

1. 2003 EDITION OF THE INTERNATIONAL BUILDING CODE, WITH CITY OF AUSTIN AMENDMENTS.

1. EQUIVALENT FLUID PRESSURE = 65 PCF
2. VERTICAL SURCHARGE = 300 PSF (HS20 TRUCK LOADING)

SUB. REPORT BY KLEINFELDER, INC., PROJECT NO. 510091.

2. DESIGN SOIL BEARING VALUE = 2,500 PSF.

3. EXCAVATE EXISTING FAT CLAY SOILS FROM THE RETAINING WALL AREA TO AN ELEVATION WHERE LIMESTONE IS ENCOUNTERED OR THE GRADING DESIGN ELEVATION IS ACHIEVED, WHICHEVER RESULTS IN THE GREATER DEPTH.

4. BACKFILL WITH SELECT FILL TO THE REQUIRED ELEVATION. CONCRETE FOOTING SHALL BEAR ON A MINIMUM OF 6" SELECT FILL MATERIAL.

5. SELECT FILL SHOULD CONSIST OF A NON-EXPANSIVE, WELL-GRADED MATERIAL WITH SUFFICIENT BINDER FOR COMPACTION PURPOSES. ON-SITE LIMESTONE MATERIAL OR LOCALLY AVAILABLE CRUSHED LIMESTONE MEETING THE SPECIFICATIONS OF 1993 TxDOT ITEM 247, TYPE A, GRADE 4 OR BETTER MAY BE USED. IF OTHER MATERIALS ARE TO BE CONSIDERED, THEY SHOULD CONFORM TO THE FOLLOWING SPECIFICATIONS:

MAXIMUM AGGREGATE	3 IN
PERCENT RETAINED ON #4 SIEVE	20-75
PERCENT RETAINED ON #40 SIEVE	45-85
PLASTICITY INDEX	5 TO 20

6. SELECT FILL SHALL BE COMPACTED TO A DENSITY OF AT LEAST 95 PERCENT OF METHOD TEST 113E WITH A MOISTURE CONTENT WITHIN THE RANGE OF \pm 3 PERCENT OF OPTIMUM MOISTURE CONTENT.

1. BACKFILL MATERIAL AGAINST RETAINING WALLS SHALL CONFORM TO THE SELECT FILL SPECIFICATIONS LISTED ABOVE.
2. BACKFILL MATERIAL SHALL BE PLACED IN LOOSE LIFTS LESS THAN 8 INCHES THICK. EACH LIFT SHALL BE UNIFORMLY COMPACTED TO A DENSITY OF AT LEAST 95 PERCENT OF METHOD TEST 113E WITH A MOISTURE CONTENT WITHIN THE RANGE OF +/- 3 PERCENT OF THE OPTIMUM MOISTURE CONTENT. TAKE CARE NOT TO DAMAGE FRENCH DRAIN PAVING.
3. THE TOP OF THE GRANULAR DRAINAGE LAYER SHALL BE PROTECTED BY FLATWORK, PAVING OR A MINIMUM OF 1 FEET OF BACKFILL MATERIAL TO HELP PREVENT SURFACE INFILTRATION.

1. ALL CONCRETE WORK SHALL CONFORM TO THE AMERICAN CONCRETE INSTITUTE SPECIFICATION, A.C.I. # 301 AND BUILDING CODE REQUIREMENTS, A.C.I. #318, LATEST EDITION.
2. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS AS FOLLOWS:

RETAINING WALL -----	3,000 PSI
MINIMUM CEMENT CONTENT -----	5 SACKS/CY
MAXIMUM WATER/CEMENT RATIO -----	0.50
SUMP RANGE -----	3" MIN - 5" MAX
AGGREGATE SIZE -----	1" MAX

3. MECHANICALLY VIBRATE ALL CONCRETE WHEN PLACED.
4. NO FLY ASH ADDITIVES SHALL BE USED.

1. ASTM A615 ($f_y = 60$ KS) DEFORMED BARS FOR ALL BARS.
2. ALL GRADE 60 REINFORCING TO BE WELDED SHALL BE ASTM A706.
3. NO TACK WELDING OF REINFORCING BARS ALLOWED WITHOUT PRIOR REVIEW OF PROCEDURE WITH THE STRUCTURAL ENGINEER.
4. LATEST ACI CODE AND DETAILING MANUAL APPLY.
5. CLEAR CONCRETE COVERAGES AS FOLLOWS:
CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ----- 3"
EXPOSED TO EARTH OR WEATHER:----- 2"
#6 OR LARGER ----- 1 1/2"
#5 AND SMALLER ----- 1 1/2"
BEAMS (TO STIRRUPS) ----- 1 1/2"
ALL OTHER PER LATEST EDITION OF ACI 318.

1. LAP SPLICES, UNLESS NOTED OTHERWISE, SHALL BE CLASS "B" TENSION LAP SPLICES
2. PER LATEST EDITION OF ACI 318.
3. STAGGER SPLICES AT A MINIMUM OF ONE LAP LENGTH.
4. ALL SPLICE LOCATIONS SUBJECT TO APPROVAL BY THE STRUCTURAL ENGINEER.
5. PROVIDE BENT CORNER BARS TO MATCH AND LAP WITH HORIZONTAL BARS AT ALL CORNERS
6. AND INTERSECTIONS PER TYPICAL DETAILS.
7. REINFORCING BAR SPACING GIVEN ARE MAXIMUM ON CENTERS.
8. ALL BARS PER OCSI SPECIFICATIONS AND HANDBOOK.
9. DOWEL ALL VERTICAL REINFORCING TO FOUNDATION WITH STANDARD 90 DEGREE HOOKS
10. UNLESS NOTED OTHERWISE.
11. SECURELY TIE ALL BARS IN LOCATION BEFORE PLACING CONCRETE.

1. SHOP DRAWINGS: SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL STRUCTURAL ITEMS.
2. SHOP DRAWINGS SHALL BE SUBMITTED FOR ALL SHOP DRAWINGS PRIOR TO SUBMITTAL. ITEMS NOT
3. THE CONTRACTOR SHALL REVIEW ALL SHOP DRAWINGS SHALL BE FLAGGED UPON HIS REVIEW.
4. IN ACCORDANCE WITH CONTRACT DOCUMENTS SHALL BE
5. VERIFY ALL DIMENSIONS WITH ENGINEERING DEVIATIONS FROM CONTRACT DOCUMENTS SHALL BE
6. ANY CHANGES, SUBSTITUTIONS, OR FABRICATOR, ANY OF THE AFORESAIDED WHICH ARE NOT
7. CLOUDED BY MANUFACTURER OR SUBMITTING PARTIES, SHALL NOT BE CONSIDERED APPROVED
8. CLOUDED OR FLAGGED BY MANUFACTURER, UNLESS NOTED ACCORDINGLY.
9. AFTER ENGINEER'S REVIEW, UNLESS NOTED ACCORDINGLY, ANY CHANGES TO CONTRACT
10. THE ENGINEER HAS THE RIGHT TO APPROVE OR DISAPPROVE ANY CHANGES TO CONTRACT
11. DOCUMENTS AT ANYTIME BEFORE OR AFTER SHOP DRAWING REVIEW.
12. DOCUMENTS SHALL NOT REPLACE THE CONTRACT DOCUMENTS. ITEMS OMITTED OR
13. THE SHOP DRAWINGS DO NOT REPLACE THE STRUCTURAL ENGINEER ARE NOT TO BE
14. SHOWN INCORRECTLY AND ARE NOT FLAGGED BY THE CONTRACTOR'S RESPONSIBILITY
15. CONSIDERED CHANGES TO CONTRACT DOCUMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY
16. TO MAKE SURE ITEMS ARE CONSTRUCTED TO CONTRACT DOCUMENTS.
17. THE ADEQUACY OF ENGINEERING DESIGN AND LAYOUT PERFORMED BY OTHERS RESTS WITH
18. THE DESIGNING OR SUBMITTING AUTHORITY.
19. REVIEWING IS INTENDED ONLY AS AN AID TO THE CONTRACTOR IN OBTAINING CORRECT
20. SHOP DRAWINGS. RESPONSIBILITY FOR CORRECTNESS SHALL REST WITH THE CONTRACTOR.

GENERAL:

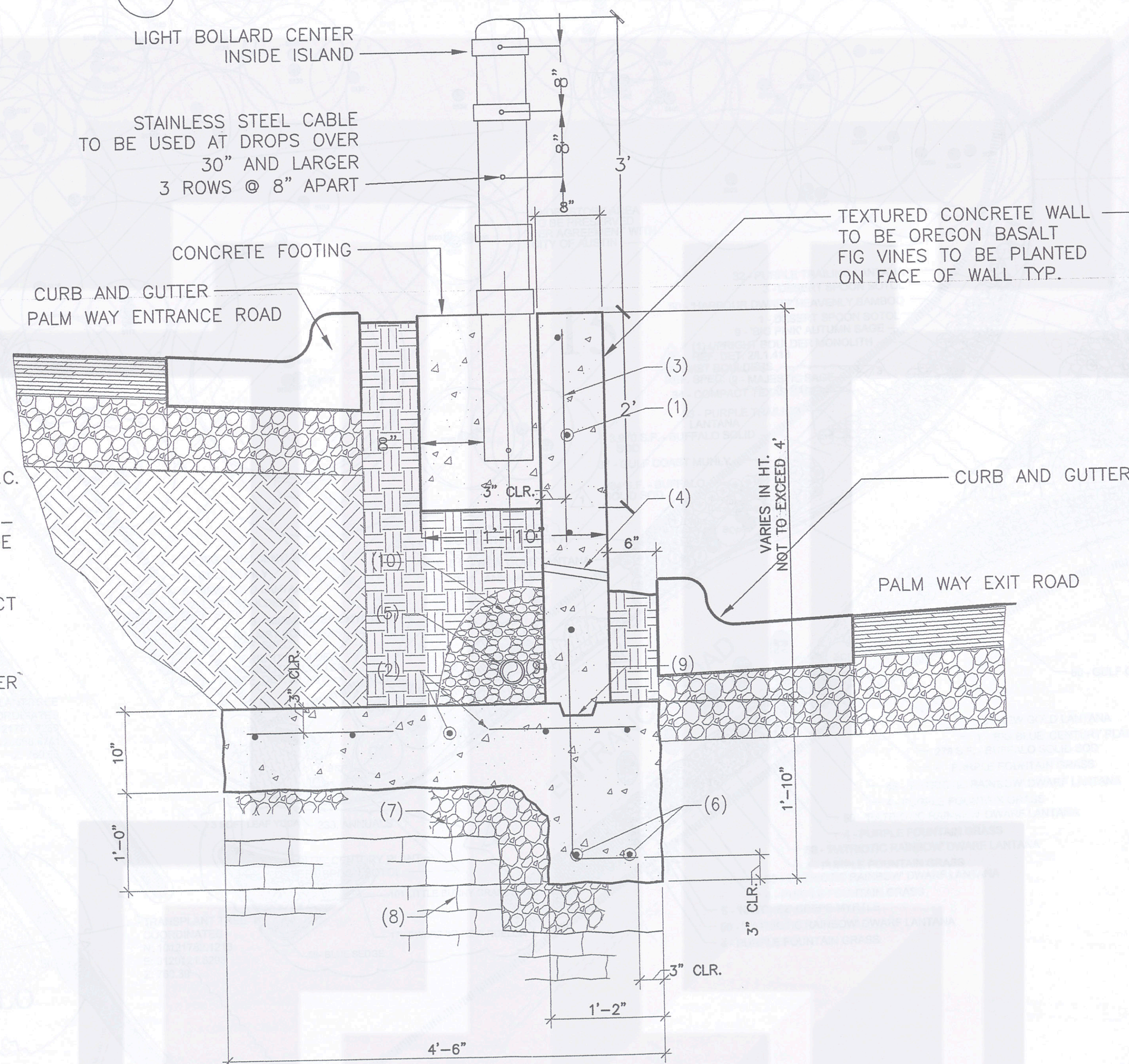
1. THE STRUCTURAL CONSTRUCTION DOCUMENTS REPRESENT THE FINISHED STRUCTURE. THEY DO NOT INDICATE THE METHOD OF CONSTRUCTION. THE CONTRACTOR SHALL PROVIDE ALL THE NECESSARY MEASURES TO PROTECT THE STRUCTURE DURING CONSTRUCTION. SUCH MEASURES NECESSARY TO PROTECT THE STRUCTURE DURING CONSTRUCTION, SUCH AS BRACING, SHORING FOR LOADS DUE TO CONSTRUCTION EQUIPMENT, ETC. THE STRUCTURAL ENGINEER SHALL NOT BE RESPONSIBLE FOR THE SELECTION OF SUCH MEASURES. SEQUENCES FOR PROCEDURE OF THE CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERETO (NOR THE CONSTRUCTION, OR THE SAFETY PRECAUTIONS AND THE PROGRAMS INCIDENT THERETO) SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL INCLUDE INSPECTION OF THESE ITEMS). WHERE REFERENCE IS MADE TO VARIOUS TEST STANDARDS FOR MATERIALS, SUCH STANDARDS SHALL BE THE LATEST ADVENTION AND/OR ADDENDA.
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BAR SIZE			TENSION BARS																COMP. BARS	
			f _c = 3,000 psi						f _c = 4,000 psi						f _c = 5,000 psi				f _c = ALL	
			REGULAR CLASS		TOP CLASS		REGULAR CLASS		TOP CLASS		REGULAR CLASS		TOP CLASS		OPEN	ENCLOSED WITH TIES				
			A	B	A	B	A	B	A	B	A	B	A	B						
#3	GR																			
	40	12	16	12	16	12	16	12	16	12	16	12	16	12	16	12	16	12	16	12
#4	GR																			
	40	17	22	17	22	17	22	17	22	17	22	17	22	17	22	17	22	17	22	12
#5	GR																			
	40	22	29	29	37	19	25	32	17	22	21	27	15	20	20	25	12	12	12	12
#6	GR																			
	40	28	36	36	47	24	31	31	41	22	29	22	24	29	37	19	16			19
#7	GR																			
	40	33	43	43	56	29	38	38	49	26	34	34	44	23	19					19
#8	GR																			
	40	48	62	62	81	42	55	55	71	38	49	49	64	27	22					22
#9	GR																			
	40	55	72	72	93	48	62	62	81	43	56	56	73	30	25					25
#10	GR																			
	40	62	81	81	105	54	70	70	91	48	62	62	81	34	28					28
#11	GR																			
	40	70	91	91	118	61	79	79	103	54	70	70	91	39	32					32
#12	GR																			
	40	78	101	101	132	67	87	87	113	60	78	78	101	43	36					36

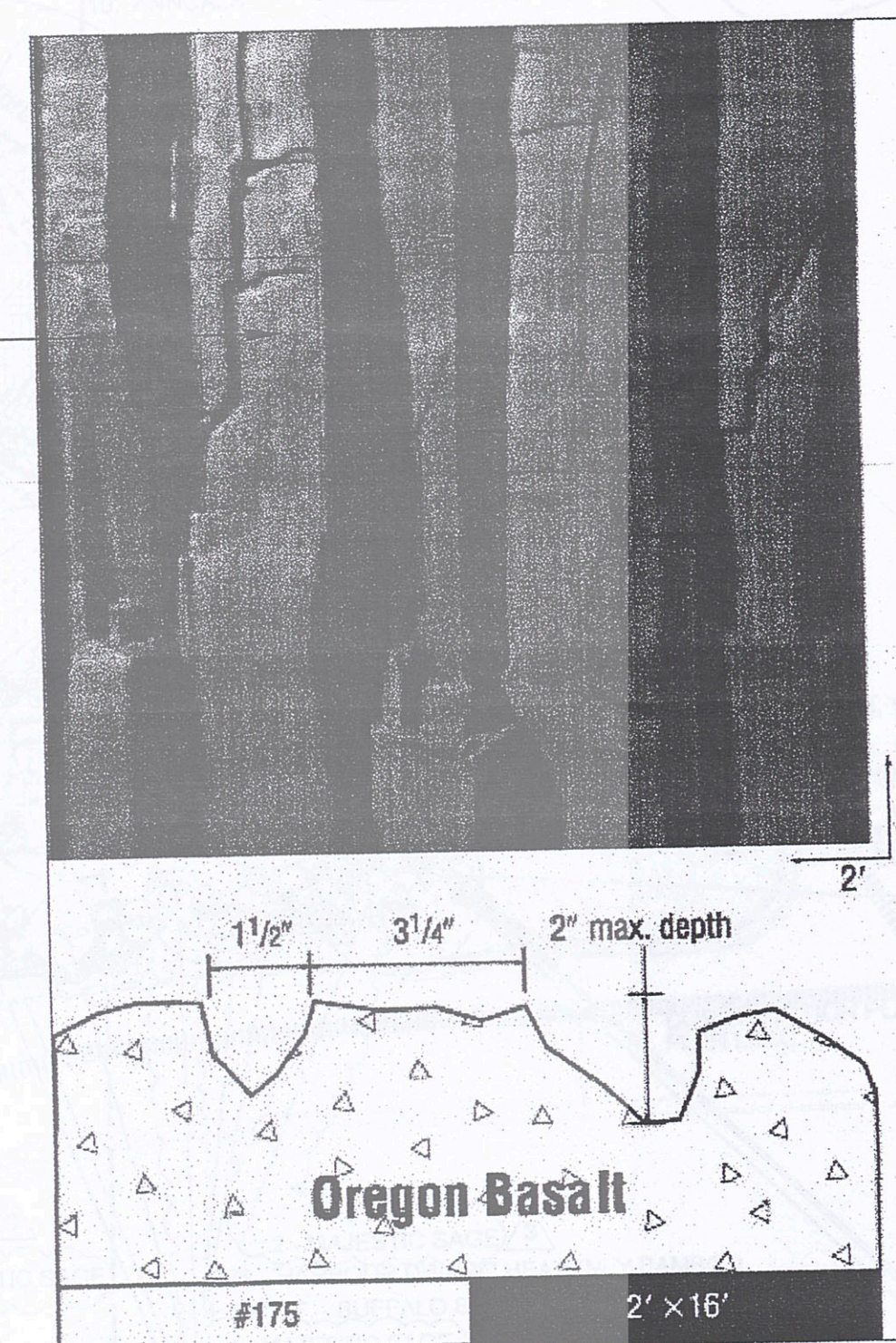
NOTE:

1. TOP BARS ARE ANY HORIZONTAL BARS PLACED SO THAT MORE THAN 12" OF FRESH CONCRETE IS CAST IN THE MEMBER BELOW THE REINFORCEMENT.
2. UNLESS NOTED OTHERWISE, LAP SPICES IN CONCRETE BEAMS, SLABS AND WALLS SHALL BE CLASS "B" TENSION LAP SPICES AND LAP PLUSES IN CONCRETE COLUMNS SHALL BE COMPRESSION LAP SPICES.

1 MINIMUM REINFORCING BAR SPLICE LENGTHS IN CONCRETE NO SCALE



SECTION SCALE: 1" = 1'-0"



RECORD SET