			120	1	QL/BBA	15	1	20		X	
153	CONVEYOR 5 BAGGAGE INPUT CONSOLE	LOWER LEVEL COL. E/24			120	1	B3/J	28	1	20		X	
154	ATC PANEL	NORTH P.H. M217			120	1	QL/BMB	3	1	20		X	
155	ATC PANEL	SOUTH P.H. M297			120	1	QL/BMA	5	1	20		X	
156	NAC BOOSTER SUPPLY PANEL	NORTH P.H. M217			120	1	XL/BMB	1	1	20		X	
157	NAC BOOSTER SUPPLY PANEL	SOUTH P.H. M297			120	1	XL/BMA	1	1	20		X	
158	NOT USED												
159	NOT USED												
160	NOT USED												
161	NOT USED												
162	NOT USED												
163	NOT USED												
164	NOT USED												
165	NOT USED												
166	NOT USED												
167	NOT USED												
168	NOT USED												
169	NOT USED												
170	NOT USED												
171	NOT USED												
172	FAUCET MIXING VALVE XFMR TMV-1	B104B	0.04		120	1	13/CG	12	1	20		X	
173	FAUCET MIXING VALVE XFMR TMV-2	B100B	0.04		120	1	13/CG	8	1	20		X	
174	FAUCET MIXING VALVE XFMR TMV-3	B196B	0.04		120	1	QL/BBA	8	1	20		X	
175	FAUCET MIXING VALVE XFMR TMV-4	B192B	0.04		120	1	QL/BBA	6	1	20		X	
176	LIGHT BOX	SEE PLANS	0.6		277	1	SEE PLANS	SEE PLANS	1	20			X
177	VAV BOX POWER SUPPLY	SEE PLANS	0.075		120	1	SEE PLANS	SEE PLANS	1	20			X
178	ATC PANEL	B198			120	1	QL/BBA	12	1	20		X	
179	ACC-1 LOW AMBIET CONTROL	TUG TUNNEL - COL. 25			120	1	B3/CB	14	1	20		X	
180	ACC-2 LOW AMBIENT CONTROL	ROOF - COL. 3.5/C			120	1	QL/BMA	7	1	20		X	
181	ADVERTISING KIOSK NIC-4	B173			120	1	NL/BIA	69	1	20		X	
182	ADVERTISING KIOSK NIC-4	B173			120	1	NL/BIA	69	1	20		X	
183	ADVERTISING KIOSK NIC-4	B141			120	1	NL/BIB	55	1	20		X	
184	ADVERTISING KIOSK NIC-4	B141			120	1	NL/BIB	55	1	20		X	
185	NOT USED												
186	INTERIOR CAMERA POWER	SEE PLANS	0.05		120	1	SEE PLANS	SEE PLANS	1	20	X		
187	INTERIOR PTZ CAMERA POWER	SEE PLANS		1	120	1	SEE PLANS	SEE PLANS	1	20		X	
188	EXTR. PTZ CAMERA POWER	SEE PLANS		4	120	1	SEE PLANS	SEE PLANS	1	20		X	
189	ELECTRIC WALL HEATER EWH-1	TRANSPORTATION BOOTH	4	19.2	208	1	STB	12, 14	2	25		X	
190	ELECTRIC UNIT HEATER EUH-1	SWITCHGEAR B198	15.0	18	480	3	SG/13	A4	3	30		X	
191	AIR SAMPLING PANEL ASP-1	DATA ROOM 41A			120	1	B3/CXC	14	1	20		X	
192	AIR SAMPLING PANEL ASP-2	DATA ROOM 82			120	1	XL/BBA	1	1	20		X	
193	JCI PANEL	DATA ROOM 41A			120	1	NL/BBB	20	1	20		X	
194	JCI PANEL	DATA ROOM 82			120	1	NL/BBA	18	1	20		X	
195	EXTR. CAB VALIDATOR BOX	GROUND TRANSPORTATION BOOTH			120	1	STB	13	1	20		X	
196	INTR. CAB VALIDATOR BOX	GROUND TRANSPORTATION BOOTH			120	1	STB	15	1	20		X	
197	CPS EQUIPMENT	GROUND TRANSPORTATION BOOTH			120	1	STB	17	1	20	X	X	
198	CAB CALL BUTTON	GROUND TRANSPORTATION BOOTH			120	1	STB	19	1	20		X	
199	QUANTUM 1.5 LIGHT MGMT. HUB	SOUTH PENTHOUSE M297			120	1	XL/BMA	1	1	20		X	
200	EMERGENCY LIGHTING INTERFACE	SOUTH PENTHOUSE M297			120	1	NL/BMA	2, 4, 6	(3) 1	20		X	
201	RGENCY LIGHTING INTERFACE POWER SU	SOUTH PENTHOUSE M297			120	1	NL/BMA	8	1	20		X	
202	UTRON ECOSUSTEM ENERGI SAVR NODE	SOUTH PENTHOUSE M297		0.5 (EA.)	120	1	NL/BMA	10	1	20		X	
203	LUTRON QSE-C1 DMX INTERFACE	SOUTH PENTHOUSE M297			120	1	NL/BMA	12	1	20		X	
204	CK iPLAYER 3 DMX CONTROLLER	SOUTH PENTHOUSE M297			120	1	NL/BMA	14	1	20		X	
205	UTRON ECOSUSTEM ENERGI SAVR NODE	NORTH PENTHOUSE M217		0.5 (EA.)	120	1	NL/BMA	2	1	20		X	
206	LUTRON QSE-C1 DMX INTERFACE	NORTH PENTHOUSE M217			120	1	NL/BMA	4	1	20		X	
207	CK iPLAYER 3 DMX CONTROLLER	NORTH PENTHOUSE M217			120	1	NL/BMA	6	1	20		X	
208	UTRON ECOSUSTEM ENERGI SAVR NODE	CORRIDOR H-4D ALCOVE		0.5 (EA.)	120	1	B2/G	23	1	20		X	
209	LUTRON QSE-C1 DMX INTERFACE	CORRIDOR H-4D ALCOVE			120	1	B2/G	25	1	20		X	
210	CK iPLAYER 3 DMX CONTROLLER	CORRIDOR H-4D ALCOVE			120	1	B2/G	27	1	20		X	
211	AHU #3 LIGHTS/RECEPT'S	SWITCHGEAR B198	0.28		120	1	BL/L	9	1	20		X	

SPECIAL PURPOSE OUTLET SCHEDULE NOTES:

1. REFER TO ARCHITECTURAL BATHROOM ELEVATIONS FOR HAND DRYER MOUNTING HEIGHTS. PROVIDE GFCI TYPE CIRCUIT BREAKER.
2. PROVIDE 4" SQ. OUTLET BOX WITH PLASTER RING FOR SENSOR MOUNTING. PROVIDE 120V POWER TO PRIMARY SIDE OF 24 VAC TRANSFORMER. LOW VOLTAGE CONTROL WIRING FROM TRANSFORMER TO SENSOR. AND FROM SENSOR TO FLUSH VALVE SOLENOID, BY P.C.
3. PROVIDE GFCI TYPE RECEPTACLE FOR PLUG-IN AC ADAPTER.
4. PROVIDE GFCI TYPE CIRCUIT BREAKER FOR THE ELECTRIC WATER COOLER BRANCH CIRCUIT.
5. LOCATE RECEPTACLE(S) SO THAT OUTLET IS LOCATED BEHIND DISPLAY MONITOR.
6. PROVIDE (2) DUPLEX RECEPTACLES. RECEPTACLES TO BE CONCEALED WITHIN SIGNAGE/MONITOR HOUSING. 2 MONITORS, ILLUMINATED SIGNAGE PANEL. SEE "INTERIOR SIGN TYPE J".
7. COORDINATE MOUNTING HEIGHT SO THAT OUTLET IS BEHIND THE WALL MOUNTED SIGN.
8. ROUTE CONDUIT THRU CHANNEL PROVIDED IN BOTTOM OF CANOPY SUPPORT BEAM.
9. RUN CONDUIT UNDERGROUND FROM BUILDING TO SIGN. COORDINATE CONDUIT ROUGH-IN PLACEMENT WITH CIVIL, ARCHITECT AND SIGN PROVIDER.
10. COORDINATE MOUNTING HEIGHT OF POWER CONNECTION TO SIGN SO THAT OUTLET IS LOCATED BEHIND THE SIGN.
11. RACK MOUNTED POWER DISTRIBUTION UNIT (PDU).
12. PROVIDE DIGITAL CLOCK. DIGITAL CLOCK TO BE SINGLE-SIDED, 4", 4-DIGIT DISPLAY, 120VAC, PRIMEX CAT. NO. XRA1B201. REFER TO EQUIPMENT AND SIGNAGE SCHEDULES ON SHEET A744 FOR ADDITIONAL INFORMATION.
13. LOCATE RECEPTACLE FOR CLEAR CUBE ZERO CLIENT FLUSH IN CEILING OR WALL, AND POSITIONED SUCH THAT IT WILL BE CONCEALED BY THE DISPLAY MONITOR MOUNTING FRAME/HOUSING.
14. TERMINATE CIRCUIT IN JUNCTION BOX IN CEILING SPACE ABOVE FUTURE DISPLAY MONITOR.
15. ROUTE POWER AND DATA FOR PEDESTAL MOUNTED FID AND DID MONITORS UP THRU FLOOR INTO PEDESTAL SUPPORT LEG OF THE DISPLAY SYSTEM STRUCTURE
16. PROVIDE 120V CIRCUIT FOR EXTENSION BY ATC CONTR. FOR CONTROL POWER TO VAV BOXES.
17. SERVE POWER AND DATA TO KIOSK & MONITOR UP FROM FLOOR INTO UNIT.
18. SIGN TO BE CONTROLLED BY LUTRON NETWORK LIGHTING CONTROL LC-E3. SEE LIGHTING CONTROL SCHEDULE ON SHEET E005.
19. PROVIDE RECEPTABLE FLUSH MOUNTED IN CEILING ADJACENT TO CAMERA HOUSING.
20. CPS WILL REMOVE AND REINSTALL EXISTING EQUIPMENT. PROVIDE POWER AND DATA TO MATCH EXISTING EQUIPMENT.
21. REINSTALL CAB CALL BUTTON AND RECONNECT TO WIRING TO CAB WAITING AREA.
22. PROVIDE (3) CIRCUITS FROM NORMAL POWER PANEL. EACH CIRCUITON A SEPARATE PHASE.
23. SEE LIGHTING CONTROL SCHEDULE ON SHEET E003 FOR QUANITY OF ENERGI-SAVR NODES AND 0-10V DIMMING ENERGI-SAVR NODES.
24. SEE LIGHTING CONTROL SCHEDULE ON SHEET E004 & E005 FOR QUANITY OF ENERGI-SAVR NODES AND 0-10V DIMMING ENERGI-SAVR NODES.
25. SEE LIGHTING CONTROL SCHEDULE ON SHEET E005 FOR QUANITY OF ENERGI-SAVR NODES AND 0-10V DIMMING ENERGI-SAVR NODES.
26. DECK MOUNT ON CAROUSEL.
27. OUTLET BOX LOCATION IS TO BE FLUSH MOUNTED BEHIND THE DISPENSER ENCLOSURE.
28. DIRECT CONNECTION TO LED DRIVER FOR THE STAIC EDGE-LIT DISPLAY.

Engberg Anderson
MILWAUKEE • MADISON • TUCSON

IBC ENGINEERING SERVICES INC.

GENERAL MITCHELL INTERNATIONAL AIRPORT
Baggage Claim Building Remodel
5300 S. Howell Ave. Milwaukee, WI 53207

Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 1	4/11/2013
2	Addendum No. 2	4/24/2013

ISSUED FOR: Construction
DATE: July 16, 2012
PROJECT: A042-06415
SITE NO: 290
BUILDING NO: 209

ELECTRICAL SCHEDULES

PANEL P/11 (EXISTING) ◇1

MOUNT	SPACES	LOCATION	VOLTAGE	PH	WIRE	MAIN BUS RATING	MCB	MLO	WIRE	CONDUIT
SURFACE	56	SW OF RM 52B	480	3	3	310A		310A		

POLE NO.	BREAKER POLE	BREAKER AMP	OUTLET LGT	OUTLET REC	OUTLET MIS	DESCRIPTION	VA	PHASE LOAD VA A	B	C	VA	DESCRIPTION	OUTLET LGT	OUTLET REC	OUTLET MIS	BREAKER POLE	BREAKER AMP	POLE NO.
1																		2
3	3	70				~~1) CAROUSEL #4~~ SPARE						2) XFMR SECURITY UPS RM 51				3	30	4
5																		6
7																		8
9	3	30				3) S WATER HEATER 2						4) M 87 SEWAGE EJECTOR 1				3	15	10
11																		12
13																		14
15	3	25				5) M-19 ESCALATOR						6) SUPPLY FAN AHU SF-1A-1-				3	20	16
17																		18
19																		20
21	3	25				7) M-20 ESCALATOR						8) SNOW MELT PUMP				3	20	22
23																		24
25																		26
27	3	15				9) RM. 51 FAN UNITS						10) RETURN FAN AHU RF 1A 1				3	15	28
29																		30
31																		32
33	3	70				~~11) CAROUSEL #5~~ SPARE						12) AC UNITS FOR RM. 51B				3	100	34
35																		36
37						SPACE						SPACE						38
39						SPACE						SPACE						40
41						SPACE						SPACE						42
43						SPACE						SPACE						44
45						SPACE						SPACE						46
47						SPACE						SPACE						48
49						SPACE						SPACE						50
51						SPACE						SPACE						52
53						SPACE						SPACE						54
55						SPACE						SPACE						56
						PHASE TOTALS:						PHASE TOTALS						GE TYPE NHB STYLE 2A
						TOTAL VA:						TOTAL VA						18K A.I.C.

PANEL P/5 (EXISTING) ◇1

MOUNT	SPACES	LOCATION	VOLTAGE	PH	WIRE	MAIN BUS RATING	MCB	MLO	WIRE	CONDUIT
SURFACE	44	RM 86	480	3	3	385A		385A		

POLE NO.	BREAKER POLE	BREAKER AMP	OUTLET LGT	OUTLET REC	OUTLET MIS	DESCRIPTION	VA	PHASE LOAD VA A	B	C	VA	DESCRIPTION	OUTLET LGT	OUTLET REC	OUTLET MIS	BREAKER POLE	BREAKER AMP	POLE NO.
1																		2
3	3	100 ◇5				1) M 1 ELEVATOR 1						2) M 2 ELEVATOR 2				3	100 ◇5	4
5																		6
7																		8
9	3	70				~~3) CONVEYOR 3~~ SPARE						~~4) CONVEYOR 2~~ SPARE				3	70	10
11																		12
13								447			447							14
15	3	70				5) CONVEYOR 1 SPARE			447		447	EXH FAN EF-1 (M67)			X	3	15 ◇6	16
17										447	447							18
19																		20
21	3	15				7) M-160 CHILLED WATER PUMP 13 (SPARE)						8) M-54 EXHAUST FAN 15 RM 55				3	15	22
23																		24
25																		26
27	3	15				9) M 162 HOT WATER PUMP 15 (SPARE)						10) M 163 HOT WATER PUMP 16 (SPARE)				3	15	28
29																		30
31	-	-				SPACE		447			447							32
33	-	-				SPACE			447		447	EXH. FAN EF-2 (M 68)			X	3	15 ◇6	34
35	-	-				SPACE				447	447							36
37						SPACE		360			360							38
39	-	-				SPACE			360		360	EXH FAN EF-3 (M69)			X	3	15 ◇6	40
41	-	-				SPACE				360	360							42
43	-	-				SPACE						SPACE						44
						PHASE TOTALS:		1254	1254	1254		PHASE TOTALS						GE TYPE NHB STYLE 2A
						TOTAL VA:					3,762	TOTAL VA						14K A.I.C.

PANEL P/12 (EXISTING) ◇1

MOUNT	SPACES	LOCATION	VOLTAGE	PH	WIRE	MAIN BUS RATING	MCB	MLO	WIRE	CONDUIT
SURFACE	24	RM B108	480	3	3	85A	-	85A	-	-

POLE NO.	BREAKER POLE	BREAKER AMP	OUTLET LGT	OUTLET REC	OUTLET MIS	DESCRIPTION	VA	PHASE LOAD VA A	B	C	VA	DESCRIPTION	OUTLET LGT	OUTLET REC	OUTLET MIS	BREAKER POLE	BREAKER AMP	POLE NO.
1	-	-				SPACE						SPACE				-	-	2
3	-	-				SPACE						SPACE				-	-	4
5	-	-				SPACE						SPACE				-	-	6
7																		8
9	3	20				3) EF-13A ENPLANING ROADWAY FAN NORTH						4) TRANSFORMER TO PANEL 13/M				3	60	10
11																		12
13																		14
15	3	20				5) FAN COIL UNITS CONCOURSE C 2ND LEVEL						~~6) AIR CURTAIN #2 NORTH~~ SPARE				3	20	16
17																		18
19																		20
21	3	20				7) EF 13 ENPLANING ROADWAY FAN SOUTH						M 38 AHU 14				3	30	22
23																		24
						PHASE TOTALS:						PHASE TOTALS						GE TYPE NHB STYLE 2A
						TOTAL VA:						TOTAL VA						14K A.I.C.

PANEL 13K (EXISTING) ◇1

MOUNT	SPACES	LOCATION	VOLTAGE	PH	WIRE	MAIN BUS RATING	MCB	MLO	WIRE	CONDUIT
SURFACE	42	RM. B108	120/208	3	4	225A		225A		

POLE NO.	BREAKER POLE	BREAKER AMP	OUTLET LGT	OUTLET REC	OUTLET MIS	DESCRIPTION	VA	PHASE LOAD VA A	B	C	VA	DESCRIPTION	OUTLET LGT	OUTLET REC	OUTLET MIS	BREAKER POLE	BREAKER AMP	POLE NO.
1	1	20				L-M3 ENPLANING RDWY NORTH						L-M3 ENPLANING RDWAY NORTH				1	20	2
3	1	20				L-M3 ENPLANING RDWY NORTH						L-M3 ENPLANING RDWAY NORTH				1	20	4
5	1	20				SPARE						~~DOLLAR~~ SPARE				1	20	6
7	1	20				SPARE						M 62 RM 160				1	20	8
9	1	20				L-POLE LTS N BAG CLAIM I SPARE						L-POLE LTS N. BAG CLAIM SPARE				1	20	10
11	1	20				L-POLE LTS N ENPLANING RDWY						L-POLE LTS N. FOURTH QUADRANT △1				1	20	12
13	1	20				L-POLE LTS N FOURTH QUADRANT, DOCK						L-POLE LTS N. SHERRIFS DEPT. (EAST)				1	20	14
15	1	20				~~ESCALATOR SIGNS-3 OVEI~~ SPARE						LIGHT POLES, N. BAGGAGE CLAIM DRIVE	X			1	20	16
17	1	20				~~M-151 RM 170 ENT. 1 HEAT~~ SPARE						~~LTS LEASE SPACE 163~~ SPARE				1	20	18
19	1	20				DOLLAR SPARE						SIGN-E WALL RM 161 SPARE				1	20	20
21	1	20				~~LTS LEASE SPACE 155~~ SPARE						~~INTERSPACE NEW CKT. DI~~ SPARE				1	20	22
23	1	20				SPARE						INTERSPACE NEW CKT. DI SPARE				1	20	24
25	1	20				SPARE		3000			3000							26
27	1	20				~~SIGN FOR CAR RENTALS~~ SPARE			3000		3000	~~DIMMING SYS - EM FEED~~ EWH-1 (SPO 21)			X	3	40 ◇3	28
29	1	20				~~SIGN ABOVE S-3 ESCALAT~~ SPARE				3000	3000							30
31	1	20				~~DELTA DATA ROOM~~ SPARE		350			350	~~AVIS CAR RENTA~~ CIRC. PUMP CP-1 (M60)			X	1	◇4 15	32
33	1	20				~~SIGN E. WALL RM 157 INNE~~ SPARE			350		350	~~AVIS CAR RENTA~~ CUH-1 (M37)			X	1	◇4 15	34
35	1	20				NATIONAL CAR RENTAL SPARE				1000	1000	AVIS CAR RENTA WASTE COMPACTOR			X	1	20	36
37	1	20				~~NATIONAL CAR RENTAL~~ SPARE		1800			1800	~~AVIS CAR RENTA~~ WASTE COMPACTOR			X	1	20	38
39	1	20				~~NATIONAL CAR RENTAL~~ SPARE			1800		1800	~~AVIS CAR RENTA~~ WASTE COMPACTOR			X	1	20	40
41	1	20				NATIONAL CAR RENTAL C SPARE				1000	1000	AVIS CAR RENTA WASTE COMPACTOR			X	1	20	42
						PHASE TOTALS:		5450	5150	5600		PHASE TOTALS						GE TYPE NLAB STYLE 5
						TOTAL VA:					15,900	TOTAL VA						10K A.I.C.

PANEL MDP ◇1

MOUNT	SPACES	LOCATION	VOLTAGE	PH	WIRE	MAIN BUS RATING	MCB	MLO	WIRE	CONDUIT
SURFACE	60	RM 92B ALCOVE	480	3	3	225A		225A		

POLE NO.	BREAKER POLE	BREAKER AMP	OUTLET LGT	OUTLET REC	OUTLET MIS	DESCRIPTION	VA	PHASE LOAD VA A	B	C	VA	DESCRIPTION	OUTLET LGT	OUTLET REC	OUTLET MIS	BREAKER POLE	BREAKER AMP	POLE NO.
1						SPACE												2
3						SPACE						2) SPARE				3	20	4
5						SPACE												6
7																		8
9	3	20				~~3) AIR CURTAIN DOOR #2~~ SPARE						4) SPARE				3	60	10
11																		12
13																		14
15	3	20				~~5) AIR CURTAIN DOOR #3~~ SPARE						6) SPARE				3	70	16
17																		18
19												SPACE						20
21	3	20				~~7) AIR CURTAIN DOOR #4~~ SPARE						SPACE						22
23												SPACE						24
25												SPACE						26
27	3	60				WELDER OUTLET						SPACE						28
29												SPACE						30
31												SPACE						32
33	3	20				SPARE						SPACE						34
35												SPACE						36
37												SPACE						38
39	3	50				SPARE						SPACE						40
41												SPACE						42
43												SPACE						44
45	3	30				SPARE						SPACE						46
47												SPACE						48
49												SPACE						50
51	3	30				SPARE						SPACE						52
53												SPACE						54
55												SPACE						56
57	3	60				SPARE						SPACE						58
59												SPACE						60
61												SPACE						62
63												SPACE						64
65												SPACE						66
						PHASE TOTALS:						PHASE TOTALS						SQ-D TYPE NH1B
						TOTAL VA:						TOTAL VA						18K A.I.C.

PANEL P/14 (EXISTING) ◇1

MOUNT	SPACES	LOCATION	VOLTAGE	PH	WIRE	MAIN BUS RATING	MCB	MLO	WIRE	CONDUIT
SURFACE	56	RM 71 (CAGE)	480	3	3	155A	-	155A	-	-

POLE NO.	BREAKER POLE	BREAKER AMP	OUTLET LGT	OUTLET REC	OUTLET MIS	DESCRIPTION	VA	PHASE LOAD VA A	B	C	VA	DESCRIPTION	OUTLET LGT	OUTLET REC	OUTLET MIS	BREAKER POLE	BREAKER AMP	POLE NO.
1																		2
3	3	40				1) WELDER (OFF - SPARE)						2) M-17 ESCALATOR				3	25	4
5																		6
7																		8
9	3	25				3) M 18 ESCALATOR						4) SPARE				3	20	10
11																		12
13	-	-				SPACE												14
15						SPACE						6) SPARE				3	20	16
17	-	-				SPACE												18
19																		20
21	3	20				7) SPARE						8) SPARE				3	20	22
23																		24
25																		26
27	3	20				9) AIR COMPRESSOR						10) SPARE				3	20	28
29																		30 △2
31												SPACE						32
33	3	20				11) SPARE						SPACE						34
35												SPACE						36
37						SPACE						SPACE						38
39						SPACE						SPACE						40
41	-	-				SPACE						SPACE						42
43	-	-				SPACE						SPACE						44
45						SPACE						SPACE						46
47	-	-				SPACE						SPACE						48
49	-	-				SPACE						SPACE						50
51	-	-				SPACE						SPACE						52
53						SPACE						SPACE						54
55	-	-				SPACE						SPACE						56
						PHASE TOTALS:						PHASE TOTALS						GE TYPE NHB STYLE 2A
						TOTAL VA:						TOTAL VA						14K A.I.C.

PANEL 13L (EXISTING) ◇1

MOUNT	SPACES	LOCATION	VOLTAGE	PH	WIRE	MAIN BUS RATING	MCB	MLO	WIRE	CONDUIT
SURFACE	42	RM. B108	120/208	3	4	225A		225A		

POLE NO.	BREAKER POLE	BREAKER AMP	OUTLET LGT	OUTLET REC	OUTLET MIS	DESCRIPTION	VA	PHASE LOAD VA A	B	C	VA	DESCRIPTION	OUTLET LGT	OUTLET REC	OUTLET MIS	BREAKER POLE	BREAKER AMP	POLE NO.
1	1	20				~~L-RM 157,158,159,160,156 I~~ SPARE		1500			1500	HAND DRYER (SPO 1)			X	1	20	2 ◇2
3	1	20				L SIDEWALK WASH ENPLANING RDWY			1500		1500	HAND DRYER (SPO 2)			X	1	20	4 ◇2
5	1	20				MPX BC LACP 15D						L SIDEWALK WASH ENPLANING RDWY				1	20	6
7	1	20				DISPATCH 10 (PRINTER)		1080			1080	RECEPTS - OFFICE		X		1	20	8
9	1	20				SPARE			900		900	RECEPTS - OFFICE		X		1	20	10
11	1	20				SPARE				1080	1080	RECEPTS - OFFICE		X		1	20	12
13	1	20				SPARE		1080			1080	RECEPTS - OFFICE		X		1	20	14
15	1	20				SPARE			900		900	RECEPTS - OFFICE		X		1	20	16
17	1	20				SPARE				225	225	VAV'S (SPO 177)			X	1	20	18
19	1	20				SPARE		1500			1500	VENDING		X		1	20	20
21	1	20				SPARE			1500		1500	VENDING		X		1	20	22
23	1	20				SPARE				1500	1500	VENDING		X		1	20	24
25	1	20				L-SIDEWALK WASH ENPLANING RDWY		370			370	EWC (SPO 19)			X	1	20	26 ◇2
27	1	20				SPARE			360		360	RECEPTS - N WAITING		X		1	20	28
~~29~~	~~1~~	~~20~~				~~SPARE~~				360	360	RECEPTS - N WAITING		X		1	20	30
31	1	20				POSTER FRAME (SPO 145)	100	1000			900	RECEPTS - TLT ROOMS		X		1	20	32
33	1	30				MONITOR (SPO 148)	170		710		540	RECEPTS - BAG CLAIM-6		X		1	30	34
~~35~~	~~1~~	~~20~~				~~SIGN (SPO 89)~~	~~333~~			690	360	RECEPTS - BAG CLAIM-6		X		1	20	36
37	1	20				SIGN (SPO 96)	500	1040			540	RECEPTS - CAROUSEL 5 (TOP)		X		1	20	38
39	1	35				SIGN (SPO 97)	500		1220		720	RECEPTS - CAROUSEL 5 (INSIDE)		X		1	20	40
41	1	20				CART DISPENSER (SPO 144)	400			700	300	VAV'S (SPO 177)			X	1	20	42
						PHASE TOTALS:		7570	7050	4561		PHASE TOTALS						GE TYPE NLAB STYLE 5
						TOTAL VA:	2,003				17,215	TOTAL VA						10K A.I.C.

PANEL P/15 (EXISTING)

MOUNT	SPACES	LOCATION	VOLTAGE	PH	WIRE	MAIN BUS RATING	MCB	MLO	WIRE	CONDUIT
SURFACE	30	RM 72	277/480	3	4	400A		400A		

POLE NO.	BREAKER POLE	BREAKER AMP	OUTLET LGT	OUTLET REC	OUTLET MIS	DESCRIPTION	VA	PHASE LOAD VA A	B	C	VA	DESCRIPTION	OUTLET LGT	OUTLET REC	OUTLET MIS	BREAKER POLE	BREAKER AMP	POLE NO.
1							11085	11085										2
3	3	80			X	SUPPLY FAN SF 3 (M57)	11085		11085			PANEL "P" OUTDOOR LIGHTING CONTACTOR				3	100	4
5							11085			11085								6
7																		8
9	3	40				ELEVATOR A&B ELECTRIC HEATER						ELEVATOR C&D ELECTRIC HEATER				3	40	10
11																		12
13	1	20				SPARE						CANOPY WLKWY LTS & N.W. POLE LIGHT				1	20	14
15																		16
17	3	15				AHU-6						SPARE (SAVE FOR GATE 1K XFMR)				3	100	18
19																		20
21												SPACE						22
23	3	70				SURFACE LOT SOUTH						SPACE				-	-	24
25												SPACE				-	-	26
27	-	-				SPACE						SPACE				-	-	28
29	-	-				SPACE						SPACE				-	-	30
						PHASE TOTALS:		11085	11085	11085		PHASE TOTALS						SQ-D I-LINE
						TOTAL VA:	33,255					TOTAL VA						65K A.I.C.

PANEL 13/M (EXISTING)

MOUNT	SPACES	LOCATION	VOLTAGE	PH	WIRE	MAIN BUS RATING	MCB	MLO	WIRE	CONDUIT
SURFACE	30	RM B108	120/208	3	4	225A		225A		

POLE NO.	BREAKER POLE	BREAKER AMP	OUTLET LGT	OUTLET REC	OUTLET MIS	DESCRIPTION	VA	PHASE LOAD VA A	B	C	VA	DESCRIPTION	OUTLET LGT	OUTLET REC	OUTLET MIS	BREAKER POLE	BREAKER AMP	POLE NO.
1	1	20				~~NORTH BAGGAGE CLAIM~~ SPARE						NORTH MALL				1	20	2
3	1	20				NORTH BAGGAGE CLAIM SPARE						NORTH MALL				1	20	4
5	1	20				NORTH MALL						DATA CABINE				1	20	6
7	1	20				NORTH MALL						ROADWAY PLANTER VIA RELAY (OFF)				1	20	8
9	1	20				FLAGPOLE LIGHTS						ROADWAY PLANTER VIA RELAY (OFF)				1	20	10
11	1	20				CIRCUITS TO GROUND BOX FLAGPOLE						?				1	20	12
13	-	-				SPACE						~~COUNTER GFCI SW AIR~~ SPARE						14
15						SPACE						~~DISPOSAL SW AIR~~ SPARE				3	20	16
17	-	-				SPACE						REFRIG. SW AIR SPARE						18
19	-	-				SPACE						~~WATER HEATER~~ SPARE				2	30	20
21						SPACE												22
23						SPACE						~~VAV'S SW AIR~~ SPARE				2	20	24
25						SPACE												26
27	-	-				SPACE						SPACE				-	-	28
29	-	-				SPACE						SPACE				-	-	30
						PHASE TOTALS:						PHASE TOTALS						SQ-D TYPE NQOD
						TOTAL VA:						TOTAL VA						10K A.I.C.

KEY NOTES

◇1 ADD ALTERNATE #4 - REPLACE EXISTING ELECTRICAL PANEL WITH NEW PANEL. RECONNECT ALL EXISTING BRANCH CIRCUITS NOT BEING ABANDONED BY THIS PROJECT

◇2 REPLACE EXISTING CIRCUIT BREAKER WITH GFI TYPE CIRCUIT BREAKER.

◇3 REPLACE EXISTING 60A/3P CIRCUIT BREAKER WITH NEW 40A/3P CIRCUIT BREAKER.

◇4 REPLACE EXISTING 20A/1P CIRCUIT BREAKER WITH NEW 15A/1P CIRCUIT BREAKER.

◇5 REPLACE EXISTING CIRCUIT BREAKER WITH NEW SHUNT-TRIP BREAKER, CONTROLLED BY FACP.

◇6 PROVIDE NEW 15A/3P CIRCUIT BREAKER.

SHEET NOTES

1. CURCUIT DESCRIPTIONS IN BOLD TEXT DESIGNATES NEW CURCUITS IN EXISTING PANELS.

Engberg Anderson
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IBC ENGINEERING SERVICES INC

GENERAL MITCHELL INTERNATIONAL AIRPORT
Baggage Claim Building Remodel
5300 S. Howell Ave. Milwaukee, WI 53207

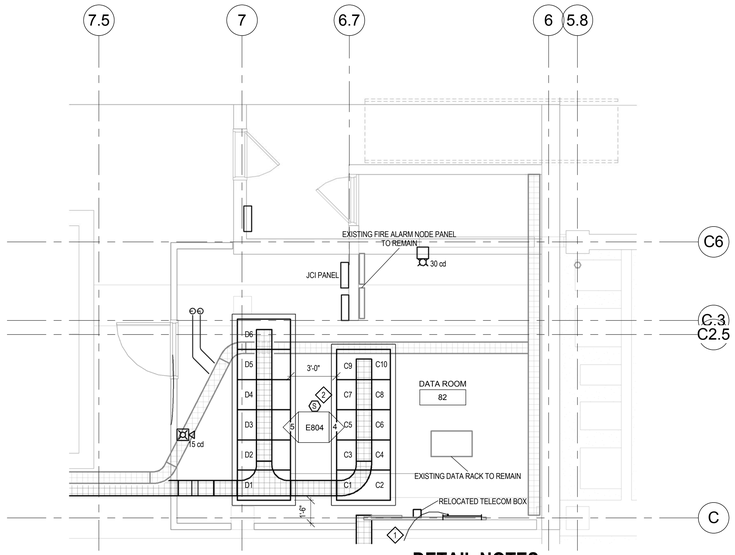
Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 1	4/11/2013
2	Addendum No. 2	4/24/2013

ISSUED FOR: Construction
DATE: July 16, 2012
PROJECT: A042-06415
SITE NO: 290
BUILDING NO: 209

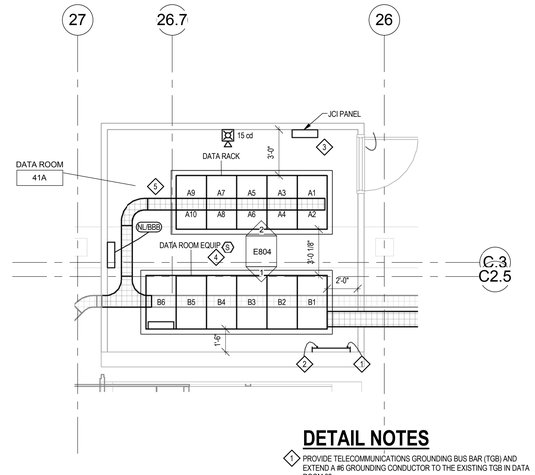
EXISTING ELECTRICAL PANEL SCHEDULES



DETAIL NOTES

1. EXTEND A #6 GROUNDING CONDUCTOR TO THE TELECOMMUNICATIONS GROUNDING BUS BAR IN DATA ROOM 41.
2. PROVIDE LOW VOLTAGE CONNECTION FOR SMOKE DETECTOR PROVIDED BY OTHERS.
3. PROVIDE BASKET TRAY - 12" W x 4" D (TYPICAL).

6 LOWER LEVEL SYSTEMS AND FIRE ALARM PLAN - DATA ROOM 82
1/4" = 1'-0"

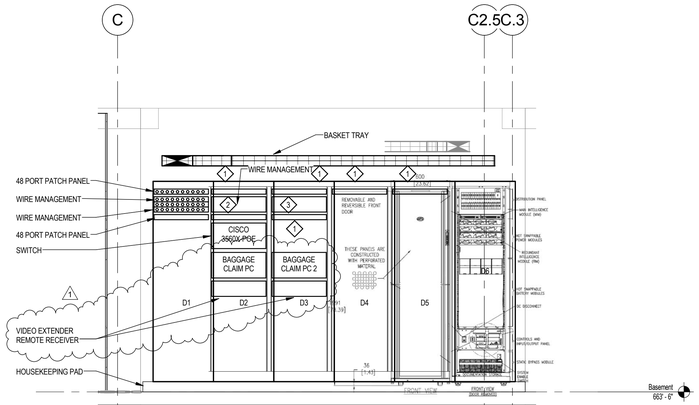


DETAIL NOTES

1. PROVIDE TELECOMMUNICATIONS GROUNDING BUS BAR (TGB) AND EXTEND A #6 GROUNDING CONDUCTOR TO THE EXISTING TGB IN DATA ROOM 82.
2. EXTEND A #6 GROUNDING CONDUCTOR TO THE EXISTING TGB IN DATA ROOM 51 AND CONNECT.
3. ACP CABINET BY JCI.
4. PROVIDE LOW VOLTAGE CONNECTION FROM SMOKE DETECTOR TO FIRE SUPPRESSION SYSTEM CONTROL PANEL.
5. PROVIDE BASKET TRAY - 12" W x 4" D (TYPICAL)

3 LOWER LEVEL SYSTEMS AND FIRE ALARM PLAN - DATA ROOM 41
1/4" = 1'-0"

RACK ASSIGNMENT - ROOM 82	
DES	EQUIPMENT
D1	GMIA - TELE/DATA
D2	GMIA - OPS-PCAF
D3	GMIA - PAGING
D4	GMIA - PAGING
D5	GMIA - WI-FI, COMNET
D6	GMIA - UPS, BATTERIES, PDU

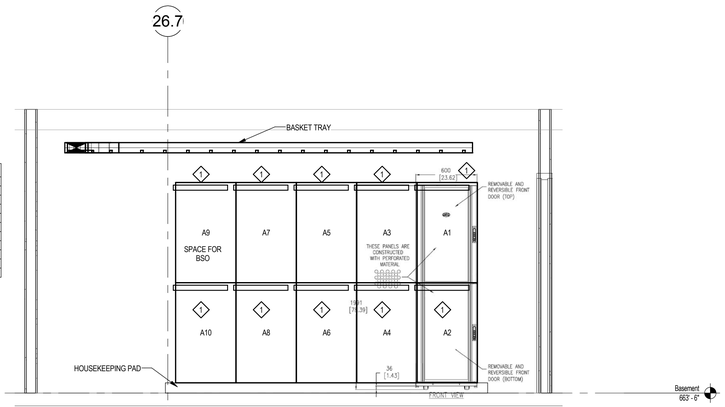


DETAIL NOTES

1. 48 PORT PATCH PANEL
2. MOUNT (2) PC's FOR BAGGAGE CAROUSEL 1 AND 2 BAGGAGE INFORMATION DISPLAY EACH PC SHALL CONNECT BY VGA CABLE TO A SINGLE VGA VIDEO EXTENDER REMOTE RECEIVER.
3. COMNET EQUIPMENT

5 DATA ROOM 82 RACK ELEVATION - NORTH
1/2" = 1'-0"

RACK ASSIGNMENT - ROOM 41	
DES	EQUIPMENT
A1	BSO TELE/DATA
A2	BSO TELE/DATA
A3	BSO TELE/DATA
A4	BSO TELE/DATA
A5	BSO TELE/DATA
A6	BSO TELE/DATA
A7	BSO TELE/DATA
A8	BSO TELE/DATA
A9	BSO TELE/DATA
A10	BSO TELE/DATA

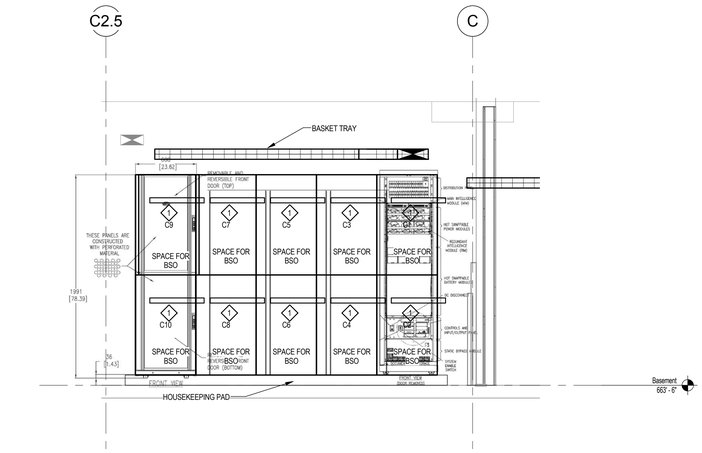


DETAIL NOTES

1. 48 PORT PATCH PANEL

2 DATA ROOM 41 RACK ELEVATION - EAST
1/2" = 1'-0"

RACK ASSIGNMENT - ROOM 82	
DES	EQUIPMENT
C1	BSO - TELE/DATA
C2	BSO - TELE/DATA
C3	BSO - TELE/DATA
C4	BSO - TELE/DATA
C5	BSO - TELE/DATA
C6	BSO - TELE/DATA
C7	BSO - TELE/DATA
C8	BSO - TELE/DATA
C9	BSO - TELE/DATA
C10	BSO - TELE/DATA

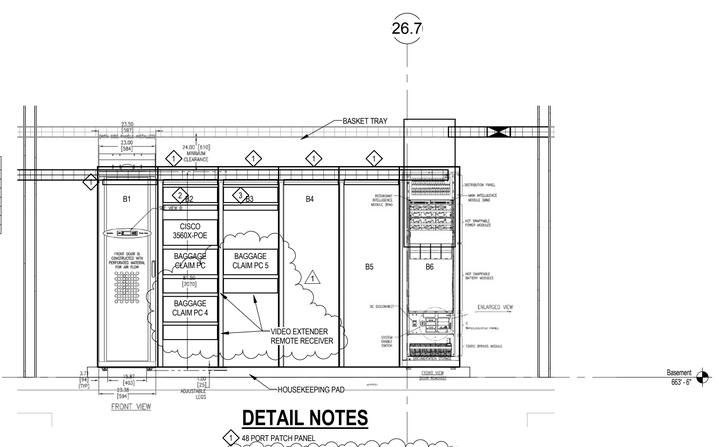


DETAIL NOTES

1. 48 PORT PATCH PANEL

4 DATA ROOM 82 RACK ELEVATION - SOUTH
1/2" = 1'-0"

RACK ASSIGNMENT - ROOM 41	
DES	EQUIPMENT
B1	TELE/DATA
B2	GMIA - OPS-PCAF
B3	GMIA - WI-FI, COMNET
B4	GMIA - PAGING
B5	GMIA - PAGING
B6	GMIA - UPS - BATTERIES, PDU



DETAIL NOTES

1. 48 PORT PATCH PANEL
2. MOUNT (3) PC's FOR BAGGAGE CAROUSEL 3,4 AND 5 BAGGAGE INFORMATION DISPLAY. EACH PC SHALL CONNECT BY VGA CABLE TO A SINGLE VGA VIDEO EXTENDER REMOTE RECEIVER.
3. COMNET EQUIPMENT

1 DATA ROOM 41 RACK ELEVATION - WEST
1/2" = 1'-0"

ELECTRICAL DATA ROOM EXPANDED VIEWS AND ELEVATIONS

E804

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IBC ENGINEERING SERVICES, INC.
N16 W23135 JOHNSON DR., STE 180, 262-549-1290
WAUKESHA, WI 53188 FAX: 262-549-1293

GENERAL MITCHELL INTERNATIONAL AIRPORT
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5300 S. Howell Ave. Milwaukee, WI 53207

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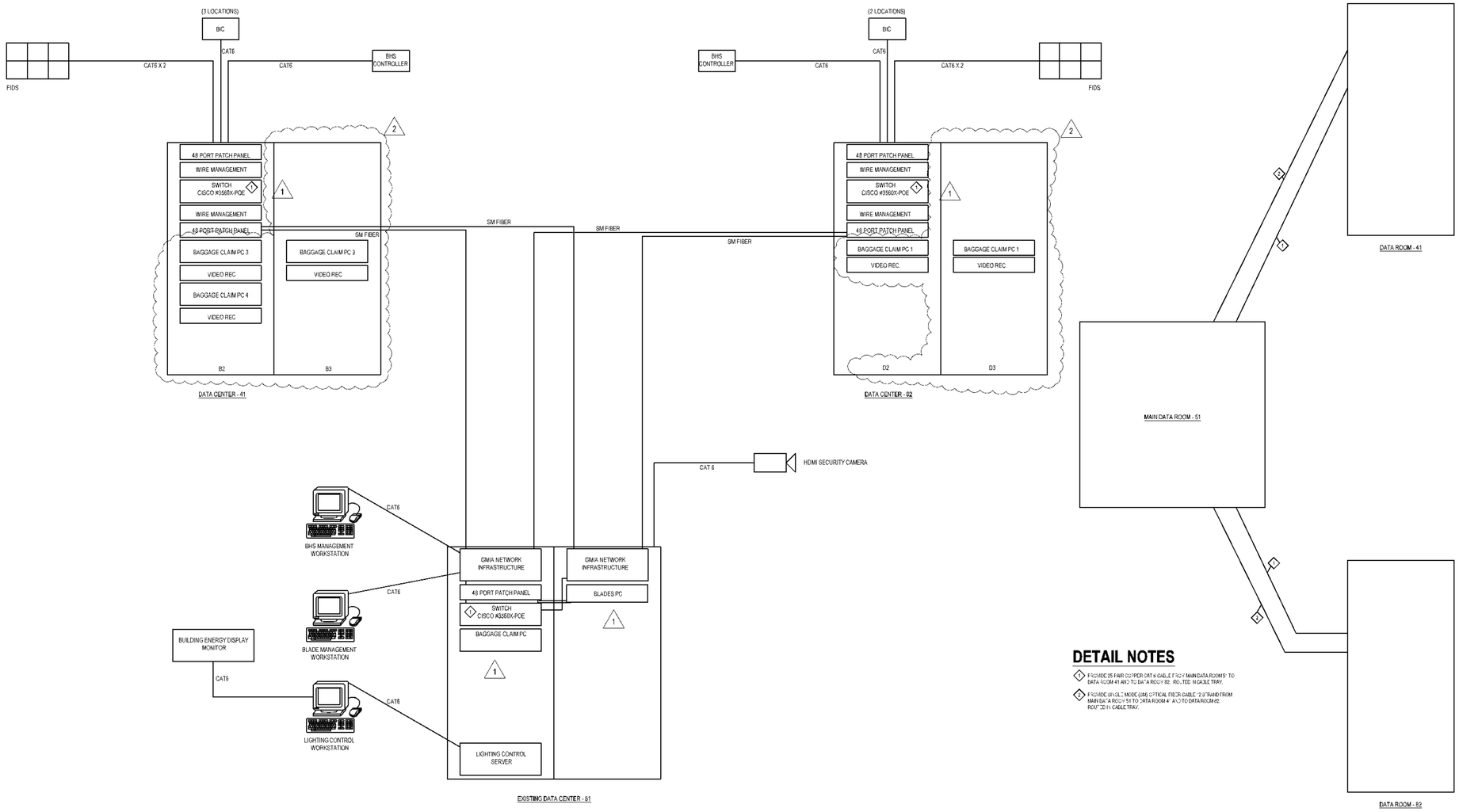
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53208

REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 2	4/24/2013

ISSUED FOR: **Construction**
DATE: **July 16, 2012**
PROJECT: **A042-06415**
SITE NO: **290**
BUILDING NO: **209**



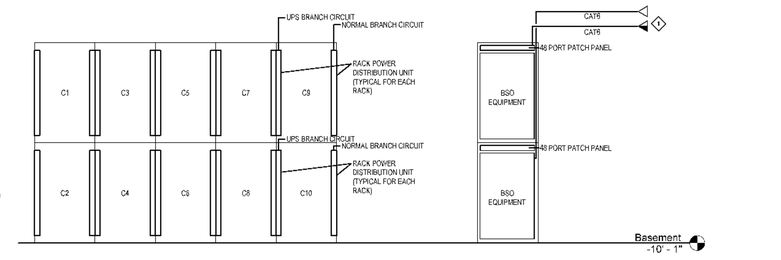
3 GMIA BAGGAGE HANDLING AND DISPLAY CONNECTIONS
SCALE: NTS

DETAIL NOTES

1. CONTRACTOR SHALL PROVIDE NETWORK SWITCH CISCO #3560X-POE IN RACK IN DATA CENTER ROOMS 41, 51 AND 52.

DETAIL NOTES

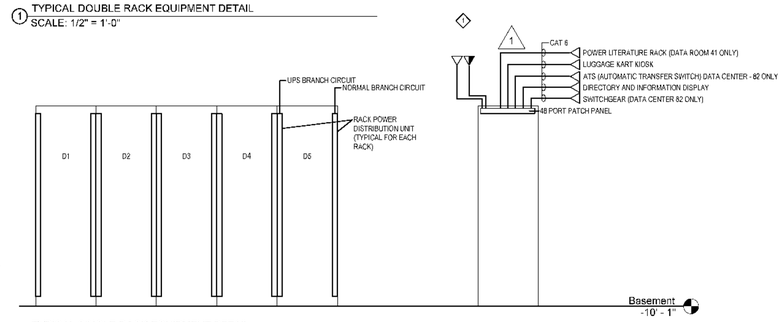
1. FROM DE 25 PAIR COPPER CAT 6 CABLE FROM MAIN DATA ROOM 51 TO DATA ROOM 41 AND TO DATA ROOM 52. ROUTED IN CABLE TRAY.
2. FROM DE 6 MULTI MODE (MM) OPTICAL FIBER CABLE 12 STRAND FROM MAIN DATA ROOM 51 TO DATA ROOM 41 AND TO DATA ROOM 52. ROUTED IN CABLE TRAY.



1 TYPICAL DOUBLE RACK EQUIPMENT DETAIL
SCALE: 1/2" = 1'-0"

DETAIL NOTES

1. TYPICAL BSO TO PROVIDE DATA PORT CONNECT TO BSO RACK FAILURE IN ROOMS 41 AND 52.



2 TYPICAL SINGLE RACK EQUIPMENT DETAIL
SCALE: 1/2" = 1'-0"

GENERAL NOTES

1. PROVIDE CATS CABLE FROM DATA PORT CONNECT TO EQUIPMENT. STRAIGHT THROUGH.

DETAIL NOTES

1. TYPICAL DATA PROVIDE DATA PORT CONNECT TO CISCO RACK FAILURE IN ROOMS 41 AND 52.

GMIA BAGGAGE HANDLING AND DISPLAY CONNECTIONS NETWORK RISER DIAGRAM

E806

Engberg Anderson
MILWAUKEE • MADISON • TUCSON

IBC ENGINEERING SERVICES, INC.
N19 W23133 ELMENDORF DR. STE. 201 262-240-1150
WAUKESHA, WI 53186 fx 262-240-1420

GENERAL MITCHELL INTERNATIONAL AIRPORT
Baggage Claim Building Remodel
5300 S. Howell Ave, Milwaukee, WI 53207

Milwaukee County Dept. of Administrative Services
FACILITIES MANAGEMENT DIVISION
Architectural, Engineering & Environmental Services
CITY CAMPUS 2711 W. WELLS ST - 2ND FLOOR MILWAUKEE, WI 53206

REVISION:

No.	DESCRIPTION	DATE
1	Addendum No. 1	4/11/2013
2	Addendum No. 2	4/24/2013

ISSUED FOR: Construction
DATE: July 16, 2012
PROJECT: A042-06415
SITE NO: 290
BUILDING NO: 209