





#x	#4	BAR SIZE		REBAR
				LAP
28"	24"	3,000 PSI CONC	LAP LENGTH	REBAR LAP SPLICE TABLE

THIS DRAWING IS AN INSTRUMENT OF SERVICE AND SHALL REMAIN THE PROPERTY OF BECKER STRUCTURAL ENGINEERS INC. IT SHALL NOT BE REPRODUCED, COPIED, LENT OR DISPOSED OF DIRECTLY NOR USED FOR ANY PURPOSE OTHER THAN FOR WHICH IT IS SPECIFICALLY FURNISHED AND MUST BE RETURNED TO BECKER STRUCTURAL ENGINEERS INC. ON COMPLETION OF WORK, IF REQUESTED

PLACE THIS PORTION OF SLAB AFTER SLAB ON GRADE

COLUMN

ISOLATION JOINT

DETAIL

PREMOLDED JOINT FILLER (TYP)

-CONTRACTION OR CONSTRUCTION
JOINT (TYP)

WALL

REINF

<u>DETAILS</u>

 $\left(REF
ight)$

INSIDE FACE OF FDN WALL

REF

40db (TYP)	TYP SLA CONTRAC	1 1/4" DEEP, EARLY ENTRY SAWCUT	TYP CONSTRU		TYP HORIZ REINF
#5 E.F. (TVP 4 SIDES) -#5 E.F. (TVP (TVP)	IB ON GRADE CTION JOINT DETAIL	(SEE PLAN)	CONSTRUCTION JOINT IN WALL	NOTE: COORD LOCATIONS OF CONSTRUCTION JOINTS WITH BRICK EXPANSION JOINTS	2" 1/2"x3 1/2" KEYWAY FULL HEIGHT OF WALL

CONCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND.	_
CONCRETE MIXING: A. JOB—SITE MIXING OF CONCRETE WILL NOT BE PERMITTED. B. READY—MIX CONCRETE MUST COMPLY WITH THE REQUIREMENTS OF ASTM CONSTRUCTION OF AST AS SPECIFIED. PROVIDE BATCH TICKET FOR EACH BATCH DISCHARGED AND USED IN WORK, INDICATING PROJECT NAME, MIX TYPE, MIX TIME, BAT QUANTITY, AND PROPORTIONS OF INGREDIENTS.	$\sim 4 \text{m}$
AIR CONTENT. B. ADDITIONAL SLUMP MAY BE ACHIEVED BY THE ADDITION OF A MIDRANGE OF HIGH RANGE WATER REDUCING ADMIXTURE. MAXIMUM SLUMP AFTER ADDITION OF ADMIXTURE SHALL BE 6 INCHES AND 8 INCHES RESPECTIVELY.	
TO RESULT IN CONCRETE AT POINT OF PLACEMENT HAVING THE ABOVE NO	

NCRETE SHALL NOT BE PLACED IN WATER OR ON FROZEN GROUND. OVIDE PVC SLEEVES WHERE PIPES PASS THROUGH EXTERIOR CONCRETE OR SLAE ST ON GRADE. ADJACENT SLEEVES SHALL BE SPACED A MINIMUM OF THREE
OVIDE PVC SLEEVES WHERE PIPES PASS THROUGH EXTERIOR CONCRETE OR SLAB. ST ON GRADE. ADJACENT SLEEVES SHALL BE SPACED A MINIMUM OF THREE METERS APART. <u>OPTION:</u> CORED HOLES. NO PENETRATIONS SHALL BE MADE ROUGH PIERS OR ISOLATED COLUMN OR PIER FOOTINGS.
NFORCING BARS SHALL CONFORM TO ASTM A615 GRADE 60 DEFORMED BARS SHALL BE DETAILED, FABRICATED AND PLACED IN ACCORDANCE WITH ACI

ABRIC SHALL CONFORM TO ASTM A—185 AND SHALL BE PROVIDED IN LAP TWO SQUARES AT ALL JOINTS AND TIE AT 3'—0" ON CENTER.	2
IF FIRERS CONFORMING TO ASTM C1116	

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FIBER RE POLYPRO	WELDED FLAT SH
FIBER REINFORCEMENT SHALL BE TYPE III SYNTHETIC VIR	NIRE FABRIC EETS. LAP TN
SHALL BE T	SHALL CONFO
YPE III SYNTI ING TO ASTM	ORM TO ASTN AT ALL JOIN
HETIC VIRGIN C1116.	1 A-185 AND TS AND TIE A
FIBER REINFORCEMENT SHALL BE TYPE III SYNTHETIC VIRGIN HOMOPOLYMERACEM POLYPROPYLENE FIBERS CONFORMING TO ASTM C1116.	WELDED WIRE FABRIC SHALL CONFORM TO ASTM A-185 AND SHALL BE PROVIDE FLAT SHEETS. LAP TWO SQUARES AT ALL JOINTS AND TIE AT 3'-0" ON CENTER
RACEM	PROVIDE CENTER

		11.
O	A) B)	MINIMUM
#5 BARS AND SMALLER = 1½ INCHES #6 BARS AND LARGER = 2 INCHES C) SURFACES NOT IN CONTACT WITH SOIL OR EXPOSED TO WEATHER = 1	A) CONCRETE CAST AGAINST SOIL = 3 INCHES B) FORMED CONCRETE IN CONTACT WITH SOIL OR EXPOSED TO WEATHER	11. MINIMUM CONCRETE COVER TO REINFORCEMENT AS FOLLOWS:
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INTINUOUS ENDS. SEE SCHEDULE FOR MINIMUM REBAR LAP SPLI	TEMENT SHALL BE CONTINUOUS AROUND CORNERS AND AT	NOT
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INTINUOUS ENDS. SEE SCHEDULE FOR MINIMUM REBAR LAP SPLICE LE	5	SURFACES NOT IN CONTACT WITH SOIL OR EXPOSED TO WEATHER =
. TE		ll.

14.	13.	12.
14. CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS.	13. WELDING OF REINFORCEMENT IS NOT PERMITTED.	12. REINFORCEMENT SHALL BE CONTINUOUS AROUND CORNERS AND AT INTERSECTIONS. PROVIDE LAPPED BARS AT SPLICES AND HOOKED BARS AT DISCONTINUOUS ENDS. SEE SCHEDULE FOR MINIMUM REBAR LAP SPLICE I

		14.
CORNER	VERTICAL	CONCRETE
CORNER OR INTERSECTION AS SHOWN ON DETAIL.	VERTICAL CONSTRUCTION JOINTS SHALL BE MADE 4 FEET MINIMUM FROM A WALL	14. CONCRETE SHALL BE PLACED WITHOUT HORIZONTAL CONSTRUCTION JOINTS.
	WALL	

PROVIDE ANCHOR RODS OR ANCHOR BOLTS CONFORMING TO ASTM A307, A36 OR F1554 WITH NUT AND WASHER ALL HOT DIP GALVANIZED FOR P.T. WOOD SILL PLATES.

SCREEN OR SIEVE SIZE 6 INCH 3 INCH 1/4 INCH	COMPACTED STRUCTURAL FILL SHALL BE U SLABS ON GRADE. STRUCTURAL FILL SHA THE FOLLOWING GRADATION:	REMOVE SOIL, DEBRIS, CLAY, ORGANIC MATERIAL FOR FOOTING BEARING.	BOTTOM OF EXTERIOR FOOTINGS ON SOIL MUST BE EXTERIOR GRADE FOR PROTECTION AGAINST FROST.	PRESUMPTIVE BEARING CAPACITY = 3,000 PSF.	IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY SITE CONDITIONS AND TO BRING DISCREPANCIES TO THE ATTENTION OF THE ENGINEER PRIOR TO SETTING FORMWORK.	FOUNDATIONS TO BEAR ON COMPETENT NATIVE SOILS OR SOLID ROCK LEDGE.
PERCENT PASSING 100 90-100 25-90	COMPACTED STRUCTURAL FILL SHALL BE USED TO BACKFILL FOR SUBGRADE BENEATH SLABS ON GRADE. STRUCTURAL FILL SHALL BE A CLEAN SAND—GRAVEL MIXTURE MEETING THE FOLLOWING GRADATION:	TERIAL FOR FOOTING BEARING.	BOTTOM OF EXTERIOR FOOTINGS ON SOIL MUST BE AT LEAST 4'-6" BELOW FINISHED EXTERIOR GRADE FOR PROTECTION AGAINST FROST.	PSF.	TO VERIFY SITE CONDITIONS AND TO OF THE ENGINEER PRIOR TO	NTIVE SOILS OR SOLID ROCK LEDGE.

PREMOLDED JOINT & SEALANT

(SEE PLAN)

FOUNDATION NOTES

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TILL SHALL BE PLACED IN UNIFORM LIFTS NOT EXCEEDING 8 INCHES ESS AND SHALL BE COMPACTED TO 95 PERCENT OF MAXIMUM DRY ASTM D—1557, MODIFIED PROCTOR TEST.	25-90 0-30 0-5

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RACKFILL FOUNDATION WALLS UNLESS WALLS ARE ADEQUATELY BRACED TO MOVEMENT OR STRUCTURAL DAMAGE.	AL FILL SHALL BE PLACED IN UNIFORM LIFTS NOT EXCEEDING 8 INCHES IN CKNESS AND SHALL BE COMPACTED TO 95 PERCENT OF MAXIMUM DRY 'ER ASTM D—1557, MODIFIED PROCTOR TEST.
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STRUCTURAL LOOSE THICK DENSITY PER DO NOT BA PREVENT N

PROVIDE FOUNDATION DRAINAGE SYSTEM WITH GRAVITY FLOW TO PROPERLY DESIGNED AND APPROVED OUTLET. REFER TO ARCHITECTURAL AND SITE DRAWINGS FOR ADDITIONAL INFORMATION.

SLOPE EXCAVATIONS AS REQUIRED FOR STABILITY AND SAFETY IN ACCORDANCE WITH OSHA REQUIREMENTS. PROVIDE SHEETING OR SHORING IN ACCORDANCE WITH OSHA GUIDELINES.

CONCRETE NOTES

CONCRETE WORK SHALL CONFORM TO "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318 — LATEST)," AND "SPECIFICATIONS FOR STRUCTURAL CONCRETE (ACI 301—LATEST)." THESE PUBLICATIONS ARE AVAILABLE THROUGH THE AMERICAN CONCRETE INSTITUTE (248) 848—3800. CONCRETE SHALL BE PROPORTIONED, MIXED, AND PLACED IN ACCORDANCE WITH THE PROVISIONS SET FORTH IN ACI 318—LATEST.

CONCRETE MIX DESIGN:
FOOTINGS, PIERS, AND FOUNDATION WALLS:
A. STRENGTH: 3000 PSI @28 DAYS
B. AGGREGATE: 3/4"
C. W/C RATIO: 0.55 MAX
D. ENTRAINED AIR: 5% TO 7%
E. SLUMP: 4" MAX
EXTERIOR SLABS ON GRADE
A. STRENGTH: 4000 PSI @28 DAYS
B. AGGREGATE: 3/4"
C. W/C RATIO: 0.45 MAX
D. ENTRAINED AIR: 5% TO 7%
E. SLUMP: 4" MAX
INTERIOR SLABS ON GRADE:
A. STRENGTH: 3000 PSI @28 DAYS
B. AGGREGATE: 3/4"
C. W/C RATIO: 0.55 MAX
D. ENTRAPPED AIR ONLY (NO ENTRAINMENT)
E. SLUMP: 4" MAX

WOOD FRAMING NOTES:

SUBMIT SHOP

DRAWINGS FOR REVIEW.

2x8, 2x10, & 1 2x6 & 2x4 LU SPRUCE-PINE-KILN DRIED TO

2×12 LUMBER: No 2 GRADE OR BETTER. LUMBER: STUD GRADE OR BETTER. E—FIR SOUTH (SPFs) OR SPRUCE—PINE—FIR (SPF) TO 19 PERCENT MAXIMUM MOISTURE CONTENT.

STRUCTURAL COMPOSITE LUMBER (LVL AND PSL) SHALL BE BOISE VERSA—LAM OR TRUS—JOIST MICROLAM OR PARALLAM. REFER TO MANUFACTURERS LITERATURE FOR PROPER HANDLING AND INSTALLATION GUIDELINES.

POSTS: 1.7E, 2400 Fb (MIN)—SOLID, NOT BUILT UP BEAMS: 1.9E, 2600 Fb (MIN)

7E, 2400 Fb (MIN)—SOLID, NOT BUILT UP 9E, 2600 Fb (MIN)

<u>NOTE:</u> A. ADD AIR ENTRAINING ADMIXTURE 88

<u>OPENING</u>

IN WALL

0R

C94, AND

O.S.B. & PLYWOOD SHALL BE APA PERFORMANCE RATED. PLYWOOD & O.S.B. SHALL BE NAILED TO ALL FRAMING AND BLOCKING AS FOLLOWS:

8d (0.113" MIN) GALV NAILS AT 4" O.C. AT PANEL EDGES AND 8" O.C. WITHIN PANELS.

FLOORS: 3/4" NOM. (MIN) TONGUE & GROOVE. GLUED TO ALL FRAMING AND USE RING SHANK NAILS.

ROOFS: 5/8" NOM. (MIN)—TONGUE & GROOVE OR H—CLIPS AT 24" O.C. RAFTERS.

WALLS: 1/2" NOM. (MIN)

GLUED TO ALL FRAMING

VTCH

BS

ALL BUILT-UP BEAMS:

POSTS:

PERIMETERS OF WALLS AND OPENINGS NAILED AT SAME SPACING AS SPECIFIED FOR PLYWOOD & O.S.B. EDGES

REINFORCING AND SHALL B 315, LATEST

. WELDED WIRE FLAT SHEETS.

WOOD CONNECTION HARDWARE (JOIST HANGERS, STRAPS, ETC) SHALL BE AS INDICATED ON THE DRAWINGS AND MANUFACTURED BY SIMPSON STRONG—TIE OR APPROVED SUBSTITUTE. ALL CONNECTION HARDWARE SHALL BE GALVANIZED G—90 EXCEPT CONNECTION HARDWARE USED IN CONJUNCTION WITH PRESERVATIVE TREATMENT SHALL MEET THE FOLLOWING:

FASTENING NOT SPECIFIED SHALL CONFORM WITH IBC TABLE 2304.9.1

BEAMS AND POSTS SHALL BE NAILED AS FOLLOWS:
(3) ROWS 12d (0.128" MIN) NAILS @ 12" O.C.
PIECE
(2) ROWS 12d NAILS @ 8" O.C. IN EA PIECE

REINFORCING STEEL SHOP DRAWINGS BE SUBMITTED TO THE STRUCTURAL ENGINEER FOR REVIEW. PROVIDE AND SCHEDULE ON THE SHOP DRAWINGS ALL NECESSARY ACCESSORIES TO HOLD REINFORCEMENT SECURELY IN POSITION.

ZMAX GAL 153 FASTI CONNECTIO REFER TO AND INSTA

LVANIZED MEETING G185 HDG PER ASTM A653 AND ASTM ENERS. FASTENERS SHALL MATCH MATERIAL/COATING OF ION HARDWARE, UNLESS NOTED BY MANUF SPECIFICATIONS. MANUFACTURERS LITERATURE FOR PROPER HANDLING ALLATION GUIDELINES.

I—JOIST FRAMING INCLUDING 1" THICK (MIN) RIM BOARD. INSTALL ACCORDING TO MANUFACTURERS DETAILS.

PROVIDE WEB .

STIFFENERS, SQUASH BLOCKS, BACKER BLOCKS, BLOCKING, AS SPECIFIED BY I—JOIST MANUFACTURER.

DB

NOTED

APP

08/15/15

PBB

3620

INCH

O

ENGTHS.

PROVIDE VERTICAL 2x4 OR 2x6 STUD BLOCKS AT BOX SILLS UNDER POSTS. PRESERVATIVE SOUTHERN PIN PROCESS TO ALL FRAMING VE TREATED LUMBER (P.T.): NO.2 GRADE OR BETTER PINE (SP OR SYP) TREATED W/ ACQ NON—AMMONIA O 0.25 PCF (MIN.) RETENTION. & SHEATHING NAILS TO BE HOT DIPPED GALVANIZED

HOT DIP GALVANIZED NAILS, BOLTS, LAG SCREWS, AND FASTENERS AT EXTERIOR AND IN P.T. LUMBER CONSTRUCTION.

90

STRUCTURAL STEEL: PLATES, SHAPES, AND BARS, SHALL CONFORM TO ASTM A36 UNLESS NOTED OTHERWISE (U.N.O.). WIDE FLANGE STRUCTURAL STEEL SHAPES (W SECTIONS): ASTM A992 (Fy = 50 KSI) WITH SPECIAL REQUIREMENTS PER AISC TECHNICAL BULLETIN #3 DATED MARCH, 1997. PROVIDE HILTI HAS—E OR H.D. GALV A36 THREADED ROD ANCHORS WITH HILTI HY200 OR HY70 ADHESIVE EPOXY AS NOTED ON DRAWINGS AS A SYSTEM INSTALLED ACCORDING TO MANUFACTURER'S SPECIFICATIONS. ALL WELDING SHALL CONFORM TO AWS D1.1— LATEST EDITION. ELECTRODES SHALL CONFORM TO AWS A5.1 E7OXX SERIES WITH PROPER ROD TO PRODUCE OPTIMUM WELD (LOW HYDROGEN). 08/15/15 ISSUED FOR PERMIT

ALL STRUCTURAL STEEL SHALL BE PRIMED AFTER FABRICATION.

STRUCTURAL STEEL BOLTS: ASTM A325.

STRUCTURAL TUBING: CONFORM TO ASTM A500 GRADE B, Fy = 46 KSI.

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STRUCTURAL STEEL, FABRICATION, AND ERECTION SHALL CONFORM TO AISC "SPECIFICATION FOR THE DESIGN FABRICATION, AND ERECTION OF STRUCTURAL STEEL" 9TH EDITION, AND THE "CODE OF STANDARD PRACTICE, LATEST EDITION.	STRUCTURAL STEEL NOTES	DESIGN SEISMIC LOADS: RESIDENTIAL STRUCTURE	DESIGN WIND LOAD: BASIC WIND SPEED: WIND LOAD IMPORTANCE FACTOR (IW): WIND EXPOSURE: INTERNAL PRESSURE COEFFICIENT: COMPONENTS & CLADDING LOADS PER ASCE: 7-05	DESIGN ROOF SNOW LOAD: GROUND SNOW LOAD (Pg): SNOW EXPOSURE FACTOR (Ce): SNOW LOAD IMPORTANCE FACTOR (is): SNOW LOAD THERMAL FACTOR (Ct): FLAT ROOF SNOW LOAD (Pf): 60 PSF 1.0 1.0 5.00 PSF 1.0 46 PSF + DRIFT 46 PSF + DRIFT	DESIGN FLOOR LIVE LOADS: DWELLING UNITS: 40PSF 5TAIRS: 40 PSF	BUILDING CODE: MAINE UNIFORM BUILDING AND ENERGY CODE INTERNATIONAL BUILDING CODE, 2009 EDITION INTERNATIONAL EXISTING BUILDING CODE, 2009 EDITION ASCE 7—05 MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES	DESIGN LOADS

35 PLEASANT STREET RENOVATION & ADDITION

GENERAL NOTES & TYPICAL DETAILS

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