A SET OF AS-BUILT PLANS FOR

CROSSROADS ELEMENTARY SCHOOL

A TRACT OF LAND BEING PART OF FRACTIONAL SECTION 12, TOWNSHIP 46 NORTH, RANGE 2 EAST OF THE FIFTH PRINCIPAL MERIDIAN ST. CHARLES COUNTY, MISSOURI

LOCATION MAP

NOT TO SCALE

PRINCIPLES & STANDARDS:

1. All excavations, grading, or filling shall have a finished grade not to exceed a 3:1 slope (33 %). Steeper grades may be approved by the designated official if the excavation is through rock or the excavation or the fill is adequately protected (a designed head wall or toe wall may be required). Retaining walls that exceed a height of four (4) feet shall require the construction of safety guards as identified in the appropriate section(s) of the adopted BOCA Codes and must be approved by the Building Department. Permanent safety guards will be constructed in accordance with the appropriate section(s) of the adopted BOCA Codes.

2. Sediment and erosion control plans for sites that exceed 20,000 square feet of grading shall provide for sediment or debris basins, silt traps or filters, staked straw bales or other approved measures to remove sediment from run-off waters. The design to be approved by the Designated Official. Temporary siltation control measures (structural) shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.

3. Where natural vegetation is removed during grading, vegetation shall be reestablished in such a density as to prevent erosion. Permanent type grasses shall be established as soon as possible during the next seeding period after grading has been completed.

4. When grading operations are completed or suspended for more than 14 days permanent grass must be established at sufficient density to provide erosion control on the site. Between permanent grass seeding periods, temporary cover shall be provided according to the City Engineer's recommendations. All finished grades (areas not to be disturbed by future improvement) in excess of 20% slopes (5:1) shall be mulched and tacked at the rate of 100 pounds per 1,000 square feet when seeded.

5. Provisions shall be made to accommodate the increased runoff caused by changed soils and surface conditions during and after grading. Unvegetated open channels shall be designed so that gradients result in velocities of 2 fps (feet per second) or less. Open channels with velocities more than 2 fps and less that 5 fps shall be established in permanent vegetation by use of commercial erosion control blankets or lined with rock rip rap or concrete or other suitable materials as approved by the City Engineer. Detention basins, diversions, or other appropriate structures shall be constructed to prevent velocities above 5 fps.

6. The adjoining ground to development sites (lots) shall be provided with protection from accelerated and increased surface water, silt from erosion, and any other consequence of erosion. Run-off water from developed areas (parking lots, paved sites and buildings) above the area to be developed shall be directed to diversions, detention basins, concrete gutters and/or underground outlet systems. Sufficiently anchored straw bales may be temporarily substituted with the approval of the City Engineer.

7. Development along natural watercourses shall have residential lot lines, commercial or industrial improvements, parking areas or driveways set back a minimum of 25 feet from the top of the existing stream bank. The watercourse shall be maintained and made the responsibility of the subdivision trustees or in the case of a site plan by the property owner. Permanent vegetation should be left intact. Variances will include designed stream bank erosion control measures and shall be approved by the City Engineer. FEMA and U.S. Army Corps of Engineers guidelines shall be followed where applicable regarding site development areas designated as flood plains and wetlands.

8. All disturbed areas shall be seeded and mulched at the minimum rates defined in Appendix A or sodded upon completion of hauling topsoil onsite and compaction.

VEGETATIVE ESTABLISHMENT
For Urban Development Sites
APPENDIX A

Seeding Rates:

Permanent:
Tall Fescue – 80 lbs./ac.
Smooth Brome – 100 lbs./ac.
Combined Fescue @ 40 lbs./ac. and Brome @ 50 lbs./ac.

Temporary:
Wheat or Rye – 150 lbs./ac. (3.5 lbs. per 1,000 square foot)
Oats – 120 lbs./ac. (2.75 lbs. per 1,000 square foot)

Seeding Periods:
Fescue or Brome – March 1 to June 1
August 1 to October 1
Wheat or Rye – March 15 to November 1
Oats – March 15 to September 15

Mulch Rates:
100 lbs. per 1,000 sq. feet (4,356 lbs. per acre)

Fertilizer Rates:
Nitrogen 30 lbs./ac.
Phosphate 30 lbs./ac.
Potassium 30 lbs./ac.
Lime 600 lbs./ac. ENM*
* ENM = effective neutralizing material as per State evaluation of quarried rock.

STANDARD SYMBOLS & ABBREVIATIONS

TREE OR BUSH	
LIGHT POLE	
SANITARY SEWER & MANHOLE	
STORM SEWER & INLET	
MAILBOX	
ELECTRIC LINE	—E—
GAS LINE	—G—
WATER LINE	—W—
TELEPHONE LINE	—T—
CABLE TV LINE	—CATV—
OVERHEAD WIRE	—OHW—
UTILITY POLE	
UTILITY POLE W/ DOWN GUY	
FIRE HYDRANT	
WATER VALVE	WV
WATER METER	WM
GAS VALVE	GV
T.B.R.	TO BE REMOVED
T.B.R.&R	TO BE REMOVED AND RELOCATED

O'FALLON 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 filled places under proposed storm and sanitary sewer, proposed roads, and/or paved areas shall be compacted to 90% of the 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 tests shall be verified by a soils engineer concurrent with grading and backfilling operations. All filled places in proposed roads shall be compacted from the bottom up. All test shall be verified by a soil engineer concurrent with grading and backfilling operations. Ensure the moisture content of the soil in the 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.

3. No area shall be cleared without the permission of the Project Engineer.

4. The City of O'Fallon shall be notified 48 hours prior to construction for coordination and inspection.

5. All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match pre-construction conditions.

6. All construction and materials shall conform to the current construction standards of the City of O'Fallon.

7. Any permits, licenses, easements, or approvals required to work on public or private properties or roadways are the responsibility of the developer.

8. No slopes shall exceed 3(Horizontal) : 1(Vertical).

9. 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 silts or mud on new or existing pavement shall be removed immediately . Any depositing of silts or mud 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.

10. Erosion control systems 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 streams and adjacent roadways, properties and ditches.

11. Developer must supply City Construction inspectors with soil reports prior to or during site soil testing. The soil report will be required to contain the following information on soil test curves (Proctor reports) for projects within the City:
1. Maximum dry density
2. Optimum moisture content
3. Maximum and minimum allowable moisture content
4. Curve must be plotted to show density from a minimum of 90% Compaction and above as determined by the "Modified AASHTO T-180 Compaction Test" (A.S.T.M.-D-1157) or from a minimum of 95% as determined by the "Standard Proctor Test ASSHTO T-99, Method C" (A.S.T.M.-D-698). Proctor type must be designated on document.
5. Curve must have at least 5 density points with moisture content and sample locations listed on document.
6. Specific gravity.
7. Natural moisture content.
8. Liquid limit.
9. Plastic limit.
Be advised that if this information is not provided to the City's Construction Inspector the City will not allow grading or construction activities to proceed on any project site.

12. Trees, organic debris, rubble, foundations and other deleterious material shall be removed for the site and disposed in compliance with all applicable laws and regulations. Landfill tickets for such disposal shall be maintained on file by the developer. Burning on site shall be allowed only be permit from the local fire district. If a burn pit is proposed the location and mitigation shall be shown on the grading plan and documented by the soils engineer.

13. All erosion control systems are to be inspected and corrected weekly, especially within 48 hours of any rainstorm resulting in one-half inch of rain or more. Any silt or debris leaving the site and affecting public rights-of-ways or storm water drainage facilities shall be cleaned up within 24 hours after the end of the storm.

14. All graded areas that are to remain bare for over 2 weeks shall be seeded and mulched per DNR requirements. Vegetative growth shall be established within six weeks of grading work being stopped or completed in any area. Vegetative growth shall be sufficient to prevent erosion (70% coverage per square foot) as required by MDNR and EPA.(Ordinance #5242-Section 405.070)

15. Construction hours shall be as follows per Section 500.430 of the City of O'Fallon Municipal Code.

October 1-May 31: 7am to 7pm Monday Thru Sunday

June 1- September 30: 6am to 8pm Monday Thru Friday
7am to 8pm Saturday & Sunday

16. All siltation control devices shall follow St. Charles County Soil and Water Conservation District Erosion and Sediment Control guidelines.

17. Pipe joints shall be gasketed O-ring type.

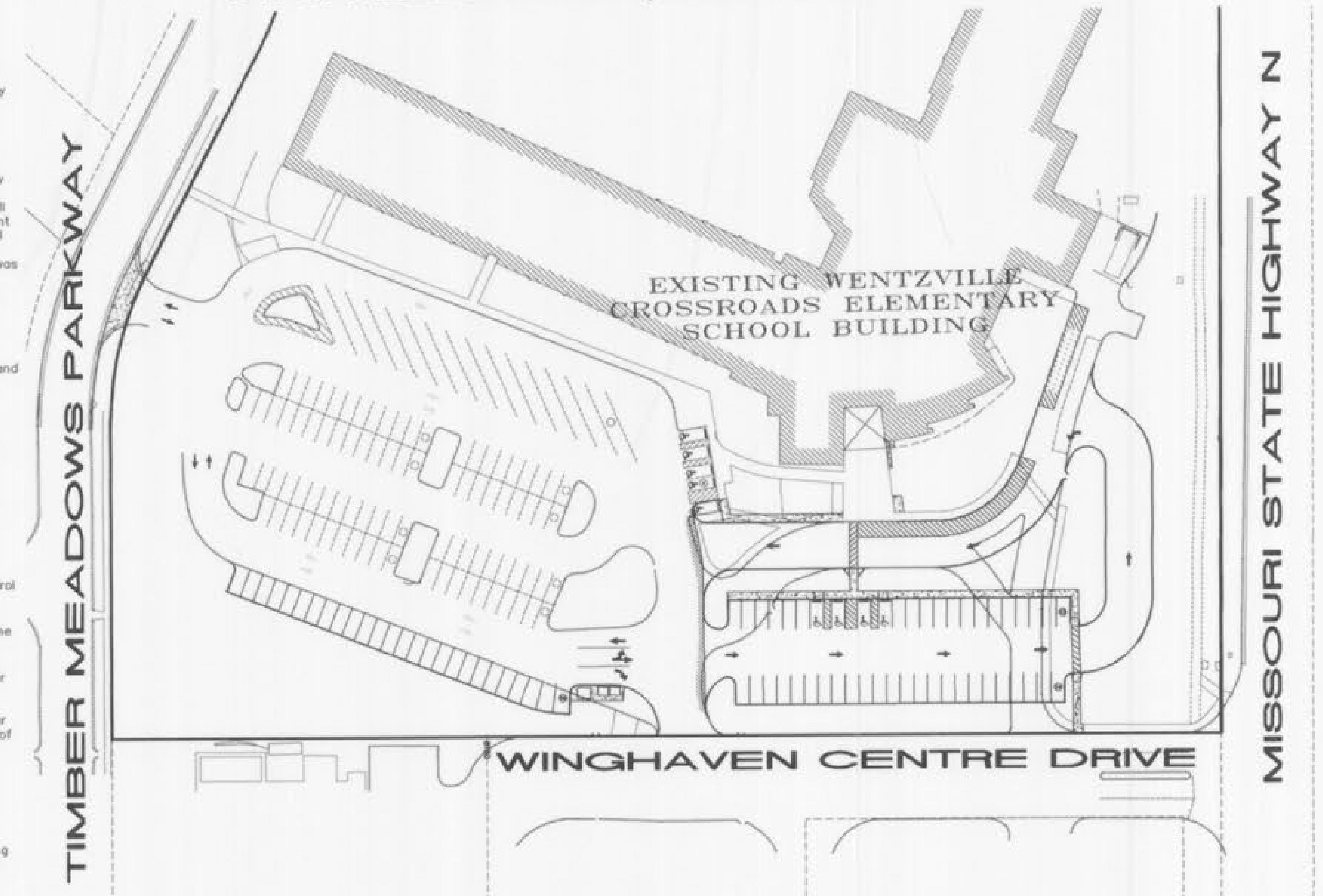
18. Connection at all sanitary or storm structure to be made with A-lock joint or equal.

~~19. All sign post and backs and bracket arms shall be painted black using Carboline Rustbond Penetrating Sealer SG and Carboline 133 HB paint(or equivalent as approved by City and MoDOT). Signs designating street name shall be on the opposite side of the street from traffic control signs.~~

20. Traffic control is to be per MoDOT or MUTCD whichever is more stringent.

21. Marking to be provided on storm sewer inlets. The City will allow the following markers and adhesive procedures only as shown in the table below. "Peel and Stick" adhesive pads will not be allowed.

Manufacturer	Size	Adhesive	Style	Message (Part #)	Website
ACP International	3 7/8"	Epoxy	Crystal Cap	No Dumping Drains To Waterways (SD-W-CC)	www.acpinternational.com
DAS Manufacturing, Inc.	4"	Epoxy	Standard	No Dumping Drains To Stream (#SDS)	www.dasmanufacturing.com



KEY MAP *NOT TO SCALE*

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 back filling 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. 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 for over two weeks without being seeded and mulched. Care should be exercised to prevent soil from damaging adjacent property and silting up existing downstream storm drainage system.

6. Any existing trash and debris currently on this property must be removed and disposed of off-site.

7. Soft soil in the bottom and banks of any existing or former pond 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 right-of-way locations or on storm sewer locations.

8. 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 unsuitable 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.

9. 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.

10. 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.

11. 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.

12. 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.

GRADING NOTES:

13. 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 4 percent above the optimum moisture control.

14. 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.

15. No slope shall be steeper than 3(Horizontal):1(Vertical). All slopes shall be sodded or seeded and mulched.

16. Any contaminated soil encountered during excavation shall be hauled and placed as directed by the owners environmental engineering representative.

ESTIMATED CONSTRUCTION & GRADING SCHEDULE

-INSTALL EROSION CONTROL 05/18/09 – 05/29/09
-PAVEMENT CONSTRUCTION 06/01/09 – 08/07/09
-FINISH GRADING, SEED AND MULCH 09/01/09 – 10/01/09

NOTE: DATES MAY VARY DUE TO INCLEMENT WEATHER.
A PERIOD OF ONE (1) YEAR FROM THE DATE OF THE PLANNING DEPARTMENT'S APPROVAL OF THE SITE PLAN IS PERMITTED. ANY COMPLETION DATE LONGER THAN THE ONE (1) YEAR PERIOD, OR AN EXTENSION OF THE TIME THEREOF, MUST BE REQUESTED IN WRITING BY THE DESIGN CONSULTANT AND APPROVED BY BOTH THE DIRECTOR OF PLANNING AND THE CITY ENGINEER.

U.S.G.S. BENCHMARK

REFERENCE BENCHMARK (USGS):
RM57 ELEV. 493.76
CHISELED SQUARE ON THE SOUTHWEST CORNER OF CONCRETE RETAINING WALL AT HENNING ROAD BRIDGE AT OLD DARDENNE CREEK.

SITE BENCHMARK: ELEV. 605.80
NORTHEAST CORNER CONCRETE WALL, LOCATED AT THE EAST ENTRANCE OF CROSSROADS ELEMENTARY SCHOOL ROUGHLY 2.0' EAST OF CONCRETE WALK

MISSOURI ONE CALL SYSTEM, INC. 1-800-344-7483 STOP! CALL BEFORE YOU DIG!

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

SHEET INDEX:

GENERAL NOTES:

1. Total Parcel: 14.58 Acres
Disturbed Area: 1.21 Acres

2. Existing Zoning: R-1 Single Family Residential (City of O'Fallon)

3. Current Use: Elementary School

4. The lot setbacks are as follows:
Minimum Front Yard: 25 feet
Minimum Side Yard: 6 feet
Minimum Rear Yard: 25 feet

5. Owner of property: Wentzville R-IV School District
1 Campus Drive
Wentzville, MO 63385

6. Parking Requirements:
2 Spaces Per Classroom Required
34 Classrooms;
34 x 2 = 68 Spaces Required

Existing Spaces = 92 (Including 4 existing Handicap Spaces)
Additional Proposed Spaces = 73 (Including 5 Handicap Spaces)

Total Spaces Provided = 165

Handicap spaces requires = 6
Handicap spaces provided = 9

Van Accessible spaces required = 1
Van Accessible spaces provided = 2

7. Bicycle Parking (@ 1 rack per 15 spaces, minimum 4-rack per individual building):
Total parking provided for School = 165 spaces
Total required bike spaces = 165/15 = 11 bicycle spaces required
Total bike spaces provided = 14 bicycle spaces

8. Stormwater detention shall occur through the global detention basin with the Winghaven Development.

9. Site Coverage:
Lot Area: 635,104 S.F. (14.58 Acres)
Building area including walks: 38,940 S.F. or 6.1%
Paved Area: 136,164 S.F. or 21.4%
Greenspace: 460,594 S.F. or 72.5%

10. Relocating 3 existing trees with this plan. No additional landscaping is required.

11. Site is served by:
AmerenUE Company 636-925-3235
Laclede Gas Company 636-946-0352
Duckett Creek Sanitary District 636-441-1244
Verizon/Century Telephone Company 636-332-7392
Wentzville Fire Department 636-332-5587
Public Water Supply Dist. No. 2 636-441-1244

NOTE: The City of O'fallon shall be contacted for utilities located under it's maintenance and responsibility.

12. According to the flood insurance rate map of the City of O'Fallon, Missouri, community panel number 29183C0240 E dated August 2, 1996 this property is within Zone X. Zone X is defined as an area outside the 500 year flood plain.

13. All paving to be in accordance with the St. Charles County standards and specifications except as modified by the City of O'Fallon Ordinances.

14. Sidewalks, curb ramps, ramp and accessible parking spaces shall be constructed in accordance with the current approved "American with Disabilities Act Accessibility Guidelines" (ADAAG) along with the required grades, construction materials, Specifications and signage. If any conflict occurs between the above information and the plans, the ADAAG guidelines shall take precedence and the Contractor prior to any construction shall notify the Project Engineer.

15. Brick shall not be used in the construction of sanitary or storm sewer structures.

16. All sign locations and sizes must be approved separately through the Planning Division.

17. All new utilities will be located underground.

18. No slopes shall be steeper that 3 (horizontal) to 1 (vertical.

19. All proposed fencing requires a separate permit through the Planning Division.

20. Lighting values will be reviewed on site prior to the final occupancy inspection. Corrections will need to be made if not in compliance with City standards.

21. All construction methods and practices to conform with OSHA Standards.

AS-BUILTS FOR SEWERS

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

SIGNED: ________
P.E./L.S.

STATE OF MISSOURI — DARREL R. OAKLEY — NUMBER LS-2265 — PROFESSIONAL LAND SURVEYOR

________ DATE

O'FALLON #9831
FEBRUARY 19, 2009

A SET OF AS-BUILT PLANS FOR CROSSROADS ELEMENTARY SCHOOL

PREPARED FOR:
WENTZVILLE R-IV SCHOOL DISTRICT
1 CAMPUS DRIVE
WENTZVILLE, MO 63385
636-327-3800

REVISIONS

11/02/09	CITY COMMENTS

ENGINEERING
PLANNING
SURVEYING

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

09-16-09
DATE

07-13985B
PROJECT NUMBER

1 OF 2
SHEET OF

13985BASB.DWG
FILE NAME

CLM
DRAWN

MGG DLB
DESIGNED CHECKED

BAX PROJECT NAME : CROSSROADS ELEMENTARY SCHOOL
BAX PROJECT NO. : 07-13985B
DESIGN DATE : 09-16-09

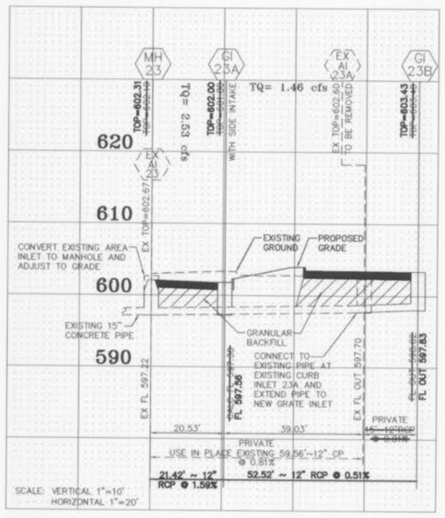
FILENAME: 13985B_ASB

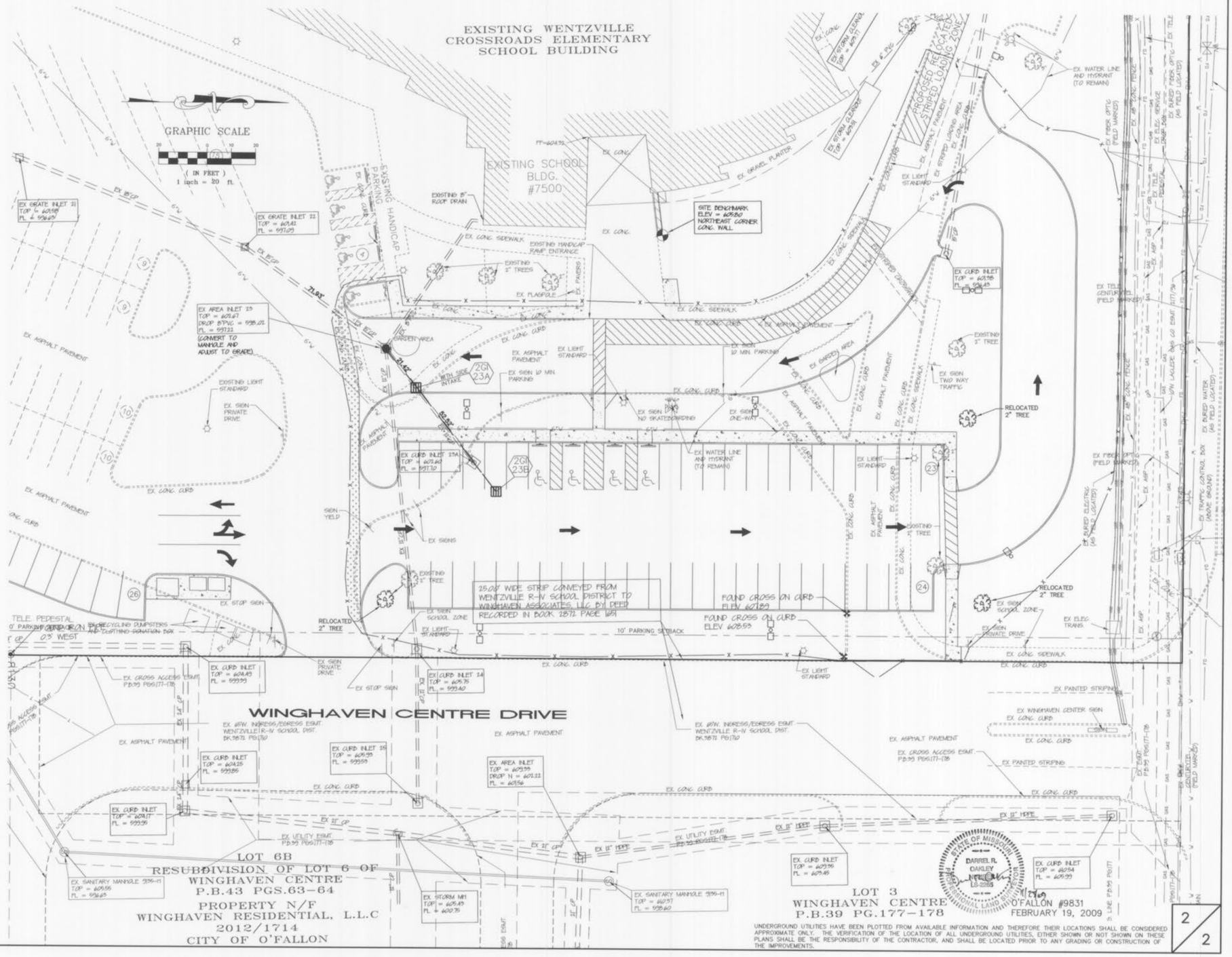
UPP STR	LOW STR	L	DIA	UPPER FL LN	LOWER FL LN	PS	UPPER ST EL	DEPTH HY GR	UPPER HY EL	LOWER HY EL	HYDR GRADE	FR HEAD	VEL	VEL HEAD	JUNC LOSS	TURN LOSS	CURVE LOSS	STR GRADE	INL CAP	DR AREA	PI	Q	TQ	PIPE CAP	REMARKS
GI23B	GI23A	53	12	597.83	597.56	0.50	603.43	3.55	599.88	599.74	.00170	0.09	1.86	0.05	0.05	0.00	0.00	LOW	3.40	0.47	3.42	1.46	1.46	2.99	1
GI23A	MH23	21	12	597.56	597.22	1.59	602.00	2.26	599.74	599.50	.00500	0.11	3.22	0.16	0.13	0.00	0.00	LOW	3.40	0.33	3.24	1.07	2.53	4.49	2
MH23	XG122	72	15	597.22	597.09	0.18	602.31	2.81	599.50	598.87	.00590	0.42	4.04	0.25	0.18	0.03	0.00	N/A	0.00	0.00	0.00	0.00	4.96	2.75	3
XG122	XG121	100	18	597.09	596.63	0.46	601.42	2.55	598.87	598.13	.00530	0.53	4.33	0.29	0.16	0.05	0.00	LOW	3.40	0.80	3.85	1.08	7.66	7.12	4

* INDICATES CRITICAL DEPTH

SITE-PLAN
CROSSROADS ELEMENTARY SCHOOL
07-13985B 09-16-09

AS-BUILTS ADDED SEPTEMBER 2009





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.