

WALL/FENCE CALCULATIONS

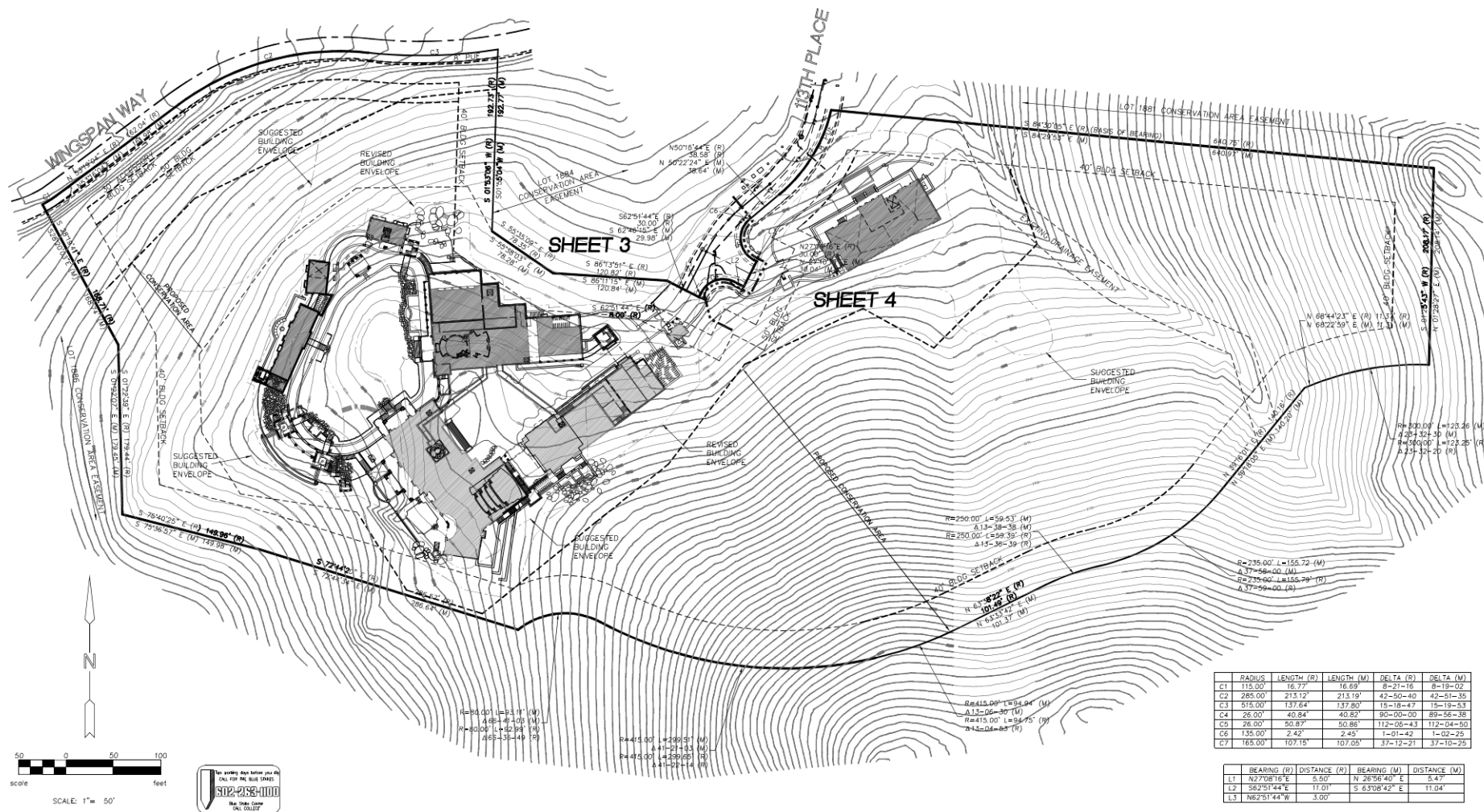
Linear footage of fences (non-retaining): _____ linear feet
 Linear footage of retaining walls (w/out fences): _____ linear feet
 Linear footage of retaining walls with fences on top: _____ linear feet

NOTE: Wall lengths shown above are for permitting purposes only.
 Contractor/Owner is responsible for verifying accuracy of wall quantities as shown.

Refer to architectural drawings for site retaining wall details.
 See sheet

*SEE LANDSCAPE PLANS FOR SITE WALL AND TOP
 OF WROUGHT IRON HEIGHTS ABOVE RETAINING WALLS

SITE OVERVIEW (SEE SHEETS 3 & 4 FOR GRADING & DRAINAGE DESIGN)



	RADIUS	LENGTH (F)	LENGTH (M)	DELTA (F)	DELTA (M)
C1	115.00'	16.77'	16.69'	8-21-16	8-19-02
C2	285.00'	213.12'	213.19'	42-50-40	42-51-35
C3	515.00'	137.64'	137.80'	15-18-47	15-18-53
C4	26.00'	40.84'	40.82'	90-00-00	89-56-38
C5	26.00'	50.87'	50.86'	112-06-43	112-04-50
C6	135.00'	2.42'	2.45'	1-01-42	1-02-25
C7	165.00'	107.19'	107.09'	37-12-21	37-10-29

	BEARING (F)	DISTANCE (F)	BEARING (M)	DISTANCE (M)
L1	N 27°08'18" E	5.50'	N 28°56'40" E	5.47'
L2	S 62°51'44" E	11.01'	S 63°08'42" E	11.04'
L3	N 62°51'44" W	3.00'		



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DATE: 8/7/10
 CAC: MOD. 7/7/10
 HCA: COMMENTS

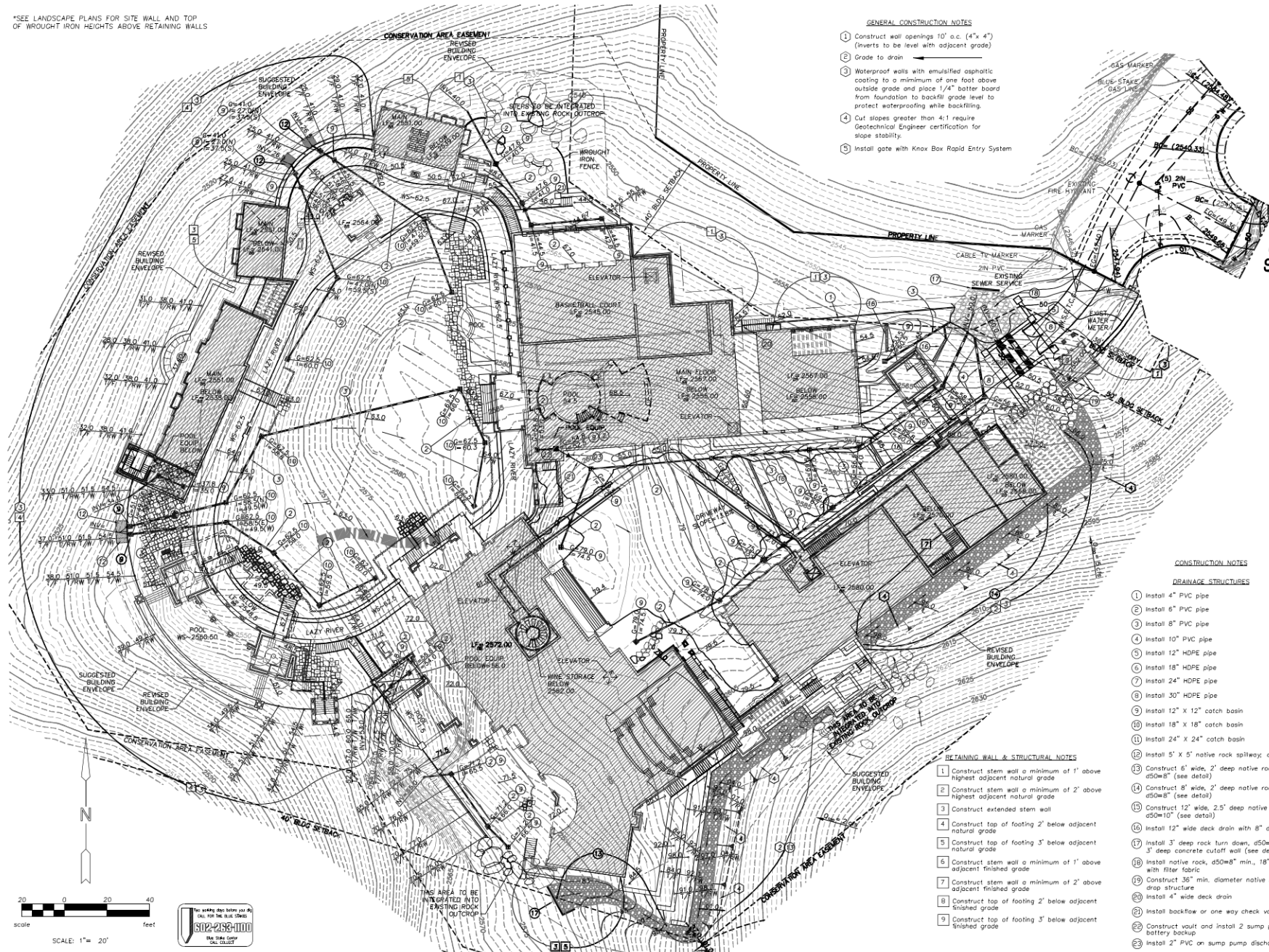
GRADING PLAN
 LOT 1882 DC RANCH PARCEL 6.8
 21264 NORTH 13TH PLACE
 SCOTTSDALE, ARIZONA



SHEET 5
 OF 2
 DATE
 AUGUST 2010

1883DCR

*SEE LANDSCAPE PLANS FOR SITE WALL AND TOP OF WROUGHT IRON HEIGHTS ABOVE RETAINING WALLS



GENERAL CONSTRUCTION NOTES

- Construct wall openings 10' o.c. (4"x 4") (inverts to be level with adjacent grade)
- Grade to drain
- Waterproof walls with emulsified asphaltic coating to a minimum of one foot above outside grade and place 1/4" batter board from foundation to backfill grade level to protect waterproofing while backfilling.
- Cut slopes greater than 4:1 require Geotechnical Engineer certification for slope stability.
- Install gate with Knox Box Rapid Entry System

MATCH SHEET 4

CONSTRUCTION NOTES

DRAINAGE STRUCTURES

- Install 4" PVC pipe
- Install 6" PVC pipe
- Install 8" PVC pipe
- Install 10" PVC pipe
- Install 12" HDPE pipe
- Install 18" HDPE pipe
- Install 24" HDPE pipe
- Install 30" HDPE pipe
- Install 12" x 12" catch basin
- Install 18" x 18" catch basin
- Install 24" x 24" catch basin
- Install 5' x 5' native rock spillway; d50=8" (see detail)
- Construct 6' wide, 2' deep native rock lined channel; d50=8" (see detail)
- Construct 8' wide, 2' deep native rock lined channel; d50=8" (see detail)
- Construct 12' wide, 2.5' deep native rock lined channel; d50=10" (see detail)
- Install 12" wide deck drain with 8" drain pipe
- Install 3" deep rock turn down, d50=10" or 12" wide, 3' deep concrete cutoff wall (see detail)
- Install native rock, d50=8" min., 18" min. depth with filter fabric
- Construct 36" min. diameter native boulder hydraulic drop structure
- Install 4" wide deck drain
- Install backflow or one way check valve
- Construct vault and install 2 sump pumps with battery backup
- Install 2" PVC on sump pump discharge

RETAINING WALL & STRUCTURAL NOTES

- Construct stem wall a minimum of 1' above highest adjacent natural grade
- Construct stem wall a minimum of 2' above highest adjacent natural grade
- Construct extended stem wall
- Construct top of footing 2' below adjacent natural grade
- Construct top of footing 3' below adjacent natural grade
- Construct stem wall a minimum of 1' above adjacent finished grade
- Construct stem wall a minimum of 2' above adjacent finished grade
- Construct top of footing 2' below adjacent finished grade
- Construct top of footing 3' below adjacent finished grade



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REVISIONS
DATE
BY
DESCRIPTION

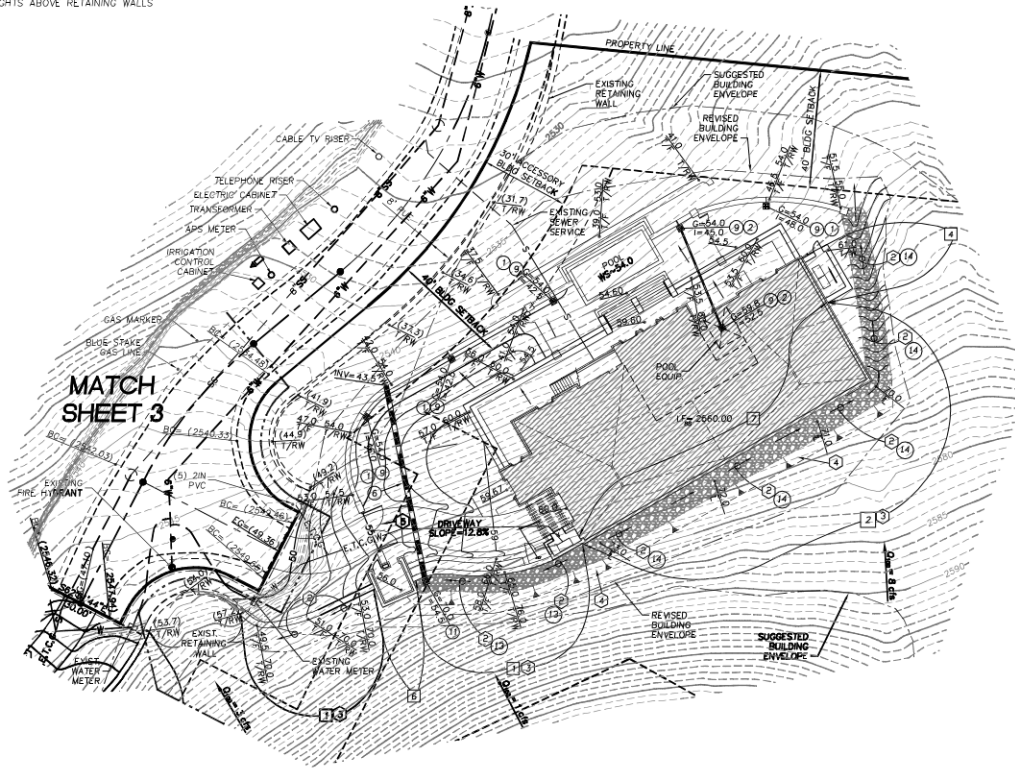
GRADING PLAN
LOT 1882 DC RANCH PARCEL 6.8
21264 NORTH 113TH PLACE
SCOTTSDALE, ARIZONA



SHEET 3 OF 5
DATE AUGUST 2010

DESIGNED BY: JRS
DRAWN BY: JRS
JOB NUMBER: 1883DCR

*SEE LANDSCAPE PLANS FOR SITE WALL AND TOP OF WROUGHT IRON HEIGHTS ABOVE RETAINING WALLS



GENERAL CONSTRUCTION NOTES

- Construct wall openings 10' o.c. (4" x 4") (inverts to be level with adjacent grade)
- Grade to drain
- Waterproof walls with emulsified asphaltic coating to a minimum of one foot above outside grade and place 1/4" batter board from foundation to backfill grade level to protect waterproofing while backfilling
- Cut slopes greater than 4:1 require Geotechnical Engineer certification for slope stability.
- Install gate with Knox Box Rapid Entry System

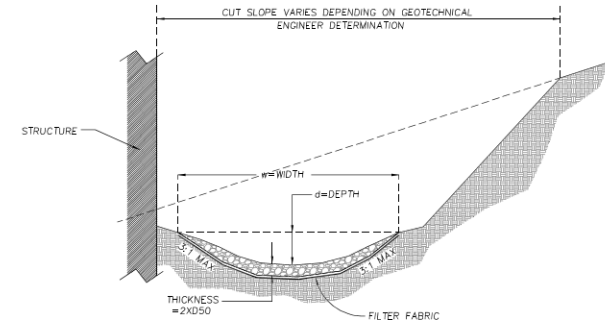
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CONSTRUCTION NOTES

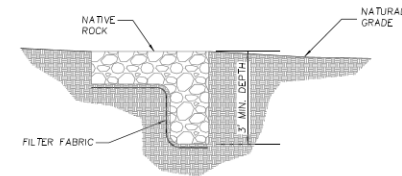
DRAINAGE STRUCTURES

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- Install 6" PVC pipe
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- Install 2" PVC on sump pump discharge



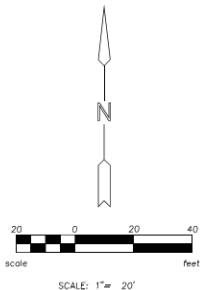
CHANNEL DETAIL

NTS
13 14 15



TURN DOWN DETAIL

NTS
17



SCG
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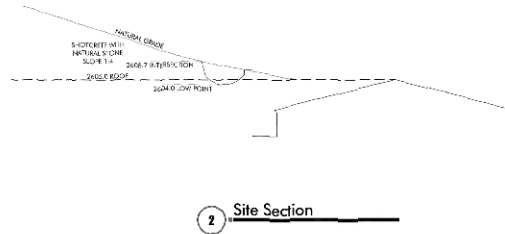
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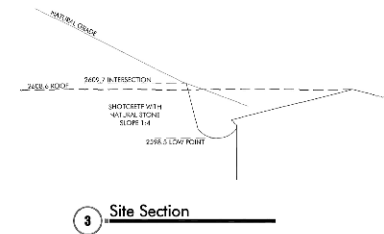
SHEET 4 OF 5
DATE AUGUST 2010
1883DCR



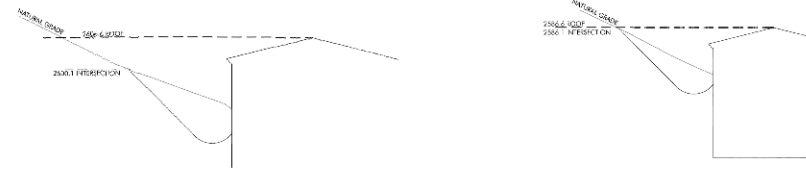
1 KEY PLAN
N.T.S.



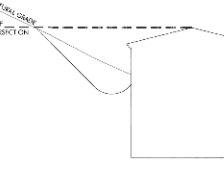
2 Site Section



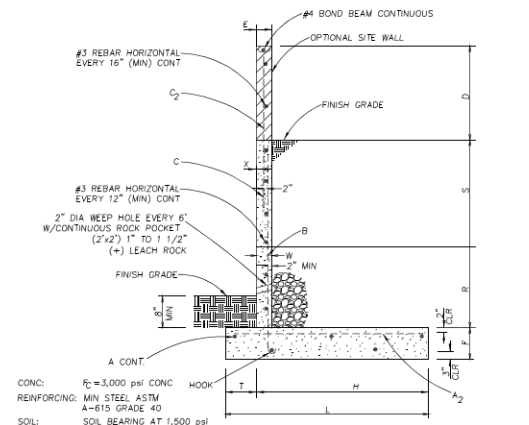
3 Site Section



4 Site Section



5 Site Section

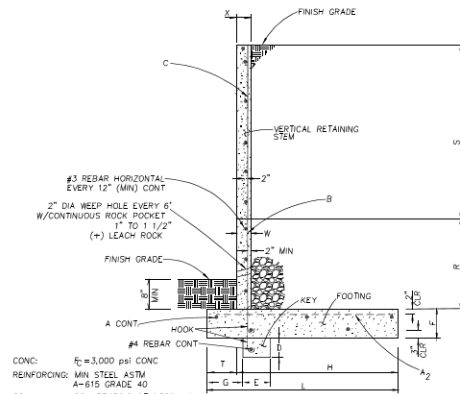


RETAINING WALL DETAIL (WITH SURCHARGE)

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

CONCRETE RETAINING WALL SCHEDULE
MIN 3,000 psi CONCRETE

HT	FOOTING						LOWER VERT RET. STEM			UPPER VERT RET. WALL			VERT SITE WALL		
(FT)	L	T	H	F	A	A ₂	R	W	B	S	X	C	D	E	C ₂
2	3'-3"	6"	2'-9"	9"	3-#4	#5@23"O.C.	2'	6"	#4@18"O.C.	N/A	N/A	N/A	6"	6"	#4@18"O.C.
3	3'-6"	6"	3'-0"	9"	3-#4	#5@23"O.C.	3'	6 1/4"	#4@18"O.C.	N/A	N/A	N/A	6"	6"	#4@18"O.C.
4	4'-2 1/4"	6"	3'-8 1/4"	9"	4-#4	#5@23"O.C.	1'-3"	6 1/2"	#4@18"O.C.	2'-9"	6 1/4"	#4@18"O.C.	5'-9"	6 1/4"	#4@18"O.C.
5	4'-11"	6"	4'-5"	9"	4-#4	#5@23"O.C.	1'-3"	6 1/4"	#4@18"O.C.	3'-9"	6 1/4"	#4@18"O.C.	6"	6 1/4"	#4@18"O.C.
6	4'-4"	6"	3'-10"	10"	5-#4	#5@23"O.C.	1'-4"	6 3/4"	#4@18"O.C.	4'-6"	6 3/4"	#4@18"O.C.	5'	6 3/4"	#4@18"O.C.
7	5'-3 1/4"	6"	4'-9 1/4"	10"	4-#5	#5@23"O.C.	1'-3"	7 3/4"	#4@18"O.C.	5'-9"	7 3/4"	#4@18"O.C.	3'	7 3/4"	#4@18"O.C.
8	5'-9"	9"	5'-0"	12"	5-#5	#5@23"O.C.	2'-3"	8"	#4@18"O.C.	5'-9"	8"	#4@18"O.C.	3'	8"	#4@18"O.C.
9	5'-11"	6"	7'-7"	16"	8-#5	#5@23"O.C.	3'-3"	8"	#4@18"O.C.	5'-9"	7 1/4"	#4@18"O.C.	3'	7 1/4"	#4@18"O.C.

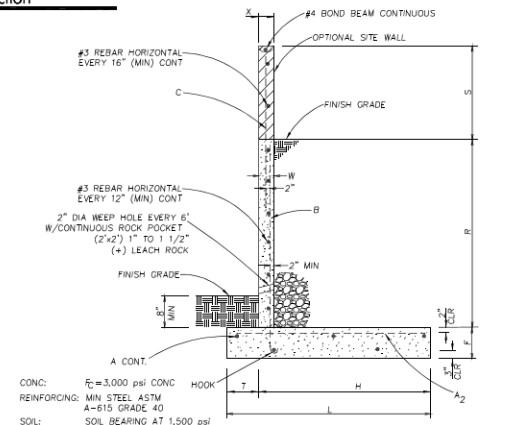


RETAINING WALL DETAIL (WITH SURCHARGE)

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

CONCRETE RETAINING WALL SCHEDULE
MIN 3,000 psi CONCRETE

HT	FOOTING						LOWER VERT RET. STEM			UPPER VERT RET. WALL			KEY		
(FT)	L	T	H	F	A	A ₂	R	W	B	S	X	C	D	E	G
10	7'-6"	2'-5"	12"	4-#5	#5@15"O.C.	3'	8"	#5@15"O.C.	7'	8"	#4@18"O.C.	10"	8"	2'-5"	
11	7'-11"	2'-5"	13"	4-#5	#5@15"O.C.	3'-6"	10-1/4"	#5@11"O.C.	7'-6"	8-3/4"	#4@18"O.C.	1'-2"	8"	2'-5"	
12	9'-5"	2'-6"	6'-11"	17"	4-#5	#5@15"O.C.	4'	12"	#5@10"O.C.	8"	8"	#4@18"O.C.	N/A	N/A	N/A
13	8'-10"	3'-3"	5'-7"	14"	4-#5	#5@15"O.C.	4'-5"	9-3/4"	#5@10"O.C.	8'-3"	8"	#4@18"O.C.	2'-2"	12"	3'-3"
14	9'-2"	2'-11"	6'-3"	16"	4-#5	#5@15"O.C.	4'-5"	9-3/4"	#5@10"O.C.	9'-6"	8"	#4@18"O.C.	10"	8"	2'-11"



RETAINING WALL DETAIL (NO SURCHARGE)

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

CONCRETE RETAINING WALL SCHEDULE
MIN 3,000 psi CONCRETE

HT	FOOTING						VERT RET. STEM			VERT SITE WALL (CMU)		
(FT)	L	T	H	F	A	A ₂	R	W	B	S	X	C
2	2'-1"	6"	1'-7"	9"	3-#4	#4@18"O.C.	2'	6"	#4@18"O.C.	6'	6"	#4@24"O.C.
3	2'-6"	6"	2'-0"	9"	3-#4	#4@18"O.C.	3'	6"	#4@18"O.C.	6'	6"	#4@24"O.C.
4	3'-3"	6"	2'-9"	9"	4-#4	#4@18"O.C.	4'	6"	#4@18"O.C.	6'	6"	#4@24"O.C.
5	3'-11"	6"	3'-5"	9"	4-#4	#4@18"O.C.	5'	6 1/4"	#4@12"O.C.	6'	6"	#4@24"O.C.
6	4'-6"	6"	4'-0"	10"	5-#4	#4@18"O.C.	6'	6 1/4"	#4@16"O.C.	5'	6"	#4@48"O.C.
7	5'-4"	6"	4'-10"	10"	4-#5	#4@18"O.C.	7'	6 1/4"	#4@12"O.C.	5'	6"	#4@48"O.C.
8	5'-11"	6"	5'-5"	10"	5-#5	#4@18"O.C.	8'	6 1/2"	#4@12"O.C.	4'	6"	#4@48"O.C.
9	7'-8"	6"	7'-2"	13"	8-#5	#4@18"O.C.	9'	7"	#4@9"O.C.	3'	6"	#4@48"O.C.