

A SET OF CONSTRUCTION PLANS FOR ADRIAN STEEL

A TRACT OF LAND BEING LOT 8A, 8B, AND 9A OF NORTH CENTRAL INDUSTRIAL PARK TOWNSHIP 47 NORTH, RANGE 3 EAST, ST. CHARLES COUNTY MISSOURI PLAT BOOK 32 PAGE 89



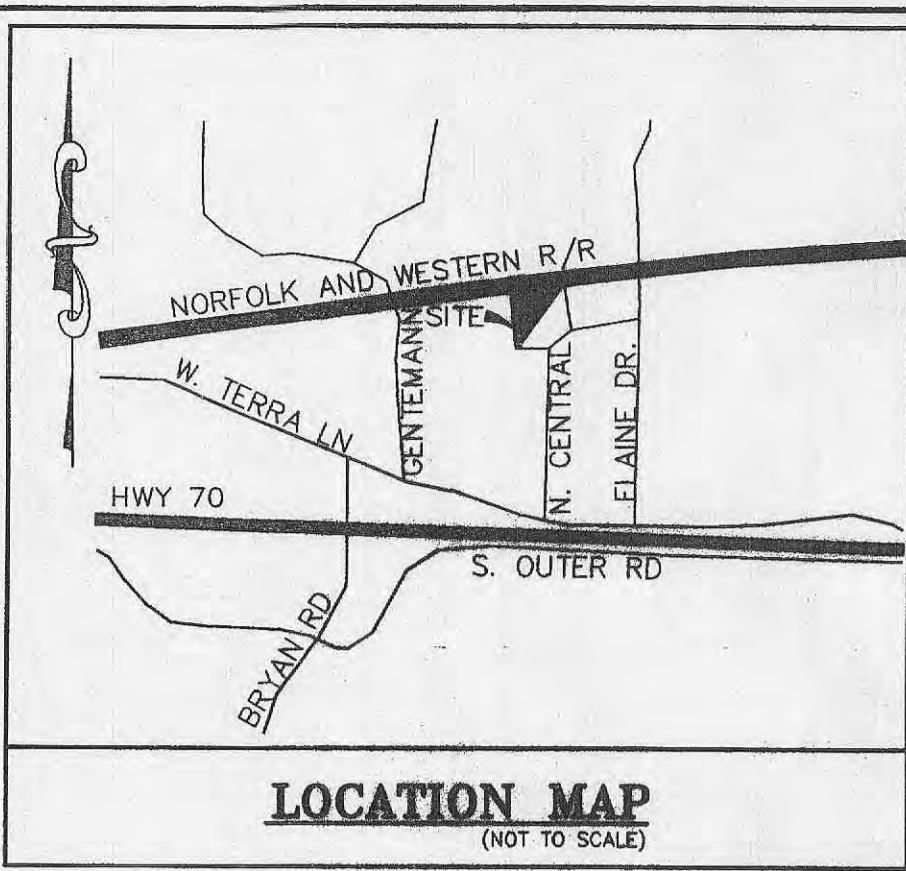
**CALL BEFORE
YOU DIG!**
1-800-DIG-RITE

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	⊗
WATER METER	⊗ WM
GAS VALVE	⊗
ROAD SIGN	⊕
TELEPHONE PEDESTAL	⊕ TEL. PED.
FENCE	—x—

PREPARED FOR: S & D PARTNERSHIPS
501 FIRST CAPITOL DRIVE
ST. CHARLES, MISSOURI 63301
636-946-9753

PROJECT NAME: ADRIAN STEEL



GRADING NOTES:

- A Geotechnical Engineer shall be employed by the owner and be on site during grading operations. All soil tests shall be verified by the Geotechnical Engineer concurrent with the grading and back filling operations.
- 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.
- The Contractor shall notify the Soils Engineer at least two days in advance of the start of the grading operation.
- All areas shall be allowed to drain. All low points shall be provided with temporary ditches.
- 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.
- Any existing trash and debris currently on this property must be removed and disposed of off-site.
- 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.
- 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 discing prior to the placement of any fill. The Soils Engineer shall approve the discing operation.
- 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.
- 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.
- 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.
- 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.
- 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.
- 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.
- No slope shall be steeper than 3(Horizontal):1(Vertical). All slopes shall be sodded or seeded and mulched.
- 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 or 95% of maximum density as determined by the Standard Proctor Test AASHTO T-99. All filled places in proposed roads shall be compacted from the bottom of the fill up. All test shall be verified by a soils engineer concurrent with the grading and backfilling operations. "Ensure the moisture content of the soil in filled areas is to correspond to the compactive effort as determined 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 the soil stability at the discretion of the City of O'Fallon.
- Any contaminated soil encountered during excavation shall be hauled and placed as directed by the owners environmental engineering representative.
- Developer must supply City construction inspectors with soil reports prior to or during site soil testing.
- 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 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 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 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.
- Graded areas that are to remain bare for over two (2) weeks shall be seeded and mulched per the Dept. of Natural Resources requirement.
- Rip-Rap shown at flared ends will be evaluated in the field after installation for effectiveness and field modified if necessary to reduce erosion on and off site.

GENERAL NOTES:

- Underground utilities have been plotted from available information and therefore locations shall be considered approximate only. The verifications 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 improvements.
- Gas, water and other underground utilities shall not conflict with the depth or horizontal location of existing or proposed sanitary and storm sewers, including building laterals.
- All existing site improvements disturbed, damaged or destroyed shall be repaired or replaced to closely match pre construction conditions.
- The contractor shall prevent all storm, surface water, mud and construction debris from entering the existing sanitary sewer system.
- All sanitary sewer flowlines and tops built without elevations furnished by the engineer will be the responsibility of the sewer contractor.
- Easements shall be provided for all public sanitary sewers, storm sewers and utilities on the record plat. See record plat (if required) for location and size of easement.
- All construction and materials shall conform to the current construction standards of the City of O'Fallon.
- The City of O'Fallon shall be notified at least 48 hours prior to construction for coordination and inspection.
- All sanitary sewer building connections have been designed so that the minimum vertical distances from the low point of the basement to the flow line of a sanitary sewer at the corresponding building connection is not less than the diameter of the pipe plus the vertical distance of 2-1/2 feet. (unless otherwise noted)
- All sanitary sewer manholes shall be waterproofed on the exterior in accordance Missouri Dept. Of Natural Resources specifications 10 CSR-8.12(7)(E).
- All PVC sanitary sewer pipe is to be SDR-35 or equal with "clean" 1/2 inch to 1 inch granular stone bedding uniformly graded. This bedding shall extend from 4 inches below the pipe to springline of pipe. Immediate back fill over pipe shall consist of same size "clean" or "minus" stone from springline of pipe to 12 inches above the top pipe. (Note: All P.V.C. Force Main shall be C-900, Class 200 P.V.C.)
- All sanitary and storm sewer trench back fills shall be water jetted. Granular back fill will be used under pavement areas.
- All pipes shall have positive drainage through manholes. No flat base structures are allowed.
- Brick shall not be used on sanitary sewer manholes nor shall brick be used in the construction of storm sewer structures.
- All PVC 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 sewer district shall be installed between P.V.C. pipe and masonry structures. (Note: All P.V.C. Force Main shall be C-900, Class 200 P.V.C.)
- All sanitary and storm sewers shall meet all specifications and installation requirements of the local governing authority.
- Storm sewers 18 inch diameter and smaller shall be A.S.T.M. C-14 unless otherwise shown on the plans.
- Storm sewers 21 inch diameter and larger shall be A.S.T.M. C-76, Class II minimum, unless otherwise shown on the plans.
- All storm sewer pipe in the right-of-way shall be reinforced concrete pipe (A.S.T.M. C-76, Class III minimum).
- All storm sewer pipe shall be "O-ring" pipe. Joints shall be gasketed O-ring type.
- All water lines shall be laid at least 10 feet horizontally from any sanitary sewer, or manhole. Whenever water crosses sanitary sewers, laterals or storm drains the water line shall be laid at such an elevation that the bottom of the water line is 18 inches above the top of the drain or sewer. A full length of water pipe shall be centered over the sewer 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.
- All water lines shall be C-900 Class 200 P.V.C..
- Any permits, easements, or approvals to work on public or private properties or roadways are the responsibility of the developer.
- All sanitary sewer laterals shall be a minimum of 6 inches in diameter.
- Maintenance of the sewers designated as "public" shall be the responsibility of the City of O'Fallon upon dedication of the sewers to the district.
- All sign post and backs and bracket arms shall be painted black using Carboline Rustband Penetrating Sealer SG and Carboline 133 HB point (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.
- There shall be no obstruction, i.e. planting, bushes, trees, signs, light standards, mailboxes, etc. within six (6) feet of any fire hydrant, and/or fire department connection to an automatic sprinkler system.
- All paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.
- Existing sanitary sewer service shall not be interrupted.
- Pre-manufactured adapters shall be used at all PVC to DIP connections. Rubber Boot/Mission-type couplings will not be allowed.
- "Type N" Lock-Type Cover and Locking Device (Lock-Lug) shall be used where lock-type covers are required.
- Retail uses will not be permitted, this review and approval action is for an office use only being located with in this development. In addition, this facility is being parked as an office use; if at any time that the use should change and a retail entertainment use is operated within the facility (restaurant, bar, nightclub, etc), this Site Plan will have to be brought back before the Commission for review to determine if the existing parking can accommodate the new use.
- All paving to be in accordance with St. Charles County standards and specifications except as modified by the City of O'Fallon ordinances.
- 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

- 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:
 - Maximum dry density
 - Optimum moisture content
 - Maximum and minimum allowable moisture content
 - 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 AASHTO T-99, Method C" (A.S.T.M.-D-698). Proctor type must be designated on document.
 - Curve must have at least 5 density points with moisture content and sample locations listed on document.
 - Specific gravity.
 - Natural moisture content.
 - Liquid limit.
 - 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.

PRINCIPALS & STANDARDS:

- 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 City Building Department. Permanent safety guards will be constructed in accordance with the appropriate section(s) of the adopted BOCA Codes.
- 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. Temporary siltation control measures shall be maintained until vegetative cover is established at a sufficient density to provide erosion control on the site.
- 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.
- 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.

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.
- 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 than 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. Detention basins, diversions or any other appropriate structures shall be constructed to prevent velocities above 5 fps.
- 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.
- 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 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. FEMA and U.S. Army Corps of Engineers guidelines shall be followed where applicable regarding site development areas designated as flood plains and wetlands.
- All lots shall be seeded and mulched 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

- 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 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.

DEVELOPMENT NOTES:

- Area of tract: 5.47 Acres
- Current Zoning: I-2 Heavy Industrial (City of O'Fallon)
- Proposed Use: Point booth addition/Vehical storage lot
- Area of Building: 2,400 sq.ft. addition
- Required building & parking setbacks:
Front yard.....30 feet
Side yard.....25 feet
Rear yard.....50 feet
Parking.....10 feet along lot perimeter
- Parking Requirements & Provisions: (Lot 8B)
1 space per employee and 1 space per 1,000sq.ft.
8,800sq.ft./1,000sq.ft.=8.8=9 spaces required
2 employees
9+2=11 spaces required
11 spaces provided including 1 handicap space.
- This property is served by the following utilities:
Water Co. City of O'Fallon Water 636-281-2858
Sewer Co. City of O'Fallon Sewer 636-281-2858
Telephone Co. CenturyTel Telephone 636-332-7318
Electric Co. AmerenUE Electric 1-800-65-ASKUE
Gas Co. Lucade Gas 636-946-8937
Fire Protection City of O'Fallon 636-272-3493
- No new lighting is proposed.
- No new HVAC units are proposed.
- All Proposed fencing and signs require a separate permit through the planning division.
- Detention provided with the original North Central Industrial Park development.
- Any new utilities shall be located underground.
- Owner: Lots 8A, 8B, 9A, 9B and Property to the West
S & D Partnerships
501 First Capitol Drive
St. Charles, Mo. 63301
(636) 946-9753
- According to the Flood Insurance Rate Map of the City of O'Fallon, (Community Panel number 29183C 0240-E, dated August 2, 1996) this property is determined to be outside the 500 year floodplain.
- No dumpster enclosure proposed, existing unscreened dumpster on lot 8B to be removed.
- Site coverage: (Lots 8A, 8B, and 9A combined)
Buildings: 38,551.34sq.ft.=16.17%
Pavement: 176,041.33sq.ft.=73.84%
Greenspace: 23,827.56sq.ft.=9.99%
- No new storm sewers are proposed at this time. If calculations during construction plan phase shows the need for storm sewers, they will be provided.
- Vehical storage lots are exempt from internal landscaping per city code 400.420.c.2.
- Internal landscaping for parking spaces on lot 8A & 8B
25 spaces (270)(0.06)=405sq.ft. required
5.431sq.ft. provided.
- Open space landscape requirements: (Area outside bid and pavement)
23,827.56sq.ft./1,000sq.ft.=7.94=8 trees required
16 trees provided.
- Existing gate to be relocated to new location as shown.

BENCHMARKS:

Reference Benchmark: (U.S.G.S.) Elev=631.42
"M" in Mueller on fire hydrant, 300± West of Elaine Road and 50± North of Service Rd.
Site Benchmark: (U.S.G.S.) Elev=600.48
Old Cross "x" at the C.L. existing pavement at the end of North Central Court.

SHEET INDEX

- COVER
- SITE PLAN
- GRADING PLAN
- DRAINAGE AREA MAP
- STORM PROFILE AND CONSTRUCTION DETAILS

GRADING QUANTITIES:

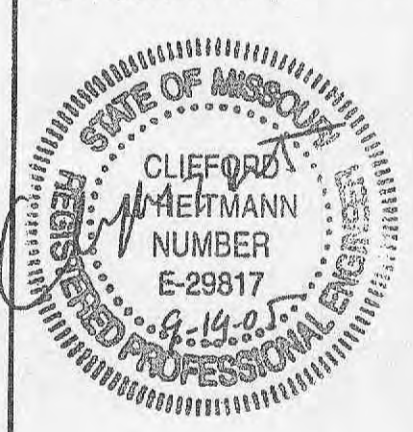
2704 C.Y. CUT (INCLUDES SUBGRADE)
582 C.Y. FILL (INCLUDES 15% SHRINKAGE)
2122 C.Y. HEAVY

LANDSCAPE LEGEND

QTY. (16) ~ INDICATES PROPOSED DECIDUOUS HARDWOOD TREE
Size: 2" min. caliper 1" above grade and 5' clear trunk

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

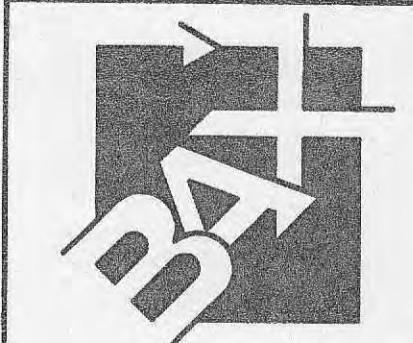
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I hereby specify that the documents intended to be authorized by my seal are limited to this sheet, and I hereby disclaim any responsibility for all other drawings, specifications, estimates, reports or other documents or instruments relating to or intended to be used for any part or parts of the architectural or engineering project or survey.



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REVISIONS

NO.	DATE	PER	COMMENTS
08/31/05			



ENGINEERING SURVEYING

1052 South Cleveland Drive
St. Peters, MO. 63376-6445
636-928-5552
FAX 928-1718

07/05/05
DATE
95-6486B
PROJECT NUMBER
1 OF 5
SHEET OF
6486Bcon.dwg
FILE NAME
DRB
DRAWN
LDW CLH
DESIGNED CHECKED

Bldg. Inspector