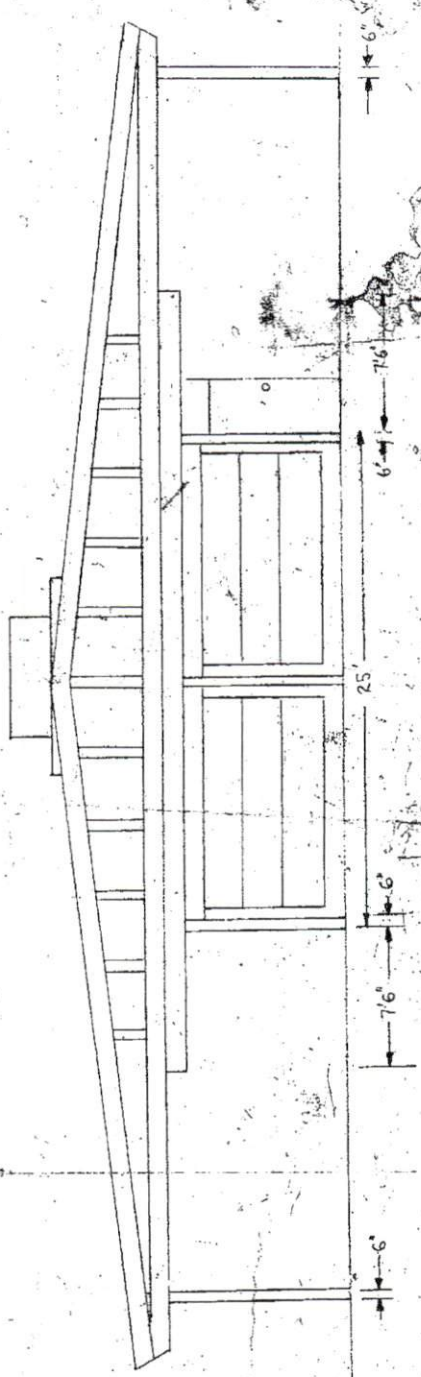


NW



SE

DRAWN BY: M. O'BRIEN
 CHECKED BY: J. J. KOW
 DATE: 9-1-2004
 2156 DAVIS SPRING DRIVE
 TAYLORVILLE, NC 28681

STRUCTURAL ENGINEERS
188 West North Street, Suite 101
Raleigh, North Carolina 27615
(919) 844-1661 Fax: (919) 844-5665

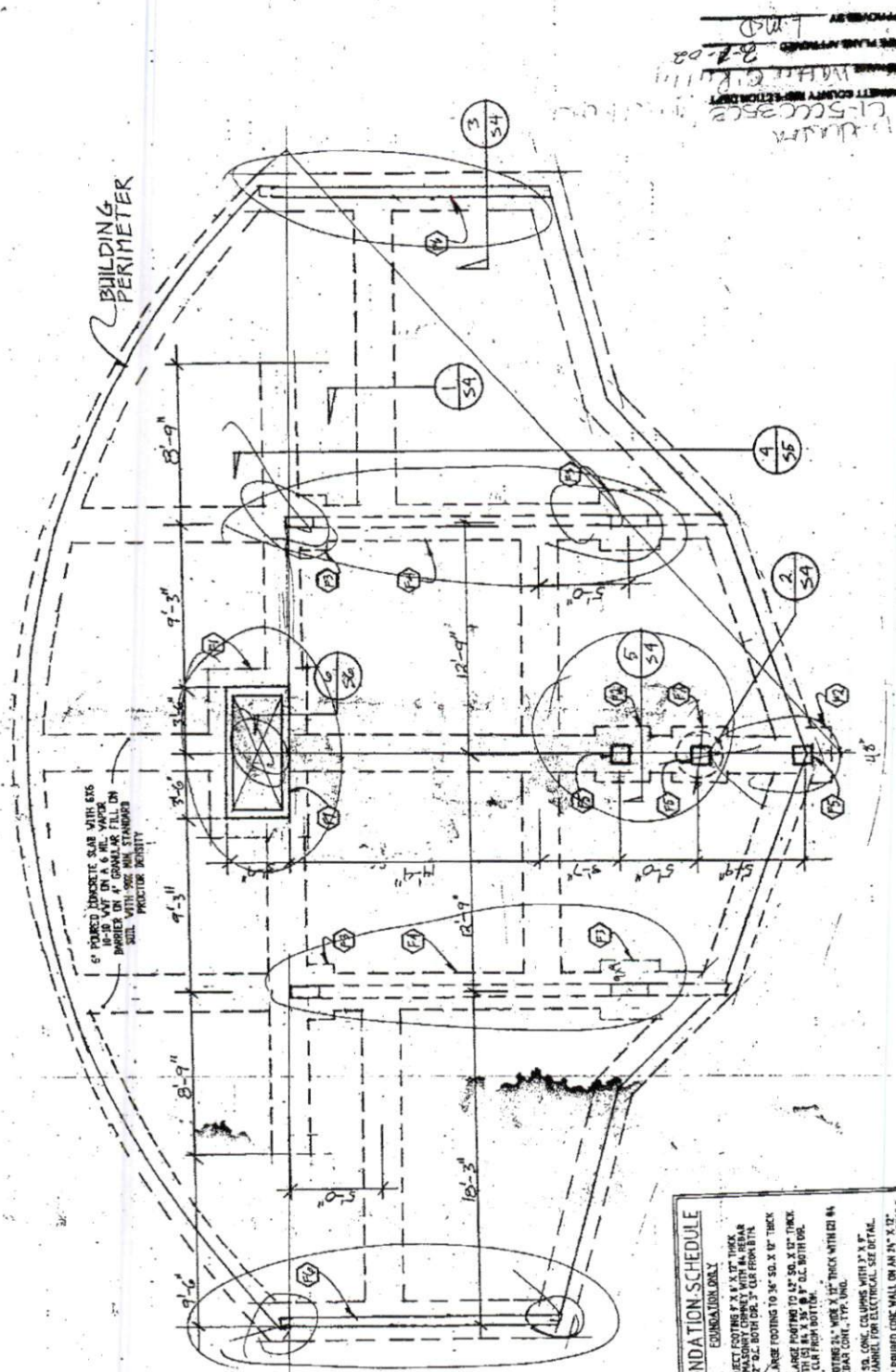
Engineering
Tech PA

DATE	
BNC	Kurt J. Blaha
DRAWN	
CHECK	

CLIENT	WALTER O'REILLY
PROJECT	STRUCTURAL ADDENDUM
ADDRESS	756 DAVENPORT DRIVE
	FAYETTEVILLE, NORTH CAROLINA 28724

PLAN NO.	
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PROJECT	22-65
SHEET NO.	S1
	1 of 6



FOUNDATION SCHEDULE

FOUNDATION ONLY

F1	PROJECT FOOTING 18" X 18" X 12" THICK
F2	PROJECT FOOTING 18" X 18" X 12" THICK
F3	PROJECT FOOTING 18" X 18" X 12" THICK
F4	PROJECT FOOTING 18" X 18" X 12" THICK
F5	PROJECT FOOTING 18" X 18" X 12" THICK
F6	PROJECT FOOTING 18" X 18" X 12" THICK
F7	PROJECT FOOTING 18" X 18" X 12" THICK

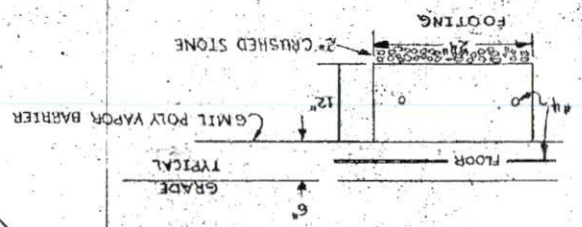
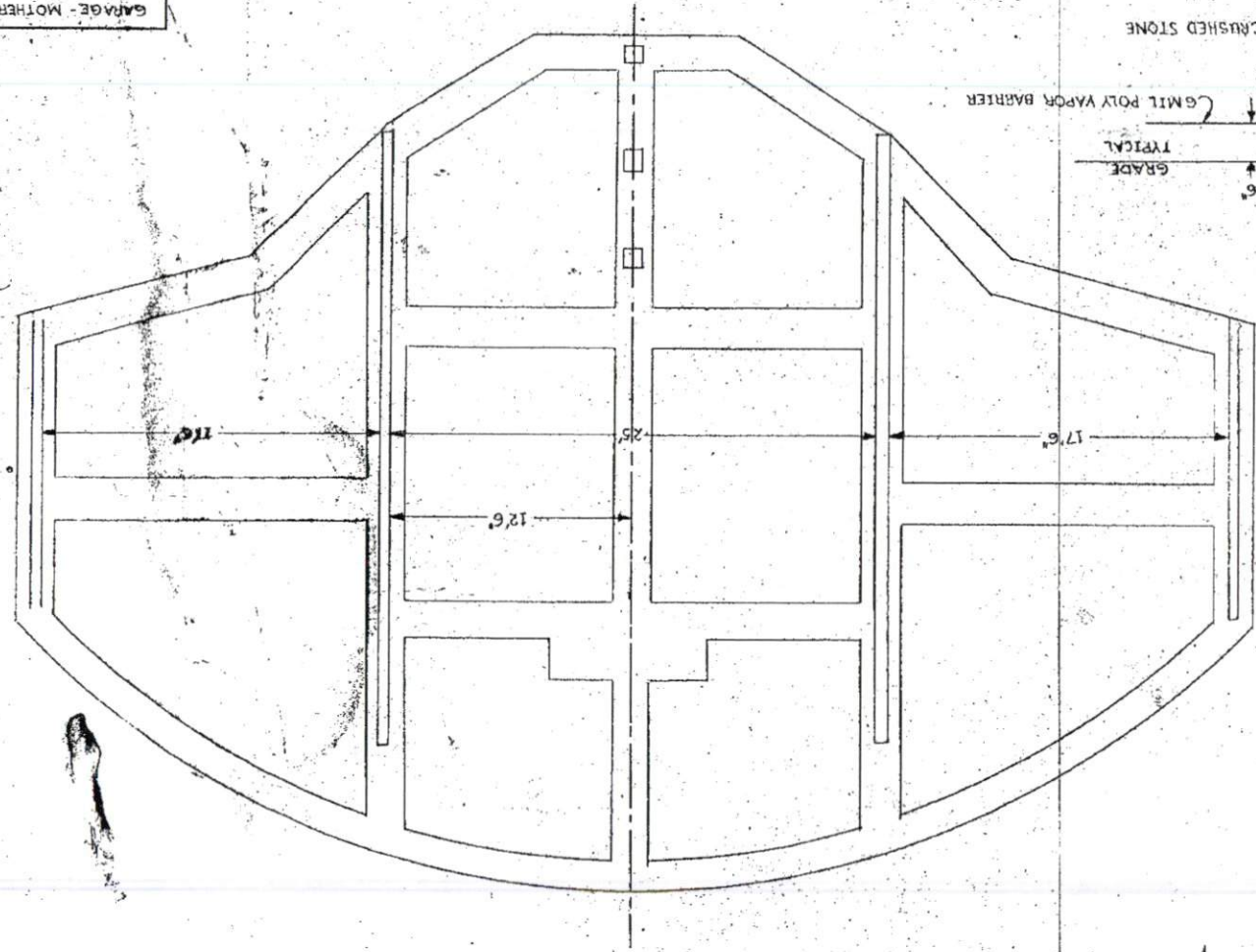
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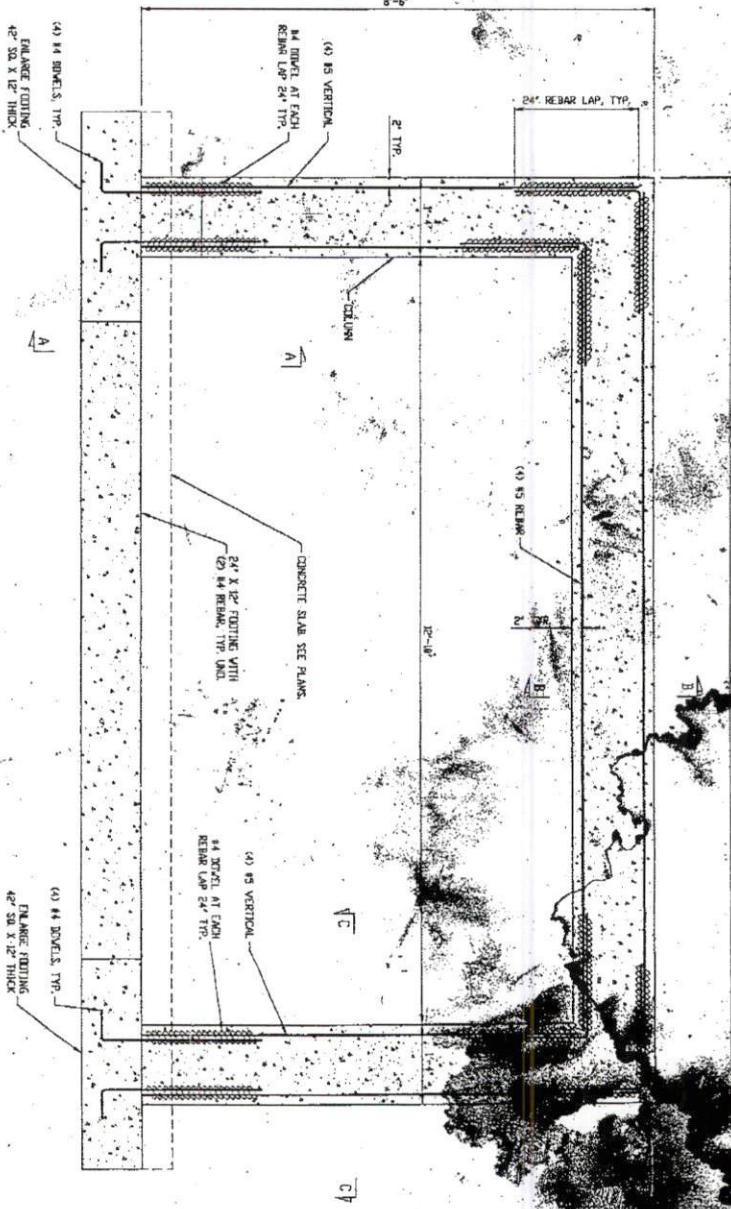
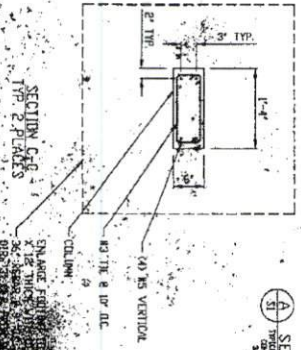
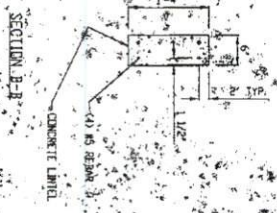
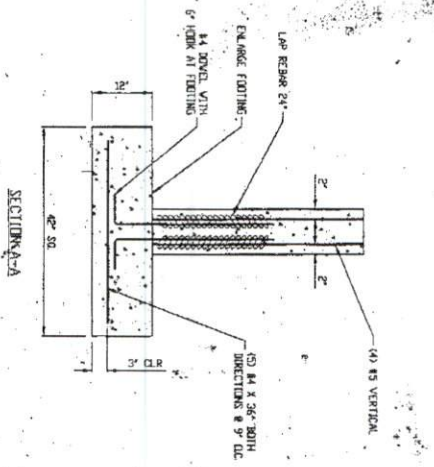
FOUNDATION PLAN
SCALE: 1/4" = 1'-0"

APPROVED BY: L.M.D.
DATE: 3-2-02
ADDRESS: WALTER O'REILLY
HARRIS COUNTY RESIDENTIAL

O'REILLY - PHASE 1
 7150 OAVSPRING DRIVE
 LAURELVIEW, MO. 63154
 DATE: 12-31-01
 DRAWN BY: J. J. [unclear]
 CHECKED BY: [unclear]
 GARAGE - MOTHER IN LAW
 FOOTING PLAN

13.9'
 8.9'
 6'
 (44.0A)





PROJECT NO.	22-65-030
PLAN NO.	22-74-126
SHEET NO.	52

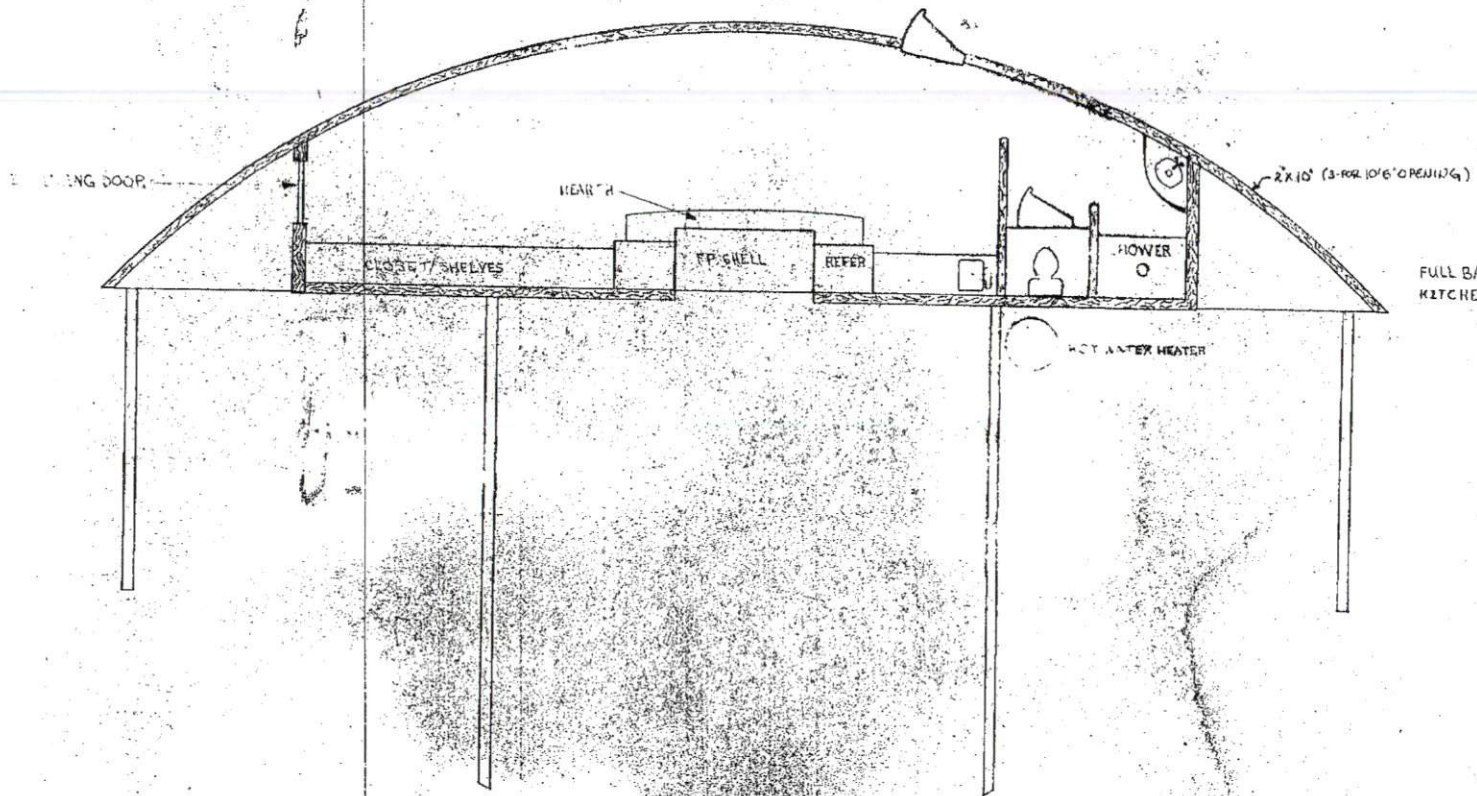
CLIENT:	WALTER O'REILLY
PROJECT:	MISC. FRAMING REVISIONS
ADDRESS:	7756 DAYSPRING DRIVE FAYETTEVILLE, NORTH CAROLINA 28224

DATE	
ENG.	
DRAWN	
CHECK	

Engineering

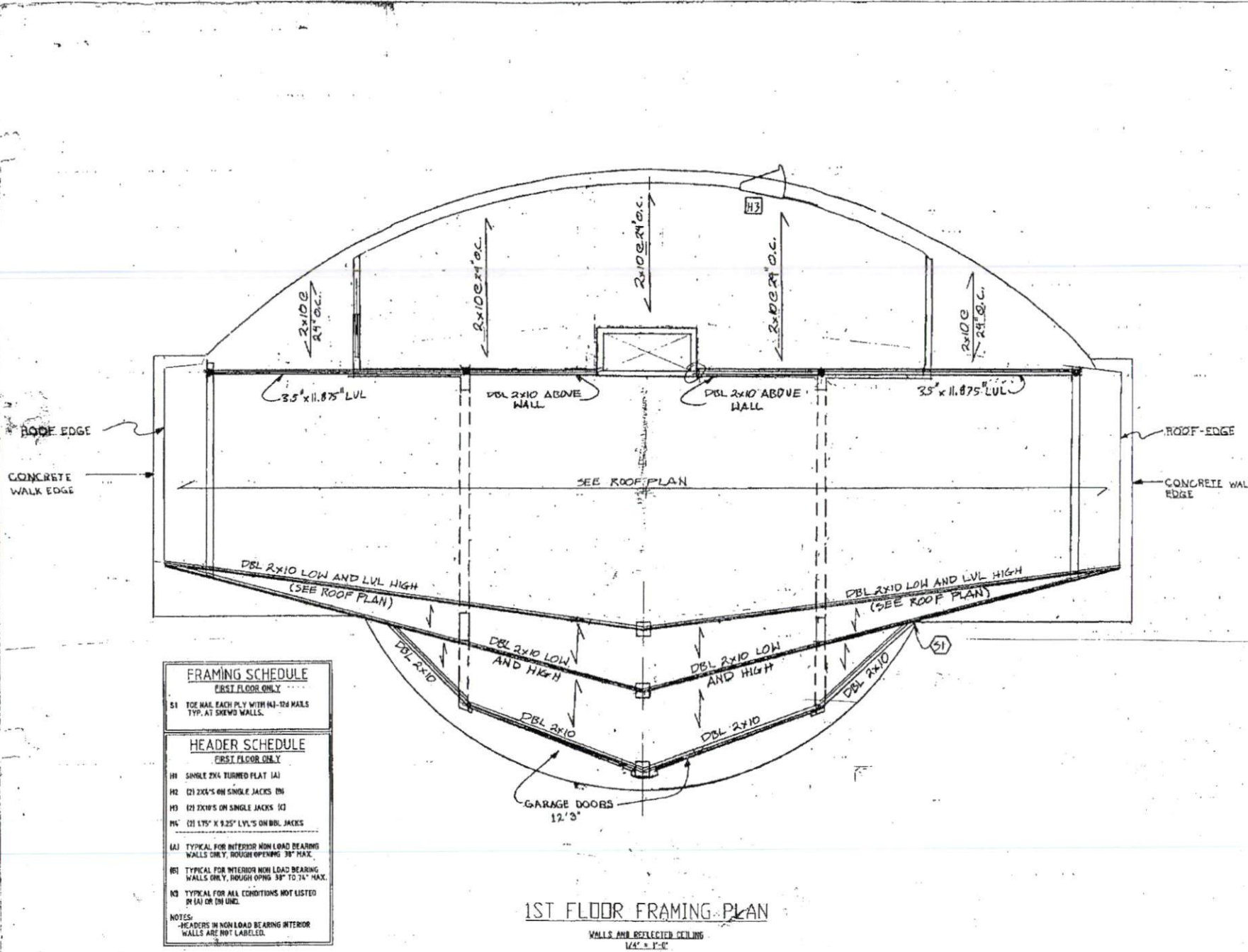
Tech PA

STRUCTURAL ENGINEER
 108 Wood Chime Court, Suite
 Raleigh, North Carolina
 (919) 844-3661 Fax (919) 844-3662



FULL BATH GROUP JdFu
 KITCHEN SINK SdFu
 TdFu

MOTHER IN LAW SUITE FLOOR PLAN		
SCALE 1/4" = 1'	APPROVED BY	DRAWN BY NO'BELLY
DATE 1-22-02		REVISED 1-22-02
- RICHIE TRAVIS		- 3156 DAYS PRING DRIVE
		PAYETTEVILLE, NC 28381
		OR License Number



FRAMING SCHEDULE	
FIRST FLOOR ONLY	
S1	TOE NAIL EACH PLY WITH #3-12# NAILS TYP. AT SHEWD WALLS.
HEADER SCHEDULE	
FIRST FLOOR ONLY	
H1	SINGLE 2X4 TURNED FLAT (A)
H2	(2) 2X4'S ON SINGLE JACKS (B)
H3	(2) 2X10'S ON SINGLE JACKS (C)
H4	(2) 175' X 9.25' LVL'S ON DBL JACKS
(A)	TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPENING 36" MAX.
(B)	TYPICAL FOR INTERIOR NON LOAD BEARING WALLS ONLY, ROUGH OPNG 36" TO 74" MAX.
(C)	TYPICAL FOR ALL CONDITIONS NOT LISTED IN (A) OR (B) AND.
NOTES: -HEADERS IN NON LOAD BEARING INTERIOR WALLS ARE NOT LABELED.	

1ST FLOOR FRAMING PLAN

WALLS AND REFLECTED CEILING
1/4" = 1'-0"

STRUCTURAL ENGINEERS
188 Wood Chime Court, Suite 307
Fayetteville, North Carolina 28744
(704) 844-6601 Fax (704) 844-6605

Hech PA
Engineering

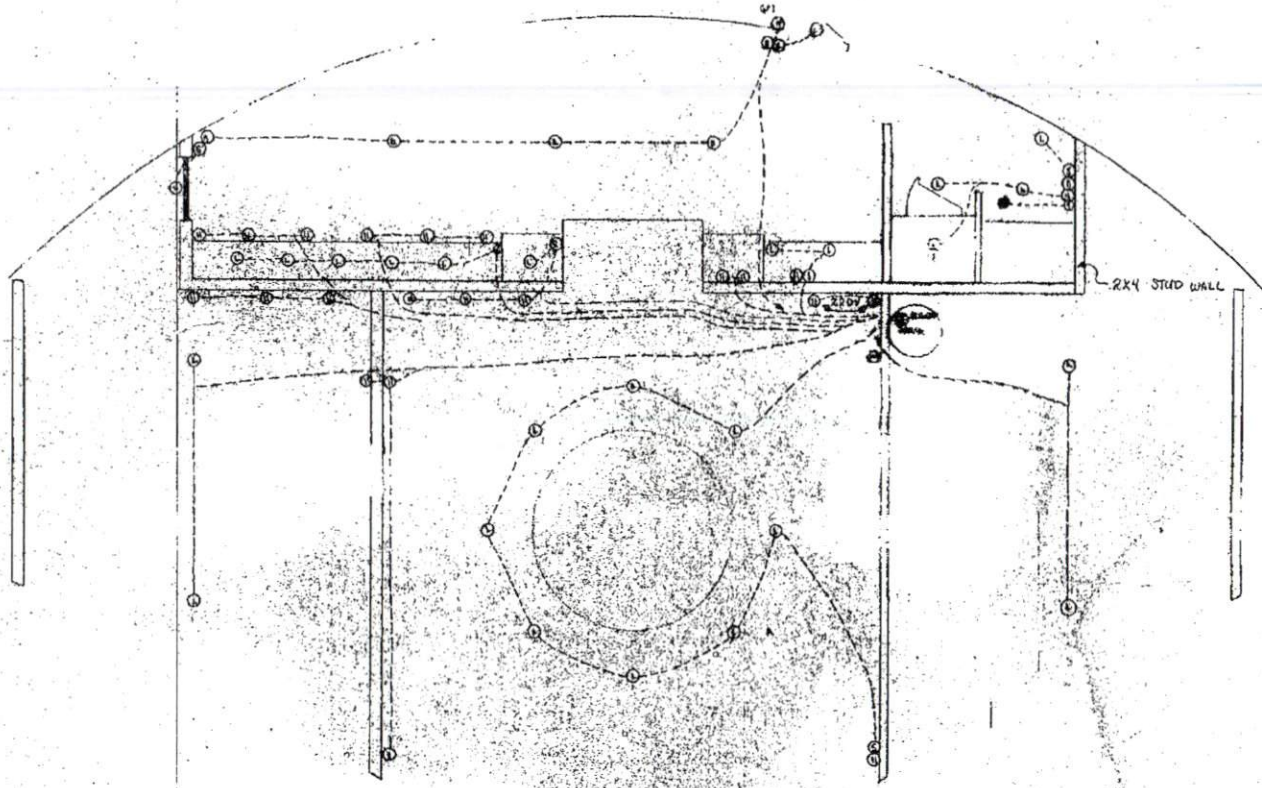
DATE	2-27-08
ENC.	1-1-1
DRAWN	
CHECK	

CLIENT:	WALTER O'BRIEN
PROJECT:	STRUCTURAL ADDENDUM
ADDRESS:	756 DRISBING DRIVE FAYETTEVILLE, NORTH CAROLINA 28744

PLAN NO.	
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PROJECT NO.	22-65-03
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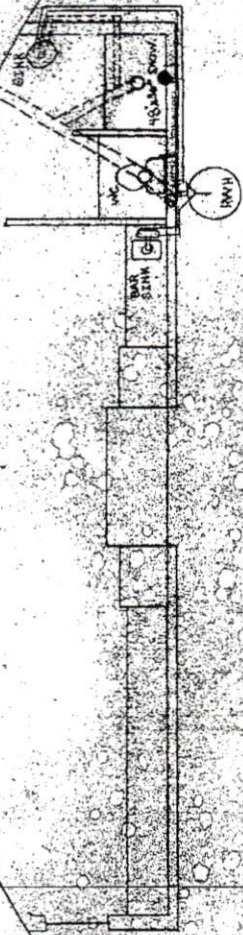
SHEET NO.	S2
	2 of 6



GARAGE - MOTHER-IN-LAW SUITE - ELECTRICAL	
SCALE: 1/4" = 1'	APPROVED BY:
DATE: 02-08-02	DESIGNED BY:
O'REILLY-PHASE I	1156 DAYSRING DRIVE FAYETTEVILLE, NC, 28404

SEPTIC TANK
1000 GAL

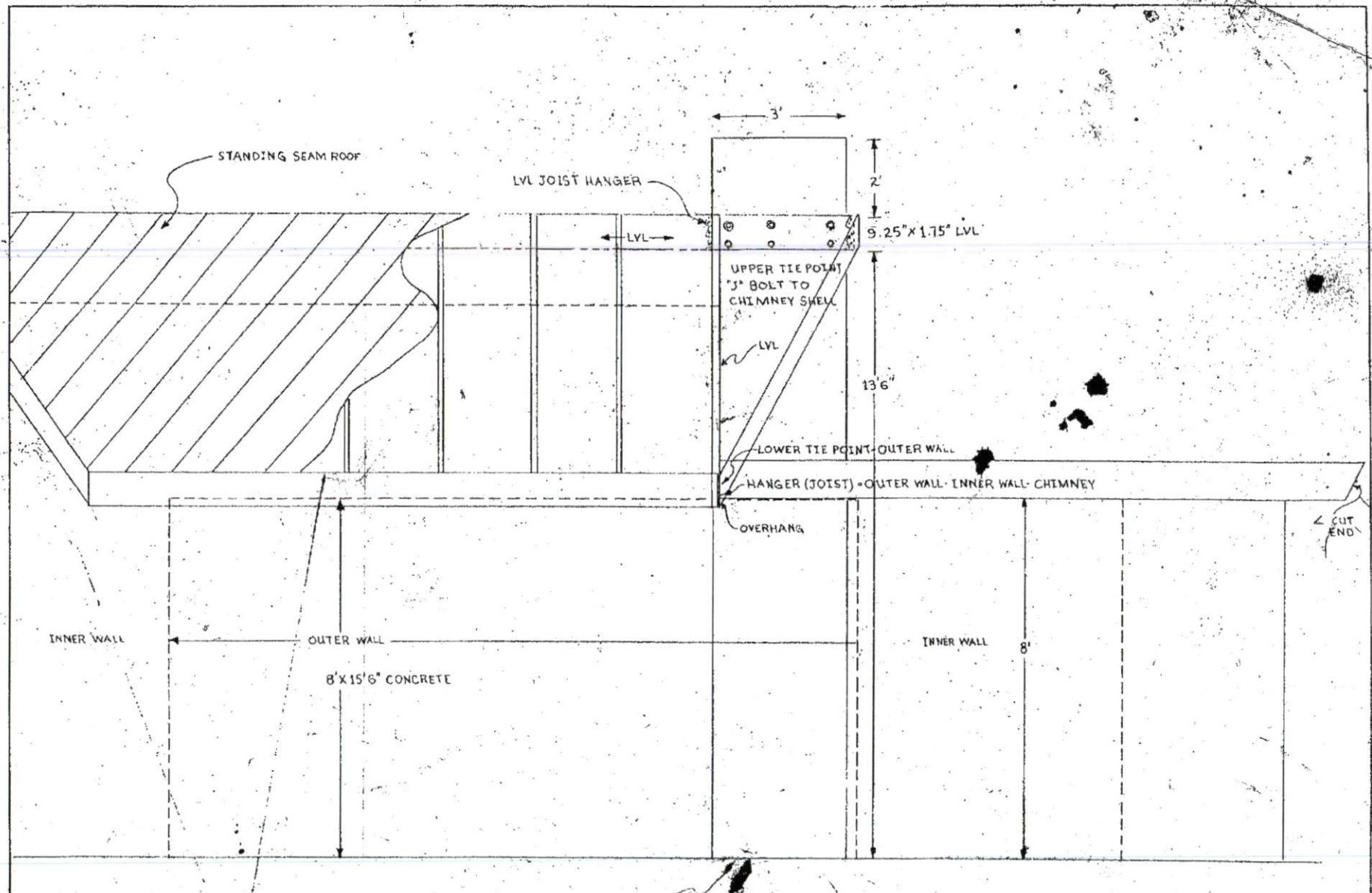
CRUSH PROOF SHEATH



FULL BATH GROUP 4 SF. W.
LEVEL TWENTY

METAL FLOOR
INSERT- MC ANCHOR

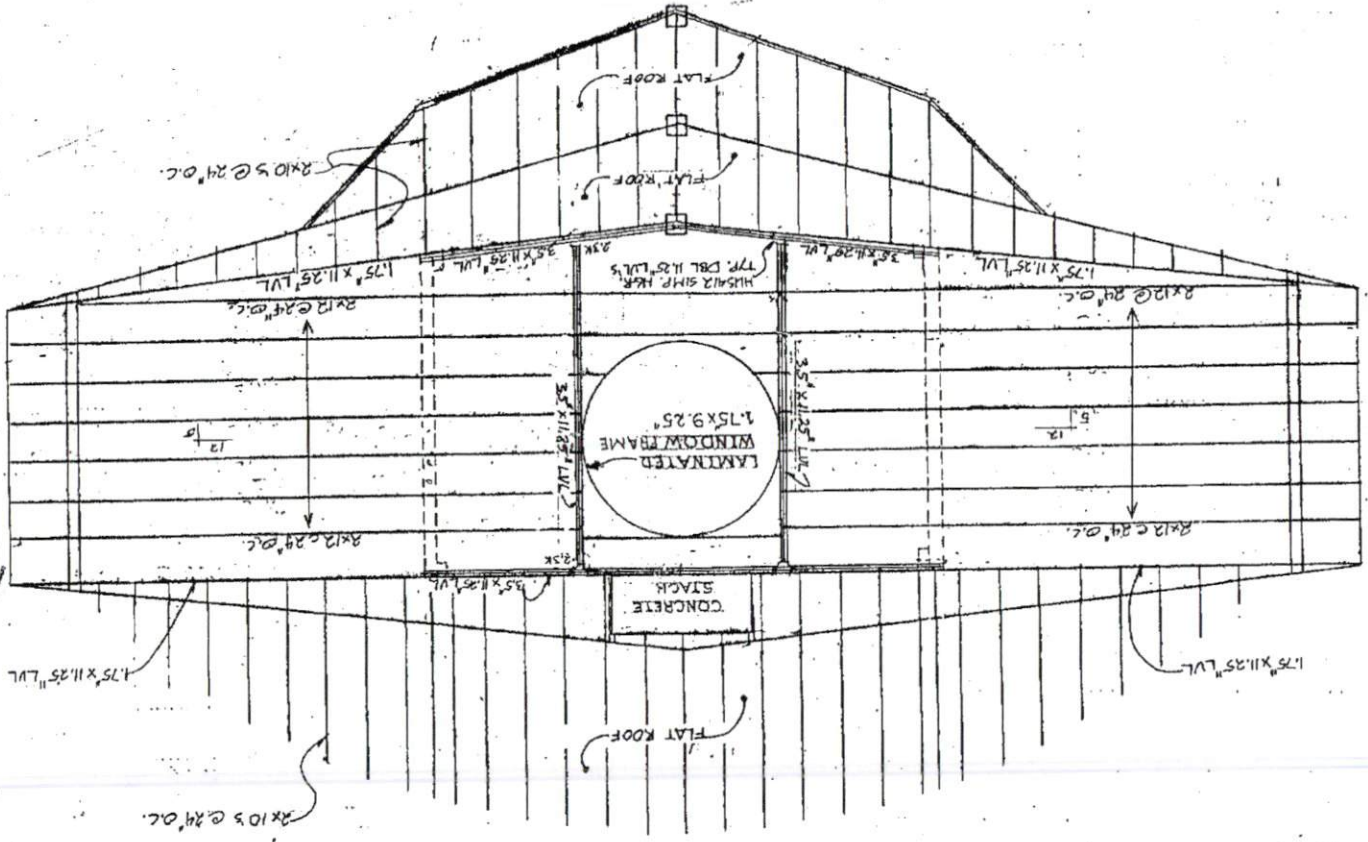
GARAGE - MOTHER-IN-LAW SUITE	
DATE: 02-08-08	APPROVED BY:
O'REILLY - PHASE 1	T156 DAYS PRING BY PAYETTEVILLE, W. VA.



CHIMNEY STACK 3'x11'

GARAGE - MOTHER IN LAW SUITE			
SCALE 3/4" = 1'	DESIGNED BY	DRAWN BY O'REILLY	DATE 12-05-01
O'REILLY - PHASE 1		7156 DAYSPRING DRIVE PAYETTEVILLE, NC, 28384	
L ELEVATION - STRUCTURAL			DATE

ROOF FRAMING PLAN
1/4" = 1'-0"



FRAMING NOTES
BOOF ONLY
-COMMON RAFTERS 2X8 @ 24" O.C. TYP. UNLS.
-CONTRACTOR TO WATER PROOF FLAT ROOFS
AS REQ'D

3 of 6
S3
SHEET NO.
PROJECT
PLAN NO.

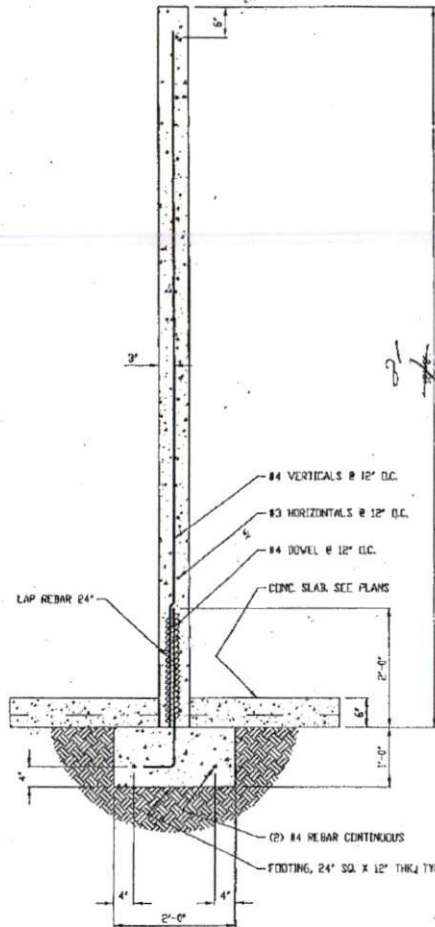
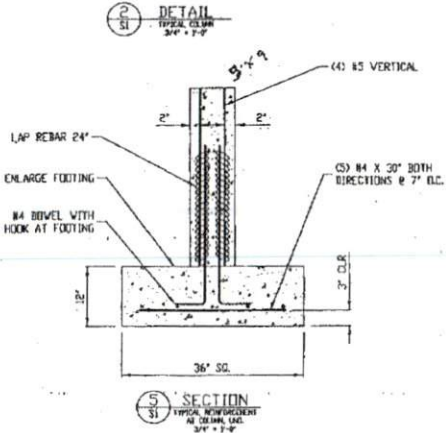
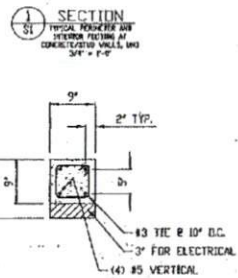
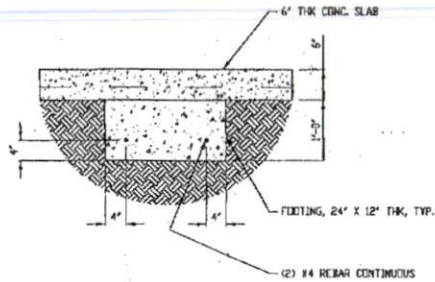
CLIENT: WALTER O'REILLY
PROJECT: STRUCTURAL ADDENDUM
ADDRESS: 756 DAWSONG DRIVE
FAYETTEVILLE, NORTH CAROLINA 28714

ENG.	DATE
DRAWN	7-27-03
CHECK	



STRUCTURAL ENGINEERS
188 Wind Crane Court, Suite 301
Raleigh, North Carolina 27615
919 844-8681 Fax 919 844-1665

- NOTES:
 -REBAR SHALL BE BEMFORMED STEEL CONFORMING TO ASTM A615 GRADE 60
 -CONCRETE SHALL BE 28 DAY MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI
 -LAP REBAR 18" MIN AT ALL SPLICES
 -RETURN HORIZONTAL REBAR 18" MIN AT ALL CORNERS AND INTERSECTIONS
 -SOIL PARAMETERS:
 -FRICTION ANGLE = 30°
 -COEFFICIENT OF FRICTION = 0.35
 -DENSITY = 120 PCT MOIST WEIGHT
 -BEARING CAPACITY = 2000 PSF MIN.
 -DESIGN IS ONLY FOR LEVEL BACKFILL AND NO SURCHARGE



SECTION 3
 TYPICAL REINFORCEMENT WALL / FOOTING
 3/4" = 1'-0"

CONSTRUCTION SPECIFICATIONS

PART 1. GENERAL

- 1.01 CONSTRUCTION SHALL MEET THE REQUIREMENTS OF THE NORTH CAROLINA STATE BUILDING CODE, VOLUME 14, LATEST EDITION.
- 1.02 SINGLE LURAL STEEL SHALL MEET THE REQUIREMENTS OF THE AISC SPECIFICATION FOR THE DESIGN, FABRICATION AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS.
- 1.03 REINFORCED PORTLAND CONCRETE SHALL BE PROPORTIONED, MIXED AND PLACED IN ACCORDANCE WITH THE SPECIFICATIONS OF AC 308, LATEST EDITION.
- 1.04 METHODS, PROCEDURES AND SEQUENCES OF CONSTRUCTION ARE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL TAKE ALL NECESSARY PRECAUTIONS TO MAINTAIN AND INSURE THE INTEGRITY OF THE STRUCTURE AT ALL STAGES OF CONSTRUCTION.

PART 2. DEMONSTRATIONS

- 2.01 DIMENSIONS SHOWN SHALL GOVERN OVER SCALE OR THESE DRAWINGS.

PART 3. DEMAND LOADS

- 3.01 DESIGN LOADS SHALL CONFORM WITH THE TABLE BELOW:

USE	LIVE LOAD (PSF)	DEAD LOAD (PSF)
BALCONIES (EXTENDED)	60	10
DECK	60	10
FR. ESCAPES	60	10
GARAGES (PARKING GARAGE ONLY)	60	10
ATTICS AND STAGE, ROOF SLABS IN 12 OR LESS	20	10
ATTICS (PATED ACCESS STORAGE)	20	10
TRUCKS (WITH FOOTING SURCHARGE)	20	10
DWELLING UNITS (RECEPT SLEEPING ROOMS)	40	10
SLEEPING ROOMS	40	10
STAIRS	40	10
ROOF	20	10

- NOTES:
 - DIVISIONAL STAIR TREADS ARE DESIGNED FOR THE UNIFORM DELTA POINTED LIVE LOAD OF A 300 LB. CONCENTRATED LOAD ACTING OVER AN AREA OF 4 SQ. FT. WHICH EVER PRODUCES THE GREATER STRESS.
 - CORNER RAHS AND HAND RAHS ARE TO BE DESIGNED FOR A SINGLE CONCENTRATED LOAD OF 300 LB. APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP.

- 3.02 INTERIOR WALLS: 5 PSF LATERAL.
- 3.03 EXTERIOR WALLS: WIND DESIGN VELOCITY OF 90 MPH.
- 3.04 LOAD DURATION FACTOR FOR ROOF STRUCTURAL MEMBERS IS 1/3.
- 3.05 SOIL BEARING CAPACITY 2000 PSF BRESIDENTIAL.

PART 4. MATERIALS

- 4.01 STRUCTURAL STEEL (SHEAR AND RECTANGULAR TUBING) SHALL CONFORM TO ASTM A502 GRADE B PROPERTY GRADE. ALL OTHER STRUCTURAL STEEL SHALL CONFORM TO ASTM A36 PROPERTY GRADE.
- 4.02 WELDING ELECTRODES SHALL BE E70XX.
- 4.03 BOLTS SHALL CONFORM TO A325 PROPERTY GRADE.
- 4.04 REBAR SHALL BE DEFORMER STEEL CONFORMING TO ASTM A615 GRADE 60.
- 4.05 SOLID SAWN WOOD FRAMING DESIGN IS BASED ON NO. 2 SPOKE PINE FOR JOISTS, RAFTERS AND WOOD GIRDERS/BEAMS TYP WHO STUDS SHALL BE SPICE PINE FOR NO. 3 OR 4 STUD GRADE TYP WHO.
- 4.06 LVL OR THE MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS:
 $E = 1.9 \times 10^6$ PSI, $F_b = 2400$ PSI, $F_v = 285$ PSI, $F_c = 1000$ PSI

- 4.07 LVL MINIMUM ALLOWABLE DESIGN STRESSES ARE AS FOLLOWS:
 $E = 1.9 \times 10^6$ PSI, $F_b = 1950$ PSI, $F_v = 450$ PSI, $F_c = 1000$ PSI
- 4.08 LUMBER IN CONTACT WITH THE GROUND, CONCRETE OR MASONRY SHALL BE PRESURE TREATED IN ACCORDANCE WITH ANPA STANDARD L-1. ALL OTHER EXPOSED LUMBER SHALL BE 30% DRY IN ACCORDANCE WITH ANPA STANDARD C-3 OR BY ANY OTHER EQUAL PROTECTION. THE BUILDING CODE OF CITY MAY ALSO APPROVE A NATURAL DRY RESISTANT WOOD PER SECTION 19-400.
- 4.09 PORTLAND CONCRETE SHALL BE OF NORMAL WEIGHT AND SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH OF 3000 PSI AT 28 DAYS.
- 4.10 CONCRETE MASONRY UNITS SHALL CONFORM TO ASTM E 90 OR ASTM C 35.
- 4.11 MORTAR SHALL BE TYPE S CONFORMING TO ASTM C 70.
- 4.12 JAMS SHALL BE COMMON WIRE MESH TYP LWD.
- 4.13 LAG SCREWS SHALL CONFORM TO ANPA/ASTM STANDARD B8.11-1981.

PART 5. CONSTRUCTION

- 5.01 FLITCH PLATE BEAMS SHALL CONSIST OF A CONTINUOUS STEEL PLATE BOLTED BETWEEN TWO PIECES OF CONTINUOUS LUMBER AS SIZED ON THE PLANS. BOLT SPACES FROM THE EDGES OF THE PLATE SHALL BE 2" MIN. STAGGERED TOP TO BOTTOM OF THE BEAM MAINTAIN A 2" EDGE DISTANCE. PLACE TWO BOLTS, ONE ABOVE THE OTHER, 18" FROM EACH END OF THE BEAM.
- 5.02 THE TOP FLANGE OF STEEL BEAMS SHALL BE CONTINUOUSLY SUPPORTED LATERALLY TYP WHO.
- 5.03 STEEL, LVL AND FLITCH PLATE BEAMS SHALL BEAR FULL WIDTH ON THE SUPPORTING WALLS OR COLUMNS INDICATED AND SHALL BE SUPPORTED BY A MINIMUM OF THREE GANGED STUDS TYP WHO. A BEAM BRACING OVER THE END OF A WALL PARALLEL TO THE BEAM SHALL BEAR 4-1/2" MIN ON TO THE WALL.
- 5.04 STUDS THAT ARE GANGED TO FORM A COLUMN SHALL HAVE ADJACENT STUDS WITHIN THE COLUMN MARKED TOGETHER WITH THE ROW OF 80 MARKS AT 32" O.C. ALL COLUMNS SHALL BE CONTINUOUS DOWN TO THE FOUNDATION OR OTHER PROPERLY DESIGNED STRUCTURAL ELEMENT SUCH AS A BEAM. COLUMNS TRANSFERRING LOADS THROUGH FLOOR LEVELS SHALL BE SOLIDLY BLOCKED WITHIN THE CAVITY FORMED BY THE FLOOR JOISTS.
- 5.05 SOLID SAWN LUMBER JOISTS THAT ARE GANGED TO FORM A BEAM SHALL HAVE ADJACENT MEMBERS IN THE BEAM MARKED TOGETHER WITH THREE ROWS OF 80 MARKS @ 16" O.C.
- 5.06 SOLID SAWN LUMBER GANGED BEAMS BEARING ON A STUD WALL PERPENDICULAR TO THE BEAM SHALL BEAR A MINIMUM OF 3" ON TO THE WALL AND BE SUPPORTED BY A GANGED STUD COLUMN TYP WHO.
- 5.07 SOLID SAWN LUMBER GANGED BEAMS BEARING ON TO THE END OF A WALL PARALLEL TO THE BEAM SHALL BEAR A MINIMUM OF 3" ON TO THE WALL AND BE SUPPORTED BY A GANGED STUD COLUMN TYP WHO.
- 5.08 STUD WALLS SHALL CONSIST OF 2X4 STUDS SPACED AT 16" O.C. STUDS SHALL BE CONTINUOUS FROM SOLE PLATE TO DOUBLE TOP PLATE AT THE CEILING OR ROOF. JOINTS IN HORIZONTAL BRANS OR PLATES SHALL BEAR OVERLAPMENTS IN A STUD WALL EXCEPT AS REBARRED FOR ROOF OR WINDUP OPENING. THE RING STUDS FOR JOINT OPENINGS SHALL BE CONTINUOUS.
- 5.09 END WALLS THAT
- 5.10 LEAD LINES SHALL BE USED FOR LAG SCREW INSTALLATION AND SHALL BE BORED ACCORDING TO THIS SPECIFICATION.
- 5.11 ALL WELDING SHALL BE PERFORMED BY AN AWS CERTIFIED WELDER.

PART 6. SUBSTITUTIONS

- 6.01 WELDED WIRE FABRIC IN CONCRETE SLABS MAY BE OMITTED IF FIBER MESH CONCRETE IS USED TYP WHO.
- 6.02 OTHER MATERIAL OR MEMBER SIZE SUBSTITUTIONS NEED THE WRITTEN AUTHORIZATION OF THE DESIGNER. UNAUTHORIZED DEVIATIONS ARE THE SOLE RESPONSIBILITY OF THE CONTRACTOR.

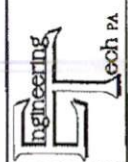
NOTES

ALL WORK IS TO BE DONE IN STRICT ACCORDANCE WITH STATE AND LOCAL CODES. THE BUILDER IS RESPONSIBLE FOR REVIEWING PLANS PRIOR TO CONSTRUCTION. IF ENGINEERING SERVICES HAS BEEN PROVIDED THE BUILDER SHALL VERIFY THAT THE FOUNDATION AND STRUCTURAL PLANS HAVE BEEN CHECKED BY AN ENGINEER REGISTERED BY THE STATE OF THE PLANS HAVE NOW BEEN SIGNED AND SEALED. THE BUILDER SHALL IMMEDIATELY CONTACT ENGINEERING TECH BEFORE PROCEEDING FURTHER. ANY ERRORS ARE TO A FAILURE TO FOLLOW THE ABOVE PROVISIONS SHALL NOT BE THE RESPONSIBILITY OF ENGINEERING TECH. ALL FINAL SETS OF THE SAME PLAN ISSUED TO A BUILDER SHOULD BE REVIEWED FOR UNIFORMITY, ESPECIALLY IF PRIOR SETS OF PLANS HAVE BEEN ISSUED AS STUDY CORRECTIONS.

ABBREVIATIONS

ABP	ABOVE	LVL	LAMINATED VENEER LUMBER
B	BOTH	NOT TO SCALE	
B.E.	BOTH ENDS	ON CENTER	
BTM	BOTTOM	PARALLEL STUD LUMBER	
CONE	CONCRETE	PRESURE TREATED	
CONT	CONTINUOUS	QUAD JOIST	
DN	DOWN	STUD POCKET	
DR	DOUBLE	SQUARE	
DJ	DOUBLE JOIST	TIMBER JOIST	
DUP	DOUBLE STUD POCKET	TYP	
ED	EQUAL	TRIPLE	
EA	EACH	TRIPLE STUD POCKET	
FLR	FLOOR	UNLESS NOTED OTHERWISE	
FL PL	FLITCH PLATE	EXTRA JOIST	
FLR	FLOOR	HOT DIPPED GALVANIZED	
FOU	FOUNDATION	MESH	
FTO	FOOTING		

STRUCTURAL ENGINEERS
 188 Ward Drive Court, Suite 101
 Raleigh, North Carolina 27615
 (919) 844-6661 Fax (919) 844-6660

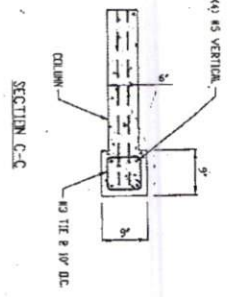
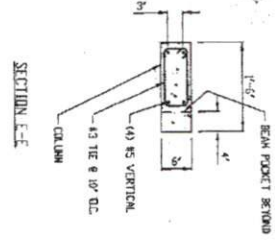
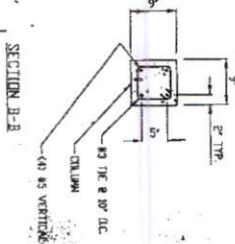
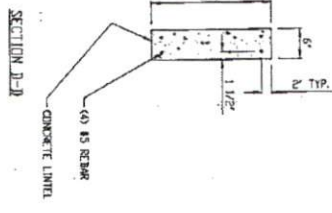
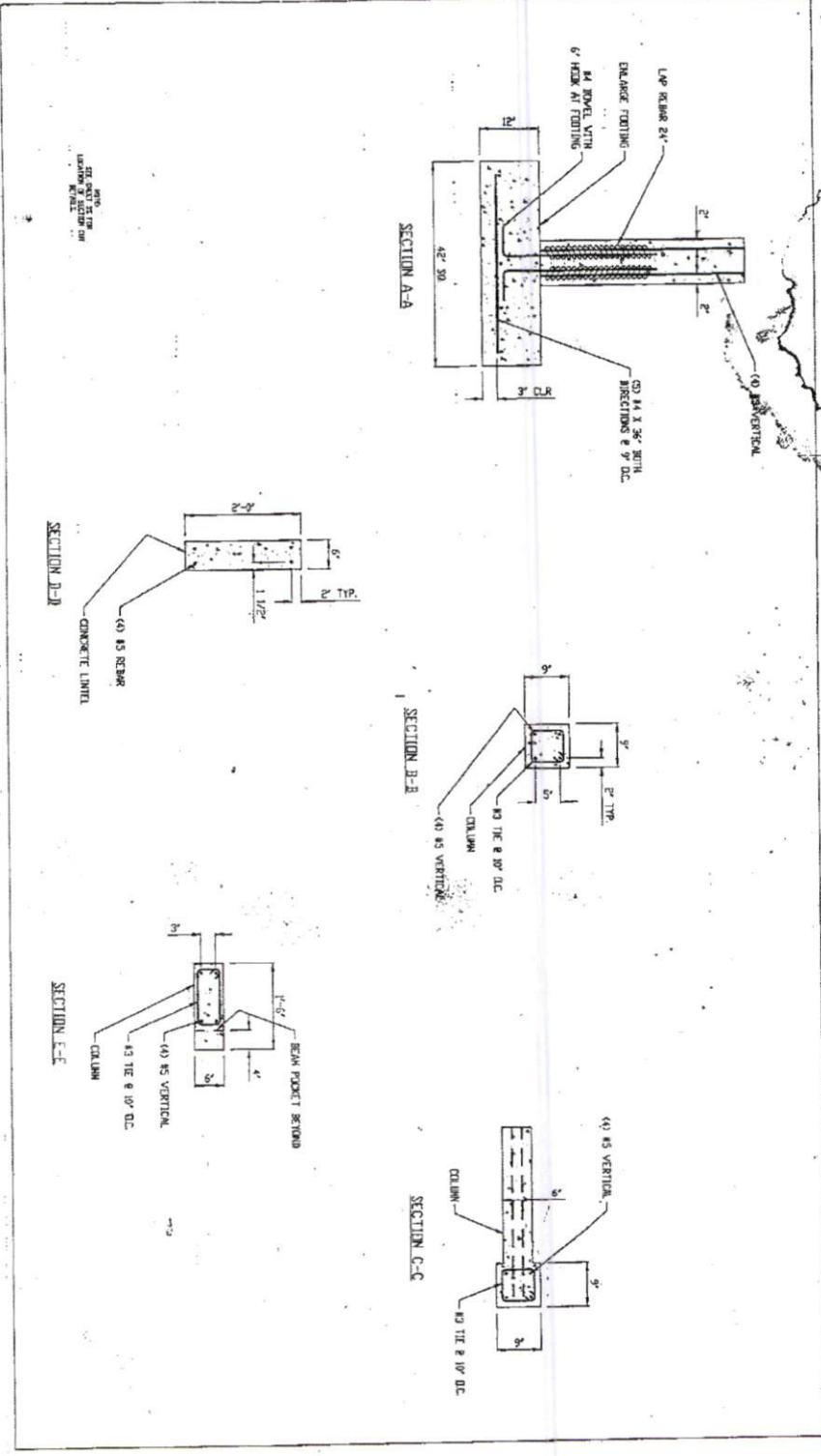
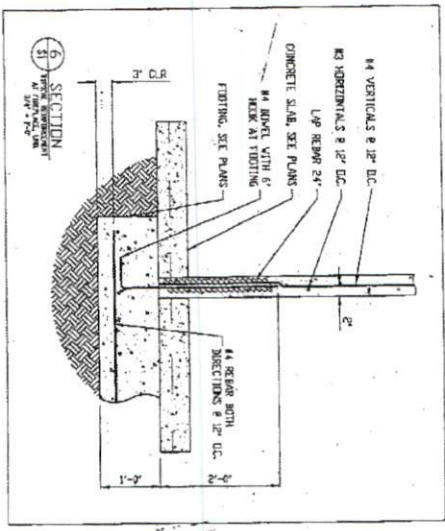


DATE	ENC	DRAWN	CHECK
2-27-20			

WALTER ORRILLY
 STRUCTURAL ADDENDUM
 756 DAVENPORT DRIVE
 FAYETTEVILLE, NORTH CAROLINA 28744

CLIENT:
 PROJECT:
 ADDRESS:

PLAN NO.
 PROJECT NO.
 SHEET NO.
 S4
 4 of 6



6 of 6	56	SHEET	NO.
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CLIENT:	WALTER O'REILLY
PROJECT:	STRUCTURAL ADDENDUM
ADDRESS:	7156 DAYSPRING DRIVE FAYETTEVILLE, NORTH CAROLINA 28214

DATE	2-27-02
ENG'G	KWR
DRAWN	
CHECK	

Engineering
ech PA

STRUCTURAL ENGINEERS
 100 Wind Chase Court, Suite 101
 Raleigh, North Carolina 27615
 (919) 844-8661 Fax (919) 844-1665