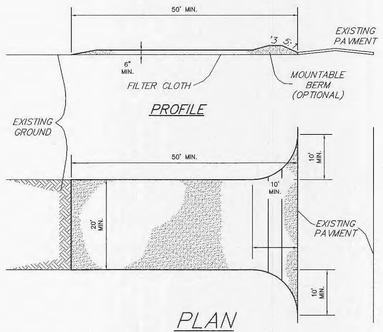
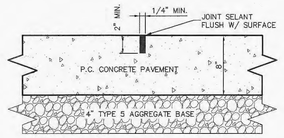
STABILIZED CONSTRUCTION ENTRANCE

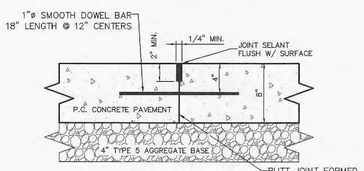


CONSTRUCTION SPECIFICATIONS

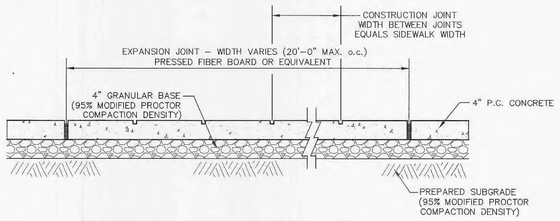
1. Stone Size – Use 2" stone, or reclaimed or recycled concrete equivalent.
2. Length – As required, but not less than 50 feet minimum length would apply).
3. Thickness – Not less than six (6) inches.
4. Width – Twenty (20) foot minimum, but not less than the full width at points where ingress or egress occurs.
5. Filter Cloth – Will be placed over the entire area prior to placing of stone. Filter will not be required on a single family residence lot.
6. Surface Water – All surface water flowing or diverted toward construction entrances shall be piped across the entrance. If piping is impractical, a mountable berm with 5:1 slopes will be permitted.
7. Maintenance – The entrance shall be maintained in a condition which will prevent tracking or flowing of sediment onto public rights–of–way. This may require periodic top dressing with additional stone as conditions demand and repair and/or cleanout of any measures used to trap sediment. All sediment spilled, dropped, washed or tracked onto public rights–of–way must be removed immediately.
8. Washing – Wheels shall be cleaned to remove sediment prior to entrance onto public rights–of–way. When washing is required, it shall be done on an area stabilized with stone and which drains into an approved sediment trapping device.
9. Periodic inspection and needed maintenance shall be provided after each rain.
10. If water is not available, a water truck is to be provided.

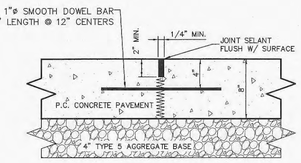


TYPE C
SAWED TRANSVERSE OR LONGITUDINAL CONSTRUCTION JOINT
NOT TO SCALE

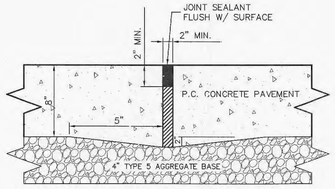


TYPE D
TRANSVERSE CONSTRUCTION JOINT
NOT TO SCALE

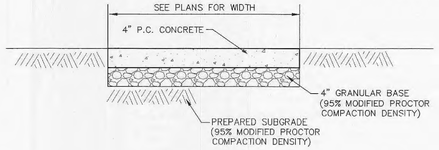




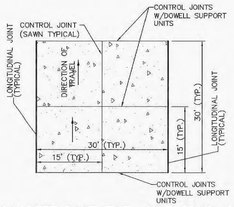
TYPE G
SAWED TRANSVERSE CONSTRUCTION JOINT



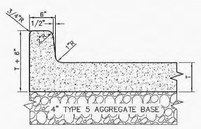
EXPANSION JOINT
NO SCALE



CONCRETE SIDEWALK WITH BASE DETAIL
NOT TO SCALE

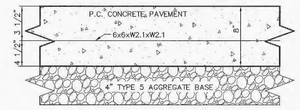


CONCRETE PAVEMENT JOINT SPACING
TYPICAL SECTION
NOT TO SCALE



POUR CURBING WITH PAVEMENT

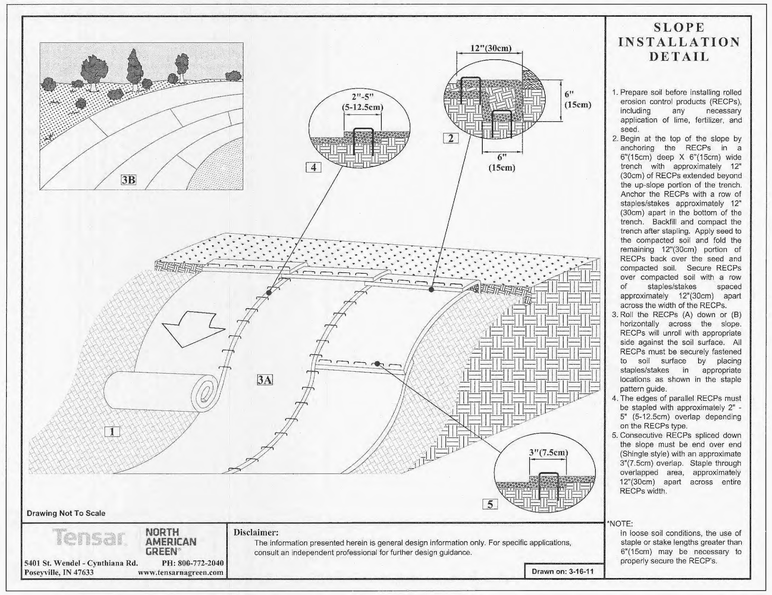
INTEGRAL VERTICAL CURB
NOT TO SCALE



8" MESH REINFORCED
P.C. CONCRETE PAVEMENT DETAIL
TYPICAL SECTION
NOT TO SCALE
USE IN ALL PAVED AREAS DENOTED TO HAVE 8" CONCRETE PAVING

GENERAL NOTES:

1. TYPE "C" TRANSVERSE JOINT IS REQUIRED ON ALL PAVEMENT FOR PROJECT.
2. ALL DEFORMED BARS FOR JOINTS SHALL BE BILLET STEEL BARS CONFORMING TO A.S.T.M. 615–75 GRADE 40.
3. TRANSVERSE OR LONGITUDINAL CONSTRUCTION JOINTS IN SLIP FORMED PAVEMENTS MAY BE MADE WITH A GROOVER OR TOOL.
4. THE FREE END OF THE DOWEL BAR FOR A LENGTH OF AT LEAST 11 INCHES SHALL BE COATED WITH AN APPROVED GRAPHITE GREASE (TYPE D AND G JOINTS)
5. ALL SMOOTH DOWEL BARS SHALL BE EPOXY COATED.
6. THE DOWEL SUPPORTING UNITS SHALL BE FACTORY ASSEMBLED AND CAPABLE OF HOLDING THE DOWELS IN THEIR REQUIRED POSITIONS. IN THE COMPLETED JOINT INSTALLATION, NO DOWELS SHALL VARY FROM ITS REQUIRED POSITION MORE THAN 1 IN 36.
7. THE DOWEL BAR SPACING SHALL BE 12 INCHES ON CENTERS, BEGINNING 6 INCHES FROM OUTER EDGE OF THE PAVEMENT.
8. TIE WIRES, BARS, OR CLIPS USED TO STRENGTHEN DOWEL BASKET ASSEMBLIES FOR SHIPMENT AND INSTALLATION SHALL BE REMOVED OR CUT PRIOR TO PLACING CONCRETE.
9. STAKING PINS SHALL BE FABRICATED FROM 0 GA. (0.3065) WIRE MINIMUM WITH SUITABLE HOOK. STAKING PINS SHALL HAVE A LENGTH OF 18 INCHES.
10. WIRES, BARS OR CLIPS SHALL BE USED AS NECESSARY TO STRENGTHEN THE ASSEMBLIES.
11. ALL SPOT ELEVATIONS ARE TO THE TOP OF FINISH PAVEMENT OR GRADE.



SLOPE INSTALLATION DETAIL

1. Prepare soil before installing rolled erosion control products (RECPs), including any necessary application of lime, fertilizer, and seed.
2. Begin at the top of the slope by anchoring the RECPs in a 6"(15cm) deep X 6"(15cm) wide trench with approximately 12" (30cm) of RECPs extended beyond the up-slope portion of the trench. Anchor the RECPs with a row of staples/stakes approximately 12" (30cm) apart in the bottom of the trench. Backfill and compact the trench after stapling. Apply seed to the compacted soil and fold the remaining 12"(30cm) portion of RECPs back over the seed and compacted soil. Secure RECPs over compacted soil with a row of staples/stakes approximately 12" (30cm) apart across the width of the RECPs.
3. Roll the RECPs (A) down or (B) horizontally across the slope. RECPs will unroll with appropriate side against the soil surface. All RECPs must be securely fastened to soil surface by placing staples/stakes in appropriate locations as shown in the staple pattern guide.
4. The edges of parallel RECPs must be stapled with approximately 2" - 5" (5-12.5cm) overlap depending on the RECPs type.
5. Consecutive RECPs spliced down the slope must be end over end (Shingle style) with an approximate 3"(7.5cm) overlap. Staple through overlapped area, approximately 12"(30cm) apart across entire RECPs width.

*NOTE:
In loose soil conditions, the use of staple or stake lengths greater than 6"(15cm) may be necessary to properly secure the RECP's.

EROSION CONTROL BLANKET 3:1 SLOPES

ROLLMAX™
ROLLED EROSION CONTROL

Specification Sheet – BioNet® S150BN™ Erosion Control Blanket

DESCRIPTION

The short-term double net erosion control blanket shall be a machine-produced mat of 100% agricultural straw with a functional longevity of up to 12 months. (NOTE: functional longevity may vary depending upon climatic conditions, soil, geographical location and elevation). The blanket shall be of consistent thickness with the straw evenly distributed over the entire area of the mat. The blanket shall be covered on the top and bottom sides with a 100% biodegradable woven natural fiber netting. The netting shall consist of machine directional strands formed from two intertwined yarns with cross directional strands interwoven through the twisted machine strands (commonly referred to as a Leno weave) to form an approximate 0.50 x 1.0 in. (1.27 x 2.54 cm) mesh. The blanket shall be sewn together on 1.50 inch (3.81 cm) centers with degradable thread. The blanket shall be manufactured with a colored thread stitched along both outer edges (approximately 2-5 inches [5-12.5 cm] from the edge) as an overlap guide for adjacent mats.

The S150BN shall meet Type 2.3 specification requirements established by the Erosion Control Technology Council (ECTC) and Federal Highway Administration's (FHWA) FP-03 Section 713.17

Material Content		
Matrix	100% Straw Fiber	0.5 lbs/sq yd (0.27 kg/sm)
Netting	Top: Leno woven 100% biodegradable organic jute	9.35 lb/1000 sq ft (4.5 kg/100 sm)
	Bottom: 100% biodegradable organic jute	7.7 lb/1000 sq ft (3.76 kg/100 sm)
Thread	Degradable	

Standard Roll Sizes			
Width	6.67 ft (2.03 m)	8.0 ft (2.4 m)	15.5 ft (4.72 m)
Length	108 ft (32.92 m)	112 ft (34.14 m)	90 ft (27.43 m)
Weight ± 10%	52.22 lbs (23.69 kg)	65.28 lbs (29.61 kg)	101.2 lbs (45.9 kg)
Area	80 sq yd (66.9 sm)	100 sq yd (83.61 sm)	155 sq yd (129.6 sm)
	Leno weave top only	Leno top and bottom	Leno top and bottom

Index Property	Test Method	Typical
Thickness	ASTM D6525	0.23 in. (5.84 mm)
Resiliency	ECTC Guidelines	80.5%
Water Absorbency	ASTM D1117	428%
Mass/Unit Area	ASTM D6475	8.71 oz/sy (296 g/sm)
Swell	ECTC Guidelines	15%
Smolder Resistance	ECTC Guidelines	Yes
Stiffness	ASTM D1388	6.23 oz-in
Light Penetration	ASTM D6567	15.3%
Tensile Strength - MD	ASTM D6818	188.4 lbs/ft (2.79 kN/m)
Elongation - MD	ASTM D6818	11.2%
Tensile Strength - TD	ASTM D6818	157.2 lbs/ft (2.33 kN/m)
Elongation - TD	ASTM D6818	13.5%
Biomass Improvement	ASTM D7322	549%

Design Permissible Shear Stress	
Unvegetated Shear Stress	1.85 psf (88 Pa)
Unvegetated Velocity	6.00 fps (1.83 m/s)

Slope Design Data: C Factors			
	Slope Gradients (S)		
Slope Length (L)	≤ 3:1	3:1 – 2:1	≥ 2:1
≤ 20 ft (6 m)	0.00014	0.039	N/A
20-50 ft	0.01	0.070	N/A
≥ 50 ft (15.2 m)	0.02	0.100	N/A

Roughness Coefficients - Unveg.	
Flow Depth	Manning's n
≤ 0.50 ft (0.15 m)	0.055
0.50 – 2.0 ft	0.055-0.021
≥ 2.0 ft (0.60 m)	0.021

Tensar NORTH AMERICAN GREEN®

Tensar International Corporation
2500 Northwinds Parkway
Suite 500
Alpharetta, GA 30009
800-TENSAR-1
tensarcorp.com

Tensar International Corporation warrants that at the time of delivery the product furnished hereunder shall conform to the specification stated herein. Any other warranty including merchantability and fitness for a particular purpose, are hereby executed. If the product does not meet specifications on this page and Tensar is notified prior to installation, Tensar will replace the product at no cost to the customer. **This product specification supersedes all prior specifications for the product described above and is not applicable to any products shipped prior to January 1, 2012.**

©2013, Tensar International Corporation

EC_RMX_MP05_BS150BN_8.13

EROSION CONTROL BLANKET 3:1 SLOPES

ENGINEER'S SEAL REFERS TO PAVEMENT DETAILS AND CONSTRUCTION ENTRANCE DETAIL ON THIS SHEET ONLY

PROJECT TITLE:
FIRE HOUSE #1
O'FALLON FIRE DISTRICT

Bax Project # 13-15872 | Issue Date: 4/23/2014

ENGINEERING
LAND PLANNING
SURVEYING
221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
FAX 928-1718

DISCLAIMER OF RESPONSIBILITY
I hereby specify that the documents intended to be authenticated by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other Drawings, Specifications, Estimates, Reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

STATE OF MISSOURI
CLIFFORD L. HEITMANN
NUMBER E-29817
REGISTERED PROFESSIONAL ENGINEER
CLIFFORD L. HEITMANN
CIVIL ENGINEER
029817
6-11-14

Copyright 2014
Bax Engineering Company, Inc.
Engineering Authority No. 000655
Surveying Authority No. 000144
All Rights Reserved

REVISIONS

ADD 1	5–6–14
ADD 2	5–13–14
5–13–14	CITY COMMENTS
5–30–14	CITY COMMENTS
6–5–14	REAR DRIVE P&Z

Developer / Owner:
O'FALLON FIRE PROTECTION DISTRICT
119 EAST ELM STREET
O'FALLON, MO 63366-2600
636-272-3493

REFERENCE DETAILS

P+Z No.
16-14

City No.
14-169

Page No.
16 of 21

V:\AUTOSERVER\CIVIL 3D Projects\15872\Construction\15872con.dwg, 6/11/2014 10:02:33 AM, 1:1