PISSANETZKY RESIDENCE

SHEET INDEX :

PROJECT INFORMATION :

MINIMUM DESIGN LIVE LOADS : 0 PSF - GROUND SNOW LOAD
25 PSF - ROOF SNOW LOAD
40 PSF - FLOOR LIVE LOAD
110 MPH - RISK II DESIGN WIND SPEED (EXPOSURE D)
35 PCF - EQUVALENT BACKFILL FLUID PRESSURE
SEISMIC - Ss= 1.7g, S_1 =.657 RISK II, III - SDC D

1 2016 DEES AND ASSOCIATES, INC. GEOTECHNICAL REPORT (2017 REV.)

TYPE OF CONSTRUCTION : III-B

OCCUPANCY CLASSIFICATION : R3 / U

CODE REQUIREMENTS, APPLICABLE BUT NOT LIMITED TO :
1 2013 CALIFORNIA RESIDENTIAL CODE
2013 CALIFORNIA BUILDING CODE
2013 CALIFORNIA MECHANICAL CODE
2013 CALIFORNIA PLUMBING CODE
2013 CALIFORNIA ELECTRICAL CODE (BASED ON 2011 NEC)
2013 CALIFORNIA GREEN BUILDING STANDARDS CODE
2013 CALIFORNIA ENERGY CODE
1 2013 CALIFORNIA WILDLAND URBAN INTERFACE (WUI) STRUCTURE DEFENSE
2013 INTERNATIONAL BUILDING CODE (IF NO OTHER CODE APPLIES)

FIRE SPRINKLER : R313 OR NFPA 13D

BUILDING AREA ; DWELLING 1200 SF

BUILDING HEIGHT ABOVE GRADE : 12'-4"

1 HERS CERTIFICATION REQUIRED FOR INDOOR AIR QUALITY

REFERENCE NUMBER
SET NUMBER
ISSUED

REVISION

NO.	DATE	DESCRIPTION
	02-18-16	FINAL
1	03-08-17	

COVER SHEET

PISSANETZKY RESIDENCE

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T1

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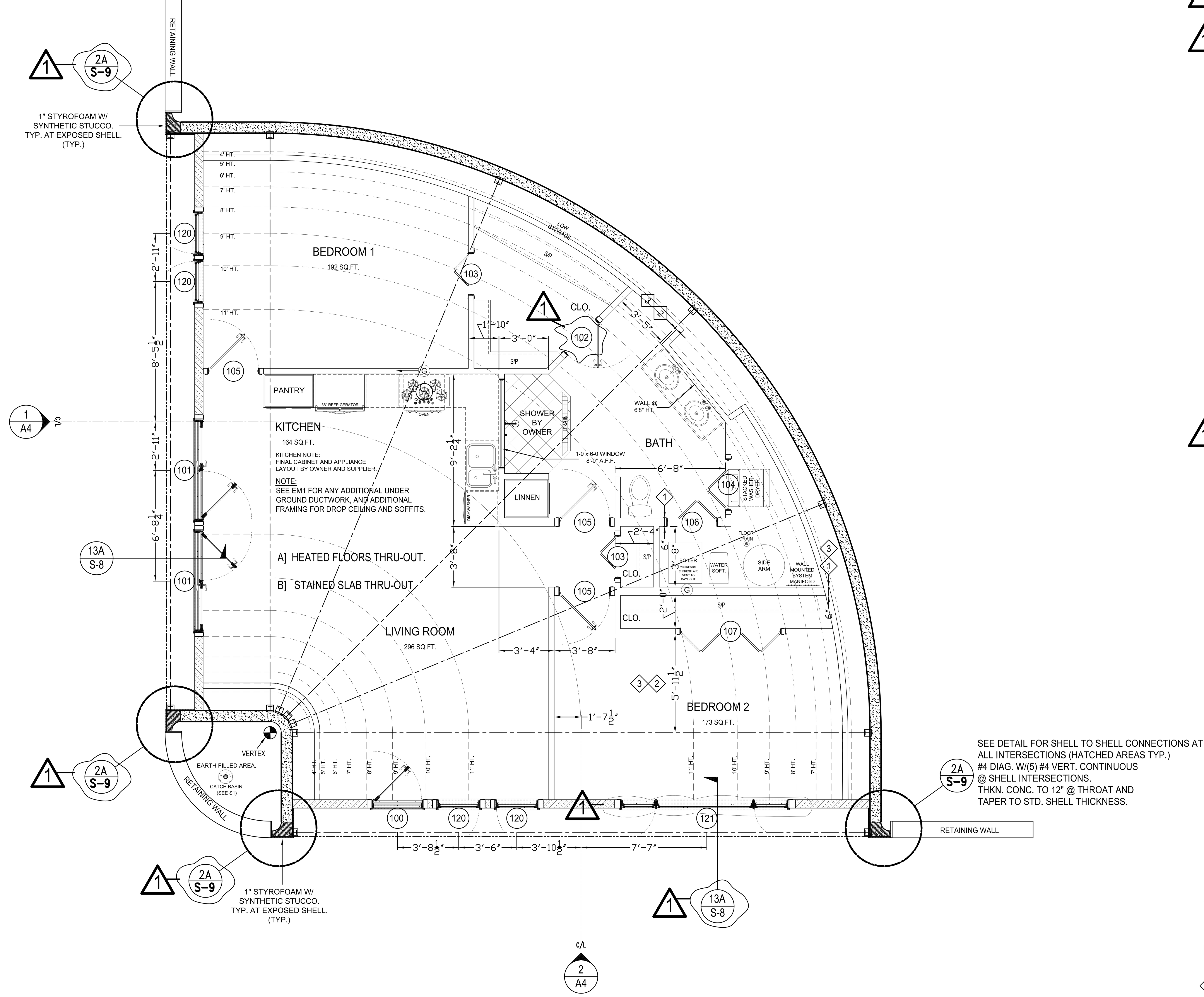


DOOR SCHEDULE		
NO.	SIZE	TYPE
100	3-0x8-0	EXT. TEMP.GLASS
101	6-0x8-0	EXT. FRENCH - TEMP.GLASS
102	2-8x8-0	INT. SWING
103	2-6x8-0	INT. BI-FOLD
104	3-0x6-8	INT. BI-FOLD
105	3-0x8-0	INT. SWING
106	3-0x8-0	INT. BI-FOLD
107	6-0x8-0	INT. BI-FOLD

WINDOW SCHEDULE		
NO.	SIZE	TYPE
120	2-6x5-6	EXT. EGRESS CASEMENT
121	10-0x5-6	EXT. EGRESS COMBINATION CASEMENT / PICTURE

2013 CRC R327.8 EXTERIOR WINDOWS AND DOORS.
(WILDLAND URBAN INTERFACE [WUI] STRUCTURE DEFENSE)

EXTERIOR WINDOWS AND EXTERIOR GLAZED DOOR ASSEMBLIES SHALL COMPLY WITH ONE OF THE FOLLOWING REQUIREMENTS:

CRC R327.8.2.1 EXTERIOR WINDOWS AND EXTERIOR GLAZED DOOR ASSEMBLY REQUIREMENTS.

1. WINDOWS SHALL BE CONSTRUCTED OF MULTIPANE GLAZING WITH A MINIMMUM OF ONE (1) TEMPERED PANE MEETING THE REQUIREMENTS OF SECTION 2406 SAFETY GLAZING, OR
2. BE CONSTRUCTED OF GLASS BLOCK UNITS, OR
3. HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN TWENTY (20) MINUTES WHEN TESTED ACCORDING TO NFPA 257, OR
4. BE TESTED TO MEET THE PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-2.

CRC R327.8.3 EXTERIOR DOORS.

1. THE EXTERIOR SURFACE OR CLADDING SHALL BE OF NONCOMBUSTABLE OR IGNITION-RESISTANT MATERIAL.
2. SHALL BE CONSTRUCTED OF SOLID CORE WOOD THAT COMPLY WITH THE FOLLOWING REQUIREMENTS:
   2.1. STILES AND RAILS SHALL NOT BE LESS THAN 1⅜" THICK.
   2.2. RAISED PANELS SHALL NOT BE LESS THAN 1¼" THICK, EXCEPT FOR THE EXTERIOR PERIMETER OF THE RAISED PANEL THAT MAT TAPER TO A TONGUE NOT LESS THAN ⅜" THICK.
3. SHALL HAVE A FIRE-RESISTANCE RATING OF NOT LESS THAN TWENTY (20) MINUTES WHEN TESTED ACCORDING TO NFPA 252.
4. BE TESTED TO MEET THE PERFORMANCE REQUIREMENTS OF SFM STANDARD 12-7A-1.

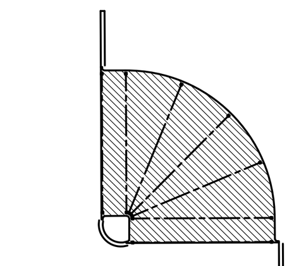
2013 CGSBC 4.303 / CPC 403
(CALIFORNIA GREEN BUILDING STANDARDS / CALIFORNIA PLUMBING CODE)

CGBSC 4.303.1.4.1. WATER CONSERVING PLUMBING FIXTURES

RESIDENTIAL LAVATORY FAUCETS MAXIMUM FLOW RATE SHALL NOT EXCEED 1.5 GALLONS PER MINUTE AT 60 P.S.I. THE MINIMUM FLOW RATE SHALL NOT BE LESS THAM 0.8 GALLONS PER MINUTE AT 20 P.S.I.

CPC 403.0 OVERFLOWS

WHEN ANY FIXTURE IS PROVIDED WITH AN OVERFLOW, THE WASTE SHALL BE SO ARRANGED THAT THE STANDING WATER IN THE FIXTURE CANNOT RISE IN THE OVERFLOW WHEN THE STOPPER IS CLOSED OR REMAIN IN THE OVERFLOW WHEN THE FIXTURE IS EMPTY. THE OVERFLOW PIPE FROM A FIXTURE SHALL BE CONNECTED ON THE HOUSE OR INLET SIDE OF THE FIXTURE TRAP, EXCEPT THAT OVERFLOW ON FLUSH TANKS SHALL BE PERMITTED TO DISCHARGE INTO THE WATER CLOSETS OR URINALS SERVED BY THEM, BUT IT SHALL BE UNLAWFUL TO CONNECT SUCH OVERFLOWS WITH ANY OTHER PART OF THE DRAINAGE SYSTEM.



FLOOR PLAN
1/4" = 1'- 0"

NOTES:

1. ALL WALL DIMENSIONS = NOMINAL DIMENSIONS. (U.N.O.)
2. SOME WALLS ARE LOCATED BY THE RELATIVE LOCATION TO THE ARCHED VERTICAL BEAM.
3. SEE 7- S8 FOR PARTITION DETAILS.
4. SEE S1 FOR STRUCTURAL DETAILS.

Canadian Patent No. 1168458
U.S. Patent No. 4,488,392
U.S. Patent No. 4,352,260

REFERENCE NUMBER
SET NUMBER
ISSUED

It shall be the responsibility of all the contractors and subcontractors to verify all dimensions and conditions prior to the start of construction or fabrication.

REVISION		
NO.	DATE	DESCRIPTION
	02-18-16	FINAL
1	03-08-17	

FLOOR PLAN
1/4" = 1'- 0"

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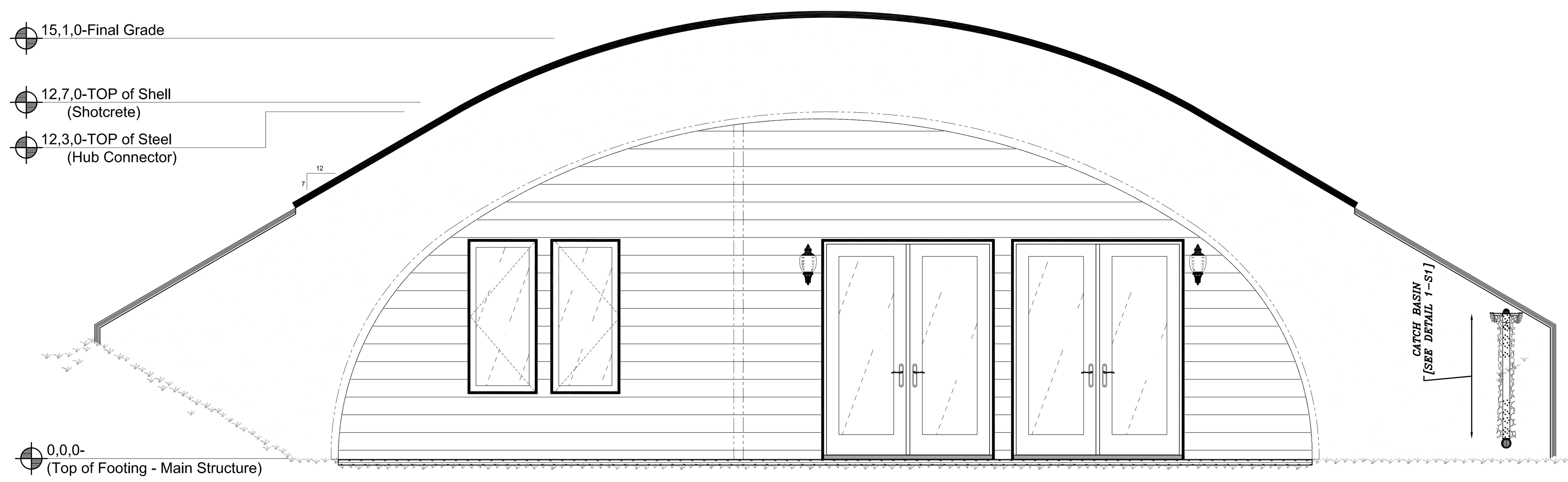
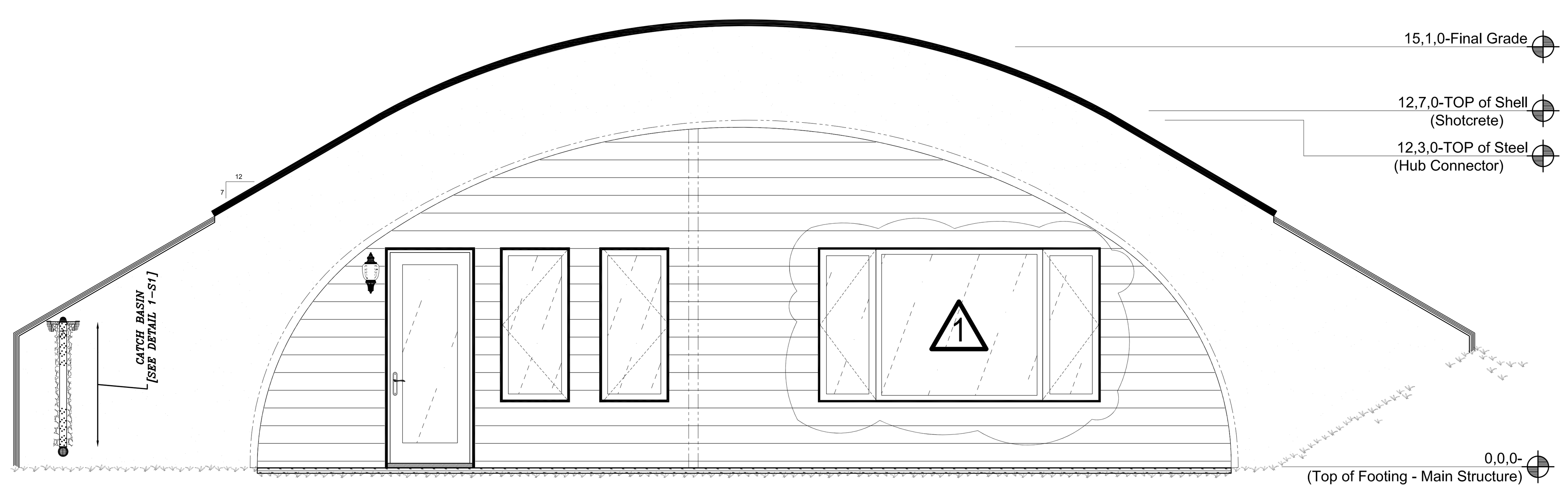
NOTE;
NO EXPOSED ELEVATIONS SHOWN FOR REMAINING SIDES AS THEY ARE EARTH COVERED. (SEE S5)



1 NORTHEAST ELEVATION

1/4" = 1'- 0"

DEPICTION OF ELEVATION IS CONCEPTUAL ONLY.
OWNER RESPONSIBLE TO MEET LOCAL BUILDING CODES.



2 NORTHWEST ELEVATION

1/4" = 1'- 0"

Canadian Patent No. 1168458
U.S. Patent No. 4,488,,392
U.S. Patent No. 4,352,260

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ELEVATIONS

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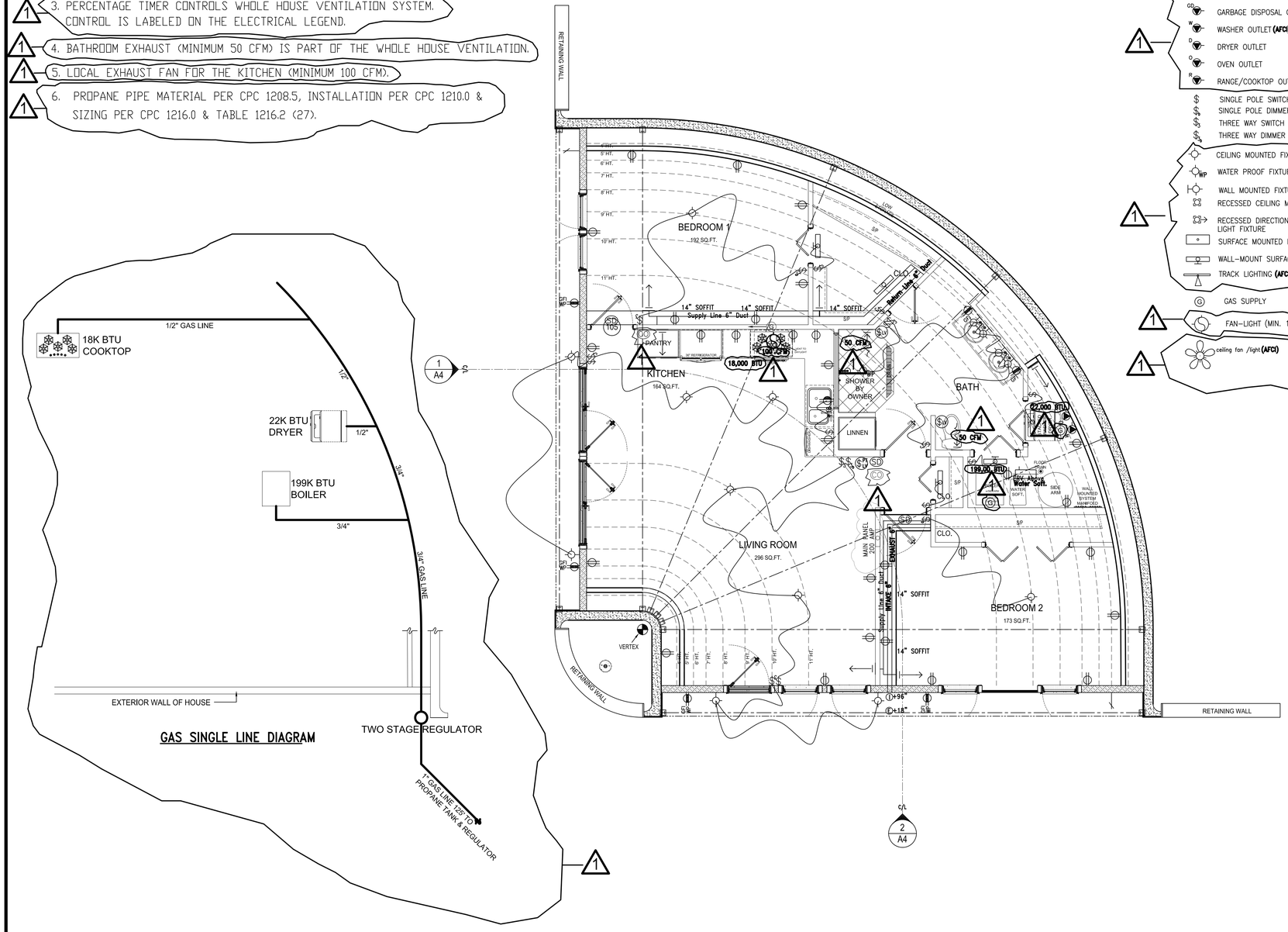
ELECTRICAL NOTES

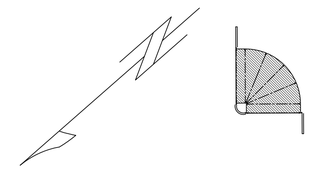
1. ALL BRANCH CIRCUITS THAT SUPPLY 125-VOLT, SINGLE PHASE 15-20 AMPERE OUTLETS TO BE PROTECTED BY ARC-FAULT CIRCUIT INTERUPTER (AFCI) LISTED TO PROVIDE PROTECTION OF ENTIRE BRANCH CIRCUIT PER CEC 210-12(B). EXCEPT CIRCUITS REQUIRING GFCI PER CEC 210.8(A)
2. ALL 125-VOLT 15-20 AMPERE RECEPTACLES TO BE TAMPER RESISTANT. (CEC 406.11)
3. PERCENTAGE TIMER CONTROLS WHOLE HOUSE VENTILATION SYSTEM. CONTROL IS LABELED ON THE ELECTRICAL LEGEND.
4. BATHROOM EXHAUST (MINIMUM 50 CFM) IS PART OF THE WHOLE HOUSE VENTILATION.
5. LOCAL EXHAUST FAN FOR THE KITCHEN (MINIMUM 100 CFM).
6. PROPANE PIPE MATERIAL PER CPC 1208.5, INSTALLATION PER CPC 1210.0 & SIZING PER CPC 1216.0 & TABLE 1216.2 (27).



SYMBOL LEGEND

- 220 V OUTLET (TAMPER RESISTANT) **(AFCI)**
- GROUND FAULT RECEPTACLE (TAMPER RESISTANT)
- DUPLEX RECEPTACLE (TAMPER RESISTANT) **(AFCI)**
- DUPLEX RECEPTACLE, SPLIT WIRED (TAMPER RESISTANT) **(AFCI)**
- WATERPROOF GROUNDED OUTLET (TAMPER RESISTANT)
- DUPLEX RECEPTACLE–FLOOR MOUNTED (TAMPER RESISTANT) **(AFCI)**
- DOUBLE DUPLEX RECEPTACLE–FLOOR MOUNTED (TAMPER RESISTANT) **(AFCI)**
- DISHWASHER OUTLET **(AFCI)**
- GARBAGE DISPOSAL OUTLET **(AFCI)**
- WASHER OUTLET **(AFCI)**
- DRYER OUTLET
- OVEN OUTLET
- RANGE/COOKTOP OUTLET **(AFCI)**
- SINGLE POLE SWITCH
- SINGLE POLE DIMMER SWITCH
- THREE WAY SWITCH
- THREE WAY DIMMER SWITCH
- CEILING MOUNTED FIXTURE (GU–24 Base LED) **(AFCI)**
- WATER PROOF FIXTURE (GU–24 Base LED) **(AFCI)**
- WALL MOUNTED FIXTURE (GU–24 Base LED) **(AFCI)**
- RECESSED CEILING MOUNTED LIGHT FIXTURE (GU–24 Base LED) **(AFCI)**
- RECESSED DIRECTIONAL CEILING MOUNTED (GU–24 Base LED) **(AFCI)** LIGHT FIXTURE
- SURFACE MOUNTED FLUORESCENT FIXTURE **(AFCI)**
- WALL–MOUNT SURFACE FLUORESCENT FIXTURE **(AFCI)**
- TRACK LIGHTING **(AFCI)**
- GAS SUPPLY
- FAN–LIGHT (MIN. 100 CFM)
- ceiling fan /light **(AFCI)**
- F.P. Hose Bib
- ELECTRIC HEATER
- TELEPHONE OUTLET
- DATA/COMPUTER OUTLET
- COMBINATION TELEPHONE & DATA OUTLET
- EXHAUST FAN
- TELEVISION OUTLET
- CEILING/WALL SPOKE DETECTOR: RESIDENTIAL **(AFCI)**
- CEILING/WALL CARBON MONOXIDE ALARM **(AFCI)**
- ENERGY RECOVERY VENTILATOR SUPPLIED BY FORMWORKS BUILDING
- LOW VOLTAGE SWITCH TO ENERGY RECOVERY VENTILATOR
- PERCENTAGE TIMER TO ENERGY RECOVERY VENTILATOR (CONTOLS WHOLE HOUSE VENTILATION SYSTEM)
- CEILING MOUNT SUPPLY AIR (FANTECH CG6) * unless noted on plan w/4"
- CEILING MOUNT (50 CFM MINIMUM) RETURN AIR (FANTECH CG6) * unless noted on plan w/4"
- WALL MOUNT SUPPLY AIR (FANTECH CG6) * unless noted on plan w/4"
- WALL MOUNT(50 CFM MINIMUM) RETURN AIR (FANTECH CG6) * unless noted on plan w/4"
- OUTSIDE AIR TO ERV UNIT (INTAKE) (INSULATED)
- ERV TO EXTERIOR (EXHAUST)

Fantech.net To Purchase Registers
Part # CG6 (6" ROUND)
Part # CG4 (4" ROUND)



ELECTRICAL / MECHANICAL
1/4" = 1'- 0"

REFERENCE NUMBER
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1	02-18-16	FINAL
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ELECTRICAL / MECHANICAL
1/4" = 1'- 0"

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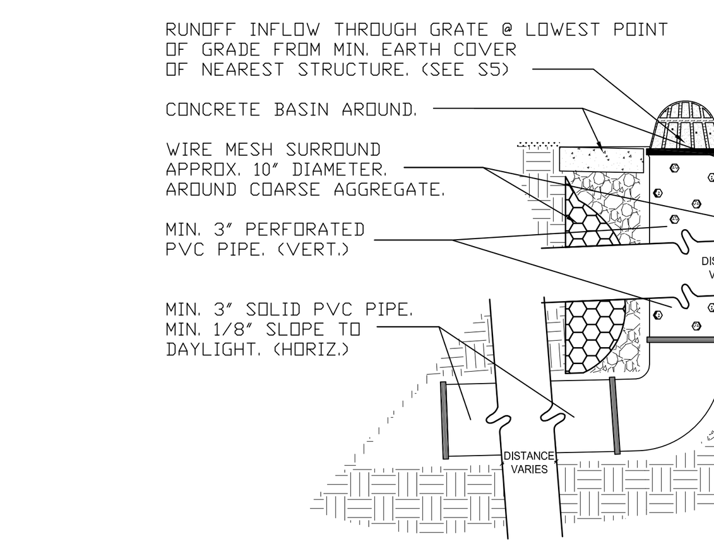
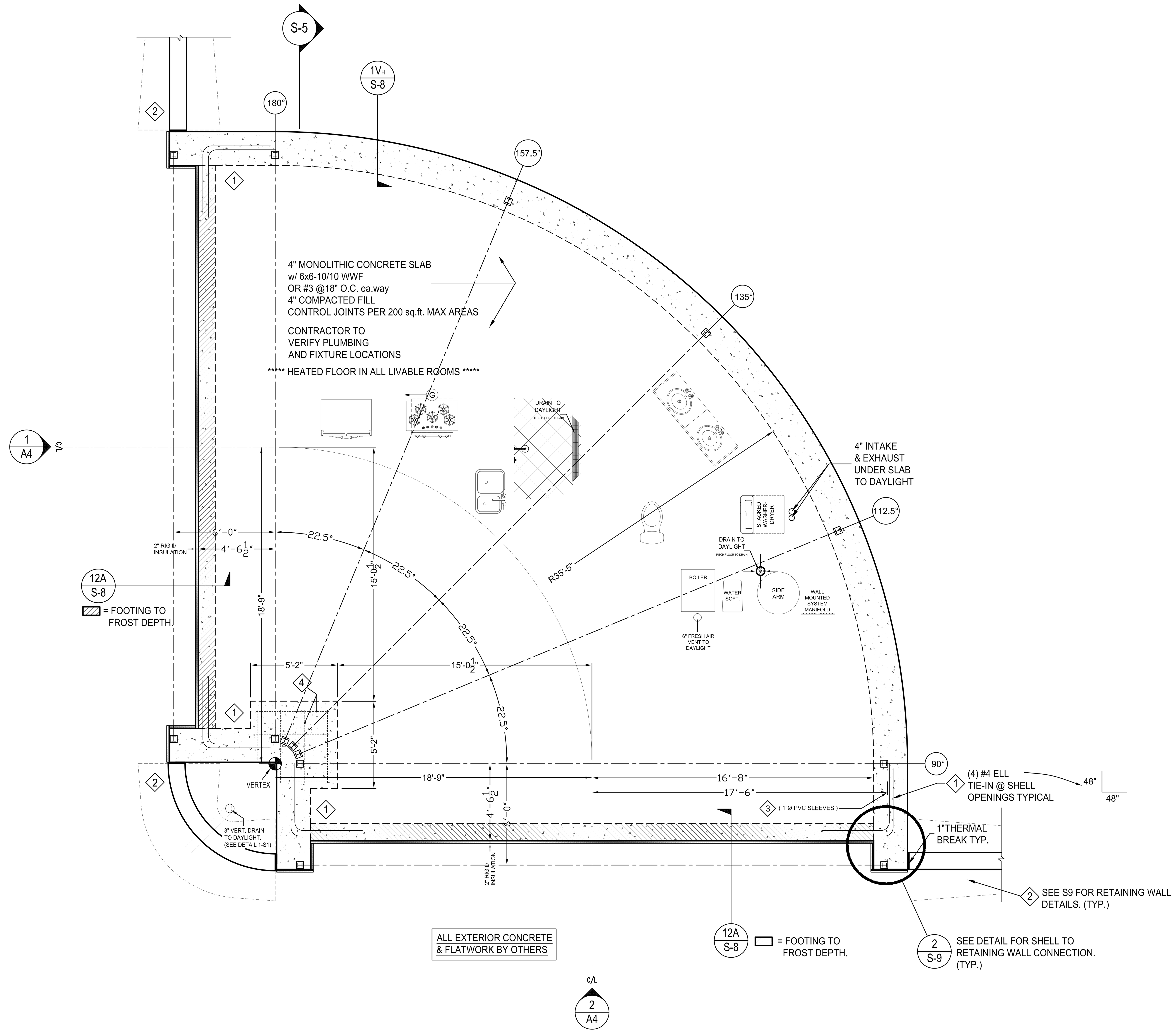
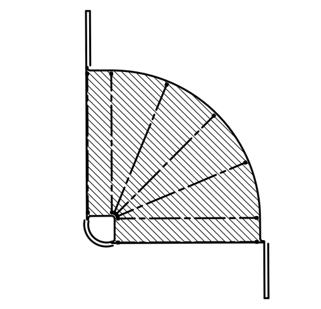


1 TYP. CATCH BASIN

1-1/2" = 1'





FOUNDATION PLAN

1/4" = 1'- 0"

NOTES:

1. (4) # 4 TIE-IN @ SHELL OPENINGS (TYP.) 48" 48"
2. SEE S9 FOR RETAINING WALL DETAILS.
3. SEE FOOTING DETAIL FOR PLACEMENT OF 1"∅ PVC SLEEVES.
4. [4] #4 @ 12"o.c. Ea. Way
   4" FROM BOTTOM & TOP OF 18" DEEP FOOTING.

REFERENCE NUMBER

SET NUMBER

ISSUED

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FOUDATION PLAN

SEE S7 FOR GENERAL NOTES.

1/4" = 1'- 0"

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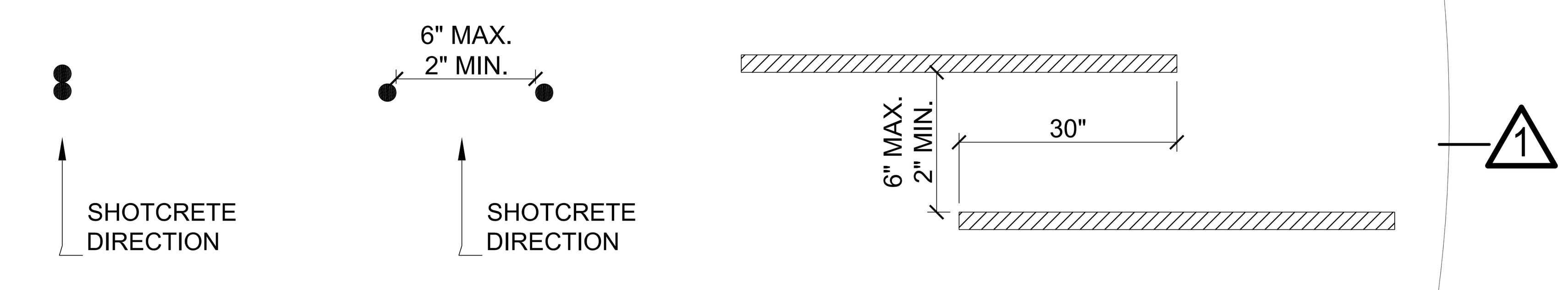
CONTACT SPLICE

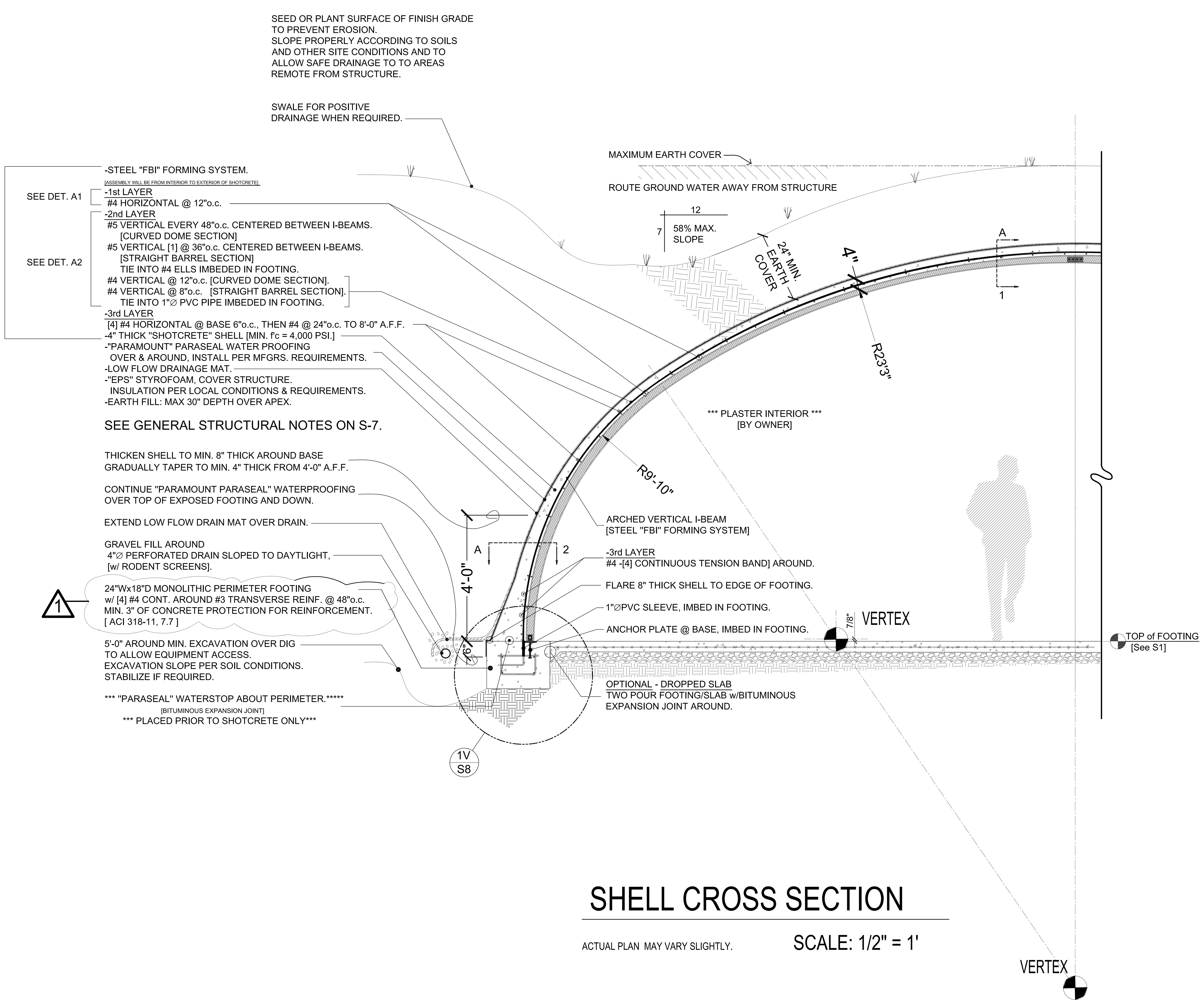
NON CONTACT SPLICE

(MAX 6" GAP WHERE POSSIBLE)



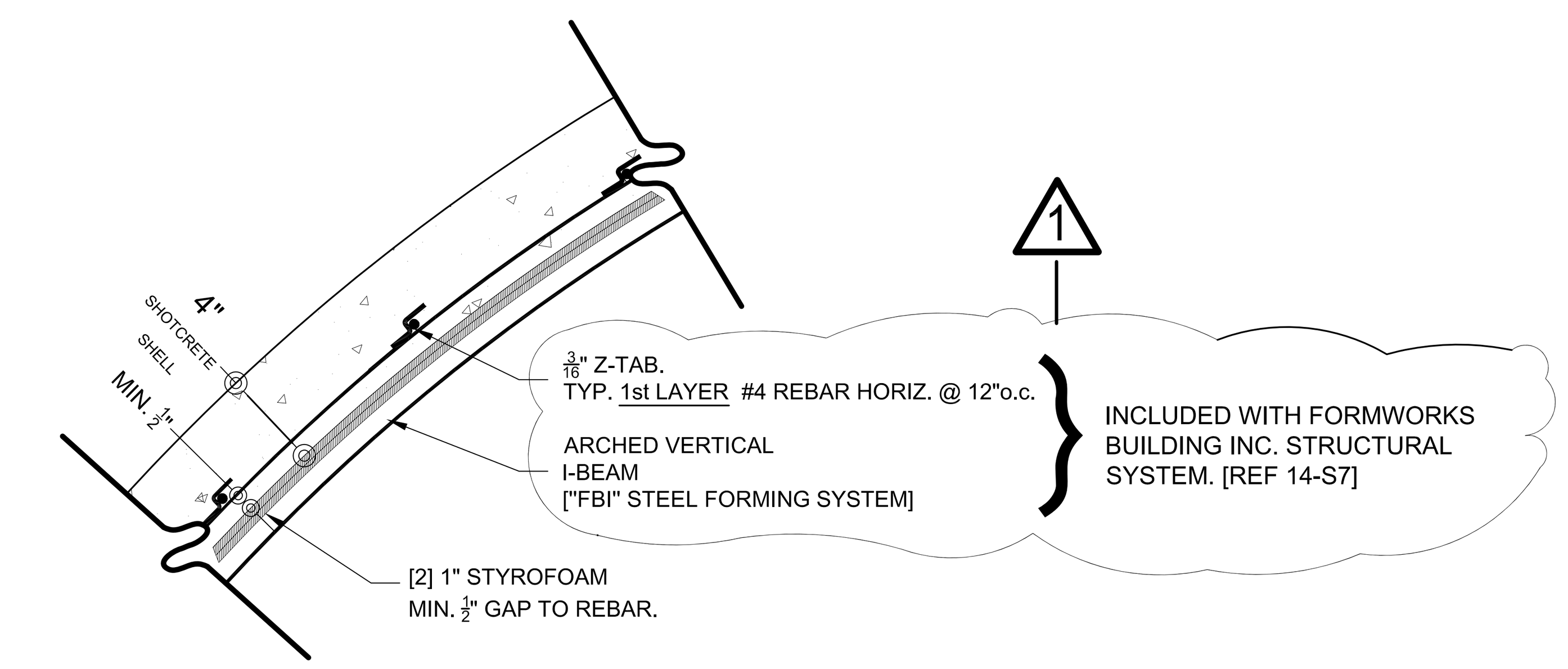
REBAR LAPS (TYP.)

GRADE 60 = 30" R611.4 (1)



SHELL CROSS SECTION

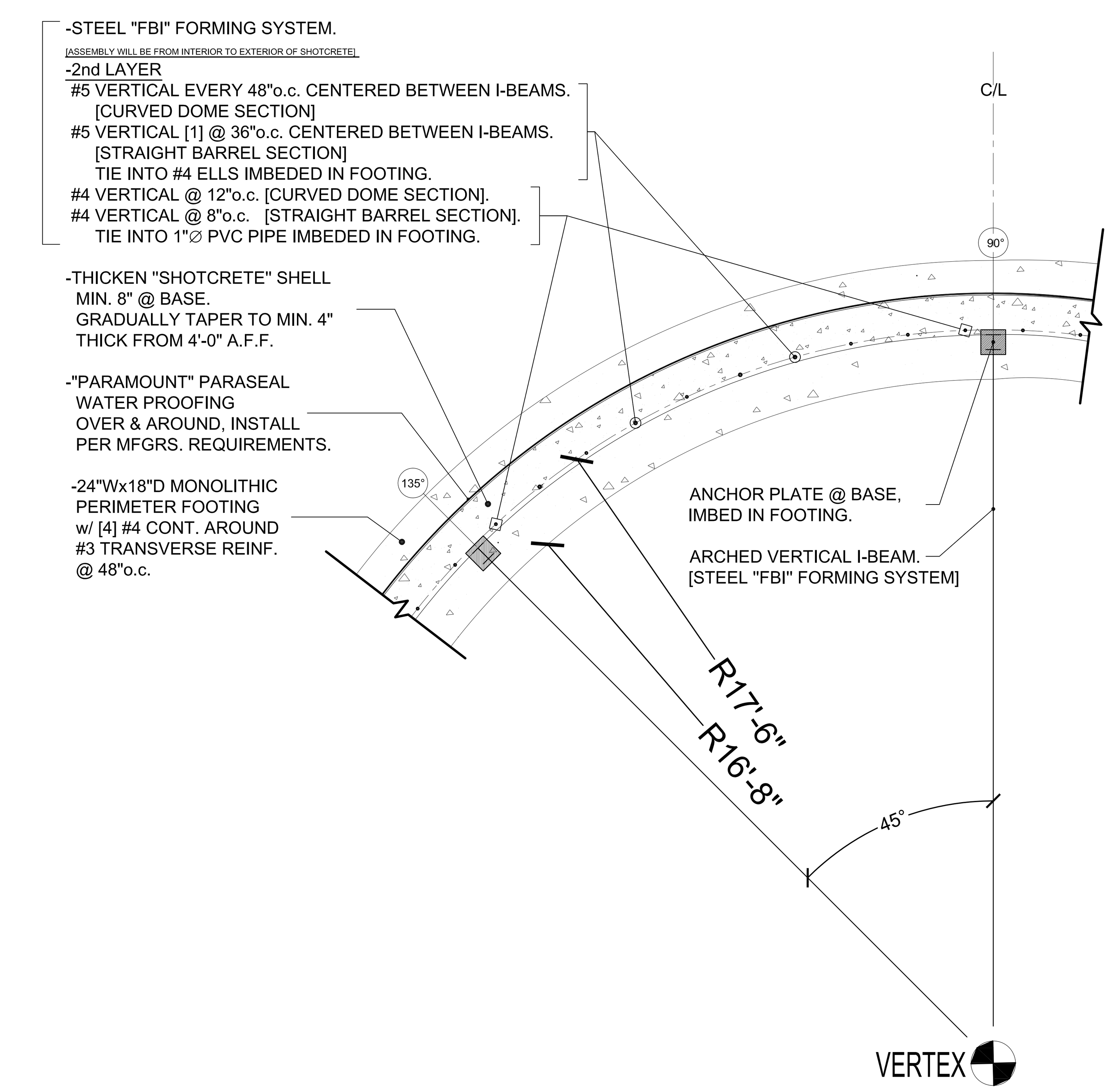
ACTUAL PLAN MAY VARY SLIGHTLY. SCALE: 1/2" = 1'



A-1

HORIZONTAL REINFORCING 1ST LAYER

PLACEMENT @ Z-TAB SCALE: 1½" = 1'-0"



A-2

VERTICAL REINFORCING PLACEMENT 2ND LAYER

SCALE: ½" = 1'-0"

Canadian Patent No. 1168458
U.S. Patent No. 4,488,392
U.S. Patent No. 4,352,260

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24' TYPE "A" - V
STRUCTURAL DETAILS, SECTIONS

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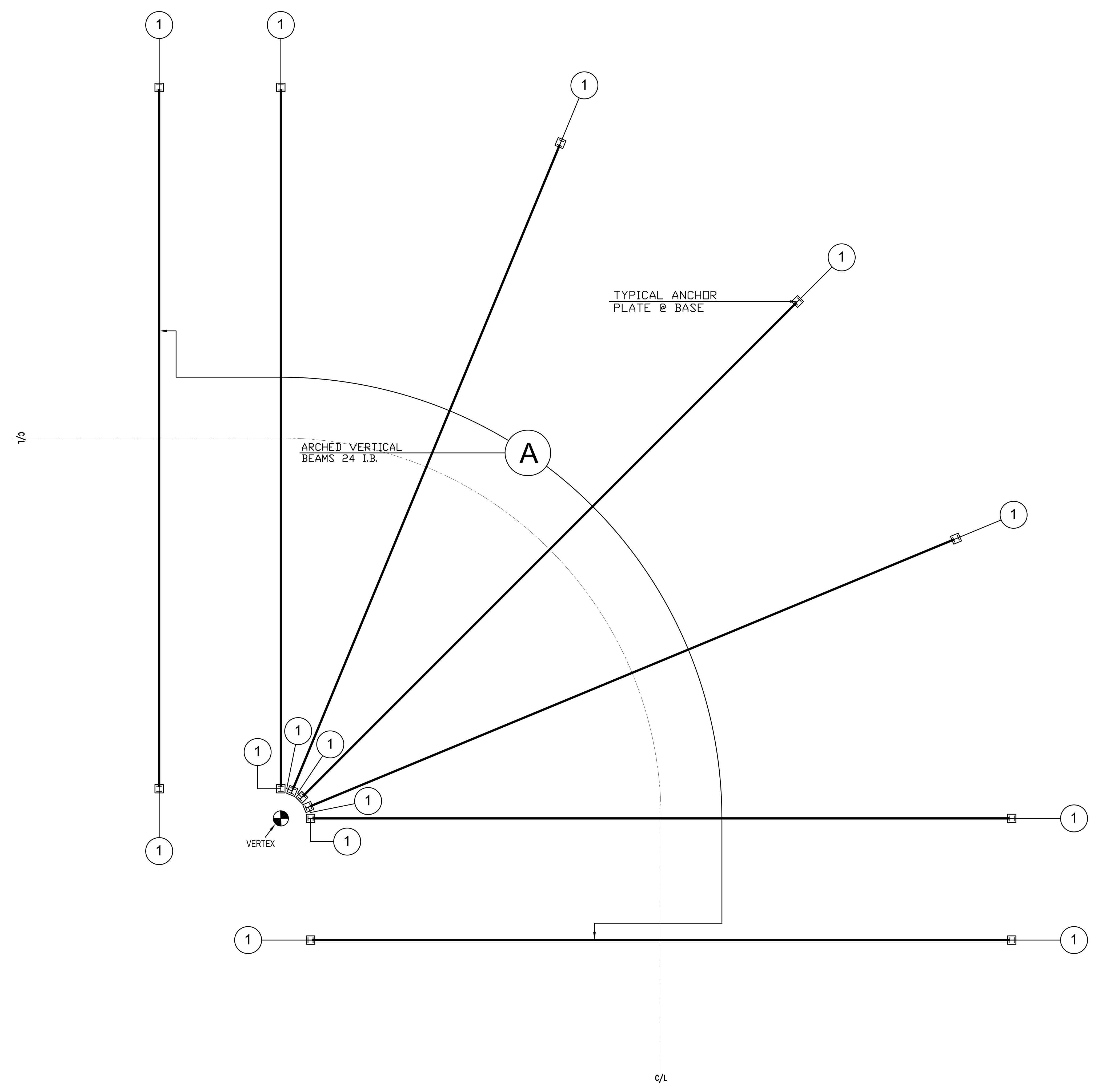
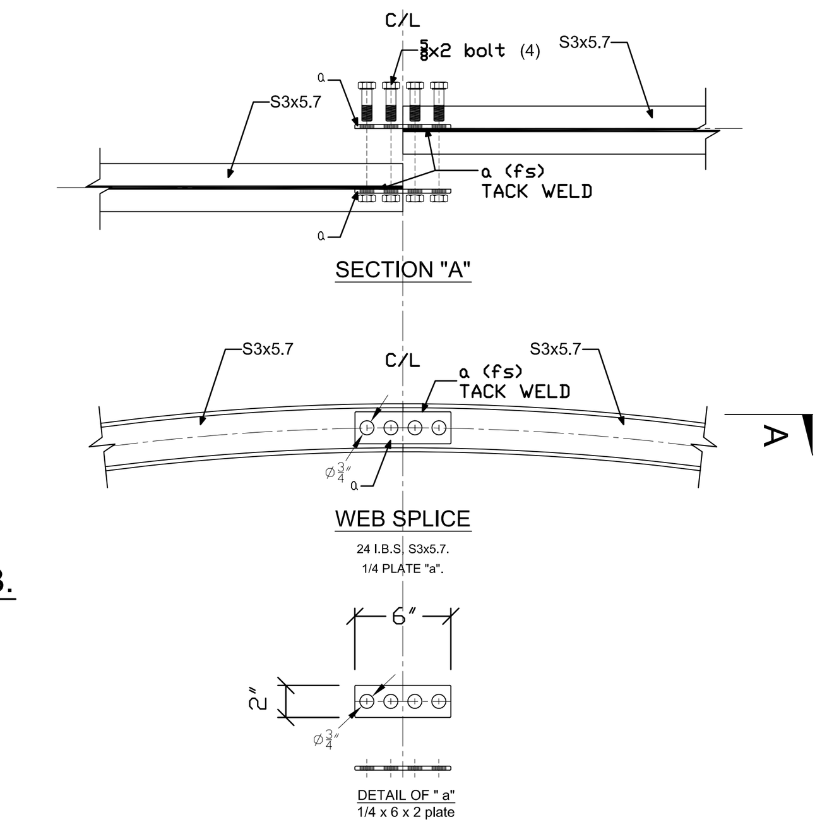
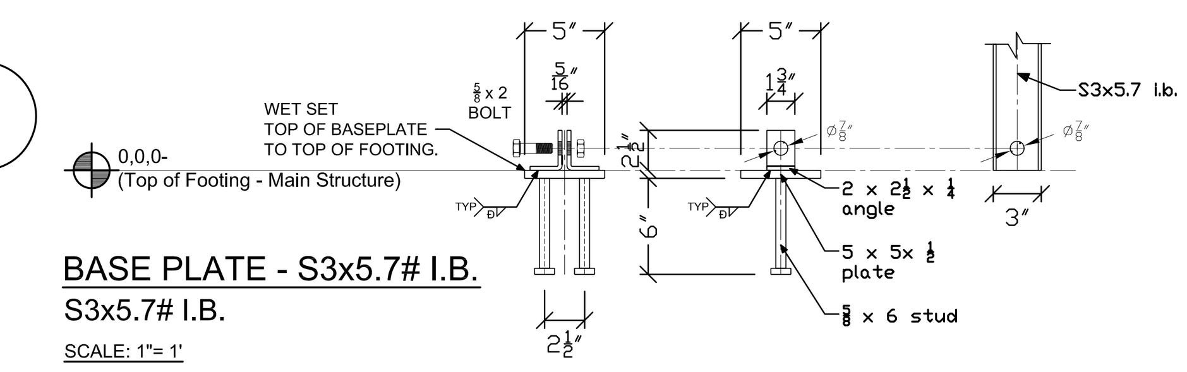




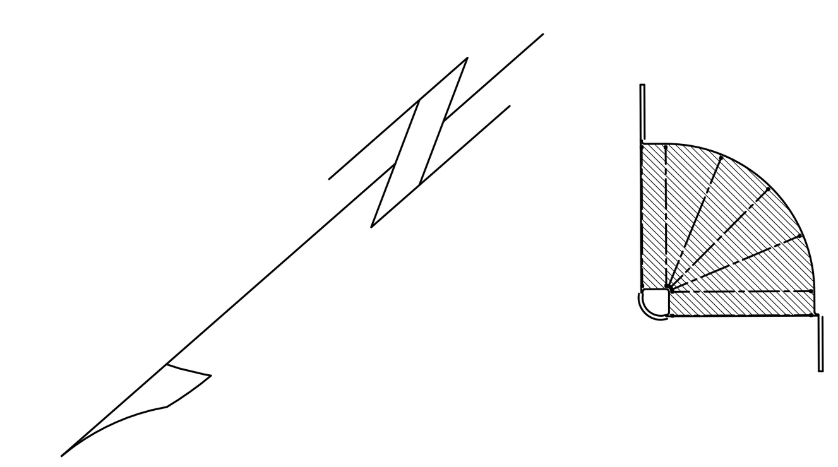
A

WEB SPLICE - S3x5.7# I.B.
S3x5.7# I.B.
1/4 PLATE "a"
SCALE: 1"= 1'



1

BASE PLATE - S3x5.7# I.B.
S3x5.7# I.B.
SCALE: 1"= 1'



NOTE:

PROPRIETARY INFORMATION IS THE SOLE PROPERTY OF FORMWORKS BUILDING INC.

SEE S6.1 FOR CORRESPONDING I-BEAM PROFILES.

1
- ALL CONVERGING VERTICAL REBAR MUST MAINTAIN A MINIMUM OF 2" SEPARATION
- NO BUNDLED BARS @ VERTEX

FORMWORKS BUILDING INC. STRUCTURAL SYSTEM INCLUDES:

1

FOUNDATION ANCHOR PLATES

MAIN STRUCTURAL STEEL BEAMS

ALL NUTS AND BOLTS FOR THE STEEL FRAME

REINFORCING STEEL (REBAR) FOR THE SHELL

FORMING SYSTEM

STEEL PLAN

1/4" = 1'- 0"

PROPRIETARY INFORMATION IS THE SOLE PROPERTY OF fORMWORKS BUILDING INC.

THIS IS NOT A STAND ALONE STRUCTURE.

IT IS PART OF THE FORMING SYSTEM AND

REMAINS IN PLACE AFTER THE SHELL CONCRETE

IS PLACED.

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STEEL PLAN

SEE S7 FOR GENERAL NOTES.

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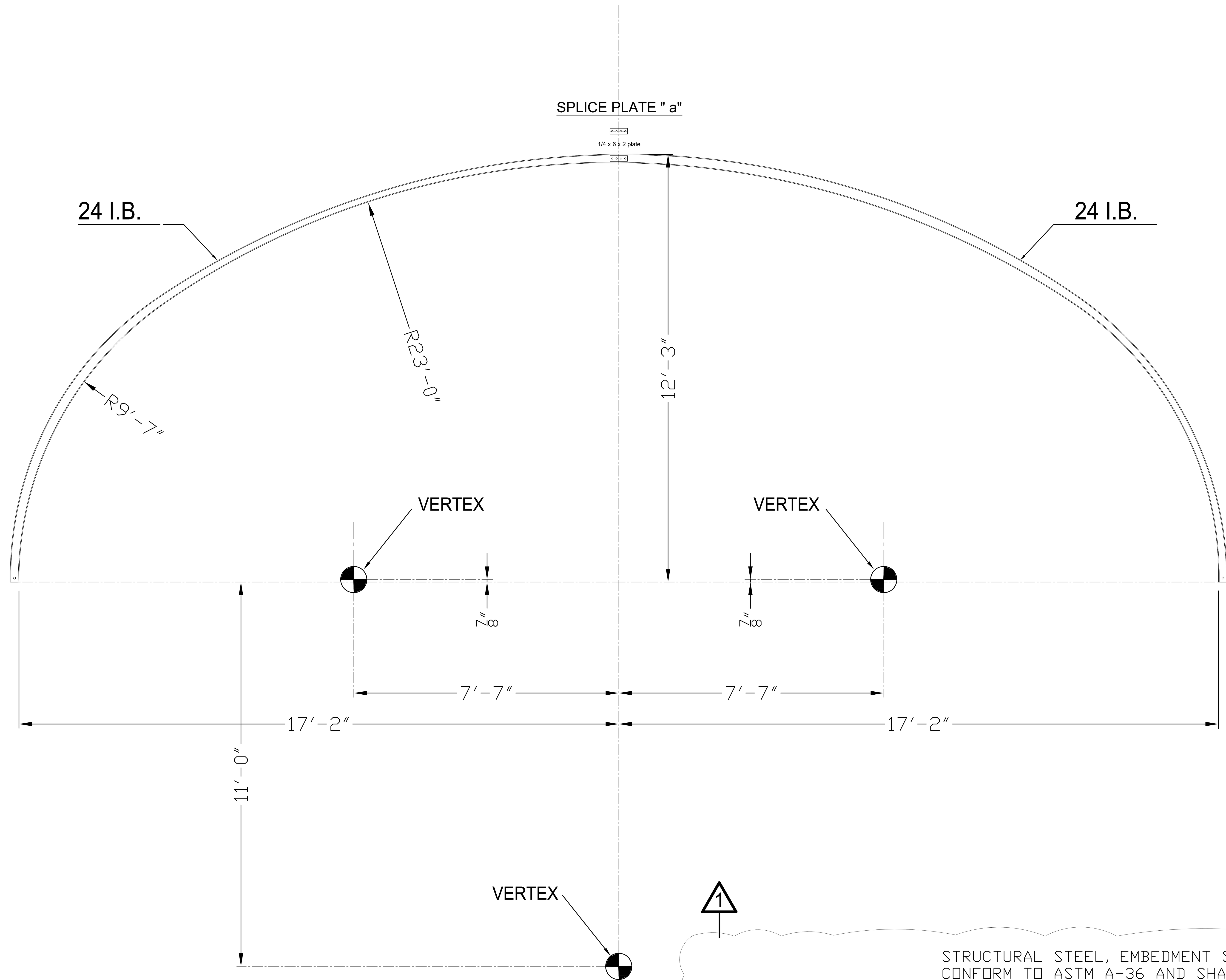

S3x5.7# I.B.
(QTY: 14) #1

A

S3x5.7#

SCALE: 1/2" = 1'-0"

1

STRUCTURAL STEEL, EMBEDMENT STEEL, AND CONNECTIONS SHALL CONFORM TO ASTM A-36 AND SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS AND CODE OF STANDARD PRACTICE.

ALL WELDED COMPONENTS ARE PROVIDED BY FORMORKS, BY CERTIFIED WELDING FABRICATORS.

STEEL PLAN

1/2" = 1'- 0"

THIS IS NOT A STAND ALONE STRUCTURE.

IT IS PART OF THE FORMING SYSTEM AND

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1/4" = 1'- 0"

SEE S7 FOR GENERAL NOTES.

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S6.1

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GENERAL NOTES

1. THE GOVERNING CODE IS THE CALIFORNIA RESIDENTIAL BUILDING CODE, 2013 EDITION.
   IF NO CODE EXISTS, ALL WORK, MATERIALS, AND METHODS OF INSTALLATION SHALL CONFORM TO THE INTERNATIONAL BUILDING CODE.

2. THE CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATION OF THE STRUCTURE, ORIENTATION, BENCH MARKS, REFERENCE FLOOR ELEVATIONS, LINES, AND GRADES, AND SHALL VERIFY SAME WITH RECOMMENDATIONS OF THE GEOTECHNICAL REPORT (ASSUMING THAT A GEOTECHNICAL REPORT WILL BE PROVIDED BY THE OWNER PURSUANT TO LOCAL REQUIREMENTS) PRIOR TO EXCAVATING FOR THE FOUNDATION.

3. A FRENCH DRAIN SYSTEM SHALL BE INSTALLED AROUND THE PERIMETER OF THE FOUNDATION SLAB TO DRAIN AWAY AS MUCH "GROUND WATER" AS POSSIBLE AND MINIMIZE EXPANSION (OR CONSOLIDATION) POTENTIAL OF SUBGRADE BEARING SOILS. THE HIGHEST POINT OF THE FRENCH DRAIN SHALL BE NEAR THE MIDDLE OF THE "BACK WALL" OF THE STRUCTURE AND SHALL SLOPE EACH DIRECTION FROM THE HIGH POINT. FOUR INCH DIAMETER (4" Ø) PERFORATED P.V.C. PIPE IS RECOMMENDED WITH THE PERFORATIONS TO BE ORIENTED DOWNWARD. THE PIPE SHALL BE BEDDED IN ONE-HALF INCH (1/2") GRAVEL, WITH A TOP LAYER OF CLEAN PEA GRAVEL AND A COVER OF PERMEABLE FILTER FABRIC. THE PIPE GRADIENT SHALL BE AT LEAST ONE-EIGHTH INCH PER FOOT (1/8"/FT.), AND THE DISCHARGE SHALL BE EITHER "DAYLIGHTED" OR SHALL BE COLLECTED IN A CONTAINED SUMP AND PUMPED TO THE STREET GUTTER OR AN ACCEPTABLE SURFACE DRAINAGEWAY. IF A SUMP PUMP IS REQUIRED, AN "ANNUNCIATION CIRCUIT" SHALL BE PROVIDED WITH A WARNING LIGHT INSIDE THE HOUSE TO INDICATE PUMP FAILURE.

4. LANDSCAPING ADJACENT TO THE STRUCTURE SHALL UTILIZE PLANT SPECIES WHICH REQUIRE LIMITED WATERING. GRASS LAWN AREAS SHALL BE MINIMIZED AND AUTOMATIC SPRINKLER SYSTEMS ARE RECOMMENDED FOR BETTER CONTROL OF WATERING, WHICH SHOULD BE PERFORMED IN SHORT DURATION CYCLES (SEVERAL TIMES A DAY IF NECESSARY). SPRINKLER CONTROLS SHALL BE LOCATED AS FAR AWAY FROM THE STRUCTURE AS PRACTICAL.

5. FOUNDATION DESIGN IS BASED UPON A MAXIMUM ASSUMED SOIL BEARING CAPACITY OF 2000 PSF. SOIL BEARING MATERIALS ARE ANTICIPATED TO CONSIST OF NATIVE SILTY SANDS WITH SOME INTERSPERSED GRAVEL AND/OR COBBLE ROCK. IT IS RECOMMENDED THAT THE EXCAVATED SURFACE BE "PROOF-ROLLED" TO DISCLOSE ANY OBVIOUS "SOFT SPOTS" OR AREAS OF POTENTIAL CONSOLIDATION. THE SUPPLIER OF THE EARTH SHELTERED BUILDING STRUCTURE SHALL NOT BE RESPONSIBLE FOR LOCAL SOIL CONDITIONS OR POTENTIAL FOUNDATION BEARING PROBLEMS RESULTING THEREFROM. A GEOTECHNICAL EVALUATION OF THE SITE IS STRONGLY RECOMMENDED, EVEN WHEN IT IS NOT SPECIFICALLY REQUIRED BY THE LOCAL BUILDING AUTHORITY. WHERE CHANGES OF SOIL TYPE OR ANY OTHER QUESTIONABLE SOIL CONDITIONS MAY BE REVEALED DURING EXCAVATION, CONSULTATION WITH A LOCAL GEOTECHNICAL ENGINEER SHOULD BE CONSIDERED MANDATORY.

6. COMPACTION OF AGGREGATE BASE COURSE OR OTHER "UNDER-SLAB" FILL MATERIAL SHALL BE AT LEAST 95% OF THE STANDARD PROCTOR DENSITY ACCORDING TO ASTM D-698. COMPACTION OF FILL BEHIND RETAINING WALLS AND WALLS OF THE BUILDING STRUCTURE SHALL BE PLACED IN "LIFTS" NOT TO EXCEED EIGHT INCHES (8") THICKNESS BEFORE COMPACTION AND EACH LIFT SHALL BE AT LEAST 90% OF THE STANDARD PROCTOR DENSITY ACCORDING TO ASTM D-698. IT IS RECOMMENDEDICA THAT OVER-EXCAVATION OF SOIL IN EXCESS OF TEN INCHES (10") BENEATH THE FOUNDATION SYSTEM BE COMPENSATED BY CASTING THE CONCRETE SLAB PROPORTIONATELY THICKER THAN DETAILED.

7. POSITIVE SLOPE OF FINISH GRADES SHALL BE PROVIDED BEYOND THE PERIMETER OF THE BUILDING STRUCTURE SUCH THAT PERCOLATION OF STORM OR IRRIGATION WATER INTO BACKFILLED SOIL ZONES WILL BE MINIMIZED.

8. BACKFILLING AROUND THE SHELL STRUCTURE SHALL BE PLACED IN A SYMMETRICAL MANNER IN MAXIMUM 6'-0" HIGH LIFTS OF CLEAN GRANULAR MATERIAL, NONCOMPACTED EQUALLY AROUND THE STRUCTURE.

9. PLACEMENT OF THE DOME SHELL CONCRETE SHALL BE DOME IN A SYMMETRICAL MANNER IN LIFTS NOT TO EXCEED 8'-0".

10. THE FORMWORKS INC. FORMING SYSTEM SHALL BE ADEQUATELY AND PROPERLY BRACED DURING SHOTCRETE PLACEMENT TO PREVENT DISPLACEMENT OR DISTORTION OF STEEL FROM ITS DESIGN POSITION. WARNING: - IF THIS STEP IS NOT FOLLOWED, THE STEEL FRAMEWORK COULD BE OVERSTRESSED AND POSSIBLY DISTORTED WHICH MAY NOT BE ACCEPTABLE.

11. SITE-CAST CONCRETE SHALL BE MADE WITH TYPE II (ALKALI RESISTIVE) CEMENT AND SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 3,000 PSI WITHIN 28 DAYS. THE MIX DESIGN SHALL INCLUDE 5% (±1%) AIR ENTRAINMENT AND SHALL BE PLACED AND CURED IN ACCORDANCE WITH THE ACI MANUAL OF CONCRETE PRACTICE, VOLUMES 1 THRU 5. SLUMP AT THE TIME OF PLACEMENT SHALL NOT EXCEED FOUR INCHES (4"), AND MECHANICAL VIBRATION SHALL BE EMPLOYED FOR CONSOLIDATION TO ELIMINATE VOIDS AND HONEYCOMBING. PNEUMATICALLY PLACED CONCRETE ("SHOTCRETE") SHALL BE MADE WITH TYPE II CEMENT AND SHALL ATTAIN A MINIMUM COMPRESSIVE STRENGTH OF 4,000 PSI WITHIN 28 DAYS. THE MIX DESIGN SHALL INCLUDE 5% (±1%) AIR ENTRAINMENT AND SHALL BE PLACED WITH THE LOWEST SLUMP ACHIEVABLE WITH LOCAL MIX DESIGNS. IT IS SUGGESTED THAT THE USE OF ADDITIONAL CEMENT AND/OR THE JUDICIOUS ADDITION OF FLY-ASH WILL IMPROVE THE "PUMPABILITY" (AS WELL AS THE STRENGTH OF THE FINISHED CONCRETE. THE PUMP CONTRACTOR SHALL VERIFY ADJUSTMENT OF THE MIX DESIGN FOR OPTIMUM RESULTS.

12. IT IS RECOMMENDED THAT VERIFICATION OF STRENGTH FOR SITE-CAST CONCRETE SHALL BE THE PREROGATIVE OF THE OWNER. BOTH SITE-CAST CONCRETE AND PNEUMATICALLY PLACED CONCRETE CAN BE VERIFIED BY CORING CONCRETE IN PLACE, IF WARRANTED FOR A SPECIFIC REASON.

13. CONCRETE REINFORCING STEEL SHALL BE ASTM A-615 BILLET BARS, GRADE 60, OR WELDED WIRE FABRIC CONFORMING TO ASTM A-185, AS DETAILED. LAP BARS AT LEAST FORTY (40) BAR DIAMETERS AT SPLICES AND PROVIDE CORNER BARS TO MATCH PRIMARY REINFORCING. LAP WELDED WIRE FABRIC ONE FULL MESH AT SPLICES AND WIRE TOGETHER SECURELY. WELDED WIRE FABRIC SHALL BE INSTALLED WITHIN THE MIDDLE ONE-THIRD OF THE SLAB DEPTH.

14. STRUCTURAL STEEL, EMBEDMENT STEEL, AND CONNECTIONS SHALL CONFORM TO ASTM A-36 AND SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH AISC SPECIFICATIONS AND CODE OF STANDARD PRACTICE. ALL WELDED COMPONENTS ARE PROVIDED BY FORMWORKS, BY CERTIFIED WELDING FABRICATORS.

15. ANCHOR BOLTS MAY BE ASTM A-307 STEEL; ALL OTHER BOLTS SHALL CONFORM TO ASTM A-325. INSTALLATION AND TORQUING OF BOLTS SHALL BE PERFORMED IN ACCORDANCE WITH RECOMMENDATIONS OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION. STANDARD FRAMING CONNECTIONS SHALL BE UTILIZED FOR BEAM-TO-BEAM AND BEAM-TO-COLUMN CONNECTIONS.

16. LIGHT GAGE METAL FRAMING (STUDS, JOISTS, "TRACKS", AND ACCESSORIES) SHALL BE MANUFACTURED ACCORDING TO STANDARDS OF THE AMERICAN IRON AND STEEL INSTITUTE. GAGES OF COLD-FORMED MATERIALS SHALL BE LIMITED SUCH THAT ALL FABRICATION "BREAKS" ARE CLEAN AND STRAIGHT. SECTION PROPERTIES FOR EACH MEMBER SHALL CONFORM TO MINIMUM REQUIREMENTS CITED IN THE CONSTRUCTION DOCUMENTS; OR WHEN MINIMUM VALUES ARE NOT SPECIFIED, EACH MEMBER SHALL SATISFY MAXIMUM SPAN, HEIGHT,GDB P UNBRACED LENGTH, AND DEFLECTION CRITERIA TABULATED BY THE MANUFACTURER FOR THE SPECIFIED LOADING AND PERFORMANCE CRITERIA. DEFLECTION OF PRIMARY FRAMING MEMBERS REQUIRED TO SUPPORT BRITTLE FINISHES, SUCH AS WALL STUCCO OR TILE FLOORING, SHALL NOT EXCEED ONE-FIVE HUNDREDTH (1/500) OF THE SPAN WITHOUT REVIEW AND APPROVAL BY THE ENGINEER. ALL HEADERS SHALL BE SUPPORTED "IN DIRECT BEARING" BY AT LEAST ONE STUD AT EACH END. MULTIPLE JOISTS OR STANDARD HEADER TRACK MATERIAL MAY BE USED FOR HEADERS ABOVE OPENINGS IN NON-BEARING WALLS; HEADERS IN BEARING WALLS ABOVE OPENINGS GREATER THAN FOUR FEET (4'-0") IN WIDTH SHALL BE VERIFIED AND APPROVED BY THE ENGINEER. OTHERWISE, ALL ATTACHMENTS AND FIELD ASSEMBLY SHALL BE ACCORDING TO RECOMMENDATIONS OF THE MATERIAL SUPPLIER.

17. DIMENSIONAL LUMBER USED IN FRAMING APPLICATIONS SHALL BE HEM-FIR, NO.2 GRADE OR BETTER; DIMENSIONAL LUMBER AND WOOD PRODUCTS FOR NON-FRAMING, NON-STRUCTURAL APPLICATIONS MAY BE "CONSTRUCTION" OR "UTILITY" GRADE, AS APPROPRIATE.

18. FABRICATED WOOD JOISTS INDICATED ON THE DRAWINGS SHALL BE I-SERIES CONFIGURATION WITH PLYWOOD OR ORIENTED STRAND BOARD (O.S.B.) WEBS AND WITH SAWN LUMBER OR LAMINATED VENEER LUMBER FLANGES. FABRICATED WOOD JOISTS SHALL BE A STANDARD PRODUCT FROM A KNOWN AND REPUTABLE MANUFACTURER, WITH STRENGTH AND PERFORMANCE CERTIFIED ACCORDING TO DESIGN TABLES PUBLISHED BY THE MANUFACTURER. FABRICATED WOOD BEAMS INDICATED ON THE DRAWINGS SHALL BE A STANDARD PRODUCT FROM A KNOWN AND REPUTABLE MANUFACTURER WITH STRENGTH AND PERFORMANCE CERTIFIED ACCORDING TO DESIGN TABLES PUBLISHED BY THE MANUFACTURER.

19. THE SUPPLIER OF PRE-ENGINEERED WOOD TRUSSES SHALL BE ABLE TO PROVIDE UPON REQUEST ALL COMPUTER ANALYSES, CONNECTOR DATA, AND OTHER PERTINENT CERTIFICATION OF DESIGN ADEQUACY TO SUPPORT LIVE LOADS CITED ABOVE. FABRICATED TRUSSES SHALL BE TRANSPORTED IN A VERTICAL ORIENTATION (PREFERABLY RESTING UPON THE TOP CHORDS), AND EXTREME CARE SHALL BE EXERCISED TO PREVENT MISHANDLING DURING LOADING/UNLOADING OPERATIONS AND ERECTION.

20. FIREBLOCKING SHALL NOT EXCEED 10 FEET HORIZONTALLY OR VERTICALLY IN WALLS, UNDER OR AROUND STAIRS, OR ELSEWHERE AS STIPULATED IN THE INTERNATIONAL BUILDING CODE.

21. USE APPROVED PRESSURE TREATED MATERIALS OR EQUAL WHERE IN DIRECT CONTACT WITH CONCRETE, SOIL, OR SUBJECT TO WEATHER OR WATER LEAKAGE (E.G.-UNDER FLASHINGS), OR PROVIDE PROPER PROTECTIVE SEPARATION MATERIAL BETWEEN.

22. ALL PENETRATIONS OR JOINTS ARE TO BE CAULKED AND/OR SEALED WITH APPROVED MATERIALS.

23. IF REQUIRED, TREAT SOIL AROUND ALL PERTINENT AREAS OF STRUCTURE FOR TERMITE AND OTHER PEST PROTECTION.

24. WATERPROOFING SHALL BE AS MANUFACTURED BY "PARAMOUNT" PARASEAL, OR EQUAL AND SHALL BE INSTALLED TO MANUFACTURER'S SPECIFICATIONS.

25. ALL INSULATION BELOW GRADE SHALL BE AN APPROVED TYPE FOR USE AS SUCH, AND ALL EXPOSED SURFACES SHALL BE PROTECTED WITH AN APPROPRIATE COATING OR COVERING TO PREVENT DAMAGE OR DETERIORATION.

26. USE 12" OF CLEAN GRANULAR MATERIAL ADJACENT TO SHELL, OR USE PROTECTION BOARD TO ELIMINATE DAMAGE OF WATERPROOFING MATERIAL.

27. ALL OPENINGS REQUIRED FOR ELECTRICAL, MECHANICAL, AND OTHER EQUIPMENT SHALL BE LOCATED AND BLOCKED OUT OR SLEEVED BEFORE CONCRETE IS POURED. HOLES THROUGH CONCRETE BEAMS SHALL NOT EXCEED TEN INCHES (10") IN DIAMETER AND SHALL BE LOCATED WITHIN THE MIDDLE ONE-THIRD (1/3) OF THE DEPTH BETWEEN REINFORCING BARS. ADDITIONAL REINFORCING SHALL BE REQUIRED AROUND FORMED OPENINGS LARGER THAN SIX INCHES (6"). HOLES SHALL NOT BE CUT THROUGH HARDENED CONCRETE WITHOUT NOTIFICATION TO AND REVIEW BY THE ENGINEER.

28. ALL SAFETY MEASURES SHALL BE PRACTICED AND OBSERVED DURING CONSTRUCTION TO PREVENT AND ELIMINATE MISHAP.

29. THESE DRAWINGS HAVE BEEN REVIEWED FOR COMPLIANCE WITH BUILDING CODE REQUIREMENTS AFFECTING THE SAFETY AND STABILITY OF THE STRUCTURE. THE ENGINEER ASSUMES NO LIABILITY FOR ALTERNATES OR SUBSTITUTIONS EMPLOYED DURING CONSTRUCTIONICA UNLESS DOCUMENTED BY PRIOR WRITTEN APPROVAL. ENGINEERING SERVICES DO NOT INCLUDE DESIGN OF MECHANICAL AND PLUMBING SYSTEMS, DESIGN OF ELECTRICAL SYSTEMS, VERIFICATION OF EXISTING UTILITIES, OR SITING OF THE BUILDING STRUCTURE. ALL MECHANICAL AND ELECTRICAL WORK SHALL COMPLY WITH APPLICABLE CODES, RULES, AND REGULATIONS RELATING TO CONSTRUCTION PRACTICE, PUBLIC HEALTH, AND SAFETY. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS AND LICENSES, AND ALL WORK SHALL BE INSPECTED AND APPROVED BY THE BUILDING AUTHORITY.

REFERENCE NUMBER
SET NUMBER
ISSUED

REVISION		
NO.	DATE	DESCRIPTION
	02-18-16	FINAL
1	03-08-17	

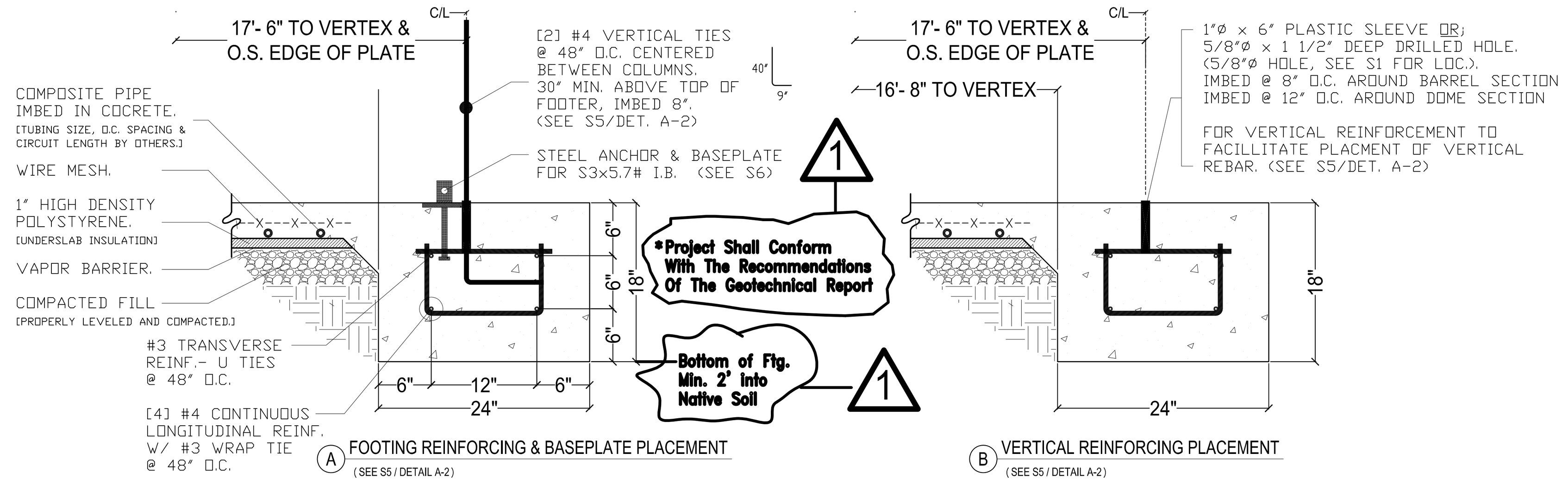
STRUCTURAL NOTES

FARNSWORTHY LTD
CAD DRAFTING - PLANS
3D MODELS 847-337-5704

PISSANETZKY RESIDENCE

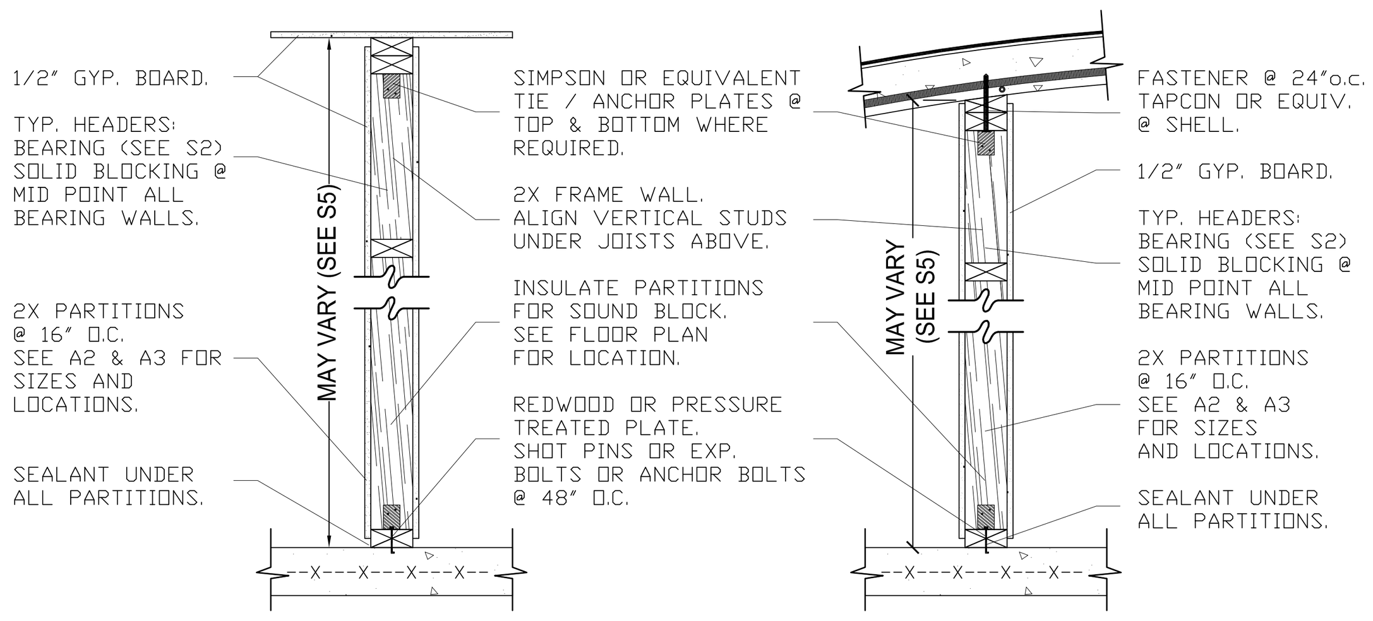
formworks 970-247-2100
p.o. box 1509 durango, co 81302
formworks building, inc.

S7



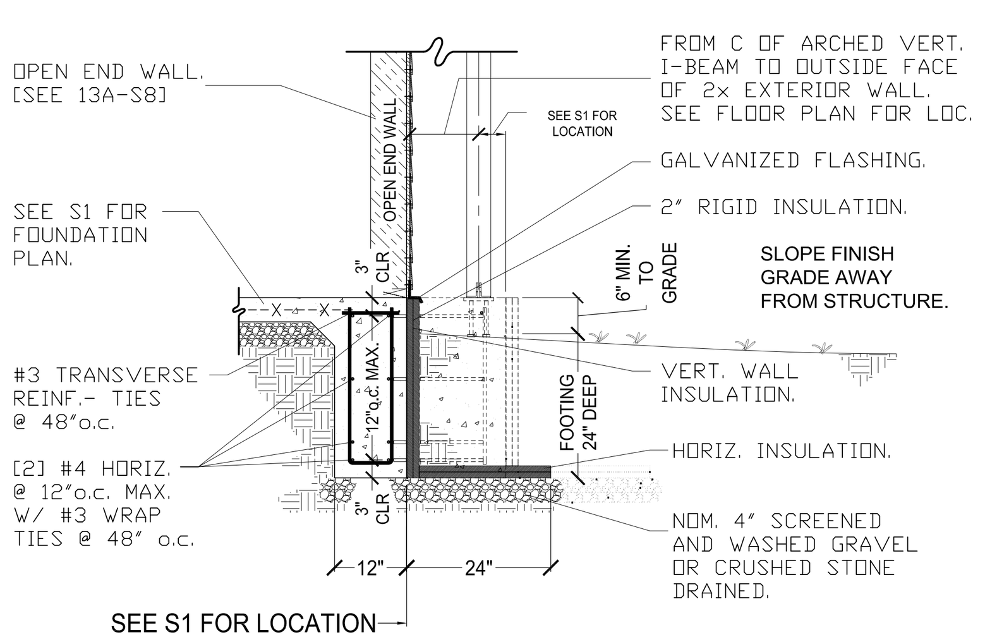
1VH 24'-V PERIMETER FOOTING

3/4" = 1'



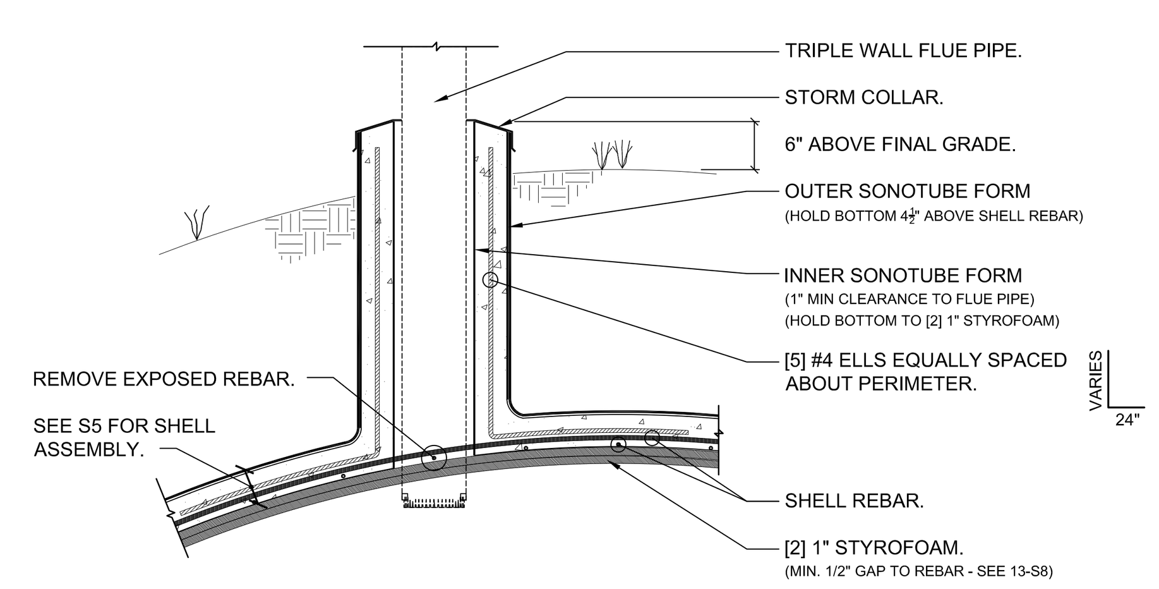
7 TYPICAL INTERIOR PARTITION

3/4" = 1'



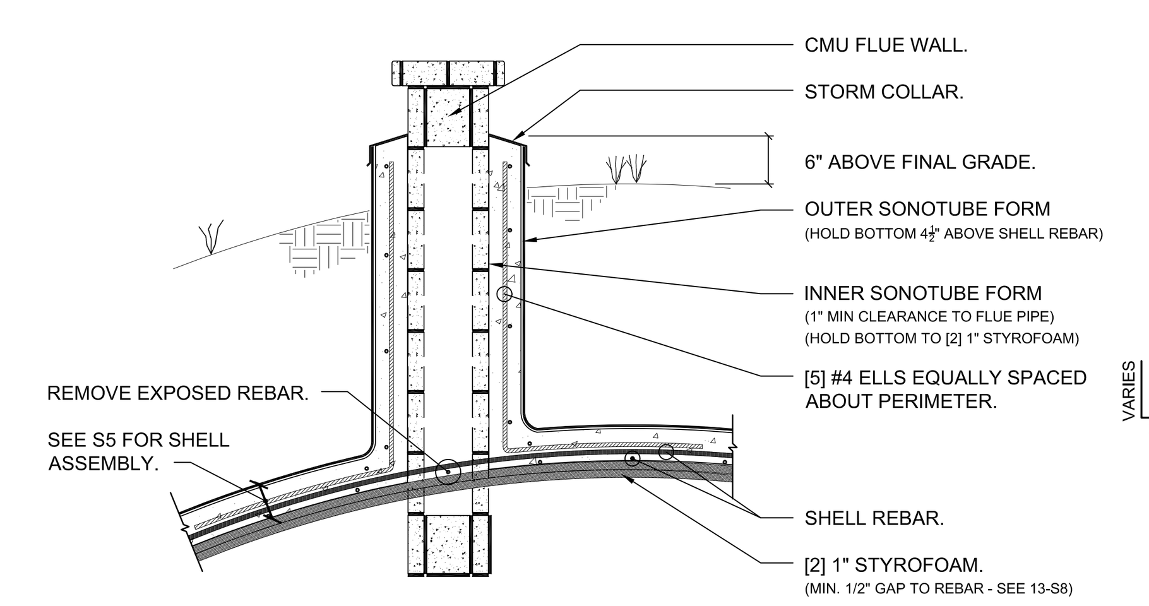
12A STD. RECESSED OPEN END WALL FOOTING

3/8" = 1'-0"



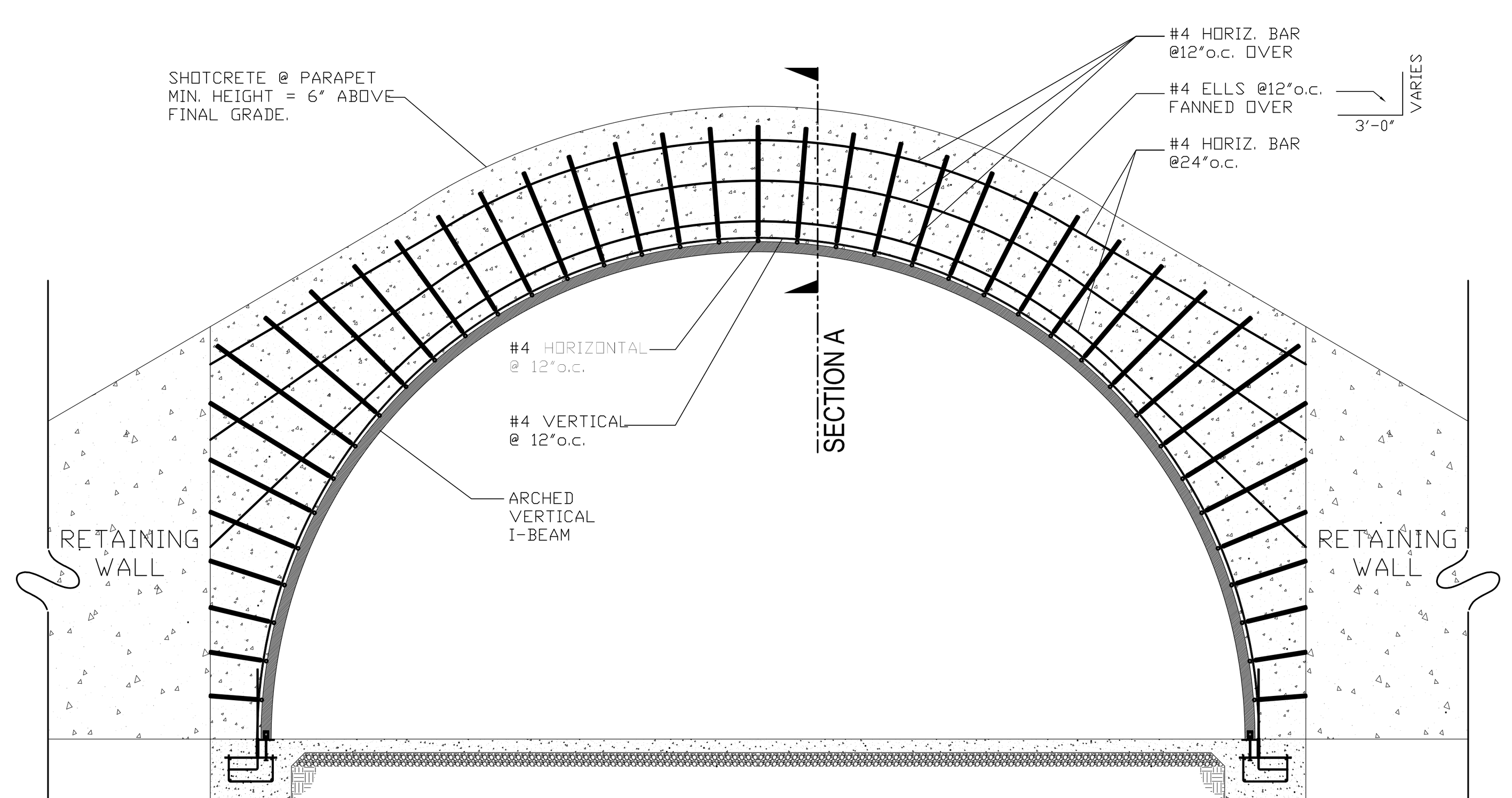
15A TYP. PIPE FLUE / SOLATUBE PENETRATION WALL @ SHELL

1/2" = 1'



15B TYP. CMU FLUE PENETRATION WALL @ SHELL

1/2" = 1'

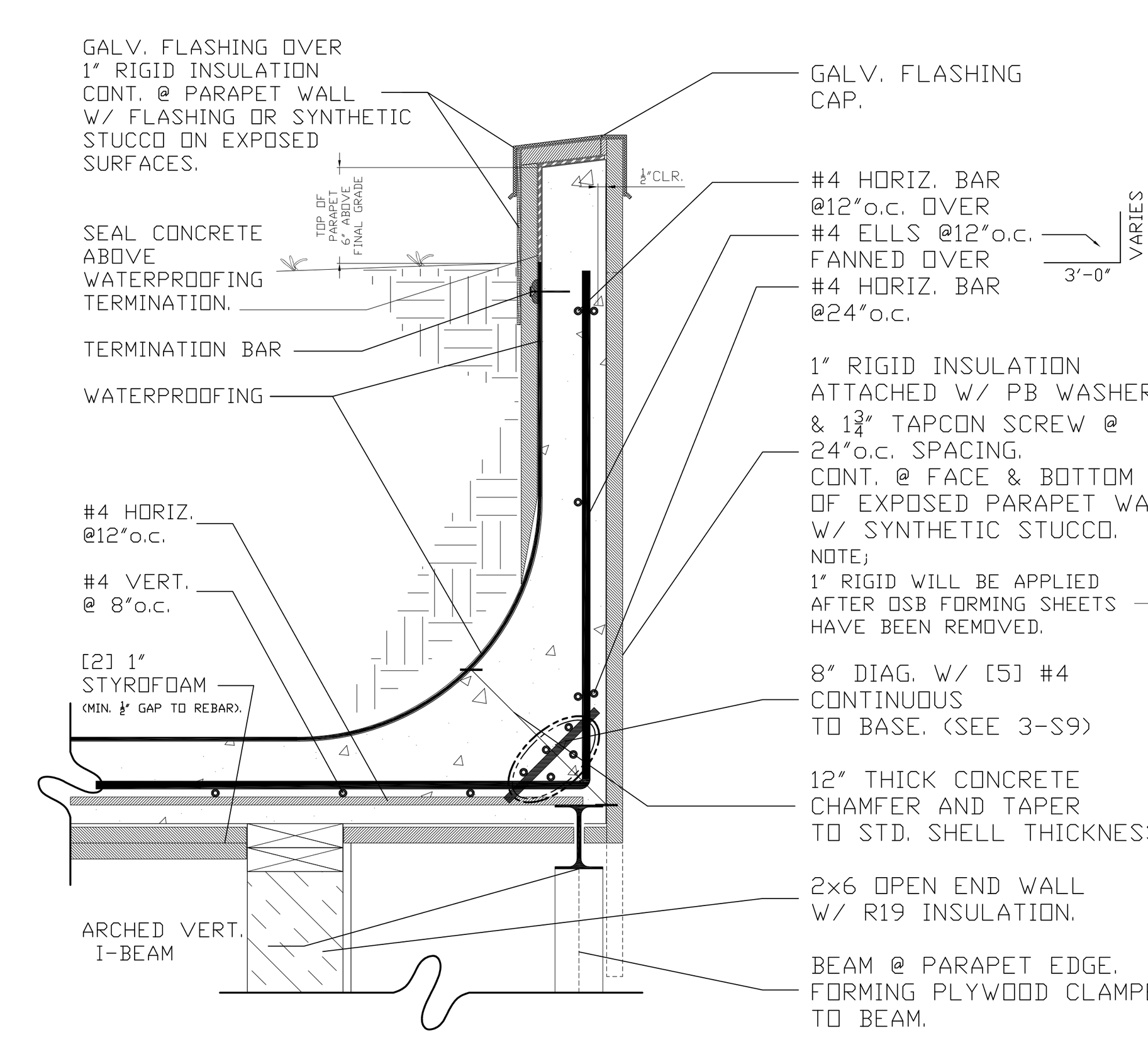


BACK VIEW

1/4" = 1'-0"

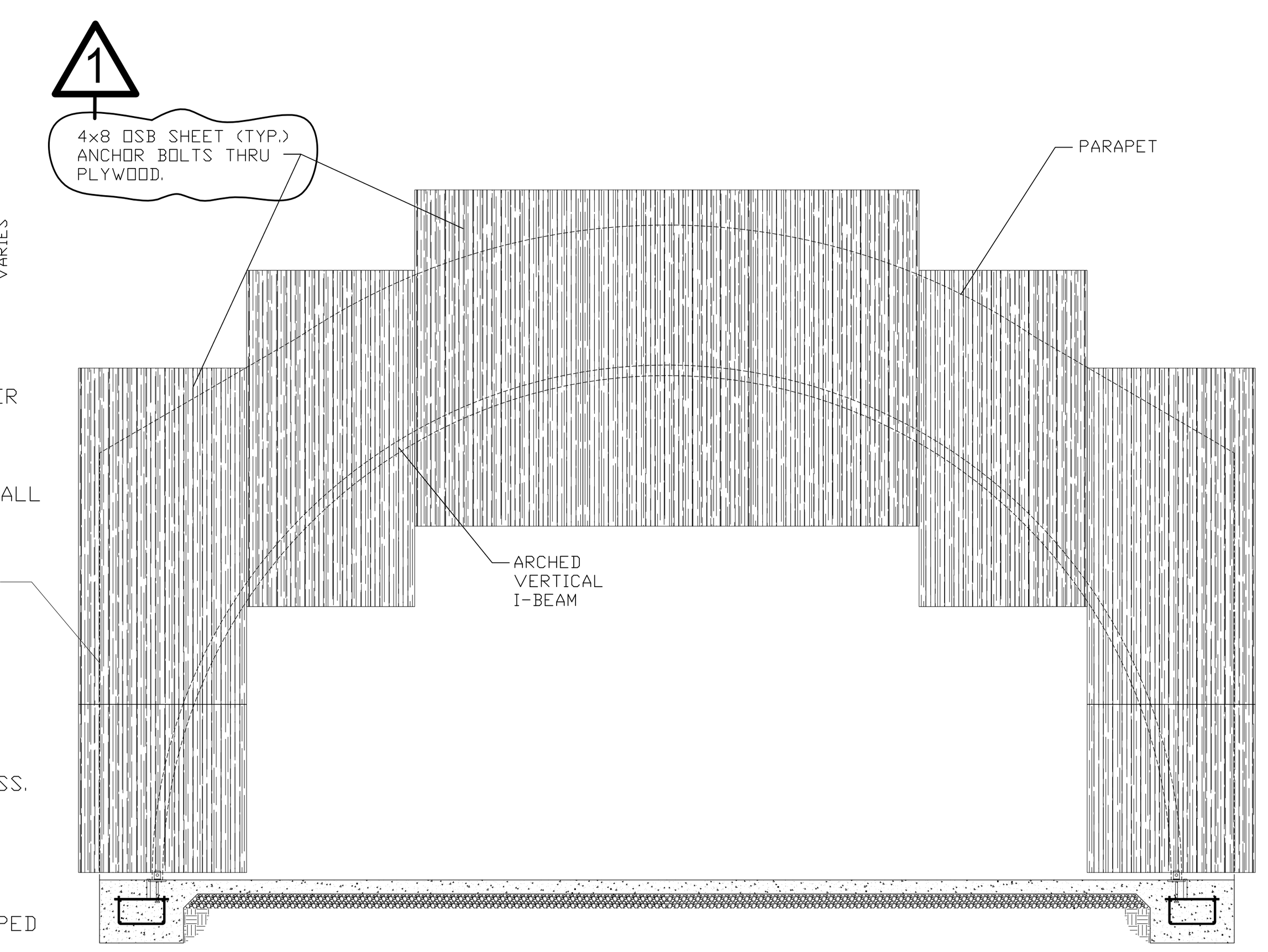
13A STD. RECESSED END WALL AND PARAPET

SCALE AS NOTED



A RECESSED END WALL @ PARAPET

1" = 1'-0"



FRONT VIEW - TYP. PARAPET WALL FORMING

1/4" = 1'-0"

Canadian Patent No. 1168458
U.S. Patent No. 4,488,,392
U.S. Patent No. 4,352,260

REFERENCE NUMBER

SET NUMBER

ISSUED

It shall be the responsibility of all the contractors and subcontractors to verify all dimensions and conditions prior to the start of construction or fabrication.

REVISION

NO.	DATE	DESCRIPTION
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1	03-08-17	

FOOTING, FRAMING DETAILS.
PARAPET WALL DETAILS.

FARNSWORTHY LTD
CAD DRAFTING - PLANS
3D MODELS 847-337-5704

PISSANETZKY RESIDENCE

formworks 970-247-2100
p.o. box 1509 durango, co 81302

formworks building, inc.

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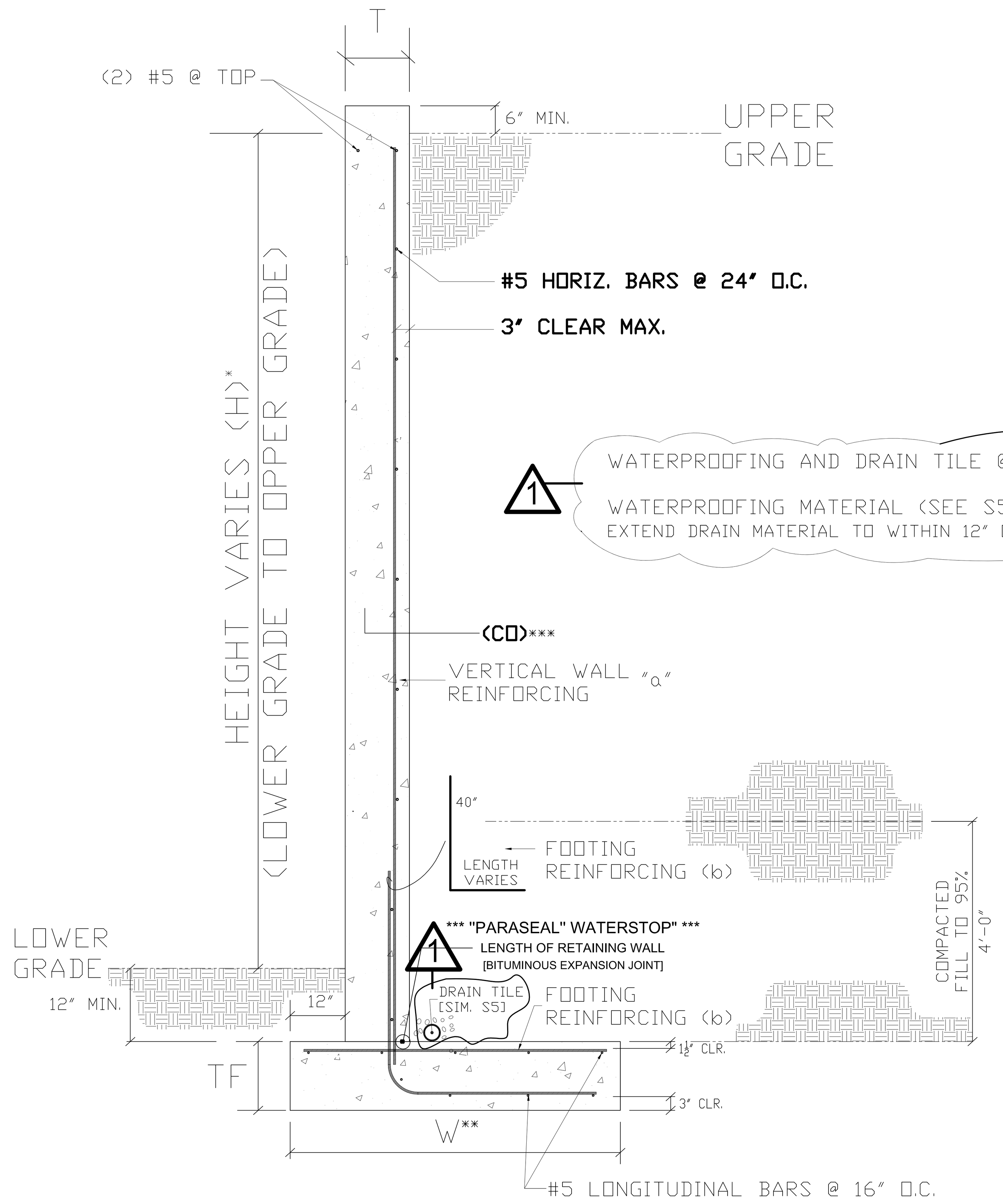


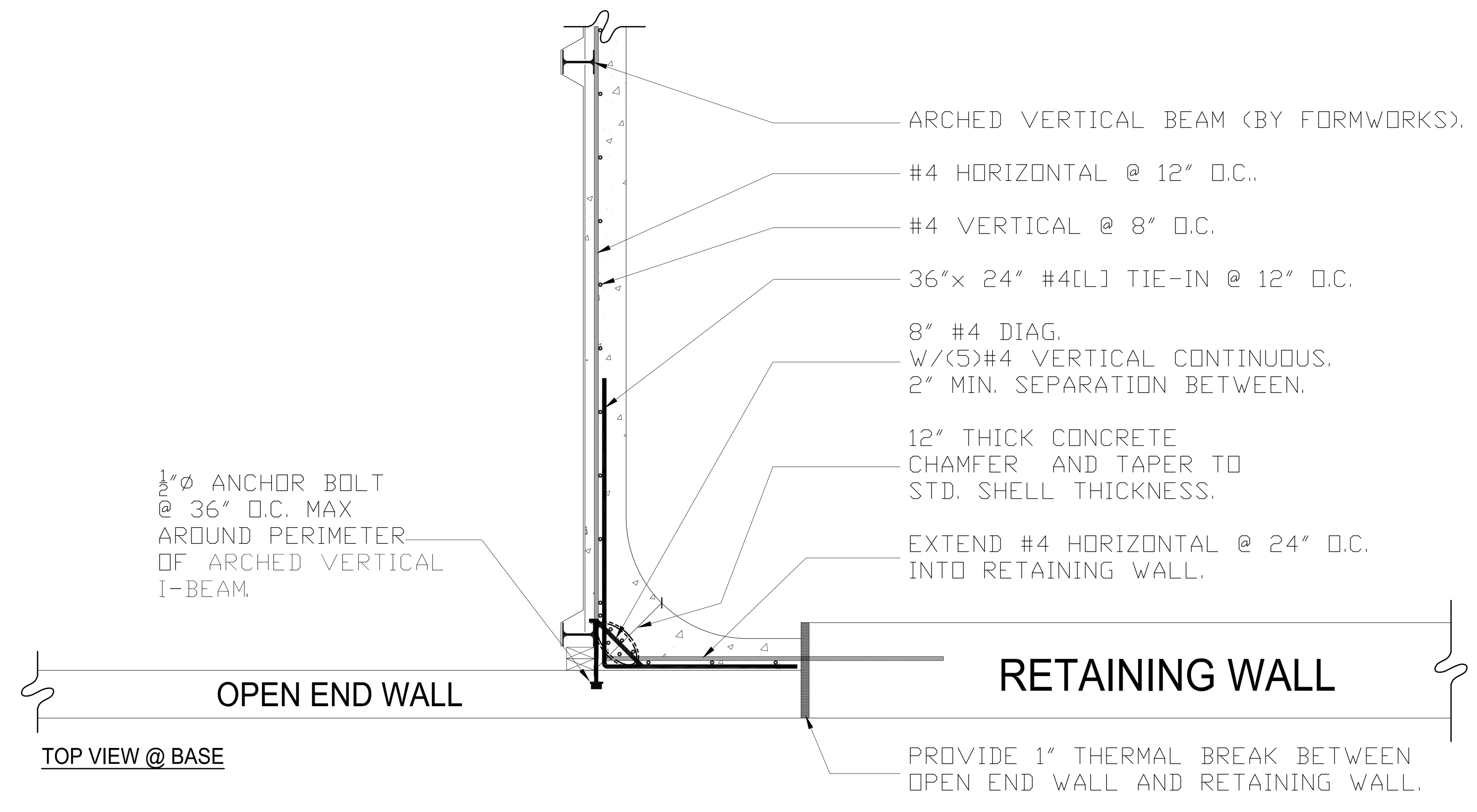
CONCRETE f'c - 4000 PSI
REINFORCING STEEL = GRADE 60

* HEIGHT (H)	WALL THICKNESS (T)	** FOOTING WIDTH (W)	FOOTING THICKNESS (TF)	WALL REINFORCING (a)	WALL REINF. SPACING	FOOTING REINF. (b)	FOOTING REINF. SPACING	*** CUT-OFF HEIGHT (CO)
18'	14"	8'-6"	1'-4"	#6	4"	#6	6"	4'-6"
16'	12"	7'-0"	1'-4"	#6	4"	#6	8"	4'-0"
14'	12"	6'-0"	1'-4"	#6	8"	#5	6"	3'-0"
12'	12"	5'-3"	1'-4"	#5	8"	#5	8"	2'-6"
10'	12"	4'-6"	1'-0"	#5	12"	#5	12"	
8'	12"	3'-6"	1'-0"	#4	12"	N/A	N/A	1'-6"
6'	12"	3'-6"	1'-0"	#4	24"	N/A	N/A	N/A

*DEDUCT 1'-0" FOR PROJECTION OF RETAINING WALL ABOVE "LOWER SOIL GRADE".
**WIDTH OF FOOTING MAY BE STEPPED OR TAPERED.
***HEIGHT AT WHICH EVERY SECOND VERTICAL BAR MAY BE DISCONTINUED.

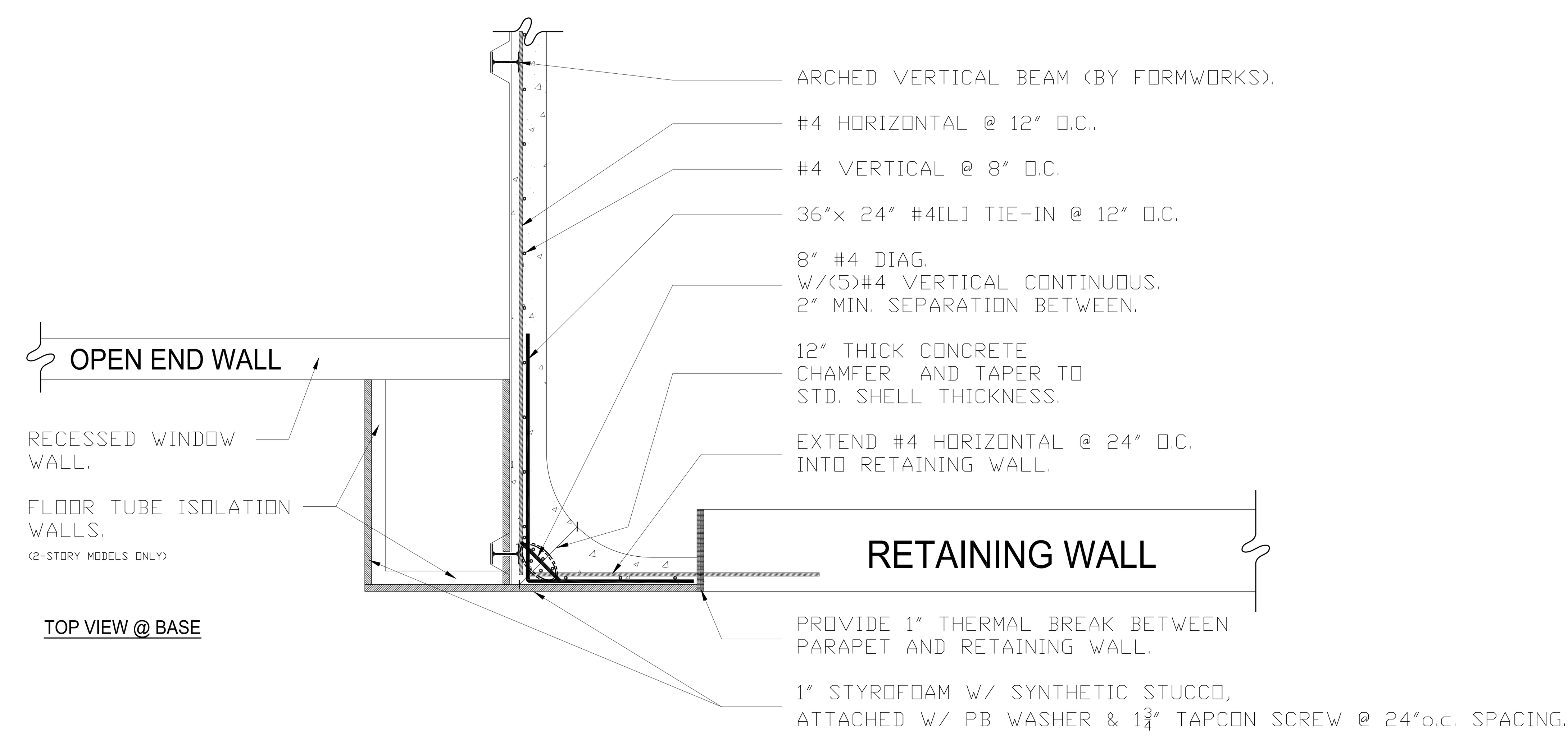
1 RETAINING WALL REINFORCEMENT

1/2" = 1'



2 STD. OPEN END SHELL TO RETAINING WALL CONNECTION

3/4" = 1'



2A RECESSED OPEN END SHELL TO RETAINING WALL CONNECTION

3/4" = 1'

Canadian Patent No. 1168458
U.S. Patent No. 4,488,,392
U.S. Patent No. 4,352,260

REFERENCE NUMBER
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SHELL & RETAINING WALL REINFORCEMENT

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CAD DRAFTING - PLANS
3D MODELS 847-337-5704

PISSANETZKY RESIDENCE

formworks **970-247-2100**
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