GRADING PLAN

TREE PRESERVATION CALCULATIONS

TOTAL AREA OF SITE: 7.40 ACRES
TOTAL AREA OF EXISTING TREE MASS: .91 ACRES
PERCENTAGE OF SITE IN EXISTING TREE MASS: 12.30%
PERCENTAGE OF EXISTING TREES TO BE REMOVED: 100%

NUMBER OF TREES REQUIRING REPLACMENT: 14*
(15 TREES/ACRE X .91 ACRES)

NUMBER OF TREES PROVIDED EXCLUSIVE OF THOSE PROVIDED FOR STREET FRONTAGE AND OPEN SPACE REQUIREMENTS: 27

*NUMBER OF TREES REQUIRING REPLACEMENT WILL BE FIELD VERIFIED. FINAL NUMBER OF TREES PROVIDED WILL BE ADJUSTED, IF NECESSARY, TO MEET TREE PRESERVATION CODES.

REVEGETATION SCHEDULE

SEEDING RATES:
PERMANENT:
TALL FESCUE --- 30 LBS/ACRE
SMOOTH BROME --- 20 LBS/ACRE
COMBINED --- FESCUE @ 15 LBS/ACRE AND BROME @ 10 LBS/ACRE
TEMPORARY:
WHEAT OR RYE --- 150 LBS/ACRE (3.5 LBS. PER SQUARE FOOT)
OATS --- 120 LBS/ACRE (2.75 LBS. PER SQUARE FOOT)

SEEDING PERIODS:
FESCUE OR BROME --- MARCH 1 TO JUNE 1 & AUG 1 TO OCT 1
WHEAT OR RYE --- MARCH 15 TO NOVEMBER 1
OATS --- MARCH 15 TO SEPTEMBER 15

MULCH RATES:
100 LBS. PER 1000 SQUARE FEET (4,356 LBS. PER ACRE)

FERTILIZER RATES:
NITROGEN --- 30 LBS/ACRE
PHOSPHATE --- 30 LBS/ACRE
POTASSIUM --- 30 LBS/ACRE
LIME --- 600 LBS/ACRE (ENM*)
* ENM = EFFECTIVE NEUTRALIZING MATERIAL AS PER STATE EVALUATION OF QUARRELED ROCK.

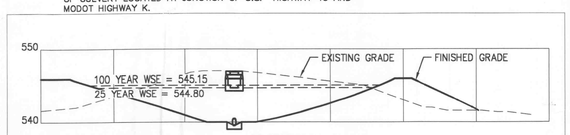
GENERAL NOTES

1. FINISH SPOT ELEVATIONS AND CONTOURS ARE SHOWN TO TOP OF NEW PAVEMENT, WALKS, SOD, ETC. EXCEPT BUILDING PADS WHICH ARE 1 FOOT BELOW FINISH FLOOR.
2. ALL GRADING AND DRAINAGE SHALL CONFORM TO THE LATEST STANDARDS AND SPECIFICATIONS OF THE CITY OF O'FALLON, MISSOURI DEPARTMENT OF TRANSPORTATION AND . RECOMMENDATIONS OF THE GEOTECHNICAL REPORT SET FORTH BY TERRACON, DATED NOVEMBER 17, 2003.
3. NO SLOPE SHALL BE STEEPER THAN 3 (HORIZONTAL) TO 1 (VERTICAL).
4. 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 PLANS). 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 SILT OR MUD ON NEW OR EXISTING PAVEMENT OR IN 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. NO GRADED AREA IS TO REMAIN BARE FOR OVER 2 WEEKS WITHOUT BEING SEEDED AND MULCHED.
5. THE CONTRACTOR SHALL VERIFY THE PROPOSED ELEVATIONS TO ASSURE POSITIVE DRAINAGE FOR THE PARKING LOT & ENTRANCES PRIOR TO POURING ANY CONCRETE OR INSTALLING ASPHALT PAVEMENT. HE SHALL REPORT ANY DISCREPANCIES IMMEDIATELY TO THE ENGINEER.
6. DEVELOPER MUST SUPPLY CITY CONSTRUCTION INSPECTORS WITH SOIL REPORTS PRIOR TO OR DURING SITE SOIL TESTING.
7. ALL EROSION CONTROL SYSTEMS SHALL BE INSPECTED AND NECESSARY CORRECTIONS MADE WITHIN 24 HOURS OF ANY RAINSTORM RESULTING IN ONE-HALF INCH RAIN OR MORE.
8. GRADED AREA SHALL BE SEEDED AND MULCHED AFTER 6 MONTHS OF COMPLETION.
9. ALL FILLED 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 BACKFILLING 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 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.
10. FINISH SPOT ELEVATIONS AT THE FACE OF CURBS ARE SHOWN TO THE FLOWLINE OF THE GUTTER UNLESS OTHERWISE NOTED.
11. CONTRACTOR SHALL REVIEW THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) FOR THE PROJECT AND COMPLY WITH ALL REQUIREMENTS.
12. CONTRACTOR TO COORDINATE WITH MODOT FOR TEMPORARY ACCESS TO SITE FOR GRADING WORK.
13. THE EXISTING UTILITIES SHOWN HEREON ARE FROM SURVEY INFORMATION AND MUST BE CONSIDERED AS APPROXIMATE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE EXACT LOCATIONS PRIOR TO COMMENCING WORK.
14. ALL MATERIALS & WORKMANSHIP ASSOCIATED WITH THE STORM AND SANITARY SEWER CONSTRUCTION SHALL CONFORM TO THE LATEST STANDARD SPECIFICATIONS FOR CONSTRUCTION OF PUBLIC IMPROVEMENTS OF THE CITY OF O'FALLON AND MISSOURI DEPARTMENT OF TRANSPORTATION.
15. ALL MATERIALS & WORKMANSHIP ASSOCIATED WITH THE CONSTRUCTION ACTIVITY IN THE TECHNOLOGY DRIVE RIGHT-OF-WAY SHALL CONFORM TO THE LATEST STANDARDS AND SPECIFICATIONS OF THE MISSOURI DEPARTMENT OF TRANSPORTATION.
16. CONTRACTOR SHALL CLEAN AND MAINTAIN THE TEMPORARY SEDIMENT BASIN AFTER EACH MEASURABLE RAIN. BEFORE END OF CONSTRUCTION, THE BASIN MUST BE REGRADED TO PROPOSED CONDITIONS.
16. CONTRACTOR SHALL REMOVE ALL TRASH AND DEBRIS ALONG STREAM WITHIN PROPERTY LIMITS.
17. SEDIMENT AND EROSION CONTROL WILL BE THE SOLE RESPONSIBILITY OF THE DEVELOPER, MODOT OR ITS CONTRACTOR WILL NOT BE LIABLE UPON DATE OF PERMIT.

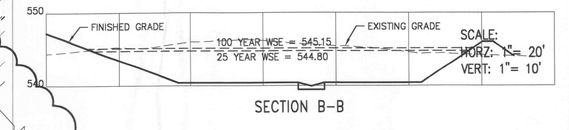
BENCHMARK

BENCHMARK USED RM #3 ELEVATION= 548.01 PER FLOOD INSURANCE MAP COMMUNITY PANEL NO. 29183C 0430 E
CHISELED SQUARE ON SOUTHWEST END OF SOUTH HEADWALL OF CULVERT LOCATED AT JUNCTION OF U.S. HIGHWAY 40 AND MODOT HIGHWAY K.

NOTE:
THE NEAREST EXISTING FIRE HYDRANT IS LOCATED APPROXIMATELY 300 FEET IN PERSIMMON MARKET DEVELOPMENT.

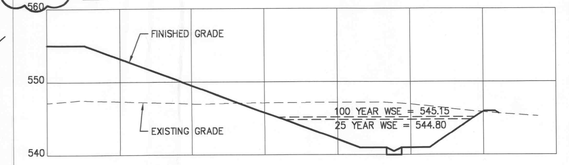


SECTION A-A



SECTION B-B

SCALE:
HORZ: 1"= 20'
VERT: 1"= 10'



SECTION C-C

HOLE #	DEPTH	HOLE #	DEPTH
BH-1	10'	BH-9	19.5'
BH-2	10'	BH-10	–
BH-3	10'	BH-11	21.3'
BH-4	27'	BH-12	13.5'
BH-5	9.7'	BH-13	20.5'
BH-6	13.5'	BH-14	10'
BH-7	27'	BH-15	14.9'
BH-8	11.3'	BH-16	10'

CURVE INFORMATION
PI 491+36.06
PC 485+64.28
PT 495+94.68
Δ 61°49'26.1" (LT)
D 6°00'00.0"
L 1,030.40'
T 571.78'
R 954.93'
S 4%

0 20 40 80
SCALE: 1"=40'

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ISSUE:

#	Date:	Description:
1	2/13/04	City of O'Fallon Comments
2	2/13/04	Duckett Creek Sanitary District Comments
3	2/13/04	Cottleville Fire Protection District Comments
4	2/13/04	MoDot Comments
5	2/13/04	Corps of Engineers Comment
6	3/15/04	Duckett Creek Sanitary District Comments
7	3/18/04	Revisions per Architect

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PROJECT:
PERSIMMON POINTE HOTEL DEVELOPMENT

STATE OF MISSOURI
JAMES T. BURKE
NUMBER E-13347
REGISTERED PROFESSIONAL ENGINEER

#4130 HIGHWAY 40-61
O'FALLON, MO

Date: 12-30-0
Design/Drawn: D
Approved: JT
Book No.:

SHEET TITLE:
GRADING PLAN

SHEET NUMBER:
C2
SHEET 6 OF 36

Project No.: 2
Planning & Zoning File: #

XRef Files: \29915xtsite-sew | \y-29963-plan-11-25-03-r4 | \xstr-3-18-04 | \drawsk | P:\1999\29916\12-hwy 40 @ rte k\dwg\29963-CDS.DWG | DATE: 03/18/2004 | Time: 13:01 |