

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

**JOLIET VARIOUS MOVABLE BRIDGES
AUTOMATION**

BRIDGE OFFICE BUILDING

SECTION NO. 2012-045I

CONSTRUCTION PROJECT NO. C-91-546-12

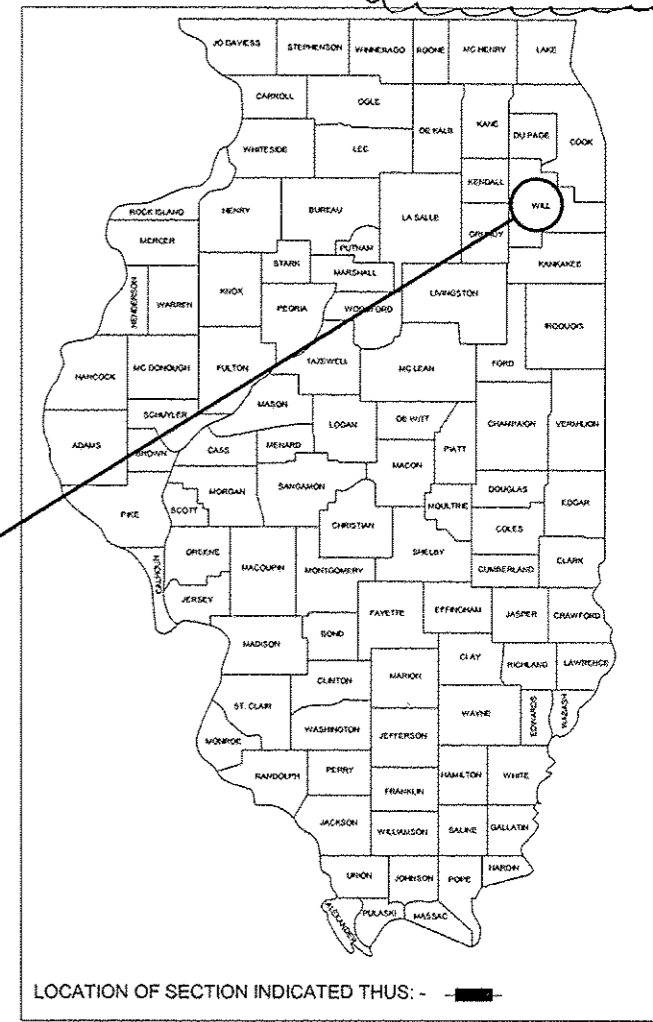
IMPROVEMENTS TO BUILDING EXTERIOR

WILL COUNTY

D-91-301-09

F.A. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
N/A	BRIDGE OFFICE BUILDING	WILL	11	1
		JOLIET	ILLINOIS CONTRACT NO. 60V37	

*1146=17



LOCATION OF SECTION INDICATED THIS: -

INDEX OF SHEETS

- COVER SHEET
- SUMMARY OF QUANTITIES
- ABBREVIATIONS, SYMBOLS LEGEND & TOTAL BILL OF MATERIALS
- ROOF PLAN - DEMOLITION
- ROOF PLAN - NEW WORK
- ROOF PLAN - NEW WORK MECHANICAL OPTION 2 - DELETED
- EXTERIOR ELEVATIONS
- EXTERIOR ELEVATIONS
- EXISTING CONDITION DETAILS
- NEW WORK DETAILS
- NEW WORK DETAILS
- MECHANICAL & ELECTRICAL ROOF PLAN - DEMOLITION
- MECHANICAL & ELECTRICAL ROOF PLAN - NEW WORK
- SECOND FLOOR POWER PLAN - DEMO & NEW WORK
- MECHANICAL DETAILS
- EXHAUST FAN AND VENTILATOR SCHEDULES
- ROOF TOP UNIT SCHEDULE

PROJECT DESCRIPTION:

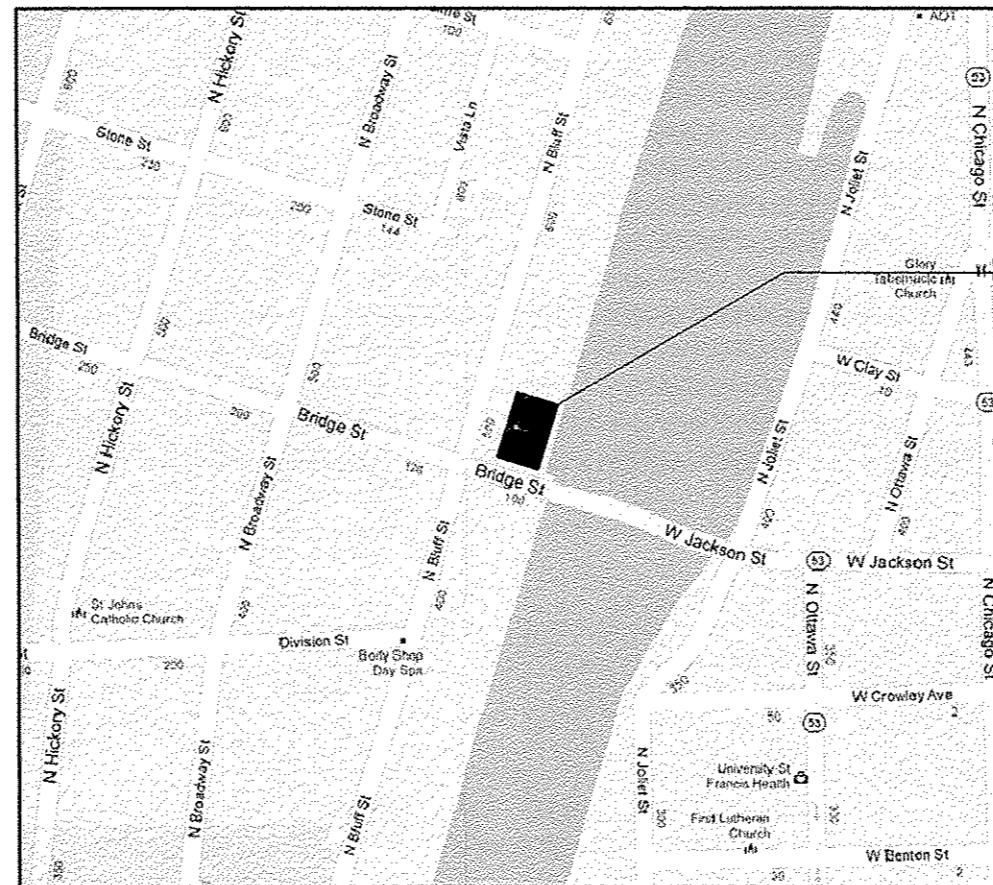
ROOF REPLACEMENT, EXTERIOR MASONRY TUCKPOINTING AND SEALING AND MODIFICATION AND PAINTING OF FIRE ESCAPE AT BRIDGE OFFICE BUILDING. PROJECT ALSO INCLUDES FURNISHING AND INSTALLING A NEW MECHANICAL ROOF TOP UNIT, FRESH AIR INTAKE HOOD AND REPLACEMENT EXHAUST FAN, ALONG WITH INCIDENTAL STRUCTURAL AND ELECTRICAL WORK. MECHANICAL EQUIPMENT CURBS/PLATFORMS WILL BE FURNISHED AND INSTALLED UNDER A SEPARATE CONTRACT TO BE COMPLETED CONCURRENTLY WITH THIS PROJECT. STRUCTURAL IN-FILL OF EXISTING OPENINGS AND CONSTRUCTION OF NEW OPENINGS FOR MECHANICAL EQUIPMENT WILL ALSO BE INCLUDED WITH THE SEPARATE PROJECTS. MECHANICAL EQUIPMENT NOTE THAT TWO ROOF PLANS ARE SHOWN TO DEPICT TWO OPTIONS FOR MECHANICAL SYSTEMS. ONE OPTION WILL BE SELECTED.

FULL SIZE PLANS HAVE BEEN PREPARED USING STANDARD ARCHITECTURAL SCALES. APPLICABLE BAR SCALES ARE SHOWN ON EACH SHEET.

J.U.L.I.E.
JOINT UTILITY LOCATION INFORMATION FOR EXCAVATION
1-800-892-0123 OR 811

CONTRACT NO. 60V37

PRINTED BY THE AUTHORITY
OF THE STATE OF ILLINOIS



EXPIRES: 11/30/12
6/28/2012

STATE OF ILLINOIS
DEPARTMENT OF TRANSPORTATION
DIVISION OF HIGHWAYS

SUBMITTED July 5, 2012

Deputy Director of Highways, Region Engineer

August 17, 2012
John D. Baranzelli, P.E. / E
ENGINEER OF DESIGN AND ENVIRONMENT

August 17, 2012
William R. Frey / E
DIRECTOR OF HIGHWAYS, CHIEF ENGINEER

PROJECT MANAGER - SERIN KELLER (847) 705-4556
PROJECT ENGINEER - JOE SACCOMANNO (847) 705-4594

LOCATION PLAN

NO SCALE

09/04/12 ADDENDUM 1



CONSTRUCTION
CODE
100% STATE
BRIDGE
0044
URBAN

CODE NO.	ITEM	UNIT	TOTAL QUANTITY
X0323964	ROOF DRAIN COLLECTION NETWORK	FOOT	88
X0325153	MASONRY CLEANING AND TUCKPOINTING	SQ YD	4.265
X0327397	ROOF REPLACEMENT, LOCATION 1	L SUM	1
X0327468	ROOF DECK CONCRETE CORNER REPAIR	L SUM	1
X0327469	MASONRY FACE BRICK REPAIR	SQ FT	60
X0327470	MASONRY SEALER	SQ FT	4.265
X0327471	MODIFICATION AND PAINTING OF FIRE ESCAPE	L SUM	1
X0327472	ROOFING SAMPLING AND ACM IDENTIFICATION	L SUM	1
X0327473	HANDLING OF ASBESTOS CONTAINING MATERIALS (ACM)	L SUM	1
67100100	MOBILIZATION	L SUM	1
X0327494	<i>MECHANICAL WORK COMPLETE</i>	L SUM	1



Rev. 9-6-12



USER NAME =
DESIGNED - EJM
DRAWN - EJM
PROF SCALE =
CHECKED - EJM
PLOT DATE = 06-28-2012
APPROVED - GLE

REVISED
REVISED
REVISED
REVISED

STATE OF ILLINOIS
DEPARTMENT OF
TRANSPORTATION

SUMMARY OF QUANTITIES

Scale SHEET NO. 2 OF 11 SHEETS Station From Station To

P.O.P. REF.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-0451	WILL	11	2
CONTRACT NO.			GOV37	

ILLINOIS I.T.P. 410 PROJECT

ABBREVIATIONS

& - AND @ - AT A.B. - ANCHOR BOLT A/C - AIR CONDITIONING ACT - ACOUSTICAL TILE AD - AREA DRAIN, AS SHOWN ADJ. - ADJUST - ADJUSTABLE A.F.F. - ABOVE FLOOR FINISH AL - ALUM - ALUMINUM ALT. - ALTERNATE AP. - ACCESS PANEL APPROX. - APPROXIMATELY BB. - BULLETIN BOARD B.C. - BRICK COURSES BD. - BOARD BITUM. - BITUMINOUS BLDG. - BUILDING BLK. - BLOCK, BLKG. - BLOCKING B.M. - B.M. - BEAM, BENCH MARK B.N. - BULL NOSE B.O.F. - BOTTOM OF FOOTING BOT. - BOTTOM B.P. - BASE PLATE BRK. - BRICK - CENTERLINE CAB. - CABINET CAP. - CAPACITY C.B. - CHALK BOARD C.C. - CENTER TO CENTER C.D. - CEILING DIFFUSER CEM. - CEMENT CER. - CERAMIC C.F.M. - CUBIC FEET PER MINUTE C.H. - COAT HOOK C.J. - CONTROL JOINT CLR. - CLEAR, COLOR C.G. - CEILING CLKG. - CAULKING C - CLOSET C.M.U. - CONCRETE MASONRY UNITS C.O. - CLEANOUT COL. - COLUMN CONC. - CONCRETE CONST. - CONSTRUCTION CONT. - CONTINUOUS	CONTR. - CONTRACT COR. BD. - CORNER BEAD CORR. - CORRIDOR, CORROSION C.R. - COLD ROLLED CPT. - CARPET C.T. - CERAMIC TILE CTSK. - COATING CTSK. - COUNTERSUNK C.W. - COLD WATER C.F./C.I. - CONTRACTOR FURNISHED/ CONTRACTOR INSTALLED DIA. - DIAMETER DET. - DETAIL DIA. - DIAMETER DIAG. - DIAGONAL DIAGRAM DIM. - DIMENSION DISP. - DISPENSER D.L. - DEAD LOAD DN. - DOWN D.P. - DAMPROOFING, DUMPSTER PAD, DEPTH DR. - DOOR D.S. - DOWNSPOUT D.W. - DISHWASHER D.W.C. - DRINKING WATER COOLER DBL. - DOUBLE E.W.C. - ELECTRIC WATER COOLER E.W.H. - ELECTRIC WATER HEATER EXH. - EXHAUST EXIST. - EXISTING EXP. - EXPANSION, EXPOSED EXT. - EXTERIOR E. - EAST EA. - EACH E.I.F.S. - EXTERIOR INSULATION FINISH SYSTEM E.F. - EACH FACE E.J. - EXP. JT. - EXPANSION JOINT EL. - ELEVATION ELEC. - ELECTRICAL EQ. - EQUAL EQUIP. - EQUIPMENT E.W. - EACH WAY F.A. - FRESH AIR F.A.P. - FIRE ALARM PANEL F.C. - FURRED CEILING F.C.U. - FAN COIL UNIT F.D. - FLOOR DRAIN, FIRE DAMPER FDN. - FOUND. - FOUNDATION F.E.C. - FIRE EXTINGUISHER CABINET F.F.EL. - FINISH FLOOR ELEVATION F.G. - FINISH GRADE F.H. - FIRE HYDRANT, FLAT HEAD F.H.C. - FIRE HOSE CABINET FIN. - FINISH (ED) (ES) FL. - FLOOR FT. - FOOT, FEET, FT. - SQ. FT. F.T.D. - FACIAL TISSUE DISPENSER FTG. - FOOTING	FURN. - FURNITURE FUT. - FUTURE GA. - GAGE GAL. - GALLON GALV. - GALVANIZED G.B. - GRAB BARS G.F./C.I. - GOVERNMENT FURNISHED/ CONTRACTOR INSTALLED G.F.E. - GOVERNMENT FURNISHED - EQUIPMENT G.F.R.C. - GLASS FIBER REINFORCED CONCRETE GL. - G.L. - GLASS, GRADE LINE GR. - GRADE GRD. - GROUND G.T. - GREASE TRAP G.W.B. - GYPSUM WALL BOARD GYP. BD. - GYPSUM BOARD H. - HGT., HT. - HEIGHT H.B. - HOSE BIBB H.M. - HOLLOW METAL HORIZ. - HORIZONTAL H.P. - HIGH POINT HR. - HOUR HTG. - HEATING H.W. - HOT WATER HDW. - HARDWARE HWY. - HIGHWAY I.D. - INSIDE DIAMETER IN. - INCH INSUL. - INSULATION INT. - INTERIOR INV. - INVERT JAN. - JANITOR'S CLOSET JT. - JOINT JST. - JOIST J.C. - JANITOR'S CLOSET K.O. - KNOCKOUT K.P. - KICK PLATE K.D. - KILN DRIED LAB. - LABORATORY LAV. - LAVATORY LB. - POUND LBS. - POUNDS LG. - LONG L.H. - LEFT HAND LKR. - LOCKER L.L. - LIVE LOAD L.L.H. - LONG LEG HORIZONTAL L.L.V. - LONG LEG VERTICAL L.P. - LOW POINT	MAINT. - MAINTENANCE MAS. - MASONRY MAX. - MAXIMUM M.C. - MEDICINE CABINET MECH. - MECHANICAL MEZZ. - MEZZANINE MET. - METAL MFG. - MANUFACTURER M.G. - MIRROR GLASS M.H. - MANHOLE MIN. - MINIMUM MISC. - MISCELLANEOUS M.O. - MASONRY OPENINGS MULL. - MULLION N. - NORTH N.I.C. - NOT IN CONTRACT NO. - NUMBER N.T.S. - NOT TO SCALE O.A. - OUTSIDE AIR O.C. - ON CENTER (S) O.D. - OUTSIDE DIAMETER, OVERFLOW DRAIN OFF. - OFFICE O.H. - OPPOSITE HAND O.J. - OPEN JOISTED OPP. - OPPOSITE O.R. - OUTSIDE RADIUS OZ. - OUNCES P.E.J. - PREMOLDED EXP. JT. MAT. P.I. - POINT OF INTERSECTION P.J.F. - PREFORMED JOINT FILLER PL. - PLATE PLAS. - PLASTER P. LAM. - PLASTIC LAMINATE PLYWD. - PLYWOOD PNL. - PANEL PNL.S. - PANELS PR. - PAIR P.S.F. - POUNDS PER SQUARE FOOT P.S.I. - POUNDS PER SQUARE INCH PT. - POINT, POINT OF TANGENT P.T.D. - PAPER TOWEL DISPENSER Q.T. - QUARRY TILE QTY. - QUANTITY R.B. - RESILIENT BASE R. - RADIUS, RISER R.A. - RETURN AIR RAD. - RADIUS R.D. - ROOF DRAIN RECP. - RECEPTACLE REF. - REFERENCE REINF. - REINFORCE (D), (MENT) REQ'D. - REQUIRED RET. - RETAINING REV. - REVISION RM.(S) - ROOM (S) R.O. - ROUGH OPENING SAN. - SANITARY S.B. - SPLASH BLOCK S.C. - SOLID CORE, SHOWER CURTAIN SCHED. - SCHEDULE SCR. - SCREEN S.C.R. - SHOWER CURTAIN ROD S.D. - SOAP DISPENSER SECT. - SECTION SEP. - SEPARATE SH. - SHEET SHOWER SHV. - SHELF, SHELVES SIM. - SIMILAR SL. - SLOPE S.M. - SHEET METAL S.N.D. - SANITARY NAPKIN DISPENSER S.N.T.D. - SANITARY NAPKIN & TAMPON DISPOSER SP. - SPACES SPEC. (S) - SPECIFICATIONS SQ. - SQUARE S.S. - STAINLESS STEEL, SERVICE SINK STL. - STEEL ST. - STORAGE STD. - STANDARD STRUCT. - STRUCTURAL SUP. - SUPPORT SUSP. - SUSPENDED SYS. - SYSTEM SHT. - SHEET T & G - TONGUE AND GROOVE T.B. - TOWEL BAR T.C. - TOP OF CURB T.D. - TILE DRAIN TEMP. - TEMPERATURE THK. - THICK T.O.B. - TOP OF BEAM T.O.S. - TOP OF STEEL T.T.D. - TOILET TISSUE DISPENSER T.W. - TOP OF WALL TYP. - TYPICAL U.H. - UNIT HEATER U.N.O. - UNLESS NOTED OTHERWISE V. - VENT V.C.T. - VINYL COMPOSITION TILE VERT. - VERTICAL (LY)	VEST. - VESTIBULE V.F. - VINYL FABRIC V.S. - VENT STACK V.T.R. - VENT THROUGH ROOF V.W.C. - VINYL WALL COVERING W/ - WITH W/O - WITHOUT WAINS. - WAINSCOT W.C. - WATER CLOSET W.D. - WOOD WDW. - WINDOW W.G. - WIRE GLASS W.P. - WATERPROOF, WEATHERPROOF W.R. - WASTE RECEPTACLE WT. - WEIGHT WTR. - WATER W.W.F. - WELDED WIRE FABRIC
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SYMBOLS LEGEND

ROOM DESIGNATION 101 **Room name**

DOOR NUMBER 101

WALL TAG 11

WINDOW TYPE 11

DETAIL

PLAN NUMBER A101 **INTERIOR ELEVATION**

SHEET ON WHICH PLAN IS SHOWN A101 **INTERIOR ELEVATION NUMBER**

SHEET ON WHICH ELEV. IS SHOWN

BUILDING SECTION

SECTION NUMBER A104

SHEET ON WHICH SECTION IS SHOWN

ENLARGED PLAN

PLAN NUMBER A101

SHEET ON WHICH PLAN IS SHOWN

WALL SECTION

SECTION NUMBER A104

SHEET ON WHICH SECTION IS SHOWN

GENERAL NOTES / SPECIAL REQUIREMENTS:

- CONTRACTOR AND SUBCONTRACTORS SHALL REVIEW, CHECK, AND VERIFY ALL DRAWINGS, DIMENSIONS, DETAILS, AND EXISTING SITE CONDITIONS FOR ACCURACY AND CONFORMANCE WITH SPECIFICATIONS PRIOR TO PROCEEDING WITH THE WORK.
- ANY DISCREPANCY IN THE DRAWINGS AND DIMENSIONS OR VARIATIONS BETWEEN EXISTING CONDITIONS AND THAT SHOWN ON THE DRAWINGS SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR INSTRUCTION PRIOR TO START OF PROJECT.
- ANY NECESSARY WORK ACTIVITIES NOT SHOWN OR DETAILED ON THE DRAWINGS BUT IS WITHIN THE WORK LIMITS AS INDICATED ON THE DRAWINGS SHALL BE CONSIDERED TO BE PART OF THE CONTRACT WORK AND SHALL NOT BE ELIGIBLE FOR CHANGE ORDERS.
- CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK IN SUCH A FASHION AS NOT TO DISRUPT UTILITY SERVICES TO THE OWNER OR OWNER'S OCCUPANTS. ANY DAMAGE AND SUBSEQUENT REPAIRS TO EXISTING SYSTEMS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.
- CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY CLEANING OF THE WORK SITE AND ALL CLEANING OF FLOORS OUTSIDE THE WORKING LIMITS AS DIRECTED AND TO THE SATISFACTION OF THE ENGINEER.
- THE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS REPRESENTED HEREIN DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION ACTIVITIES.
- THE CONTRACT SPECIFICATIONS AND DRAWINGS REPRESENT AND SHALL BE CONSIDERED ONE COMPLETE SET OF CONSTRUCTION DOCUMENTS.

TOTAL BILL OF MATERIALS

ITEMS	UNIT	TOTAL
ROOF DRAIN COLLECTION NETWORK	LF	88
MASONRY CLEANING AND TUCKPOINTING	SF	4,265
ROOF REPLACEMENT, LOCATION 1	LS	1
ROOF DECK CONCRETE CORNER REPAIR	LS	1
MASONRY FACE BRICK REPAIR	SF	60
MASONRY SEALER	SF	4,265
MODIFICATION AND PAINTING OF FIRE ESCAPE	LS	1
ROOFING SAMPLING AND ACM IDENTIFICATION	LS	1
HANDLING OF ASBESTOS CONTAINING MATERIALS (ACM)	LS	1
MOBILIZATION	LS	1
MECHANICAL WORK, COMPLETE	LS	1

▲ ADD



USER NAME =	DESIGNED - LOP	REVISED - 09/24/12 ADDENDUM 1
PLOT SCALE =	DRAWN - BRK	REVISED
PLOT DATE =	CHECKED - GLC	REVISED
	APPROVED - GLC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF
TRANSPORTATION

ABBREVIATIONS, SYMBOLS LEGEND AND TOTAL BILL OF MATERIALS

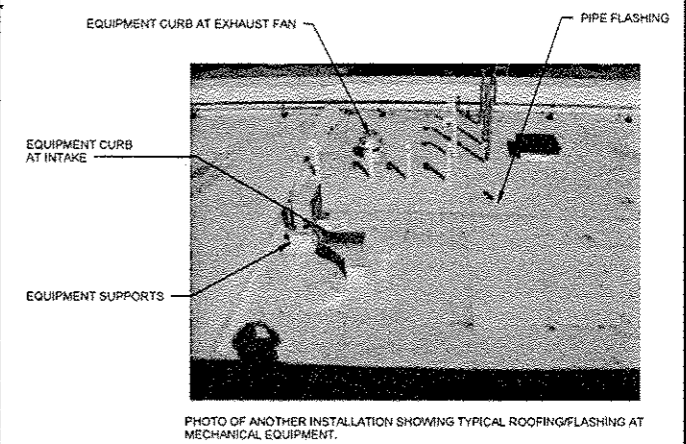
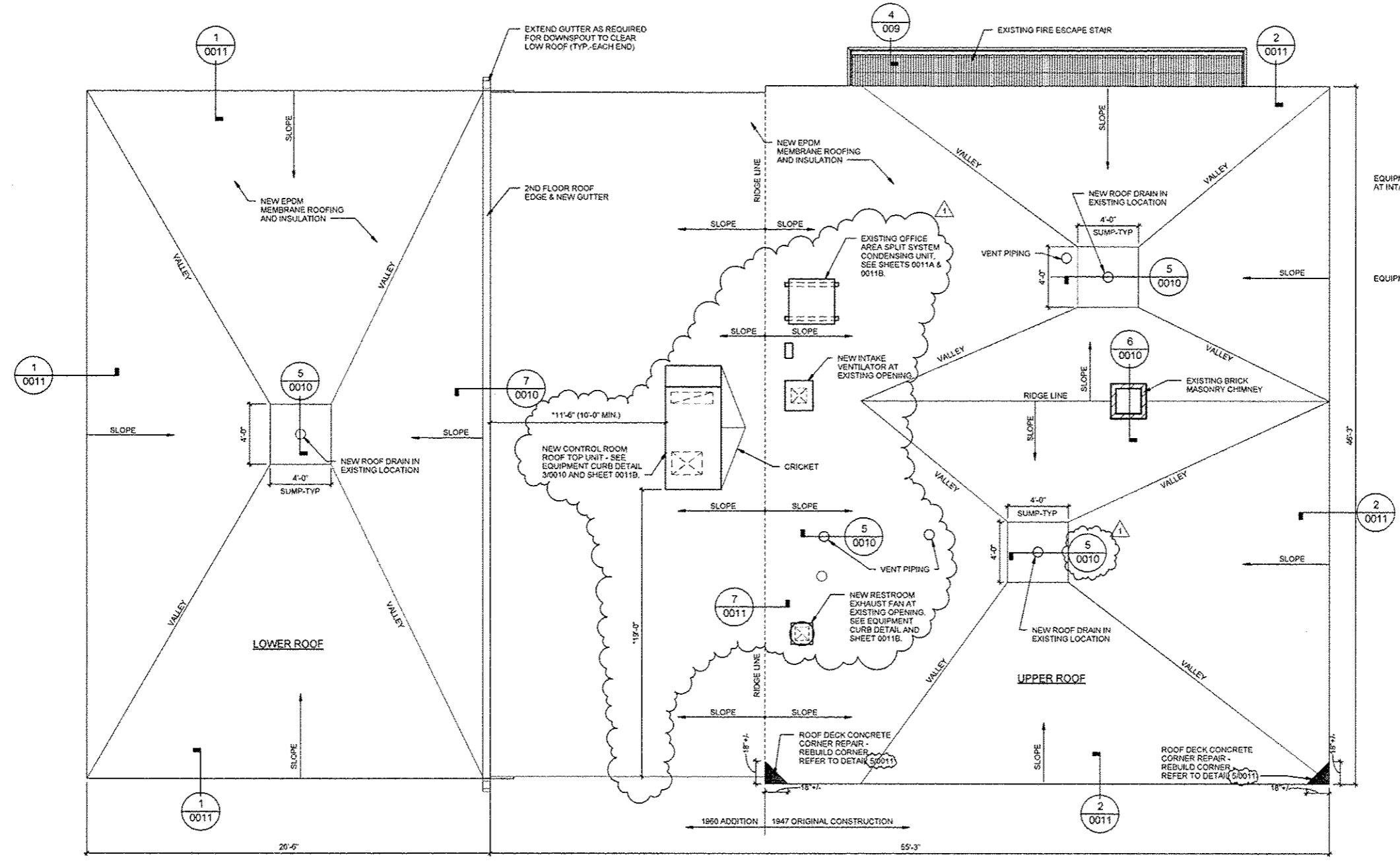
Scale SHEET NO. 3 OF 11 SHEETS Station From Station To

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-0451	WALL	11	093
CONTRACT NO. 60V37				

ILLINOIS FED. AID PROJECT

GENERAL NOTES

1. CONTRACTOR TO FIELD VERIFY ALL DIMENSIONS.
2. MINIMUM ROOF INSULATION THICKNESS = 2"
3. MINIMUM SLOPE OF FINISHED ROOFING = 1/4" PER 1'-0". ACHIEVE SPECIFIED MINIMUM SLOPE WITH TAPERED INSULATION, AS REQUIRED.



NOTE: CONTRACTOR TO LOCATE EMBEDDED UTILITIES IN ROOF DECK PRIOR TO CORING OR CUTTING CONCRETE. REVIEW ANY INTERFERENCE WITH ENGINEER.

*DIMENSIONS ARE APPROXIMATE. CONFIRM LOCATION OF UNIT TO POSITION SUPPLY AND RETURN OPENINGS BETWEEN CONCRETE ROOF BEAMS AND TO CLEAR UTILITIES THAT MAY BE EMBEDDED IN THE CONCRETE ROOF DECK.

1 ROOF PLAN - NEW WORK
1/4" = 1'-0"



BILL OF MATERIALS

ITEMS	UNIT	TOTAL
MOBILIZATION / STAGING	LS	1
ROOF DECK CONCRETE CORNER REPAIR	LS	1
ROOF REPLACEMENT, LOCATION 1	LS	1
ROOF DRAIN COLLECTION NETWORK	LF	88



USER NAME =	DESIGNED - LOF	REVISED - 09/04/12 ADDENDUM 1
PLOT SCALE =	DRAWN - BRK	REVISED
PLOT DATE =	CHECKED - GLC	REVISED
	APPROVED - GLC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF
TRANSPORTATION

ROOF PLAN - NEW WORK
Scale SHEET NO. OF 11 SHEETS Station From Station To

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-0451	WILL.	11	005
CONTRACT NO. 60V37				
ILLINOIS FED. AID PROJECT				



SHEET CONTENTS DELETED



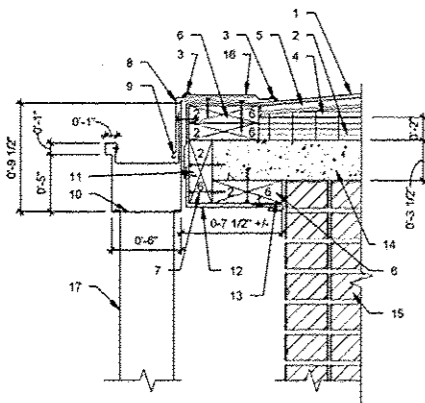
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PLOT SCALE =	CHECKED - GLC	REVISED
PLOT DATE =	APPROVED - GLC	REVISED

STATE OF ILLINOIS
DEPARTMENT OF
TRANSPORTATION

ROOF PLAN - NEW WORK MECHANICAL OPTION 2 -
DELETED

Scale SHEET NO. 6 OF 11 SHEETS Station From Station To

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-0451	WILL	11	006
ILLINOIS FED. AID PROJECT			CONTRACT NO. 60V37	

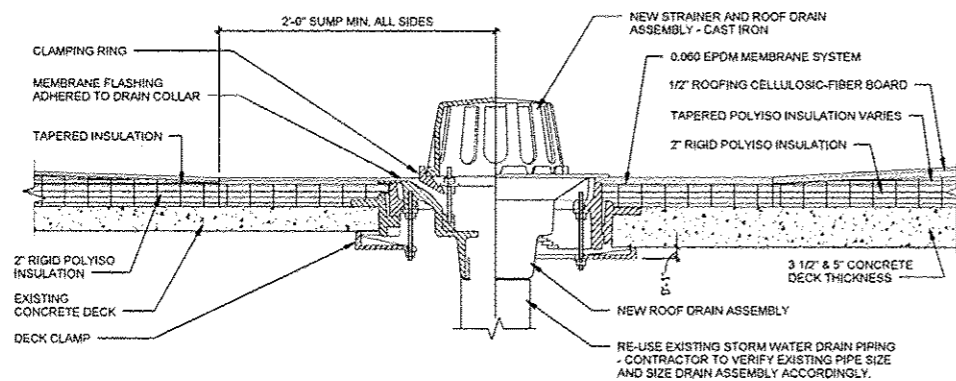


- 0.60 EPDM MEMBRANE - EXTEND OVER ROOF EDGE ONTO FASCIA COUNTER-FLASHING METAL FASCIA UNDER METAL GUTTER.
- 2" POLYISOCYANURATE ROOF INSULATION - ADHERE TO EXISTING CONCRETE ROOF SLAB.
- ROOFING SYSTEM SEALANT CONTINUOUS - PER MANUFACTURER REQUIREMENTS.
- TAPERED POLYISOCYANURATE ROOF INSULATION - ADHERE TO BASE SHEET PER MANUFACTURER'S REQUIREMENTS.
- 1/2" ROOFING CELLULOSIC-FIBER BOARD INSULATION - ADHERE TO TAPERED INSULATION PER MANUFACTURER'S REQUIREMENTS.
- #1 - 2 x 6 TREATED WOOD DECK PLATE - CONTINUOUS ALONG ROOF EDGE - ANCHOR INTO CONCRETE ROOF DECK WITH 3 1/4" x 1/4" 410 STAINLESS STEEL CONCRETE SCREW @ 12" O.C. MINIMUM AND INTO 2 x 8 WOOD FASCIA WITH #10 x 3 1/4" AUGER POINT 316 STAINLESS STEEL WOOD STAR DRIVE SCREW @ 12" O.C.
- #10 x 3 1/4" AUGER POINT 316 STAINLESS STEEL WOOD STAR DRIVE SCREW - TYPICAL SCREW FOR ANCHORING ALL WOOD INTO ADJACENT WOOD SUBSTRATES.
- .040 PREFINISHED ALUMINUM BREAKMETAL ROOF EDGE FLASHING - EXTEND 5" ONTO 2 x 8 ROOF EDGE SUBSTRATE - ANCHOR INTO WOOD SUBSTRATE WITH #8 x 1 1/4" STAINLESS STEEL SCREWS AT 12" O.C.
- .0125 ALUMINUM GUTTER BRACKET - ANCHOR BACKSIDE INTO 2 x 6 TREATED WOOD DECK PLATE @ 24" O.C. AND RIVET FRONT SIDE INTO FACE OF GUTTER RETURN WITH STAINLESS STEEL RIVETS.
- .050 PREFINISHED ALUMINUM GUTTER - CONTINUOUS ALONG NORTH ROOF EDGE OF UPPER ROOF - FLASHING UNDER AND ANCHORED TO CONTINUOUS TREATED WOOD SUBSTRATE @ 12" O.C.
- #1 - 2 x 6 TREATED WOOD FASCIA - CONTINUOUS ALONG ROOF EDGE FASTENED TO EDGE OF CONCRETE ROOF DECK WITH 3 1/4" x 1/4" 410 STAINLESS STEEL CONCRETE SCREW @ 12" O.C.
- .040 PREFINISHED ALUMINUM BREAKMETAL FASCIA AND SOFFIT COVER - FLASH UNDER GUTTER CONTINUOUS ALONG NORTH ROOF EDGE ON UPPER ROOF - ANCHOR INTO WOOD SUBSTRATE.
- .040 PREFINISHED ALUMINUM BREAKMETAL "J" MOLD TRIM - CONTINUOUS ALONG NORTH ROOF EDGE ON UPPER ROOF - ANCHOR INTO 2 x 8 WOOD SUBSTRATE WITH #8 x 1 1/4" STAINLESS STEEL SCREW @ 12" O.C.
- EXISTING CONCRETE ROOF DECK.
- EXISTING MASONRY FACE BRICK.
- .060 EPDM STRIP-FLASHING PER MANUFACTURER'S REQUIREMENTS.
- 4" x 6" .050 PREFINISHED ALUMINUM DOWNSPOUT - ANCHOR TO BUILDING WITH .125 ALUMINUM BRACKETS PLACED WITH NOT MORE THAN 5 FEET BETWEEN.

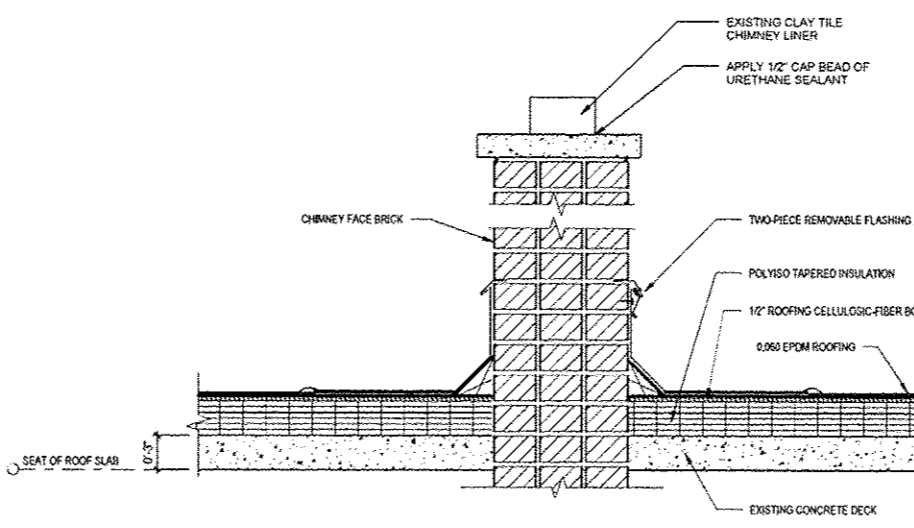
7 ROOF EDGE/GUTTER/DOWNSPOUT DETAIL
1 1/2" = 1'-0"

8 DOWNSPOUT STRAP DETAIL - TYP.
3" = 1'-0"

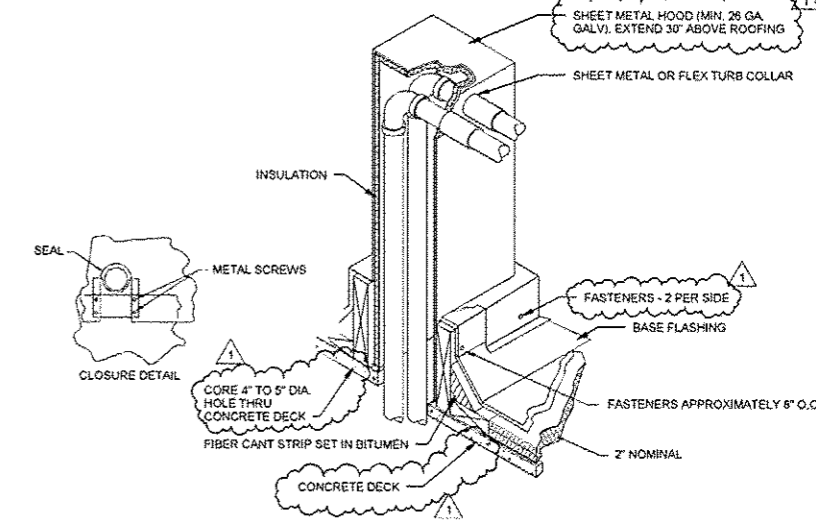
9 SHEETMETAL SPLICE DETAIL - TYP.
12" = 1'-0"



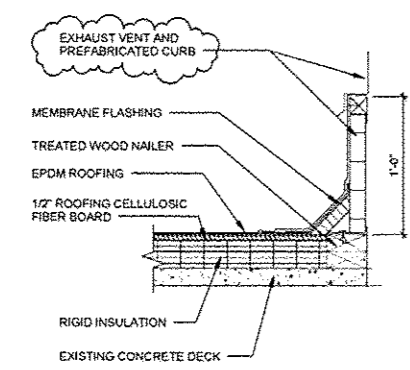
5 ROOF DRAIN - TYPICAL
1 1/2" = 1'-0"



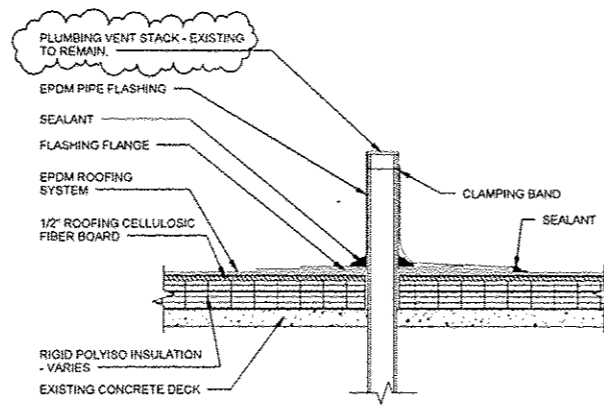
6 CHIMNEY FLASHING DETAIL - TYPICAL
1 1/2" = 1'-0"



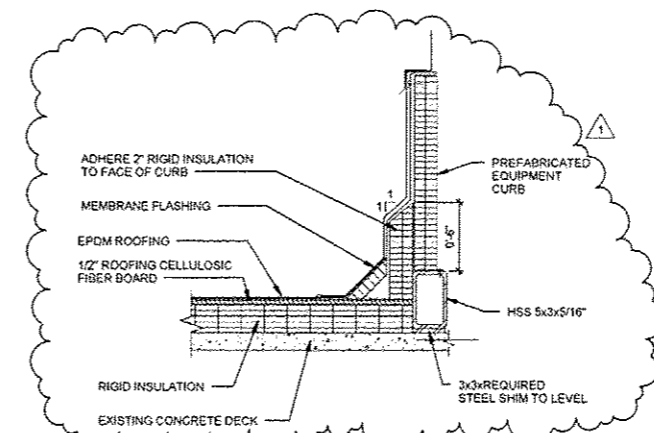
10 PIPE CURB DETAIL
NOT TO SCALE



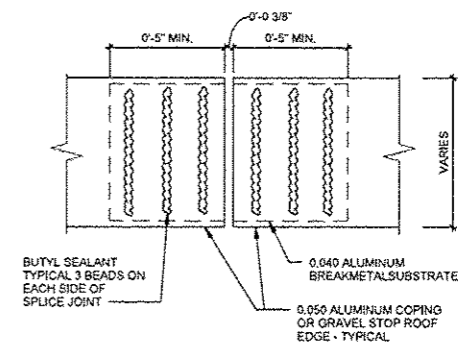
1 EXHAUST CURB FLASHING
1 1/2" = 1'-0"



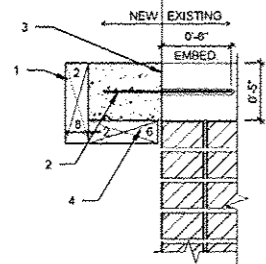
2 VENT PIPE FLASHING (PRE-FAB)
1 1/2" = 1'-0"



3 EQUIPMENT CURB FLASHING
1 1/2" = 1'-0"

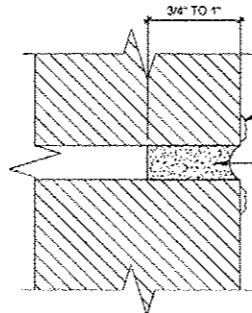


4 COPING/GRAVEL STOP SPLICE DETAIL - TYP.
3" = 1'-0"



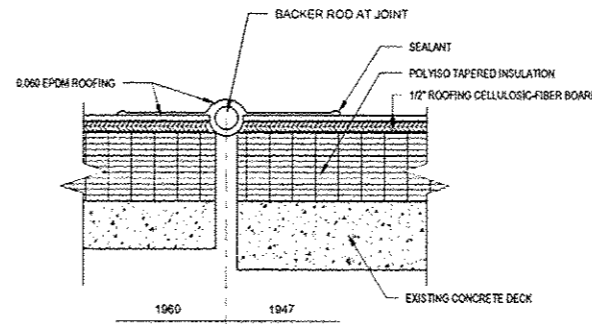
- #1 - 2 x 6 TREATED WOOD FORMWORK/FASCIA - CONTINUOUS ALONG ROOF EDGE FASTENED TO EDGE OF CONCRETE ROOF DECK WITH 3/4\" x 1/4\" #10 STAINLESS STEEL SCREWS AT 12\" O.C.
- 1/2\" DIA. THREADED ROD EPOXY ANCHOR AT 6\" OC
- SAW-CUT FULL DEPTH
- BONDED CONSTRUCTION JOINT

5 CONCRETE OVERHANG REPAIR DETAIL
1 1/2\" = 1'-0\"

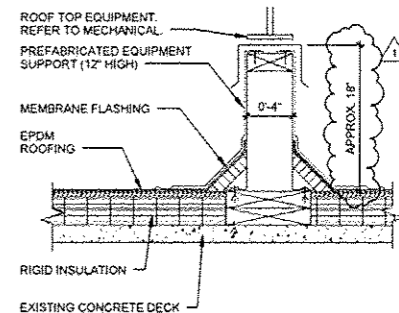


- REMOVE EXISTING LATENT MORTAR FROM FACE OF BRICK
- GRIND OUT EXISTING MORTAR 3/4\" TO 1\" BACK FROM FACE OF BRICK. PROVIDE NEW MORTAR. SEE SPECIAL PROVISIONS

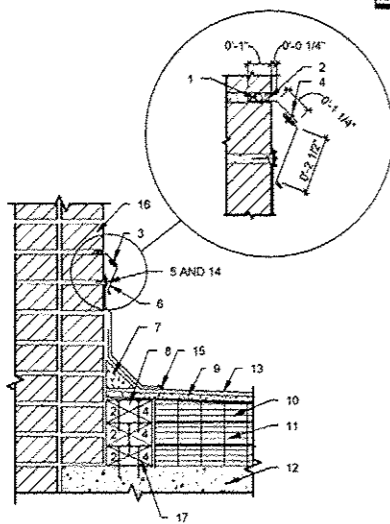
6 TUCKPOINTING DETAIL
12\" = 1'-0\"



7 EXPANSION JOINT DETAIL
3\" = 1'-0\"

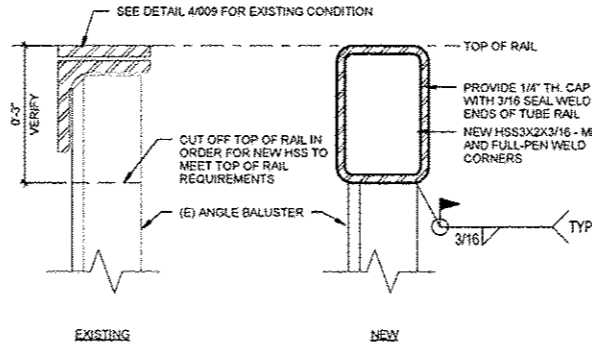


8 EQUIPMENT SUPPORT
1 1/2\" = 1'-0\"



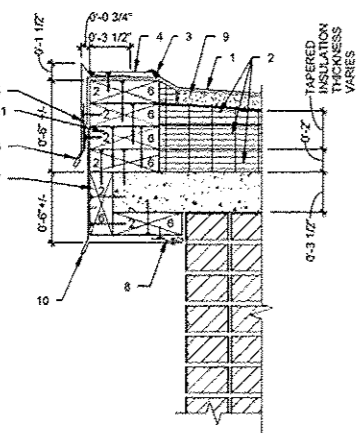
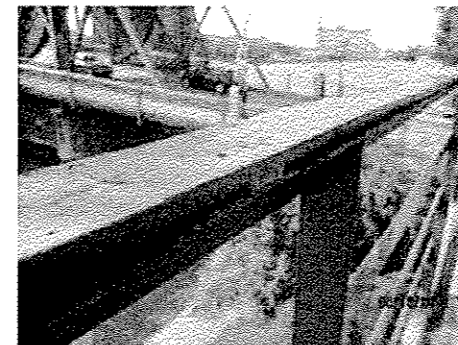
- ROLLED LEAD WEDGE / BACKER ROD - SPACE ROLLED LEAD WEDGE AT 30\" MAXIMUM TYPICAL. PLACE BACKER ROD BETWEEN WEDGES CONTINUOUS.
- ELASTOMERIC JOINT SEALANT - POLYURETHANE SEALANT CONTINUOUS AND TOOLED SMOOTH.
- PREFINISHED METAL WALL FLASHING RECEIVER - INSERTED INTO CUT REGLET IN MASONRY MORTAR JOINT CUT 1\" DEEP MIN. - THIS RECEIVER IS TO BE PERMANENT.
- #6 3/4\" PAN HEAD STAINLESS STEEL SHEETMETAL SCREW - INSERT SCREW INTO METAL RECEIVER AT 30\" MAXIMUM TYPICAL.
- TERMINATION BAR - CONTINUOUS ALONG ROOFING MEMBRANE - APPLY MANUFACTURER APPROVED CAP BEAD OF SEALANT CONTINUOUS ALONG TOP EDGE OF TERMINATION BAR AND INSTALL SEALANT BETWEEN MEMBRANE AND MASONRY SUBSTRATE.
- PREFINISHED METAL REMOVABLE WALL COUNTER-FLASHING - INSERT INTO RECEIVER PORTION COVERING ROOFING TERMINATION BAR.
- FIBER CANT - AS REQUIRED BY ROOFING MANUFACTURER.

3 TWO-PIECE REMOVABLE COUNTER-FLASHING - TYP.
1 1/2\" = 1'-0\"



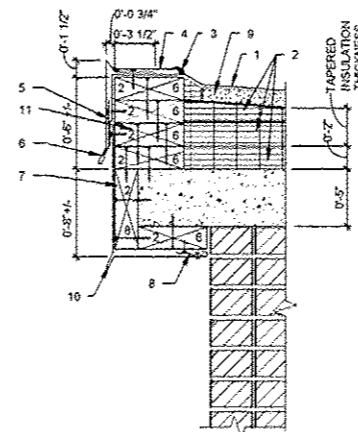
- #2 - 2 x 4 TREATED WOOD DECK PLATE - INSTALL WITH STAINLESS STEEL SCREWS - MATCH ROOF INSULATION THICKNESS.
- 1/2\" BC PLYWOOD HIPPER - CONTINUOUS ALONG NORTH ROOF EDGE ON UPPER ROOF - ANCHOR INTO 2 x 4 WOOD SUBSTRATE.
- TAPERED POLYISOCYANURATE ROOF INSULATION - ADHERED TO BASE SHEET PER MANUFACTURER REQUIREMENTS.
- 2\" POLYISOCYANURATE ROOF INSULATION - ADHERE TO EXISTING CONCRETE ROOF DECK.
- 0.60 EPDM MEMBRANE - EXTEND UP WALL AND OR CHIMNEY AND TERMINATE WITH TERMINATION BAR AS REQUIRED BY MANUFACTURER.
- 1/4\" x 1 1/2\" HEX STAINLESS STEEL CONCRETE SCREW - INSTALL THRU TERMINATION BAR INTO MASONRY MORTAR JOINT.
- ROOFING SYSTEM SEALANT - CONTINUOUS PER MANUFACTURER REQUIREMENTS.
- EXISTING CONCRETE ROOF DECK.
- EXISTING MASONRY FACE BRICK.
- TREATED PLYWOOD AS REQUIRED TO ACHIEVE SPECIFIED ROOF SLOPE.

4 RAIL REPLACEMENT DETAIL
6\" = 1'-0\"



- 0.60 EPDM MEMBRANES - EXTEND OVER ROOF EDGE 2 x 6 WOOD BLOCKING AND LAP OVER METAL FASCIA COVER.
- 2\" POLYISOCYANURATE ROOF INSULATION AND TAPERED POLYISOCYANURATE ROOF INSULATION - ADHERE TO EXISTING CONCRETE ROOF DECK AND ADJACENT LAYERS OF TAPERED. BUILD UP AT 30 DEGREES BETWEEN VARIANCES BETWEEN TOP OF METAL LEVEL GRAVEL STOP AND 2\" RIGID BASE INSULATION SHEET ON 1960 ADDITION SINGLE SLOPED ROOF.
- ROOF SYSTEM SEALANT CONTINUOUS - PER MANUFACTURER REQUIREMENTS.
- .060 EPDM STRIP-FLASHING PER MANUFACTURER REQUIREMENTS.
- .040 ALUMINUM BREAKMETAL CONTINUOUS CLEAT - ANCHOR INTO WOOD SUBSTRATE WITH #8 1 1/4\" STAINLESS STEEL SCREWS AT 12\" O.C.

1 3 1/2\"/>



- 0.60 EPDM MEMBRANES - EXTEND OVER ROOF EDGE 2 x 6 WOOD BLOCKING AND LAP OVER METAL FASCIA COVER.
- 2\" POLYISOCYANURATE ROOF INSULATION AND TAPERED POLYISOCYANURATE ROOF INSULATION - ADHERE TO EXISTING CONCRETE ROOF DECK AND ADJACENT LAYERS OF TAPERED. BUILD UP AT 30 DEGREES BETWEEN VARIANCES BETWEEN TOP OF METAL LEVEL GRAVEL STOP AND 2\" RIGID BASE INSULATION SHEET ON 1960 ADDITION SINGLE SLOPED ROOF.
- ROOF SYSTEM SEALANT CONTINUOUS - PER MANUFACTURER REQUIREMENTS.
- .060 EPDM STRIP-FLASHING PER MANUFACTURER REQUIREMENTS.
- .040 ALUMINUM BREAKMETAL CONTINUOUS CLEAT - ANCHOR INTO WOOD SUBSTRATE WITH #8 1 1/4\" STAINLESS STEEL SCREWS AT 12\" O.C.

- .040 PREFINISHED ALUMINUM BREAKMETAL GRAVEL STOP - EXTEND 3 1/2\" ONTO 2 x 6 ROOF EDGE SUBSTRATE - ANCHOR INTO WOOD SUBSTRATE WITH #8 1 1/4\" STAINLESS STEEL SCREWS AT 12\" O.C.
- #1 2 x 6 TREATED WOOD FASCIA - CONTINUOUS ALONG ROOF EDGE FASTENED TO EDGE OF CONCRETE ROOF DECK WITH 3/4\" x 1/4\" #10 STAINLESS STEEL SCREWS AT 12\" O.C.
- .040 ALUMINUM BREAKMETAL CONTINUOUS CLEAT - ANCHOR INTO WOOD SUBSTRATE WITH #8 x 1 1/4\" STAINLESS STEEL SCREWS AT 12\" O.C.
- 1/2\" ROOFING CELLULOSIC - FIBER BOARD INSULATION - ADHERE TO TAPERED INSULATION PER MANUFACTURER REQUIREMENTS.
- NOTE: REFER TO GUTTER DETAIL FOR SUBSTRATE INFORMATION AND ANCHORAGE TO EXISTING SUBSTRATES.
- DRIP LEG
- TREATED PLYWOOD AS REQUIRED TO ACHIEVE SPECIFIED ROOF SLOPE

2 5\"/>



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PLOT DATE =	CHECKED - GLC	REVISED
	APPROVED - GLC	REVISED

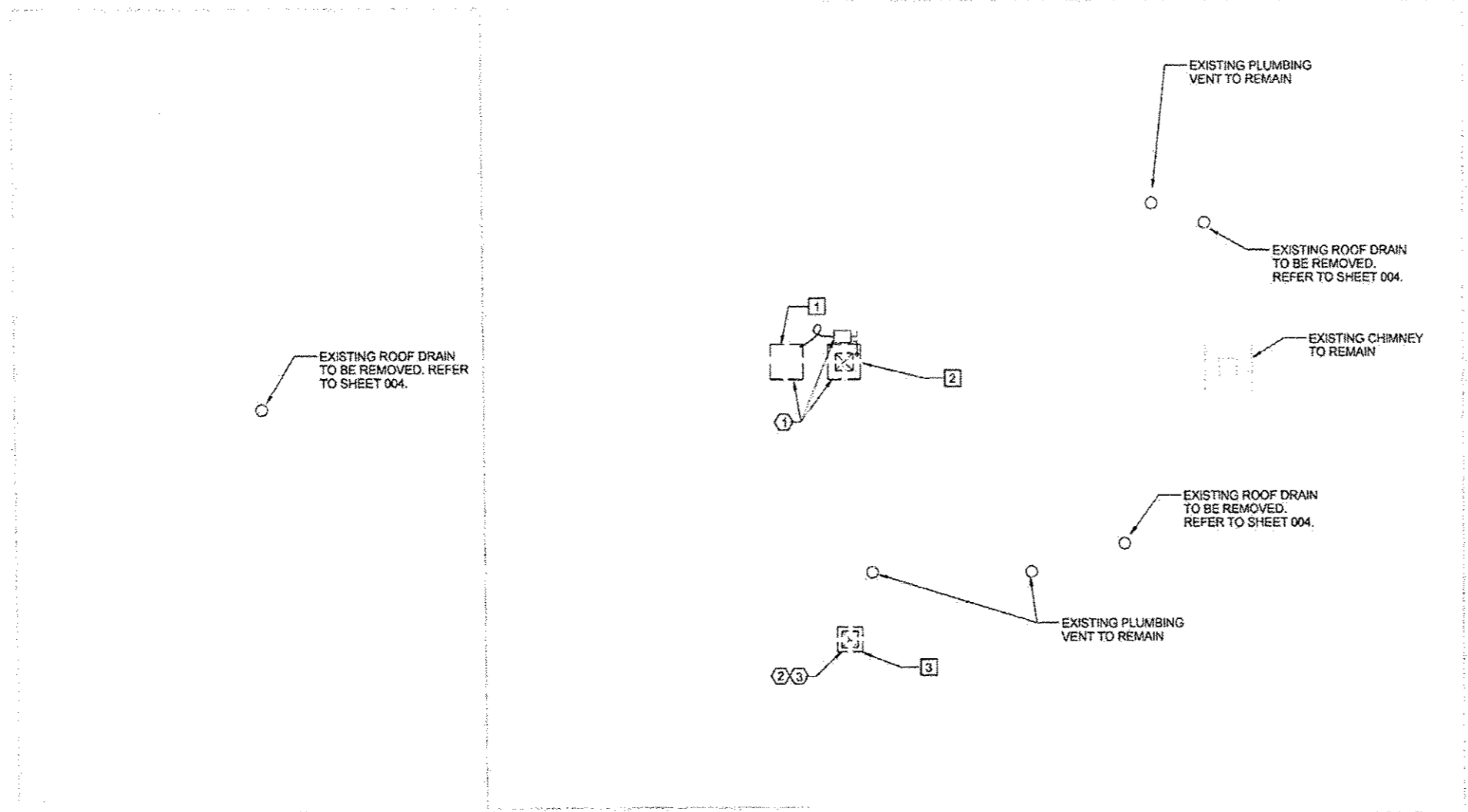
STATE OF ILLINOIS
DEPARTMENT OF
TRANSPORTATION

NEW WORK DETAILS

Scale SHEET NO. 11 OF 11 SHEETS Station From Station To

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-0451	WILL	11	0011
CONTRACT NO. 60V37				
ILLINOIS FED. AID PROJECT				

DEMOLITION



- MECHANICAL KEYED NOTES - DEMOLITION**
- 1 RECOVER SYSTEM REFRIGERANT FOR SAFE DISPOSAL. REFRIGERANT LINE SET CONNECTING EXISTING ROOF MOUNTED DX SPLIT SYSTEM AIR COOLED CONDENSING UNIT AND SECOND FLOOR FAN COIL UNIT SHALL BE REMOVED AND DISPOSED OF. CONDENSING UNIT SHALL THEN BE REMOVED FROM THE ROOF AND STORED IN A SECURE LOCATION DESIGNATED BY ENGINEER UNTIL REINSTALLATION AFTER THE INSTALLATION OF NEW ROOFING SYSTEM IS COMPLETE. REFER TO NEW WORK SHEETS FOR INFORMATION REGARDING THE REINSTALLATION OF CONDENSING UNIT. TEMPORARILY CAP OPEN ENDS OF PIPING AT CONDENSING UNIT AND AHU.
 - 2 REMOVE AND DISPOSE OF EXISTING GOOSENECK GRAVITY VENTILATOR. REFER TO NEW WORK SHEETS FOR INFORMATION REGARDING THE INSTALLATION OF A NEW GRAVITY INTAKE VENTILATOR IN THE SAME LOCATION.
 - 3 REMOVE AND DISPOSE OF EXISTING RESTROOM EXHAUST FAN AND MOTORIZED DAMPER INSTALLED IN EXISTING EXHAUST DUCT. REFER TO NEW WORK SHEETS FOR INFORMATION REGARDING THE INSTALLATION OF A NEW RESTROOM EXHAUST FAN IN THE SAME LOCATION.

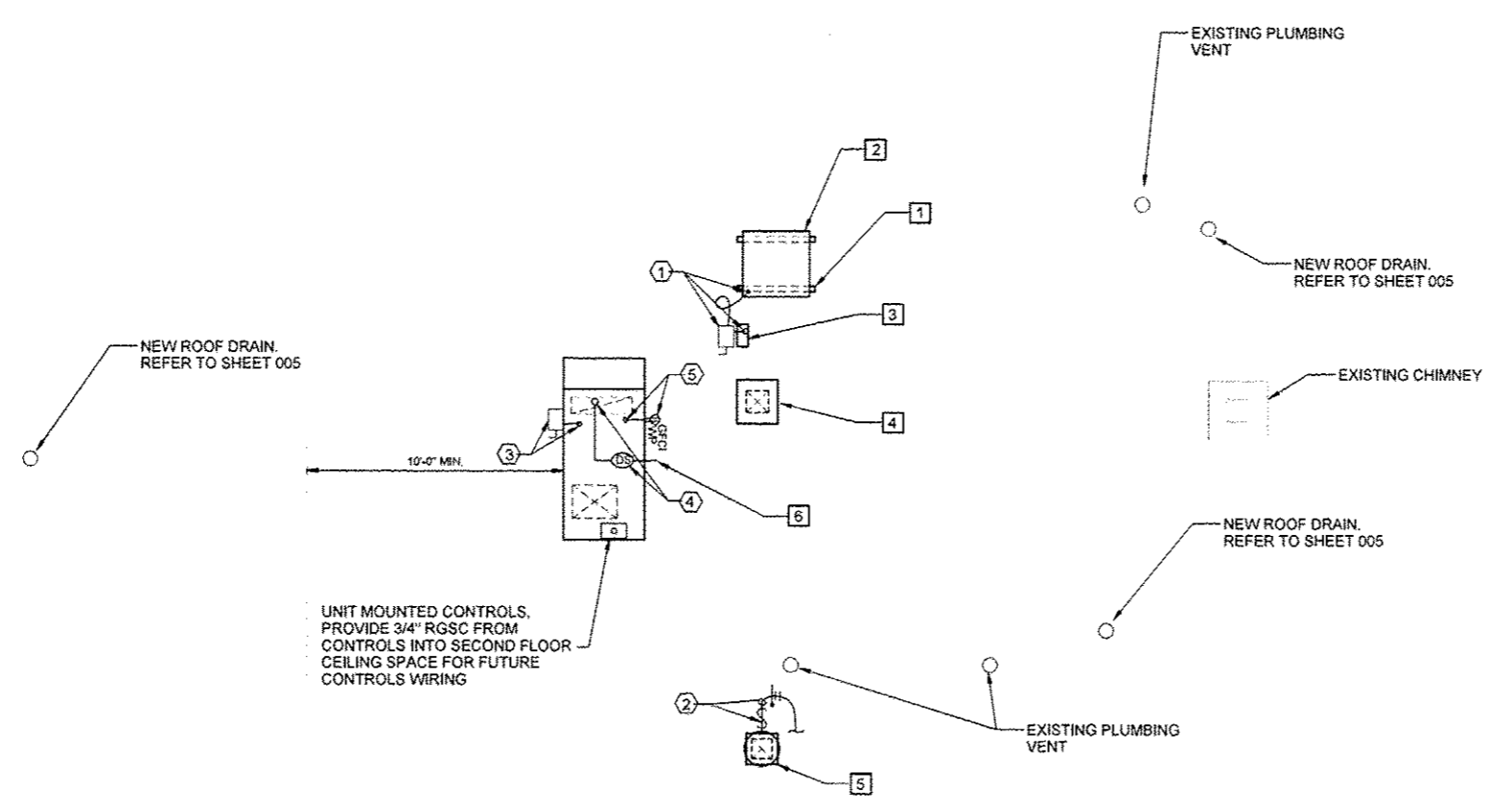
- ELECTRICAL KEYED NOTES - DEMOLITION**
- 1 DISCONNECT AND REMOVE ELECTRICAL CIRCUIT TO CONDENSING UNIT BACK TO DISCONNECT AT SECOND FLOOR. REMOVE EXISTING DISCONNECT SWITCH ON ROOF.
 - 2 DISCONNECT ELECTRICAL CIRCUIT TO EXHAUST FAN. PROTECT CIRCUIT AND RECONNECT TO NEW EXHAUST FAN. SEE NEW WORK PLANS.
 - 3 DISCONNECT EXISTING MOTORIZED DAMPER. REMOVE CONDUIT AND WIRE COMPLETE. NEW DAMPER WILL BE NON-POWERED.

MECHANICAL & ELECTRICAL ROOF PLAN - DEMOLITION

2
1/4" = 1'-0"

ASIP T. KADIANI
 082-047857
 State of Illinois
 Date: 8-31-2012
 Lic. Exp: 11-30-2013
 (For Mechanical System)

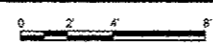
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	PLOT SCALE: #	DRAWN: HWH	REVISED:				2012-0451	WILL	11	0011A
	PLOT DATE: #	CHECKED: JPD	REVISED:				CONTRACT NO. 60V37			
		APPROVED: ATK	REVISED:				ILLINOIS FEDERAL PROJECT			



MECHANICAL & ELECTRICAL ROOF PLAN - NEW WORK



1/4" = 1'-0"



NOTE: CONTRACTOR TO LOCATE EMBEDDED UTILITIES IN ROOF DECK PRIOR TO CORING OR CUTTING CONCRETE. REVIEW ANY INTERFERENCE WITH ENGINEER.

VENTILATION KEYED NOTES - NEW WORK

- 1 TWO EQUIPMENT MOUNTING SUPPORTS SHALL BE INSTALLED TO ACCOMMODATE THE REINSTALLATION OF EXISTING DX SPLIT SYSTEM AIR COOLED CONDENSING UNIT. CONTRACTOR SHALL FIELD VERIFY DIMENSIONS OF EXISTING AIR COOLED CONDENSING UNIT IN ORDER TO PROVIDE EQUIPMENT SUPPORTS OF ADEQUATE DIMENSION. REFER TO SHEET 0011 FOR EQUIPMENT MOUNTING SUPPORT DETAIL.
- 2 EXISTING 5 TON DX SPLIT SYSTEM AIR COOLED CONDENSING UNIT SHALL BE REINSTALLED ON NEW EQUIPMENT MOUNTING SUPPORTS. NEW HARD COPPER REFRIGERANT PIPING FROM AIR COOLED CONDENSING UNIT TO DX SPLIT SYSTEM FAN COIL LOCATED ON SECOND FLOOR OF BUILDING SHALL BE INSTALLED (EST. SIZE OF REFRIG PIPING - 3/4" SUCTION, 1/2" LIQUID). FILTER DRIER AND SITE GLASS SHALL BE INSTALLED IN NEW LIQUID LINE. PROVIDE NEW REFRIGERANT AND START-UP FOR SPLIT SYSTEM.
- 3 CONCRETE ROOF DECK SHALL BE CORE DRILLED TO ACCOMMODATE INSTALLATION OF NEW PIPE CURB AND ROUTING OF NEW REFRIGERANT LINE SET AND LIQUID TIGHT FLEXIBLE CONDUIT TO RELOCATED EXISTING DX SPLIT SYSTEM AIR COOLED CONDENSING UNIT. REFER TO SHEET 0010 FOR PIPE CURB DETAIL.
- 4 NEW GRAVITY INTAKE VENTILATOR SHALL BE INSTALLED IN LOCATION OF GOOSENECK GRAVITY VENTILATOR REMOVED DURING DEMOLITION TO REUSE EXISTING ROOF PENETRATION. CONTRACTOR SHALL ALLOW FOR ADDITIONAL LENGTH OF DUCT AND TRANSITION FITTINGS REQUIRED TO CONNECT EXISTING FRESH AIR DUCT TO NEW GRAVITY INTAKE VENTILATOR. INSULATE NEW FRESH AIR DUCTWORK EXTERNALLY WITH 1-1/2", 1.5 PCF DUCTWRAP.
- 5 NEW RESTROOM EXHAUST FAN SHALL BE INSTALLED IN LOCATION OF EXHAUST FAN REMOVED DURING DEMOLITION TO REUSE EXISTING ROOF PENETRATION. CONTRACTOR SHALL ALLOW FOR ADDITIONAL LENGTH OF DUCT AND TRANSITION FITTINGS REQUIRED TO CONNECT EXISTING EXHAUST DUCT TO NEW RESTROOM EXHAUST FAN. INSTALLATION OF NEW EXHAUST DUCT/FITTINGS SHALL OCCUR AT ROOF LEVEL THEREFORE, DEMOLITION OF RESTROOM CEILING/WALL TO ACCOMMODATE INSTALLATION OF NEW DUCTWORK ON THE INTERIOR OF THE BUILDING IS NOT ALLOWED. CONTRACTOR SHALL COORDINATE HEIGHT OF NEW EXHAUST FAN CURB TO ALLOW FOR CONNECTION WITH EXISTING EXHAUST DUCT. INSULATE NEW EXHAUST DUCTWORK EXTERNALLY WITH 1-1/2", 1.5 PCF DUCTWRAP.
- 6 NEW RTU SHALL BE INSTALLED IN LOCATION SHOWN. SEE DETAILS 4 AND 5 ON SHEET 0011D FOR CUTTING OF CONCRETE ROOF DECK AND INSTALLATION OF SUPPLEMENTAL ROOF DECK SUPPORT STEEL.

ELECTRICAL KEYED NOTES - NEW WORK

- 1 FURNISH AND INSTALL NEW HEAVY DUTY NON-FUSED DISCONNECT SWITCH AND #6, #10g, 1-1/4" RGS CONDUIT TO EXISTING DISCONNECT ON SECOND FLOOR. FURNISH AND INSTALL 1" LIQUIDTIGHT FLEXIBLE METAL CONDUIT AND SAME SIZE WIRE FROM THE LOAD SIDE OF THE DISCONNECT TO THE UNIT.
- 2 RECONNECT EXHAUST FAN TO EXISTING CIRCUIT. UNIT PROVIDED WITH FACTORY MOUNTED PRE-WIRED DISCONNECT.
- 3 FURNISH AND INSTALL A 1-1/4" RGS CONDUIT STUBBED FROM THE FACTORY PROVIDED DISCONNECT THROUGH THE ROOF CURB CUTOUTS INTO THE CEILING OF THE SECOND FLOOR FOR FUTURE POWER CONNECTIONS.
- 4 FURNISH AND INSTALL A 3/4" RGS CONDUIT STUBBED FROM THE FACTORY MOUNTED DUCT SMOKE DETECTOR THROUGH THE ROOF CURB CUTOUTS AND INTO THE CEILING OF THE SECOND FLOOR FOR FUTURE FIRE ALARM CONNECTION.
- 5 FURNISH AND INSTALL WEATHERPROOF GFI RECEPTACLE ON THE OUTSIDE OF THE UNIT. STUB A 3/4" RGSC FROM RECEPTACLE THROUGH THE ROOF CURB CUTOUTS AND INTO THE SECOND FLOOR CEILING SPACE FOR FUTURE CONNECTION.



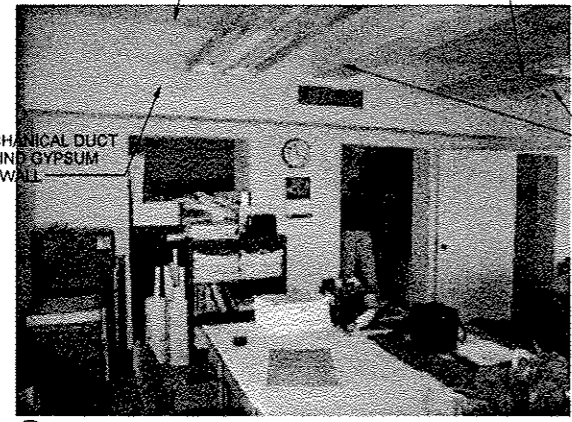
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STATE OF ILLINOIS
DEPARTMENT OF
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MECHANICAL & ELECTRICAL ROOF PLAN - NEW WORK
Scale SHEET NO. 11 OF 11 SHEETS Station From Station To

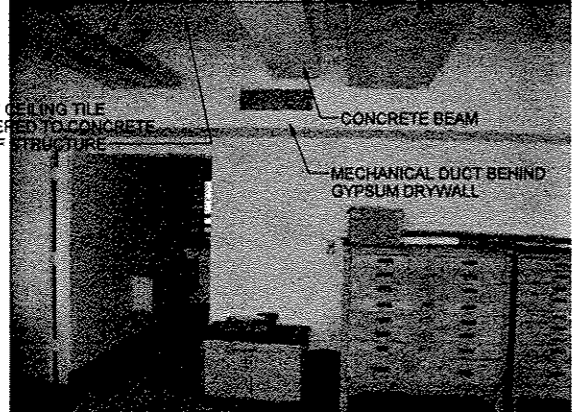
F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
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1' x 1' CEILING TILE ADHERED TO CONCRETE ROOF STRUCTURE
 LIGHT FIXTURES TO REMAIN



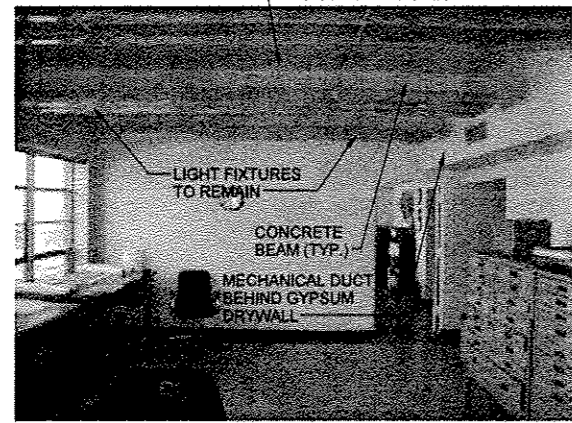
(A) OFFICE 205 LOOKING SOUTH

LIGHT FIXTURES TO REMAIN

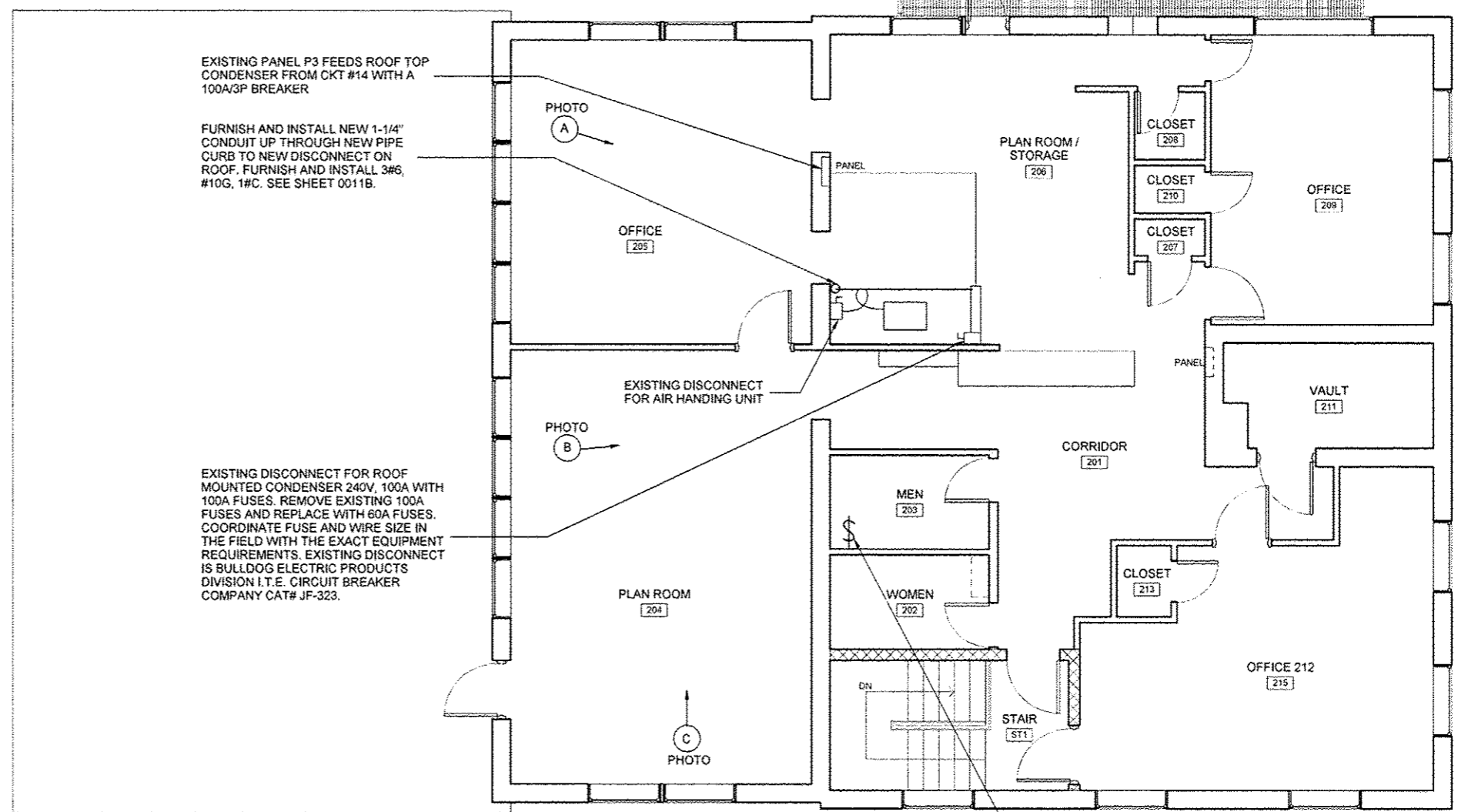


(B) PLAN ROOM 204 LOOKING SOUTH

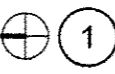
1' x 1' CEILING TILE ADHERED TO CONCRETE CEILING



(C) PLAN ROOM 204 LOOKING EAST



SECOND FLOOR POWER PLAN - DEMO & NEW WORK



1
 1/4" = 1'-0"

(INCLUDED WITH MECHANICAL WORK, COMPLETE)



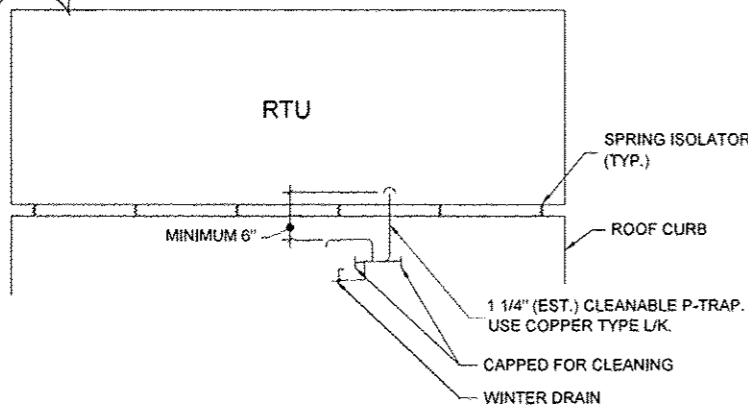
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SECOND FLOOR POWER PLAN - DEMO & NEW WORK

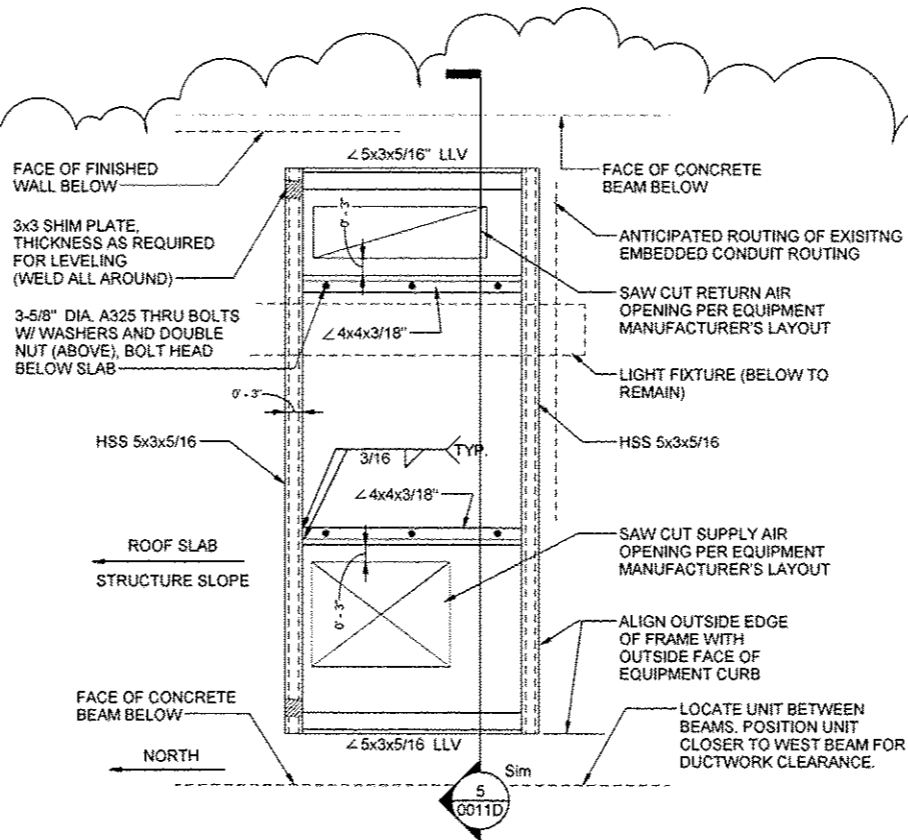
Scale SHEET NO. 11 OF 11 SHEETS Station From Station To

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-0451	WILL	11	0011C
CONTRACT NO. 60V37				
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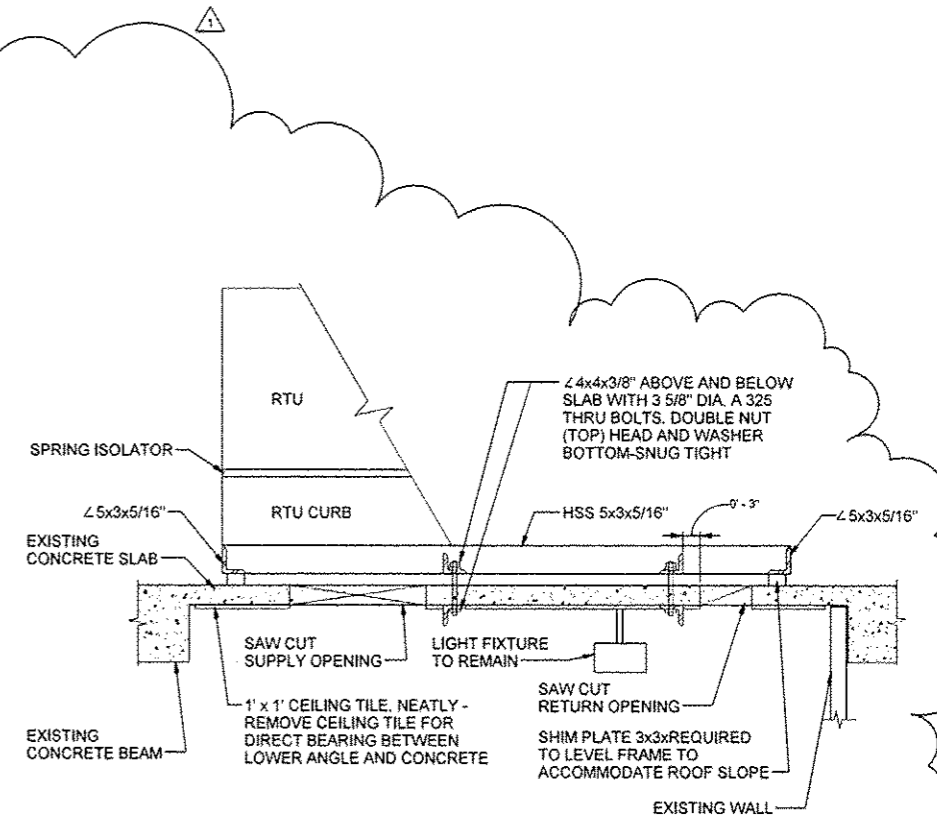


NOTE: PIPE AUXILIARY DRAINS (IF ANY) WITH CLEANABLE P-TRAP.

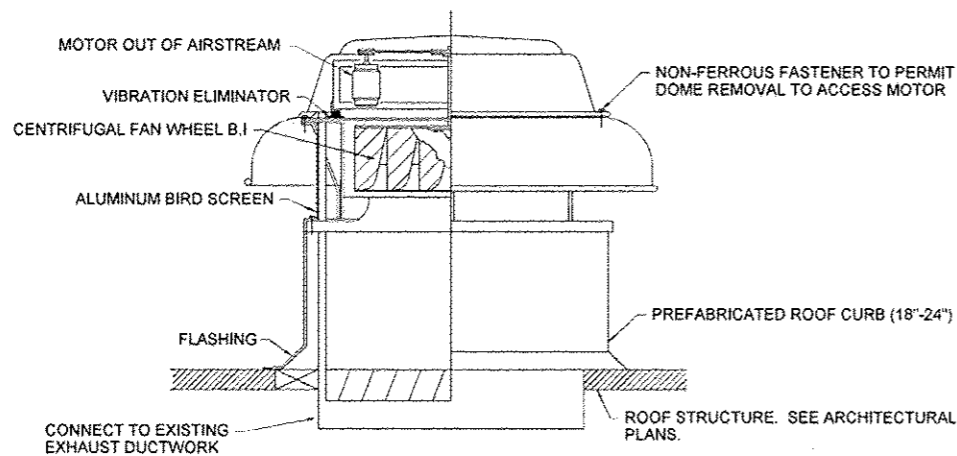
3 CONDENSATE DRAIN PIPING DETAIL
N.T.S.



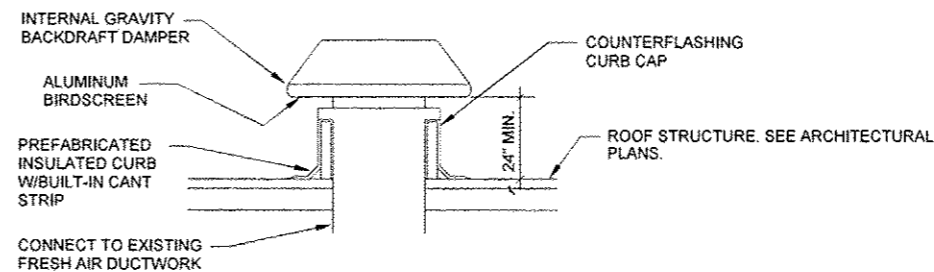
4 RTU STRUCTURAL SUPPORT PLAN
N.T.S. (INCLUDED WITH MECHANICAL WORK, COMPLETE)



5 RTU STRUCTURAL SUPPORT SECTION
N.T.S.



1 ROOF MOUNTED EXHAUST FAN
N.T.S.



2 ROOF MOUNTED INTAKE VENTILATOR DETAIL
N.T.S.



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STATE OF ILLINOIS
DEPARTMENT OF
TRANSPORTATION

MECHANICAL DETAILS

Scale SHEET NO. 11 OF 11 SHEETS Station From Station To

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GENERAL EXHAUST FAN SCHEDULE	
MARK	EF-1
SERVICE	RESTROOM
MANUFACTURER/MODEL (BASIS OF DESIGN)	GREENHECK/G080-D
LOCATION	ROOF
CFM	275
EXT S.P.	0.4
FAN RPM (APPROX.)	1550
MAX. BHP	0.06
MOTOR	
HP/WATTS	1/15
VOLT	120
PHASE	1
RPM	1550
ACCESSORIES	1 THRU 6
REMARKS	1, 2
<p>ACCESSORIES:</p> <ol style="list-style-type: none"> PREFAB INSULATED ROOF CURB (18" H) WITH WELDED SEAM. ALUMINUM BIRD SCREEN. GRAVITY BACK DRAFT DAMPER. INTERNAL VIBRATION ISOLATION. PREWIRED DISCONNECT. SOLID STATE SPEED CONTROLLER. IF CONTROLLER IS SHIPPED LOOSE, CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD INSTALLATION OF SPEED CONTROLLER AT ACCESSIBLE LOCATION. <p>REMARKS:</p> <ol style="list-style-type: none"> MAGNETIC STARTER/RELAY SHALL BE PROVIDED BY E.C. COORDINATE WITH EC FOR FAN OPERATION VIA LIGHT SWITCH IN RESTROOM OTHER ACCEPTABLE MANUFACTURERS: <ul style="list-style-type: none"> COOK PENN 	

ROOF VENTILATOR SCHEDULE	
MARK	IV-1
SERVICE	INTAKE (EXISTING DX SPLIT SYSTEM)
LOCATION	ROOF
MODEL/MANUF (BASIS OF DESIGN)	FABRA/GREENHECK
CFM	290
MAX S.P. (IN. W.G.)	0.05
THROAT	SIZE (LxW) 12"x12" VELOCITY (FPM) 290
HOOD	SIZE (LxW) 24"x22" VELOCITY (FPM) 100
DAMPER	BACKDRAFT
CURB	ALUMINUM
ACCESSORIES	1, 2, 3, 4
REMARKS	1, 2, 3
<p>ACCESSORIES:</p> <ol style="list-style-type: none"> ALUMINUM BIRD SCREEN. 12" TALL BASE. PREFABRICATED INSULATED ROOF CURB (18"-24" H). MAINTAIN MINIMUM 24" CLEARANCE BETWEEN FINISHED ROOF AND BOTTOM OF INTAKE. BACKDRAFT DAMPER. <p>REMARKS:</p> <ol style="list-style-type: none"> BAKED ENAMEL FINISH. COLOR AS SPECIFIED. BY ARCHITECT. ONE INCH FACTORY APPLIED INSULATION TO UNDERSIDE OF HOOD. OTHER ACCEPTABLE MANUFACTURERS: <ul style="list-style-type: none"> PENN CARNES 	

GENERAL NOTES (HEATING AND VENTILATION):

- SUPPLY AND RETURN DUCTS SHALL BE 20 GAUGE (FOR LONGEST SIDE L ≥ 30") AND 22 GAUGE (FOR L ≤ 30").
- SUPPLY AND RETURN DUCTS SHALL BE INTERNALLY LINED WITH 1" THICK/3.0 PCF ARMAFLEX AP COILFLEX CONFORMABLE ELASTOMERIC DUCT LINER OR EQUIVALENT.
- SHORT SECTIONS OF SUPPLY AND RETURN DUCT AT FULL SIZE OF ROOFTOP UNIT CONNECTION DIMENSION SHALL BE ROUTED INTO THE INTERIOR OF THE BUILDING FROM THE ROOFTOP UNIT TO AN ELEVATION OF 6" BELOW THE ROOF DECK. OPEN ENDS OF SUPPLY AND RETURN DUCTS SHALL BE TERMINATED WITH 1/2"x1/2" HARDWARE CLOTH/MESH.
- PROVIDE TWO YEAR WARRANTY (PARTS AND LABOR, INCLUDING HOISTING COST) FOR ALL NEW MECHANICAL SYSTEM EQUIPMENT AND DEVICES. PROVIDE ADDITIONAL THREE YEARS (PARTS ONLY) WARRANTY FOR REFRIGERATION COMPRESSORS. ALL OTHER EXTENDED WARRANTIES FROM EQUIPMENT MANUFACTURER'S SHALL ALSO REMAIN IN FORCE AND BE PASSED ONTO USING AGENCY.
- RTU CONDENSATE DRAIN PIPING SHALL BE CONSTRUCTED OF TYPE L OR K COPPER AND BE FULL SIZE OF RTU DRAIN CONNECTION.
- SUCTION LINE OF THE NEW HARD COPPER REFRIGERANT PIPING INSTALLED ON THE RELOCATED DX SPLIT SYSTEM AIR COOLED CONDENSING UNIT SHALL BE INSULATED WITH 3/4" ARMAFLEX. INSULATED PIPING EXPOSED ON THE ROOF TO AMBIENT CONDITIONS SHALL BE COATED WITH WEATHER RESISTANT ARMAFINISH PAINT AND HAVE .016" THICK ALUMINUM JACKETING.

SPECIAL NOTES:

- WARRANTY SHALL COMMENCE 6 MONTHS AFTER FACTORY SHIP DATE OR AT START-UP OF RTU, WHICHEVER IS EARLIER.
- START-UP OF RTU SHALL NOT BE INCLUDED UNDER THIS PROJECT. INTENT IS TO INCLUDE THIS ITEM DURING NEXT PHASE.
- TEST AND BALANCE FOR RTU SYSTEM SHALL NOT BE INCLUDED IN THIS PROJECT. INTENT IS TO INCLUDE THIS ITEM DURING NEXT PHASE.



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	DRAWN - HWH	REVISED	
PLOT SCALE =	CHECKED - JPD	REVISED	
PLOT DATE =	APPROVED - ATK	REVISED	

STATE OF ILLINOIS
DEPARTMENT OF
TRANSPORTATION

EXHAUST FAN & VENTILATOR SCHEDULES

Scale SHEET NO. 11 OF 11 SHEETS Station From Station To

F.A.P. RTE.	SECTION	COUNTY	TOTAL SHEETS	SHEET NO.
	2012-0451	WILL	11	0011E
			CONTRACT NO. 60V37	
		ILLINOIS GEO. AID PROJECT		

ROOF TOP UNIT SCHEDULE

MARK	ACCEPTABLE MANUF.	MODEL	CONFIG.	SERVICE	UNIT LOCATION	SYSTEM TYPE	SUPPLY AIR FAN			EXH FAN		COOLING (95°F AMB)				MIN O.A. CFM (FOR UNIT SIZING ONLY)	HEAT PUMP MBH AT 47°F	HEATING	FILTER			ELECTRICAL			ACCESSORIES	NOTES	
							CFM	ESP (NOTE 1)		ESTIMATED MOTOR HP	CFM	ESP	EAT DB/AB*F	LAT DB/AB*F (IN SUPPLY DUCT)	TOTAL MBH				SENS MBH	TYPE	THICK	EFFCY	VE./HZ	MCA			MOCP
								SUP	RET																		
RTU-1 (HEAT PUMP)	AAON	RQ-005	DOWN FLOW	CONTROL ROOM	ROOF	SINGLE ZONE	1950	0.5	0.25	2.0	1800	.25	78/65	57/55	57	46	200	58	NO GAS HEAT FOR SPACE WINTER HTG IN THIS UNIT	T.A.	2"	30%	208/3/60	44	50	1-24	1-10
	VALENT	VPRX-110-5J																									

ACCESSORIES

1. DRY BULB ECONOMIZER WITH 100% MODULATION AND POWER EXHAUST.
2. ULTRA LOW LEAKAGE TYPE ECONOMIZER DAMPERS.
3. EXTENDED HEIGHT FULL PERIMETER, SLOPED, INSULATED ROOF CURB (14"-18" HIGH). SLOPE TO BE DETERMINED BY CONTRACTOR.
4. PRE-WIRED ELECTRICAL DISCONNECT/S.
5. ANTISHORT CYCLE FOR COMPRESSOR AND TIME DELAY BETWEEN COMPRESSOR STARTS.
6. TWO EXTRA SETS OF AIR FILTERS.
7. UNIT MOUNTED INLET HOOD OR MOISTURE ELIMINATOR WITH BIRD SCREEN.
8. HIGH EFFICIENCY MOTORS, VFD RATED.
9. TERMINAL CONTACTS FOR WIRING RETURN SMOKE DETECTOR IN RTU SAFETY CIRCUIT. SMOKE DETECTOR SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.
10. FURNISH CO2 SENSOR AND CONTROLLER (SENSORS MOUNTED IN SPACE) FOR CONTROLLING OUTDOOR AIR DAMPER. CO2 SENSOR MAY BE MOUNTED IN RA DUCT.
11. HOT GAS REHEAT (FOR HUMIDITY CONTROL).
12. AVERAGING TYPE LOW LIMIT CONTROL STAT WITH MANUAL RESET FOR DISCHARGE AIR TEMP. (40° ADJ).
13. PHASE AND BROWN OUT PROTECTION WITH AUTORESET FEATURE.
14. DOUBLE WALL CONSTRUCTION. USE MINIMUM 1 7/8" PCF INSULATION.

ACCESSORIES

15. SLOPED STAINLESS STEEL OR POLYCARBONATE DRAIN PAN.
16. SPRING TYPE ANTIVIBRATION RAIL (2" DEFLECTION) UNDER ENTIRE UNIT.
17. HUMIDITY CONTROL (IN SUMMER) SHALL BE EFFECTED VIA RH SENSOR IN RETURN AIR SYSTEM. CO2 SENSOR MAY ALSO BE MOUNTED IN RETURN AIR SYSTEM.
18. EXTENDED GREASE LINES.
19. HINGED SERVICE PANELS.
20. HAIL GUARD FOR CONDENSER COIL.
21. SAFETY GRATES OVER SUPPLY AND RETURN OPENINGS.
22. THROUGH THE BASE ELECTRICAL CONNECTION IS PREFERRED. COORDINATE THIS ITEM WITH ELECTRICAL CONTRACTOR.
23. PROGRAMMABLE (7 DAY) WITH AUTO CHANGE OVER. PROVIDE LOCKABLE COVER.
24. PROVIDE ELECTRIC HEAT (EST 7.5-10 KW, MULTISTAGE OR SCR CONTROLLED) FOR OPERATION ONLY DURING DEFROST CYCLE TO MAINTAIN NEUTRAL AIR TEMPERATURE.

NOTES:

1. ESP INCLUDES SUPPLY AND RETURN DUCT. LOSSES AT CURB AND WITHIN THE UNIT SHALL BE FACTORED IN BY RTU MANUFACTURER.
2. RTU SHALL BE EQUIPPED WITH FACTORY FURNISHED DDC CONTROLS FOR ECONOMIZER, BUILDING PRESSURE, CO2 BASED CONTROL OF FRESH AIR, OA/RA/RAH/SA SENSORS, PROGRAMMABLE DAT RESET CONTROL, COMPRESSOR STAGING, ETC.
3. LOCATE CO2 SENSOR IN OCCUPIED SPACE OR IN RA DUCT. CONTRACTOR SHALL BE RESPONSIBLE FOR FIELD INSTALLATION OF CO2 SENSOR AND CONTROLLER.
4. CONTRACTOR SHALL INCLUDE COST FOR CONDUIT AND WIRING BETWEEN ALL FIELD INSTALLED DEVICES AND THE RTU.
5. NEW DUCT MOUNTED SMOKE DETECTOR SHALL BE WIRED INTO FAN SAFETY CIRCUIT. DETECTOR SHALL BE FIELD FURNISHED AND WIRED BY ELECTRICAL CONTRACTOR. SEE ELECTRICAL DRAWINGS. PROVIDE DETECTOR ON MAIN RETURN OF RTU.
6. EQUIPMENT MANUFACTURERS MUST MEET SCHEDULED PERFORMANCE CRITERIA.
7. ELECTRICAL DISCONNECT/S SHALL BE PROVIDED BY RTU MANUFACTURER.
8. IF MANUFACTURER'S EQUIPMENT REQUIRES A SEPARATE POWER FEED FOR DEFROST HEATER, CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH THIS FEATURE (INCLUDING SEPARATE DISCONNECT FOR HEATER).
9. SINCE START-UP OF RTU IS DEFERRED TO NEXT PHASE OF PROJECT, DEVICES SUCH AS THERMOSTATS, ETC. THAT ARE NOT INSTALLED SHALL BE TURNED OVER TO OWNER'S REPRESENTATIVE.
10. WARRANTY SHALL COMMENCE 6 MONTHS AFTER FACTORY SHIP DATE OR AT START-UP OF RTU, WHICHEVER IS EARLIER. SEE GENERAL NOTE #4 ON SHEET 0011E FOR EXTENDED WARRANTY.



USER NAME =	DESIGNED - JPD/ATK	REVISED 09/04/12 NEWLY ADDED SHEET
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STATE OF ILLINOIS
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ROOF TOP UNIT SCHEDULE

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