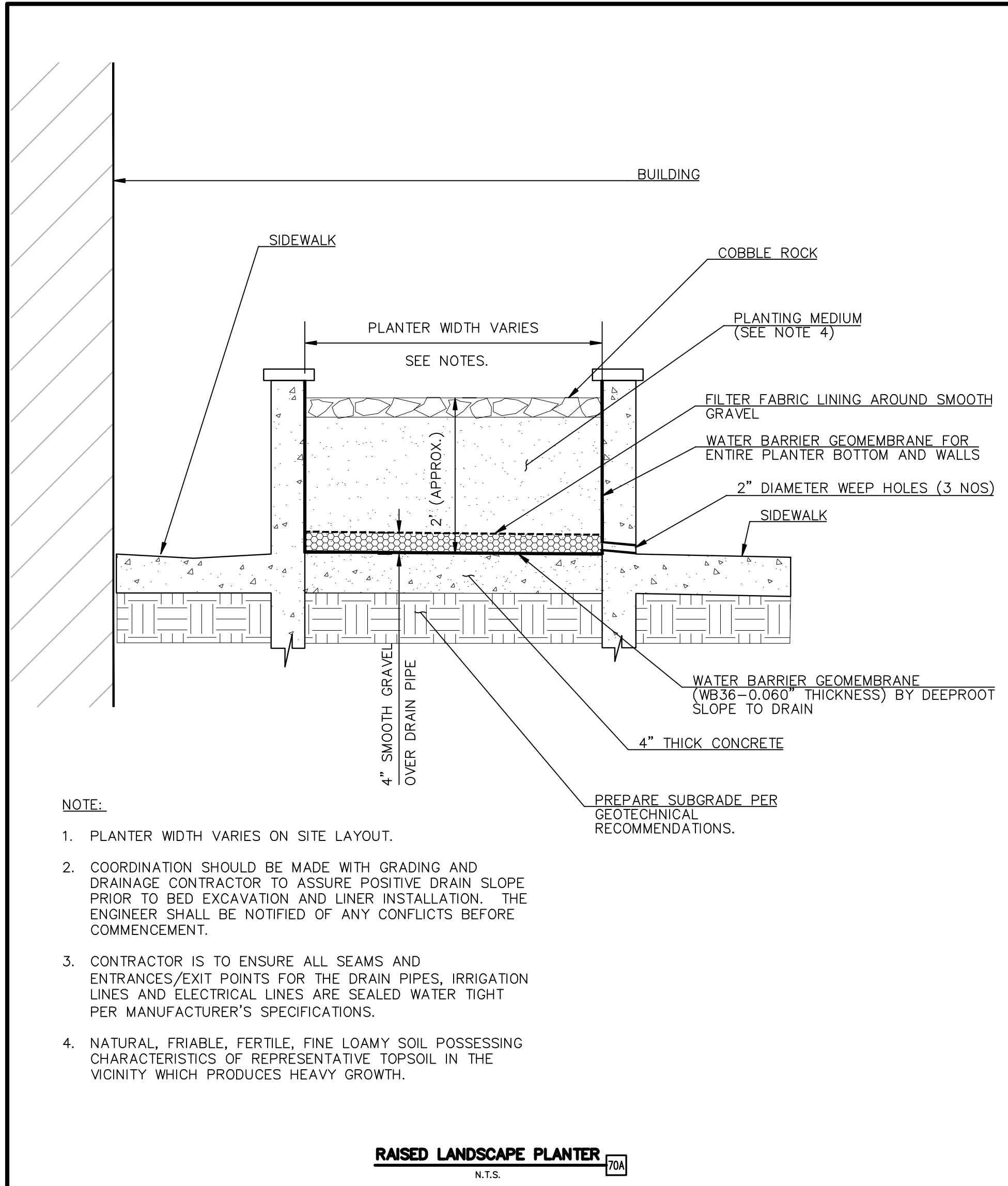


JOB # 26475.0 DRAWING: 26475PROJ.dwg LAST SAVED BY: PVECH LOCATION: P:\26000\26475.0\Drawings\As-Built\1-29-13\26475PROJ.dwg



### Geomembranes

Block roots, control invasive species and bamboo, protect foundations and manage water with DeepRoot geomembranes.

Geomembrane	SPECIFICATIONS + FEATURES																							
	<p><b>APPLICATIONS</b> Flexible, tough, and lightweight, DeepRoot Geomembranes serve two specific purposes: 1. Blocking roots and controlling invasive species. 2. Managing underground water movement. Applications include medians, roads, golf green liners, bamboo and invasive species control and foundation protection.</p> <p><b>MATERIALS</b> Polyethylene (HDPE) recyclable sheet material.</p> <p><b>FEATURES</b> - Cuts at any measured length - Up to 300 linear feet (91.44 m) without the need for a seam - Joins vertically or horizontally with sealant tape - Additional depths with vertical use or horizontal overlapping - Made in the USA</p>																							
	<p><b>SPECIFICATIONS</b> All Geomembrane rolls are 300' (91.44 m) long.</p> <table border="1"> <thead> <tr> <th colspan="2">0.030" (0.76 mm) Thickness Rolls:</th> </tr> </thead> <tbody> <tr> <td>WB 18/30</td> <td>18" x 300' (46 cm x 91.44 m)</td> </tr> <tr> <td>WB 24/30</td> <td>24" x 300' (61 cm x 91.44 m)</td> </tr> <tr> <td>WB 30/30</td> <td>30" x 300' (76 cm x 91.44 m)</td> </tr> <tr> <td>WB 36/30</td> <td>36" x 300' (91 cm x 91.44 m)</td> </tr> <tr> <td>WB 48/30</td> <td>48" x 300' (122 cm x 91.44 m)</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="2">0.040" (1.02 mm) Thickness Rolls:</th> </tr> </thead> <tbody> <tr> <td>WB 24/40</td> <td>24" x 300' (61 cm x 91.44 m)</td> </tr> <tr> <td>WB 30/40</td> <td>30" x 300' (76 cm x 91.44 m)</td> </tr> </tbody> </table> <table border="1"> <thead> <tr> <th colspan="2">0.060" (1.524 mm) Thickness Rolls:</th> </tr> </thead> <tbody> <tr> <td>WB 30/60</td> <td>30" x 300' (76 cm x 91.44 m)</td> </tr> <tr> <td>WB 36/60</td> <td>36" x 300' (91 cm x 91.44 m)</td> </tr> </tbody> </table>	0.030" (0.76 mm) Thickness Rolls:		WB 18/30	18" x 300' (46 cm x 91.44 m)	WB 24/30	24" x 300' (61 cm x 91.44 m)	WB 30/30	30" x 300' (76 cm x 91.44 m)	WB 36/30	36" x 300' (91 cm x 91.44 m)	WB 48/30	48" x 300' (122 cm x 91.44 m)	0.040" (1.02 mm) Thickness Rolls:		WB 24/40	24" x 300' (61 cm x 91.44 m)	WB 30/40	30" x 300' (76 cm x 91.44 m)	0.060" (1.524 mm) Thickness Rolls:		WB 30/60	30" x 300' (76 cm x 91.44 m)	WB 36/60
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USE AS BAMBOOBARRIER®	USE AS WATER BARRIER AND ROOT BLOCK
<p>Bamboo makes an ideal garden plant and grows quickly to provide privacy and beauty. However, if left unchecked it can grow throughout the yard and become a major nuisance. Using DeepRoot Geomembranes as a bamboo barrier is an effective way to prevent the unwanted spread of bamboo and other invasive species. The smooth surface of the BambooBarrier acts as a root stop, diverting the rhizome and prevent rampant growth. The rhizome will not penetrate the barrier, and instead will turn and continue to grow along the surface of the barrier. This contains the bamboo and prevents unwanted spreading.</p> <p><b>TYPICAL APPLICATIONS:</b> - Bamboo and invasive species control.</p> <p><b>BAMBOO AND INVASIVE SPECIES CONTROL</b></p>	<p>Versatile Water Barriers protect hardscapes and landscapes from subterranean water movement. When used around building foundations Water Barriers prevent root intrusion and maintain water equilibrium. The impermeable Geomembrane is also ideal for golf course construction to separate the greens from invasive grass and clay soils.</p> <p><b>TYPICAL APPLICATIONS:</b> - Golf green liners - Irrigated median plantings - Drainage - New foundation protection</p> <p><b>DRAINAGE</b></p> <p><b>FOUNDATION PROTECTION</b></p> <p><b>IRRIGATION</b></p>

Deep Root Partners, L.P.  
Corporate Offices: 530 Washington Street, San Francisco, CA 94111  
Tel: 800 ILV ROOT (458.7668) Fax: 800.277.7668 www.deeproot.com  
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**DeepRoot**

Printed on 100% PCW Recycled Paper

### WB 24, WB 36 DeepRoot Water Barriers

Specified water barriers are an impervious barrier to prevent subterranean water movement. Also used as a root block to prevent tree roots and shrubs from damaging hardscapes and other areas. Installed in varying lengths for linear applications directly beside a hardscape.

#### A. Materials

1. The contractor shall furnish and install water barriers as specified. The water barriers shall be either product # WB 24 or WB 36 as manufactured by Deep Root Partners, L.P., 81 Langton Street, Suite 4, San Francisco, CA 94103 (800-458-7668), or approved equal. The barrier shall be recyclable black high density polyethylene sheet material, depending on model selected the dimensions shall be as follows:

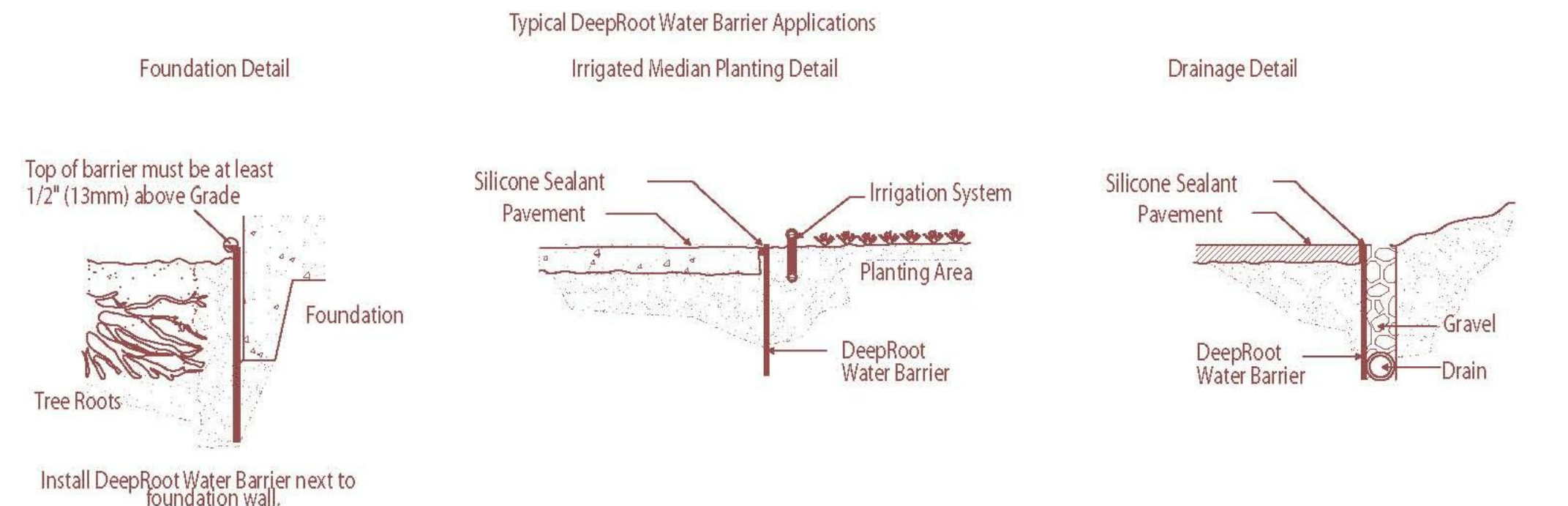
WB 24: 0.30" (0.76 mm) wall thickness, 24" (61 cm) deep  
WB 36: 0.30" (0.76 mm) wall thickness, 36" (91 cm) deep

The properties of the material shall be:

Specifications High Density Polyethylene (HDPE) Geomembrane Properties		
Parameter	ASTM Test Method	Mean Value
MD Break Strength (psi)	D 638	2533 psi
TD Break Strength (psi)	D 638	3594 psi
MD Break Elongation (%)	D 638	211 %
TD Break Elongation (%)	D 638	328 %
Puncture Strength (lbs)	D 4833	93 lbs.
MD Tear Strength (lbs)	D 1004	29 lbs
TD Tear Strength (lbs)	D 1004	36 lbs
Hydrostatic Resistance (psi)	D 751, Procedure A	328 psi
Multi-Axial Tensile Properties		
Maximum Stress (psi)	D 5617, Test Method A: Centerpoint Deflection Versus Pressure	2361 psi
% Elongation @ Rupture	D 5617, Test Method A: Centerpoint Deflection Versus Pressure	208 %
MD= Machine Direction TD= Transverse Direction		

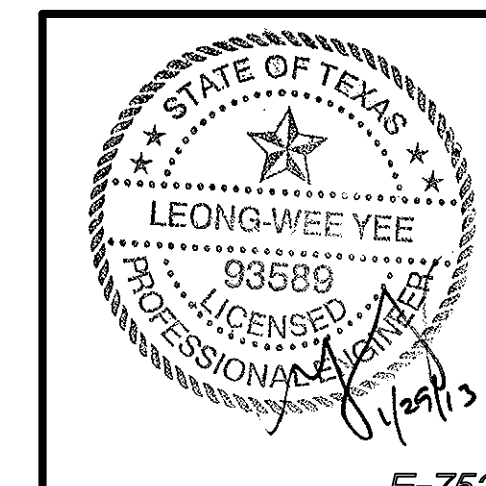
#### B. Construction and Installation

- The contractor shall install the water barriers with appropriate length and in the manner shown on the drawings.
- Excavation and preparation shall conform to the drawings.



### AS-BUILT DRAWING ROCKWALL CENTRE CORNERS ADDITION LOT 4, BLOCK 1

CONSTRUCTION SET	1/29/13	LWY	FOA	PHY	PHY
DATE	PRN	PM	DES	DRW	DRW
<b>DRIVE-THRU RESTAURANT</b>					
<b>CEI Engineering Associates, Inc.</b>					
ENGINEERS • PLANNERS • SURVEYORS LANDSCAPE ARCHITECTS • ENVIRONMENTAL SCIENTISTS					
3030 LBJ Freeway, Suite 100 Dallas, TX 75234			(972)488-3737 FAX: (972)488-6732		
<b>DETAILS 2</b> 1106 E. I. H. 30				DATE 1/29/13 4:22 PM	SHEET NO. <b>C4</b>
F-7524 ROCKWALL TX					



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