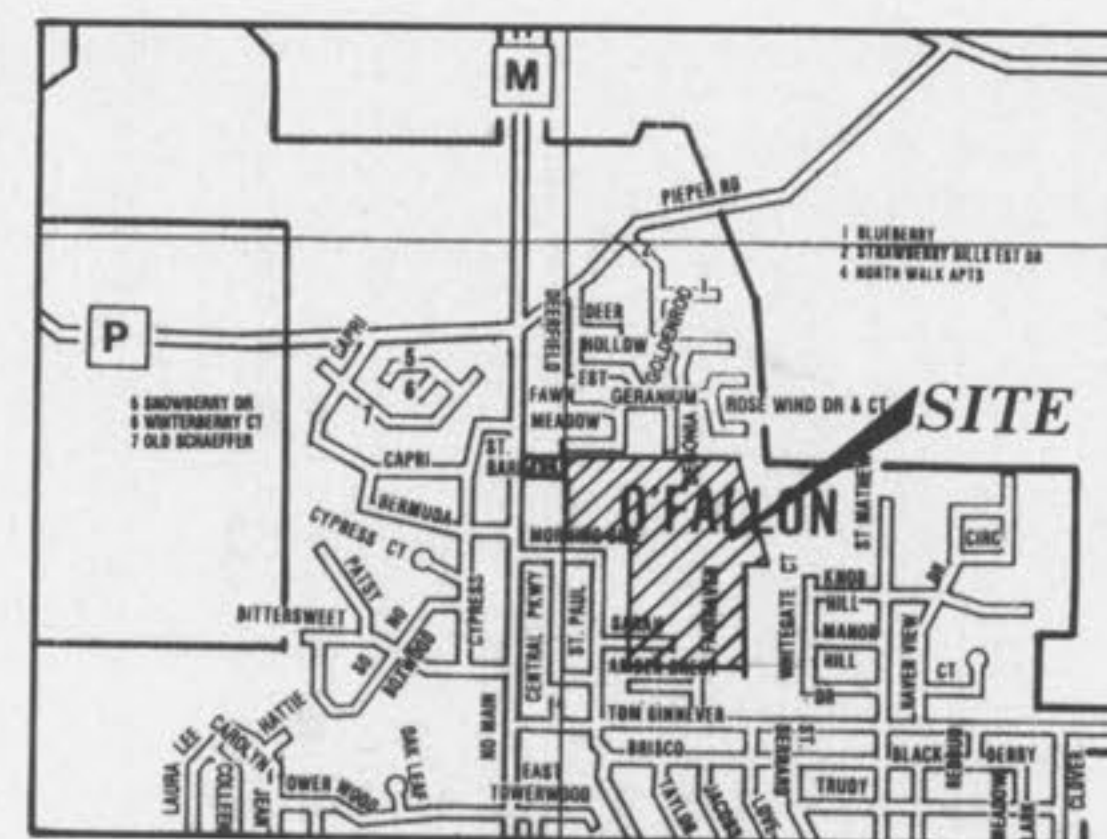


ASHFORD PLACE FORMERLY O'FALLON MEADOWS

A TRACT OF LAND BEING PART OF THE SW 1/4 OF FRAC. SEC. 16 & THE NW 1/4 OF FRAC. SEC. 21,
TOWNSHIP 47 N., RANGE 3 E.
CITY OF O'FALLON ST. CHARLES CO., MO.

GENERAL NOTES

- Underground utilities have been plotted from available information and therefore their locations shall be considered approximate only. The verification of the location of all underground utilities, either shown or not shown on these plans, shall be the responsibility of the contractor, and shall be located prior to any grading and/or construction of improvements.
- Contractor shall be responsible for the protection of all adjacent properties and roadways from siltation and erosion. Methods of controlling erosion and siltation shall not be limited to those shown on the plans.
- If bales are destroyed by heavy rains, vandalism, etc., they are to be replaced immediately by Contractor.
- All cut and fill slopes should be a maximum 33% slope (3:1) after grading.
- All construction and materials shall conform to City of O'Fallon Standards.
- Soil preparation and re-vegetation shall be performed according to Appendix A of the Model Sediment and Erosion Control Regulations for Urban Development.
- Where natural vegetation is removed during grading vegetation shall be re-established in such a density as to prevent erosion. Permanent type grasses shall be provided according to the Designated Official's recommendation. Refer to Appendix A of St. Charles Soil and Water Conservation District Model Sediment and Erosion Control Regulations. All finished grades (areas not to be disturbed by improvement) in excess of 20% slopes (5:1) shall be mulched and tacked at the rate of 100 pounds per 1000 square feet when seeded.
- All fill including filled places under proposed storm and sanitary sewer lines and paved areas including trench backfills within and off the road right-of-way shall be compacted to 90 percent of maximum density as determined by the Modified AASHTO T-180 Compaction Test (ASTM D1557). All tests shall be verified by a Soils Engineer concurrent with grading and backfilling operations. The compacted fill shall be free of rutting and shall be nonyielding and non pumping during proofrolling and compaction.
- The vertical grading tolerance shall be plus or minus 0.2 feet for all rough grading.
- Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
- Owner/Developer assumes full responsibility as to the performance of the grading operation and assurance that all properties and county roads will be adequately protected.
- The total yardage of this project is based on a 15% + shrinkage factor.
- The shrinkage factor is subject to change, due to soil conditions, (types and moisture content) weather conditions, and the percent compaction actually achieved at the time year grading is performed. As a result, adjustments in final grade may be required. If adjustments need to be made, the contractor shall contact St. Charles Engineering and Surveying prior to completion of the grading.
- Earth quantities were obtained from aerial grid mapping with contours at two foot intervals, with a tolerance of plus or minus one foot or one-half (1/2) contour intervals.
- The computed bid yardage is to finish grades as shown, and does not include the removal of subgrade where required.



LOCATION MAP
N.T.S.

SPECIFICATIONS

- Site preparation includes the clearance of all stumps, trees, bushes, shrubs, and weeds; the grubbing and removal of roots and other surface obstructions from the site; and the demolition and removal of any man-made structures. The unsuitable material shall be properly disposed of off-site. Topsoil and grass in the fill areas shall be thoroughly disced prior to the placement of any fill. The Soils Engineer shall approve the discing operation.
- Compaction equipment shall consist of tamping rollers, pneumatic-tired rollers, vibratory roller or high speed impact type drum rollers acceptable to the Soils Engineer. The roller shall be designed so as to avoid the creation of a layered fill without proper blending of successive fill layers.
- The Soils Engineer shall observe and test the placement of the fill to verify that specifications are met. A series of fill density tests will be determined on each lift of fill. Interim reports showing fill quality will be made to the Owner at regular intervals.
- The Soils Engineer shall notify the Contractor of rejections of a lift of fill or portion thereof. The Contractor shall rework the rejected portion of fill and obtain notification from the Soils Engineer of its acceptance prior to the placement of additional fill.
- All Areas to receive fill shall be scarified to a depth of not less than 6 inches and then compacted to at least 85 percent of the maximum density as determined by the Modified AASHTO T-1800 Compaction Test (ASTM-D1557). Natural slopes steeper than 1 vertical to 5 horizontal to receive fill shall have horizontal benches, cut into the slopes before the placement of any fill. The width and height to be determined by the Soils Engineer. The fill shall be loosely placed in horizontal layers not exceeding 8 inches in thickness and compacted in accordance with the specifications given below. The Soils Engineer shall be responsible for determining the acceptability of soils placed. Any unacceptable soils placed shall be removed at the Contractor's expense.
- The sequence of operation in the fill areas will be fill, compact, verify acceptable soil density, and repetition of the sequence. The acceptable moisture contents during the filling operation are those at which satisfactory dry densities can be obtained. The acceptable moisture contents during the filling operation in the remaining areas are from 2 to 3 percent above the optimum moisture content.
- The surface of the fill shall be finished so that it will not impound water. If at the end of a days work it would appear that there may be rain prior to the next working day, the surface shall be finished smooth. If the surface has been finished smooth for any reason, it shall be scarified before proceeding with the placement of succeeding lifts. Fill shall not be placed on frozen ground, nor shall filling operations continue when the temperature is such as to permit the layer under placement to freeze.
- Fill placed within proposed street R.O.W. shall be below compacted to 90% M.O.D Proctor and be 2% below to 5% above optimum moisture content.
- Soft soil in the bottom and banks of any existing or former pond site should be removed, spread out and permitted to dry sufficiently to be used as fill. None of this material should be placed in proposed right-of-way locations for on storm sewer locations.

BID YARDAGE - 71,260 Cu.Yds

VEGETATIVE ESTABLISHMENT For Urban Development Sites

APPENDIX A

Seeding rates:

Permanent:

Tall Fescue - 30 lbs./ac.
Smooth Brome - 20 lbs./ac.
combined: Fescue @ 15 lbs./ac. and Brome @ 10 lbs./ac.

Temporary:

Wheat or Rye - 150 lbs./ac. (3.5 lbs. per square foot)
Oats - 120 lbs./ac. (2.75 lbs. per square foot)

Seeding periods:

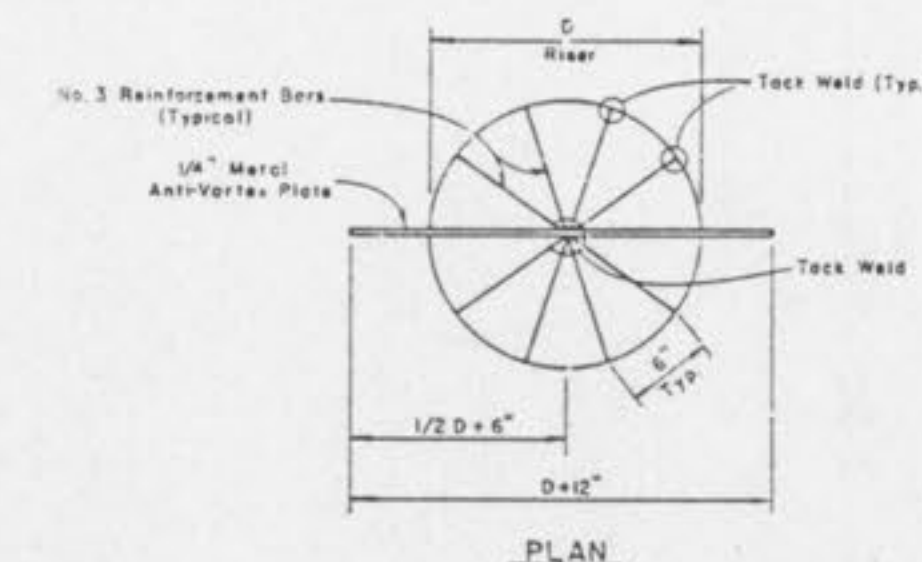
Fescue or Brome - March 1 to June 1
August 1 to October 1

Wheat or Rye - March 15 to November 1
Oats - March 15 to September 15

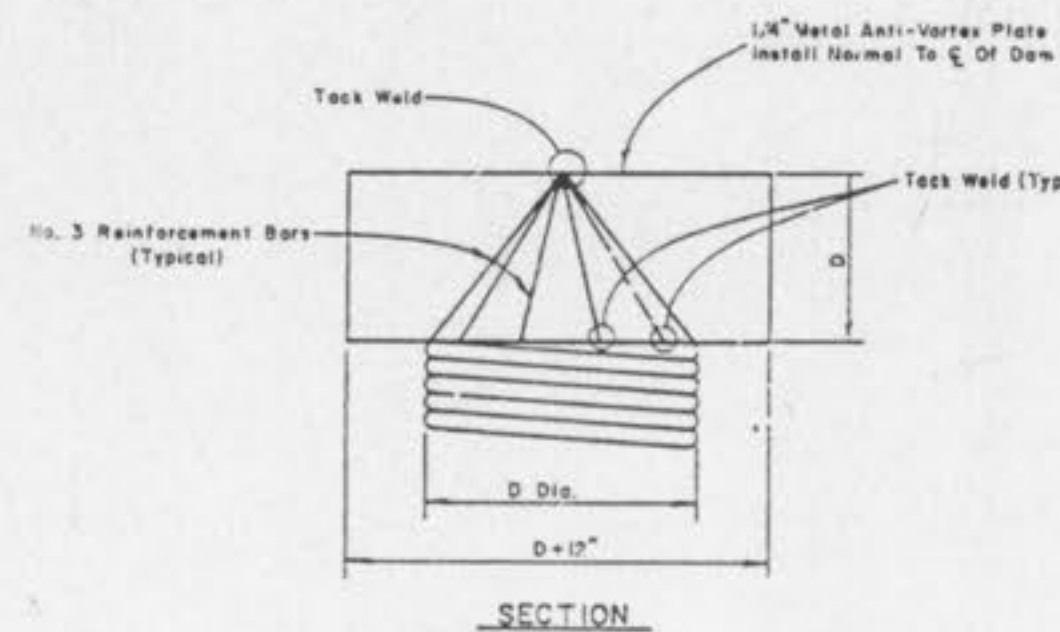
Mulch rates: 100 lbs. per 1,000 sq. feet (4,356 lbs. per acre)

Fertilizer rates: Nitrogen 30 lbs./ac.
Phosphate 30 lbs./ac.
Potassium 30 lbs./ac.
Lime 600 lbs./ac. ENM*

* ENM = effective neutralizing material as per State evaluation of quarried rock.



Bar inch is 25.4mm



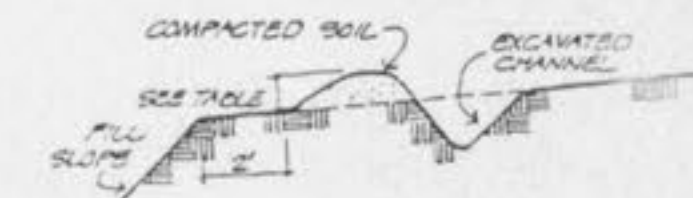
**DETAIL OF TRASH RACK
AND ANTI-VORTEX DEVICE**

DIVERSIONS For Urban Development Sites

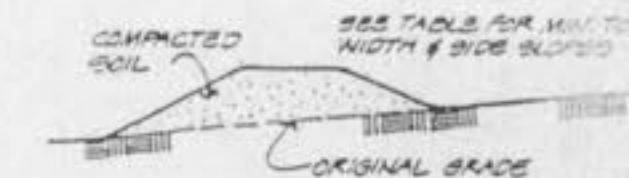
APPENDIX B

** Outlets for diversions must be stable. Stable outlets consist of grass waterways, earthen channels with capacity adequate to prevent gully erosion, grade stabilization structures or other practices as approved by the Designated Official.

Combination Diversion
Used at the top of a fill slope.



Earth Ridge Diversion
Used around the perimeter of a construction site.



Combination Diversion
General use.

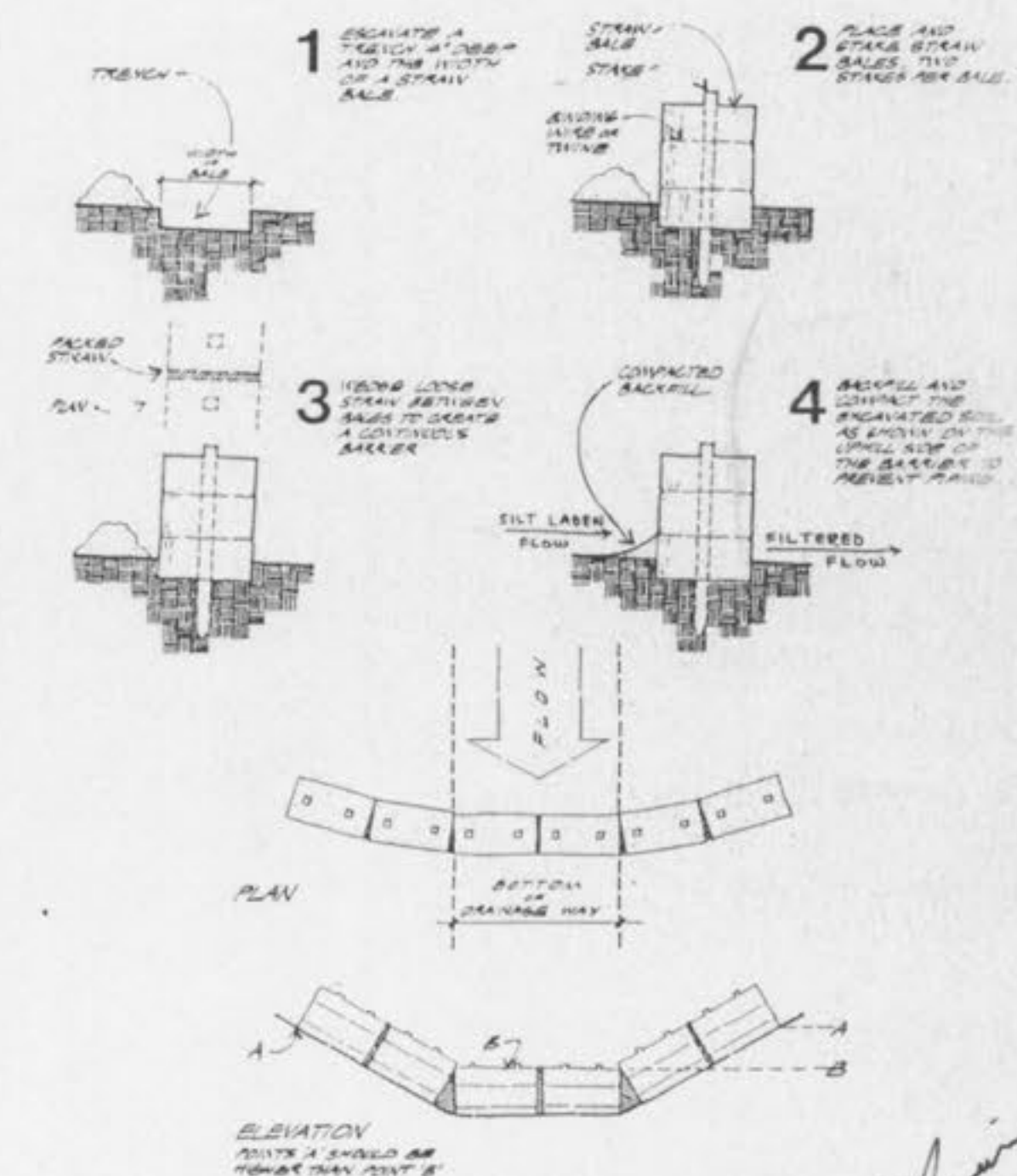


Gravel Ridge Diversion
General use.



STRAW BALE BARRIERS For Urban Development Sites

APPENDIX C



Placement and Construction of a Straw Bale Barrier



O'FALLON MEADOWS

PREPARED FOR:
JAMES TARKINGTON
#4 ROSE ANNA ACRES
WENTZVILLE MO. 63385
(314) 828-4221

The responsibility for professional engineering liability on this project is hereby limited to the set of plans authenticated by the seal, signature and date hereunder attached. Responsibility is disclaimed for all other engineering plans involved in the project and specifically excludes revisions after this date unless reauthenticated.

Revised 3-1-94
ST. CHARLES ENGINEERING & SURVEYING
801 South Fifth Street, Suite 202
St. Charles, Missouri 63301
Off. 947-0607, Fax 947-2448

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