

SPIRIT ENERGY CFM STORE NO. 99

A TRACT OF LAND BEING PART OF THE SOUTHEAST QUARTER OF FRACTIONAL SECTION 32, TOWNSHIP 47 NORTH, RANGE 3 EAST IN ST. CHARLES COUNTY, MISSOURI.
ZONING: "C-3" HIGHWAY COMMERCIAL

BEST MANAGEMENT PRACTICES:

- THE DEVELOPMENT HAS BEEN PLANNED TO FIT THE PARTICULAR TOPOGRAPHY, SOILS, DRAINAGE PATTERNS, AND NATURAL VEGETATION OF THE SITE.
- MINIMIZE THE EXTENT OF THE AREA EXPOSED AT ONE TIME AND DURATION OF EXPOSURE.
- APPLY EROSION CONTROL PRACTICES TO PREVENT EXCESSIVE ON-SITE DAMAGE.
- APPLY PERIMETER CONTROL PRACTICES TO PROTECT THE DISTURBED AREA FROM THE OFF-SITE RUNOFF AND TO PREVENT SEDIMENTATION DAMAGE TO AREAS BELOW THE DEVELOPMENT SITE.
- KEEP RUNOFF VELOCITIES LOW AND RETAIN RUNOFF FROM THE SITE.
- STABILIZE DISTURBED AREAS IMMEDIATELY AFTER FINAL GRADE HAS BEEN ATTAINED.
- IMPLEMENT A THOROUGH MAINTENANCE AND FOLLOW-UP PROGRAM.
- CLEARING AND GRADING**
 - ONCE ANY EXISTING BUILDINGS AND PAVEMENT HAVE BEEN DEMOLISHED, THE DEBRIS SHALL BE REMOVED FROM THE SITE AND DISPOSED OF IN A PROPER MANNER.
 - PAVEMENT DEBRIS MAY BE USED AS FILL UNDER THE GUIDANCE OF THE GEOTECHNICAL ENGINEER.
 - STORM WATER RUNOFF WILL BE DIRECTED TO A SILTATION CONTROL DEVICE SUCH AS A SILT FENCE. THIS DEVICE WILL BE MAINTAINED AS DIRECTED BY THE SWPPP.
 - ANY SILT LEAVING THE SITE SHALL BE CLEANED UP AND ANY DAMAGE CAUSED SHALL BE REPAIRED PROMPTLY.
 - ALL VEHICLES LEAVING THE SITE WILL BE WASHED OF ALL MUD. SEE SHEET C-2 FOR DESIGNATED WASH DOWN AREA. THE CONTRACTOR WILL MAINTAIN THIS WASH DOWN AREA AND EXCESSIVE MATERIAL WILL BE REMOVED ON A REGULAR BASIS. THE WASH DOWN AREA WILL NOT BE REMOVED UNTIL A PORTION OF NEW ON-SITE PAVEMENT HAS BEEN ESTABLISHED FOR CONSTRUCTION PARKING.
- UTILITIES**
 - ALL EXCAVATION SHALL CONFORM TO OSHA STANDARDS.
 - ALL OPEN TRENCHES SHALL BE MARKED WITH A TEMPORARY BARRIER TO PREVENT BODILY INJURY.
- CONCRETE FLATWORK**
 - DO NOT ALLOW FRESH CONCRETE TO BE WASHED INTO A SEWER DRAIN, SWALE, OR STREAM. TRUCKS WILL DUMP EXCESS MATERIAL AND BE WASHED OF ALL CONCRETE AND MUD. SEE SHEET C-2 FOR DESIGNATED WASH DOWN AREA.
- ASPHALT PAVING**
 - DO NOT ALLOW ANY PETROLEUM PRODUCTS TO BE WASHED INTO A SEWER DRAIN, SWALE, OR STREAM. PRODUCTS SHALL BE STORED IN ORIGINAL CONTAINERS AND SEALED WHILE NOT BEING USED.
- FOUNDATIONS AND FOOTINGS**
 - ALL EXCAVATION SHALL CONFORM TO OSHA STANDARDS.
 - DO NOT ALLOW FRESH CONCRETE TO BE WASHED INTO A SEWER DRAIN, SWALE OR STREAM. TRUCKS WILL DUMP EXCESS MATERIAL AND BE WASHED OF ALL CONCRETE AND MUD. SEE SHEET C-2 FOR DESIGNATED WASH DOWN AREA.
- USE OF PAINT, SOLVENTS AND ADHESIVES**
 - A DROP CLOTH IS TO BE USED TO PREVENT PAINT (FRESH OR DRY) TO ENTER STORM DRAIN, SWALE, OR STREAM.
 - SOILED RAGS SHALL BE PLACED IN CONTAINERS APPROVED FOR PAINT, SOLVENTS, AND ADHESIVES.
 - ALL SPILLS WILL BE CLEANED UP IMMEDIATELY.
 - ALL ON-SITE EQUIPMENT WILL NOT BE USED IF FLUID LEAKS ARE PRESENT. LEAKS WILL BE FIXED PROMPTLY.
- HANDLING WASTES**
 - ALL MATERIAL WASTE SHALL BE DISPOSED OF PROPERLY.
 - ENSURE ALL WORKERS KNOW PROPER PROCEDURES.
 - A DESIGNATED AREA FOR WASTE STORAGE SHALL BE IDENTIFIED ON SITE.
 - EQUIPMENT BATTERIES WILL BE STORED IN AN AREA PROTECTED FROM RAIN WATER.
- CONSTRUCTION MANAGEMENT**
 - MAKE SURE ALL BMP'S ARE FOLLOWED.
 - OCURRENCES NOT LISTED ABOVE SHALL BE HANDLED IN A MANNER AS TO PROTECT PEOPLE AND THE ENVIRONMENT FROM EXPOSURE.
 - ENSURE ALL EMPLOYEES UNDERSTAND THE PROJECT SWPPP AND BMP'S.

BMP'S

- EROSION AND SILTATION CONTROL SHALL BE INSTALLED PRIOR TO ANY GRADING AND BE MAINTAINED THROUGHOUT THE PROJECT UNTIL ADEQUATE VEGETATIVE GROWTH INSURES NO FURTHER EROSION OF THE SOIL AND WORK IS ACCEPTABLE TO THE OWNER AND/OR CONTROLLING REGULATORY AGENCY.
- AT LEAST ONCE EVERY WEEK AND AFTER EVERY RAINFALL EVENT OF 0.25 INCHES OR MORE, EROSION AND SILTATION DEVICES SHALL BE INSPECTED FOR DAMAGE AND AMOUNT OF SEDIMENTATION ACCUMULATED AND CORRECTIVE ACTIONS TAKEN. REPORTS OF THESE INSPECTIONS AND CORRECTIVE ACTIONS SHALL BE PREPARED ON THE FORMS PROVIDED BY THE CITY AND SUBMITTED TO THE DEPARTMENT OF PUBLIC WORKS WITHIN 5 DAYS OF THE INSPECTION.
- TEMPORARY SILTATION CONTROL MEASURES (STRUCTURAL) SHALL BE MAINTAINED UNTIL VEGETATIVE COVER IS ESTABLISHED AT A SUFFICIENT DENSITY TO PROVIDE EROSION CONTROL ON THE SITE.
- WHEN GRADING OPERATIONS ARE COMPLETED OR WILL BE SUSPENDED FOR MORE THAN 5 DAYS IN ANY AREA, THE DISTURBED AREA SHALL BE SEEDED OR OTHERWISE STABILIZED TO SIGNIFICANTLY REDUCE THE EROSIABILITY OF THE SOIL. PROTECTIVE MEASURES MAY INCLUDE A COMBINATION OF SEEDING, SOODING, MULCHING OR OTHER SUITABLE MEANS TO PROTECT THE GROUND SURFACE FROM EROSION.
- ALL FINISHED GRADES (AREAS NOT DISTURBED BY FUTURE IMPROVEMENTS) IN EXCESS OF 20% SLOPES (5:1) SHALL BE MULCHED AND TACKED AT A RATE OF 100 POUNDS PER 1,000 SQUARE FEET WHEN SEEDED AS SOON AS POSSIBLE AFTER FINAL PLACEMENT.
- ALL MEASURES SHALL BE MAINTAINED IN GOOD ORDER WITH NECESSARY REPAIRS INITIATED WITHIN 24 HOURS OF REPORT.
- IF CUT AND FILL OPERATIONS OCCUR DURING A SEASON NOT FAVORABLE FOR IMMEDIATE ESTABLISHMENT OF A PERMANENT GROUND COVER, A FAST GERMINATING ANNUAL SUCH AS RYE GRASSES OR SUDAN GRASSES SHALL BE UTILIZED TO RETARD EROSION, IF ADEQUATE STORM WATER DETENTION AND EROSION CONTROL DEVICES HAVE NOT BEEN ESTABLISHED.
- SEDIMENT DEPOSITS SHALL BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- ANY SEDIMENT DEPOSIT REMAINING IN PLACE AFTER BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
- ALL EXPOSED SLOPES WHETHER TEMPORARY OR PERMANENT SHALL BE SEEDED PER CITY OF OFFALLOM SPECIFICATIONS IMMEDIATELY UPON COMPLETION AS TO PREVENT EROSION.
- STORM WATER PIPES, OUTLETS AND CHANNELS SHALL BE PROTECTED BY SILT BARRIERS AND KEPT FREE OF WASTE AND SILT AT ALL TIMES PRIOR TO FINAL SURFACE STABILIZATION AND/OR PAVING. SEE INLET PROTECTION DETAIL.
- ADDITIONAL SILTATION CONTROL MAY BE DEEMED NECESSARY BY THE ENGINEER OR THE CITY OF OFFALLOM.
- THE RESPONSIBILITY FOR PROFESSIONAL ENGINEERING LIABILITY ON THIS PROJECT IS HEREBY LIMITED TO THE SET OF PLANS ATTACHED. RESPONSIBILITY IS DISCLAIMED FOR ALL OTHER ENGINEERING PLANS INVOLVED IN THE PROJECT AND SPECIFICALLY EXCLUDES REVISIONS AFTER THIS DATE UNLESS REAUTHENTICATED.
- SILT FENCE IS TO BE INSTALLED AT THE CONSTRUCTION ENTRANCE AT THE END OF EACH WORK DAY.

BMP MAINTENANCE NOTES:

- ALL BMP'S SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
- CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED BMP'S.
- NECESSARY REPAIRS TO BMP'S SHALL BE ACCOMPLISHED PROMPTLY.
- SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF THE HEIGHT OF THE BARRIER.
- ANY SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE BMP'S ARE NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE, PREPARED AND SEEDED.
- ALL EXPOSED SLOPES WHETHER TEMPORARY OR PERMANENT SHALL BE SEEDED PER SPECIFICATIONS IMMEDIATELY UPON COMPLETION.
- ALL FLOWLINES OF DIVERSION DITCHES AND SWALES SHALL BE PROTECTED AS NEEDED.
- ADDITIONAL SILTATION CONTROL MAY BE REQUIRED BY AN AUTHORIZED COMPANY REPRESENTATIVE AND/OR THE CITY OF OFFALLOM.
- ALL EXCESS SEDIMENT FROM MAINTENANCE OF BMP'S SHALL BE CLEANED UP AND REDISTRIBUTED ONTO THE SITE WHERE NEEDED AND SHALL BE DRESSED TO CONFORM TO THE PROPER GRADE, PREPARED AND SEEDED.

BMP QUANTITY TAKE-OFF					
DATE	INSPECTOR	IS SEDIMENT TRACKED ONTO THE ROAD?	DEPTH OF SILT ON SILT FENCES	REPAIRS NEEDED	DATE REPAIRS MADE

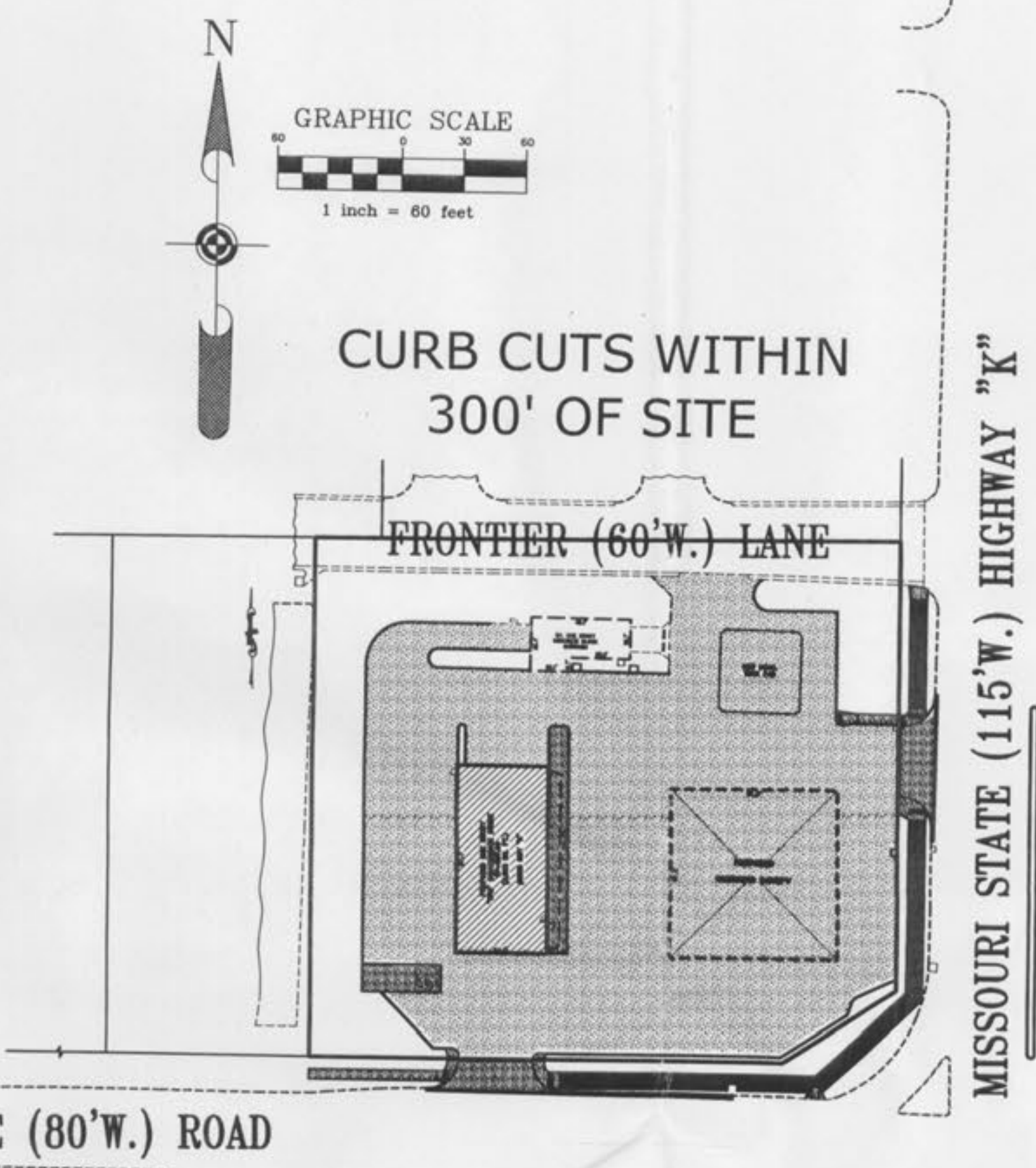
SEEDING REQUIREMENTS												
Permanent Seeding	Dates for Seeding											
	Jan	Feb	March	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Tall Fescue	O	O	O	O	O	O	O	O	O	O	O	O
Smooth Bromo	O	O	O	O	O	O	O	O	O	O	O	O
Fescue & Bromo	O	O	O	O	O	O	O	O	O	O	O	O
Fescue, Ryegrass & Bromo	A	A	O	O	O	P	P	O	O	P	P	A

Permanent Seeding	Minimum Fertilizer and Seeding Rates											
	Pounds per acre	Pounds Per 1000 sq. ft.										
Tall Fescue	300	7.0										
Smooth Bromo	250	4.6										
Mixture #1	250	5.7										
Mixture #2	250	4.8										

Temporary Seeding	Pounds per acre											Pounds Per 1000 sq. ft.										
	Hydr. or Sudan	Hydr.	Sudan	Hydr.	Sudan	Hydr.	Sudan	Hydr.	Sudan	Hydr.	Sudan	Hydr.	Sudan									
Hydr. or Sudan	150	150	150	150	150	150	150	150	150	150	150	150										
Ordn.	200	200	200	200	200	200	200	200	200	200	200	200										

Fertilizer	Permanent Seeding											Temporary Seeding										
	pounds per acre											pounds per acre										
Nitrogen	45											30										
Phosphorus	60											30										
Potassium	60											30										
Lime - ENM	100											100										

ENM = Effective Nourishing Material per State evaluation of ground rock.



CONSTRUCTION ACTIVITIES	WEEKS																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
SANITARY & STORM SEWERS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
RETAINING WALL	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SITE FILL & EXCAVATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C-STORE FOOTING & FOUNDATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
C-STORE BUILDINGS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
UTILITIES	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CANOPY FOOTING	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FUEL TANKS & PRODUCT PIPING	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
VERTICAL CURB	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CANOPY SLAB & LOT PAVING	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CANOPY	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
ENTRANCE APPROACHES	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
IRRIGATION	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
LANDSCAPING	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FINAL CLEAN UP, P.V.M. STRIPING & FINAL INSP.	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
BMP'S	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
GRAVEL BAGS	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
CONSTRUCTION ENTRANCE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
FABRIC SILT FENCE	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
INLET PROTECTION-FABRIC DROP	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
SOODING/SEEDING	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X

SEEDING SCHEDULE
VEGETATION SHALL BE ESTABLISHED ON EXPOSED SOIL AFTER A PHASE OF ROUGH OR FINISHED GRADING HAS BEEN COMPLETED, OR AREAS WHERE NO ACTIVITY WILL OCCUR FOR 14 DAYS. SEE SEEDING RATES THIS SHEET.

EMERGENCY CONTACT (24 HR)
NAME: JAY CHAMBERS
ADDRESS: 50 SOUTH BEMISTON
ST. LOUIS, MO 63105
NUMBER: (314) 725-4321

**SPIRIT ENERGY CFM
STORE NO. 99
#2035 HIGHWAY K
CITY OF OFFALLOM,
ST. CHARLES MISSOURI 63366**

REV.	DATE	BY	DESCRIPTION
1	03/21/07	SPO	COMMENTS FROM CITY OF OFFALLOM
2	06/11/07	SPO	COMMENTS FROM CITY OF OFFALLOM
3	07/17/07	SPO	COMMENTS FROM CITY OF OFFALLOM
4	07/19/07	SPO	ADDED DETAILS PER OFFALLOM

BMP'S
PREPARED FOR:
SPIRIT ENERGY CORPORATION
50 S. BEMISTON
CLAYTON, MISSOURI 63105
PHONE (314)725-4321
FAX (314) 725-2381

JAMES ENGINEERING & SURVEYING CO., INC.
ENGINEERS PLANNERS & SURVEYORS
10811 BIG BEND BLVD. KIRKWOOD, MO 63122
PHONE: (314) 822-1006 FAX: (314) 822-0006
HORIZONTAL SCALE: 1" = 20'
VERTICAL SCALE: 1" = 8'

C-6

SCHEDULE OF OPERATIONS
NOTE: SCHEDULE IS APPROXIMATE AND MAY VARY DUE TO SITE CONDITIONS AND WEATHER.

P&Z CASE#: 3106
JANUARY 4, 2007
PROJECT ZIP CODE: 63366