THE VILLAGES AT SPRINGHURST

A TRACT OF LAND BEING PART OF LOT 7 OF PLAT NO. 1 OF THE PARTITION OF LANDS OF JAMES BALDRIDGE LOCATED IN FRACTIONAL SECTIONS 10 & 11, TOWNSHIP 46 NORTH, RANGE 2 EAST, ST. CHARLES COUNTY, MISSOURI

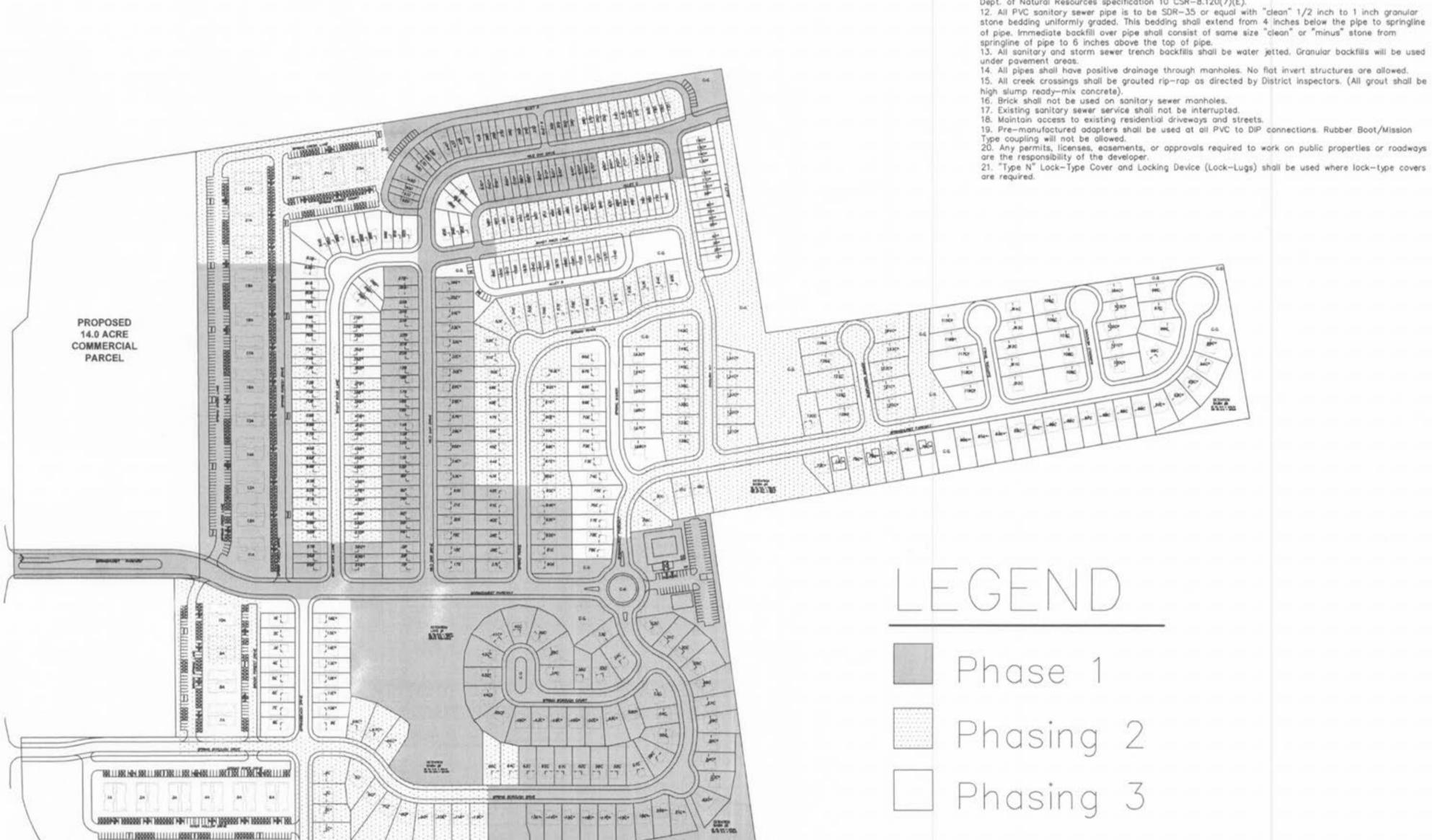
IMPROVEMENT PLANS

1. Underground utilities have been plotted from available information and therefore there location 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 or construction of improvements. 2. Gas, water, and other underground utilities shall not conflict with the depth or horizontal location of existing or proposed sanitary and storm sewers, including house laterals. 3. All existing site improvements, disturbed, damaged, or destroyed shall be repaired or replaced to closely matched pre construction conditions. 5. The contractor shall prevent all storm, surface water, mud, and construction debris from entering Dept. of Natural Resources specification 10 CSR-8.120(7)(E). 13. All sanitary and storm sewer trench backfills shall be water jetted. Granular backfills will be used

SPRINGHURS7 5091 NEW BAUMGARTN ST. LOUIS, MISSOUF (314) 487-671 5

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GRADING & CONSTRUCTION NOTES:

1. All construction methods, materials and practices shall conform to all current applicable specifications of the governing agencies.

2. Any destruction of existing improvements or features shall be repaired or replaced in kind by the contractor and shall remain the contractors responsibility. 3. 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. 4. It shall be distinctly understood that failure to specifically mention any work which would normally

be required to complete the project shall not relieve the contractor of his responsibility to perform 5. Contractor shall keep road clear of mud and debris.

 All filled areas to be compacted to a minimum of 90 percent of maximum dry density as determined by the Modified AASHTO Compacting Test, ASTM D1557-78, or as specified by the soils It shall be the grading contractors responsibility to notify the soils engineer prior to work in progress and to comply with recommendations by the soils engineer with regards to compaction,

surface preparation, and placement of fill. 8. It shall be the grading contractors responsibility to provide the location of any existing underground utilities by notifying utility companies prior to grading operations. 9. The grading contractor shall cut or fill to sub grade elevation under all areas to be paved. (Sub

grade is figured at pavement depth). Rough grading is to be completed within ± 0.20'. All drainage swales shall be sadded or seeded and mulched to prevent erosion. 11. All stumps, limbs, and other debris are to be removed from the site unless a suitable dump area is approved in advance by the owner after consulting with the sails engineer if burning is approved.

12. Sub grade is included in the total bid yardage. (Sub grade is figured at pavement depth). 13. Slopes to receive fill which are steeper than 5:1 should be benched prior to placement of fill. 14. If fill is to be place in areas of soft soil, particularly in draws, drainage channels and other low lying areas, the soft soil shall be excavated until firm soil is encountered. 15. All grading shall comply with the soils engineer's recommendations.

16. Permanent grass is required at completion of grading or a 30 day suspension of grading will be 17. A drainage easement will be granted to the City of O'Fallon for any creeks to remain in the

development on the record plat. 18. Siltation control will be installed prior to any grading or construction operations and shall be inspected and maintained as necessary to insure their proper function until sufficient vegetation has been established to prevent erosion.

 The installation and maintenance of all siltation controls shall be the responsibility of the developer. 20. Additional silitation control may be required as directed by the local governing authority. 21. All grading areas shall be protected from erosion by erosion control devices and/or seeding and mulching as required by the City of O'Fallon. 22. All fill placed under proposed storm and sanitary sewers, proposed roads, and/or paved areas shall

be compacted to 90% of maximum density as determined by the Modified AASHTO T-180 Compaction Test or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. All fill placed in proposed roads shall be compacted from the bottom of the fill up. All tests shall be verified by a soils engineer concurrent with grading and back filling operations. Ensure the moisture content of the soil in fill areas is to correspond to the compactive effort as defined by the Standard or Modified Proctor Test. Optimum moisture content shall be determined using the same test that was used for compaction. Soil compaction curves shall be submitted to the City of O'Fallon prior to the placement of fill. Proof rolling may be required to verify soil stability at the discretion of the City of O'Fallon. 23. Erosion and sediment control structures shall be maintained throughout the construction process. 24. The Developer shall provide the City of O'Fallon construction inspectors with soils reports prior to 25. The contractor shall assume complete responsibility for controlling all siltation and erosion of the

project area. The Contractor shall use whatever means necessary to control erosion and siltation including, but not limited to, staked straw bales and/or siltation fabric fences (possible methods of control are detailed in the plan). Control shall commence with grading and be maintained throughout the project until acceptance of the work by the Owner and/or the City of O'Fallon and/or MoDOT The Contractor's responsibilities include all design and implementation as required to prevent erosion and the depositing of silt. The Owner and/or the City of O'Fallon and/or MoDot may at their option direct the Contractor in his methods as deemed fit to protect property and improvements. Any depositing of any sits or mud on new or existing pavement or in new or existing sewers or swales shall be removed after each rain and affected areas cleaned to the satisfaction of the Owner and/or the City of O'Fallon and/or MoDOT

26. All erosion control systems shall be inspected and necessary corrections made within 24 hours of any rainstorm resulting in one-half inch of rain or more. 27. Erosion control shall not be limited to what is shown on the plan. Whatever means necessary

shall be taken to prevent siltation and erosion from entering natural streoms, adjacent roadways, properties, ditches,

28. No graded area shall remain bare for over 6 months without being seeded or mulched. 29. No slope shall exceed 3(Horz.): 1(Vert.).

30. When deemed necessary, positive steps should be exercised to prevent the soil from damaging adjacent property and silting up all storm drainage systems whether on or off site. 31. All low places whether on-site of off-site should be graded to allow drainage by installing

32. Any wells and/or springs which may exist on this property should be located and sealed in a manner acceptable to the City of O'Fallon. 33. All trash and debris on-site, either existing or from construction, must be removed and disposed

34. Debris and foundation material from any existing on-site building or structure which is scheduled to be razed for this development must be disposed of off-site. All existing buildings and fencing is to be removed.

35. Soft soils in the bottom and banks of any existing or former pand sites or tributaries should be removed, spread out and permitted to dry sufficiently to be used as fill. None of this material should be placed in proposed public right-of-way locations or on any storm sewer location. Dewatering of existing pond shall not exceed 50 GPM.

36. Please notify the Director of Public Works for the City of O'Fallon 24 hours prior to the commencement of grading. No building permits will be issued by the City of D'Fallon until construction plans are approved and the final plat recorded. 37. The sediment control plan should be implemented before grading begins. This should follow the

guidelines in the model sediment and erosion control regulations by St. Charles Soll and Water Conservation District. 38. The low sill elevation for any proposed structures adjacent to the flood plain shall be a minimum

of 1(one) foot above the 100-year flood elevation. 39. All grading adjustments shall be submitted to and receive approval from the City of O'Fallon.

40. When utilized temporary siltation ponds\structures shall be completely removed following re-establishment of vegetation. Ponds shall be backfilled, compacted, and graded to provide positive drainage and then seeded and mulched.

41. All paving to be accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances. (IF-OLD. 4875, ETC.) 42. Sidewalks, curb ramps, ramp and accessible parking spaces shall be constructed in accordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAC) along with the required grades, construction materials, specifications and signage. If any conflict occurs between the above information and the plans, the ADAAC guidelines shall take precedence and the contractor prior

to any construction shall notify the Project Engineer. 43. All street signs and traffic signals shall be colored black in accordance with the approved MoDOT

44. All sign post, backs, and bracket arms shall be painted black using Carboline Rustbond Penetrating Sealer SG and Carboline 133 HB paint or equivalent as approved by the City and MoDOT. 45. All sign locations and sizes must be approved separately through the Planning Division. 46. Povement underdrains shall be provided at all low points per the City of O'Fallon.

> THE UNDERGROUND UTILITIES SHOWN HEREON WERE PLOTTED FROM AVAILABLE INFORMATION AND DO NOT NECESSARILY REFLECT THE ACTUAL EXISTENCE, NONEXISTENCE, SIZE, TYPE, NUMBER OR LOCATION OF THESE OR OTHER UTILITIES. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE ACTUAL LOCATION OF ALL UNDERGROUND UTILITIES, SHOWN OR NOT SHOWN, AND SAID UTILITIES SHALL BE LOCATED IN THE FIELD PRIOR TO ANY GRADING, EXCAVATION OR CONSTRUCTION OF IMPROVEMENTS. THESE PROVISIONS SHALL IN NO WAY ABSOLVE ANY PARTY FROM COMPLYING WITH THE

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4. All fill including places under proposed storm and sanitary sewer lines, and paved areas include trench backfills within and off the road right-of-way shall be compacted to 90 percent of maximum dry density as determined by the Modified AASHTO 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 non-yielding and non-pumping during proofrolling and

the existing sanitary sewer system. 6. All sanitary sewer flowlines and tops built without elevations furnished by the engineer will be the 7. Easements shall be provided for all sanitary sewers, storm sewers, and all utilities on the record

8. All construction and materials shall conform to the current construction standards of Duckett 9. The Duckett Creek Sanitary District shall be notified at least 48 hours prior to construction for

coordination and inspection. 10. All sanitary sewer building connections shall be designed so that the minimum vertical distance from the low point of the basement to flowline of the sanitary sewer at the corresponding building connection shall not be less the the diameter of the pipe plus the vertical distance of 2-1/2 feet. 11. All sanitary sewer manholes shall be waterproofed on the exterior in accordance with Missouri

12. All PVC sonitory sewer pipe is to be SDR-35 or equal with "clean" 1/2 inch to 1 inch granular stone bedding uniformly graded. This bedding shall extend from 4 inches below the pipe to springline of pipe. Immediate backfill over pipe shall consist of same size "clean" or "minus" stone from

14. All pipes shall have positive drainage through manholes. No flat invert structures are allowed. 15. All creek crossings shall be grouted rip-rap as directed by District inspectors. (All grout shall be

18. Maintain access to existing residential driveways and streets.

19. Pre-manufactured adapters shall be used at all PVC to DIP connections. Rubber Boot/Mission

21. "Type N" Lock-Type Cover and Locking Device (Lock-Lugs) shall be used where lock-type covers

UNDERGROUND FACILITY SAFETY AND DAMAGE PREVENTION