LEGAL DESCRIPTION: LOT 19, VOLCANOCLIFFS UNIT 1
SITE AREA: .25 ACRES

FLOOD HAZARD STATEMENT: F.E.M.A FLOODWAY BOUNDARY AND FLOODWAY MAP DATED JULY, 1996 (PANEL NO. 894 C) INDICATES A FLOOD HAZARD ZONE X WHICH IS AN AREA DETERMINED TO BE OUTSIDE THE 500-YEAR FLOODPLAIN AS SHOWN ON GRADING PLAN.

EXISTING DRAINAGE CONDITIONS:

THIS PROPERTY IS LOCATED ON MONTANO ROAD NW BETWEEN SAN IDELFONSO ROAD AND UNSER BOULEVARD. THE DRAINAGE ANALYSIS FOR THIS SITE IS IN ACCORDANCE WITH THE CITY ALBUQUERQUE DEVELOPMENT PROCESS MANUAL SECTION 22.2, HYDROLOGY. THE PROPERTY IS LOCATED IN ZONE 1. THE 100-YEAR, 6-HOUR STORM IS 2.20 INCHES. UNDER EXISTING CONDITIONS THIS LOT IS ALL LAND TREATMENT A. THE PEAK RUNOFF AND VOLUME DURING A 100-YEAR STORM UNDER EXISTING CONDITIONS IS 0.65 CFS AND 799 CUBIC FEET.

DEVELOPED DRAINAGE CONDITIONS:

THE DRAINAGE PLAN FOR LOT 19 INCLUDES A CELLULAR TOWER WITH EQUIPMENT AND A 15' WIDE GRAVEL ACCESS ROAD. PROVIDING A POND FOR THE INCREASE IN RUNOFF FROM THE TOWER EQUIPMENT AND DRIVEWAY IS NOT NECESSARY SINCE THE PROPOSED SITE WILL DISCHARGE INTO AN EXISITING POND ON ADJACENT LOTS WHICH ARE OWNED BY THE DEVELOPER. THE LOT DRAINS NATURALLY TO THE EAST. THE PEAK RUNOFF AND VOLUME DURING A 100-YEAR, 6-HOUR STORM UNDER DEVELOPED CONDITIONS FOR LOT 19 IS 0.80 CFS AND 998 CUBIC FEET.

IT IS THE APPLICANTS RESPONSIBILITY TO OBTAIN ALL OTHER APPROPRIATE FSAVEEDERAL, STATE & LOCAL PERMITS.

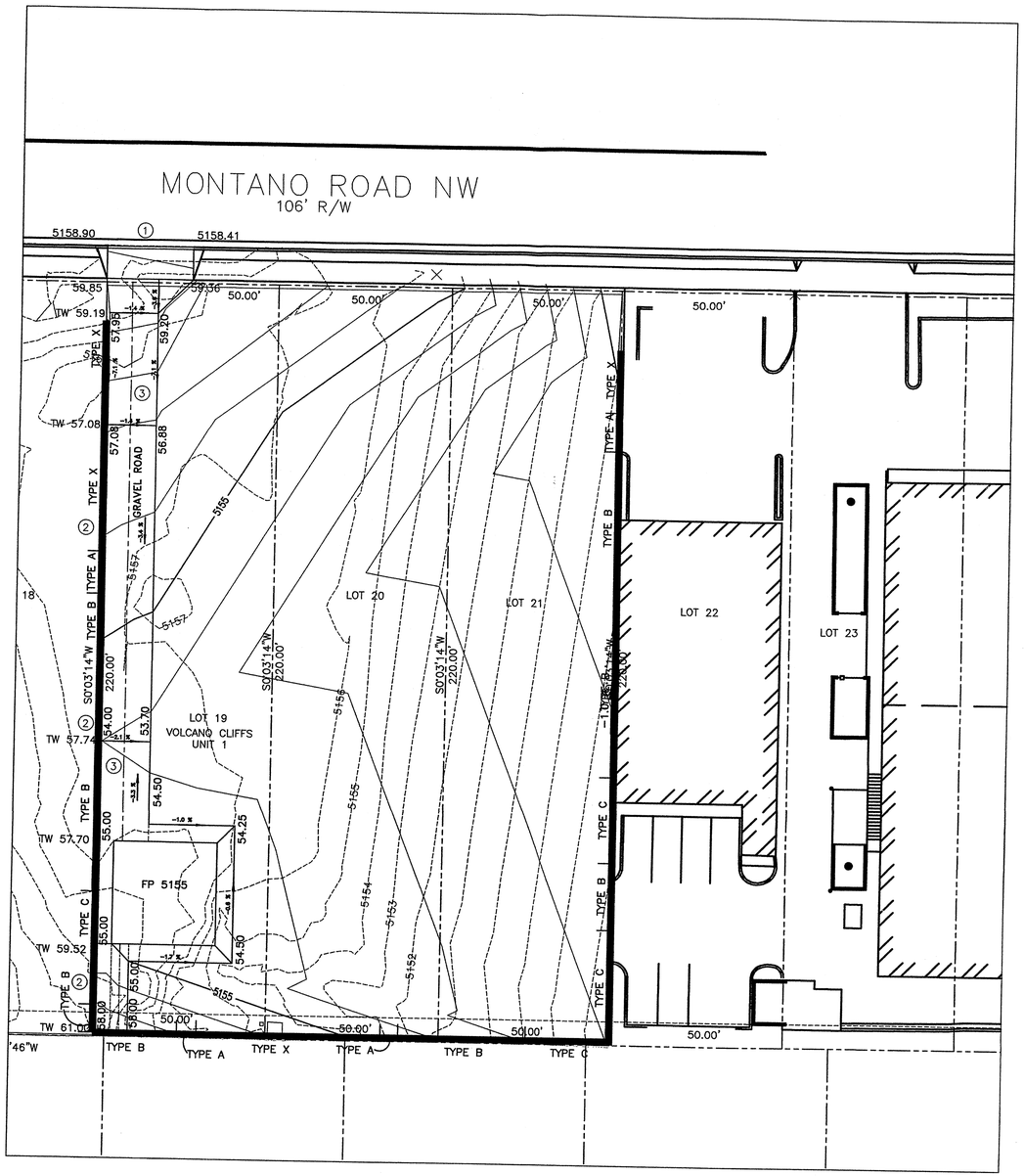
CONSTRUCTION IS SUBJECT TO ALL CONDITIONS STATED IN THE "SUMMARY OF GRADING PERMIT REQUIREMENTS" ON FILE AT THE CITY. COPIES ARE AVAILABLE AT THE PUBLIC INFRASTRUCTURE DEPARTMENT.

NOTES

1. BUILD DRIVEPAD PER COA STD DWG 2425.
2. RETAINING WALL – REQ'D SEE SHEET G2 FOR DETAILS
3. DRIVE WAY NOT TO EXCEED 10% GRADE

NORTH

SCALE (IN FEET)
0 5 10 20



LEGEND

GENERAL

- CENTERLINE
- RIGHT-OF-WAY
- ② BLOCK NUMBER
- LOT 2 LOT NUMBER
- LOT LINE

GRADING

- 5520 EXISTING CONTOUR
- 5500 PROPOSED CONTOUR
- FLOW ARROW
- TOP OF 4:1 SLOPE, UNLESS OTHERWISE SHOWN
- TOE OF SLOPE
- BUILDING PAD
- D/W DRIVEWAY LOCATION

GENERAL NOTES

GRADING ACTIVITIES ON ADJACENT PROPERTY OR RIGHTS-OF-WAY WITHOUT WRITTEN PERMISSION FROM THE OWNER IS TRESPASSING, AND THEREFORE ILLEGAL.

SLOPES SHALL BE NO STEEPER THAN 4H:1V PER CITY CODE/POLICIES. IF THERE IS SUFFICIENT SLOPE PROTECTION (I.E. PLANTINGS, ROCK COVER, SHOTCRETE/CONCRETE) SLOPES MAY BE NO STEEPER THAN 3H:1V.

DEVELOPMENT AND CONSTRUCTION OF THIS GRADING AND DRAINAGE PLAN WILL NOT ADVERSELY AFFECT OTHER PROPERTIES,

DRAINAGE REPORT

DRAINAGE AREA 1 AREA = 0.5 ac.

DRAINAGE ZONE 1 PRECIPITATION:

360 =	2.20	in.
1440 =	2.66	in.
10day =	3.67	in.

EXCESS PRECIPITATION:		PEAK DISCHARGE:	
TREATMENT A	0.44 in.	1.29	cfs/ac.
TREATMENT B	0.67 in.	2.03	cfs/ac.
TREATMENT C	0.99 in.	2.87	cfs/ac.
TREATMENT D	1.97 in.	4.37	cfs/ac.

EXISTING CONDITIONS: AREA		PROPOSED CONDITIONS: AREA	
TREATMENT A	0.5 ac.	0.4 ac.	
TREATMENT B	0 ac.	0.00 ac.	
TREATMENT C	0 ac.	0.1 ac.	
TREATMENT D	0 ac.	0.00 ac.	

EXISTING EXCESS PRECIPITATION:

Weighted E = (0.44)x(0.50)+(0.67)x(0.00)+(0.99)x(0.00)+(1.97)x(0.00)/0.50 ac.
= 0.44 in.
V100-360 = (0.44)x(0.50)/12 = 0.018333 ac-ft = 799 cf

EXISTING PEAK DISCHARGE:

Q100 = (1.29)x(0.50)+(2.03)x(0.00)+(2.87)x(0.00)+(4.37)x(0.00)= 0.65 cfs

PROPOSED EXCESS PRECIPITATION:

Weighted E = (0.44)x(0.40)+(0.67)x(0.00)+(0.99)x(0.10)+(1.97)x(0.00)/0.50 ac.
= 0.55 in.
V100-360 = (0.55)x(0.50)/12.0 = 0.022917 ac-ft = 998 cf
V100-1440 = (0.02)+(0.00)x(2.66 - 2.20)/12 = 0.022917 ac-ft = 998 cf
V100-10day = (0.02)+(0.00)x(3.67 - 2.20)/12 = 0.022917 ac-ft = 998 cf

PROPOSED PEAK DISCHARGE:

Q100 = (1.29)x(0.40)+(2.03)x(0.00)+(2.87)x(0.10)+(4.37)x(0.00)= 0.80 cfs

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HYDROLOGY SECTION

Designed For:
T-MOBILE FOR
LARRY ARCHULETA

Designed By:
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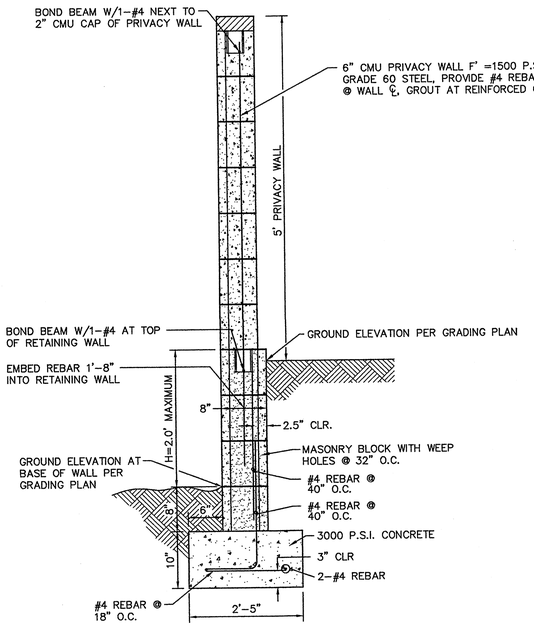
camberdesigns@msn.com

GRADING AND DRAINAGE
LOT 19
VOLCANO CLIFFS, UNIT 1

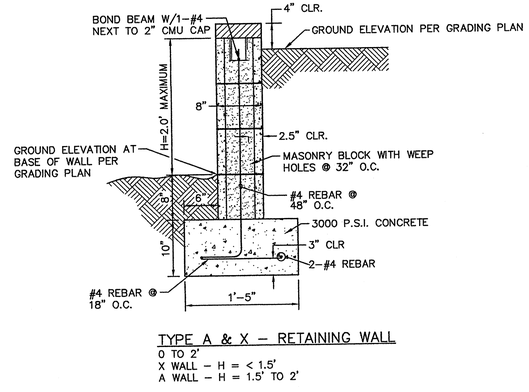
REGISTERED PROFESSIONAL ENGINEER
STATE OF NEW MEXICO
10894
THOMAS A. DENSFORD

DATE: JULY 30, 2006
DRAWN: MSF
DESIGNED: MSF
CHECKED: TD

SHEET: G1



TYPE A AND X–RETAINING WALL W/PRIVACY WALL
0 TO 2'
X WALL – H = < 1.5'
A WALL – H = 1.5' TO 2'



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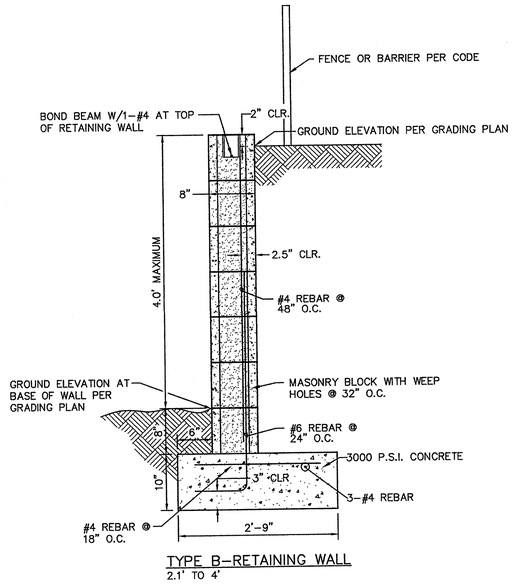


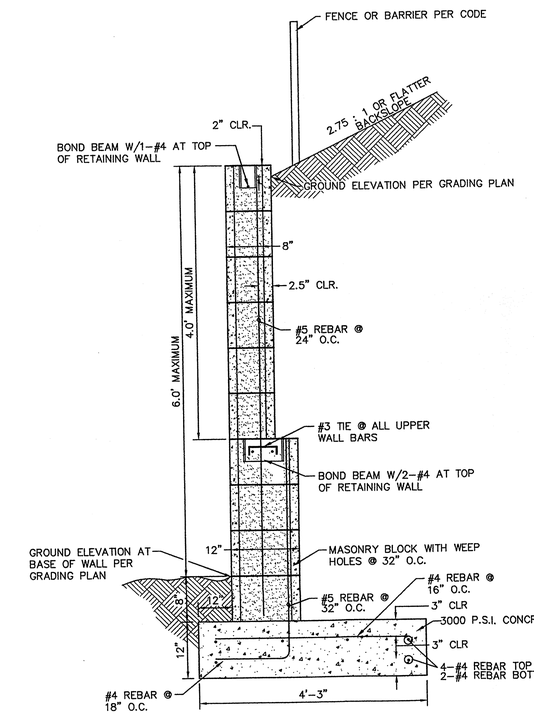
TYPE B–RETAINING WALL
2.1' TO 4'

MASONRY WALL CONSTRUCTION NOTES

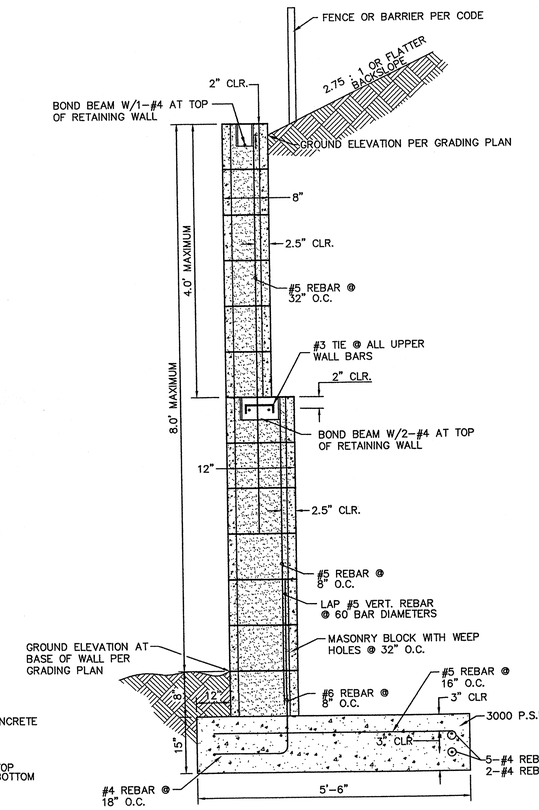
1. RETAINING WALLS ARE REQUIRED WHENEVER THE DIFFERENCE IN SURFACE ELEVATIONS EXCEED 1.50 FEET (2 EXPOSED CMU COURSES).
2. ALL MASONRY UNITS SHALL BE TYPE 1, GRADE N WITH A COMPRESSIVE STRENGTH OF 1900 PSI (NET AREA). F'M=1500 PSI
3. MORTAR SHALL BE TYPE S.
4. GROUT – F' =2000 PSI C
5. CELLS CONTAINING REBAR SHALL BE GROUTED SOLID FROM THE BOTTOM TO THE TOP OF THE WALL IN ACCORDANCE WITH THE UNIFORM BUILDING CODE.
6. PROVIDE PILASTERS AT 12' O.C. MAXIMUM, OR IF NO PILASTERS ARE USED, PROVIDE EXPANSION JOINTS AT 20' O.C.
7. THE BACK OF WALLS BELOW GRADE SHALL BE WATERPROOFED PRIOR TO BACKFILLING.
8. ALL CELLS BELOW GRADE SHALL BE GROUTED SOLID.
9. LAP ALL REBAR 40 BAR DIAMETERS, UNLESS OTHERWISE NOTED.
10. ALL HORIZONTAL REINFORCING IN BOND BEAMS SHALL BE CONTINUOUS AROUND CORNERS OR HAVE CORNER BARS OF THE SAME SIZE AND A LAP OF 48 BAR DIAMETERS OR 24" MINIMUM. VERTICAL STEEL SHALL CONTINUE THROUGH BOND BEAMS.
11. PROVIDE STANDARD TRUSS TYPE JOINT REINFORCING AT 16" O.C. (ALTERNATE COURSES). USE PREFABRICATED CORNERS AND TEES AT ALL WALL CORNERS AND INTERSECTIONS RESPECTIVELY.
12. MIN. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3000 PSI.
13. WEEPHOLES MAY BE PROVIDED BY ELIMINATING THE MORTAR BETWEEN EVERY OTHER HEAD JOINT OF THE SECOND COURSE OF BLOCK.
14. SUBGRADE UNDER FOOTING SHALL BE COMPACTED TO 95% ASTM D–1557, AND ALL BACKFILL SHALL BE COMPACTED TO 90% ASTM D–1557 IN NON–PAVED AREAS, AND 95% ASTM D–1557 IN PAVED AREAS.
15. REINFORCING STEEL SHALL COMFORM TO ASTM A–615, GRADE 60.
16. ALL RETAINING WALLS REPRESENTED ON THIS SHEET HAVE BEEN DESIGNED TO SUPPORT A 5' TO 6' PRIVACY WALL.
17. THE TOP COURSE OF RETAINING WALL SHOULD BE A 2" THICK SOLID MASONRY CAP UNLESS A PRIVACY WALL IS TO BE CONSTRUCTED ON TOP.
18. IF CMU PRIVACY WALLS ARE TO BE INSTALLED ON CMU RETAINING WALLS REBAR SHALL BE EXTENDED FROM RETAINING WALLS INTO PRIVACY WALLS. IF NO CMU PRIVACY WALL IS PLANNED OR IF A FENCE WILL BE MOUNTED ON CMU RETAINING WALL A CMU CAP SHALL BE INSTALLED ON TOP OF THE RETAINING WALL.
19. CONTRACTOR SHALL APPLY ANTI–GRAFFITI COATINGS TO ALL PERIMETER WALLS. CONTRACTOR SHALL USE PROSOCO DEFACER ERASER OR APPROVED EQUIVALENT.
20. SPECIAL INSPECTION IS ASSUMED WITH CORRESPONDING MASONRY STRESS INCREASE AS ALLOWED BY CODE

GENERAL NOTE

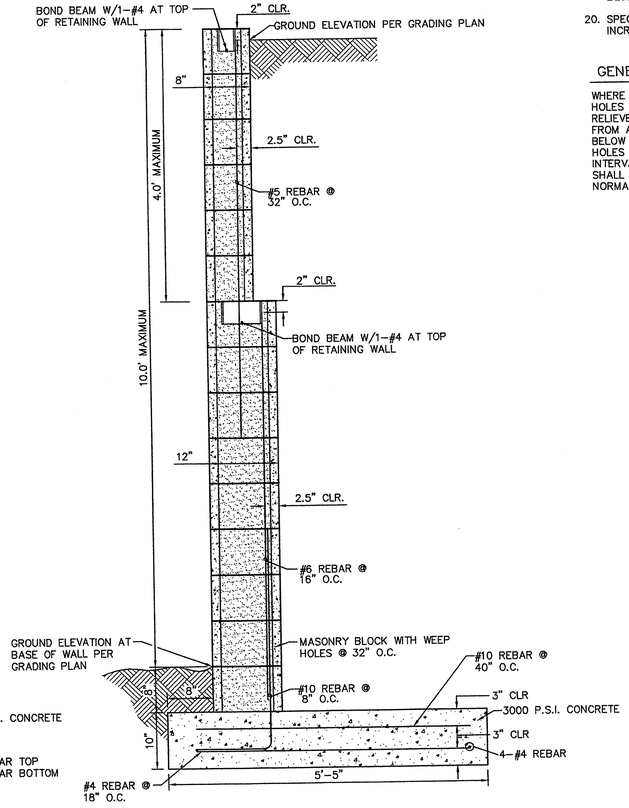
WHERE C.M.U. PRIVACY WALLS OR RETAINING WALLS ARE INSTALLED, WEEP HOLES SHALL BE PROVIDED IN THE PORTION OF THE WALL BELOW GRADE, TO RELIEVE POTENTIAL HYDROSTATIC PRESSURE, BY ELIMINATING THE MORTAR FROM ALTERNATING VERTICAL JOINTS IN EVERY OTHER COURSE OF BLOCK BELOW GRADE. IN WALLS ADJACENT TO STREETS OR DRAINAGE CHANNELS, HOLES FOR SURFACE RUNOFF SHALL BE PROVIDED AT APPROPRIATE INTERVALS ABOVE GRADE FOR EACH LOT. THESE SURFACE RUNOFF HOLES SHALL BE FORMED BY TURNING ONE BLOCK CROSSWAYS IN THE LOCATION NORMALLY OCCUPIED BY ONE BLOCK.



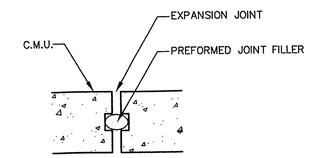
TYPE C–RETAINING WALL
4.1' TO 6'



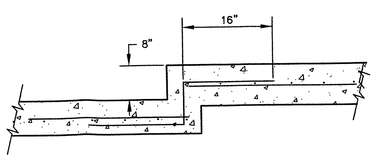
TYPE D–RETAINING WALL
6.1' TO 8'



TYPE E–RETAINING WALL
8' TO 10'



EXPANSION JOINT DETAIL
N.T.S.



FOOTING STEP DETAIL
N.T.S.

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WALL DETAILS
LOT 19
VOLCANO CLIFFS, UNIT 1

REGISTERED PROFESSIONAL ENGINEER
STATE OF NEW MEXICO
10824
THOMAS A. DENSFORD

DATE: July 30, 2006
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