

CLEARING AND EROSION CONTROL NOTES:

- Grading contractor shall obtain all necessary state, county and local permits required for clearing and disposal of cleared materials. Burning will be allowed only if approved by the regulatory agencies.
- Grading 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 silts or mud on new or existing pavement or new or existing storm 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.
- Timber, rubbish, debris, pipes, sewers, large pieces of concrete, excess or unsuitable excavation materials, and other objectionable material shall be properly disposed offsite in an approved manner.
- Prior to submittal of his bid for the work, contractor shall visit and inspect the entire site for the purpose of familiarizing himself with the existing conditions of the site, the project limits, and the scope of work. No additional allowance will be made due to contractor's unfamiliarity with the project limits, existing site conditions, or the scope of work.
- Anti-siltation devices shown on the plans shall be installed prior to clearing operations and shall be installed downwind of every location where the original ground is to be disturbed.
- Contractor shall clear all trees and underbrush as required except as noted on this plan.
- Parking on non-surfaced areas is prohibited in order to eliminate the condition whereby mud from construction and employee vehicles is tracked onto the pavement causing hazardous roadway and driving conditions. Contractor shall keep road clear of mud and debris. Contractor and his employees shall rock and use the designated staging area.
- The streets surrounding this development and any street used for construction access thereto shall be cleaned prior to the end of each day.
- When clearing and/or grading operations are completed or suspended for more than 30 days, all necessary precautions shall be taken to retain soil materials on site. Protective measures may be required by the City of O'Fallon, such as permanent seeding, periodic wetting, mulching, or other suitable means.
- Inspection of, and necessary repairs made, to the erosion and silt control measures must be made daily and/or following periods of precipitation.
- Anti-siltation devices shall remain functional until tributary area to each structure has been paved or seeded and sufficient growth established to prevent erosion.
- Storm water pipes, outlets and channels shall be protected by silt barriers and kept free of waste and silt at all times prior to final surface stabilization and/or paving.
- Existing 25' wide landscaped areas along the south and west limits of the property adjacent to residential properties shall not be disturbed.
- Aggregate shall be placed such that the top of the course is at least 1.0' below the proposed final grade. Additional construction staging areas, if needed, shall be constructed of same.

GENERAL GRADING NOTES:

- Underground facilities, structures and utilities have been plotted from available surveys, records and information, and, therefore, do not necessarily reflect the actual existence, non-existence, size, type, depth, number or location of these facilities, structures and utilities. The contractor shall be responsible for verifying the actual location of all underground facilities, structures and utilities, either shown or not shown on these plans. The underground facilities, structures and 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 Underground Facility Safety and Damage Prevention Act, Chapter 319, RSMo.
- Contractor to notify Engineer as soon as possible if conditions on ground differ from those shown on plans.
- Contractor shall be responsible for determining the amount of excavation and fill needed to bring the site to the proposed grades.
- Prior to mass grading, the construction area shall be cleared or trees and vegetation. Topsoil shall be stockpiled for later distribution in landscaped areas.
- Areas disturbed by grading operations shall be protected by seeding and mulching as soon as possible.
- A fast germinating annual such as rye grasses or sudan grasses shall be seeded in graded areas within one week of rough grading the site.
- The upper 8" of landscaped berms and garden areas shall be graded using stockpiled topsoil. This work shall be performed immediately after rough grading the site. Southwest detention basin shall be sodded below elevation 554.00, south detention basin below 548.00.
- Grading shall be performed to proposed grades shown within a tolerance of +0.10 foot. Grades shown are finish grades. Contractor shall deduct 1.0 foot for pavement areas and 0.67' for building slabs and sidewalk.
- No slope shall exceed 3 horizontal to 1 vertical.
- All grading and excavation work shall adhere to the recommendations of the geotechnical engineer as described in the "Exploration of Subsurface Conditions and Foundation Recommendations" prepared by Shannon & Wilson for Delmar Gardens dated September, 2001. Developer must supply City construction inspectors with soils reports prior to or during site soil testing.
- Curb heights are 6" above pavement except where noted by specific top of curb (TC) and curb flowline (FL) spot elevations. Curb heights at handicap parking stalls to be transitioned to zero.
- Grading is limited to the project site, except along the north property line where grading should extend into Missouri Dept. of Transportation right of way for Page Avenue sufficient to provide the specified elevations along the property line. Rough grading this area is the responsibility of Phase 2 grading contractor, finish grading is the responsibility of Phase 3 grading contractor.
- Cut areas shall be scarified to a depth of 8", compacted, and proof rolled with a fully-loaded tandem axle truck immediately prior to placing additional fill or placing aggregate base course. Proof rolling will be for the purpose of locating any soft areas requiring further remediation. All fill material (under proposed storm and sanitary sewer, proposed roads and/or paved areas) shall be spread in horizontal layers not to exceed 8", loose measure, and compacted to 90% of maximum density as determined by AASHTO T-180 Modified Compaction Test of 95% maximum density as determined by the Standard Proctor Test (AASHTO T-99). All tests shall be verified by a soils engineer concurrent with grading and backfilling operations.
- The grading contractor shall coordinate his work with that of the sewer contractor so that the overall site work can be completed in the shortest possible time and with the least constructive effort. In order to facilitate the construction of storm sewer reaches 4-1 to 4-3, and 5-2 to 5-7, the grading contractor shall bring the grade up along these sewer alignment to an elevation which is approximately three feet over the top of sewer pipe and then give the sewer contractor sufficient time to install these sewers before progressing up with the proposed fills. The sewer contractor shall conduct and phase his work such that drainage and siltation control is maintained at all times.
- Grading work is broken into three phases. Phase 1 includes rough grading the portion of the site labeled as "Phase One" on sheet C-2 of these plans. This work was awarded to Nor-Vel Construction Co. in 2001, and except for minor rough grading along Twin Chimneys Blvd., has been completed. Phase 2 will consist of clearing, grading, seeding and mulching, and installation of siltation control devices for that portion of the site labeled as Phase 2 on Sheet C-2, C-4, and C-5 of these plans. Phase 3 will consist of importing topsoil and finish grading the area shown as Phase 1 on Sheet C-3 of these plans. In Phase 1 building and pavement areas, Phase 3 grading contractor shall bring grades to subgrade. Excess materials shall be transported to Phase 2 area and distributed in a manner acceptable to the Phase 2 contractor in a timely manner such that it can be incorporated in the Phase 2 work. In Phase 1 landscaped areas, Phase 3 grading contractor shall grade to finish elevations minus 6". Once sewers, utilities, pavement, curbing, and building has been completed, Phase 3 contractor shall import suitable topsoil and finish grade. Separate bids should be provided for Phase 2 and Phase 3.
- Site Benchmark Elevation: 544.92' (USGS)
Top of sanitary manhole, 40 feet northwest of rear lot corner 46B/47B, Twin Chimneys "Lindenwood Village B" per Duckett Creek as-built.
- MODOT Benchmark Elevation: 582.41
Spike in O, 35' Rt. of ext. Sta. 172+50 @ P.E. to house mailbox #6998 O, 70 mi. N.W. junction route "K" & "N" along Route "N".
- By graphic plotting only, a portion of this property is in Zone "X" (an area defined as being subject to a 500 year flood) of Flood Insurance Rate Map, Community Panel Number 19183C0240E and 29183C0239E, effective date: August 2, 1996. The balance of the site is outside of the 500 year floodplain. The portion within the 500 year floodplain is proposed to be filled.
- Developer must supply City construction inspectors with soil reports prior to or during site soil testing.

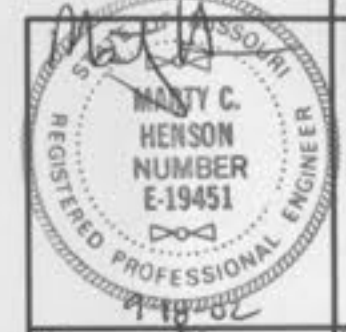


The original of this drawing is on file at the office of the Clayton Engineering Company. Any modifications to this drawing shall release said Clayton Engineering Company, the Engineer and/or Surveyor whose seal appears herein from any liability resulting from said unauthorized modifications.

NO.	DATE	BY	DESCRIPTION
3	06/05/02	RKF	City of O'Fallon Comments
2	06/18/02	RKF	Duckett Creek San. District Comments
1	06/03/02	RKF	Entrance Drive Contours - Elev. Note on Phase 3 Building

**FINISH GRADING (PHASE 2) / SEWER PLAN
DELMAR GARDENS**

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Designed	RKF
Drawn	RKF
Checked	MCH
Date	05/21/02
Project Number	00228.1
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