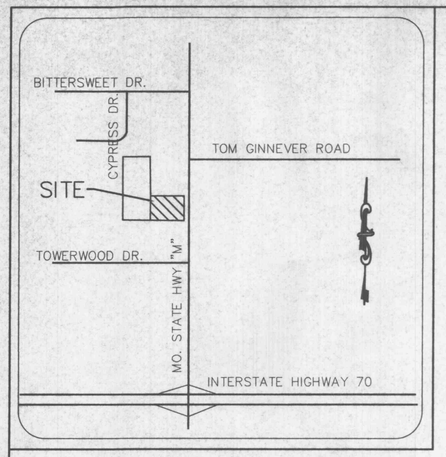
A SET OF CONSTRUCTION PLANS FOR
BLOCKBUSTER VIDEO
A TRACT OF LAND BEING PART OF
THE NORTHEAST QUARTER OF FRACTIONAL SECTION 20
TOWNSHIP 47 NORTH, RANGE 3 EAST
CITY OF O'FALLON, ST. CHARLES COUNTY, MISSOURI



LOCATION MAP
NOT TO SCALE

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 filled places, including trench backfills, under buildings, proposed storm and sanitary sewer lines and/or paved areas, shall be compacted to 90% as determined by the "Modified AASHTO T-180 Compaction Test," (A.S.T.M. D-1557). All filled places within public roadways shall be compacted to 95% of maximum density as determined by the "Standard Proctor Test AASHTO T-99, Method C" (A.S.T.M. D-698). All trench backfills under paved areas including sidewalks shall be granular fill. All other trench backfills may be earth material (free of large clods or stones).

3. No area shall be cleared without permission of the project engineer.

4. All grades shall be within 0.2 feet of those shown on the grading plan.

5. No slope shall be steeper than 3:1. All slopes shall be sodded or seeded and mulched.

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

7. All mechanical equipment to be screened from public view.

8. Proposed buildings will comply with current American Disability Act requirements.

9. See architectural drawings for all building dimensions, service connections, details, etc.

10. All utilities shown are existing unless otherwise noted. All new utilities shall be located underground.

11. All dimensions are to back of curb unless otherwise noted.

12. All construction methods and practices to conform with OSHA standards.

13. Minimum Tree Requirements per Zoning Ordinance:

Street Trees: 157 L.F. Frontage
1 Tree / 40 L.F. = 4 Trees

Additional Trees: 13,515 S.F. Open Space
1 Tree / 3,000 S.F. = 5 Trees

Total Trees Required: 9 Trees

14. Total Trees Proposed: 9 Trees (See Tree Inventory & Landscape Legend)

15. All outside trash containers, HVAC units, electric, telephone, and gas meters, satellite dishes, rooftop mechanical apparatus, and outdoor storage areas shall be thoroughly screened with materials and/or landscaping to conceal the visibility of such items from the view of right-of-way and/or adjacent properties as reviewed and approved by the Planning Divisions.

16. The developer shall comply with current Tree Preservation Ordinance Number 1689 and provide landscaping as set forth in Article 23 of the City of O'Fallon Zoning Ordinances.

17. The developer shall comply with Article 26 Performance Standards.

18. The developer shall conform with the current comprehensive plan for the City of O'Fallon.

LEGEND

—SAN—	-SANITARY LINE
—OHW—	-OVERHEAD UTILITY WIRES
Ⓓ	-STORM MANHOLE
	-SIGN
□	-AREA INLET (AI)
	-GUY WIRE
	-UTILITY POLE
◉	-IRON PIPE
Ⓢ	-SANITARY MANHOLE
☼	-LIGHT STANDARD
—UGT—	-UNDERGROUND TELEPHONE
—WTR—	-WATER LINE
—x—	-FENCE
Ⓣ	-TELEPHONE MANHOLE
GV	-GAS SHUTOFF VALVE

STORMWATER CALCULATIONS

PRE-DEVELOPED RUNOFF:
Paved/Building Area = 0.000 Acres
Green Space = 1.843 Acres
Q = 0.00(4.75) + 1.843(2.31)
Q = 4.26 C.F.S.

POST-DEVELOPED RUNOFF:
Paved/Building Area = 0.288 Acres
Green Space = 1.555 Acres
Q = 0.288(4.75) + 1.555(2.31)
Q = 4.96 C.F.S.

INCREASED RUNOFF:
Q = 4.96 - 4.26
Q = 0.70 C.F.S. (per 1.843 acres)
Q = 0.38 C.F.S./Acre
Increased runoff is less than 1.0 C.F.S./Acre, therefore no detention for this site is required.

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. 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 over the winter 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.

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 8 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. Fill and backfill should be compacted to the criteria specified in the following table:

16. All siltation control devices shall be inspected by the contractor after any rain of 1/2" or more with any appreciable accumulation of mud to be removed and siltation measures repaired where necessary.

CATEGORY	MINIMUM PERCENT COMPACTION
Fill in building areas below footings	95%
Fill under slabs, walks, and pavement	95%
Fill other than building areas	90%
Natural subgrade	90%
Pavement subgrade	90%
Pavement base course	90%

Measured as a percent of the maximum dry density as determined by Standard Proctor Test (ASTM-D-698).
Moisture content must be within 2 percent below or 4 percent above optimum moisture content if fill is deeper than 10 feet.

LANDSCAPE LEGEND

QTY. (10) ~ INDICATES PROPOSED EVERGREEN SHRUB (mugho pines, yews, junipers, hollies, boxwoods) EVERGREENS IN REAR PROPERTY AREA TO BE A MINIMUM OF SIX FEET TALL

QTY. (9) ~ INDICATES PROPOSED HARDWOOD TREE (ashes, oaks, maples, birches, sweet gum)

LANDSCAPING AS DEPICTED IS SUBJECT TO FINAL DESIGN BY A QUALIFIED LANDSCAPE DESIGNER

PRINCIPALS & 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 County 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 re-established 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 30 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 riprap 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 streambank 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 lots shall be seeded and mulched at the minimum rates defined in Appendix A or sodded before an occupancy permit shall be issued except that a temporary occupancy permit may be issued by the Building Department in cases of undue hardship because of unfavorable ground conditions.

VEGETATIVE ESTABLISHMENT
For Urban Development Sites
APPENDIX A

Seeding Rates:

Permanent:
Tall Fescue - 30 lbs./ac.
Smooth Brome - 20 lbs./ac.
Combined Fescue & 15 lbs./ac. and Brome & 10 lbs./ac.

Temporary:
Wheat or Rye - 150 lbs./ac. (3.5 lbs. per square foot)
Oats - 120 lbs./ac. (2.75 lbs. per 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.

DEVELOPMENT NOTES

1. Area of Tract: 0.599 Acres
2. Existing Zoning: C-2 General Business
3. Proposed Use: VIDEO STORE
4. Area of Building: 3,480 Sq.Ft.
5. The required height and building setbacks are as follows:
Minimum Front Yard: 25 feet
Minimum Side Yard: None
Minimum Rear Yard: None
Maximum Height of Building: 50 feet
6. Current Owner: Futura Properties
7750 Clayton Road, Suite 100
St. Louis, MO 63117
314-781-0500
7. Site is served by:
City of O'Fallon Sewer District
AmerenUE Electric Company
St. Charles Gas Company
City of O'Fallon Water
GTE Telephone Company
Fort Zumwalt School District
O'Fallon Fire Protection District
8. No Flood Plain exists on this tract per F.I.R.M. #29183 C 0230 E, dated Aug. 2, 1996
9. Topographic information is per Topographic Survey by BAX Engineering.
10. Parking Required:
Retail Shop (over 2,000 sq. ft.)
3,480 - 2,000 = 1,480/400 = 4 Spaces
4 + 10 = 14 Spaces

Total Parking Required: 14 Spaces
Total Parking Provided: 20 Spaces
Including 2 Handicap Space

11. Site coverage calculations:
Building: 3,480 Sq.Ft.
Pavement: 9,097 Sq.Ft.
Green Space: 13,515 Sq.Ft.

REFERENCE BENCH MARK:
(USGS) ELEVATION 542.88 F 149 1935
STANDARD TABLET LOCATED AT THE NORTHWEST CORNER INTERSECTION NORFOLK & WESTERN RAILROAD AND HIGHWAY "M" (MAIN STREET)

SITE BENCH MARK:
ELEVATION = 522.53 FEET
OLD IRON ROD AT THE NORTHEAST CORNER OF SUBJECT PROPERTY.

SHEET INDEX

1 COVER SHEET
2 SITE/GRADING PLAN
3 DRAINAGE AREA MAP
4 CONSTRUCTION DETAILS & PROFILES

St. Charles County
APPROVED
As Noted
MAY 11 2000
Chris Lumpkin

GRADING QUANTITY
524 cu.yds. Cut
524 cu.yds. Fill
0 cu.yds. Balance
(INCLUDES 15% SHRINKAGE)
The above yardage is an approximation only, NOT FOR BIDDING PURPOSES. Contractors shall verify quantities prior to construction.

PREPARED FOR:
FUTURA PROPERTIES
7750 CLAYTON ROAD, SUITE 100
ST. LOUIS, MO 63117
314-781-0500

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 work.

STATE OF MISSOURI
RICHARD L. ANKENS
NUMBER E-25051
PROFESSIONAL ENGINEER

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REVISIONS

02-10-00	CITY COMMENTS
03-02-00	CLIENT COMMENTS
04-06-00	WATERMAIN
04-17-00	CLIENT

BAX
ENGINEERING
PLANNING
SURVEYING
1052 South Cloverleaf Drive
St. Peters, MO. 63376-6445
314-928-5552
FAX 928-1718

01-06-00 DATE
99-10665A PROJECT NUMBER
1 OF 4 SHEET OF
10665ACON.DWG FILE NAME
JML DRAWN RLA CHECKED

\\Baxsrv\d-drive\dwg\ali050\plus\10665acon.dwg Mon Apr 17 15:30:49 2000 RLA