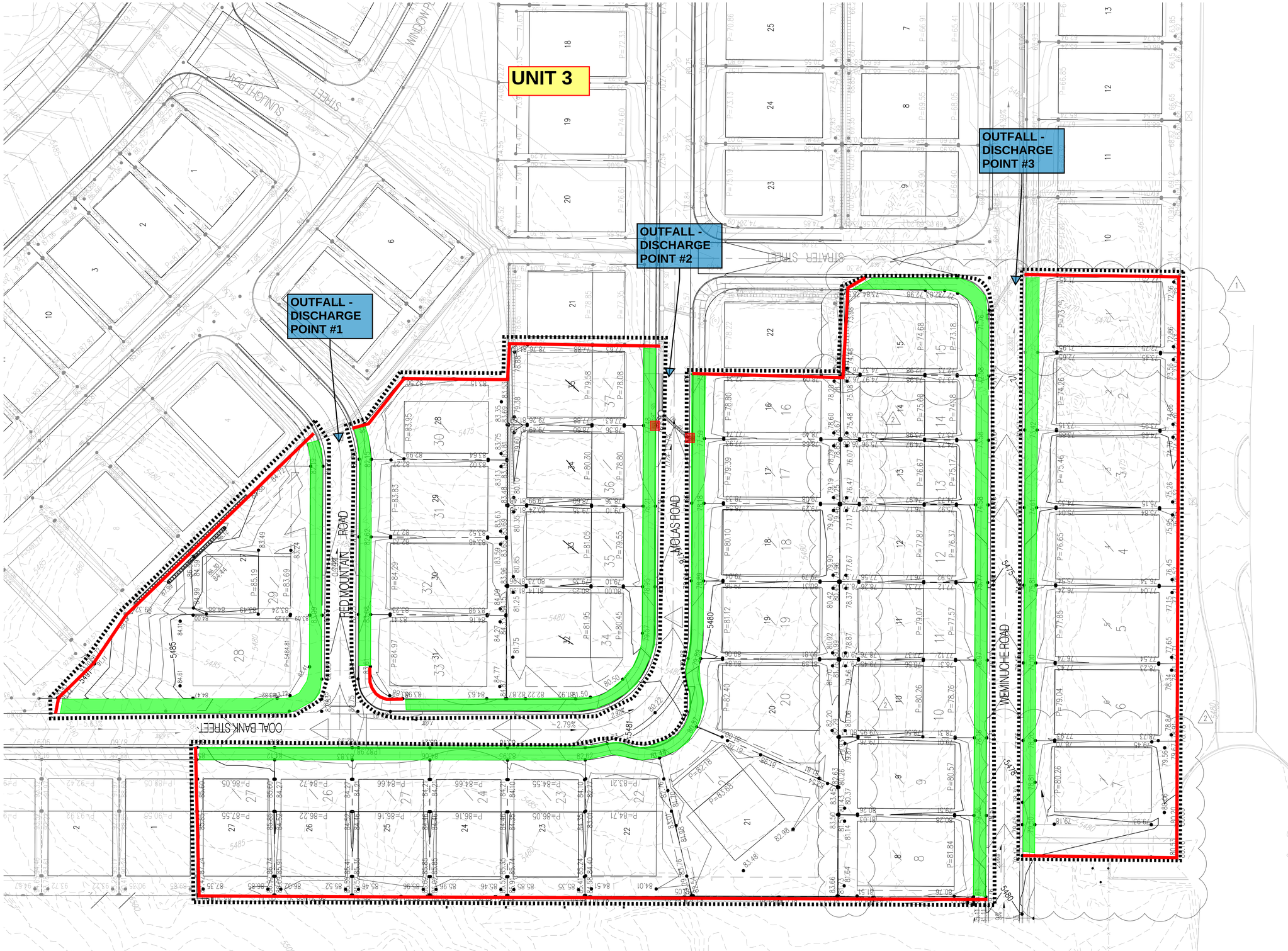


BMP MAP LEGEND

- LIMITS OF DISTURBANCE
- PERIMETER BMP (SILT FENCE)
- CUT BACK CURB
- INLET PROTECTION
- FLOW DIRECTION
- VTC (VEHICLE TRACK-OUT CONTROL (TBD)
- PORTABLE TOILETS (TBD)
- WASTE CONTAINER (TBD)
- CONCRETE WASHOUT (TBD)

Green Globe ENVIRONMENTAL

OPERATOR: HAKES BROTHERS ABQ

TOTAL SITE AREA: 12.41 ACRES
TOTAL DISTURBED AREA: 12.41 ACRES

RECEIVING WATERS: RIO GRANDE RIVER (ISLETA PUEBLO BOUNDARY TO TIJERAS ARROYO)

REFER TO THE ESC BMP DETAILS (ESC-3) FOR INSTALLATION, INSPECTION AND MAINTENANCE REQUIREMENTS.

****GRADING PLAN BY OTHERS****

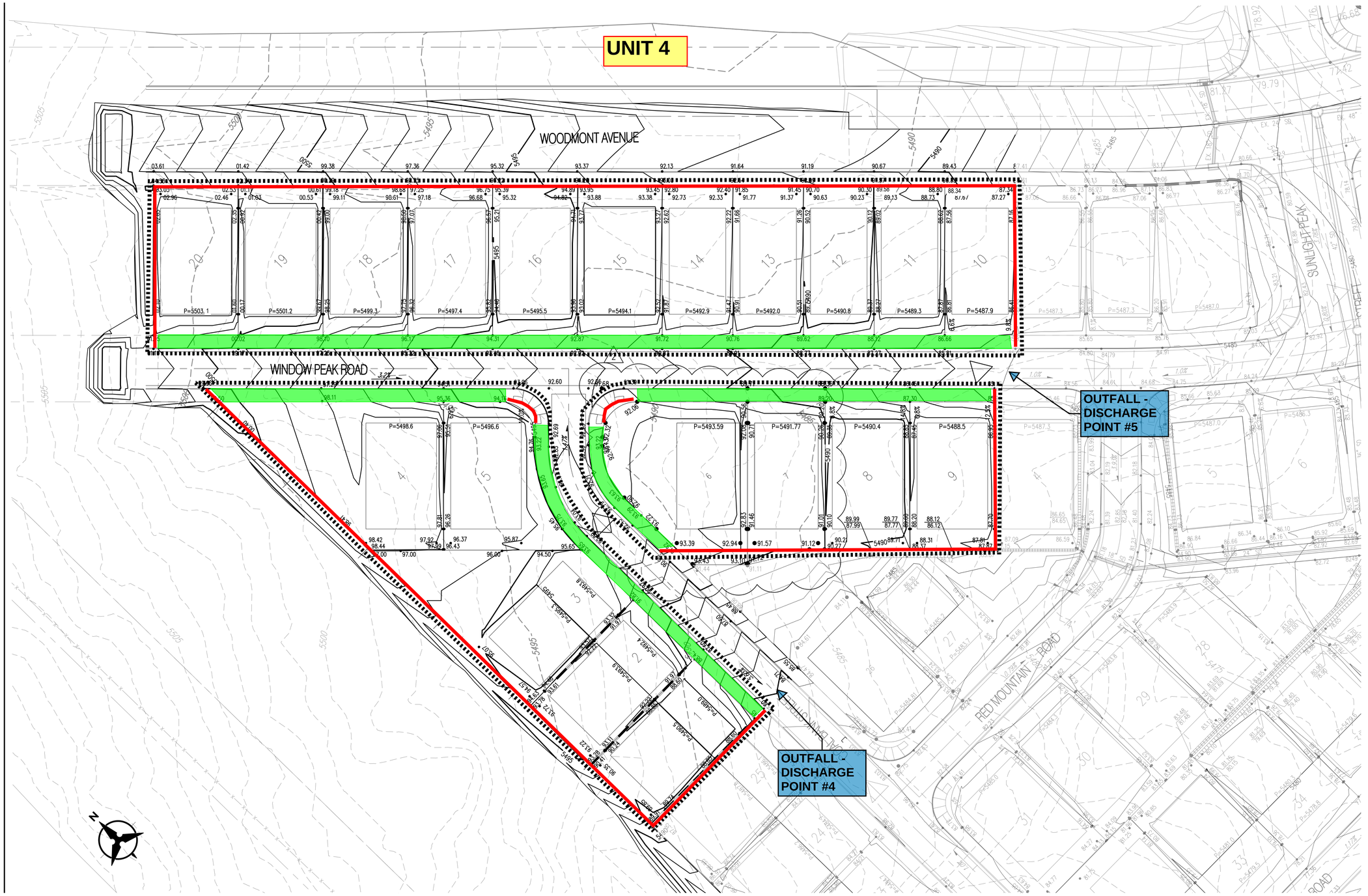
DURANGO UNITS 3-4

TEMPORARY EROSION AND SEDIMENT CONTROL PLAN

Drawn By: M. VALLEJOS, CPESC, CISEC	01/21/2021

CERTIFIED PROFESSIONAL IN EROSION AND SEDIMENT CONTROL — CPESC® — MATHEW F. VALLEJOS No. 9108

ESC-1



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ESC-2

Silt Fence Detail

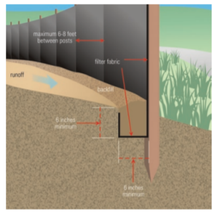
Non-woven Silt Fence
A silt fence is a temporary sediment barrier consisting of a geotextile attached to supporting posts and trenched into the ground. Intended to retain sediment that has been dislodged by stormwater.

Use silt fence as a perimeter control particularly at lower or down slope edge of a disturbed area. Leave space for maintenance between slope and silt fence or roll. Trench in the silt fence on the uphill side (6 in deep by 6 in wide). Install stakes on the downhill side of the fence. Curve silt fence up-gradient to help it contain runoff.

To maintain remove sediment when it reaches one-third of the height of the fence. Replace the silt fence where it is worn, torn, or otherwise damaged. Retrench or replace any silt fence that is not properly anchored to the ground. If the silt fence cannot be toed in properly due to existing hard surface, place mulch filter sock at base to prevent sediment from leaving site.

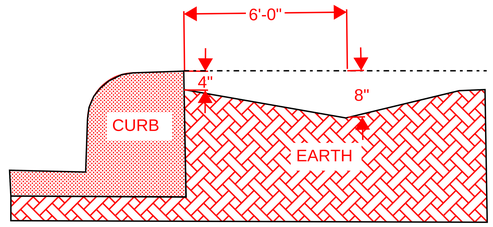
8' max wood stake spacing and 10' max spacing for steel T-post.

Silt Fence Installation



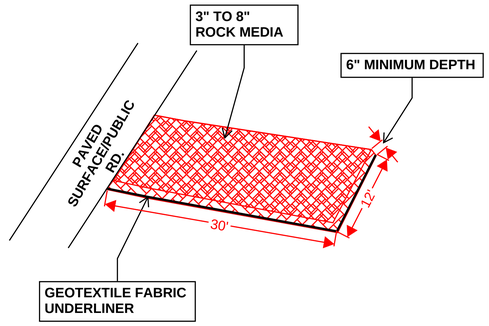
Source: USEPA Guide for Construction Site

Cut-Back Curb Detail



NOT TO SCALE

VEHICLE TRACK-OUT CONTROL



NOT TO SCALE

- DIMENSIONS NOTED CAN BE SITE RESTRICTIVE.

ESC Plan Standard Notes (2020-07-16)

1. All Erosion and Sediment Control (ESC) work on these plans, except as otherwise stated or provided hereon shall be permitted, constructed, inspected, and maintained in accordance with:
   a. The City Ordinance § 14-5-2-11, the ESC Ordinance,
   b. The EPA's 2017 Construction General Permit (CGP), and
   c. The City Of Albuquerque Construction BMP Manual.
2. All BMP's must be installed prior to beginning any earth moving activities except as specified hereon in the Phasing Plan. Construction of earthen BMP's such as sediment traps, sediment basins, and diversion berms shall be completed and inspected prior to any other construction or earthwork. Self-inspection is required after installation of the BMPs and prior to beginning construction.
3. Self-inspections - At a minimum a routine compliance self-inspection is required to review the project for compliance with the Construction General Permit once every 14 days and after any precipitation event of 1/4 inch or greater until the site construction has been completed and the site determined as stabilized by the city. Reports of these inspections shall be kept by the person or entity authorized to direct the construction activities on the site.
4. BMPs shall be inspected and maintained until all disturbed areas are stabilized in accordance with the Final Stabilization Criteria (CGP 2.2.14.b). Generally, all disturbed areas, other than structures, must have uniform perennial vegetation that provides 70 percent or more of the cover provided by native vegetation or seed the disturbed area and provide non-vegetative mulch that provides cover for at least three years without active maintenance. Final stabilization must be documented on self-inspection reports and approved by the City of Albuquerque prior to removal of BMPs and discontinuation of inspections.

Coir Mat Inlet Protection

UV Resistance (ASTM D 4355 – 500 hour exposure) Tensile Properties (ASTM D 5035/ECTC)
(4 inch wide strip specimen)

Baseline Properties	
MD – Maximum Load (ppi)	14.6
TD – Maximum Load (ppi)	18.7
MD – Elongation @ Max Load (%)	19.3
TD – Elongation @ Max Load (%)	27.7

500 Hour Exposed Properties	
MD – Maximum Load (ppi)	10.2
TD – Maximum Load (ppi)	13.8
MD – Elongation @ Max Load (%)	16.9
TD – Elongation @ Max Load (%)	16.6

Light Penetration (ECTC Guidelines)	
Baseline Reading	125
Reading with sample	10
% Light Penetration	<8

Resiliency (ASTM D 6524)	
Pre-loading thickness (mils)	1943
Post-loading thickness (mils)	326
% change	-83

Swell (ECTC)	
Dry thickness (mils)	1984
Thickness after soak (mils)	2098
% change	6

Mass/Unit Area (ASTM D 6565)	
Mass/unit area (oz/sq. yd)	50.89
Mass/unit area (g/sq. meter)	1725

Water Absorption (ASTM D 1117/ECTC)	
Pre-soak Weight (grams)	69
Post-Soak (grams)	152
Weight change (grams)	82
% Weight Change	119

Smolder Resistance (ECTC)	
Maximum Burn Distance (in)	.29

Sediment Control (ASTM D 5141)	
Test material:	Sand sieved thru No. 10 sieve
Filtering Efficiency (%)	40.8
Flow Rate (liter/minute)	150

GRAVEL BAG INLET PROTECTION

Inlet gravel bags are manufactured on site to fit in the gutter pan on the upstream side of the inlet. Filled with smooth rounded pea gravel. The ends are sealed with ½" #12 hog rings. The gravel bags are connected together with the hogs to help create weight and stability.

FABRIC PHYSICAL SPECIFICATIONS:

Property Test Method Woven (typical)		
Fabric Weight	ASTDM D-5261	5 oz/sq./yd.
Grab Tensile (MD/TD)	ASTDM D-4632	350/220 lbs.
Trapezoid Tear (MD/TD)	ASTM D-4533	146/75 lbs.
Puncture	ASTM D-4833	112 lbs.
Mullen Burst	ASTM D-3786	388 psi.
UV Resistance (2000hrs)	ASTM D-4355	>70%
Water Flow	ASTM D-4355	195 gpm/sq-ft
Material		High Density Polyethylene (HPDE)

THE ABOVE VALUES ARE M.A.R.V. (minimum average roll values)

TYPICAL CONCRETE WASHOUT-BELOW GRADE

- Install appropriate signage to inform concrete equipment operators of the proper washout location.
- An appropriate stabilized entrance shall be installed where applicable. The length and width of the stabilized entrance may vary based on size and location of the washout.
- Washout facilities must be sized to contain washout water and solids.
- Typical dimensions are 10 feet long by 10 feet wide but may vary upon site limitations.
- Pit shall be delineated with Orange Filter Sock and A-Framed staked.
- The pit shall be lined with 10mil (minimum) polyethylene impermeable liner on the bottom and sides overlapping the top edges completing a leak-proof container.

EROSION CONTROL NOTES

EROSION CONTROL SCHEDULE AND SEQUENCING. SEE SWPPP PLAN FOR OPERATOR RESPONSIBLE FOR EACH CONTROL MEASURE LISTED AND BMP DETAILS.

1. ROUGH GRADING – INSTALL SILT FENCE OR STRAW WATTLE, STABILIZED CONSTRUCTION ENTRANCE AND SEDIMENT PONDS WHERE PRACTICAL. INSTALL BEFORE GRADING IF POSSIBLE; IF NOT, THEN CONCURRENT WITH MAJOR GRADING. WATER SHALL BE APPLIED TO STABILIZE DISTURBED AREAS.
2. UTILITY INSTALLATION – MAINTAIN SOIL EROSION MEASURES DURING BUILDING CONSTRUCTION AND UTILITY INSTALLATION. WATER SHALL BE APPLIED FOR SOIL STABILIZATION AS NECESSARY. WHEN INSTALLING UTILITIES BEHIND THE CURB, DIRT SHOULD NOT BE PLACED IN THE STREET.
3. HOME CONSTRUCTION – INSTALL SILT FENCE AT THE BACK OF CURB OR CUT BACK CURB PER DETAIL THIS SHEET DURING HOME CONSTRUCTION. WATER SHALL BE APPLIED FOR SOIL STABILIZATION AS NECESSARY.
4. FINAL STABILIZATION – FINAL STRUCTURAL AND STABILIZATION CONTROLS INSTALLED PER APPROVED CONSTRUCTION AND LANDSCAPING DRAWINGS (REFERENCED BY SWPPP PLAN).

DURING CONSTRUCTION STORMWATER CONTROL NOTES:
1. STABILIZED CONSTRUCTION ENTRANCES REQUIRED BETWEEN PAVED/UNPAVED TRANSITIONS. LIMIT NUMBER OF ENTRANCES. PLACE STRAW WATTLE ACROSS THE CONSTRUCTION ENTRANCE AT THE END OF EACH DAY.
2. SILT FENCE OR STRAW WATTLE TO BE INSTALLED AT INITIAL GRADING FOR TEMPORARY STRUCTURAL CONTROL. SILT FENCE OR STRAW WATTLE MAY BE ATTACHED TO CONSTRUCTION SECURITY FENCING FOR ADDITIONAL STABILITY WHERE NECESSARY.
3. ON STREETS WHERE THE LONGITUDINAL SLOPE IS 2.5% OR GREATER, MULCH SOCKS OR A SIMILAR BMP IS REQUIRED IN THE AREA BETWEEN THE CURB AND THE PAD AT REGULAR INTERVALS TO SLOW THE WATER DOWN AND CATCH SEDIMENT.
4. DISTURBED AREAS WILL BE WATERED PERIODICALLY FOR TEMPORARY STABILIZATION AND DUST CONTROL.
5. MATERIALS STORAGE & EQUIPMENT STAGING AREA MAY BE RELOCATED BASED ON CONTRACTOR PREFERENCE AND CHANGING CONDITIONS AT THE JOB SITE, AS LONG AS POSSIBLE DISCHARGE IS CONTAINED ON SITE.
6. LOCATIONS OF TRASH, PORTA-LETS AND CONCRETE WASH-OUT PITS TO BE REDLINED ON THIS DRAWING.
7. NO DISCHARGE TO WATERS OF THE U.S. OR LISTED WETLANDS.
8. NO OFF-SITE STORAGE OR BORROW AREAS.

AFTER CONSTRUCTION STORMWATER CONTROL NOTES:
1. REFER TO APPROVED CONSTRUCTION DRAWINGS FOR FINAL STRUCTURAL CONTROLS INCLUDE SIDEWALKS, DRIVEWAY AREAS, RUNDOWNS AND DRAINAGE WAYS.
2. REFER TO APPROVED LANDSCAPING DRAWINGS OR FINAL STABILIZATION OF DISTURBED AREAS.

green globe ENVIRONMENTAL

OPERATOR: HAKES BROTHERS ABQ

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ESC-3