GENERAL NOTES:

1. "TREE PROTECTION FENCING SHALL BE ERECTED ADJACENT TO ALL TREE PROTECTION AREAS (TPAs) PRIOR TO SITE DISTURBANCE ACTIVITIES TO PROTECT THE EXISTING TREE STANDS AND THEIR ROOT SYSTEMS. ALL TREE PROTECTION FENCING SHALL BE LOCATED AT LEAST 5 FEET FROM THE OUTSIDE EDGE OF THE TREE CANOPY AND SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION IS COMPLETED. WHEN TREES MUST BE REMOVED IN A TPA, THE FENCE SHALL BE RELOCATED TO PROTECT ALL REMAINING TREES WITHIN THAT TPA. NO PARKING, MATERIAL STORAGE, OR CONSTRUCTION ACTIVITY SHALL BE PERMITTED WITHIN THE FENCED AREA."
2. NO FURTHER DIVISION OF LOTS WITHOUT PLANNING COMMISSION APPROVAL.
3. B.M. - TOPOGRAPHIC INFORMATION DEPICTED HEREON WAS DERIVED FROM LOJIC MAPPING.
4. A SOIL EROSION AND SEDIMENTATION PLAN SHALL BE DEVELOPED AND IMPLEMENTED IN ACCORDANCE WITH MSD AND THE USDA SOIL CONSERVATION SERVICE RECOMMENDATIONS AS A PART OF THE SITE CONSTRUCTION PLAN SET.
5. BOUNDARY INFORMATION DEPICTED IS PRELIMINARY. ROAD & LOT LAYOUT IS SUBJECT TO REVISION & DOES NOT CONSTITUTE A B.M. MASTER PLAN.
6. SENSITIVE FEATURES ON THIS SITE INCLUDE THE TPA'S, SOILS, GEOLOGY AND SLOPES GREATER THAN 20%.
7. ROADWAY PROFILE GRADES SHALL NOT EXCEED 10% SLOPE, OR BE LESS THAN 1%.
8. WATER SERVICE BY LOUISVILLE WATER COMPANY WITH DEVELOPER INSTALLED OPTION.
10. SITE IS LOCATED WITHIN THE PLEASURE RIDGE PARK FIRE DISTRICT.
11. METRO WORKS APPROVAL REQUIRED.
12. THE SIGNATURE ENTRANCES SHALL BE SUBMITTED TO THE PLANNING COMMISSION STAFF FOR REVIEW PRIOR TO RECORDING THE RECORD PLAT.
13. A PORTION OF THE SITE IN THE VICINITY OF ROAD "A" WILL REQUIRE REMOVAL OF NON-STRUCTURAL SOIL MATERIAL AND REPLACED WITH ENGINEERED FILL IN COMPLIANCE WITH THE GEO-TECHNICAL REPORT COMPLETED FOR THIS SITE.
14. ALL CONSTRUCTION ACTIVITY FOR THIS SITE SHALL COMPLY WITH THE RECOMMENDATIONS FOR CONSTRUCTION ON SLOPES AND FILL AREAS PER THE GEO-TECHNICAL REPORT COMPLETED FOR THIS SITE.

MSD NOTES:

1. SANITARY SEWER SERVICE TO WEST COUNTY WASTE WATER TREATMENT PLANT AVAILABLE BY MSD LATERAL EXTENSION CONTRACT AND IS SUBJECT TO APPLICABLE FEES.
2. DIVISION OF WATER APPROVAL WILL BE REQUIRED FOR SECTION 5 CONSTRUCTION PLANS.
3. LOJIC MAPPING PURCHASED FROM MSD, ELEVATIONS TO BE VERIFIED PRIOR TO SITE CONSTRUCTION PLAN PHASE.
4. DRAINAGE & SANITARY SEWER CONCEPTS DEPICTED ARE PRELIMINARY.
5. MSD EASEMENTS WILL BE PROVIDED FOR ALL THROUGH AND CROSS LOT DRAINAGE ON THE RECORD PLAT.
6. SANITARY SEWER CAPACITY TO BE RESERVED.
7. NO INCREASE IN UPSTREAM WATER SURFACE ELEVATIONS ON ADJOINING PROPERTY OWNERS.
8. NO PORTION OF THE SITE IS LOCATED WITHIN THE 100 YEAR FLOOD PLAIN PER F.I.R.M. MAP NO. 21111C0145D.
9. THE DEVELOPER SHALL OBTAIN PROFESSIONAL SERVICES OF A GEO-TECHNICAL ENGINEER TO PROVIDE INFORMATION REGARDING SLOPE, SOIL, AND ROADWAY STABILIZATION.
10. M.S.D. SHALL DETERMINE WHICH LOTS REQUIRE INDIVIDUAL LOT APPROVAL DURING THE SITE CONSTRUCTION PLAN PHASE.

METRO PUBLIC WORKS:

1. SIDEWALKS ARE TO BE INSTALLED IN EXISTING HARDWOOD FOREST SECTION 2, ALLOWING FOR A PEDESTRIAN CONNECTION. A SIDEWALK WILL BE CONSTRUCTED ON THE EAST SIDE OF SUNNY'S HALO CT. AND BOTH SIDE OF SECRETARIAT DRIVE.
2. A GEO-TECHNICAL ENGINEER IS REQUIRED BY METRO WORKS AS PART OF THE CONSTRUCTION PROCESS TO REVIEW AND EVALUATE SLOPE, SOIL AND ROADWAY STABILITY.
3. NO ROAD PROFILE GRADES GREATER THAN 10% WITHOUT METRO WORKS APPROVAL.
4. ALL CUL-DE-SACS SHALL BE ON A GRADE OF LESS THAN 6%.
5. ALL COMPATIBLE UTILITIES (ELECTRIC, PHONE, CABLE) SHALL BE PLACED IN A COMMON TRENCH.
6. PRELIMINARY PROFILE GRADES OF THE ROADWAY SYSTEM SHALL BE INCLUDED AS PART OF THE PACKAGE TO METRO PUBLIC WORKS.
7. ALL ROADS TO HAVE CURB AND GUTTER CONSTRUCTION.
8. AN ENCROACHMENT PERMIT AND BOND WILL BE REQUIRED FOR ROADWAY REPAIRS ON ALL SURROUNDING ACCESS ROADS TO THE SUBDIVISION SITE DUE TO CONSTRUCTION ACTIVITIES.
9. A VERGE OF 3' WILL BE PROVIDED FOR ALL PROPOSED ROADWAYS, EXCLUDING SECRETARIAT DRIVE TO THE INTERSECTION OF CT'B' AND CT 'C', WILL HAVE A 6' VERGE STRIP.
10. PRIOR TO ANY CONSTRUCTION ON SITE, AN ADDENDUM TO THE "GEOTECHNICAL EXPLORATION REPORT" PREPARED BY GEM ENGINEERING, INC. DATED JULY 17, 2003 SHALL BE COMPLETED ADDRESSING PAVEMENT DESIGN AND EMBANKMENT CONSTRUCTION ON THE SITE.

WAIVERS REQUESTED:

1. A WAIVER IS REQUESTED TO NOT PROVIDE STUB STREETS TO ADJACENT PROPERTIES.
2. A WAIVER IS REQUESTED TO NOT PROVIDE SIDEWALKS ON A PORTION OF HARDWOOD FOREST DRIVE. THE SIDEWALK SHALL TERMINATE AT A LOCATION TO BE DETERMINED BY METRO WORKS DURING CONSTRUCTION PLAN PHASE AND SHALL BE IN CONJUNCTION WITH A SIGNATURE ENTRY FOR THE ESTATE LOTS OF SECTION 5.

Individual Lot & Home Construction
Construction Design
Mitigation Measures Plan

1. THE DEVELOPER SHALL PROVIDE TO EACH BUILDER AND / OR LOT PURCHASER A COPY OF THE "GEOTECHNICAL EXPLORATION REPORT" PREPARED BY GEM ENGINEERING, INC. DATED JULY 17, 2003 PRIOR TO PURCHASE, AND A COPY OF THE EXECUTIVE SUMMARY FROM SAID REPORT SHALL BE INCLUDED IN THE PURCHASE CONTRACT. THE PURCHASE CONTRACT SHALL ALSO IDENTIFY IF THE LOT REQUIRES INDIVIDUAL LOT APPROVAL (LAP).
2. A COPY OF THE GEOTECHNICAL ENGINEER'S CERTIFICATION FOR EACH LOT WHERE IT IS REQUIRED SHALL BE SUBMITTED TO THE PLANNING COMMISSION FILE FOR THIS SUBDIVISION.
3. A REGISTERED CIVIL ENGINEER, GEO-TECHNICAL ENGINEER AND / OR LANDSCAPE ARCHITECT SHALL PREPARE AN LAP FOR ALL LOTS DESIGNATED BY MSD AS REQUIRING INDIVIDUAL LOT APPROVAL.
4. THE LAP SHALL INCLUDE FOOTING/ FOUNDATION AND RETAINING WALL DESIGN, SITE & DRIVEWAY GRADING AND PROVISION FOR STORM DRAINAGE DESIGN.
5. THE BUILDER SHALL SUBMIT THE PLAN TO THE DEVELOPER, MSD AND METRO WORKS FOR REVIEW AND APPROVAL PRIOR TO INITIATING ANY CONSTRUCTION ACTIVITY.
6. THE DEVELOPER SHALL PROVIDE WRITTEN NOTICE TO LOT PURCHASERS AS SPECIFIED IN THE NOTE BELOW. IN ADDITION, THE FOLLOWING NOT SHALL BE PLACED ON THE RECORD PLAT AND SHALL BE PLACED IN THE DEED OF RESTRICTIONS:
"LOT PURCHASERS ARE HEREBY NOTIFIED THAT PORTIONS OF THIS SUBDIVISION ARE LOCATED ON A GEOLOGIC STRUCTURE -NEW PROVIDENCE SHALL- THAT MAY BE UNSTABLE AND SUBJECT TO SLIPPAGE. STRUCTURES BUILT ON THIS MATERIAL SHOULD BE DESIGNED WITH THE ASSISTANCE OF A QUALIFIED GEOTECH PROFESSIONAL. INFORMATION ON RECOMMENDED SITE PREPARATIONS TECHNIQUES AND DESIGN OF RESIDENTIAL FOUNDATIONS ARE AVAILABLE IN THE FILES OF THE PLANNING COMMISSION."
7. THE DEVELOPER SHALL MONITOR THE CONSTRUCTION PROGRESS OF ALL LOTS TO INSURE COMPLIANCE WITH THE LAP, THE GEO-TECHNICAL REPORT RECOMMENDATIONS, SCS REPORT AND THE PLANNING COMMISSION CONDITIONS OF APPROVAL.

DETENTION BASIN CALCULATIONS:

CHANGE IN RUNOFF CALCULATION
6 HOUR STORM (SCS TYPE 2, 1.3 MULTIPLIER NEEDED WITH ROUTING WITH 6 HR STORM)

88.94 AC SITE

(Cprop - Cex)(2.8/12)(Area)(1.3) =

(0.4111 - 0.2373)(2.8/12)(88.94)(1.3) = **STORAGE IN** AC FT

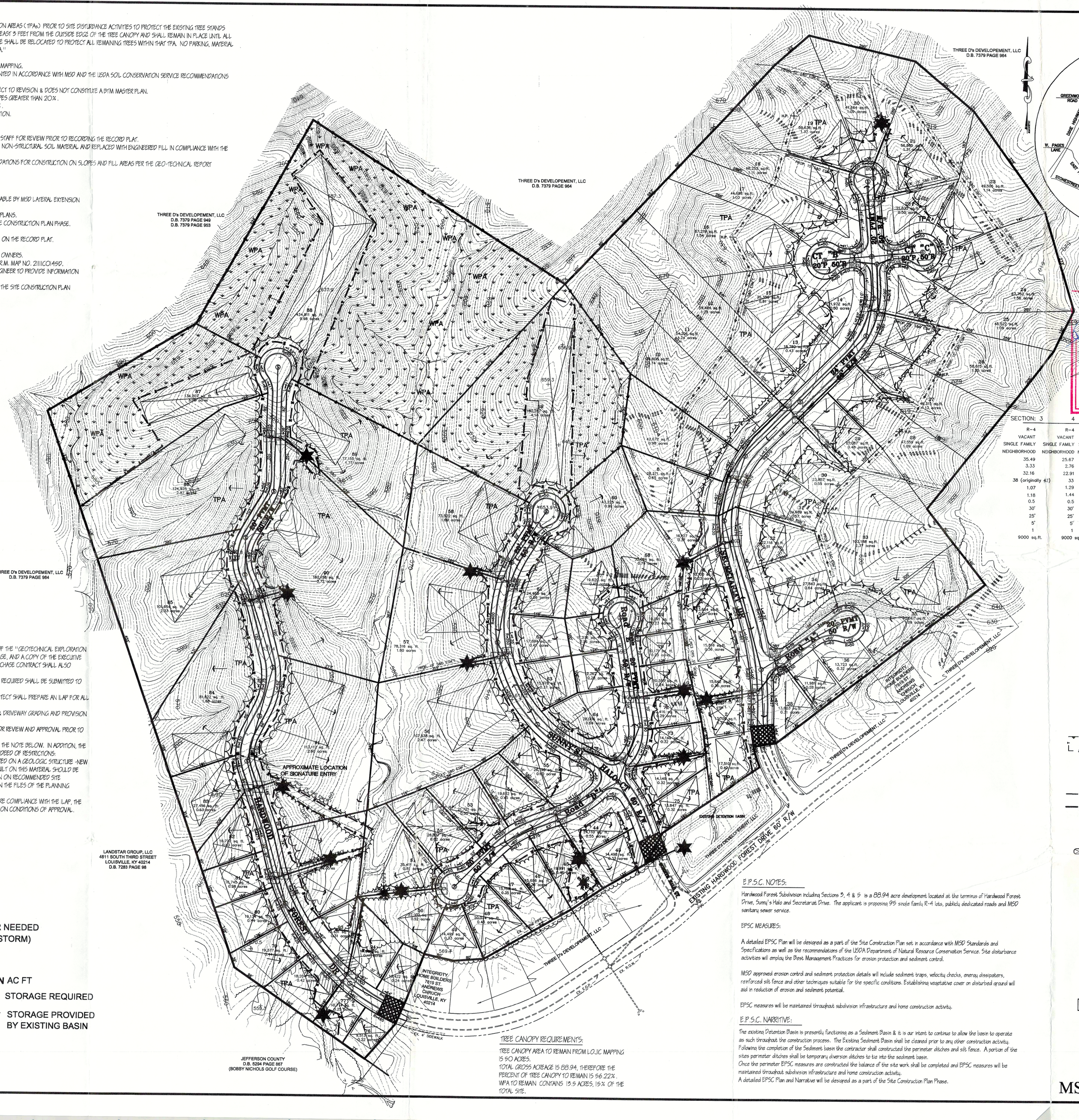
4.689 AC FT STORAGE REQUIRED

5.115 AC FT STORAGE PROVIDED BY EXISTING BASIN

GRAPHIC SCALE

100 0 50 100 200 400

(IN FEET)
1 inch = 100 ft.



TREE CANOPY REQUIREMENTS:

TREE CANOPY AREA TO REMAIN FROM LOJIC MAPPING IS 90 ACRES.
TOTAL GROSS ACREAGE IS 88.94, THEREFORE THE PERCENT OF TREE CANOPY TO REMAIN IS 96.22%.
WPA TO REMAIN CONTAINS 13.9 ACRES, 15% OF THE TOTAL SITE.

E.P.S.C. NOTES:

Hardwood Forest Subdivision including Sections 3, 4 & 5 is a 88.94 acre development located at the terminus of Hardwood Forest Drive, Sunny's Halo and Secretariat Drive. The applicant is proposing 95 single family R-4 lots, publicly dedicated roads and MSD sanitary sewer service.

EPSC MEASURES:

A detailed EPSC Plan will be designed as a part of the Site Construction Plan set in accordance with MSD Standards and Specifications as well as the recommendations of the USDA Department of Natural Resource Conservation Service. Site disturbance activities will employ the Best Management Practices for erosion protection and sediment control.

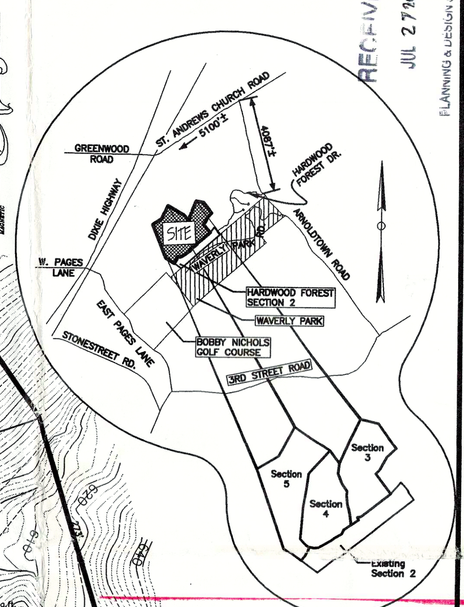
MSD approved erosion control and sediment protection details will include sediment traps, velocity checks, energy dissipaters, reinforced silt fence and other techniques suitable for the specific conditions. Establishing vegetative cover on disturbed ground will aid in reduction of erosion and sediment potential.

EPSC measures will be maintained throughout subdivision infrastructure and home construction activity.

E.P.S.C. NARRATIVE:

The existing Detention Basin is presently functioning as a Sediment Basin & it is our intent to continue to allow the basin to operate as such throughout the construction process. The Existing Sediment Basin shall be cleaned prior to any other construction activity. Following the completion of the Sediment basin the contractor shall constructed the perimeter ditches and silt fence. A portion of the sites perimeter ditches shall be temporary diversion ditches to tie into the sediment basin.
Once the perimeter EPSC measures are constructed the balance of the site work shall be completed and EPSC measures will be maintained throughout subdivision infrastructure and home construction activity.
A detailed EPSC Plan and Narrative will be designed as a part of the Site Construction Plan Phase.

RECEIVED
JUL 27 2004
PLANNING & DESIGN SERVICES



Location & Section Map 8/15/05 (not to scale)
Metropolitan Sewer District — date 8/4/04
Jefferson County Public Works & Assets — date 7/30/04
Louisville & Jefferson County Planning Commission — date for 8-10-04
Approved with conditional approval
See back of plan for conditions of approval
SITE DATA: 7/30/05

SECTION:	3	4	5	OVERALL	
R-4	R-4	R-4	R-4	EXISTING ZONING	
VACANT	VACANT	VACANT	VACANT	EXISTING LAND USE	
SINGLE FAMILY NEIGHBORHOOD	SINGLE FAMILY NEIGHBORHOOD	SINGLE FAMILY NEIGHBORHOOD	SINGLE FAMILY NEIGHBORHOOD	PROPOSED LAND USE FORM DISTRICT	
35.49	25.67	35.86	97.02	GROSS ACRES	
3.33	2.76	2.36	8.45	R.O.W. (ACRES)	
32.16	22.91	32.53	88.57	NET ACRES	
38 (originally 42)	33	20	91	TOTAL SINGLE FAMILY LOTS	
1.07	1.29	0.56	0.94	LOTS / GROSS ACRE	
1.18	1.44	0.61	1.03	LOTS / NET ACRE	
0.5	0.5	0.5	0.5	MAX. FLOOR AREA RATIO	
30'	30'	30'	30'	FRONT & STREET SIDE YARD	
25'	25'	25'	25'	REAR YARD	
5'	5'	5'	5'	MIN. SIDE YARD (10 TOTAL)	
1	1	1	1	DWELLING UNIT / LOT	
9000 sq.ft.	9000 sq.ft.	9000 sq.ft.	9000 sq.ft.	MINIMUM LOT SIZE	

LEGEND:

- SITE BOUNDARY
- HIGH POINT
- DRAINAGE ARROW
- DIVERSION DITCH
- CREEK STONE HEADWALL
- CATCH BASIN
- DRAINAGE MANHOLE
- SANITARY MANHOLE
- TBR — TO BE REMOVED
- TPA — TREE PRESERVATION AREA
- WPA — WOODLAND PROTECTION AREA
- DESIGNATED WPA
- EXISTING TREE LINE
- PROPOSED TREE LINE
- TREE PRESERVATION FENCE
- SILT FENCE
- SEDIMENT TRAP
- SEDIMENT BASIN
- STONE BAG VELOCITY CHECK
- SIGNATURE ENTRANCE EASEMENT
- CONSTRUCTION ENTRANCE
- HEADWALL VELOCITY DISSIPATER
- CB INLET PROTECTION (on all CBs)
- ± EXISTING HYDRANT LOCATION
- APPROXIMATE LOCATION OF COLUMNS TO SECTION 5 ESTATE LOTS, SIGNATURE ENTRY TO BE WITHIN REQUIRED EASEMENT.
- PROPOSED BUILDING ENVELOPES (APPROXIMATE LOCATION. FINAL LOCATION TO BE DETERMINED DURING INDIVIDUAL LOT GRADING PLAN).

SHEET INDEX:

1 OF 3 PRELIMINARY PLAN
2 OF 3 SOILS AND SLOPES
3 OF 3 SITE, ROAD & LOT DIMENSIONS

MSD # 592

~ REVISIONS ~

NO.	DATE	DESCRIPTION	BY
1	7/22/03	REVISIONS AND GEO-TECHNICAL SURVEY & REPORT PER AGENCY COMMENTS	CW
2	8/18/03	REVISIONS PER THE COMMENTS, STAFF NOTES & MSD MEETING ON 8-27-03	CW
3	9/24/03	REVISIONS PER THE COMMENTS FROM MSD	CW
4	8/11/04	PER CLIENT EXTEND REAR LOTS TO 140 PLUS	CW

BIRCH, TRAUTWEIN & MIMS, INCORPORATED
Consulting Engineers Landscape Architects Planners
3000 Bardstown Road, Suite 100
Louisville, Kentucky 40220
(502) 459-8402 Phone
(502) 459-8427 Fax

DATE

7-26-04
DATE
STATE OF KENTUCKY — CHARLES E. WEITER 11220 — LICENSED PROFESSIONAL ENGINEER
SIGNATURE

REVISED PRELIMINARY SUBDIVISION PLAN
HARDWOOD FOREST SUBDIVISION
SECTION 3, 4 & 5

OWNER & DEVELOPER
THREE D's DEVELOPEMENT, LLC
8008 St. Andrews Church Road
Louisville, KY 40258
(502) 937-1983
FAX (502) 937-9091

PROPERTY INFORMATION
THREE D's DEVELOPEMENT, LLC
D.B. 7379 PAGE 964
D.B. 7379 PAGE 949
D.B. 7379 PAGE 953
DB. 7283 PG 98
DB. 5294 PG 867
TAX BLOCK 5661 LOTS 9 & 20

DRWN BY: CW	CHKD BY: CEW
DATE: MAY 2003	
DRAWING: 030019SP2	
SCALE: 1" = 100'	
SHEET 1 OF 3	

8-12-03