

FEISE FOREST ESTATES

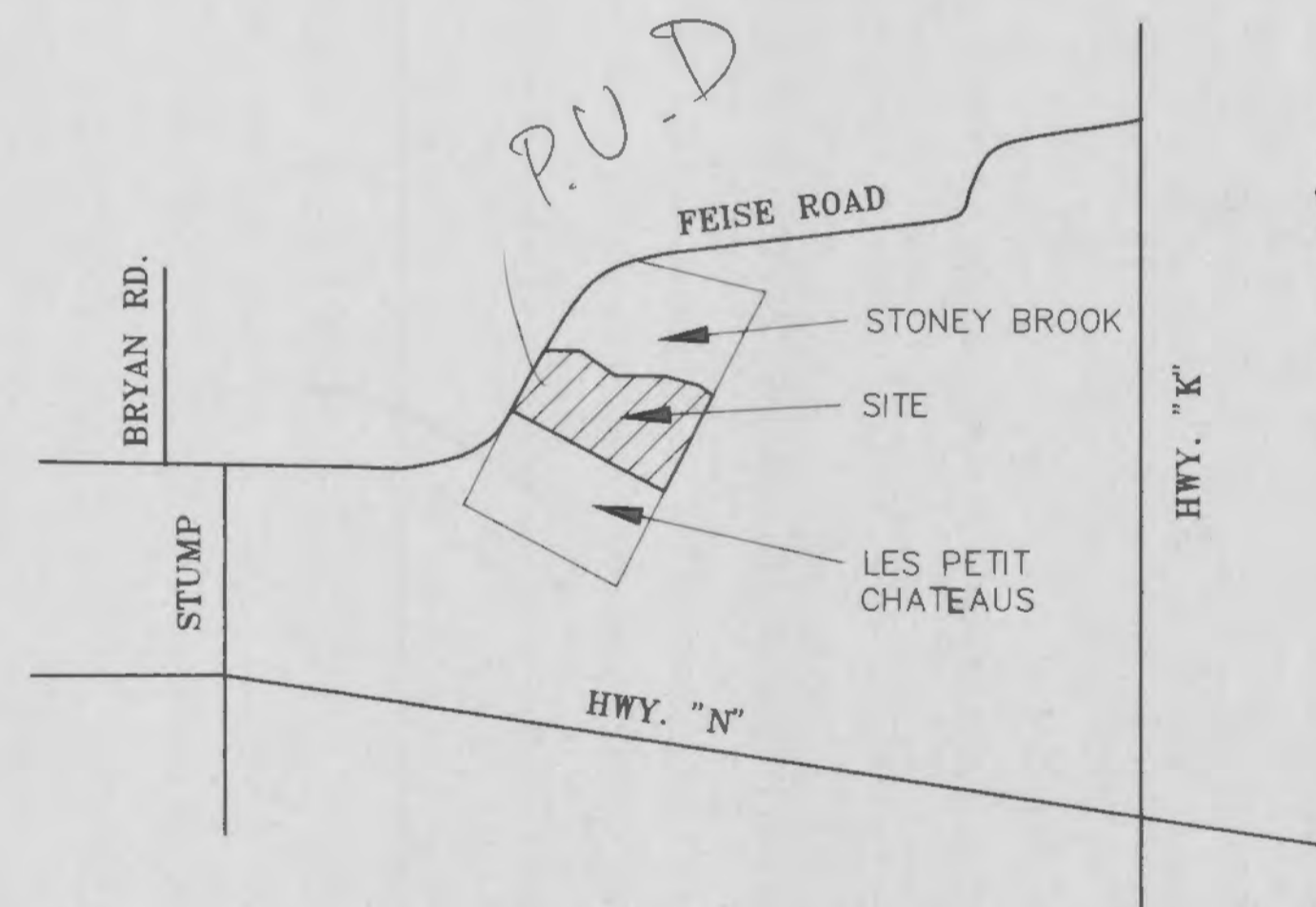
A TRACT OF LAND BEING PART OF FRACTIONAL SECTION 34,
TOWNSHIP 46 NORTH, RANGE 3, EAST O'FALLON, MISSOURI

1. Gas, water and other underground utilities shall not conflict with the depth or horizontal location of existing and proposed sanitary and storm sewers including house laterals.
2. Underground utilities have been plotted from available information and, therefore, their locations must 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 grading or construction of improvements.
3. Polyvinyl chloride (PVC) shall conform to the requirements of ASTM D-3034 Standard Specifications for the PSM Polyvinyl Chloride (PVC) Sewer Pipe and Fitting, SDR35.
4. Storm sewers 18" diameter or smaller shall be ASTM C-76, Class III.
5. Storm sewers 21" diameter or larger shall be ASTM C-76, Class II, unless noted otherwise on the plans.
6. All storm sewer pipe under pavement, regardless of size, shall be reinforced concrete pipe (ASTM C-76, Class III) unless noted otherwise on the plans.
7. Corrugated metal pipe shall conform to the standard specifications for corrugated culvert pipe M36, AASHTO. See plans for gauge.
8. All filled places in paved State, County or City roads, (Highways) shall be compacted to 95% of maximum density as determined by the "Standard Proctor Test AASHTO T-99", (ASTM D-598) unless otherwise specified by local governing authority specifications. All tests shall be verified by a City Representative.
9. Earth subgrade for paved areas must be compacted to 90% of maximum dry density as determined by a "Modified Proctor Test", (ASTM D-1557) and must be inspected and approved by a City Representative, before paving may commence.
10. All sanitary and storm sewer trench backfills to be water jettted and granular backfill will be used under pavement areas. This is to be done in the presence of a City Representative.
11. Easements shall be provided for storm sewers, sanitary sewers and all utilities on the record plat. See record plat for location and size of easements. This does not apply to house laterals.
12. No areas shall be cleared without permission of the developer.
13. All grade shall be within 0.2 feet more or less of those shown on the grading plan.
14. No slope shall be greater than 3:1 and shall be either sodded or seeded and mulched.
15. Barricades will consist of three standard 12" X 36" red and white striped scotchlite hazard markers mounted on two pound "U" channel sign post, with bottom of marker seven feet above pavement surface.
16. All manhole and catch basin tops built without elevations furnished by the Engineer will be the responsibility of the sewer contractor. At the time of construction stakeout of the sewer lines, all curb and grate inlets will be face staked. If normal face stakes fail in line with sewer construction the Engineer will set these stakes on a double offset. It shall be the responsibility of the sewer contractor to preserve all face stakes from destruction.
17. All standard catch basin inlets to have front of inlet 2 feet behind curb.
18. The minimum vertical distances from the low point of the basement to the flowline of a sanitary sewer at the corresponding house connection shall not be less than the diameter of the sanitary sewer plus a vertical distance not less than two and one-half feet (2 1/2').
19. Water lines, valves, sleeves, meters and etc. shall meet all specifications and installation requirements of the local governing authority. There shall be a minimum of 18" vertical/10' horizontal separation between all water mains and sanitary sewers.
20. All ductile iron pipe for water mains shall conform to Specification ANSI/AWWA C151/A21.51. The ductile iron fittings shall conform to Specification ANSI/AWWA C110/A21.10. All rubber gasket joints for water ductile iron pressure pipe and fittings shall conform to Specification ANSI/AWWA C111/A21.11.
21. All water hydrants and valves shall be cast from and installed in accordance with plans and details. All water hydrants shall be Mueller Centurions or equivalent.
22. All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.
23. All PVC water pipe shall have a minimum pressure rating of PR-200 or SDR-21.
24. All PVC sanitary sewer pipe is to be SDR-35 or equal with "clean" 3/4 inch to 1 inch granular stone bedding uniformly graded. This bedding shall extend from 4" below the pipe to the springline of pipe. Immediate backfill over pipe shall consist of same size "clean" or minus stone from springline of pipe to 66" above the top of pipe.
25. All grading on Missouri State Highway Right-of-Way shall be staked and mulched and all disturbed Right-of-Way markers shall be reset at the completion of the grading.
26. All streets must meet the specifications and installation requirements of the City of O'Fallon.
27. All gravel for rip-rap shall be high slump ready mix concrete.
28. All sanitary sewer manholes shall be waterproofed on the exterior in accordance with MD, DNR specification 10 CSR-8.120 (7) (E).
29. Brick shall not be used on manholes.
30. All pipes shall have positive drainage through manholes. No flat base structures allowed.
31. If cover is less than 3' over top of pipe, provide concrete encasement.
32. All necessary utilities (public and private) will be available, functioning, and usable at the time any stage of the project or the total project is ready for occupancy.

33. HYDRANTS FOR CMP WILL BE PROVIDED

SHEET INDEX:

SHT. 1-3	GRADING PLAN
SHT. 4-6	DEVELOPMENT PLAN
SHT. 7-8	STREET PROFILES
SHT. 9-12	SANITARY SEWER PROFILES
SHT. 13-16	STORM SEWER PROFILES
SHT. 17-19	DRAINAGE AREA MAP
SHT. 20-21	SEWER CONSTRUCTION DETAILS
SHT. 22	PAVEMENT CONSTRUCTION DETAILS
SHT. 23	WARPING DETAIL



LOCATION MAP

N.T.S.

BENCHMARK

"O" in open on Fire Hydrant
Across From Lot Corner 14 & 15 In
Stoneybrook Subdivision
Elevation - 573.31
T.B.M.
Traverse Point #28 N 6643.53 E 3597.01
Elevation 593.07

ENGINEER:

INGRAM ENGINEERING INC.
ENGINEERS - SURVEYORS - PLANNERS

6 WESTBURY DRIVE
ST. CHARLES, MISSOURI 63301

(314) 946-5566
FAX (314) 946-8713

IEI

KENNETH E. INGRAM, P.E.

UTILITY CO.	LINE LOCATION NO.	EMERGENCY NO.
Union Electric	327-6203	327-6203
Continental Telephone	327-3114	327-3114
Laclede Gas Company	535-7700	621-6960
Missouri Cities Water	441-4449	441-4449 (Answering Service)
Group W. Cable Corporation	441-6048	429-3548 Mitch Kilgore 947-4705 Ron Gibson
Southwestern Bell Telephone Company	235-9800	
Cuivre River Electric Company	1-800-392-3709 1-314 441-7410 1-800-327-5282	(same as line location no.)
Duckett Creek Sewer District		447-4944
Water District No. 2	625-3737	625-3737 (Answering machine will give emergency no.)
St. Charles County Water District #2	239-3480	239-3480
Mid Missouri Engineers	281-2858	272-3200 (O'Fallon P.D.)
East Central Missouri Water & Sewer Authority	272-9017	272-9017

FILE COPY

APPROVED AS NOTED

12-3-92

Frank Godwin

APPROVED

DATE 09/04/92 subject to
P&Z turn around being
built in 1st phase

OWNER & DEVELOPER:

KAPLAN DEVELOPMENT AND
INVESTMENT COMPANY
P.O. BOX 341
ST. PETERS, MO 63376



Kenneth E. Ingram