GRADING NOTES

1. A GEOTECHNICAL ENGINEER SHALL BE EMPLOYED BY THE OWNER AND BE ON SITE DURING GRADING OPERATIONS. ALL SOILS TESTS SHALL BE VERIFIED BY THE GEOTECHNICAL ENGINEER CONCURRENT WITH THE GRADING AND BACKFILLING OPERATIONS.
2. THE GRADING CONTRACTOR SHALL PERFORM A COMPLETE GRADING AND COMPACTION OPERATION AS SHOWN ON THE PLANS, STATED IN THESE NOTES, OR REASONABLY IMPLIED THERE FROM, ALL IN ACCORDANCE WITH THE PLANS AND NOTES AS INTERPRETED BY THE GEOTECHNICAL ENGINEER.
3. THE CONTRACTOR SHALL NOTIFY THE SOILS ENGINEER AT LEAST TWO DAYS IN ADVANCE OF THE START OF THE GRADING OPERATION.
4. ALL AREAS SHALL BE ALLOWED TO DRAIN. ALL LOW POINTS SHALL BE PROVIDED WITH TEMPORARY DITCHES.
5. ALL FILLED PLACES, INCLUDING TRENCH BACKFILLS, UNDER BUILDINGS, PROPOSED STORM AND SANITARY SEWER LINES, PROPOSED ROADS AND/OR PAVED AREAS, SHALL BE COMPACTED TO 90% OF MAXIMUM DENSITY AS DETERMINED BY THE "MODIFIED AASHTO T-180 COMPACTION TEST," (A.S.T.M.-D-1557), OR 95% MAXIMUM DENSITY AS DETERMINED BY THE STANDARD PROCTOR TEST AASHTO T-99. ALL FILLED PLACES WITHIN PUBLIC ROADWAYS SHALL BE COMPACTED FROM THE BOTTOM OF THE FILL UP TO 90% 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, METHOD "C" (A.S.T.M.-D-698). ALL TEST SHALL BE VERIFIED BY A SOILS ENGINEER CONCURRENT WITH GRADING AND BACKFILLING OPERATIONS.
6. A SEDIMENT CONTROL PLAN THAT INCLUDES MONITORED AND MAINTAINED SEDIMENT CONTROL BASINS AND/OR STRAW BALES SHOULD BE IMPLEMENTED AS SOON AS POSSIBLE. NO GRADED AREA IS TO BE ALLOWED TO REMAIN BARE WITHOUT BEING SEEDED AND MULCHED. CARE SHOULD BE EXERCISED TO PREVENT SOIL FROM DAMAGING ADJACENT PROPERTY AND SILTING UP EXISTING DOWNSTREAM STORM DRAINAGE SYSTEMS. ALL EROSION CONTROL SYSTEMS SHALL BE INSPECTED AND NECESSARY CORRECTIONS MADE WITHIN 24 HOURS OF ANY RAIN STORM RESULTING IN 1/2 INCH OF RAIN OR MORE.
7. 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.
8. ALL TRASH AND DEBRIS ON SITE, EITHER EXISTING OR FROM CONSTRUCTION, MUST BE REMOVED AND PROPERLY DISPOSED OF OFF-SITE.
9. SOFT SOIL IN THE BOTTOM AND BANKS OF ANY EXISTING OR FORMER POND SITES OR TRIBUTARIES OR ON ANY SEDIMENT BASINS OR TRAPS 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 LOCATIONS.
10. SITE PREPARATION INCLUDES THE CLEARANCE OF ALL STUMPS, TREES, BUSHES, SHRUBS, AND WEEDS; THE GRUBBING AND REMOVAL OF ROOTS AND OTHER SURFACE OBSTRUCTIONS FROM THE SITE; AND THE DEMOLITION AND REMOVAL OF ANY MAN-MADE STRUCTURES. THE MATERIAL SHALL BE PROPERLY DISPOSED OF OFF-SITE. TOPSOIL AND GRASS IN THE FILL AREAS SHALL BE THOROUGHLY DISCED PRIOR TO THE PLACEMENT OF ANY FILL. THE SOILS ENGINEER SHALL APPROVE THE DISCING OPERATION.
11. COMPACTION EQUIPMENT SHALL CONSIST OF TAMPING ROLLERS, PNEUMATIC-TIRED ROLLERS, VIBRATORY ROLLER, OR HIGH SPEED IMPACT TYPE DRUM ROLLERS ACCEPTABLE TO THE SOILS ENGINEER. THE ROLLER SHALL BE DESIGNED SO AS TO AVOID THE CREATION OF A LAYERED FILL WITHOUT PROPER BLENDING OF SUCCESSIVE FILL LAYERS.
12. THE SOILS ENGINEER SHALL OBSERVE AND TEST THE PLACEMENT OF THE FILL TO VERIFY THAT SPECIFICATIONS ARE MET. A SERIES OF FILL DENSITY TESTS WILL BE DETERMINED ON EACH LIFT OF FILL. INTERIM REPORTS SHOWING FILL QUALITY WILL BE MADE TO THE OWNER AT REGULAR INTERVALS.
13. THE SOILS ENGINEER SHALL NOTIFY THE CONTRACTOR OF REJECTION OF A LIFT OF FILL OR PORTION THEREOF. THE CONTRACTOR SHALL REWORK THE REJECTED PORTION OF FILL AND OBTAIN NOTIFICATION FROM THE SOILS ENGINEER OF ITS ACCEPTANCE PRIOR TO THE PLACEMENT OF ADDITIONAL FILL.
14. ALL AREAS TO RECEIVE FILL SHALL BE SCARIFIED TO A DEPTH OF NOT LESS THAN 6 INCHES AND THEN COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS GIVEN BELOW. NATURAL SLOPES STEEPER THAN 1 VERTICAL TO 5 HORIZONTAL TO RECEIVE FILL SHALL HAVE HORIZONTAL BENCHES CUT INTO THE SLOPES BEFORE THE PLACEMENT OF ANY FILL. THE WIDTH AND HEIGHT TO BE DETERMINED BY THE SOILS ENGINEER. THE FILL SHALL BE LOOSELY PLACED IN HORIZONTAL LAYERS NOT EXCEEDING 8 INCHES IN THICKNESS AND COMPACTED IN ACCORDANCE WITH THE SPECIFICATIONS GIVEN BELOW. THE SOILS ENGINEER SHALL BE RESPONSIBLE FOR DETERMINING THE ACCEPTABILITY OF SOILS PLACED. ANY UNACCEPTABLE SOILS PLACED SHALL BE REMOVED AT THE CONTRACTOR'S EXPENSE.
15. THE SEQUENCE OF OPERATION IN THE FILL AREAS WILL BE FILL, COMPACT, VERIFY ACCEPTABLE SOIL DENSITY, AND REPETITION OF THE SEQUENCE. THE ACCEPTABLE MOISTURE CONTENTS DURING THE FILLING OPERATION ARE THOSE AT WHICH SATISFACTORY DRY DENSITIES CAN BE OBTAINED. THE ACCEPTABLE MOISTURE CONTENTS DURING THE FILLING OPERATION IN THE REMAINING AREAS ARE FROM 2 TO 8 PERCENT ABOVE THE OPTIMUM MOISTURE CONTROL.
16. THE SURFACE OF THE FILL SHALL BE FINISHED SO THAT IT WILL NOT IMPOUND WATER. IF AT THE END OF A DAYS WORK IT WOULD APPEAR THAT THERE MAY BE RAIN PRIOR TO THE NEXT WORKING DAY, THE SURFACE SHALL BE FINISHED SMOOTH. IF THE SURFACE HAS BEEN FINISHED SMOOTH FOR ANY REASON, IT SHALL BE SCARIFIED BEFORE PROCEEDING WITH THE PLACEMENT OF SUCCEEDING LIFTS. FILL SHALL NOT BE PLACED ON FROZEN GROUND, NOR SHALL FILLING OPERATIONS CONTINUE WHEN THE TEMPERATURE IS SUCH AS TO PERMIT THE LAYER UNDER PLACEMENT TO FREEZE.
17. DEVELOPER MUST SUPPLY CITY CONSTRUCTION INSPECTORS WITH SOIL REPORTS PRIOR TO OR DURING SITE SOIL TESTING.
18. FILL AND BACKFILL SHOULD BE COMPACTED TO THE CRITERIA SPECIFIED IN THE FOLLOWING TABLE:

CATEGORY	MINIMUM PERCENT COMPACTION
FILL IN BUILDING AREAS BELOW FOOTINGS	90%
FILL UNDER SLABS, WALKS, AND PAVEMENT	90%
FILL OTHER THAN BUILDING AREAS	88%
NATURAL SUBGRADE	88%
PAVEMENT SUBGRADE	90%
PAVEMENT BASE COURSE	90%

MEASURED AS A PERCENT OF THE MAXIMUM DRY DENSITY AS DETERMINED BY MODIFIED PROCTOR TEST (ASTM-D-1557).

MOISTURE CONTENT MUST BE WITHIN 2 PERCENT BELOW OR 4 PERCENT ABOVE OPTIMUM MOISTURE CONTENT IF FILL IS DEEPER THAN 10 FEET.

REFERENCE BENCHMARK

ELEV (USGS DATUM) 459.35 CUT SQAURE ON THE NORTHWEST CORNER OF THE HEADWALL OF A 4'X7' CONCRETE BOX. MISSOURI STATE HIGHWAY P STATION 506+64 – 20.5' LEFT

SITE BENCHMARK

SITE BENCHMARK #1: ELEV 538.73 OLD STONE AT THE NORTHWEST CORNER OF SUBJECT PROPERTY.

SITE BENCHMARK #2: ELEV 478.49 OLD CUT SQUARE ON SOUTHEAST CORNER BRIDGE OVER CREEK 13.5' SOUTH HIGHWAY "P" AND ± 1/4 MILE EAST OF OF INTERSECTION OF HIGHWAYS "P" AND "M".

GENERAL NOTES

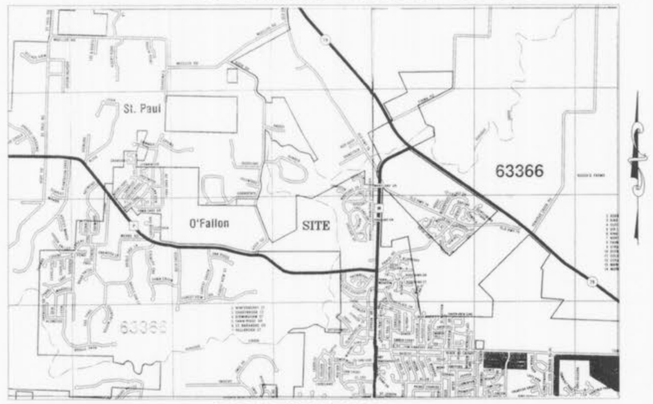
1. UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS SHALL BE CONSIDERED APPROXIMATE ONLY. THE VERIFICATION OF THE LOCATION OF ALL UNDERGROUND UTILITIES, EITHER SHOWN OR NOT SHOWN ON THESE PLANS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND SHALL BE LOCATED PRIOR TO ANY GRADING OR CONSTRUCTION OF THE IMPROVEMENTS.
2. ALL MANHOLE TOPS & FLOWLINES BUILT WITHOUT ELEVATIONS FURNISHED BY THE ENGINEER WILL BE THE RESPONSIBILITY OF THE SEWER CONTRACTOR.
3. SANITARY SEWER PIPE SHALL MEET THE FOLLOWING STANDARDS. A.S.T.M.-D-3034 SDR-35, WITH WALL THICKNESS COMPRESSION JOINT A.S.T.M.-D-3212. AN APPROPRIATE RUBBER SEAL WATERSTOP AS APPROVED BY THE CITY OF O'FALLON SEWER DISTRICT SHALL BE INSTALLED BETWEEN P.V.C. PIPE AND MASONRY STRUCTURES.
4. ALL TRENCH BACKFILLS UNDER PAVED AREAS SHALL BE GRANULAR BACKFILL, AND SHALL BE MODIFIED COMPACTED TO 90% OF THE MAXIMUM DENSITY AS DETERMINED BY THE "AASHTO T-180 COMPACTION TEST," (A.S.T.M.-D-1557). ALL OTHER TRENCH BACKFILLS MAY BE EARTH MATERIAL (FREE OF LARGE CLODS OR STONES). ALL TRENCH BACKFILLS SHALL BE WATER JETTED.
5. ALL SANITARY HOUSE CONNECTIONS HAVE BEEN DESIGNED SO THAT THE MINIMUM VERTICAL DISTANCE FROM THE LOW POINT OF THE BASEMENT TO THE FLOW LINE OF A SANITARY SEWER AT THE CORRESPONDING HOUSE CONNECTION IS NOT LESS THAN THE DIAMETER OF THE PIPE PLUS THE VERTICAL DISTANCE OF 2 1/2 FEET.
6. NO AREA SHALL BE CLEARED WITHOUT THE PERMISSION OF THE PROJECT ENGINEER.
7. ALL P.V.C. SANITARY SEWER IS TO BE SDR-35 OR EQUAL WITH CLEAN 1/2" TO 1" GRANULAR STONE BEDDING UNIFORMLY GRADED. THIS BEDDING SHALL EXTEND FROM 4" BELOW THE PIPE TO THE SPRINGLINE OF THE PIPE. IMMEDIATE BACKFILL OVER PIPE SHALL CONSIST OF SAME SIZE "CLEAN" OR MINUS STONE FROM SPRINGLINE OF PIPE TO 12" ABOVE THE TOP OF PIPE.
8. ALL SOILS TEST SHALL BE VERIFIED BY A SOILS ENGINEER CONCURRENT WITH THE GRADING AND BACKFILLING OPERATIONS.
9. EASEMENTS SHALL BE PROVIDED FOR SANITARY SEWERS, AND ALL UTILITIES ON THE RECORD PLAT. SEE RECORD PLAT FOR LOCATION AND SIZE OF EASEMENTS.
10. MAINTENANCE AND UPKEEP OF THE COMMON GROUND AREA SHALL BE THE RESPONSIBILITY OF THE DEVELOPER AND/OR SUCCESSORS.
11. ALL WATER LINES SHALL BE LAID AT LEAST 10 FEET HORIZONTALLY, FROM ANY SANITARY SEWER, STORM SEWER, OR MANHOLE. 18" VERTICAL CLEARANCE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE SHALL BE MAINTAINED WHEREVER WATER LINES MUST CROSS SANITARY SEWERS, LATERALS, OR STORM DRAINS THE WATER LINE SHALL BE LAID AT SUCH AN ELEVATION THAT THE BOTTOM OF THE WATER LINE IS ABOVE THE TOP OF THE DRAIN OR SEWER A FULL LENGTH OF WATER PIPE SHALL BE CENTERED OVER THE SEWER LINE TO BE CROSSED SO THAT THE JOINTS WILL BE EQUALLY DISTANT FROM THE SEWER AND AS REMOTE THEREFROM AS POSSIBLE. THIS VERTICAL SEPARATION SHALL BE MAINTAINED FOR THAT PORTION OF THE WATER LINE LOCATED WITHIN 10 FEET HORIZONTALLY, OF ANY SEWER OR DRAIN IT CROSSES.
12. ALL PVC WATER PIPE SHALL CONFORM TO A.S.T.M.-D-2241, SDR 21 STANDARD SPECIFICATION FOR P.V.C. PRESSURE PIPE, 200 P.S.I. WORKING PRESSURE FOR WATER, WITH APPROVED JOINT.
13. WATER LINES, VALVES, SLEEVES, METERS, AND FITTINGS SHALL MEET ALL SPECIFICATIONS AND INSTALLATION REQUIREMENTS OF THE CITY OF O'FALLON.
14. ALL WATER HYDRANTS AND VALVES SHALL BE DUCTILE IRON AND INSTALLED IN ACCORDANCE WITH PLANS AND DETAILS. ALL DUCTILE IRON PIPE FOR WATER MAINS SHALL CONFORM TO A.W.W.A. SPECIFICATIONS C-106 AND/OR C-108. THE DUCTILE IRON FITTINGS SHALL CONFORM TO A.W.W.A. SPECIFICATION CC-110. ALL RUBBER GASKET JOINTS FOR WATER DUCTILE IRON PRESSURE PIPE AND FITTINGS SHALL CONFORM TO A.W.W.A. SPECIFICATION C-111.
15. ALL SANITARY MANHOLES SHALL BE WATERPROOFED ON THE EXTERIOR IN ACCORDANCE WITH MISSOURI DEPARTMENT OF NATURAL RESOURCES SPECIFICATIONS 10 CSR-8.120 (7)E.
16. BRICK WILL NOT BE USED IN THE CONSTRUCTION OF SANITARY SEWER MANHOLES.
17. ALL PIPES SHALL HAVE POSITIVE DRAINAGE THROUGH MANHOLES. NO FLAT BASE STRUCTURES ARE ALLOWED.
18. THE CITY OF O'FALLON SHALL BE NOTIFIED 48 HOURS PRIOR TO CONSTRUCTION FOR COORDINATION AND INSPECTION.
19. GAS, WATER AND OTHER UNDERGROUND UTILITIES SHALL NOT CONFLICT WITH THE DEPTH OR HORIZONTAL LOCATION OF EXISTING OR PROPOSED SANITARY OR STORM SEWERS, INCLUDING HOUSE LATERALS.
20. ALL EXISTING SITE IMPROVEMENTS DISTURBED, DAMAGED OR DESTROYED SHALL BE REPAIRED OR REPLACED TO CLOSELY MATCH PRE-CONSTRUCTION CONDITIONS.
21. THE CONTRACTOR SHALL PREVENT ALL STORM, SURFACE WATER, MUD AND CONSTRUCTION DEBRIS FROM ENTERING THE EXISTING SANITARY SEWER SYSTEM.
22. ALL CONSTRUCTION AND MATERIALS SHALL CONFORM TO THE CURRENT CONSTRUCTION STANDARDS OF THE CITY OF O'FALLON.
23. ALL SANITARY AND STORM SEWER TRENCH BACKFILLS SHALL BE WATER JETTED. GRANULAR BACKFILL WILL BE USED UNDER PAVEMENT AREAS.
24. ALL EXISTING AREAS DISTURBED DURING CONSTRUCTION OF THE OFF-SITE SANITARY SEWER LINE SHALL BE SEEDED AND MULCHED TO PREVENT EROSION.
25. ALL SANITARY SEWER LATERALS SHALL BE A MINIMUM OF 4" IN DIAMETER PER CITY OF O'FALLON.
26. ALL STORM INLETS MUST BE INSTALLED WITH A 5/8" TRASH BAR ACROSS THE OPENING.
27. CONCRETE PIPE FOR STORM SEWERS SHALL BE CLASS III, A.S.T.M. C-76 WITH A MINIMUM DIAMETER OF 12" EXCEPT IN THE R.O.W. IT SHALL BE 15".
28. CONCRETE PIPE JOINTS SHALL BE MSD TYPE "A" APPROVED COMPRESSION-TYPE JOINTS AND SHALL CONFORM TO THE REQUIREMENTS OF THE SPECIFICATIONS FOR JOINTS FOR CIRCULAR CONCRETE SEWER AND CULVERT PIPE, USING FLEXIBLE, WATERTIGHT, RUBBER-TYPE GASKETS (A.S.T.M.-C-443). BAND-TYPE GASKETS DEPENDING ENTIRELY ON CEMENT FOR ADHESION AND RESISTANCE TO DISPLACEMENT DURING JOINTING SHALL NOT BE USED.
29. ALL FLARED END SECTIONS AND INLET STRUCTURES WILL BE CONCRETE.
30. ALL STORM SEWER PIPE INSTALLED IN THE PUBLIC RIGHT-OF-WAY SHALL BE REINFORCED CONCRETE CLASS III PIPE.
31. ALL CONCRETE PIPE SHALL BE INSTALLED WITH "O-RING" RUBBER TYPE GASKETS PER M.S.D. STANDARD CONSTRUCTION SPECIFICATIONS OR MANUFACTURER.
32. BLOW-OFF HYDRANTS AND WATER METERS SHALL NOT BE LOCATED IN ANY PAVEMENT OR HARD SURFACED AREA INCLUDING, BUT NOT LIMITED TO, DRIVEWAYS, SIDEWALKS, AND STREETS. SINCE THE LOCATION OF ALL SUCH AREAS IS NOT SHOWN ON THIS PLAN ALL COSTS TO RELOCATE ANY BLOW-OFF HYDRANTS AND WATER METERS FROM ANY PAVEMENT OR HARD SURFACED AREAS SHALL BE BORNE BY THE DEVELOPER OR THE BUILDERS.
33. ALL CREEK CROSSINGS SHALL BE GROUTED RIP-RAP AS DIRECTED BY DISTRICT INSPECTORS. (ALL GROUT SHALL BE HIGH SLUMP READY-MIX CONCRETE.)
34. EXISTING SANITARY SEWER SERVICE SHALL NOT BE INTERRUPTED.
35. PRE-MANUFACTURED ADAPTERS SHALL BE USED AT ALL PVC TO DIP CONNECTIONS. RUBBER BOOT/MISSION-TYPE COUPLINGS WILL NOT BE ALLOWED.
36. ALL UTILITIES SHALL BE LOCATED UNDERGROUND.
37. "ALL FILL PLACED UNDER PROPOSED STORM AND SANITARY SEWER, PROPOSED ROADS, AND/OR PAVED AREAS SHALL BE COMPACTED TO 90% OF MAXIMUM DENSITY AS DETERMINED BY THE MODIFIED AASHTO T-180 COMPACTION TEST OF 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 BACKFILL OPERATIONS."
38. STORM AND SANITARY SEWER PIPE PLACE AT LESS THAN 1% SLOPE SHALL HAVE FIELD VERIFICATION OF PIPE SLOPE BEFORE BACKFILLING.
39. ANY PERMITS, LICENSES, EASEMENTS, OR APPROVALS REQUIRED TO WORK ON PUBLIC OR PRIVATE PROPERTIES OR ROADWAYS ARE THE RESPONSIBILITY OF THE DEVELOPER.
40. NO SLOPES SHALL EXCEED X(H):1(V).
41. DRIVEWAY LOCATIONS SHALL NOT INTERFERE WITH THE SIDEWALK CURB RAMPS.

A SET OF ASBUILT PLANS FOR

KOCH ROAD RELOCATION

CITY OF O'FALLON, MISSOURI

A TRACT OF LAND BEING PART OF FRACTIONAL SECTION 17, TOWNSHIP 47 NORTH, RANGE 3 EAST OF THE FIFTH PRINCIPAL MERIDIAN, ST. CHARLES COUNTY, MISSOURI



LOCATION MAP
NOT TO SCALE

GENERAL NOTES (CONT.)

42. CITY APPROVAL OF THE CONSTRUCTION PLANS DOES NOT MEAN THAT SINGLE FAMILY DWELLING UNITS CAN BE CONSTRUCTED ON LOTS WITHOUT MEETING THE MINIMUM BUILDING SETBACKS AS REQUIRED BY THE ZONING CODE.
43. SIDEWALKS AND SIDEWALK CURB RAMPS SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE CURRENT APPROVED "AMERICANS WITH DISABILITIES ACT ACCESSIBILITY GUIDELINES" (A.D.A.A.G.). IF ANY CONFLICT OCCURS BETWEEN THE ABOVE INFORMATION AND THE PLANS THE A.D.A.A.G. SHALL TAKE PRECEDENCE AND THE CONTRACTOR PRIOR TO ANY CONSTRUCTION SHALL NOTIFY THE PROJECT ENGINEER.
44. 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. THE CONTRACTORS 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 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 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 CITY OF O'FALLON AND/OR MODOT.
45. ONLY WYES ARE TO BE USED FOR LATERAL CONNECTION TO SANITARY MAINS. TEES MAY BE USED ONLY IF APPROVED BY THE CITY OF O'FALLON.
46. ALL PAVING TO BE IN ACCORDANCE WITH ST. CHARLES COUNTY STANDARDS AND SPECIFICATIONS EXCEPT AS MODIFIED BY THE CITY OF O'FALLON ORDINANCES.
47. ALL SIGN POST, BACKS, BRACKET ARMS, STREET SIGNS AND TRAFFIC SIGNALS SHALL BE PAINTED BLACK USING CARBOLINE RUSTBOND PENETRATING SEALER SG AND CARBOLINE 133 HB PAINT (OR EQUIVALENT AS APPROVED BY THE CITY OF O'FALLON AND/OR MODOT.)
48. DESIGN CRITERIA:

CREST VERTICAL CURVE	K=55
SAG VERTICAL CURVE	K=50
MINIMUM RADIUS	R=350.0'
MAXIMUM SLOPE	8.00%
MINIMUM SLOPE	1.00%
DESIGN SPEED	35 M.P.H.

49. ALL STEEL CASING PIPE SHALL BE MIN. 24" DIA. WITH A MIN. THICKNESS OF 0.281 INCHES AND MEET REQUIREMENTS OF ASTM A139.
50. SILTATION CONTROL SHALL BE PER APPROVED GRADING PLANS BY BAX ENGINEERING FOR VILLAGES D, E, AND F OF THE HYLAND GREEN DEVELOPMENT AND APPROVED GRADING PLANS OF THE COMMERCIAL AND RECREATIONAL AREAS ADJACENT TO KOCH ROAD OF THE HYLAND GREEN DEVELOPMENT.

VEGETATIVE ESTABLISHMENT
FOR URBAN DEVELOPMENT SITES
APPENDIX A

SEEDING RATES:
PERMANENT:
TALL FESCUE – 80 LBS./AC.
SMOOTH BROME – 100 LBS./AC.
COMBINED FESCUE @ 150 LBS./AC. AND BROME @ 100 LBS./AC.

TEMPORARY:
WHEAT OR RYE – 90/120 LBS./AC. (2.0/2.5 LBS. PER 1000 SQUARE FEET)
OATS – 80 LBS./AC. (2 LBS. PER 1000 SQUARE FEET)

SEEDING PERIODS:
FESCUE OR BROME – FEBRUARY 1 – JUNE 1, AUGUST 1 – NOVEMBER 1

WHEAT OR RYE – JANUARY 1 –JUNE 1, JULY 15 – NOVEMBER 15
OATS – FEBRUARY 1 – JUNE 1, AUGUST 1 – OCTOBER 1

MULCH RATES: 70–115 LBS. PER 1,000 SQ. FEET (3,000–5,000 LBS. PER ACRE)

FERTILIZER RATES: NITROGEN 30 LBS./AC.
PHOSPHATE 60 LBS./AC.
POTASSIUM 30 LBS./AC.
LIME 600 LBS./AC. ENM*

* ENM = EFFECTIVE NEUTRALIZING MATERIAL AS PER STATE EVALUATION OF QUARRIED ROCK.

CALL BEFORE YOU DIG! 1-800-DIG-RITE

INDEX OF SHEETS

DEVELOPMENT NOTES

1. DEVELOPER/OWNER: HYLAND GREEN L.L.C.
248 CAMELOT
ST. CHARLES, MO 63304
2. THIS TRACT IS IN AND SERVED BY:
CITY OF O'FALLON SEWER
CITY OF O'FALLON WATER
AMEREN UE
CENTURYTEL
LACLEDE GAS COMPANY
O'FALLON FIRE PROTECTION DISTRICT
FORT ZUMWALT SCHOOL DISTRICT
O'FALLON POST OFFICE
3. A PORTION OF THIS SITE IS IN THE 100 YEAR FLOOD AS SHOWN ON FIRM MAP PANEL NUMBER 29183C0230F DATED MARCH 17, 2003.
4. THE PROPOSED DEVELOPER SHALL OBTAIN ALL NECESSARY PERMITS AND APPROVALS FROM THE DEPT. OF NATURAL RESOURCES, THE ARMY CORPS OF ENGINEERS, CITY OF O'FALLON AND ST. CHARLES COUNTY.
5. OVERHEAD ELECTRIC WITHIN THE AREA OF KOCH ROAD THAT IS TO BE VACATED WILL BE PLACED UNDERGROUND.

LEGEND

SCI	SINGLE CURB INLET
DCI	DOUBLE CURB INLET
AI	AREA INLET
MH	MANHOLE
FE	FLARED END SECTION
EP	END PIPE
CP	CONCRETE PIPE
RCP	REINFORCED CONCRETE PIPE
CMP	CORRUGATED METAL PIPE
CPP	CORRUGATED PLASTIC PIPE
PVC	POLY VINYL CHLORIDE (PLASTIC)
CO	CLEAN OUT
A.T.G.	ADJUST TO GRADE
T.B.R.	TO BE REMOVED
T.B.REL.	TO BE RELOCATED
T.B.R.&R.	TO BE REMOVED AND REPLACED
T.B.R.&REL.	TO BE REMOVED AND RELOCATED
U.I.P.	USE IN PLACE
TCE	TEMPORARY CONSTRUCTION EASEMENT
PDE	PERMANENT DRAINAGE EASEMENT
	SLOPE LIMITS
	EXIST. DRAINAGE SWALE
	STORM SEWER
	NEW DRAINAGE SWALE

SEWER MEASUREMENTS & STREET CERTIFICATION

THE EXISTING SEWER LENGTHS, SIZES, FLOWLINES, DEPTHS OF STRUCTURES AND SEWERS AND LOCATIONS WITH RESPECT TO EXISTING OR PROPOSED EASEMENTS HAVE BEEN MEASURED. THE RESULTS OF THOSE MEASUREMENTS ARE SHOWN ON THIS SET OF FINAL MEASUREMENT PLANS.

ALL STREETS PER SAID ASBUILT MEASUREMENTS ARE CONSTRUCTED WITHIN THE PUBLIC DEDICATED RIGHT-OF-WAYS AND THE STREET ELEVATIONS ARE BUILT IN ACCORDANCE WITH THE SITE DEVELOPMENT PLANS.

ALL PUBLIC SEWERS ARE LOCATED WITHIN DESIGNATED EXISTING OR PROPOSED EASEMENTS EXCEPT AS FOLLOWS:

SIGNED:
P.E./L.S.

STATE OF MISSOURI
DARREL W. OAKLEY
NUMBER LS-2265
REGISTERED LAND SURVEYOR

5/23/07
DATE

ASBUILTS ADDED MARCH, 2007

PREPARED FOR:
HYLAND GREEN L.L.C.
21 JASON COURT
ST. CHARLES, MISSOURI 63304
636-300-9255

A SET OF AS-BUILT PLANS FOR
KOCH ROAD RELOCATION

DISCLAIMER OF RESPONSIBILITY
I hereby specify that the documents intended to be authenticated by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other Drawings, Specifications, Estimates, Reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.

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REVISIONS

4-19-07	City Comments
5-17-07	City Comments

BAX
ENGINEERING
PLANNING
SURVEYING
221 Point West Blvd.
St. Charles, MO 63301
636-928-5552
FAX 928-1718

3-30-07
DATE

98-10293D
PROJECT NUMBER

1 OF 5
SHEET OF

10293D-ASB
FILE NAME

SAZ
DRAWN

DRO
DESIGNED CHECKED

Koch Rd Relocation As builts 1/5

ASBUILT SITE PLAN FOR

KOCH ROAD RELOCATION

98-10293D 3-30-07

KOCH ROAD

KOCH (60'W.) ROAD

EX. 10'W. ESMTS. P.B.43 PG. 170

EX. 10'W. ESMT. P.B.43 PG. 170

NOTE:
THIS SECTION OF PIPE AND FLARED END TO BE CONSTRUCTED IN THE FUTURE AS PART OF HWY. P IMPROVEMENT PLANS

PROPERTY N/F
HYLAND GREEN, L.L.C.
(TRACT 3)
3847/904

GRAPHIC SCALE
(IN FEET)
1 inch = 30 ft.

RIP RAP ASBUILT

PROPOSED COMMON GROUND RECREATIONAL AREA

WOODGROVE PARK

ROXBURY DRIVE

EX. ESMT. P.B.42 PGS.51-53

HYLAND GREEN
PLAT THREE
P.B.42 PGS.51-53

EX. 10'W. ESMT. P.B.42 PGS.51-53

PROPOSED
HYLAND GREEN
PLAT SIX
P.B.43 PGS.176-177

EX. 10'W. ESMTS. P.B.43 PG. 170

TOWER PLACE

FUTURE DEVELOPMENT
HYLAND GREEN
VILLAGE 'F'

PROPERTY N/F
HYLAND GREEN, L.L.C.
(TRACT 2)
3847/904

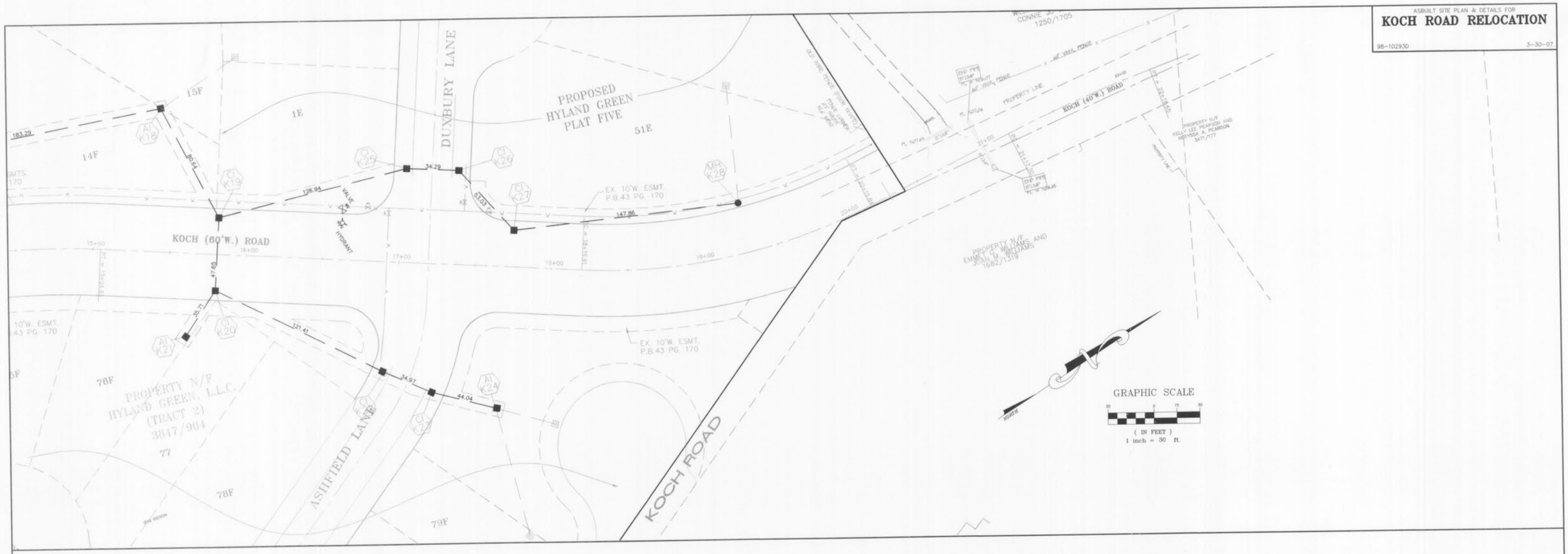
ASBUILTS ADDED MARCH, 2007

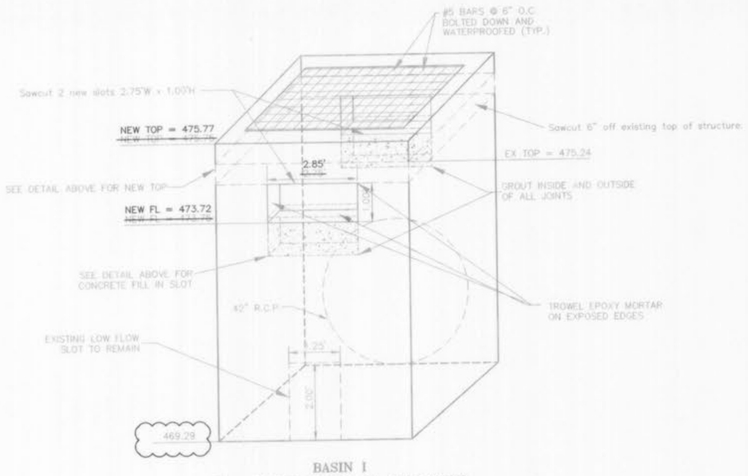
Koch Rd Relocation As builts 2/6

ASBUILT SITE PLAN & DETAILS FOR

KOCH ROAD RELOCATION

98-10293D 3-30-07





BASIN I

5' x 6' BOX OVERFLOW STRUCTURE

N.T.S.

MODIFIED 1-23-07

BOX CULVERT PROFILE

SCALE: 1"=5' VERTICAL
1"=20' HORIZONTAL

STATE OF MISSOURI
DARREL R. OAKLEY
LS-2289
LICENSED LAND SURVEYOR

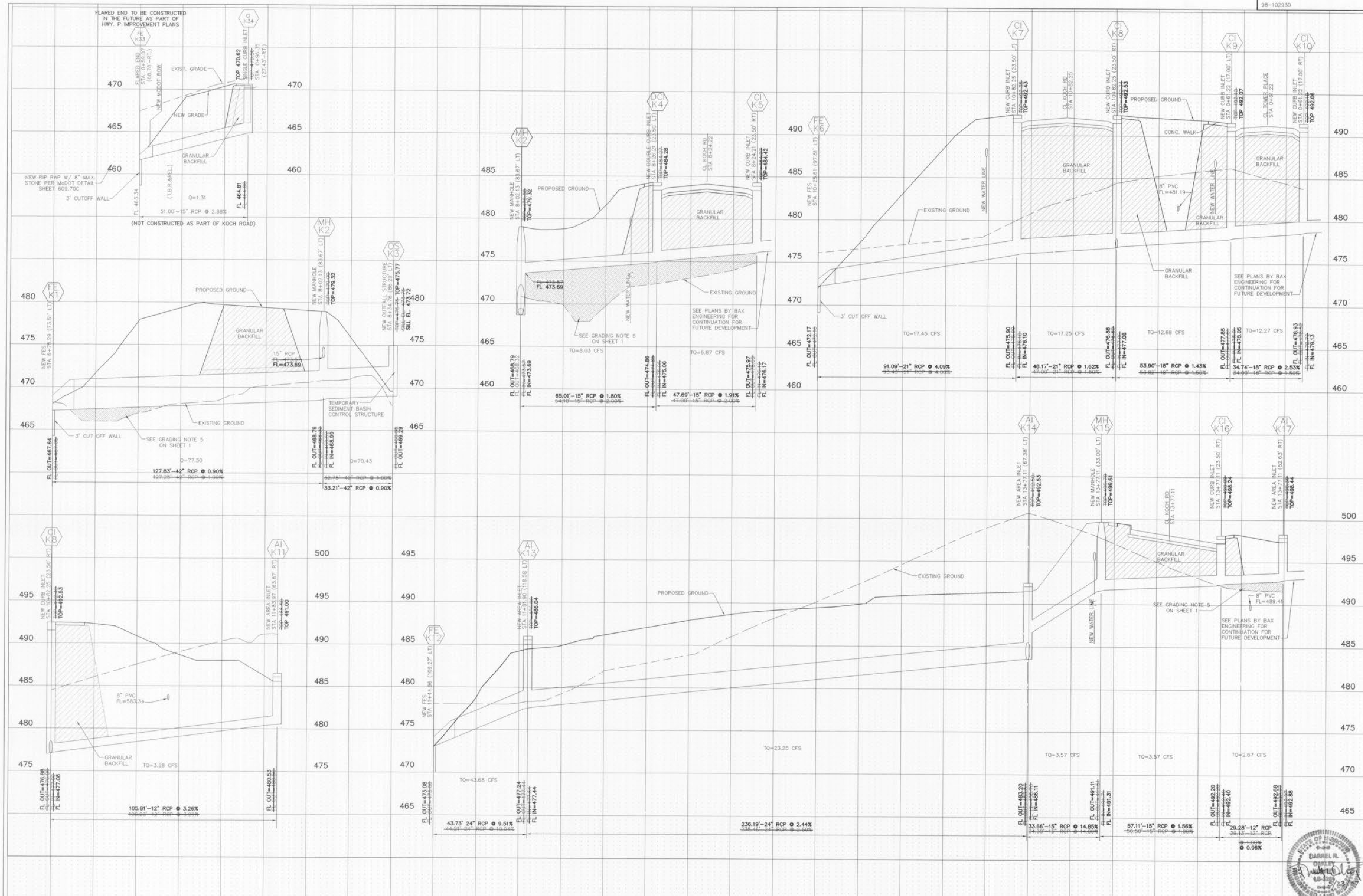
ASBUILTS ADDED MARCH, 2007

UNDERGROUND UTILITIES HAVE BEEN PLOTTED FROM AVAILABLE INFORMATION AND THEREFORE THEIR LOCATIONS 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 THE IMPROVEMENTS.

Koch Rd Relocation As builts 3/5

ASBUILT PROFILES FOR
KOCH ROAD RELOCATION

98-10293D 3-30-07



ASBUILTS ADDED MARCH, 2007

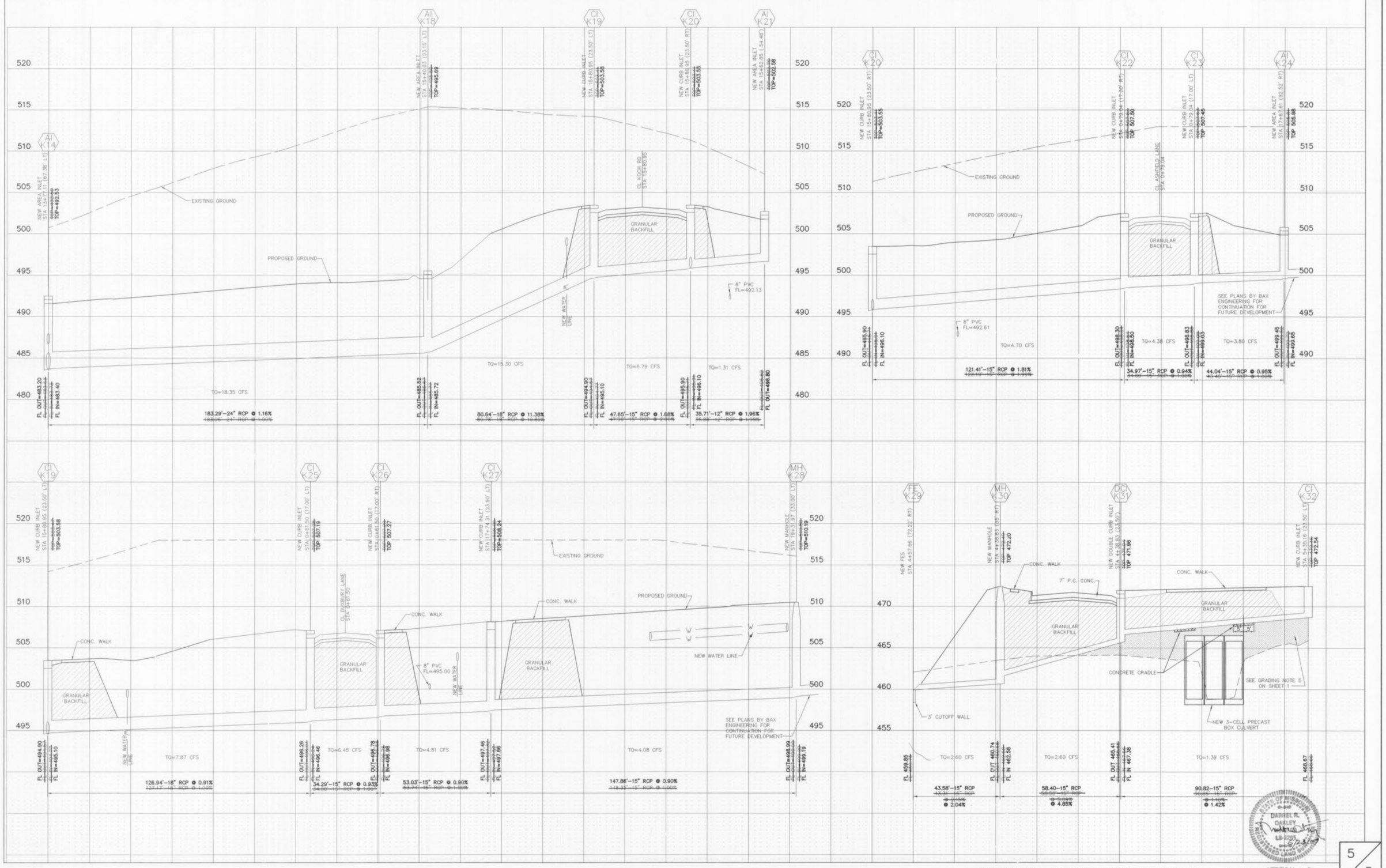
SCALE: VERTICAL = 5 HORIZONTAL = 25

Koch Rd Relocation As builts 4/5

ASBUILT PROFILES FOR

KOCH ROAD RELOCATION

98-10293D 3-30-07



STATE OF MISSOURI
DARREL R. OAKLEY
LS-2265
REGISTERED LAND SURVEYOR

ASBUILTS ADDED MARCH, 2007

SCALE: VERTICAL = 5
HORIZONTAL = 25

5/5

Koch Rd Relocation As builts 5/5