

GENERAL NOTES

- BOUNDARY AND TOPOGRAPHIC SURVEY BY STOCK AND ASSOCIATES.
- LOT WILL BE CREATED WITH A SUBDIVISION PLAT.
- ALL UTILITIES SHOWN HAVE BEEN LOCATED BY THE ENGINEER FROM AVAILABLE RECORDS. THEIR LOCATION SHOULD BE CONSIDERED APPROXIMATE. THE CONTRACTOR HAS THE RESPONSIBILITY TO NOTIFY ALL UTILITY COMPANIES, PRIOR TO CONSTRUCTION, TO HAVE EXISTING UTILITIES FIELD LOCATED.
- NO GRADE SHALL EXCEED 3:1 SLOPE.
- ALL SLOPES TO BE STABILIZED IMMEDIATELY AFTER GRADING.
- ALL UTILITIES SERVING SITE ARE UNDERGROUND.
- ALL OUTSIDE TRASH CONTAINERS, HVAC UNITS, ELECTRIC, TELEPHONE AND GAS METERS, SATELLITE DISHES, AND ROOF TOP MECHANICAL APPARATUS SHALL BE THOROUGHLY SCREENED WITH MATERIALS AND/OR LANDSCAPING TO CONCEAL THE VISIBILITY OF SUCH ITEMS FROM THE VIEW OF RIGHTS-OF-WAY AND/OR ADJACENT PROPERTIES AS REVIEWED AND APPROVED BY THE PLANNING DIVISION.
- PARKING CALCULATIONS:
BUILDING 1 - 7,700 S.F.
REQUIRED
10 SPCS. FOR THE FIRST 2000 S.F. OF FLOOR AREA
1 SPACE / 400 S.F. OF REMAINING FLOOR AREA
7700-2000 = 5700; 5700/400 = 15 SPACES REQUIRED
25 SPACES PROVIDED
PARKING PROVIDED = 29 SPACES (INCLUDING H.C. SPACES)
H.C. SPACES = 2 PROVIDED
- COVERAGE CALCULATIONS:
BUILDINGS 7700 S.F. (18%)
PAVEMENT 23,495 S.F. (26%)
TOTAL LANDSCAPE AREA = 28,502 S.F. (48%)
SITE ACREAGE = 59,626 S.F.
- LANDSCAPE CALCULATIONS
LENGTH OF STREET FRONTAGE = 362 FT.
REQUIRED = 1 TREE FOR EVERY 40 FT. OF STREET FRONTAGE
REQUIRED = 10
PROVIDED = 10
LANDSCAPED OPEN AREA = 22,976 SQ.FT.
REQUIRED = 1 TREE FOR EVERY 3000 SQ. FT. OF LANDSCAPED AREA
REQUIRED = 8
PROVIDED = 8
LANDSCAPE BUFFER YARD CALCULATIONS
LENGTH OF PROPERTY ADJACENT TO RESIDENTIAL ZONING = 277.77ft
 $277.77ft \times 2 \text{ units} \times 30 \text{ points} = 167 \text{ points (REQUIRED)}$
TOTE: unit
1 EVERGREEN TREE = 10 POINTS
10 trees = 167 points = 17 trees (REQUIRED)
17 TREES PROVIDED IN BUFFER AREA
- STORM WATER DIFFERENTIAL RUNOFF CALCULATIONS
EXISTING AREAS
IMPERVIOUS AREAS = 0.05 Ac.
PERVIOUS AREAS = 1.37 Ac.
 $(4.20cfs/Ac \times 0.05Ac.) + (2.00 cfs/Ac. \times 1.37Ac.) = 2.95 cfs$
PROPOSED AREAS
IMPERVIOUS AREAS = 0.78 Ac.
PERVIOUS AREAS = 0.64 Ac.
 $(4.20cfs/Ac \times 0.78Ac.) + (2.00 cfs/Ac. \times 0.64Ac.) = 4.55 cfs$
DIFFERENTIAL = 4.55cfs - 2.95cfs
DIFFERENTIAL = 1.60cfs

EARTHWORK NOTES

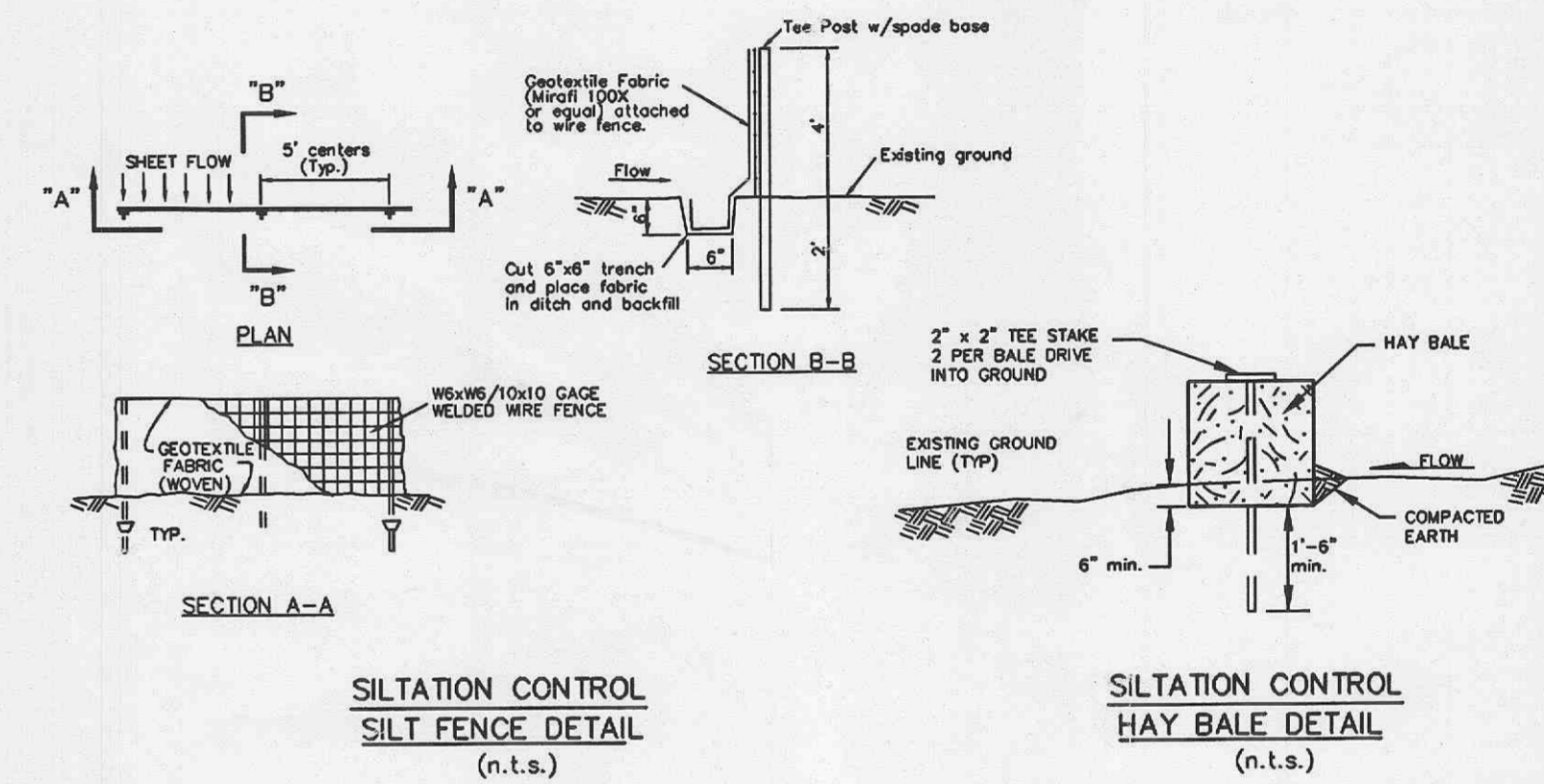
- BULK OUT..... 902 ± CUBIC YARD
BULK FILL..... 1150 ± CUBIC YARD (INCLUDES 15% SHRINKAGE)
- THE ENGINEER HAS CALCULATED THE ABOVE QUANTITIES OF EARTHWORK TO BE REQUIRED AS AN ESTIMATE OF THE BULK MOVEMENT OR REDISTRIBUTION OF SOILS ON THIS PROJECT. AS AN ESTIMATE, THESE QUANTITIES ARE INTENDED FOR GENERAL USE, AND THE ENGINEER ASSUMES NO LIABILITY FOR COST OVERRUNS DUE TO EXCESS EXCAVATED MATERIALS OR SHORTAGES OF FILL.
- THE QUANTITIES ESTIMATED FOR EACH OF THE IMPROVEMENT ITEMS LISTED ABOVE ARE BASED UPON THE HORIZONTAL AND VERTICAL LOCATION OF THE IMPROVEMENTS AS PROPOSED ON THE SITE ENGINEERING PLANS PREPARED BY STOCK AND ASSOCIATES CONSULTING ENGINEERS.
- THE ENGINEER'S EARTHWORK ESTIMATE DOES NOT INCLUDE ANY OF THE FOLLOWING ITEMS REQUIRING EARTHWORK THAT MAY BE NECESSARY FOR COMPLETION OF THE PROJECT: MISCELLANEOUS UNDERGROUND CONDUITS, INCLUDING SEWER LINES AND WATER MAINS LESS THAN TWENTY-FOUR INCHES IN DIAMETER, STANDARD MANHOLES, PROCESS OR TRANSFER PIPING, ELECTRICAL OR TELEPHONE CONDUITS, BASES FOR LIGHT STANDARDS, BUILDING FOOTINGS AND FOUNDATIONS, STRIPPING OF TOPSOIL, ETC.
- THE ENGINEER ASSUMES NO RESPONSIBILITY FOR THE ACTUAL SIZE OF THE FIELD EXCAVATIONS MADE FOR THE INSTALLATION OF UNDERGROUND STRUCTURES, AND AS SUCH, THE ACTUAL QUANTITIES OF EARTHWORK FROM SUCH ITEMS MAY VARY FROM THE ESTIMATE SHOWN ABOVE.
- THE ENGINEER ASSUMES NO RESPONSIBILITY FOR COSTS INCURRED DUE TO REMOVAL OF UNSUITABLE MATERIAL FROM SITE.
- THE ABOVE QUANTITIES ARE AN ESTIMATE AND SHOULD BE CONSIDERED AS SUCH. IT IS THE GRADING CONTRACTOR'S RESPONSIBILITY TO PREPARE A QUANTITY TAKEOFF AND NOTE ANY DISCREPANCIES TO THE ENGINEER.

SANITARY SEWER NOTES

- ALL MATERIALS AND METHODS OF CONSTRUCTION FOR SANITARY SEWERS TO MEET REQUIREMENTS OF M.S.D. "STANDARD CONSTRUCTION SPECIFICATIONS", 1992.
- 6" AND 8" LATERALS TO BE CONSTRUCTED OF P.V.C. S.D.R.-35 THICKWALL PIPE, A.S.T.M. D-3034.
- 6" AND 8" LATERAL JOINTS TO CONFORM TO A.S.T.M. STANDARD S.D.R.-35 THICKWALL COMPRESSION JOINT FOR P.V.C.
- ALL LATERAL SEWER CONSTRUCTION METHODS TO CONFORM TO LATEST STANDARDS AND SPECIFICATIONS OF THE ST. LOUIS COUNTY PLUMBING CODE.
- ALL TRENCHES UNDER AREAS TO BE PAVED SHALL BE GRANULARLY FILLED WITH 3/4" CRUSHED LIMESTONE. BACKFILL SHALL BE PLACED IN ACCORDANCE WITH CITY OF O'FALLON STANDARDS.
- CONTRACTOR TO START LAYING PIPE AT DOWNSTREAM MANHOLE AND WORK UPSTREAM.
- TALSTAKE ELEVATIONS ARE SHOWN ON SITE AND GRADING PLAN.
- CLEANOUTS SHALL BE LOCATED AT ALL HORIZONTAL AND VERTICAL CHANGES IN DIRECTION OF FLOW OF HOUSE LATERALS AND ANY SANITARY LATERAL OF 100 FEET OR LONGER.
- TYPE "C" BEDDING PER M.S.D. STANDARDS REQUIRED FOR PIPES IN ROCK.
- VERTICAL CLEARANCE BETWEEN SEWER AND WATER MAINS SHALL BE A MINIMUM OF 7'-0".
- ALL TRENCH BACKFILLS UNDER PAVEMENT WITHIN THE PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILLED. TRENCH BACKFILLS UNDER PAVED AREAS, OUTSIDE OF PUBLIC RIGHT-OF-WAY SHALL BE GRANULAR BACKFILL IN LIEU OF THE EARTH BACKFILL COMPACTED TO 90 PERCENT OF THE MODIFIED AASHTO T-160 COMPACTION TEST A.S.T.M. D-1557.
- JETTING IS NOT AN ACCEPTABLE METHOD OF ADHESIVE BACKFILL COMPACTION. ALL BACKFILL MATERIAL SHALL BE MECHANICALLY COMPACTED TO AT LEAST 95 PERCENT OF THE MATERIAL'S STANDARD PROCTOR MAXIMUM DRY DENSITY.
- A DRAIN LAYER PERMIT IS REQUIRED FROM THE DEPARTMENT OF PUBLIC WORKS FOR THIS PROJECT.

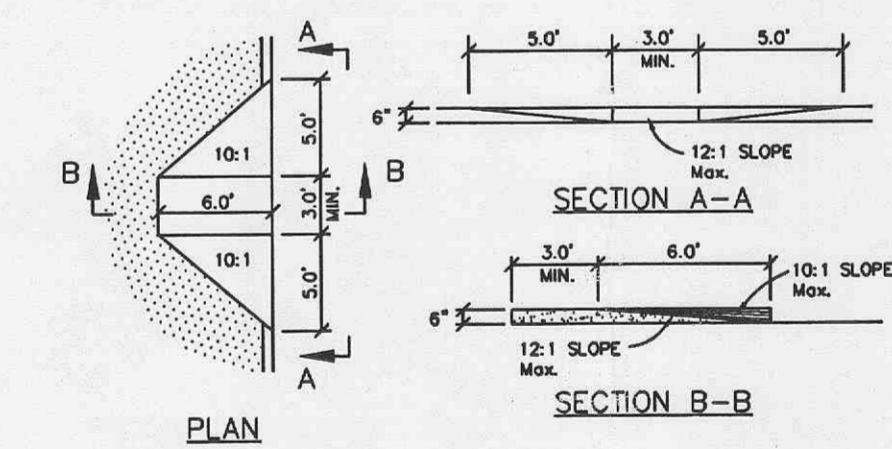
SILTATION CONTROL NOTES

- Inspection of siltation control devices shall take place once every seven days and within 24 hours of any 0.5724 hour rain event. Any siltation control in need of repair shall occur immediately.
 - Any disturbed areas which will remain unworked for 45 days or more shall be stabilized with seeding and mulching per specifications within 7 days. If seasonal conditions prohibit seeding, mulching or mowing shall be used.
 - All slopes or drainage channels, once constructed to final grade, shall be seeded and mulched per specifications within seven (7) days.
 - Silt fences shall be installed immediately around each storm sewer structure once final construction of each individual structure is complete.
 - All siltation control devices shall remain in place until upslope areas have been permanently stabilized.
- Siltation Control Schedule Implementation**
- Perimeter siltation control and construction entrances to be installed.
 - Begin placing aggregate base in parking areas once area has received final grade to prevent erosion.
 - Place silt fence around each storm sewer structure as it is completed.
 - Immediately seed areas upon reaching final grade that are to be permanently seeded.
- Vegetation**
- All roadside ditches, cuts, file and disturbed areas adjacent to parking areas and roads shall be stabilized with appropriate temporary or permanent vegetation according to the applicable standards and specifications.
- Maintenance**
- Both temporary and permanent roads and parking areas may require periodic top dressing with new gravel. Seeded areas adjacent to the roads and parking areas should be checked periodically to ensure that a sparse stand of vegetation is maintained. Roadside ditches and other drainage structures should be checked regularly to ensure that they do not become clogged with silt or other debris.
- Hay Bale Siltation Control Specifications**
- Sheet Flow Applications**
- Bales shall be placed in a single row, lengthwise on the contour, with both ends of adjacent bales tightly abutting one another.
 - All bales shall be either wire-bound or string-tied. Straw bales shall be installed so that bindings are oriented around the sides rather than along the tops and bottoms of the bales (in order to prevent deterioration of the bindings).
 - The barrier shall be entrenched and backfilled. A trench shall be excavated the width of a bale and the length of the proposed barrier to a minimum depth of 4 inches. After the bales are staked and chinked, the excavated soil shall be backfilled against the barrier. Backfill soil shall conform to the ground level on the downhill and shall be built up to 4 inches against the uphill side of the barrier.
 - Each bale shall be securely anchored by at least two 2"x2" tee stakes driven through the bale. The first stake in each bale shall be driven toward the previously laid bale to force the bales together. Stakes shall be driven a minimum of 18" into the ground.
 - The gaps between bales shall be chinked (filled by wedging) with straw to prevent water from seeping between the bales. (Loose straw scattered over the area immediately uphill from a straw bale barrier tends to increase barrier efficiency).
 - Inspection shall be frequent and repair or replacement shall be made promptly as needed.
 - Straw bale barriers shall be removed when they have served their usefulness, but not before the upslope areas have been permanently stabilized.
- Channel Flow Applications**
- Bales shall be placed in a single row, lengthwise, oriented perpendicular to the contour, with ends of adjacent bales tightly abutting one another.
 - The remaining steps for installing a straw bale barrier for sheet flow applications apply here, with the following addition.
 - The barrier shall be extended to such a length that the bottoms of the end bales are higher in elevation than the top of the lowest middle bale to ensure that sediment-laden runoff will flow either through or over the barrier but not around it.
- Maintenance**
- Hay bale barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
 - Close attention shall be paid to the repair of damaged fence, end runs and undercutting beneath fence.
 - Necessary repairs to barriers or replacement of silt fence 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 straw bale barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.
- Silt Fence Specifications**
- Silt Fence to be woven geotextile fabric Mirafi 100K or equal.
 - Fabric to be supported by metal tee post with spade base spaced on 5' centers with 1/8" x 1/8" x 10 gage welded wire fence. See detail this sheet.
 - Fabric shall be entrenched and backfilled. A trench shall be excavated a minimum of 6 inches deep for the length of the fence. The excavated soil shall be backfilled against the fence. See detail this sheet.
 - Fence height shall be a minimum of 4 feet in height, with the fabric installed on the fence on the upstream side.
 - Silt fences shall be used only on sheet flow conditions.
 - Silt fences shall be installed around all storm sewer structures.
- Maintenance**
- Silt fence barriers shall be inspected immediately after each rainfall and at least daily during prolonged rainfall.
 - Close attention shall be paid to the repair of damaged bales, end runs and undercutting beneath bales.
 - Necessary repairs to barriers or replacement of bales 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 silt fence barrier is no longer required shall be dressed to conform to the existing grade, prepared and seeded.

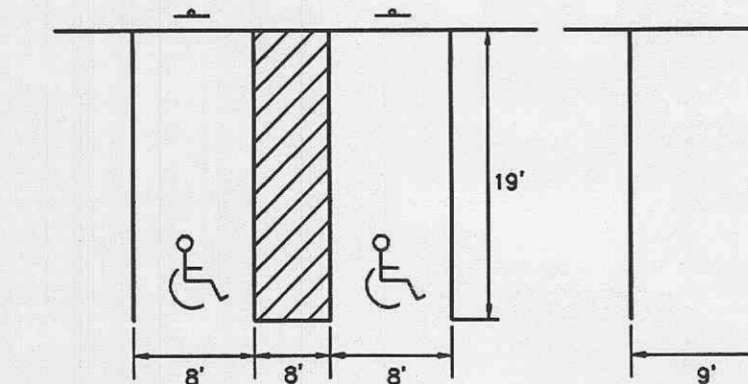


SILTATION CONTROL
SILT FENCE DETAIL
(n.t.s.)

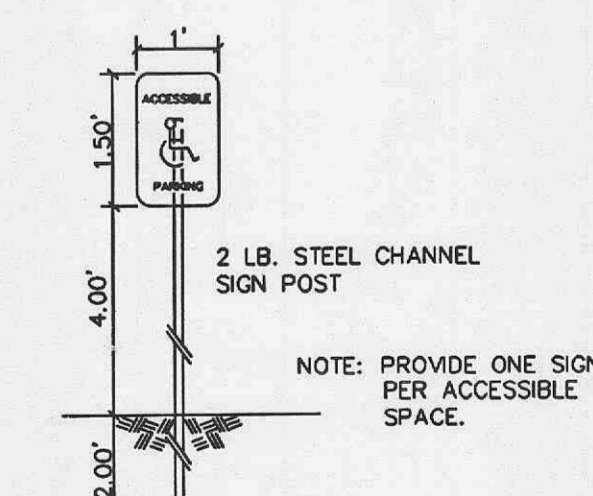
SILTATION CONTROL
HAY BALE DETAIL
(n.t.s.)



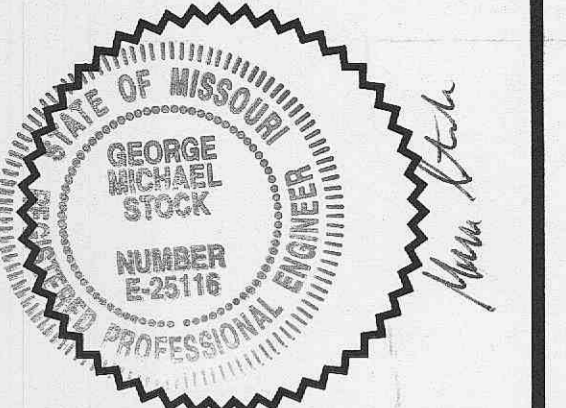
HANDICAP RAMP DETAIL
(n.t.s.)



TYPICAL PARKING STALLS



ACCESSIBLE PARKING SIGN
(n.t.s.)



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REVISIONS:

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| 3 | REVISED FOR NEW BLDG. SIZE/LAYOUT
CONSTRUCTION SET
06/23/00 |
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Drawn By: J.T.R.

Checked By: G.M.S.

Drawing Title:

SPECIFICATION
SHEET