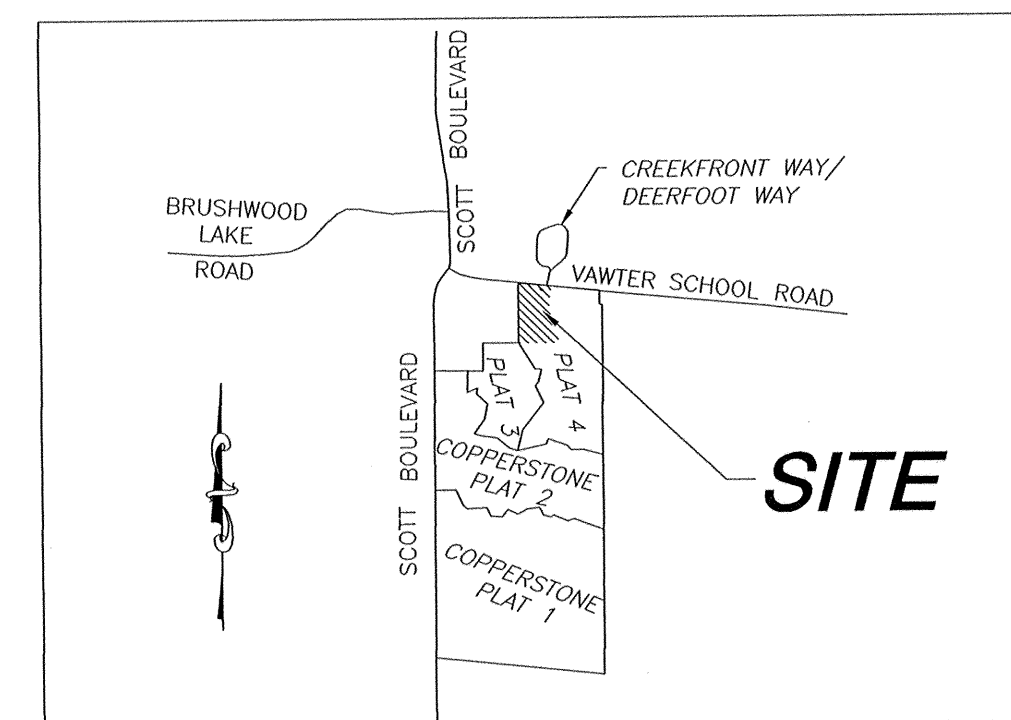


C-P PLAN  
**COPPERSTONE  
COMMERCIAL**

APRIL 11, 2007  
REVISED MAY 24, 2007



**LOCATION MAP**  
NOT TO SCALE

**GENERAL NOTES:**

- CONTRACTOR SHALL VERIFY EXISTING CONDITION AND LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION. CONTACT ENGINEER WITH ANY DISCREPANCIES.
- TRACTS ARE ZONED C-P.
- ALL DIMENSIONS ARE FROM BACK OF CURB UNLESS SHOWN OTHERWISE.
- ALL SPOT ELEVATIONS ARE TOP OF PAVEMENT UNLESS SHOWN OTHERWISE.
- ALL SLOPES GREATER THAN 3:1 SHALL BE STABILIZED AS SOON AS GENERAL GRADING OPERATIONS ARE COMPLETE. IF VEGETATIVE COVER CAN NOT BE ESTABLISHED PRIOR TO THE ONSET OF WINTER, AN ALTERNATIVE METHOD OF STABILIZATION SHALL BE USED UNTIL VEGETATIVE COVER IS ESTABLISHED.
- THE PRIVATE STREET KNOWN AS FRONTGATE LANE SHALL BE MAINTAINED BY THE COPPERSTONE COMMERCIAL OWNERS ASSOCIATION.
- AN ACCESS EASEMENT FOR FRONTGATE LANE SHALL BE GRANTED TO THE ADJACENT PROPERTY OWNER(S) TO THE WEST ONCE UPON REQUEST BY THE DEVELOPERS OF THIS ADJACENT TRACT AND IN CONJUNCTION WITH FUTURE ALIGNMENT OF THE EXTENSION OF THIS PRIVATE DRIVE. THIS ACCESS EASEMENT WILL ENCOMPASS THE ENTIRE AREA OF THE COMMON LOT C103.
- ALL PAVED AREAS MORE THAN 50' IN LENGTH WITHIN 21' OF FRONTGATE LANE SHALL HAVE A 6' WIDE LANDSCAPING STRIP SEPARATING THE PAVED AREA FROM FRONTGATE LANE.

**LEGAL DESCRIPTION**

A TRACT OF LAND LOCATED IN THE NORTHWEST QUARTER OF SECTION 33, T48N, R13W, IN COLUMBIA, BOONE COUNTY, MISSOURI BEING LOTS 101 AND 102 OF COPPERSTONE COMMERCIAL PLAT 1 RECORDED IN PLAT BOOK 41, PAGE 16 OF THE BOONE COUNTY RECORDS AND CONTAINING 3.90 ACRES

JAY GEBHARDT, LS-2001001909

**FLOOD PLAIN STATEMENT**

THIS TRACT IS NOT LOCATED WITHIN THE 100-YEAR FLOOD PLAIN AS SHOWN BY FIRM MAP NO. 290034 0117 B, DATED: JUNE 15, 1983.

**STREAM BUFFER STATEMENT**

THIS TRACT IS NOT REGULATED BY THE CITY OF COLUMBIA STREAM BUFFER ORDINANCE AS DETERMINED BY THE USGS MAP FOR COLUMBIA QUADRANGLE, BOONE COUNTY, MISSOURI.

**SIGNAGE**

ONE SIGN 32 SQ.FT. MAX. AREA, 6 FT. MAX. HT. SETBACK AT LEAST 10 FT. FROM THE RIGHT-OF-WAY

**PARKING LIGHTING**

NONE PROPOSED

**BENCHMARK DATA**

CHISELED SQUARE WEST SIDE OF MANHOLE, EAST OF SCOTT BOULEVARD AND SOUTH OF KATY TRAIL, APPROXIMATELY 1500 FEET NORTHWEST OF TRACT.

ELEV = 582.24

**OWNER**

WOODLAND HILLS PROPERTIES LLC  
C/O KEVIN KEARNS  
105 E. ASH  
COLUMBIA, MO. 65203  
(573) 424-5930

- LEGEND
- PM, PERMANENT MONUMENT
  - STREET SIGN
  - WM, EXISTING WATER METER
  - GP, GUARD POST
  - FH, EXISTING FIRE HYDRANT
  - WV, EXISTING WATER VALVE
  - E, EXISTING IRON PIPE
  - (R), REMOVE
  - S, SET-IRON
  - (REC), RECORD
  - HC, HANDICAPPED PARKING
  - MH, EXISTING SANITARY MANHOLE
  - CO, EXISTING SANITARY CLEANOUT
  - PROPOSED SANITARY MANHOLE
  - PROPOSED SANITARY CLEANOUT
  - PP, POWER POLE
  - RD, ROOF DRAIN
  - GUY WIRE
  - EXISTING FENCE
  - OE, EXISTING UNDERGROUND ELECTRIC
  - T, EXISTING UNDERGROUND TELEPHONE
  - G, EXISTING GAS
  - U/E, EXISTING OVER-HEAD ELECTRIC
  - S, EXISTING SANITARY
  - W, EXISTING WATER
  - U/E, PROPOSED UNDERGROUND ELECTRIC
  - W, PROPOSED WATER
  - G, PROPOSED GAS
  - S, PROPOSED SANITARY
  - T, PROPOSED STORM SEWER
  - PROPOSED UNDERGROUND TELEPHONE
  - FLOWLINE (IG)
  - EXISTING TREELINE
  - PRESERVED TREELINE
  - PROPOSED SPOT ELEVATION
  - DESIGN CONTOUR
  - EXISTING CONTOUR
  - D.A., DIVERSION BERM
  - DETENTION AREA
  - DRAINAGE SWALE
  - EROSION CONTROL SILT FENCE
  - TEMPORARY SILT TRAP WITH ROCK OUTLET
  - TEMPORARY SILT TRAP WITH PIPED OUTLET
  - VEGETATED SWALE

| NUMBER | RADIUS | ARC LENGTH | DELTA ANGLE | CHORD DIRECTION | CHORD LENGTH |
|--------|--------|------------|-------------|-----------------|--------------|
| C1-E   | 900.00 | 282.51     | 17°59'05"   | S 18°11'20" E   | 281.35       |
| C2-E   | 500.00 | 101.99     | 11°41'15"   | S 03°21'10" E   | 101.81       |
| C3     | 20.00  | 15.67      | 44°53'05"   | N 19°57'05" W   | 15.27        |
| C4     | 30.00  | 23.43      | 44°45'20"   | N 64°46'15" W   | 22.84        |

APPROVED BY THE CITY OF COLUMBIA CITY COUNCIL  
THIS 18th DAY OF June, 2007.

DARWIN A. HINDMAN, MAYOR  
SHEELA AMIN, CITY CLERK

APPROVED BY THE CITY OF COLUMBIA PLANNING AND ZONING  
COMMISSION THIS 24th DAY OF May, 2007.

JEFF BARROW, CHAIRMAN

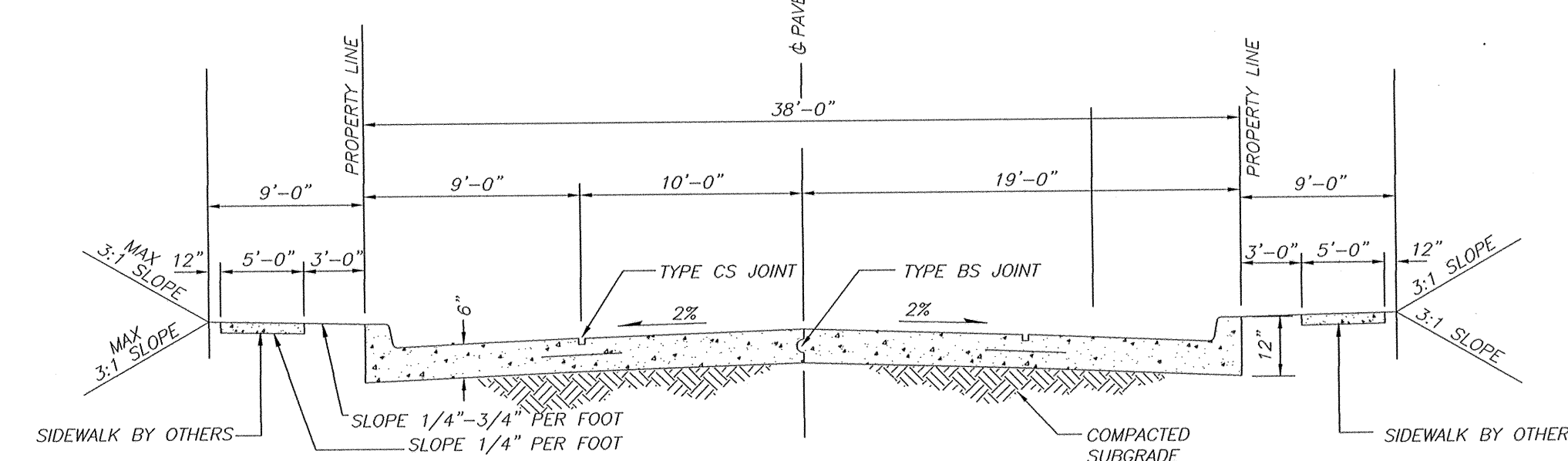
ADEQUATE SCREENING AS REQUIRED BY  
CITY OF COLUMBIA CODE OF ORDINANCES

OWNER: WOODLAND HILLS PROPERTIES  
ZONING: R-1

TRACT 2-A, SURVEY  
BK 2860, PG 59

N 89°59'00"W 375.73'

SCALE: 1" = 30'



**NOTE:**  
CONTRACTOR TO GRADE AREA  
BEHIND CURB AT 1/4" PER FOOT

**PRIVATE STREET  
(Concrete Pavement)**

**SITE PLAN - COPPERSTONE COMMERCIAL**

|                             |          |                             |     |
|-----------------------------|----------|-----------------------------|-----|
|                             |          |                             |     |
| JAY GEBHARDT, LS-2001001909 |          | JAY GEBHARDT, LS-2001001909 |     |
| NO.                         | DATE     | DESCRIPTION                 | BY  |
| 1                           | 05/24/07 | P&Z COMMISSION COMMENTS     | JWK |
| 2                           | 05/24/07 | CITY COMMENTS               | JWK |
| DRAWN BY: TAK               |          | DATE: 4/11/07               |     |
| ENGR: JAG                   |          | PK: JTK                     |     |
| JOB NO.: KEAR07.07          |          | SHEET 1 OF 2                |     |



TEMPORARY TURNAROUND TO BE INSTALLED  
WHEN FRONTGATE DRIVE IS PAVED AS PER  
COPPERSTONE COMMERCIAL PLAT 1  
STREET PLANS

1. ALL WORK SHALL COMPLY WITH THE CITY OF COLUMBIA AND STATE OF MISSOURI D.N.R. REGULATIONS IN REGARDS TO LAND DISTURBANCE.
2. THE EROSION CONTROL MEASURES ARE SHOWN ON THE PLAN USING SYMBOLS. REFER TO THE LEGEND FOR A LIST AND MEANING OF THE SYMBOLS.
3. ALL AREAS DISTURBED SHALL BE SEEDED AND MULCHED AFTER ALL CONSTRUCTION IS COMPLETE AND BE IN COMPLIANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN. SEEDING MAY BE PHASED SO THAT GROUND COVER IS ESTABLISHED SOONER.
4. THE FINAL CONTOURS SHOWN ARE APPROXIMATE, AND MAY BE CHANGED IN THE FIELD WITH THE PLANTING OPERATIONS. THE GOAL BEING TO GRADE THE SITE TO MINIMIZE OR ELIMINATE POSSIBLE DRAINAGE PROBLEMS FROM OCCURRING IN THE FUTURE.
5. THE LOW FLOOR ELEVATIONS SHOWN ARE FOR THE LOWEST LIVING FLOOR OF A STRUCTURE. THIS ELEVATION MAY BE REVISED TO FIT A BUILDING DESIGN THAT TAKES INTO ACCOUNT DRAINAGE CONSIDERATIONS. ANY CHANGE TO THE MINIMUM LOW FLOOR ELEVATION MUST BE SUBMITTED BY DESIGN ENGINEER AND APPROVED BY THE CITY OF COLUMBIA PUBLIC WORKS DEPARTMENT.
6. THE CONTRACTOR SHALL BE REQUIRED TO HAVE COMPACTION TESTING PERFORMED ON ALL FILL AREAS. THIS DATA MUST BE RECORDED IN A FORM THAT THE AREAS TESTED CAN BE RELOCATED ON A PLAN. THE TESTING REQUIRED SHALL BE ONE PASSING TEST FOR EACH 8' CUBIC YARD OF FILL ON EACH LOT WITHIN THIS TRACT.
7. THIS TRACT IS LOCATED IN THE NORTHWEST QUARTER OF SECTION 33, TOWNSHIP 48 NORTH, RANGE 13 WEST, CITY OF COLUMBIA, BOONE COUNTY, MISSOURI.
8. DISPOSE OF MATERIAL REMOVED FROM MAINTENANCE OF TRAPS IN BLACK DIRT STOCK PILES.

1. SUBSTANCES REGULATED BY FEDERAL LAW UNDER THE RESOURCE CONSERVATION AND RECOVERY ACT (RCRA) OR THE COMPREHENSIVE ENVIRONMENTAL RESPONSE COMPENSATION AND LIABILITY ACT (CERCLA) WHICH ARE TRANSPORTED, STORED OR USED FOR MAINTENANCE, CLEARING OR REPAIRS SHALL BE MANAGED ACCORDING TO THE PROVISIONS OF RCRA AND CERCLA.

2. ALL PAINTS, SOLVENTS, PETROLEUM PRODUCTS AND PETROLEUM WASTE PRODUCTS (EXCEPT FUELS) AND STORAGE CONTAINERS (SUCH AS DRUMS, CANS, OR CARTONS) SHALL BE STORED SUCH THAT THESE MATERIALS ARE NOT EXPOSED TO STORM WATER. CONTAINERS SHALL BE PROPERLY LABELED AND STORED IN A MANNER THAT PREVENTS SPILLS. ALL MATERIALS SHALL BE PROVIDED TO PREVENT ANY SPILLS OF THESE POLLUTANTS FROM ENTERING A WATER OF THE STATE. ANY CONTAMINATION SYSTEM USED TO IMPLEMENT THIS REQUIREMENT SHALL BE CONSTRUCTED OF MATERIALS COMPATIBLE WITH THE SUBSTANCES CONTAINED AND SHALL ALSO PREVENT THE CONTAMINATION OF GROUNDWATER.

3. THE APPLICANT SHALL NOTIFY BY TELEPHONE AND IN WRITING THE DEPARTMENT OF NATURAL RESOURCES, WATER POLLUTION CONTROL PROGRAM, POST OFFICE BOX 176, DEPT. OF NATURAL RESOURCES, 1000 N. 1ST ST., TULSA, OK 74103, OF ANY HAZARDOUS SUBSTANCES ARE FOUND DURING THE PROSECUTION OF WORK UNDER THIS PERMIT.

1. THE PROJECT CONSISTS OF CREATING LOW DENSITY RESIDENTIAL LOTS ALONG WITH THE REQUIRED INFRASTRUCTURE. THIS INCLUDES CONSTRUCTION OF THE HOUSES, STREETS, SIDEWALKS, SANITARY SEWERS, STORM SEWERS, ELECTRIC, GAS, WATER, TELEPHONE, AND CABLE TV UTILITIES. IN MY OPINION, THERE ARE NO SIGNIFICANT SILTATION OR EROSION CONTROL PROBLEM AREAS ON THE SITE AT THIS TIME. HOWEVER, CONSTRUCTION OF THESE IMPROVEMENTS WILL CREATE THE POTENTIAL OF SILTATION AND EROSION PROBLEMS IF NOT CAREFULLY MANAGED.

2. TO MY KNOWLEDGE THERE ARE NO EXISTING OFF-SITE EROSION, SILTATION PROBLEMS DOWN STREAM FROM THIS DEVELOPMENT. THE DEVELOPMENT WILL HAVE MINOR IMPACTS TO THE RECEIVING STREAMS IMMEDIATELY DOWN STREAM FROM THE SITE DURING THE 1 TO 2 YEARS OF CONSTRUCTION OF THE DEVELOPMENT. AFTER CONSTRUCTION, LAND DISTURBANCE ACTIVITIES WILL DIMINISH AND THEIR EFFECTS OFF-SITE WILL DECREASE TO VERY MINOR IMPACT.

3. THE CURRENT RUNOFF FACTORS INCLUDE SEASONAL LEAF COVER ON TREES AND PLANTS, FESCUE PASTURES, AND LIMITED STEEP GRADES. THE SITE WILL CHANGE FROM APPROXIMATELY 1% IMPERVIOUS AREA TO APPROXIMATELY 25% IMPERVIOUS AREA.

4. THE PEAK DISCHARGE FOR THE 25-YEAR STORM ON THE ENTIRE SITE=  $Q = CIAK = 0.90 \times 8 \times 3.90 \times 1.008 = 28.30$  CFS.

5. THE MANAGEMENT OF THE EROSION CONTROL MEASURES SHALL BE THE RESPONSIBILITY OF THE DEVELOPER/OWNER UNTIL ALL AREAS ARE ESTABLISHED WITH NEW GROUND COVER.

6. THE CONSTRUCTION OF THE PROJECT SHALL INCLUDE THE PHASES OF: GRADING AND STREET AND SIDEWALK CONSTRUCTION. THE ENTIRE SITE SHALL BE GRADED AT ONE TIME AND

ALL SURFACES SHALL NOT BE DENuded FOR, AND SHALL BE STABLE AND NON-EROSIVE WITHIN THE LESSER OF 30 WORKING DAYS OR 120 CALENDAR DAYS AFTER COMPLETION OF THE WORK AUTHORIZED BY THE LAND DISTURBANCE PERMIT. ALL STOCKPILES SHALL BE PROTECTED W/ SILT FENCE, ALL GRADING ACTIVITIES SHALL BE DONE IN A MANNER THAT CONFORMS TO THE MEASURES SHOWN ON THE PLAN.

7. THE EROSION CONTROL MEASURES SHOWN ON THE PLAN WERE CHOSEN AS THE BEST MANAGEMENT PRACTICES APPROPRIATE FOR THE SITE.

8. THE EROSION CONTROL MEASURES SHALL BE INSPECTED DAILY, TO INSURE MAXIMUM EFFECTIVENESS OF THE PROTECTIVE MEASURES AND TO ASSURE THAT PREVENTATIVE MAINTENANCE EFFORTS WILL BE CARRIED OUT WHEN NEEDED. ALL AREAS SHALL BE RESEEDD AFTER GRADING IS COMPLETE. ALL STRUCTURAL MEASURES SHALL BE MAINTAINED AND THE WASTE MATERIALS REMOVED AND DISPOSED OF PROPERLY.

9. ALL STORM INLETS WILL HAVE SILT FENCE PLACED AROUND THEM FOR EROSION CONTROL.

10. SEE ORIGINAL OVERALL LAND DISTURBANCE PLAN FOR COPPERSTONE FOR DETAILS.

11. ROCK CHECK, OR EQUIVALENT OTHER, IS TO BE INSTALLED WHEN ROAD IS NEAR FINAL GRADE AND IS TO REMAIN THROUGH STREET PAVING UNTIL CONTRIBUTING AREAS ARE STABILIZED.

THERE IS NO CLIMAX FOREST LOCATED ON THIS SITE.

13,104 SQUARE FEET OF PAVED AREA.  
@ 1 TREE/4,500 SQ.FT. = 3 TREES (1 LARGE).  
LOCATION TO BE DETERMINED AND TREES PLANTED  
WITH PRIVATE STREET CONSTRUCTION.

STORM WATER MANAGEMENT FOR LOTS 101, 102A AND 103  
SHALL BE PER THIS APPROVED C-P PLAN.

**[R1]** 265 L.F. 15" HDPE @ 4.12% W/ F.E.S.  
& 1'X4'X12' RIPRAP

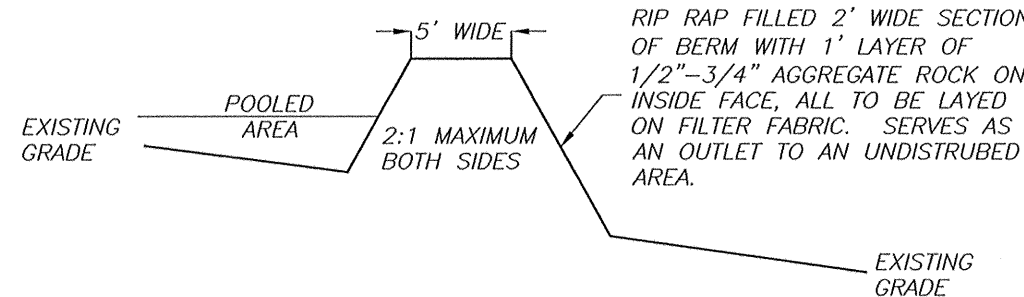
**R2** 20+44.02 8'X3' TYPE-M INLET, TOP =626.4',  
f<sub>f</sub> IN =621.52' f<sub>f</sub> OUT =621.42'

**R3** 46 L.F. 15" CMP @ 2.41%

**R4** 20+44.02 8'X3' TYPE-M IN  
 $f_L$  OUT = 622.63'

**Q1** 80 L.F. 15" CMP @ 20.03% W/ F.E.S. & 1'X4'X12' RIPRAP

**Q2** 3+39.18 6'X3' TYPE-M INLET, TOP =631.5',  
F OUT =627.50'



SEE CITY OF COLUMBIA  
STORM DRAINAGE DESIGN MANUAL  
SECTION 10.03.7.1 FOR FURTHER INFORMATION

THE LAND DISTURBANCE ACTIVITIES FOR THIS PROJECT WILL OCCUR IN THE FOLLOWING ORDER:

1. CLEAR BRUSH AND STRIPPING AND STOCKPILING TOPSOIL
2. OVERALL SITE GRADING
3. PARKING LOT PAVING
4. EXCAVATION OF FOOTINGS FOR BUILDINGS
5. BACKFILLING AROUND FOUNDATIONS
6. FINISHED SITE GRADING

THE PLACEMENT OF THE BMP'S SHALL OCCUR ON THE FOLLOWING SCHEDULE:

- 1) THE BUMP'S LABELED ① SHALL BE IN PLACE BEFORE ANY LAND DISTURBANCE ACTIVITY TAKES PLACE AND REMAIN FOR THE PROJECT DURATION EXCEPT IF REMOVED TO INSTALL REQUIRED INFRASTRUCTURE AND MAY INCLUDE: CONSTRUCTION ENTRANCES AND SILT FENCE.
- 2) ALL BUMP'S LABELED ② SHALL BE IN PLACE IMMEDIATELY AFTER THE SITE IS CLEARED AND MAY INCLUDE: SOIL DIVERSION BERMS AND SEDIMENT TRAPS
- 3) ALL SOIL STOCK PILE BUMP'S SHALL BE IN PLACE IMMEDIATELY AFTER THE SITE IS CLEARED AND THE TOPSOIL IS STOCKPILED AND SHALL REMAIN UNTIL THE FINISHED SITE GRADING OCCURS.
- 5) ANY AREAS THAT HAVE BEEN GRADED WILL BE TEMPORARILY SEEDED BEFORE EXCEEDING THE 30 DAY PERIOD.

6) ALL AREAS SHALL BE PERMANENTLY SEEDED AFTER ALL PROPOSED STRUCTURES FOR THE PROJECT ARE IN PLACE AND THE TOPSOIL HAS BEEN SPREAD OR REAPPLIED. PERMANENT SEEDING SHALL OCCUR AS SOON AS POSSIBLE TO PROTECT ANY EARTHEN STRUCTURES SUCH AS DIKES, CHANNELS OR EMBANKMENTS. ALL DISTURBED AREAS PROPOSED TO REMAIN UNDEVELOPED FOR PERIODS LONGER THAN 12 MONTHS SHALL BE PERMANENTLY SEEDED.

| SEDIMENT TRAP DETAILS   |                           |                       |                                      |                     |   |  |                                    |
|---|---------------------------|-----------------------|--------------------------------------|---------------------|---|--|------------------------------------|
| SEDIMENT TRAP ID  | CONTRIBUTING AREA (ACRES) | PONDED AREA (SQ. FT.) | HEIGHT OF SEDIMENT TRAP, FT (5' MAX) | BASE ELEVATION (FT) | PROVIDED VOLUME, CU. FT.<br>(PONDING AREA X HEIGHT X 0.4) | REQUIRED VOLUME, CU. FT.<br>(ACREAGE X 1800) | OUTLET STRUCTURE<br>(ROCK OR PIPE) |
| ST2   | 3.36                      | 3031                  | 5                                    | 612                 | 6062  | 6050   | PIPE                               |
| * CONTRIBUTING AREAS OF EACH TRAP ARE DETERMINED FOR PRE AND POST ROUGH GRADING, THE LARGER VALUE IS USED TO CALCULATE THE REQUIRED VOLUME OF THE TRAP. |                           |                       |                                      |                     |   |  |                                    |

**A CIVIL GROUP**  
CIVIL ENGINEERING, PLANNING, SURVEYING  
1123 WILKES BLVD., SUITE 450  
COLUMBIA MD. 21041

PHONE: (513)817-5150, FAX: (513)817-1671

|                         |  |  |  |  |  |                         |  |
|-------------------------|--|--|--|--|--|-------------------------|--|
| JAY GEBHARDT MO E-25052 |  |  |  | PHONE: (573)811-5150, FAX: (573)811-1471 |  |                         |  |
|                         |  |  |  | DRAWN BY: TAK                            |  | DATE: 4/11/07           |  |
|                         |  |  |  | ENGR: JAG                                |  | FIM: JTK                |  |
|                         |  |  |  | DRAWING NO.: KEARO.7.05                  |  |                         |  |
|                         |  |  |  | NO. 05/24/07                             |  | PRZ COMMISSION COMMENTS |  |
|                         |  |  |  | NO. 05/28/07                             |  | NO CHANGES THIS SHEET   |  |
|                         |  |  |  | NO. DATE                                 |  | DESCRIPTION             |  |
|                         |  |  |  | BY JOB NO.: KEARO.7.07                   |  | SHEET 2 OF 2            |  |

Plotted by: kevin: 30 May 2007 - 2:48pm