

UNIVERSITY OF SOUTHERN MAINE WOODBURY CAMPUS CENTER EXTERIOR UPGRADES 2014-011 PHASE II - PV ARRAY

PORTLAND, ME

ISSUED FOR BID

08.29.14

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STRUCTURAL DRAWINGS
S30.1 ROOF GRILLAGE FRAMING PLAN AND DETAILS
ELECTRICAL DRAWINGS
E20.1 FLOOR PLAN AND DETAILS



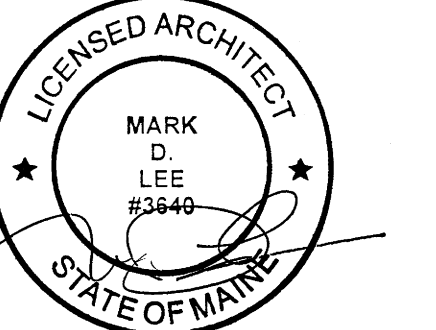
HARRIMAN

46 Harriman Drive
Auburn, ME 04210
207.784.5100

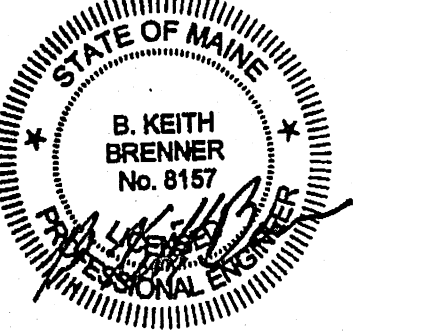
123 Middle Street
Portland, ME 04101
207.775.0053

One Perimeter Road
Manchester, NH 03103
603.626.1242

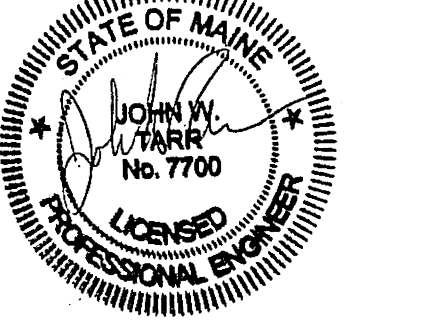
Seal for Architectural Drawings



Seal for Structural Drawings



Seal for Electrical Drawings





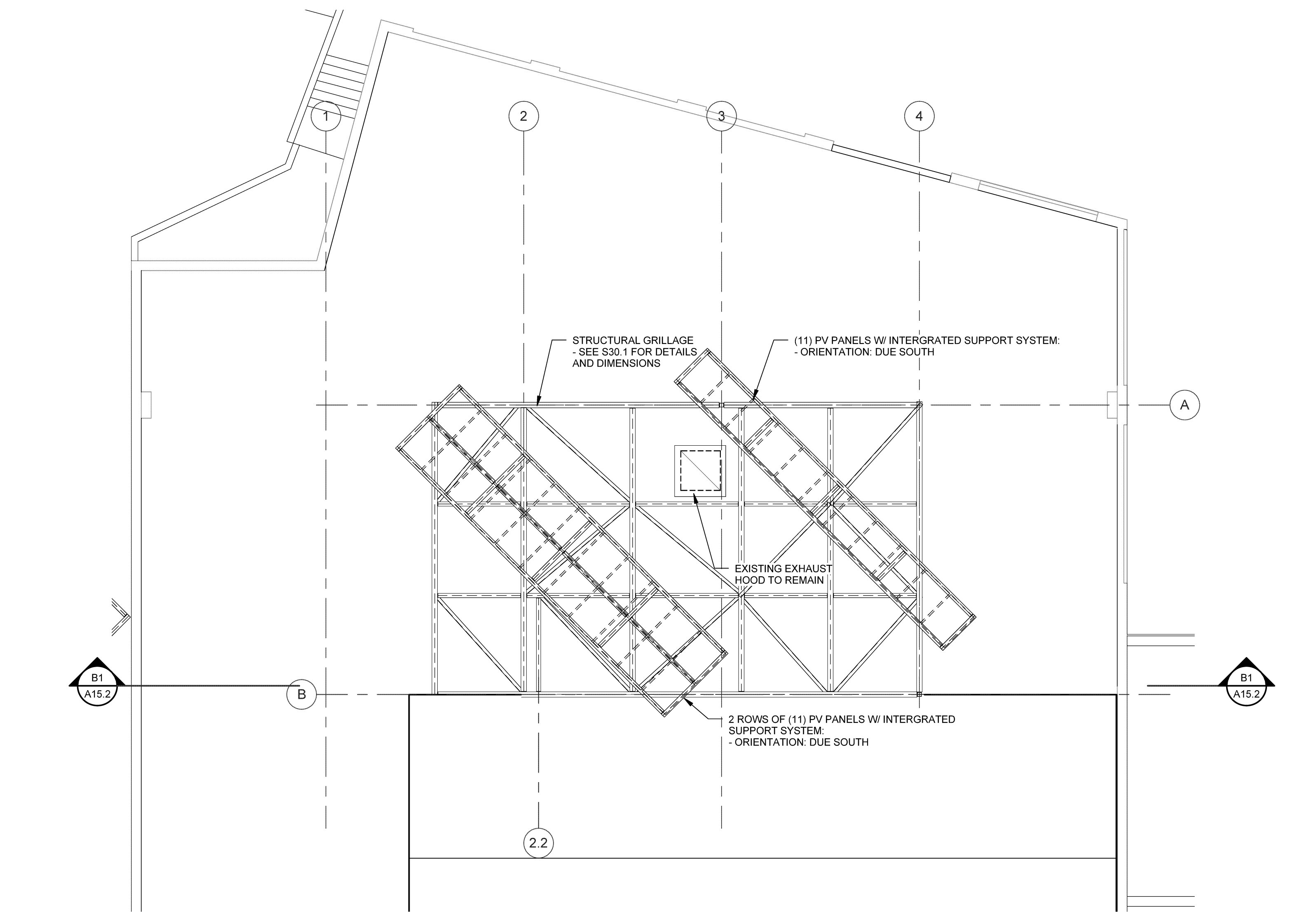
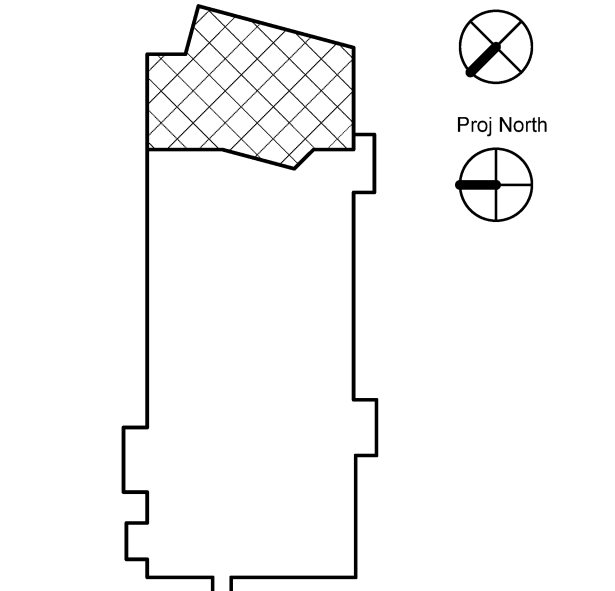
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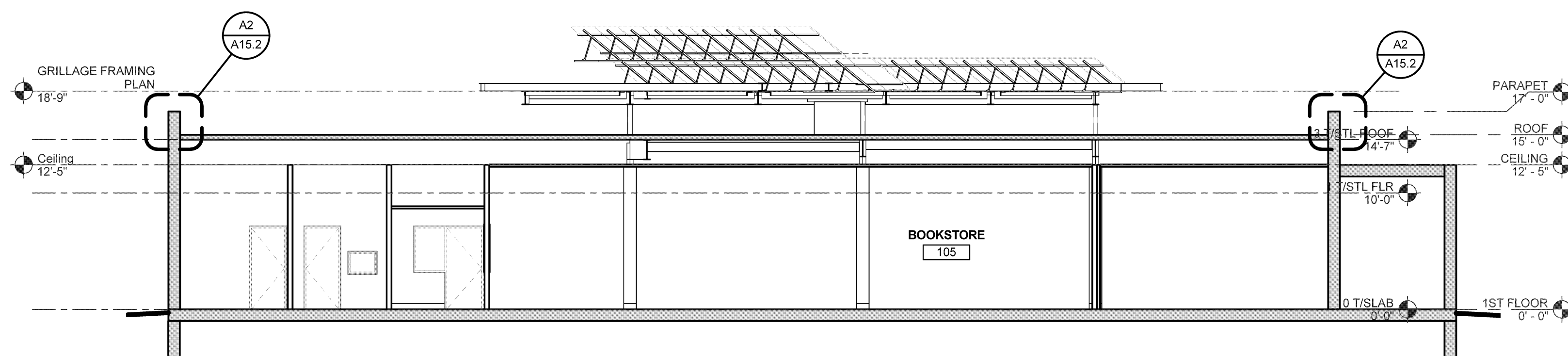
UNIVERSITY OF SOUTHERN MAINE WOODBURY CAMPUS CENTER EXTERIOR UPGRADES 2014-011 PHASE II - PV ARRAY PORTLAND, ME

Harriman Project No. 14352

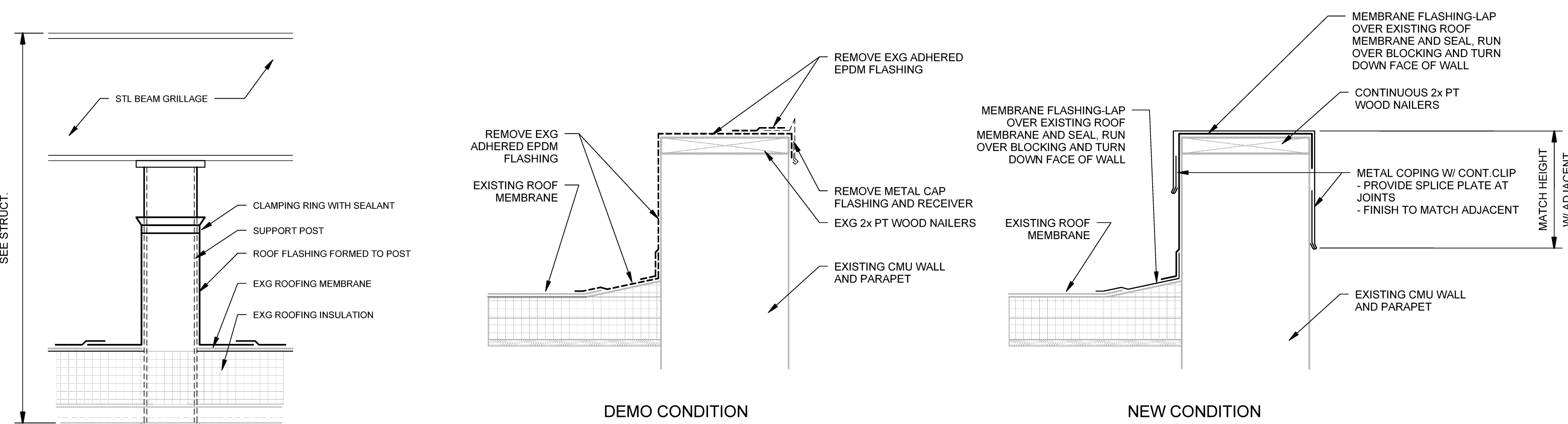
Key Plan



C2 PV LAYOUT PLAN SCALE: 1/8" = 1'-0"

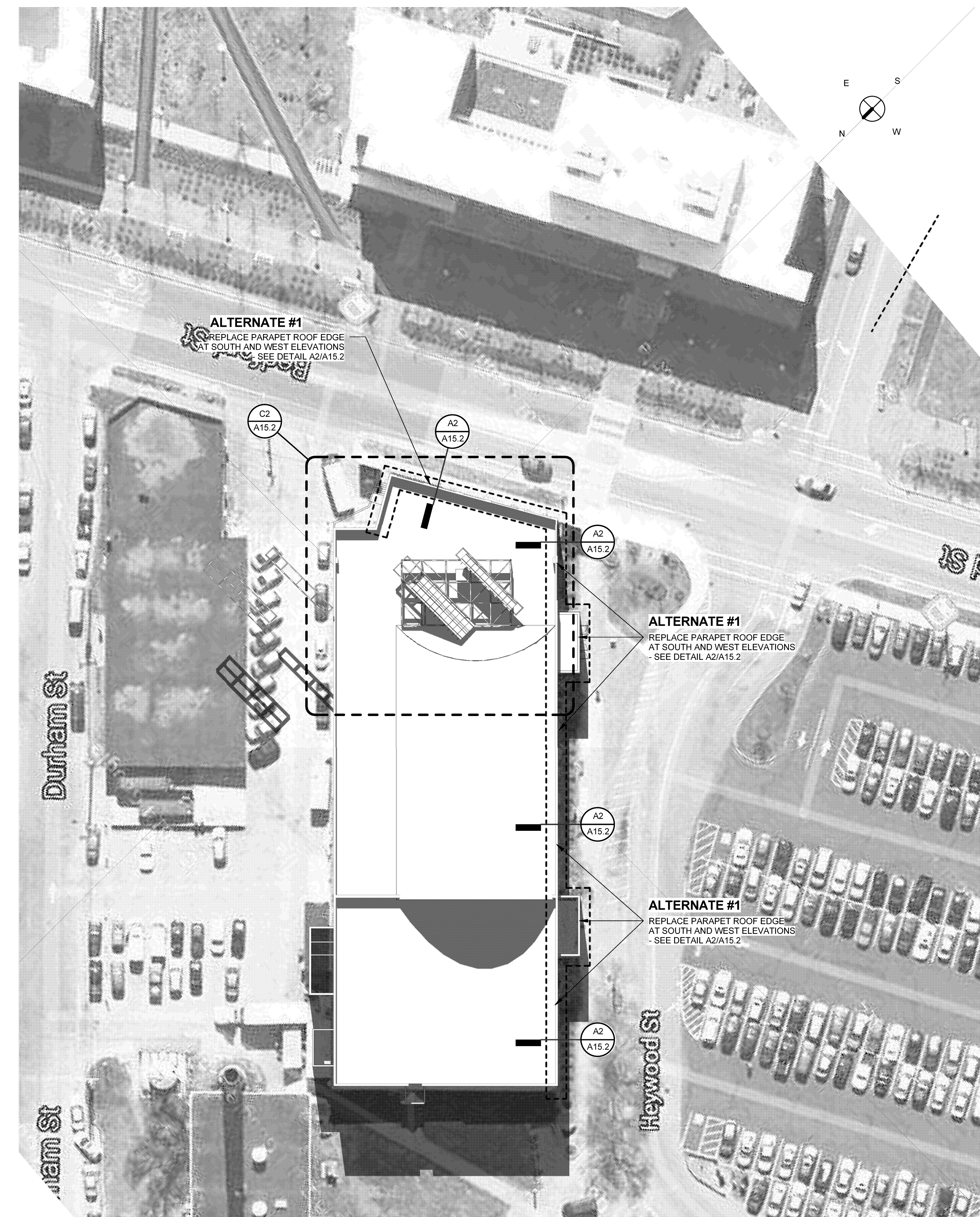


B1 SECTION THROUGH GRILLAGE SCALE: 1/8" = 1'-0"



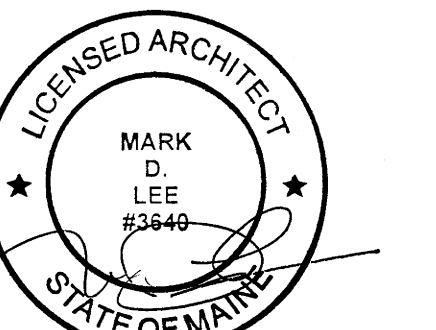
A1 GRILLAGE POST FLASHING DETAIL SCALE: 1 1/2" = 1'-0"

A2 ALTERNATE #1 - ROOF EDGE DETAIL SCALE: 1 1/2" = 1'-0"



A4 SITE / SOLAR PLAN SCALE: 1" = 30'-0"

Issues and Revisions		
Mark	Date	Description
-	08-22-14	OWNER REVIEW
-	08-29-14	ISSUED FOR BID



Drawing Scales As indicated

PA/PE: MDL © 2014 Harriman Associates
Drawn By: ERP

PV ARRAY PLANS AND DETAILS

A15.2



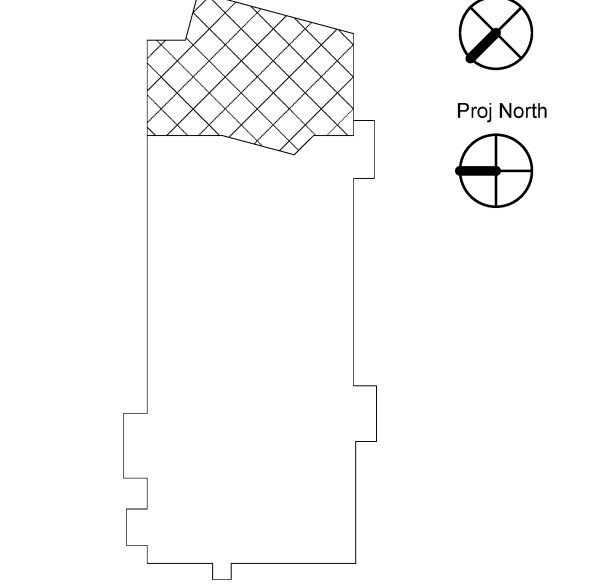
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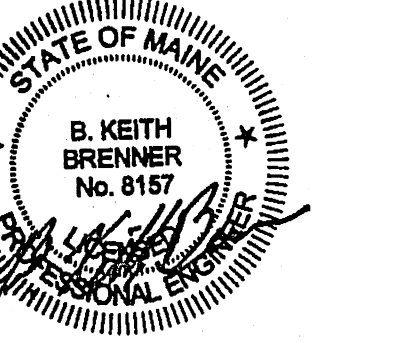
Key Plan



- NOTES: 1. ALL STEEL BEAMS TO CONFORM WITH ASTM A992 (Fy=50 KSI) 2. ALL HSS COLUMNS TO CONFORM WITH ASTM A500 GR. B (Fy=46 KSI) 3. ALL STEEL ANGLES AND PLATES TO CONFORM WITH ASTM A36 (Fy=36 KSI) 4. ALL STEEL MEMBERS AND CONNECTION MATERIAL TO BE GALVANIZED. 5. GC TO VERIFY ALL EXISTING DIMENSIONS AND ELEVATIONS PRIOR TO STEEL FABRICATION 6. LENGTH AND WITH OF PV FRAMES SHALL BE COORDINATED WITH ACTUAL PANELS SELECTED 7. T/STL ELEVATION IS BASED ON MAINTAINING 2" CLEAR TO THE UNDERSIDE OF THE DEEPEST BEAM (W21). VERIFY MINIMUM CLEARANCE PRIOR TO STEEL FABRICATION. 8. DESIGN OF SUB-FRAMES TO SUPPORT THE ACTUAL PV PANELS AT THE DESIRED ANGLE IS THE RESPONSIBILITY OF THE PANEL MANFR.

DESIGN WIND LOAD: BASIC WIND SPEED = 100 MPH (3 SEC GUST) W = 1.15 (OCC. CAT. III) EXPOSURE CATEGORY = C INT. PRESSURE COEF. (GCP) = +/- 0.18

Issues and Revisions table with columns: Mark, Date, Description. Row 1: 08-29-14, ISSUED FOR BID

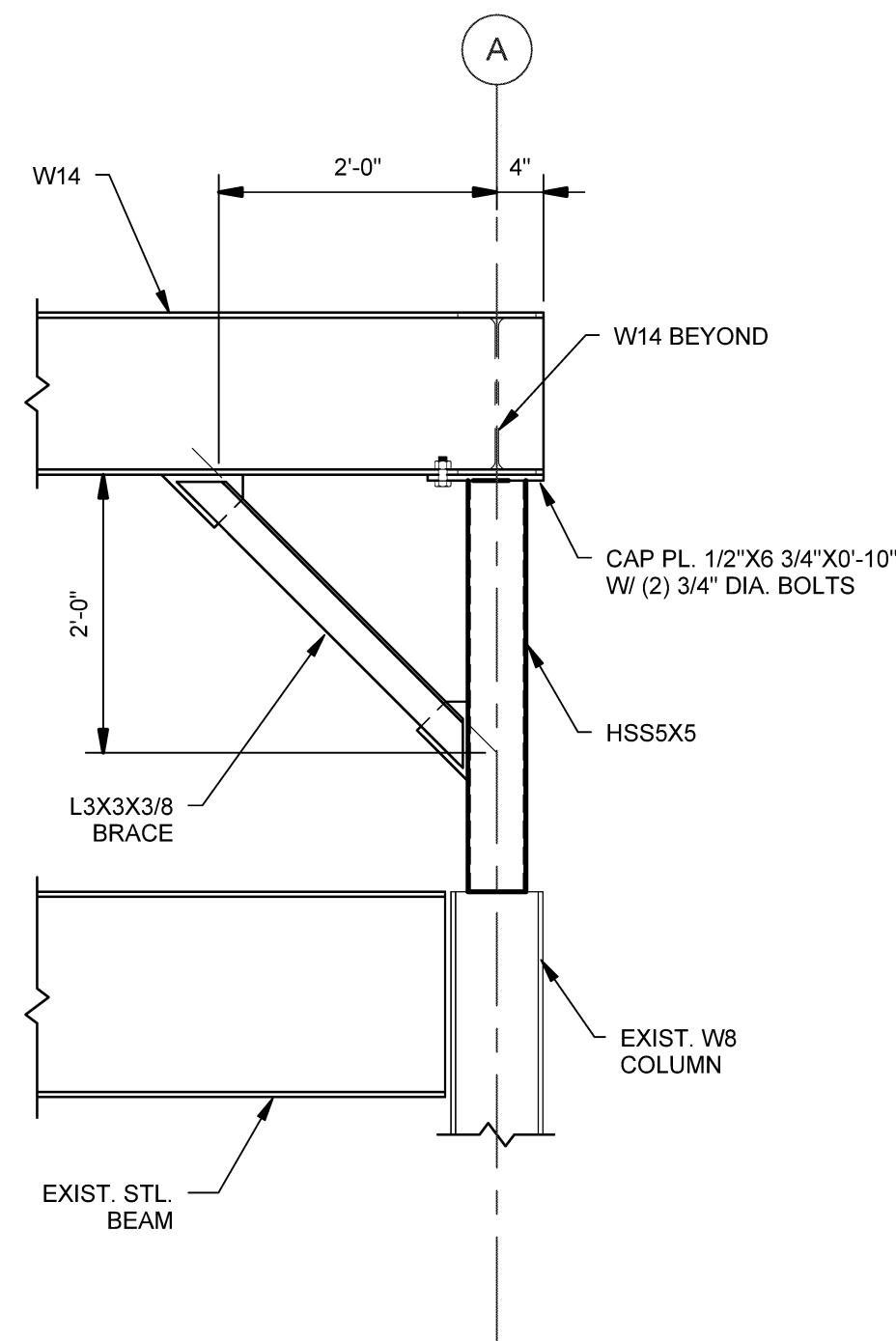


Drawing Scales: As indicated

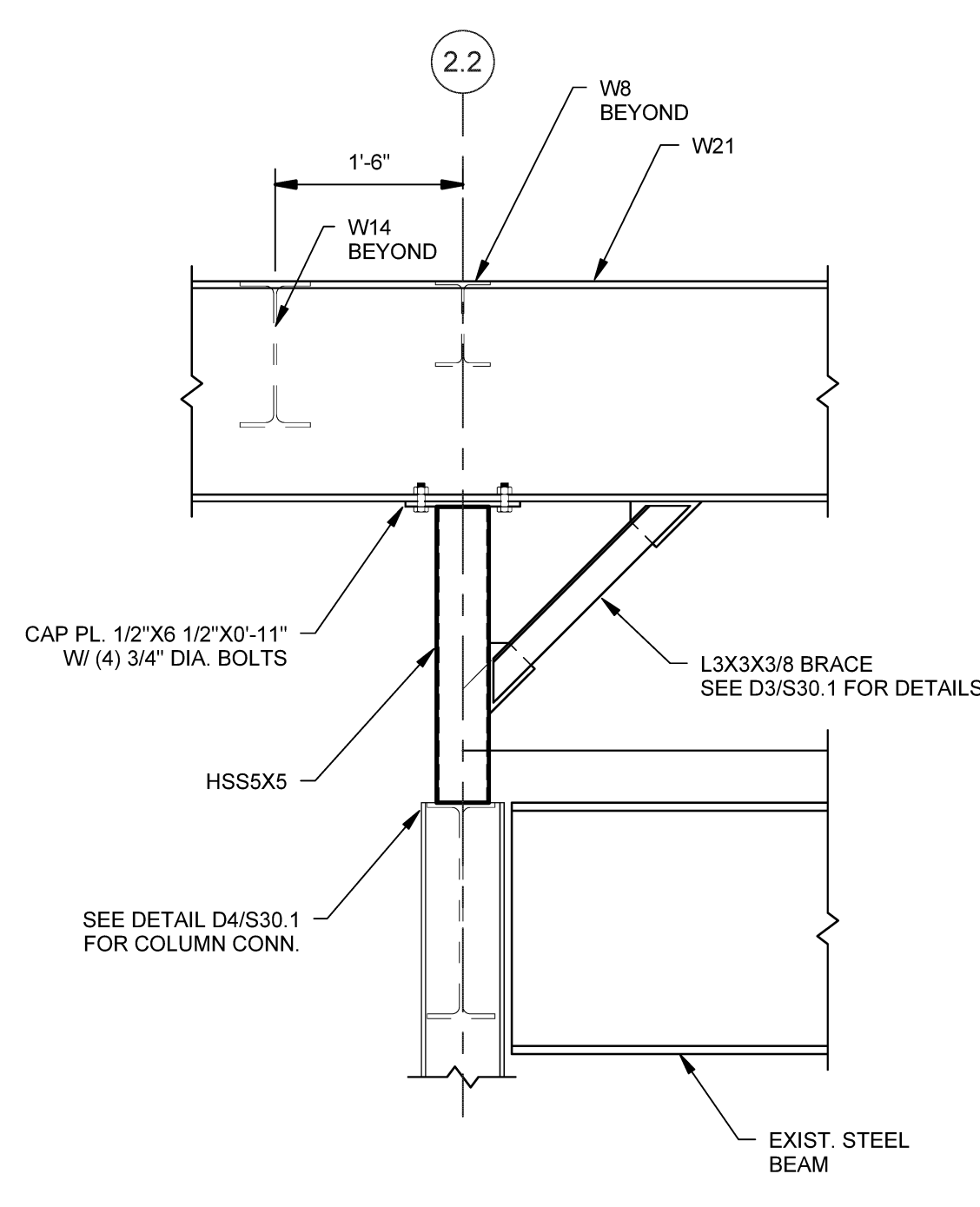
PA/PE: BKB © 2014 Harriman Associates Drawn By: ZPP

ROOF GRILLAGE FRAMING PLAN AND DETAILS

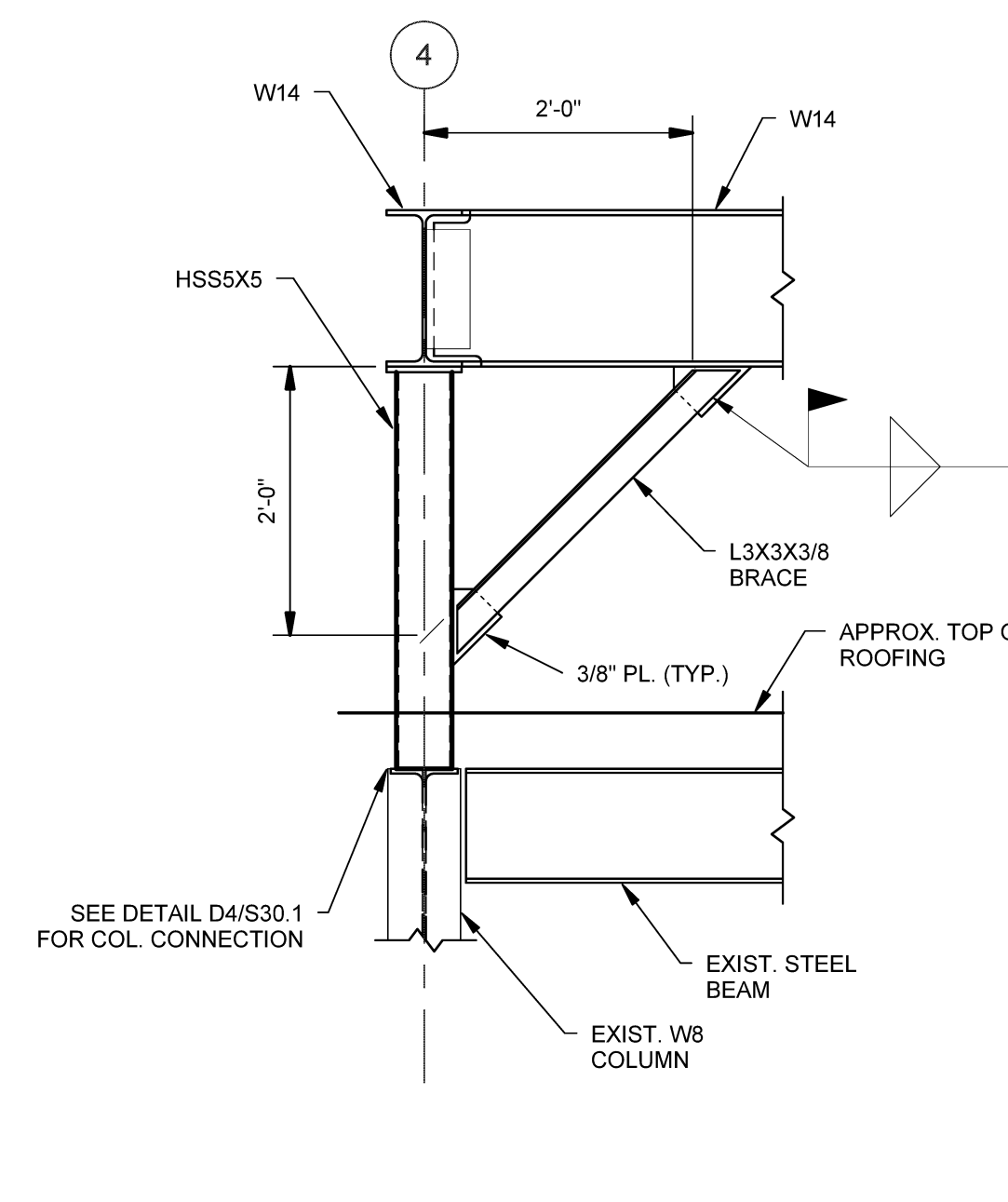
S30.1



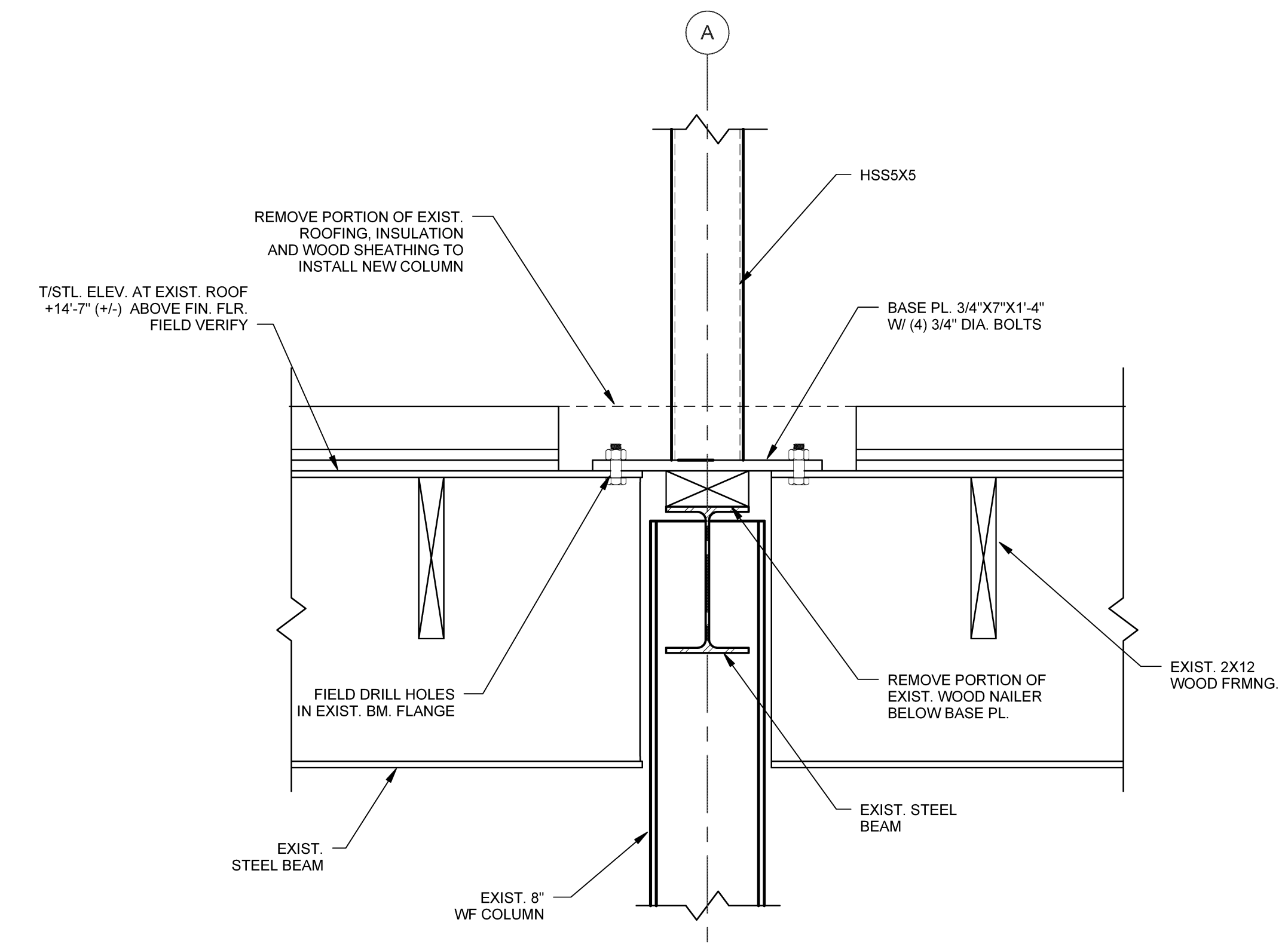
D1 SECTION SCALE: 3/4" = 1'-0"



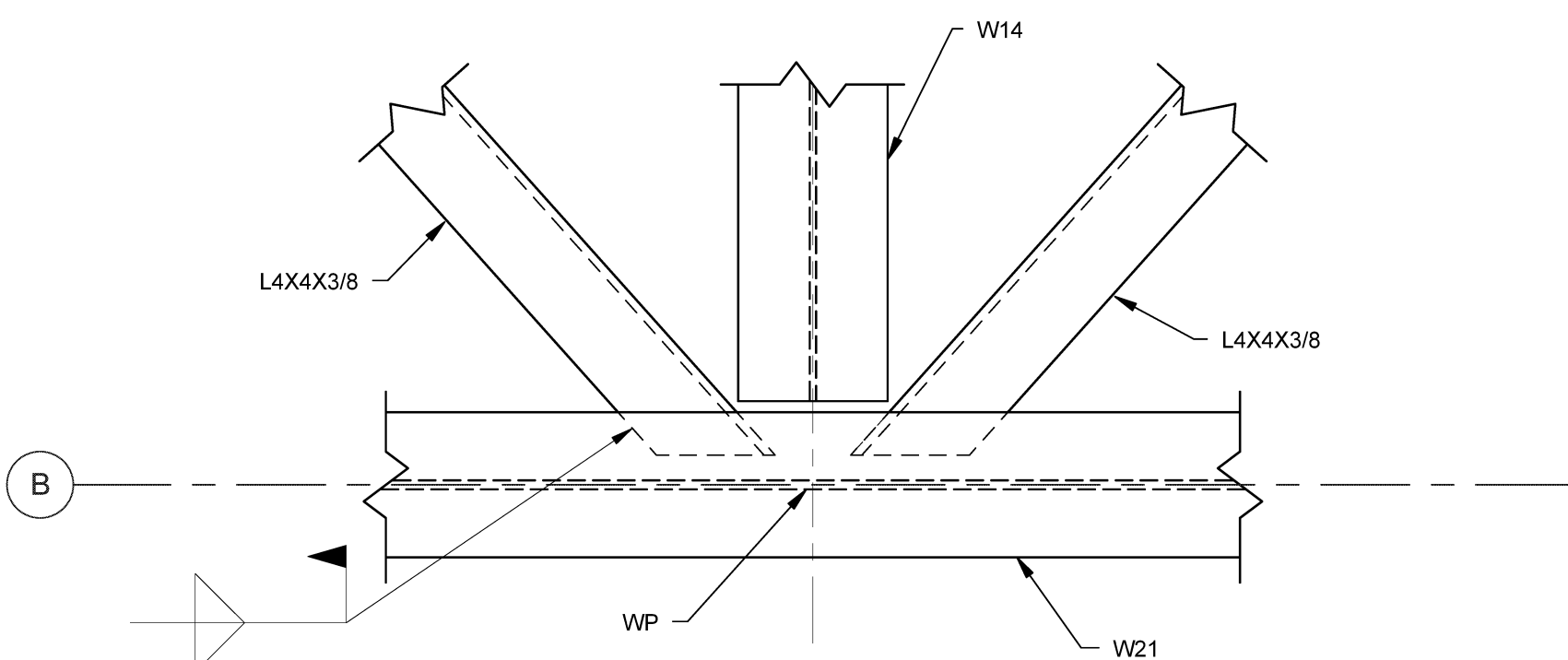
D2 SECTION AT W21 CANTILEVER SCALE: 3/4" = 1'-0"



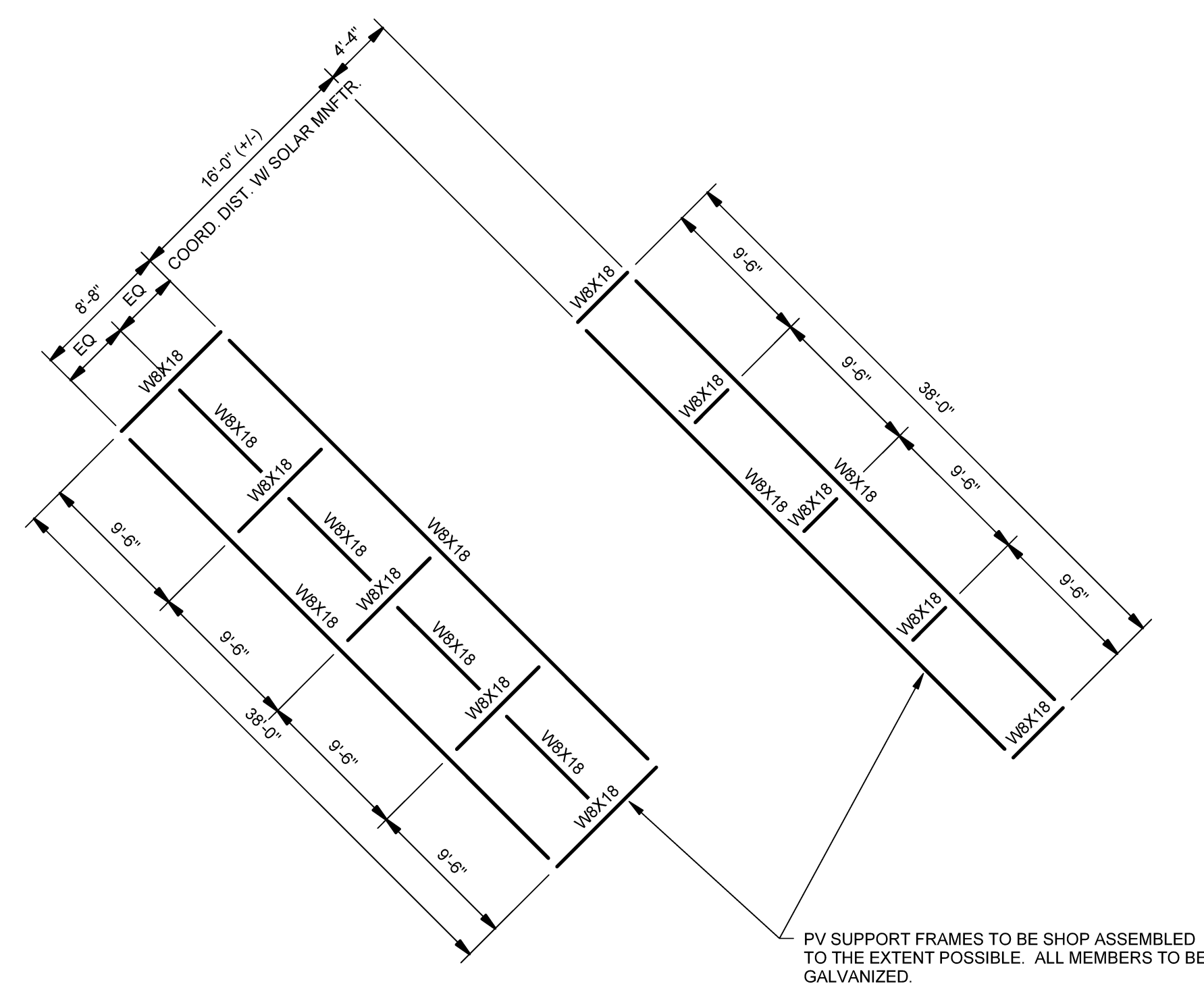
D3 TYPICAL KNEE-BRACE DETAIL SCALE: 3/4" = 1'-0"



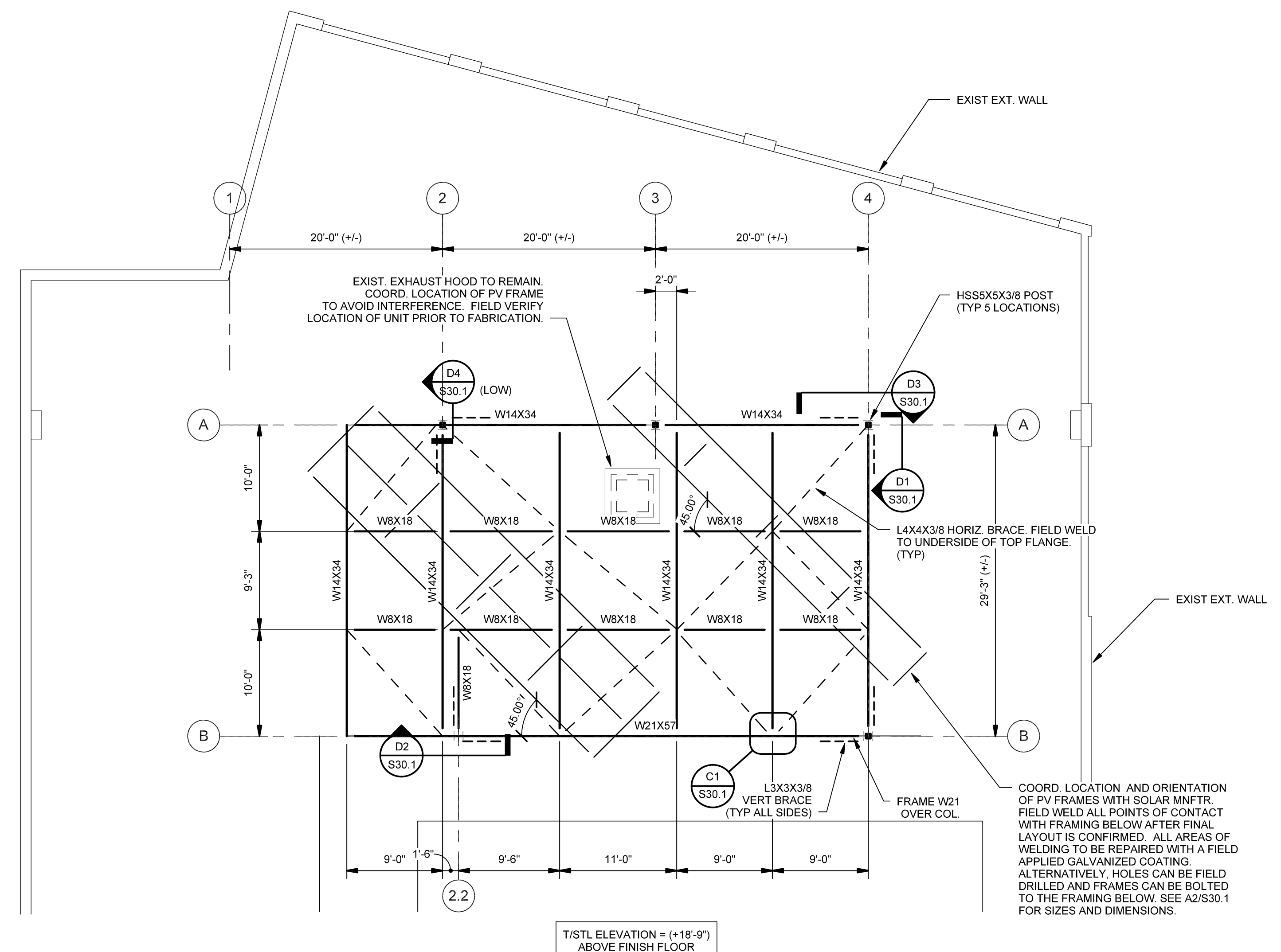
D4 DETAIL AT COLUMN CONNECTION SCALE: 1 1/2" = 1'-0"



C1 PLAN AT HORIZONTAL BRACING SCALE: 1 1/2" = 1'-0"



A2 PV SUPPORT FRAMING PLANS SCALE: 1/8" = 1'-0"



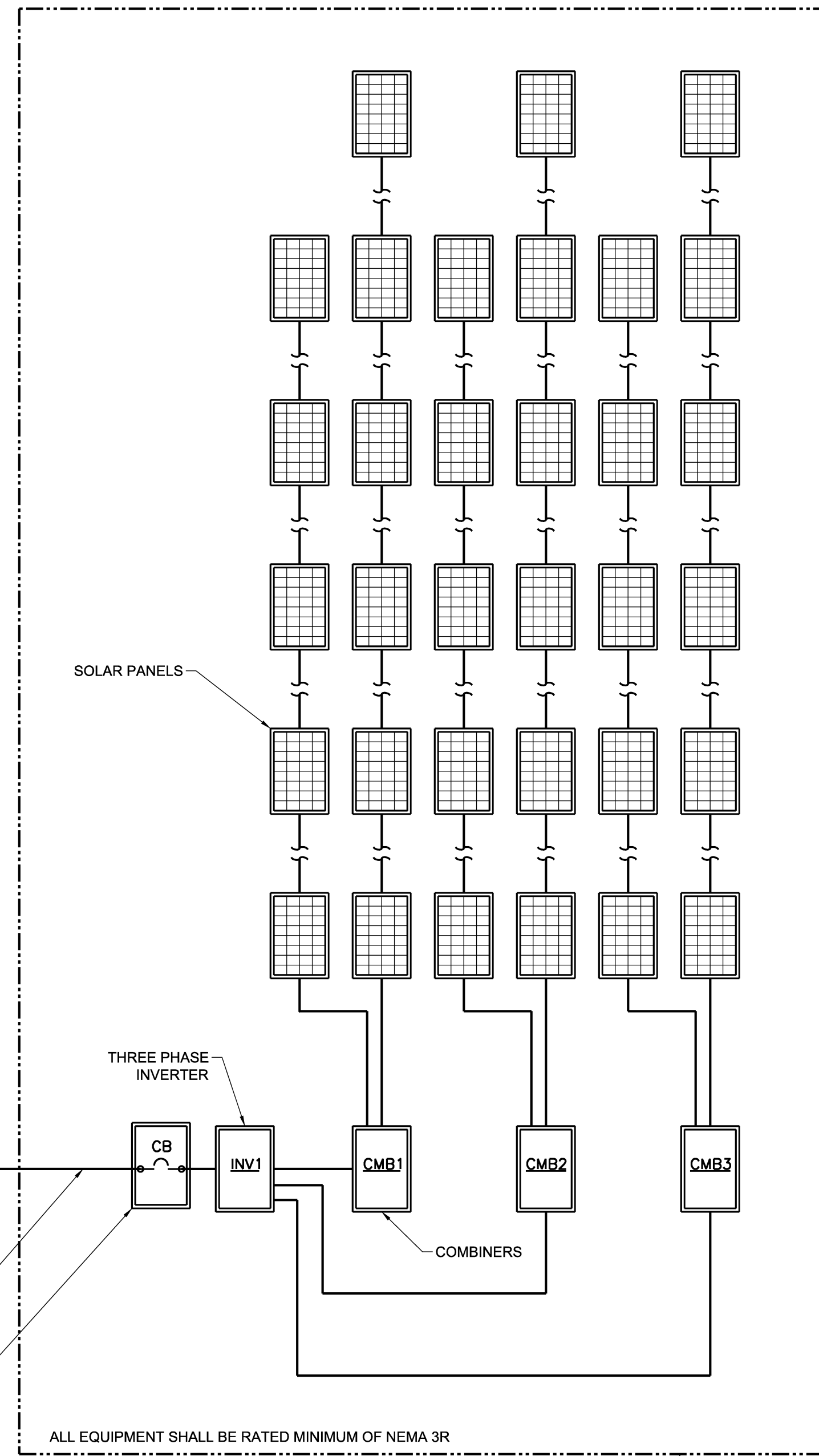
A4 GRILLAGE FRAMING PLAN SCALE: 1/8" = 1'-0"

ELECTRICAL LEGEND

- LP-1,3 HOMERUN TO PNLBRD - ARROWS INDICATE NUMBER OF CIRCUITS. CROSS LINES INDICATE NUMBER OF CONDUCTORS OTHER THAN TWO
- CIRCUIT NUMBER(S)
- PANEL DESIGNATION
- WIRING CONCEALED IN WALL OR CEILING
- WIRING IN RACEWAY CONCEALED UNDER FLOOR
- MOTOR
- JUNCTION BOX
- DISCONNECT SWITCH
- NEW PANELBOARD
- EXISTING PANELBOARD

4 LEGEND

SCALE: NTS



PROVIDE NEW THREE PHASE 40A/3P CIRCUIT BREAKER FOR PV ARRAY SYSTEM. COORDINATE SIZE WITH SOLAR PV SYSTEM AND ADJUST AS REQUIRED.

SIZE CONDUCTORS FOR THE FULL AMPACITY OF THE NEW CIRCUIT BREAKER MINIMUM #8-#8G-1 1/2" C

SIZE PER REQUIREMENT OF THE INVERTER (INV).

ALL EQUIPMENT SHALL BE RATED MINIMUM OF NEMA 3R

COORDINATE NUMBER OF COMBINERS, SOLAR PV PANELS, ETC WITH THE REQUIREMENTS OF SPECIFICATION SECTION 264440.

3 SINGLE LINE

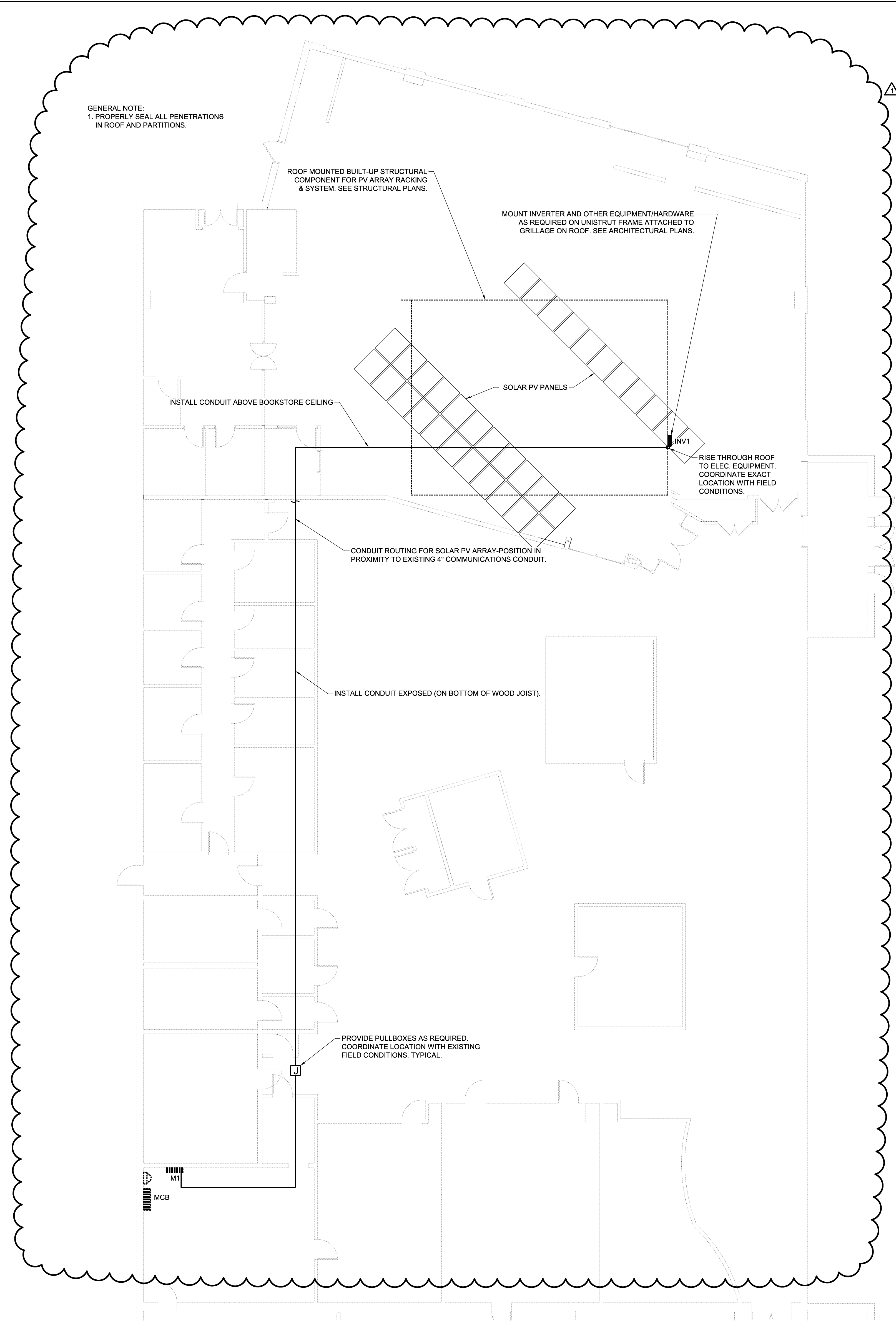
SCALE: NTS

LOAD DESCRIPTION	AMP	W	DWG CRKT NO	W	D	WATT LOADS			W	D	W	D	AMP	LOAD DESCRIPTION
						PH A	PH B	PH C						
TUB 1 OF 1 - REMARKS:														
EXISTING CIRCUIT	150	3	1	1	0	0	0	0	2	2	3	175		EXISTING MCC
EXISTING CIRCUIT	125	3	7	7	0	0	0	0	8	8	3	140		PV ARRAY INVERTER
EXISTING CIRCUIT	150	3	13	13	0	0	0	0	14	14	3			SPACE
EXISTING CIRCUIT	600	3	19	19	0	0	0	0	20	20	3			SPACE
TOTAL AMPS: 0 TOTAL WATTS: 0														
REMARKS: EXISTING SQUARE-D I-LINE HCW M44-89237-1C. *- ADJUST CIRCUIT BREAKER TO SUIT INVERTER (SEE 264440).														

2 PANELBOARD SCHEDULE

SCALE: NTS

GENERAL NOTE:
1. PROPERLY SEAL ALL PENETRATIONS IN ROOF AND PARTITIONS.



1 FLOOR PLAN

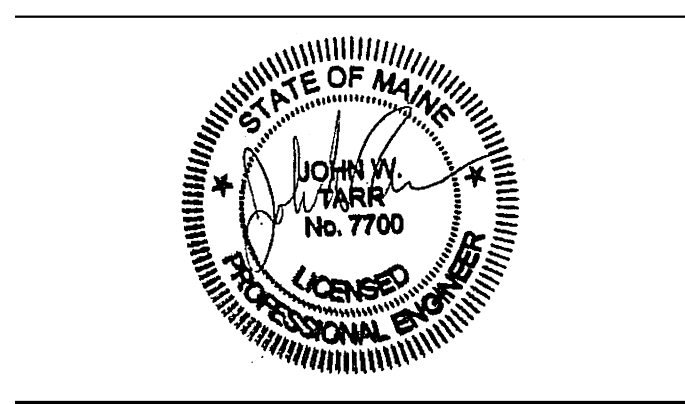
SCALE: 1/8" = 1'-0"



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WOODBURY CAMPUS CENTER
EXTERIOR UPGRADES
2014-011
PHASE II - PV ARRAY
PORTLAND, ME

Harriman Project No. 14352
Key Plan
North
Proj North

Mark	Date	Description
-	08-22-14	OWNER REVIEW
-	08-29-14	ISSUED FOR BID
Δ	09-15-14	ADDENDUM #1



Drawing Scales
PA / PE: JWT
Drawn By: PRA
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FLOOR PLAN AND DETAILS

E20.1