

*** OVERTURNING AND SLIDING ***

WIND PER ASCE 7-14

psf=lb/ft² psf=lb/ft² sq.

PLF=lb/ft psf=lb/ft² sq.

*** VARIABLES ***

BUILDING WIDTH BW=30.0 ft
OVERHANG LENGTH OL=2.0 ft
ROOF DEAD LOAD RD=8 PSF
FLOOR DEAD LOAD FD=8 PSF
WALL DEAD LOAD WD=5 PSF
WALL HEIGHT WH=10.0 ft
INCLUDES TRUSS HEAD AND FLOOR
IMPORTANCE FACTOR I=1.0
NO. OF MODULES NM=2
MAX BUILDING LENGTH BL=70'-0"
PARA. TO I-BEAM
EXPOSURE CATEGORY = C
WIND SPEED IN MPH V=175
VELOCITY PRESSURE EXP. Kz=0.85
TOPOGRAPHIC FACTOR Kzt=1.21

*** COEFFICIENTS ***
INTERNAL Cp=0.18
WINDWARD WALL WWCp=0.53
WINDWARD ROOF WRCp=0.69
LEEWARD ROOF LRCp=0.48
LEEWARD WALL LWCp=0.43
OVERHANG OCp=0.8
WIND DIRECTION FACTOR Kd=0.85
VELOCITY PRESSURE EXP. Kz=0.85
TOPOGRAPHIC FACTOR Kzt=1.21
MAX. ROOF PITCH ANGLE AT SIDEWALL (DEG) RA=5
DISTANCE FROM BUILDING CENTERLINE TO
OVERTURNING POINT A=3.0 ft
DISTANCE FROM TURNING POINT TO THE DOWN
STRAPPING B=18.0 ft
TIE DOWN STRAP WORKING CAPACITY=FTD=3150 lb.
ANGLE BETWEEN TIE DOWN STRAP AND GROUND TA=45°(4,725 lb. ACTUAL DIVIDED BY 1.5 SAFETY FACTOR = 3,150 lb.)
DEGREES
NO. OF VERTICAL STRAPS AT MATELINE VS=0
VERTICAL TIE DOWN STRAPPING WORKING VERTICAL
CAPACITY VTD=3150 lb

*** OVERTURNING ***

WIND PRESSURE $Q=0.00256 K_d K_z K_{zt} (V)^2$ psf
WINDWARD WALL $W_w=WCp$
WINDWARD ROOF $W_r=WRCp$
LEEWARD ROOF $L_r=LRCp$
LEEWARD WALL $L_w=LWCp$
WINDWARD OVERHANG $WOH=WCp$
LEEWARD OVERHANG $LOH=LRCp$
 $RH=0.5BWtan(RAdeg)$ $HLR=(WW-LW)qWH$ $HLR=(WR-LR)qWH$
 $HLR=if[HLR < 0, 0, HLR]$
 $OTh=HLR(WH/0.5)+HLR(WH+RH/0.5)$
 $OTv=WRq(BW/0.5)[A+(BW/0.25)]+LRq(BW/0.5)[A-(BW/0.25)]$
 $OTgh=\frac{BW}{2} + A + \frac{OL}{2} q OL WOH + \frac{BW}{2} - A + \frac{OL}{2} q OL - LOH$
 $OTd=(RD+FD)BW + A + WD WH 2 A$
 $OTvs=\frac{BL}{OTd + OTv + OTgh - (OTd/0.6) - OTvs}$
 $VL=\frac{OTd + OTv + OTgh - (OTd/0.6) - OTvs}{B}$ $VL=386.66$ plf
 $VL=if[VL < 1.0 plf, 1.0 plf, VL]$ $VL=386.66$ plf

*** SLIDING ***

DOWNWARD REACTION
TAKING MOMENTS AT WINDWARD I-BEAM

$OTd + OTv - OTgh + [LRq(BW/0.5)][A+(BW/0.25)] + [WRq(BW/0.5)][A-(BW/0.25)]$
 B

DR1=if[DR < 0 plf, 0 plf, DR] DR1=0 plf
DR2=if[VL < 0 plf, VL, 0 plf] DR2=0 plf
DR3=DR1 + DR2 DR3=0 plf
DR4=if[DR3 < 0 plf, 0 plf, DR3] DR4=0 plf
DR5=if[NM < 2, 0 plf, DR4] DR5=0 plf
 $F_u=if[(0.2DR5 < 25 plf), 0.2DR5, 25 plf]$ $F_u=0$ plf
 $HL=HLw + HLR - F_u$ $HL=399.51$ plf
 $HL=if[HL < 1.0 PLF, 1.0 PLF, HL]$ $HL=399.51$ plf

*** SUMMARY ***

STRAP VERTICAL CAPACITY

VC=FTD sin(TA DEG) VC=2227.39 lb

STRAP HORIZONTAL CAPACITY

HC=FTD cos(TA DEG) HC=2227.39 lb

SSv=VC

SSh=HC

SS=if[SSv < SSh, SSv, SSh]

SS=4.0 ft

SS=if[SSv < SSh, SSv, SSh]

*** MAXIMUM TIE DOWN SPACING ***

SS=4.0 ft

SEE CHART BELOW FOR EXPOSURE -D-

SEE A-FDI FOR EXPOSURE -D-

COMPARISON WIND CHART
RISK CATEGORY II CHART MAY BE USED AS A GENERAL GUIDELINE

PENSACOLA	155 MPH
TAMPA	145 MPH
ORLANDO	140 MPH
MIAMI DADE	175 MPH
BROWARD	170 MPH
TALLAHASSEE	118 MPH
GAINSVILLE	125 MPH
JACKSONVILLE	125 MPH
LEE COUNTY	160 MPH
MONROE COUNTY	180 MPH
SOUTH OF MONROE	186 MPH

FOUNDATION NOTES:

- TIE-DOWN STRAPS TO BE 1-1/4" X .035 GALVANIZED STEEL FEDERAL SPECIFICATION Q05-781-H TYPE-1 FINISH-B GRADE-1. TIE-DOWN STRAPS AND CONNECTING HARDWARE TO HAVE 4,725# MINIMUM ULTIMATE CAPACITY. LISTED ANCHORS TO HAVE 4,725# MINIMUM WORKING LOAD CAPACITY.
- SEE ABOVE FOUNDATION LAYOUT FOR TIE-DOWN STRAP SPACING.
- ALL PIERS SHALL BE 8" X 8" X 16" MASONRY BLOCKS ON 4" X 16" X 16" CONCRETE PADS, EXCEPT AS OTHERWISE NOTED ON FOUNDATION PLAN.
- MINIMUM SOIL BEARING CAPACITY IS 2000 PSF. TO BE VERIFIED BY BUILDING'S OWNER.

STRAP SPACING HEIGHT, ADJUSTMENT FOR EXP. -C- = 1.21 INCLUDED
NOTE: STRAP SPACING MAY VARY DUE TO SITE CONDITIONS

NOE: STRAP SPACING 3'-4" O.C. MAX FOR 186 MPH
NOE: STRAP SPACING 3'-6" O.C. MAX FOR 180 MPH
NOE: STRAP SPACING 4'-0" O.C. MAX FOR 175 MPH
NOE: STRAP SPACING 4'-6" O.C. MAX FOR 170 MPH
NOE: STRAP SPACING 5'-4" O.C. MAX FOR 160 MPH
NOE: STRAP SPACING 5'-7" O.C. MAX FOR 150 MPH
NOE: STRAP SPACING 6'-6" O.C. MAX FOR 140 MPH
NOE: STRAP SPACING 6'-8" O.C. MAX FOR 130 MPH

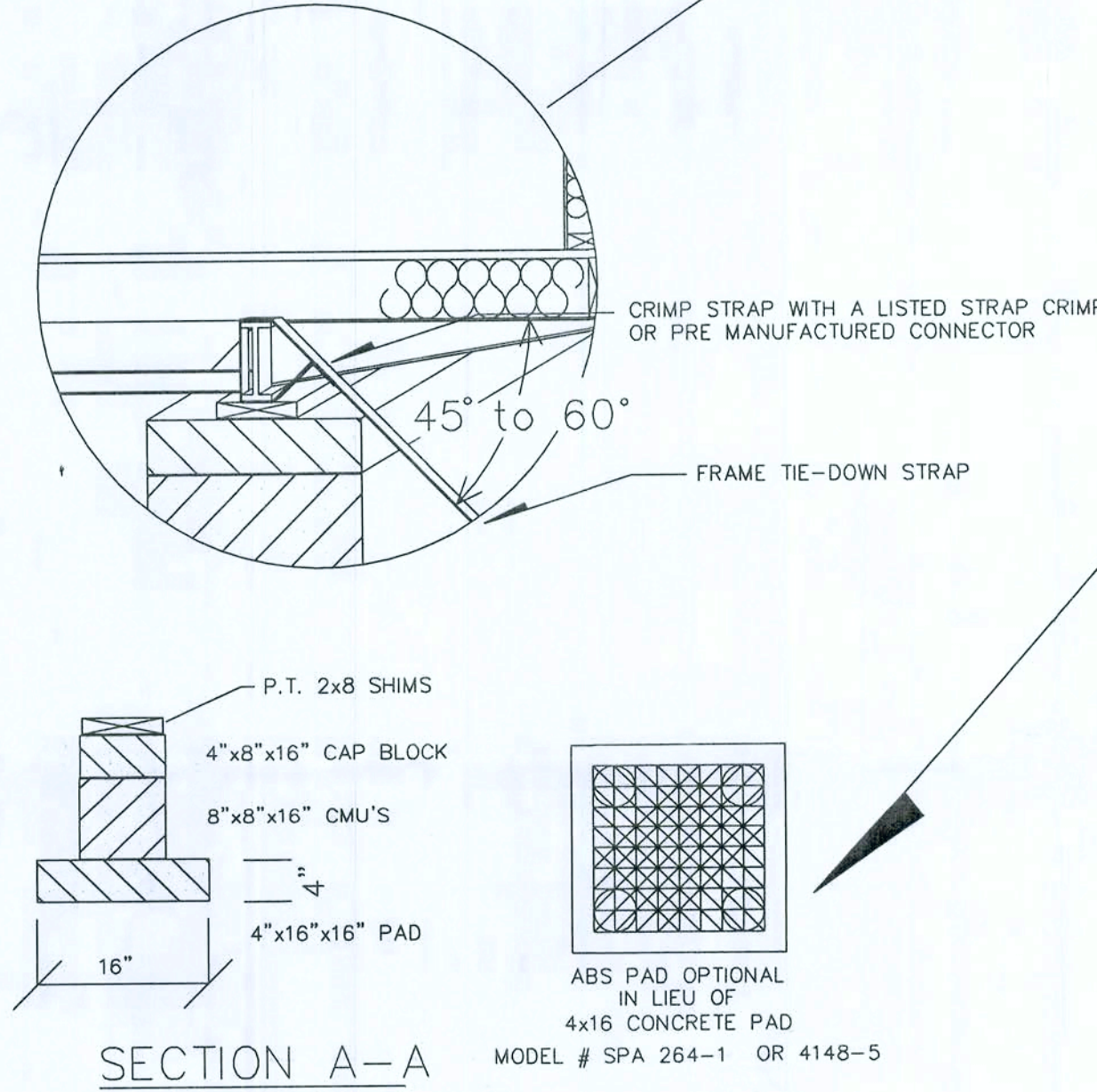
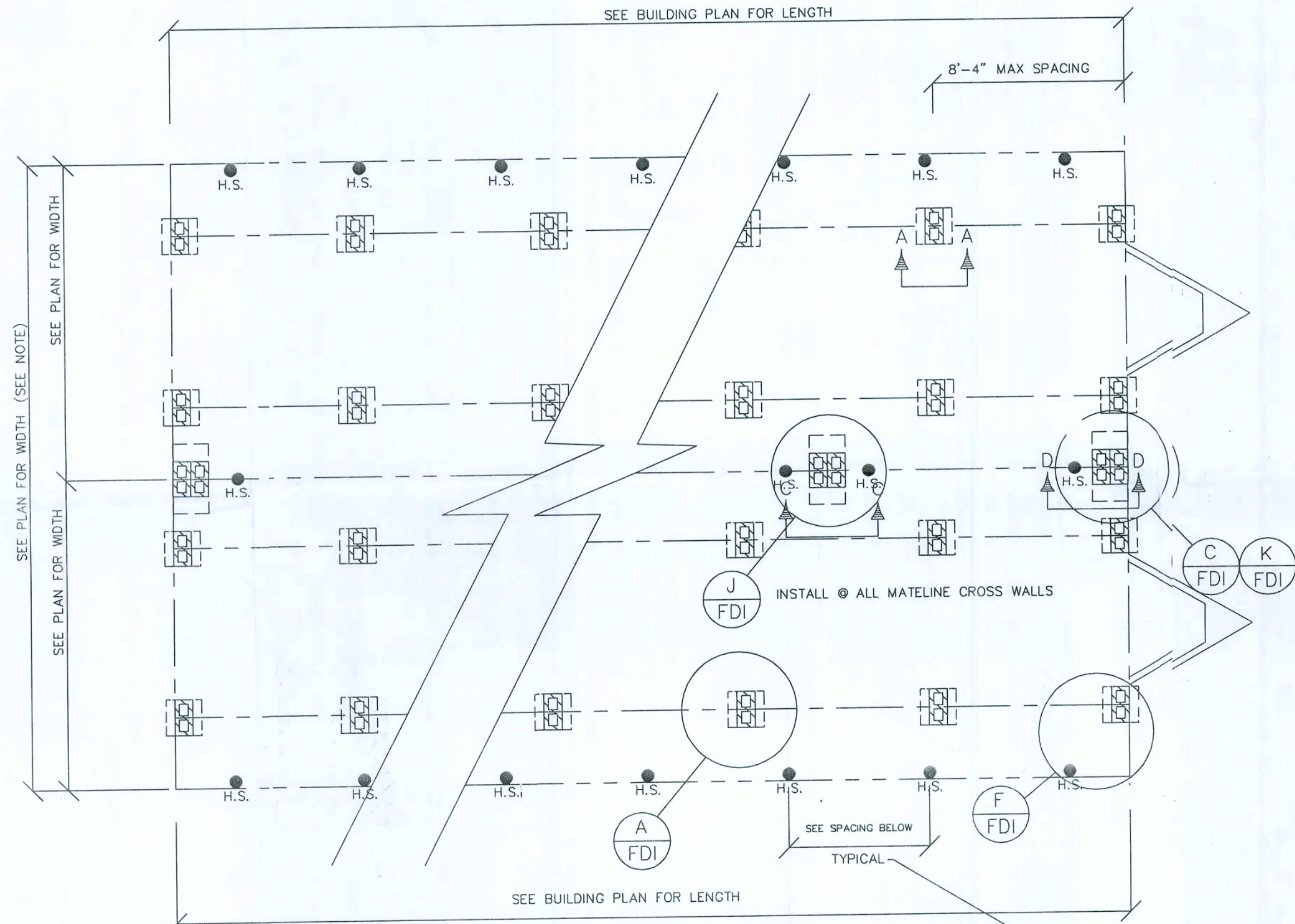
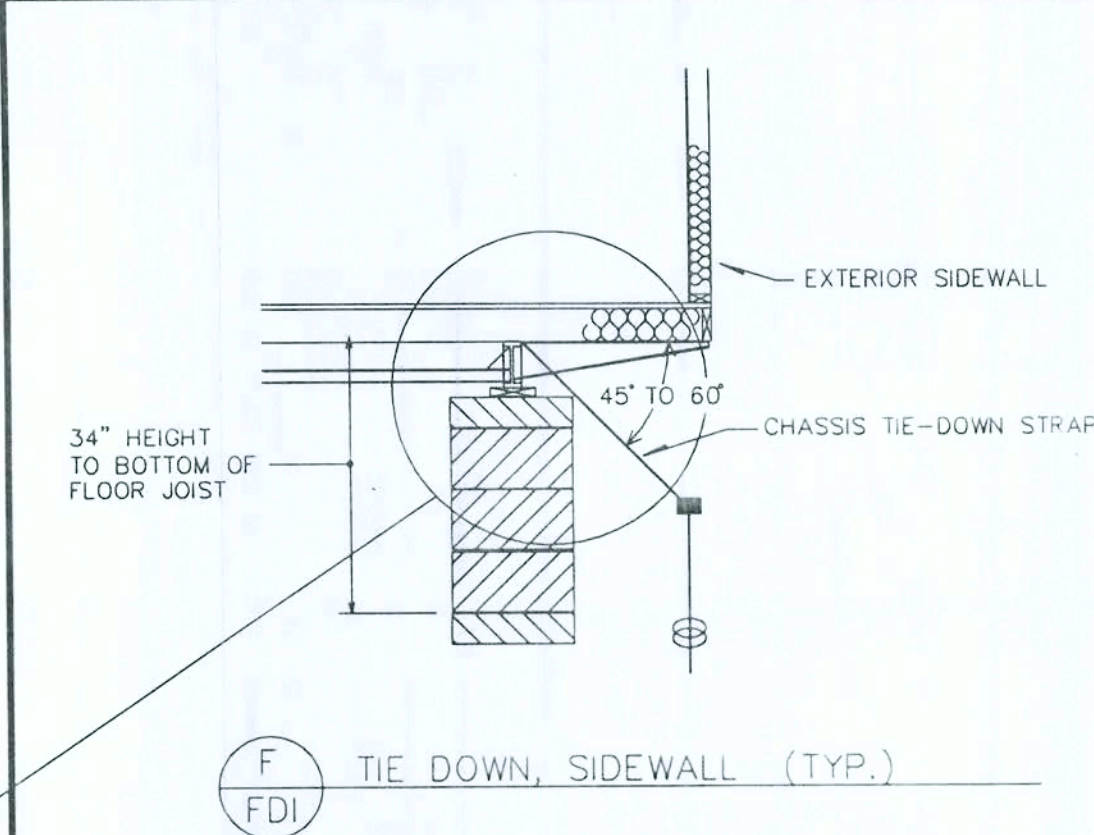
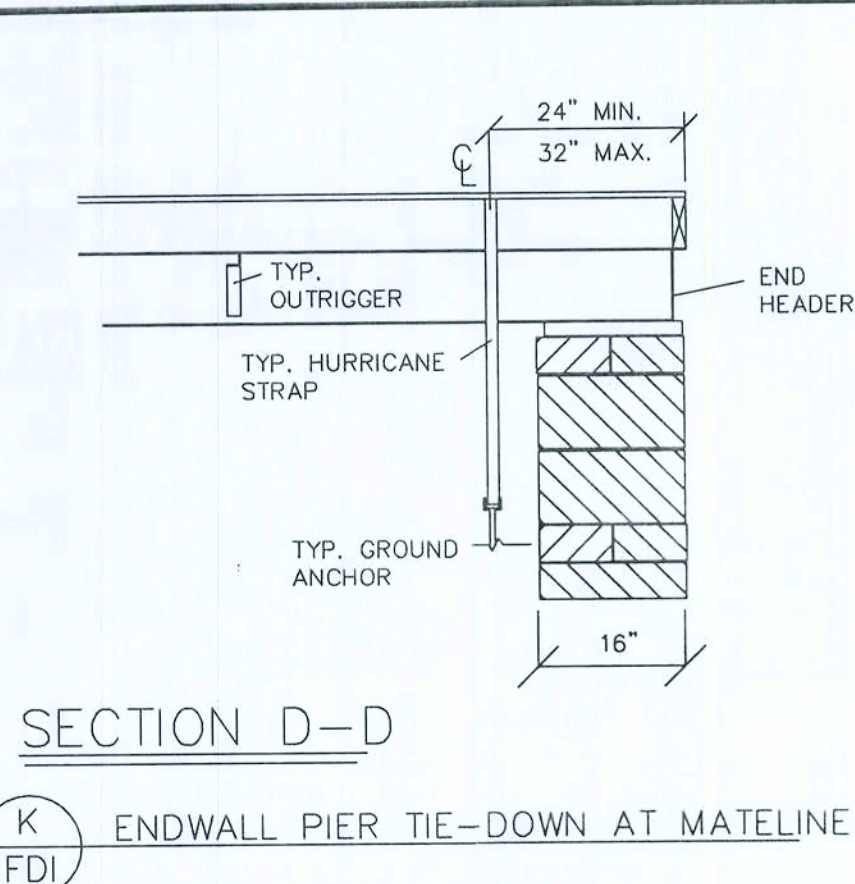
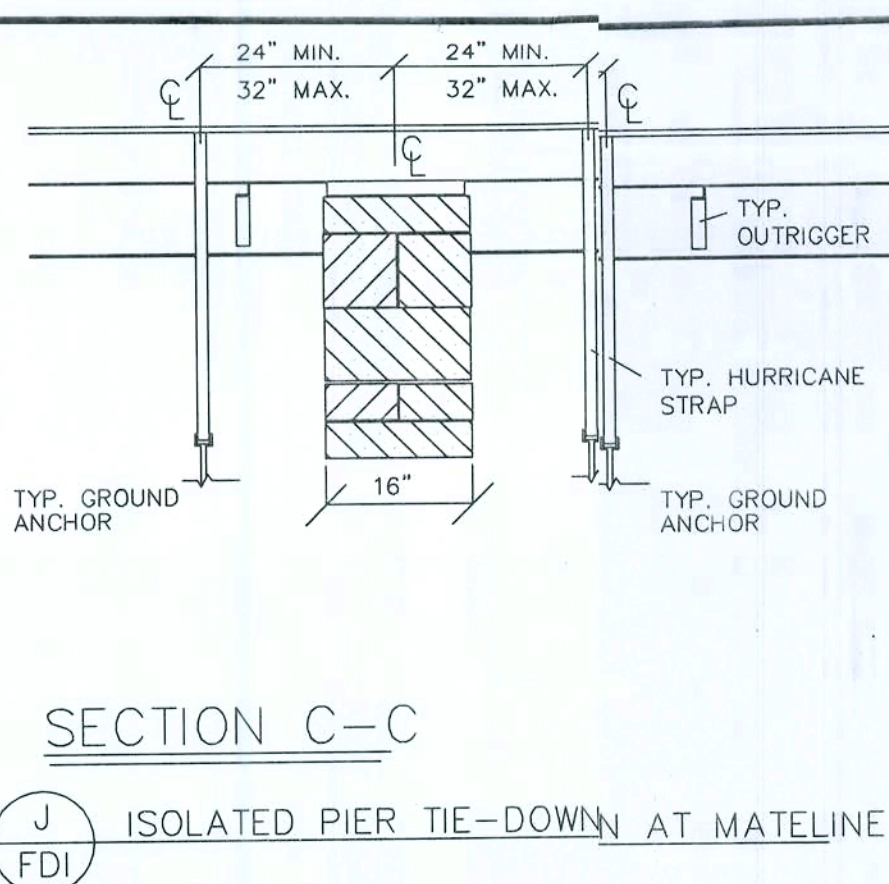
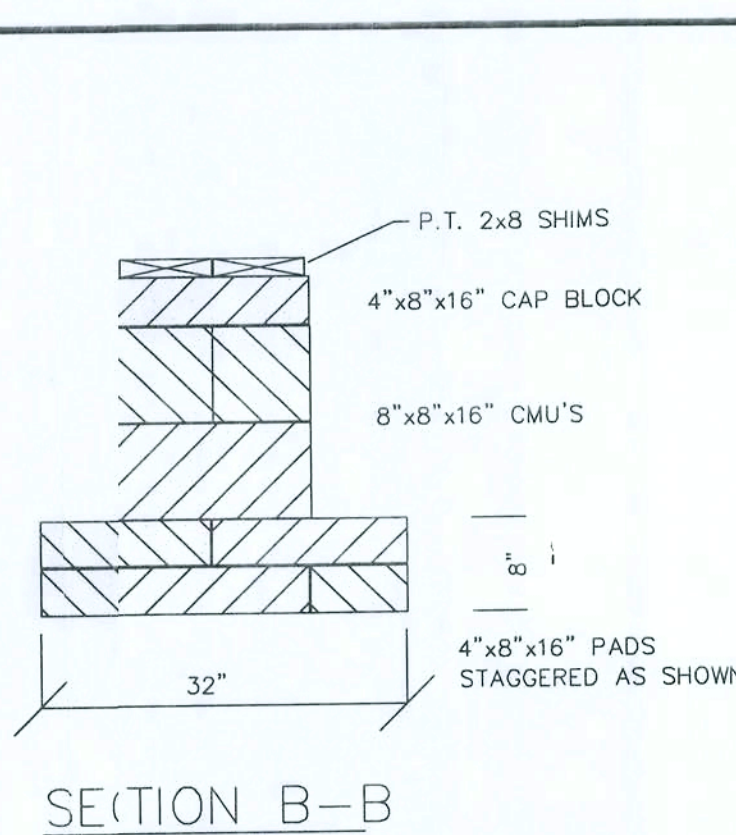
FRAME TIES ONLY, NO OVER ROOF

- IT WILL BE THE BUILDING OWNER'S RESPONSIBILITY TO INSURE THAT ALL GRASS, LOOSE DEBRIS, ETC., ARE REMOVED FROM UNDER THE BUILDING (FOOTING) AND THAT THE GROUND IS LEVELED TO WITHIN 6" AND FIRMLY COMPACTED.
- WOOD SHIM MAY BE INSTALLED WHEN NECESSARY BETWEEN THE I-BEAM AND THE TOP OF THE PIER. SHIMS SHALL BE FREE OF KNOTS, CHECKS, SPLITS, AND SIMILAR IMPERFECTIONS. SHIMS SHALL BE OF P.T. LUMBER AND BEAR AT ALL CONTACT POINTS SHALL NOT BE LESS THAN 2/3 OF THE BEARING PORT TO ADDING THE SHIMS.
- NOTE ALL MASONRY PIERS MAY BE INSTALLED IN A DRY STACK.

NOTE-
OVERALL WIDTH & DIMENSION IS NOMINAL AND IS BASED ON UNIT WIDTH X NUMBER OF UNITS. ACTUAL OVERALL WIDTH MAY INCREASE DUE TO SITE CONDITIONS, MATERIAL TOLERANCES, FAILURE TO REMOVE CLOSE-UP MATERIAL, AND / OR OTHER FACTORS THAT ARE BEYOND THE CONTROL OF BUILDING MANUFACTURER

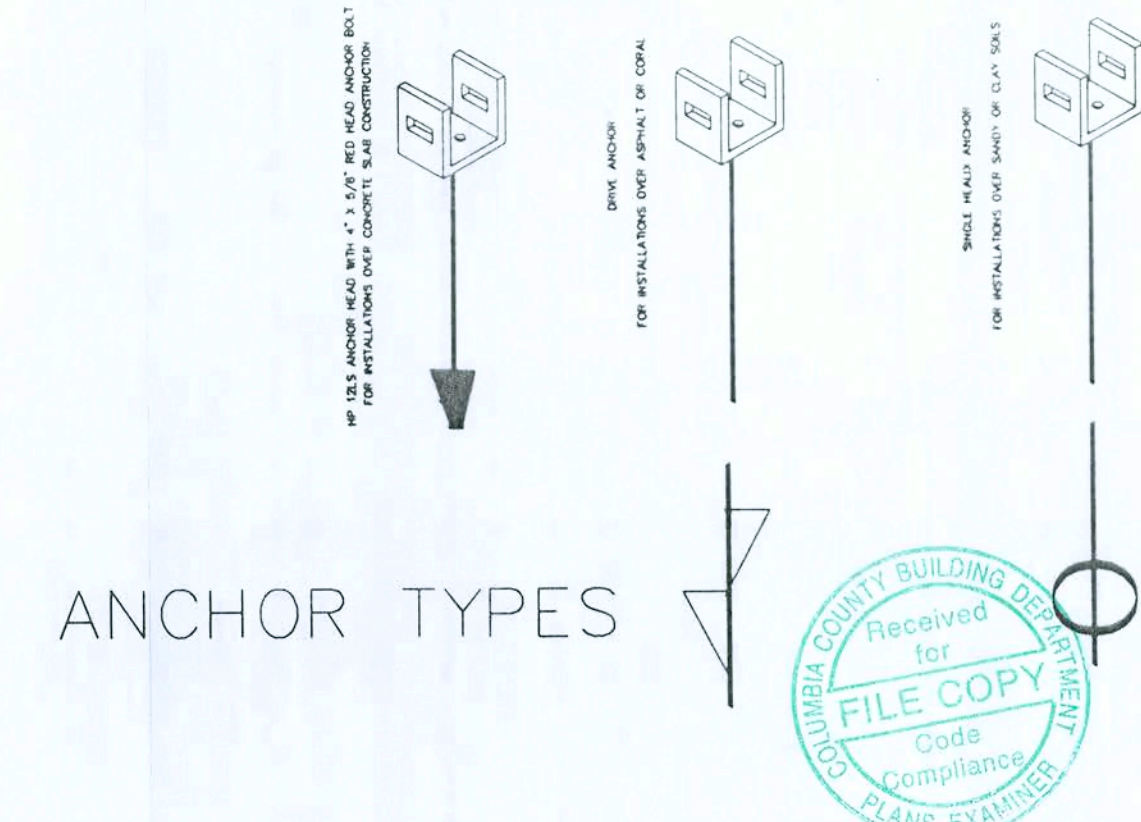
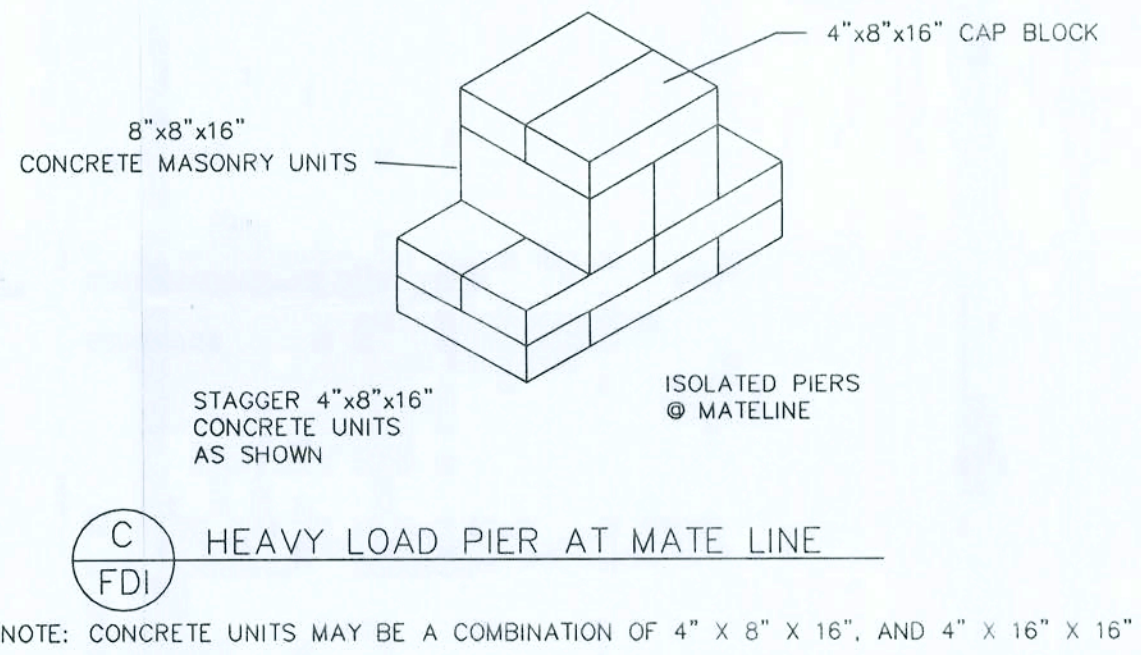
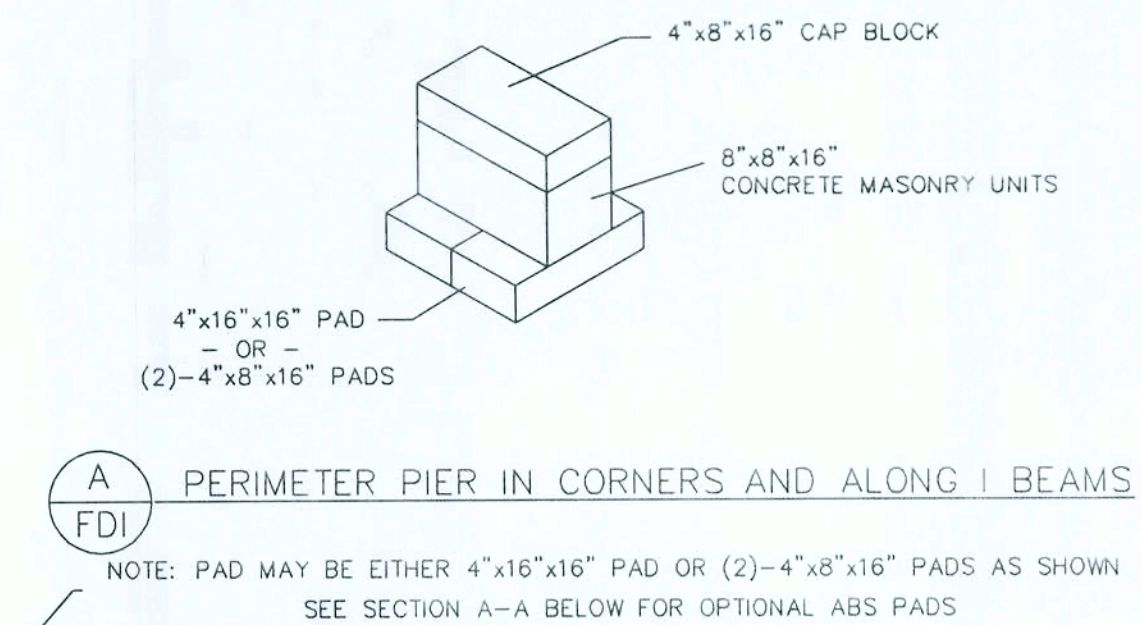
FIELD CONDITIONS WITH DRY STACK PIERS GREATER THAN 34" SHALL REQUIRE FOUNDATIONS TO BE ENGINEERED BEYOND THIS APPROVAL.

MAXIMUM WIND SPEED 175 MPH.
ALL TIE DOWN ANCHORS SHALL HAVE MINIMUM 4725 LB. CAPACITY AND SHALL BE INSTALLED IN ACCORDANCE WITH THEIR APPROVAL AND ASCE-7-14



MAX PIER LOADS IN POUNDS BASED ON SOIL VALUES					
1,000 LB SOIL	1,500 LB SOIL	2,000 LB SOIL	2,500 LB SOIL	3,000 LB SOIL	REMARKS
1,780	2,670	3,560	4,450	5,340	MAX 5,340

F.T. = FRAME TIES
FASTENED TO
GROUND ANCHOR



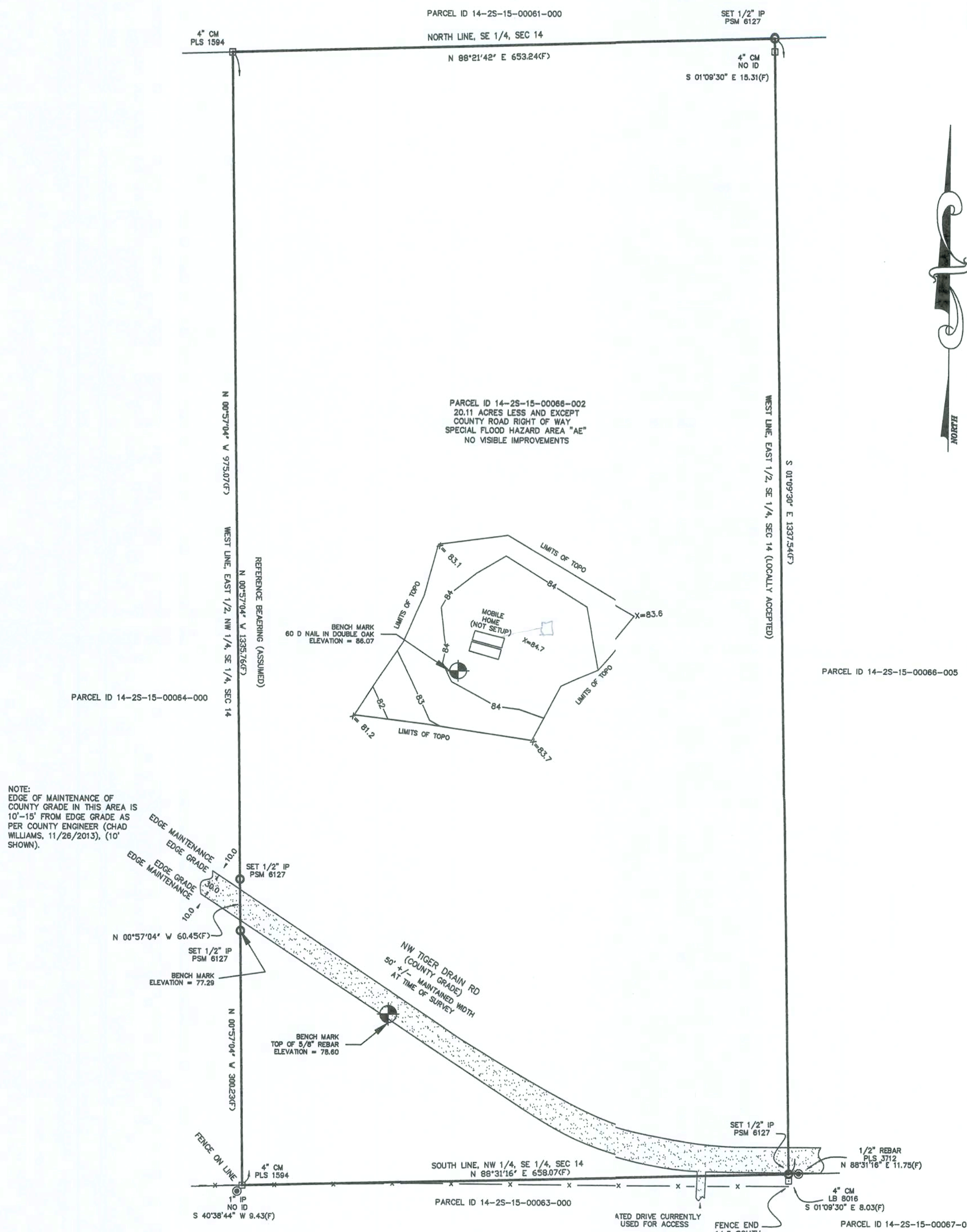
ModSpace		2325 ULMERTON ROAD SUITE 21 CLEARWATER FLORIDA 33762 FLORIDA LICENSE #AR0005065	
JOHN A. BODZIAK ARCHITECT		MDS007979	
M.D.S.	2730 12TH STREET SOUTH SAINT PETERSBURG, FLORIDA 33705 PHONE #727-898-8004	DATE 07/11/2016 SCALE -NTS- QUOTE MDS007979 SER. NO.	
(TYP) DOUBLE WIDES			
SIZE PER PRINT	CODE 2014 FBC 5TH ED.	TYPE V	USE ALL
CHECKED BY MDS	REV. APPROVAL # MDS007979	PAGE 1 OF 1	

MAP OF TOPOGRAPHIC SURVEY OF A LIMITED AREA OF

DESCRIPTION (ORB 1193 PAGE 2572)

TOWNSHIP 2 SOUTH, RANGE 15 EAST, COLUMBIA COUNTY,
FLORIDA.

SECTION 14: THE EAST 1/2 OF THE NW 1/4 OF THE SE 1/4,
SUBJECT TO COUNTY ROAD RIGHT OF WAY, CONTAINING 20
ACRES, MORE OR LESS. BOOK 442 PAGE 493.



FLOOD INFORMATION :

FIRM PANELS 12023C0158C, 12023C0166C,
12047C0360C, 12121C0183B,
12121C0195B

PARCEL IS IN SPECIAL FLOOD HAZARD AREA (SFHA)

FLOOD ZONE AE

PARCEL IS NOT IN FLOODWAY

1% ANNUAL CHANCE 86 (FEET)

10% ANNUAL CHANCE 78.6 (FEET)

50% ANNUAL CHANCE 68.6 (FEET)

NOTE: ELEVATIONS BASED ON NAVD 88 DATUM

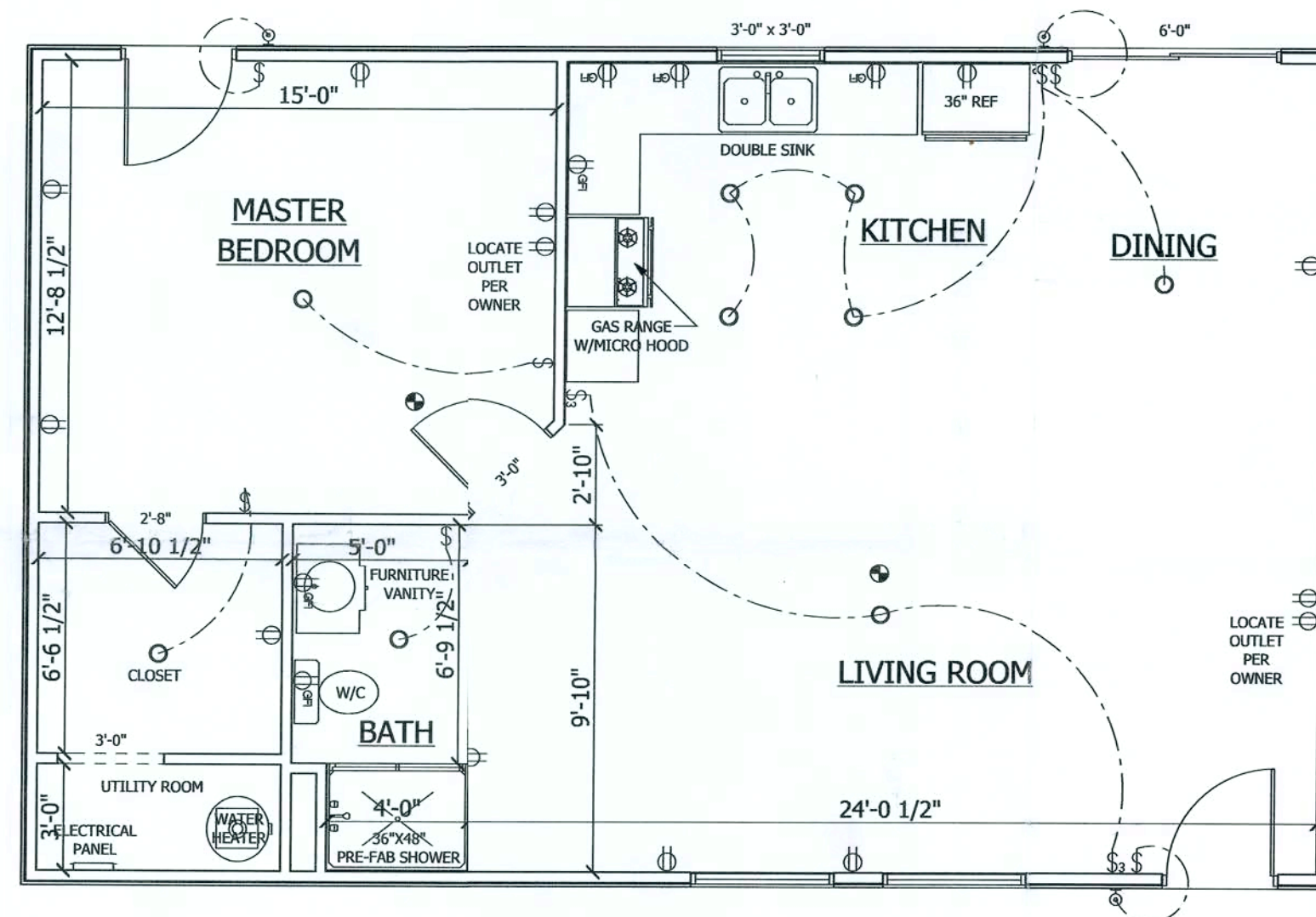
CERTIFIED TO:
EDDIE R & KRISTA D SHEPPARD

- SURVEYORS NOTES**
1. BEARINGS BASED ON ASSUMED BEARING (N00°57' 04"W) FOR THE WEST LINE OF EAST 1/2 OF NW 1/4 OF THE SE 1/4, SECTION 14.
 2. SUBJECT PROPERTY SHOWN HEREON LIES IN FLOOD ZONE "AE" AS BEST DETERMINED FROM F.E.M.A. FLOOD MAPS PANELS NO. 12023C0158C, 12023C0166C, 12047C0360C, 12121C0183B, 12121C0195B, DATED 2/4/2009.
 3. THIS IS A SURFACE SURVEY ONLY. THE EXTENT OF UNDERGROUND FOOTINGS, PIPES AND UTILITIES IF ANY NOT DETERMINED.
 4. JURISDICTIONAL AND OR ENVIRONMENTALLY SENSITIVE AREAS IF ANY, NOT LOCATED BY THIS SURVEY.
 5. THIS SURVEY BASED ON LEGAL DESCRIPTION FURNISHED. THE PUBLIC RECORDS, WERE NOT SEARCHED BY THIS SURVEYOR FOR EASEMENTS, TITLE, COVENANTS, RESTRICTIONS, CLOSURES, TAKINGS OR ORDINANCES, ETC., THERE COULD BE OTHER MATTERS OF RECORD THAT AFFECT THIS PARCEL.
 6. ALL ELEVATIONS SHOWN HEREON BASED ON NAVD 1988 DATUM.

NOT VALID WITHOUT THE SIGNATURE AND THE ORIGINAL RAISED SEAL OF A FLORIDA LICENSED SURVEYOR AND MAPPER.	
REV:	
DRAWN BY: WNK FIELD BOOK: 16/78	
SCALE: 1"=100'	
SURVEY DATE: JANUARY 27, 2016	
JOB NUMBER	SHEET
R0856	1 OF 1
CLIENT: EDDIE R & KRISTA D SHEPPARD	

- LEGEND**
- (D) = DEED
 - (P) = PLAT
 - (S) = SURVEY MEASUREMENT
 - (C) = CALCULATED MEASUREMENT
 - NSD = NO SURVEYORS IDENTIFICATION
 - LS = LAND SURVEYOR
 - LB = LICENSE BUSINESS
 - FIR = FOUND IRON ROD
 - FIP = FOUND IRON PIPE
 - FCM = FOUND CONCRETE MONUMENT
 - SIP = SET IRON PIPE
 - SCM = SET CONCRETE MONUMENT
 - PRM = PERMANENT REFERENCE MONUMENT
 - C/L = CENTER LINE
 - R/W = RIGHT OF WAY
 - EOP = EDGE OF PAVEMENT
 - ASP = ASPHALT PAVING
 - CONC = CONCRETE
 - OHE = OVER HEAD ELECTRIC
 - EM = ELECTRIC METER
 - UGE = UNDER GROUND ELECTRIC
 - WP = WOOD POWER POLE
 - S.T. = SEPTIC TANK
 - X-X = WIRE FENCE
 - = WOOD FENCE
 - = CHAIN LINK FENCE

Wesley M. Rabon 1/27/2016
WESLEY M. RABON PSM 6127



NOTE: THIS MODULAR UNIT IS
CERTIFIED FOR RESIDENTIAL USE.

ELECTRICAL LEGEND

ELECTRICAL	COUNT	SYMBOL
pot light	99	○
wall scone	33	⊙
electrical panel	11	⎓
outlet	113	⦿
outlet gfi	66	⦿ _{GFI}
smoke detector	22	⦿ _{SD}
switch	66	⦿ _S
switch 3 way	22	⦿ _{3W}
switch double	11	⦿ _{2S}

GARY GILL
LICENSE
No 51942
STATE OF
FLORIDA
PROFESSIONAL ENGINEER
GILL ENGINEERING SERVICES, INC.
AUTH# 30824
GARY G. GILL, P.E. #51942
426 SW COMMERCE DR. 130-M
LAKE CITY, FL 32025
386-590-1242

HE IS THE
CHIEF
CORNERSTONE

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A PROJECT FOR:
KRISTA SHEPHERD

JANUARY
SKY DESIGNS

FLOORPLAN
JANUARY 2016

Sheet Number:
1

Drawn By: JSJ
Scale: 1/4" = 1'