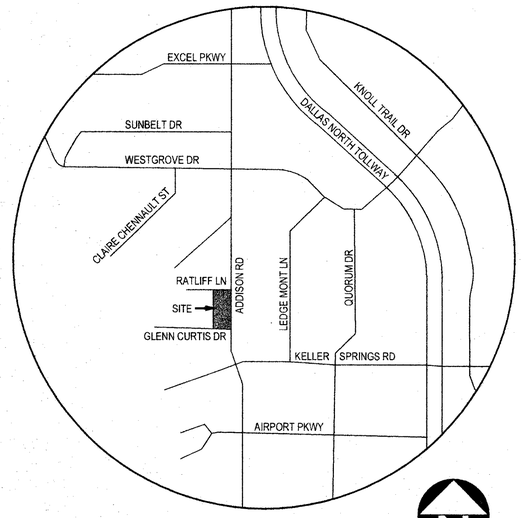
16175 Addison Rd.
STONE
B14-16

CONSTRUCTION PLANS
FOR
T.F. STONE BUILDING
ADDISON STORAGE ADDITION
LOT 1, BLOCK A

PREPARED FOR

T.F. STONE COMPANIES INC.

16600 NORTH DALLAS PARKWAY, SUITE 400
DALLAS, TEXAS 75053
PHONE: 972-931-9911
FAX: 972-991-5742



VICINITY MAP
NO SCALE

Reviewed for S.C. & D.W.
1/20/03

PLEASE RETURN THESE CHECK PRINTS w/ NEXT SUBMITTAL!

SHEET INDEX

SH #	SHEET DESCRIPTION
1	COVER SHEET
2	DEMOLITION PLAN
3	PAVING AND DIMENSIONAL CONTROL PLAN
4	GRADING PLAN
5	ON-SITE DRAINAGE AREA MAP
6	WATER AND WASTE WATER PLAN
7	CONSTRUCTION DETAILS
8	GENERAL NOTES
9	INITIAL EROSION CONTROL PLAN
	LANDSCAPE PLAN (BY OTHERS)
	IRRIGATION PLAN (BY OTHERS)

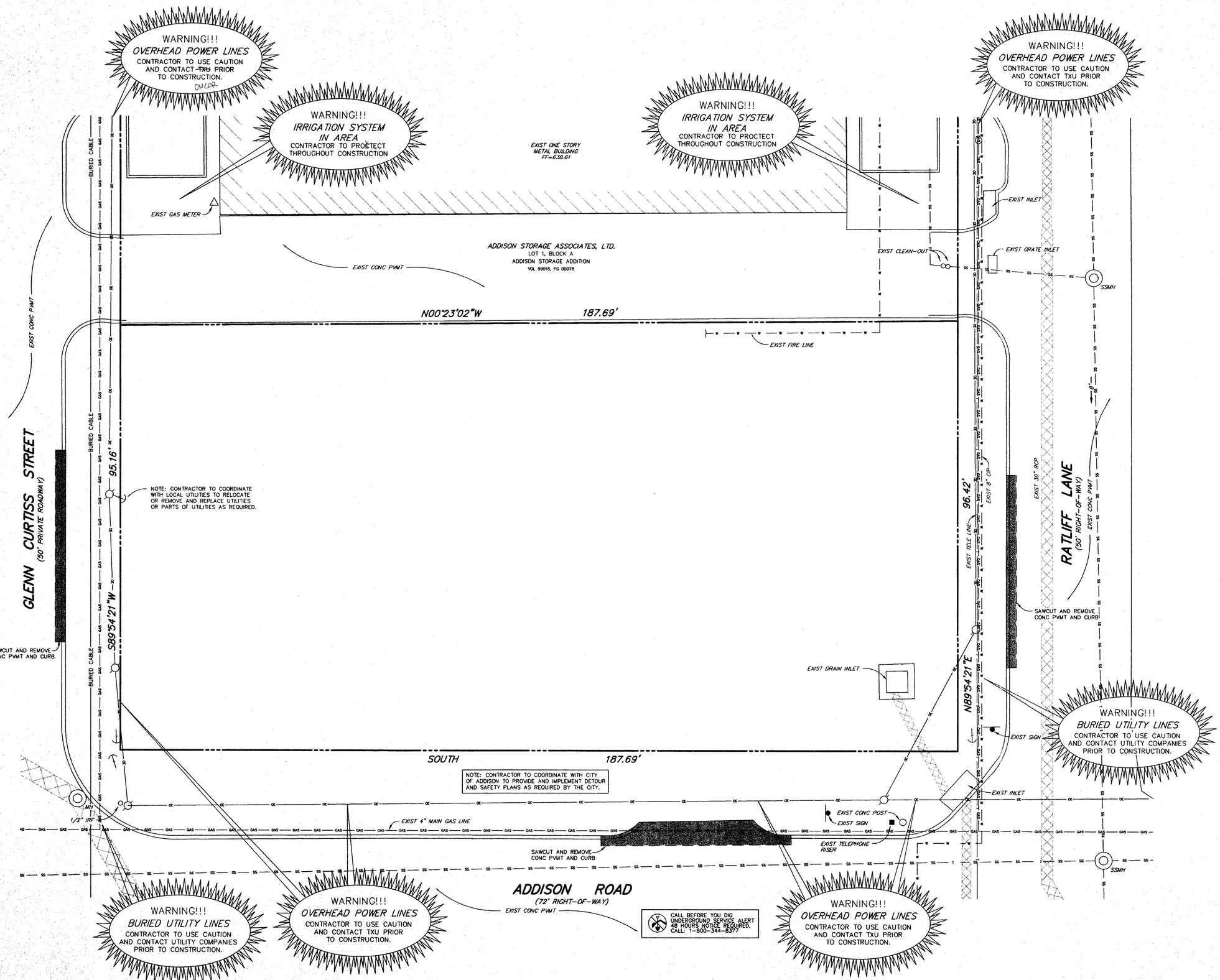
1/9

O'Brien Engineering, Inc.
4011 W. Plano Pkwy, Ste 108
Plano, TX 75093
Phone: 972 312-8850
Fax: 972 312-0675
OEI Job No: 138-02

JANUARY 14, 2003

138-02 T.C. STONE COMP - "ES INC. "STONE BLDG" 1/14/03

B14-16 16175 Addison Rd.



DEMOLITION GENERAL NOTES:

1. ALL DEMOLITION DEBRIS, TREES BEING REMOVED, AND EXCESS SOIL ARE TO BE DISPOSED OF LEGALLY IN A PERMITTED DISPOSAL FACILITY OFF SITE.
2. CONTRACTOR TO REMOVE TREES DESIGNATED BY THE OWNER, AND DISPOSE OF AT A PERMITTED DISPOSAL FACILITY. TREE REMOVAL TO INCLUDE ALL STUMPS AND ROOT BALLS.
3. CONTRACTOR IS RESPONSIBLE FOR LOCATING ALL EXISTING UTILITIES AND PROTECTING THEM THROUGH CONSTRUCTION.
4. LOCATIONS OF EXISTING STRUCTURES AND PAVEMENT TO BE REMOVED ARE APPROXIMATE AND ARE SHOWN FOR REFERENCE. CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING THE NUMBER, TYPE, AND SIZE OF STRUCTURES.
5. THE CONTRACTOR IS RESPONSIBLE FOR IDENTIFYING AND OBTAINING ALL PERMITS THAT ARE REQUIRED FOR SITE DEMOLITION AND TRAFFIC CONTROL.
6. THE CONTRACTOR SHALL CONTACT EACH UTILITY COMPANY PRIOR TO DEMOLITION TO COORDINATE THE DISCONNECTION OF UTILITY SERVICES. ALL WATER AND SANITARY SEWER SERVICES TO BE ABANDONED SHALL BE DISCONNECTED AND CAPPED AT THE METER OR PROPERTY LINE.
7. CONTRACTOR TO PLUG AND REROUTE IRRIGATION AND STORM LINES AS REQUIRED, COORDINATE WITH OWNER.
8. CONTRACTOR TO REMOVE OR REROUTE EXISTING UTILITY LINES AS REQUIRED. COORDINATE WITH OWNER.
9. NO UTILITIES ARE TO BE LOCATED BELOW PROPOSED STRUCTURES. REFERENCE ARCHITECTURAL AND STRUCTURAL PLANS.

LEGEND:

- PROPERTY BOUNDARY
- EXIST FENCE
- OVERHEAD ELECTRIC LINE
- EXIST WATER LINE
- EXIST SAN SEWER LINE
- EXIST POWER POLE
- EXIST FIRE HYDRANT
- WATER VALVE
- WATER METER
- GAS METER
- SPRINKLER VALVE
- LIMITS OF REMOVAL
- EXIST STORM SEWER

NOTES:

1. BOUNDARY SURVEY AND OFF-SITE TOPOGRAPHY DEVELOPED BY STOVALL AND ASSOCIATES; OCTOBER 8, 2001.
2. ON-SITE TOPOGRAPHY DEVELOPED BY D & D SURVEYING, INC.; 105 SW 2ND STREET GRAND PRAIRIE, TEXAS; JANUARY 2003.

BENCHMARK:

1. "□" CUT TOP OF INLET SOUTHWEST CORNER INTERSECTION OF RATLIFF LANE AND ADDISON ROAD. ELEV = 637.20

0 5 10 20
PLAN SCALE (Feet)

DESIGNED BY: O.E.I. DRAFTED BY: O.E.I.

NOTES AND REVISIONS:

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ISSUED: 1/14/03

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JIM O'BRIEN, P.E. #55861
O'BRIEN ENGINEERING, INC.

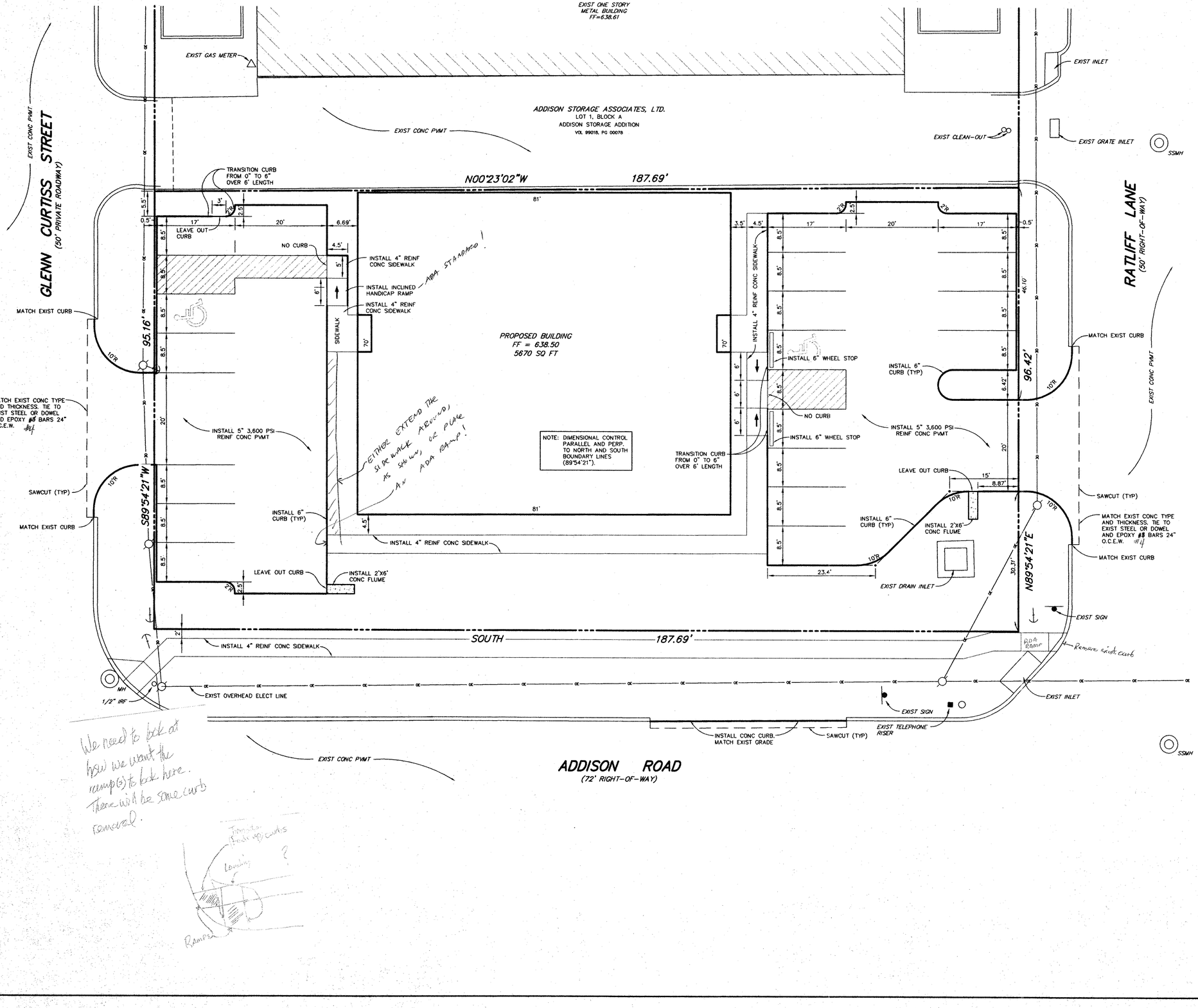
PREPARED BY:
O'Brien Engineering, Inc.
4011 West Plano Parkway Suite 108 Plano, Texas 75093 Tel 972-312-8850

T.F. STONE COMPANIES INC.
T.F. STONE BUILDING
LOT 1, BLOCK A, ADDISON STORAGE ADDITION

DEMOLITION PLAN

ADDISON, DALLAS COUNTY, TEXAS

DATE: 1/14/03
O.E. JOB. NO. 138-02
SHEET NO. 2 OF 9 SHEETS



PAVEMENT GENERAL NOTES

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CITY OF ADDISON STANDARDS AND SPECIFICATIONS, AND TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, LATEST EDITION AND THE CITY OF ADDISON ADDENDUM THERETO.
2. THE PAVING CONTRACTOR SHALL BE RESPONSIBLE FOR THE ADJUSTMENT OF WATER AND SANITARY SEWER APPURTENANCES IN ACCORDANCE WITH THE STANDARD DETAILS AND SPECIFICATIONS OF THE CITY OF ADDISON.
3. THE SUBGRADE SHOULD BE IN MOIST CONDITION AT THE TIME CONCRETE IS DEPOSITED THEREON.
4. DUMMY JOINTS SHOUL$ BE FORMED BY ONE OF THE FOLLOWING METHODS: SAWED, HAND-FORMED OR FORMED BY PREMOLDED FILLER. JOINT DEPTH SHOULD BE EQUAL TO ONE-FOURTH (1/4) OF THE SLAB THICKNESS. HAND FORMED JOINTS SHOULD HAVE A MAXIMUM EDGE RADIUS OF ONE-FOURTH (1/4) INCH. SAWING OF JOINTS SHOULD BEGIN AS SOON AS THE CONCRETE HAS HARDENED SUFFICIENTLY TO PERMIT SAWING WITH OUT EXCESSIVE RAVELING. ALL JOINTS SHOULD BE COMPLETED BEFORE UNCONTROLLED SHRINKAGE CRACKING OCCURS. JOINTS SHOULD BE CONTINUOUS ACROSS THE SLAB UNLESS INTERRUPTED BY FULL-DEPTH PREMOLDED JOINT FILLER AND SHOULD EXTEND COMPLETELY THROUGH THE CURB. ALL JOINT OPENINGS SHALL BE CLEANED AND SEALED BEFORE OPENING PARKING AREA TO TRAFFIC.

JOINT SPACING:

EXPANSION JOINTS	90' MAX
SAWED JOINTS	12' FOR 5" PAVEMENT
CONSTRUCTION JOINTS	LOCATED AT SAWED JOINTS OR EXPANSION JOINTS

5. EXPANSION JOINTS OR ISOLATION JOINTS SHALL BE USED TO ISOLATE FIXED OBJECTS ABUTTING OR WITHIN THE PAVED AREA. THEY SHOULD CONTAIN PREMOLDED JOINT FILLER FOR THE FULL DEPTH OF THE SLAB AND SHOULD BE SEALED PRIOR TO OPENING TO TRAFFIC.
6. ALL DIMENSIONS ARE TO FACE OF CURB UNLESS OTHERWISE NOTED.
7. ALL CONCRETE SHALL BE CLASS C CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 3600 PSI AT 28 DAYS. (5.5 SACK MIN MACHINE POUR, 6 SACK MIN HAND POUR)
8. CONTRACTOR SHALL OBTAIN AND PAY FOR ANY PERMITS REQUIRED.
9. CONTRACTOR SHALL REMOVE ALL SURPLUS DIRT, DEBRIS, ETC., FROM SITE AND DISPOSE OF LEGALLY OFF SITE. ALL WORK AREAS SHALL BE CLEANED UP AT THE COMPLETION OF THE WORK.
10. SURFACE FINISHING SHALL BE SKID RESISTANT, A LIQUID CURING COMPOUND SHALL BE UNIFORMLY SPRAYED ON THE CONCRETE IMMEDIATELY AFTER THE FINISHING OPERATION.
11. CONTRACTOR SHALL PROVIDE ALL SAFETY DEVICES FOR THE PROTECTION OF THE PUBLIC.
12. ALL PARKING STALLS TO BE MARKED BY A 4" WIDE PAINTED WHITE STRIPE AS INDICATED ON THE DRAWINGS.
13. THE USE OF FLY ASH IN CONCRETE WILL NOT BE ALLOWED.

LEGEND:

PROPERTY BOUNDARY	
EXIST FENCE	x x x
OVERHEAD ELECTRIC LINE	OE
EXIST WATER LINE	W W W
EXIST SAN SEWER LINE	SS SS SS
EXIST POWER POLE	
EXIST FIRE HYDRANT	
WATER VALVE	
WATER METER	
GAS VALVE	
SPRINKLER VALVE	
EXIST BUILDING	

NOTES:

1. BOUNDARY SURVEY AND OFF-SITE TOPOGRAPHY DEVELOPED BY STOVALL AND ASSOCIATES; OCTOBER 8, 2001.
2. ON-SITE TOPOGRAPHY DEVELOPED BY D & D SURVEYING, INC.; 105 SW 2ND STREET GRAND PRAIRIE, TEXAS; JANUARY 2003.

BENCHMARK:

1. "□" CUT TOP OF INLET SOUTHWEST CORNER INTERSECTION OF RATLIFF LANE AND ADDISON ROAD. ELEV = 637.20

0 5 10 20
PLAN SCALE (Feet)

We need to look at how we want the ramp(s) to look here. There will be some curb removed.

DESIGNED BY: O.E.I. DRAFTED BY: O.E.I.

NOTES AND REVISIONS:

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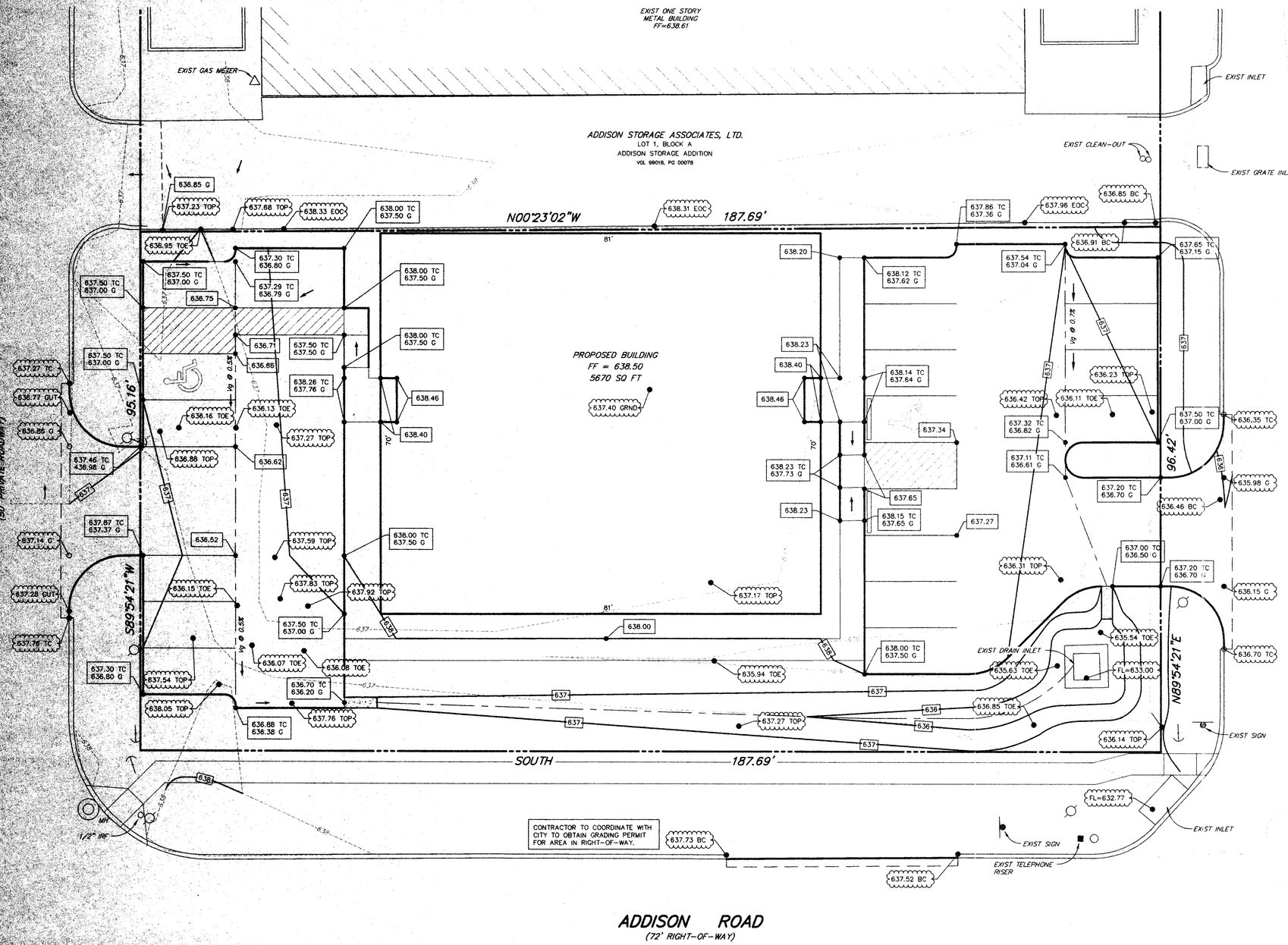
PREPARED BY:
O'Brien Engineering, Inc.
4011 West Plano Parkway Suite 108
Plano, Texas 75093 Tel 972-312-8850

T.F. STONE COMPANIES INC.
T.F. STONE BUILDING
LOT 1, BLOCK A, ADDISON STORAGE ADDITION
PAVING AND DIMENSIONAL CONTROL PLAN
ADDISON, DALLAS COUNTY, TEXAS

DATE: 1/14/03
O.E. JOB. NO. 138-02
SHEET NO. 3 OF 9 SHEETS



GRADING GENERAL NOTES

1. ALL MATERIALS AND WORKMANSHIP SHALL CONFORM TO THE CITY OF ADDISON STANDARDS AND SPECIFICATIONS. AND TO THE NCTCOG STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS, LATEST EDITION.
2. ALL AREAS TO RECEIVE PAVING SHALL BE STRIPPED TO EFFECTIVELY REMOVE ALL VEGETATION, TOP SOIL, AND DEBRIS. IF PRESENT. DEBRIS SHALL BE DISPOSED OF LEGALLY OFFSITE. TOPSOIL SHALL BE STOCKPILED FOR LANDSCAPING PURPOSES.
3. THE CONTRACTOR SHALL ESTABLISH INTERIOR DRAINAGE SWALES TO REMOVE RAINFALL FROM THE SITE. WATER MUST NOT BE ALLOWED TO POND IN TREE GRUB HOLES. THE SITE SHOULD BE GRADED SUCH THAT POSITIVE SURFACE DRAINAGE AWAY FROM THE WORK AREAS IS ESTABLISHED AND MAINTAINED AT ALL TIMES. WATER MUST NOT BE ALLOWED TO POND THE SURFACE DURING CONSTRUCTION.
4. THE CONTRACTOR SHALL PROVIDE FOR SEDIMENT AND EROSION CONTROL AS REQUIRED BY THE CITY OF ADDISON THROUGHOUT CONSTRUCTION OF THE PROJECT. THE FILTER FABRIC NETS WILL BE PLACED AT THE TOE OF SLOPE OR IN THE FLOW LINE OF DITCHES AND ALONG PERIMETER OF PROJECT. EROSION CONTROL SHALL BE USED UNTIL LANDSCAPING IS COMPLETE AND GROUND OVER IS ESTABLISHED.
5. ALL AREAS THAT WILL RECEIVE FILL SHALL BE PROOF-ROLLED TO IDENTIFY WEAK ZONES. ALL WEAK ZONES MUST BE REMOVED AND REPLACED PRIOR TO FILL PLACEMENT.
6. FILL MATERIALS SHOULD BE PLACED IN ACCORDANCE WITH THE GEOTECHNICAL ENGINEER'S RECOMMENDATIONS. EACH LIFT SHOULD BE INSPECTED AND APPROVED BY A QUALIFIED ENGINEERING TECHNICIAN, SUPERVISED BY A GEOTECHNICAL ENGINEER BEFORE ANOTHER LIFT IS ADDED.
7. TESTING IS REQUIRED, AND SHALL BE PERFORMED BY A LABORATORY APPROVED BY THE ENGINEER/OWNER AND PAID FOR BY THE OWNER.
8. IT WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO LOCATE AND PROTECT ALL PUBLIC UTILITIES, IN THE CONSTRUCTION OF THE PROJECT. ALL MANHOLES, CLEANOUTS, VALVE BOXES, FIRE HYDRANTS, ETC., MUST BE ADJUSTED TO PROPER LINE AND GRADE BY THE CONTRACTOR PRIOR TO AND AFTER THE PLACING OF PERMANENT PAVING. UTILITIES MUST BE MAINTAINED TO PROPER LINE AND GRADE DURING THE CONSTRUCTION OF PAVING FOR THIS PROJECT.
9. ALL GRADING AGAINST HOUSE AND STRUCTURES WILL BE PERFORMED IN A MANNER TO PROTECT STRUCTURES. FINAL GRADING INCLUDES 2 % MINIMUM GRADE AWAY FROM STRUCTURES.

LEGEND

PROPOSED CONTOUR	518
EXIST INDEX CONTOUR	
EXIST INTERMEDIATE CONTOUR	
CENTER OF CHANNEL	
PROPERTY BOUNDARY	
EXIST FENCE	x — x
OVERHEAD ELECTRIC LINE	oh
EXIST SAN SEWER LINE	ss — ss
EXIST 6" WATER LINE EXIST	w — w
BURIED ELECTRIC LINE	E
EXIST POWER POLE	
EXIST FIRE HYDRANT	
WATER VALVE	
WATER METER	(W)
GAS VALVE	
SPRINKLER VALVE	
EXIST SPOT ELEVATION	509.59FL
PROPOSED SPOT ELEVATION	508.20

NOTES:

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BENCHMARK:

1. "□" CUT TOP OF INLET SOUTHWEST CORNER INTERSECTION OF RATLIFF LANE AND ADDISON ROAD. ELEV = 637.20

0 5 10 20
PLAN SCALE (Feet)

DESIGNED BY: O.E.I. DRAFTED BY: O.E.I.

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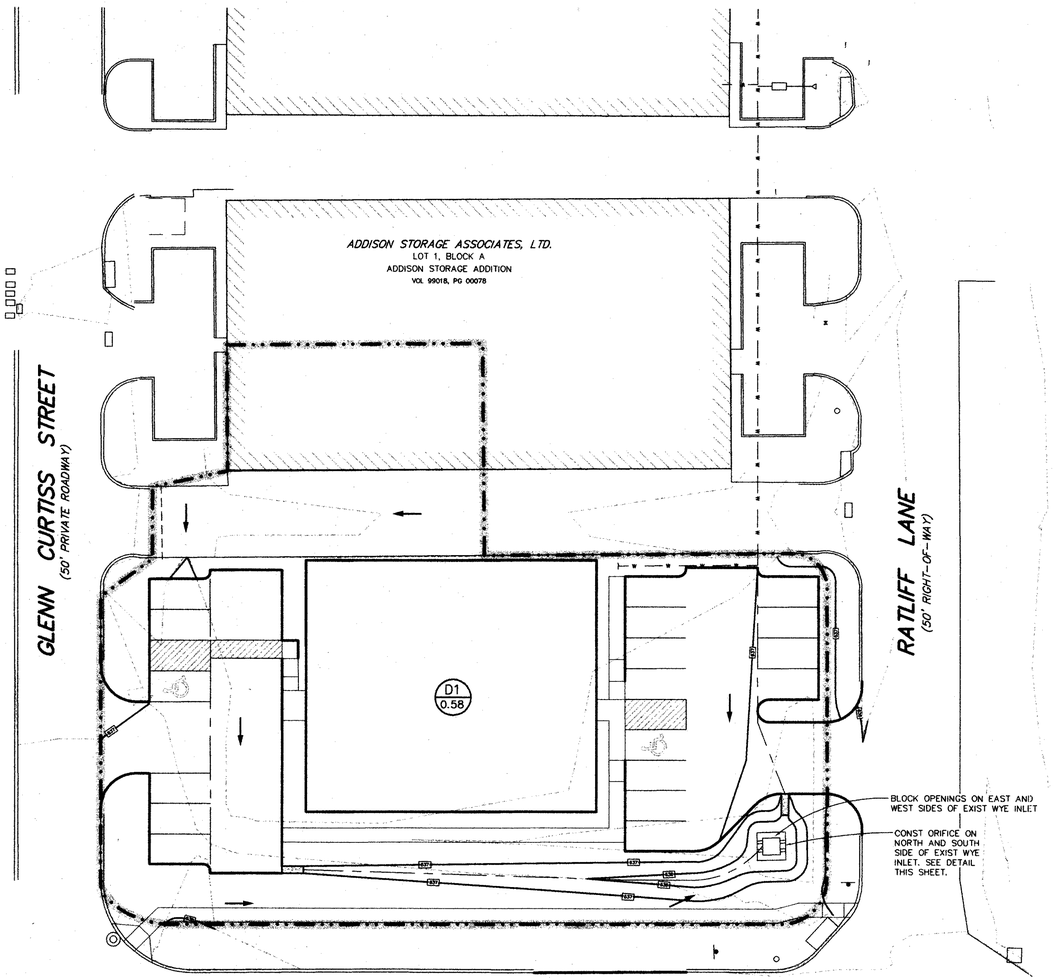
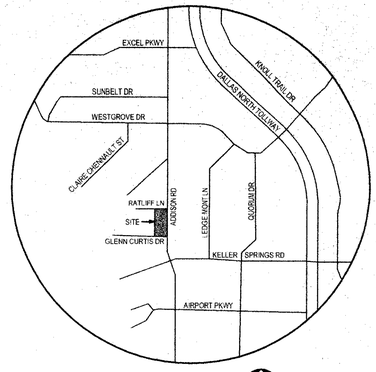
4011 West Plano Parkway Suite 108 Plano, Texas 75093 Tel 972-312-8850

T.F. STONE COMPANIES INC.
T.F. STONE BUILDING
LOT 1, BLOCK A, ADDISON STORAGE ADDITION
GRADING PLAN
ADDISON, DALLAS COUNTY, TEXAS

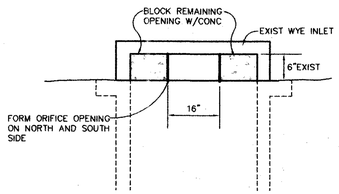
DATE: 1/14/03
O.E. JOB. NO. 138-02
SHEET NO. 4 OF 9 SHEETS





VICINITY MAP
NO SCALE

DRAINAGE CHART (HEC-HMS)					
AREA NO.	AREA (Acres)	Tc (min)	CN	Q-100 (cfs)	COMMENTS
EXIST	0.58	1.38	84	5.7	
PROP	0.58	1.38	92	6.1	2 ORIFICES @ 16"X6"



ORIFICE DETAIL
NTS

LEGEND:

PROPOSED CONTOUR 450
EXIST INDEX CONTOUR
EXIST INTERMEDIATE CONTOUR
PROPERTY BOUNDARY
DRAINAGE BOUNDARY
DRAINAGE DESCRIPTION D1 7.15 AREA NO. AREA (ACRES)
FLOW ARROW

NOTES:

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1. "□" CUT TOP OF INLET SOUTHWEST CORNER INTERSECTION OF RATLIFF LANE AND ADDISON ROAD. ELEV = 637.20

N

0 10 20 30
PLAN SCALE
(Feet)

DESIGNED BY: O.E.I. DRAFTED BY: O.E.I.

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T.F. STONE COMPANIES INC.
T.F. STONE BUILDING
LOT 1, BLOCK A, ADDISON STORAGE ADDITION

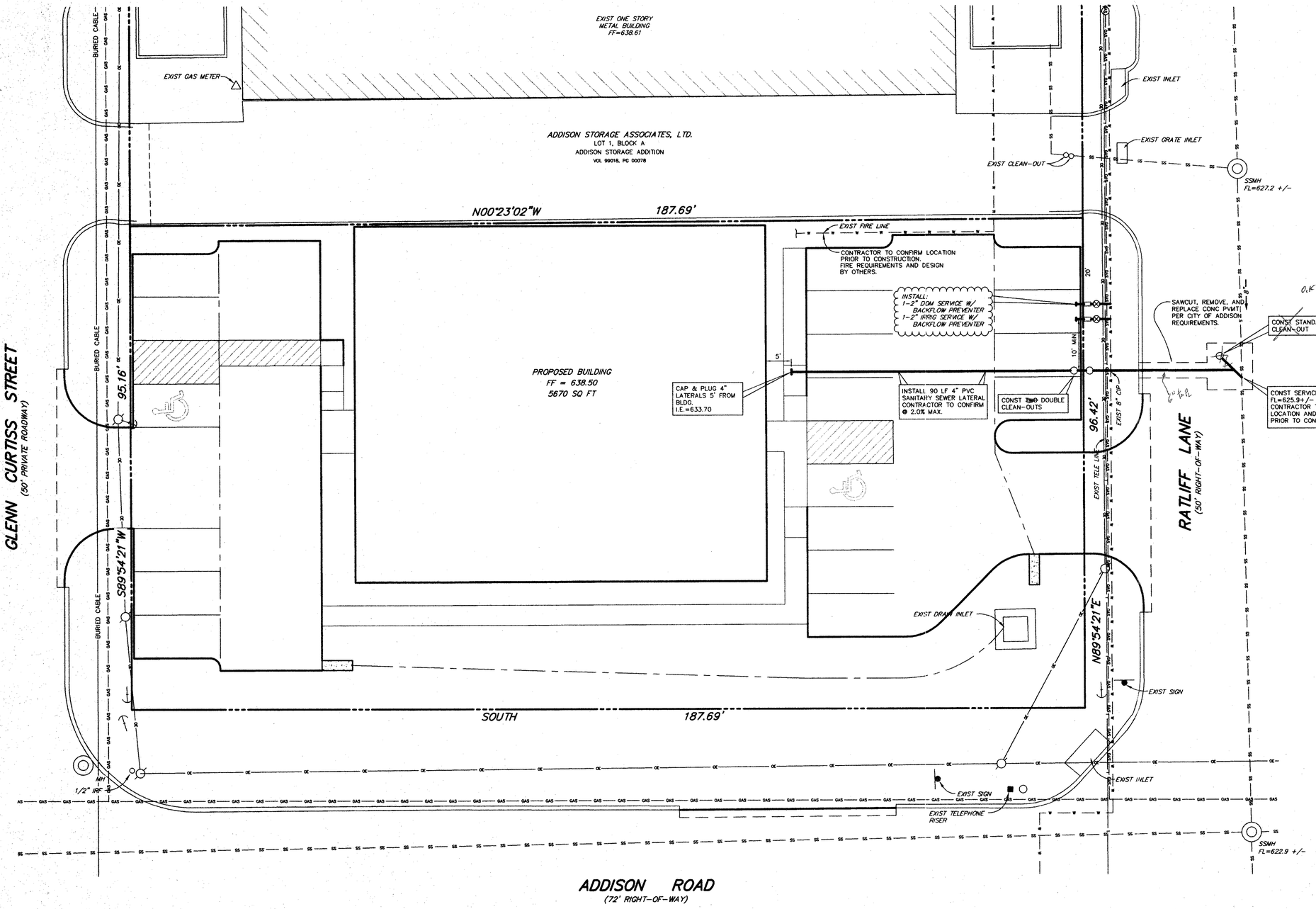
ON-SITE DRAINAGE AREA MAP

ADDISON, DALLAS COUNTY, TEXAS

DATE: 1/14/03

O.E. JOB. NO. 138-02

SHEET NO. 5 OF 9 SHEETS



WATER AND WASTE WATER NOTES

1. ALL MATERIAL AND WORKMANSHIP SHALL CONFORM TO THE STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION FOR NORTH CENTRAL TEXAS LATEST EDITION, AND THE CITY OF ADDISON.

2. ALL WATER MAINS SHALL BE PVC WATER PIPE AWWA C-900 CLASS 200, OR EQUIVALENT.

3. ALL 6" THROUGH 15" WASTEWATER MAINS WHERE PVC PIPE IS USED AS AN ALTERNATE SHALL BE ASTM 3034 (SDR-35) OR ASTM F789/D3212.

4. THE MAXIMUM ALLOWABLE TRENCH WIDTH FOR ALL PIPE THROUGH 12" DIAMETER SHALL BE 32".

LEGEND:

CENTER OF CHANNEL	
PROPERTY BOUNDARY	
EXIST FENCE	x x x
OVERHEAD ELECTRIC LINE	OE
EXIST SAN SEWER LINE	SS SS SS
EXIST 6" WATER LINE EXIST	W W W
BURIED ELECTRIC LINE	BE
EXIST POWER POLE	
PROPOSED FIRE HYDRANT	
EXIST FIRE HYDRANT	
WATER VALVE	
WATER METER	
GAS VALVE	
SPRINKLER VALVE	

NOTES:

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PLAN SCALE (Feet)

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T.F. STONE BUILDING
LOT 1, BLOCK A, ADDISON STORAGE ADDITION

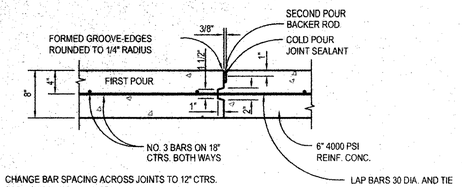
WATER AND WASTE WATER PLAN

ADDISON, DALLAS COUNTY, TEXAS

DATE: 1/14/03

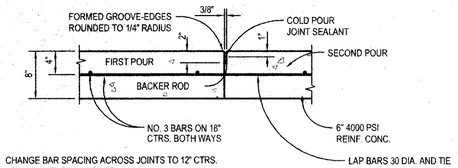
O.E. JOB. NO. 138-02

SHEET NO. 6 OF 9 SHEETS



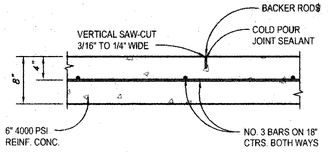
CHANGE BAR SPACING ACROSS JOINTS TO 12" CTRS. FOR LONGITUDINAL JOINTS

CONTRUCTION JOINT
SCALE: 1"=1'

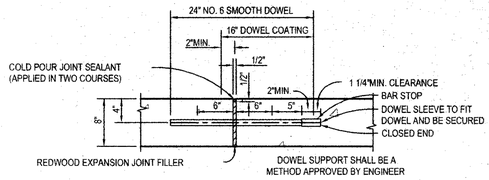


CHANGE BAR SPACING ACROSS JOINTS TO 12" CTRS. FOR LONGITUDINAL JOINTS

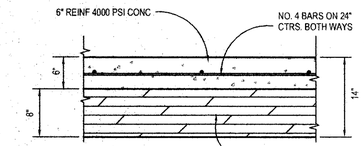
CONTRUCTION JOINT
SCALE: 1"=1'



SAWED DUMMY JOINT
SCALE: 1"=1'

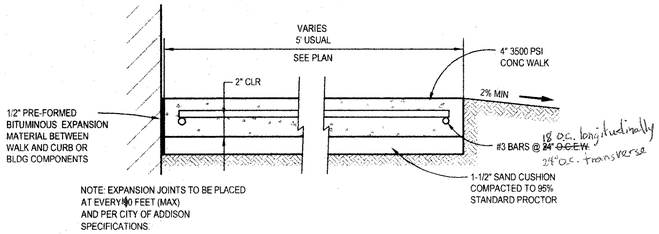


TRANSVERSE EXPANSION JOINT
SCALE: 1"=1'



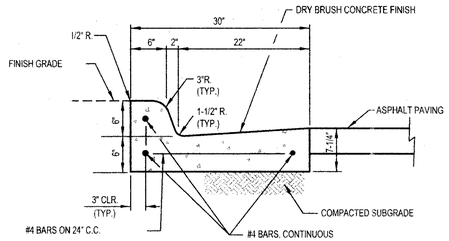
NOTE: IF SOIL IS REQUIRED TO RAISE GRADE TO BOTTOM OF PAVEMENT, SOIL TO BE LIME STABILIZED AT 8% LIME.

TYPICAL PAVEMENT SECTION
NO SCALE

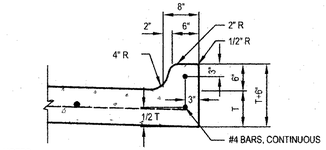


NOTE: EXPANSION JOINTS TO BE PLACED AT EVERY 90 FEET (MAX) AND PER CITY OF ADDISON SPECIFICATIONS.

CONCRETE SIDEWALK DETAIL
NO SCALE



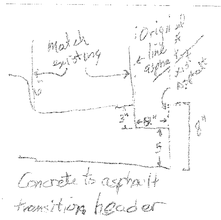
30" CURB AND GUTTER
NO SCALE



NOTES:
1. AN APPROVED WHITE PIGMENTED CURING COMPOUND SHALL BE APPLIED TO THE SURFACE OF THE CURB AND GUTTER AS SOON AS IT HAS BEEN PLACED AND FINISHED.
2. ALL REINFORCING STEEL SHALL BE #4 BARS.

MONOLITHIC CONCRETE CURB
NO SCALE

show concrete flume details.



Concrete to asphalt transition header

DESIGNED BY: O.E.I.
DRAFTED BY: O.E.I.
NOTES AND REVISIONS:

SEAL
FOR REVIEW ONLY
ISSUED: 1/14/03
THIS DOCUMENT IS FOR REVIEW ONLY AND NOT INTENDED FOR BIDDING, CONSTRUCTION, OR PERMIT PURPOSES. IT WAS PREPARED BY, OR UNDER THE DIRECT SUPERVISION OF:
JIM O'BRIEN, P.E. #55861
O'BRIEN ENGINEERING, INC.

PREPARED BY:
O'Brien Engineering, Inc.
4011 West Plano Parkway Suite 108 Plano, Texas 75093 Tel 972-312-8850

T.F. STONE COMPANIES INC.
T.F. STONE BUILDING
LOT 1, BLOCK A, ADDISON STORAGE ADDITION
CONSTRUCTION DETAILS
ADDISON, DALLAS COUNTY, TEXAS

DATE: 1/14/03
O.E. JOB. NO. 138-02
SHEET NO. 7 OF 9 SHEETS

CONSTRUCTION NOTES

GENERAL

1. The CONTRACTOR shall be responsible for being familiar with, and having a working knowledge of these plans, construction notes, the project area, and all codes, regulations or laws applicable to the project.

2. All construction shall conform to the requirements of the "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" by North Central Texas Council of Governments (NCTCOG) most recent amendment.

3. The CONTRACTOR shall provide "As Built" plans to the CITY ENGINEER so that the reproducible sheets of the engineering plans may be corrected to reflect "as-built" conditions, as necessary.

4. The OWNER shall designate a staging area. The CONTRACTOR shall not stockpile materials or supplies nor park or store equipment or vehicles or any other item at any location without the written permission of the CITY ENGINEER and the OWNER.

5. The CONTRACTOR shall not allow soils and debris to enter existing inlets. All inlets shall be protected during construction. The CONTRACTOR shall maintain adequate drainage at all times. Care shall be taken not to block gutters, alleys, inlets, or swales during the course of the project.

6. The CONTRACTOR shall limit his work to the R.O.W. or Easements shown on the drawings. All disturbed/damaged areas outside the construction limits shall be repaired and/or replaced at the CONTRACTOR'S expense as needed to restore the area to a condition equal to or better than that which existed prior to the start of the work.

7. Any water that may accumulate in excavations during the progress of the work shall be removed promptly. All excavations shall be kept entirely free of standing water at all times during the construction work or until otherwise directed by the City. The costs associated with this requirement shall be subsidiary to other items of the project.

8. The CONTRACTOR shall not dispose wastes or any other materials into streams or waterways. Excess material shall be hauled away each day and not be allowed to accumulate.

9. The CONTRACTOR shall not burn or bury rubbish and waste materials on the project site.

10. The CONTRACTOR shall wet down dry materials to allay dust and prevent blowing dust.

11. The CONTRACTOR shall smooth trowel all placed concrete and provide a "broom" finish unless noted otherwise. All concrete shall be class 'C' 3600 PSI, unless noted otherwise.

12. All dimensions shown on the plans are to the centerline of pipe, ditch or channel, or the face of curb as appropriate, unless noted otherwise.

13. The CONTRACTOR shall be responsible for notifying the CITY ENGINEER, the Traffic Engineer, the Police and Fire Departments at least 24 hours in advance when any roadway will be closed or reopened.

14. The CONTRACTOR shall be required to provide and maintain all necessary warning and safety devices (flashing lights, barricades, signs, etc. in conformance with the "Texas Manual on Uniform Traffic Control") to protect public safety and health until the work has been completed by the CONTRACTOR and accepted by the OWNER and the CITY.

15. The locations of existing utilities shown on these plans are approximate. It is the responsibility of the CONTRACTOR to locate and verify in the field any utilities that may conflict with the proposed construction. At least 48 hours prior to beginning construction in the vicinity of existing underground utilities, the CONTRACTOR shall notify the following, as applicable:

City of Addison 972-450-7001
Development Services Department 972-450-2880
Public Works Department................................ 972-450-2871
Line Location Service.................................. 800-817-8090

16. The CONTRACTOR shall exercise an abundance of caution while working near all utilities, especially around power lines (overhead and underground) and gas lines due to the dangers associated therewith. It is the responsibility of the CONTRACTOR to assure that all work associated with this project is in compliance with all pertinent codes and regulations and that public safety is protected throughout the course of the project.

17. The CONTRACTOR must have a set of plans "Approved" by the Engineering Department on this project at all times.

18. Product Manufacturer's name(s) and/or model numbers are used herein to set a standard of quality and are not intended to be a restraint of trade or prevent submittals of other manufacturers products of equal quality, color, function or design, for products so mentioned. When substitution of a specified product is desired, CONTRACTOR shall notify ENGINEER by written request. The request shall be accompanied by shop drawings, specifications, test results, and/or other documentation as may be reasonable and necessary for ENGINEER to determine the suitability of the proposed product for the one specified. The ENGINEER's shall have sole discretion in determining whether to allow or prohibit any or all substitutions.

19. Existing regulatory signs and street designation signs within the construction limits shall be relocated by the CONTRACTOR as directed by the CITY ENGINEER. Cost of relocation shall be subsidiary to other items of the project.

20. Adequate access into and out of the area streets and adjacent driveways shall be maintained at all times during construction.

CONCRETE

1. Unless otherwise specified, concrete shall be of hard rock aggregate and shall develop a minimum compressive strength of 3,600 psi at 28 days.

2. Concrete shall have a maximum slump of four (4) inches. A water/cement ratio of 0.5 shall not be exceeded to arrive at an acceptable slump for workability purposes.

3. All concrete shall be designed, mixed, transported, and placed in accordance with the latest specifications of the American Concrete Institute.

4. Maximum size of coarse aggregate shall be 1 1/2". The use of fly ash is prohibited. CONTRACTOR shall obtain ENGINEER's written approval for any batch design, prior to scheduling concrete delivery.

REINFORCING STEEL

1. All beam stirrups and #3 bars shall, at a minimum, conform to ASTM Specifications A615, Grade 40. All other reinforcing steel shall conform to ASTM A615, Grade 60. Foreign steel is acceptable if mill certificates showing compliance with ASTM are provided.

2. All reinforcement shall be designed and detailed in accordance with the latest edition of the ACI "Manual of Standard Practice for Detailing Concrete Structures" (ACI 315).

3. Hook the ends of all discontinuous bars.

4. All hooks shall be ACI Standard 90 degree hooks unless detailed otherwise.

5. All reinforcing bar bends shall be made cold.

6. Reinforcement shall be supported to provide the following minimum concrete cover:

Cast against and permanently exposed to earth 3 in.
Formed, exposed to earth or weather 2 in.

GRADING

1. All vegetation and debris shall be removed from areas to be graded, prior to commencing with excavation or filling.

2. The ditches and road subgrade shall be constructed to the grades shown on the plans. Where unsuitable subsurface material is found (such as trash, debris or organic material or as evidenced by sponginess or pumping) the area shall be over-excavated and backfilled with acceptable native material.

3. All fills shall be placed in lifts of 6 to 8 inches. Each lift shall be compacted to 95 % standard proctor density prior to placement of subsequent lifts. Material for fills shall be obtained from excavation of ditches, provided that such material is suitable.

4. All debris, deleterious materials, and/or excavated soils shall be disposed of properly offsite and out of floodplain and not be allowed to accumulate. Disposal of such material shall not be allowed in streams, waterways, drainageways, drainage facilities, or public or private lands except where proper permitting has been obtained. Excess excavation shall be properly disposed of offsite and out of floodplain.

5. The CONTRACTOR shall maintain adequate drainage at all times. Water shall not be allowed to accumulate or remain in excavations.

STORM SEWER

1. All storm sewer pipe shall be reinforced concrete pipe, Class III, unless noted otherwise. Embedment, backfill and compaction is subsidiary to pipe installation.

2. The CONTRACTOR shall install proposed storm pipe of the size and types specified (or approved equal) to the lines and grades shown on the plans.

3. Sanitary sewers which are within 2 feet of the proposed storm drain structures (measured from outside of pipe to outside of pipe), shall be encased in concrete (2000 psi) for a distance of five feet on both sides of the centerline of the crossing.

DRIVEWAY ENTRY PAVING

1. The driveway entry as identified on the plans, shall be composed of 8" thick, 3,600 psi, reinforced concrete pavement. The subgrade shall consist of smooth graded native material, set to the grades shown on the plans. The subgrade shall be established by tilling the area below the proposed pavement to a depth of 6 inches and re-compacting to a minimum density of 95% standard proctor.

2. The pavement may be constructed monolithically although construction joints are permissible for convenience. Construction joints shall be vertical and shall be keyed to the next pour with a vertical 2" X 4" key.

Shouldn't this be "horizontal"?

3. Dummy joints shall be sawed transversely at interva [illegible]

4. The cost of elevation adjustment of manholes, valv [illegible] ullboxes and water meters shall be subsidiary to the other items of the project. All meter [illegible] adjustment shall be cross-referenced by the CONTRACTOR so that they may be easily reloca [illegible] djustments shall be completed prior to placing the concrete for pavement.

5. The existing concrete shall be clean and free of debris prior to beginning pouring of new concrete.

6. The CONTRACTOR shall submit batch designs (for asphalt) to the ENGINEER for approval prior to beginning paving operations.

WATER

1. All water main construction shall conform to the minimum requirements of the TNRCC Rules and Regulations for public water and sewer systems.

2. Acceptable water main sizes shall be 6" and larger. Water mains less than 6" diameter will not be permitted; nor will 10" diameter water pipe.

3. All water mains 8" or less shall be Class 200, AWWA C900 *(C909)* P.V.C. water Pipe with B+ embedment unless noted otherwise. Pipe color shall be blue.

4. All 12" water mains shall be Class 150 (unless specified otherwise), AWWA ~~C900~~ *C909* P.V.C. water pipe or AWWA C303 RCCP with B-1 embedment unless noted otherwise. Pipe color shall be blue.

5. All water mains larger than 12" shall be AWWA C303 pretensioned concrete cylinder water pipe or AWWA C900 *(C909)* PVC (CL150) water pipe with B-1 embedment unless noted otherwise. (blue in color)

Most of this doesn't apply to this project. The fire-line is the only one, & it is bid in the plans.

6. All 6" through 12" valves shall be Mueller Resilient Seat Gate Valves (A-2370-series) or approved equal.

7. All 16" and larger valves shall be Mueller Lineseal III Butterfly Valves (B-3211-series-0024) or approved equal.

8. The following firehydrants are approved for use:
   1) Mueller Centurion - Model A-423
   2) M&H Model 929 with epoxy coated shoe
   3) Waterous Pacer 100
   4) American Darling (Model# B-84B)
   5) Clow Corporation - Medallion

9. Hose/pumper nozzles on fire hydrants shall be 18" above the top of curb, or finished grade, and shall face the streets or firelane. Fire hydrant shall be placed not less than 3' nor more than 6' behind the curb.

10. All tapping sleeves shall be Mueller or approved equal.

11. All water mains shall have a minimum cover of 48" below finished grades.

12. All water mains shall be pressure tested in accordance with the NCTCOG Specifications. THE CONTRACTOR shall flush and sterilize all water mains. THE CITY will take water samples and have laboratory tests performed to prove the water mains to be free of bacteria/micro-organisms.

ALL FITTINGS SHALL HAVE "MEGA-LUGS".

SANITARY SEWER

1. All sanitary sewer mains 15" or less shall be ASTM D3034-SDR35 P.V.C. gravity sewer pipe with B+ embedment unless noted otherwise. Pipe color shall be green.

2. All sanitary sewer mains 18" to 27" shall be ASTM F679 (TYPE 1) SDR35 P.V.C. gravity sewer pipe with B-1 embedment unless noted otherwise. Pipe color shall be green.

3. All sanitary sewer mains larger than 27" shall be RCP ASTM C76 of minimum strength Class III with B-1 embedment unless noted otherwise. All joints to be rubber O-ring gasket type conforming to ASTM C443.

Doesn't apply here!

4. All sanitary sewers shall be air tested in accordance with the NCTCOG Specifications.

5. All sanitary sewers shall be televised and a video tape shall be made and furnished to the city.

6. All sanitary sewer service laterals shall be Schedule 40 poly vinyl chloride (PVC) pipe.

TRENCHES

1. The CONTRACTOR shall institute and, throughout the course of this project, maintain a trench safety program as called for by the specifications.

2. The maximum length of open excavation for trenches shall be limited to 100 lineal feet regardless of depth. All trenches shall be backfilled at the end of each day.

3. Areas which have been backfilled to comply with the requirements of paragraph #2, above, but have not been properly compacted, shall be promptly removed at the start of the next working day and compacted to the specified densities.

EMBEDMENT

1. Embedment (NCTCOG item 6.2.9.) of storm sewer pipe and laterals under pavement or subject to vehicular traffic, shall be Class "B". Select (or granular) material above the crushed stone shall be compacted to a minimum of 90 percent of maximum density as determined by ASTM D 698.

2. Embedment of storm sewer pipe not under pavement or subject to vehicular traffic shall be Class "C".

3. All water and sewer lines which may be adjusted, shall receive Class "B-1" embedment except where concrete encasement is specified.

BACKFILL

1. Backfill under pavement shall have a uniform density of not less than 95 % of the maximum density as determined by ASTM D698. Backfill not under pavement shall have a uniform density of not less than 90 % of the maximum density as determined by ASTM D698.

2. Backfilling shall be accomplished using friable native (excavated) material free of boulders, organic material, trash and debris. Soft spots shall be excavated and backfilled with suitable fill material. All backfill shall be placed in 6 to 8 inch lifts each compacted to specified densities.

ROCK RIP-RAP

Indicate where this applies! *What size*

1. Rock rip-rap shall consist of a well graded mix of stones between maximum particle size and 50 % of the maximum particle diameter. A minimum of 60 % of the volume of the rock shall be composed of rocks of the maximum particle size.

2. Areas to be rip-rapped shall be smooth graded and be free of debris or loose soils. The area shall be overlain with a geotextile fabric such as Mirafi 700x or approved equal.

3. Rock rip-rap erosion protection shall be placed at locations indicated on the plans for the purpose of providing protection against erosion at the outlets of drainage features. Rip-rap shall consist of stones 4" to 6" in diameter no less than 15" deep. The interstitial spaces in the rock beds shall be filled with native clay materials and compacted.

GRASS

1. Areas to grassed shall be hydromulched using hulled Bermuda grass if seeding is to occur between May 15 and September 15. Winter Rye grass shall be used if seeding is to occur between September 15 and May 15. Application rates, fertilizer and watering shall be according to the supplier's recommendations.

2. All turf areas disturbed by work shall be aerated to a depth of six (6) inches, smooth graded and hydromulched as indicated in item 1, above. Payment shall be made for work required inside grading limits and construction limits as shown on plans. All turf areas disturbed outside these limits shall be the responsibility of the CONTRACTOR and shall be repaired by aerating to a depth of six (6) inches, smooth grading and hydromulching as indicated in item 1, above.

3. Hydromulched areas shall be thoroughly watered within 30 minutes of placement. Watering shall be maintained through the first mowing, at intervals and amounts recommended by the supplier. The project will not be accepted until all graded, disturbed and repaired areas have a substantial stand of grass.

TREES

1. The CONTRACTOR shall exercise caution during all phases of the project to protect existing trees and shrubs.

2. Earthfill, stockpiling of materials, vehicular parking, and excessive foot or vehicular traffic shall not be allowed within the drip line of vegetation designated to remain in place. Vegetation damaged by any of these or similar actions shall be replaced with viable vegetation of the same species, similar condition, and like size unless otherwise approved by the OWNER.

3. Any cuts, skins, scrapes or bruises to the bark of the vegetation shall be carefully trimmed and local nursery accepted procedures utilized to seal damaged bark.

4. Any limbs or branches one-half (1/2) inch or greater in diameter which are broken, severed or otherwise seriously damaged during construction shall be cut off at the base of the damaged limb or branch flush with the adjacent limb or tree trunk.

5. All roots one (1) inch or greater in diameter which are cut, broken or otherwise severed during construction operations shall have the end smoothly cut perpendicular to the root. Roots exposed during excavation or other operations shall be covered with moist earth and/or backfilled as soon as possible to prevent the roots from drying out.

EROSION PROTECTION DURING CONSTRUCTION

1. Erosion Control Devices as shown for the project shall be installed prior to the start of land disturbing activities.

2. All erosion control devices are to be installed in accordance with the approved plans and specifications for the project. CONTRACTOR may construct stabilized construction entrances at alternate locations if needed. However, changes are to be approved by the CITY ENGINEER and the OWNER prior to the start of construction.

3. If the approved erosion control plan proves to be ineffective in controlling erosion and off-site sedimentation from the project, the erosion control plan will be required to be revised.

4. If off-site soil borrow or spoil sites are used in conjunction with this project, this information shall be disclosed and shown on the erosion control plan. Off-site borrow and spoil areas are considered a part of the project site and therefore shall comply with the City of Grand Prairie erosion control requirements. These areas shall be stabilized with permanent ground cover prior to final approval of the project.

We don't acknowledge City of G.P. requirements! *How?*

5. CONTRACTOR shall be responsible for seeding areas disturbed by grading at the completion of construction.

How?

DESIGNED BY: O.E.I. DRAFTED BY: O.E.I.

NOTES AND REVISIONS:

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ISSUED: 1/14/03
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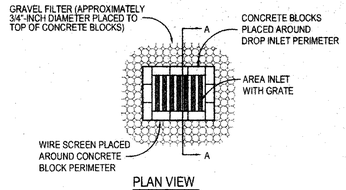
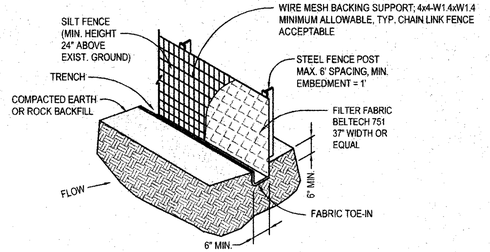
T.F. STONE COMPANIES INC.
T.F. STONE BUILDING
LOT 1, BLOCK A, ADDISON STORAGE ADDITION
GENERAL NOTES
ADDISON, DALLAS COUNTY, TEXAS

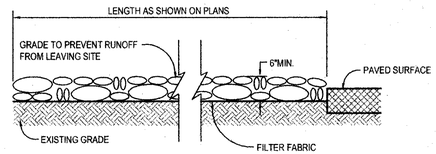
DATE: 1/14/03
O.E. JOB. NO. 138-02
SHEET NO. 8 OF 9 SHEETS



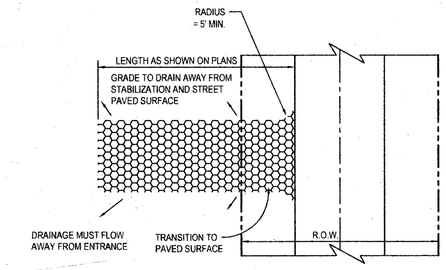
INLET PROTECTION DETAILS
SCALE: NTS



SILT FENCE DETAIL
SCALE: NTS



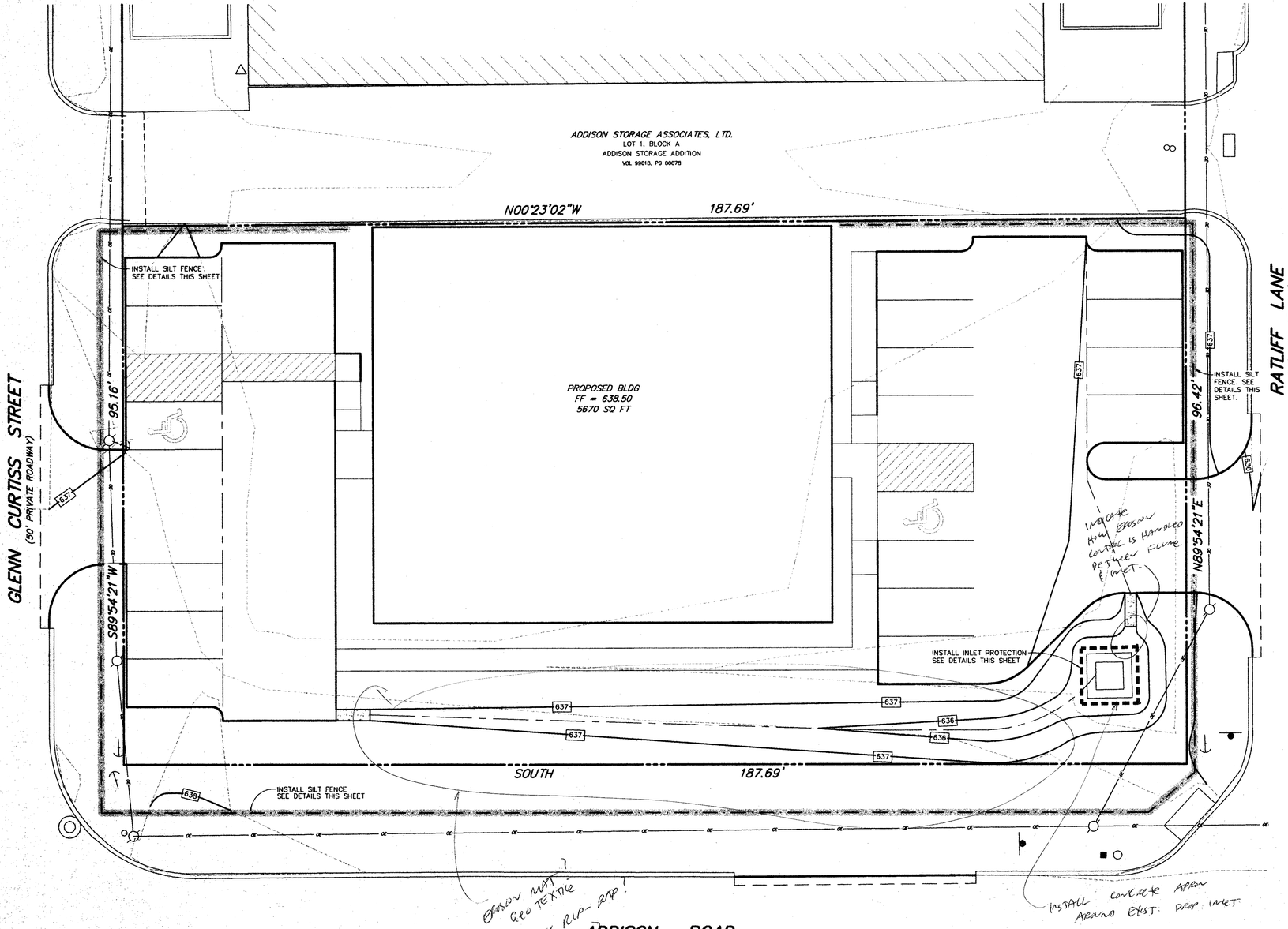
PROFILE VIEW
SCALE: NTS



PLAN VIEW
SCALE: NTS

Where is this on the plans?

STABILIZED CONSTRUCTION ENTRANCE
SCALE: NTS



Erosion mat geo textile rock rip-rap! Hydromulch

Indicate any erosion control is needed between flume & inlet.

Install concrete apron around exist. drop inlet

Erosion control is not specifically stated on general notes!

EROSION CONTROL GENERAL NOTES

1. ALL PROCEDURES AND MATERIALS USED FOR EROSION CONTROL SHALL BE APPROVED BY THE CITY OF ADDISON.
2. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO USE WHATEVER MEANS ARE NECESSARY TO CONTROL AND LIMIT SILT AND SEDIMENT LEAVING THIS SITE. SPECIFICALLY, THE CONTRACTOR SHALL PROTECT ALL PUBLIC STREET, ALLEYS, STREAMS, STORM DRAIN SYSTEMS AND INLETS FROM EROSION DEPOSITS. THE CONTRACTOR SHALL COMPLY WITH STORM WATER POLLUTION PREVENTION MANAGEMENT PRACTICES PER THE CITY OF ADDISON AND EPA REQUIREMENTS.
3. SILT FENCING SHALL BE BELTECH SILT FENCE 751 37" WIDTH OR APPROVED EQUAL. ACCUMULATED SEDIMENT SHALL BE GRADED AWAY FROM FENCE WHEN SILT REACHES 1/3 THE FENCES HEIGHT.
4. PRIOR TO COMMENCING ANY CONSTRUCTION, PERIMETER SILT FENCE SHALL BE INSTALLED AT THE LOCATIONS SHOWN ON THESE PLANS AND THE STORM WATER POLLUTION PREVENTION PLANS AS APPLICABLE.
5. THE SPECIFIC PLANT MATERIALS PROPOSED TO PROTECT FILL AND EXCAVATED SLOPES SHALL BE AS INDICATED ON THE LANDSCAPE PLANS. PLANT MATERIALS MUST BE SUITABLE FOR USE UNDER LOCAL CLIMATE AND SOIL CONDITIONS. IN GENERAL, HYDRO SEEDING OR SODDING BERMUDA GRASS IS ACCEPTABLE DURING THE SUMMER MONTHS (MAY 1 TO AUGUST 30). WINTER RYE OR FESCUE GRASS MAY BE PLANTED DURING TIMES OTHER THAN THE SUMMER MONTHS AS A TEMPORARY MEASURE UNTIL SUCH TIME AS THE PERMANENT PLANTING CAN BE MADE.
6. AS INLETS ARE COMPLETED, TEMPORARY SEDIMENT BARRIERS AND INLET PROTECTION SHALL BE INSTALLED IN ACCORDANCE WITH THE CITY OF ADDISON SPECIFICATIONS AND THESE PLANS.
7. AT THE COMPLETION OF THE FINAL GRADING, THE DISTURBED AREA(S) SHALL BE REVEGETATED IN ACCORDANCE WITH THE LANDSCAPE PLANS.
8. SILT FENCE AND INLET SEDIMENT BARRIERS SHALL REMAIN IN PLACE UNTIL REVEGETATION HAS BEEN COMPLETED.
9. DISTURBED AREAS THAT ARE SEEDED OR SODDED SHALL BE CHECKED PERIODICALLY TO SEE THAT GRASS COVERAGE IS PROPERLY MAINTAINED. DISTURBED AREAS SHALL BE WATERED, FERTILIZED, AND RESEEDED OR RESODDED, IF NECESSARY.
10. IF THE EROSION CONTROL IS REMOVED FOR CONSTRUCTION AND/OR ACCESS PURPOSES, THE CONTRACTOR SHALL REPLACE IT AT THE END OF EACH WORK DAY.
11. EROSION PROTECTION MAY BE ADDED OR DELETED PER THE CITY OF ADDISON.
12. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COMPLETING EROSION PROTECTION PLANS AND PERMITTING REQUIRED BY FEDERAL REGULATIONS AS ADMINISTERED BY THE ENVIRONMENTAL PROTECTION AGENCY AS REQUIRED. THIS INCLUDES DEVELOPMENT OF A NOTICE OF INTENT AND STORM WATER POLLUTION PREVENTION PLANS, AS REQUIRED.

LEGEND:

PROPOSED CONTOUR	518
EXISTING INDEX CONTOUR	515
EXISTING INTERMEDIATE CONTOUR	513
EDGE OF CHANNEL	
PROPERTY BOUNDARY	
EXIST FENCE	x x
OVERHEAD ELECTRIC LINE	OE
SAN SEWER LINE	SS SS
POWER POLE	
EXISTING FIRE HYDRANT	
WATER VALVE	
WATER METER	W
GAS VALVE	G
SPRINKLER VALVE	
PROPOSED SILT FENCE	
PROPOSED INLET PROTECTION	

NOTES:

1. BOUNDARY SURVEY AND OFF-SITE TOPOGRAPHY DEVELOPED BY STOVALL AND ASSOCIATES; OCTOBER 8, 2001.
2. ON-SITE TOPOGRAPHY DEVELOPED BY D & D SURVEYING, INC.; 105 SW 2ND STREET GRAND PRAIRIE, TEXAS; JANUARY 2003.

BENCHMARK:

1. "□" CUT TOP OF INLET SOUTHWEST CORNER INTERSECTION OF RATLIFF LANE AND ADDISON ROAD.
   ELEV = 637.20

N

0 5 10 20
PLAN SCALE (Feet)

DESIGNED BY: O.E.I. DRAFTED BY: O.E.I.

NOTES AND REVISIONS:

SEAL
FOR REVIEW ONLY
ISSUED: 1/14/03

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JIM O'BRIEN, P.E. #55881
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PREPARED BY:
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4011 West Plano Parkway Suite 108 Plano, Texas 75093 Tel 972-312-8850

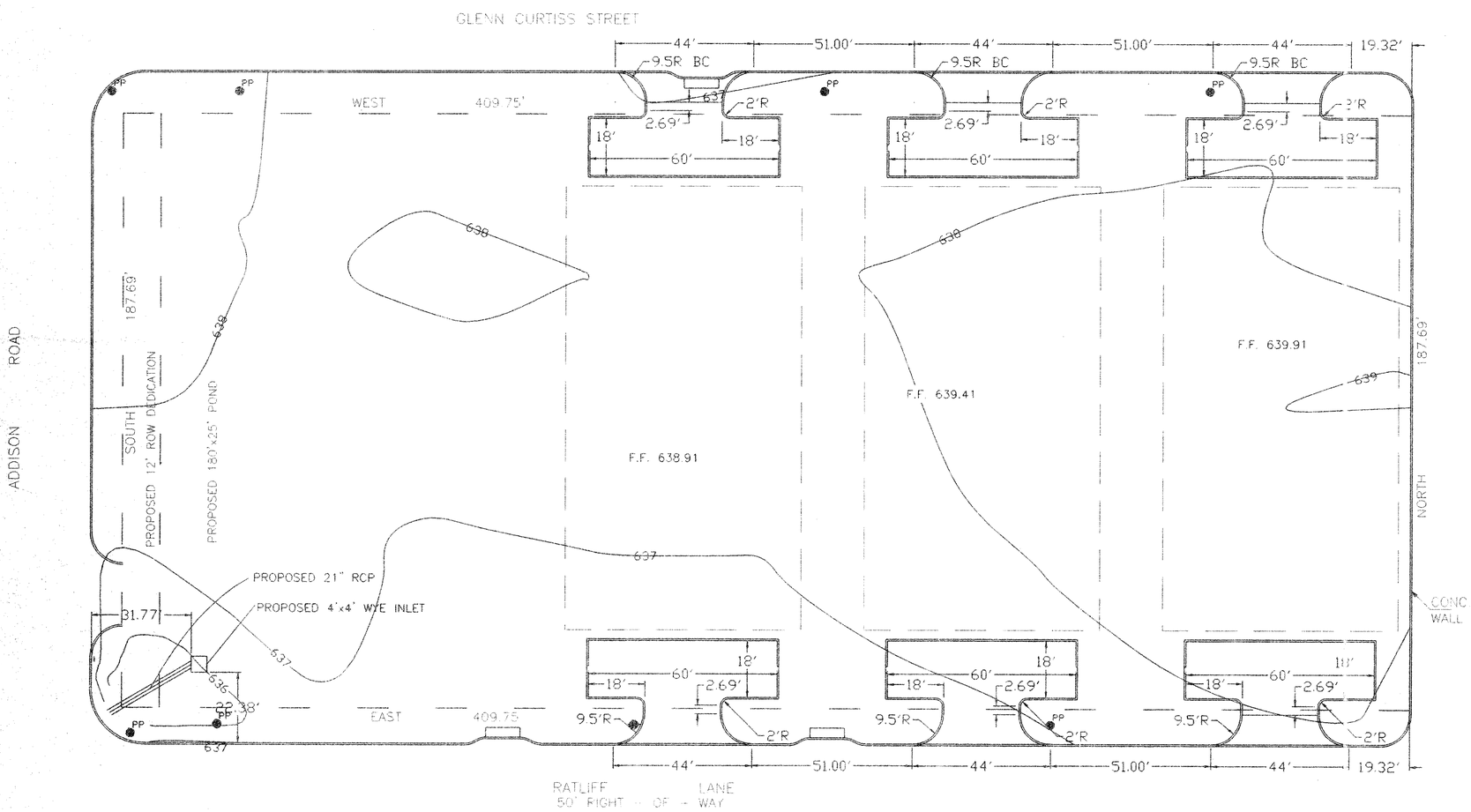
T.F. STONE COMPANIES INC.
T.F. STONE BUILDING
LOT 1, BLOCK A, ADDISON STORAGE ADDITION
ADDISON, DALLAS COUNTY, TEXAS

INITIAL EROSION CONTROL PLAN

DATE: 1/14/03

O.E. JOB. NO. 138-02

SHEET NO. 9 OF 9 SHEETS



0 20 40
SCALE: 1" = 20'

LEGEND
WV = WATER VALVE
FH = FIRE HYDRANT
MH = MANHOLE
GAS = LONE STAR GAS LINE
STS = STORM SEWER
W = WATERLINE
PP = POWER POLE
TEL = TELEPHONE LINE MARKER
SS = SANITARY SEWER
OE = OVERHEAD ELECTRIC

DESIGNED BY: O.E.
DRAWN BY: O.E.
NOTE AND REVISIONS:
5/10/99 ADDED GRADING/PAVING FOR BLDG. 2

SEAL
JIM O'BRIEN 95581
REGISTERED PROFESSIONAL ENGINEER
STATE OF TEXAS
5-12-99
For Contract Letting

PREPARED BY:
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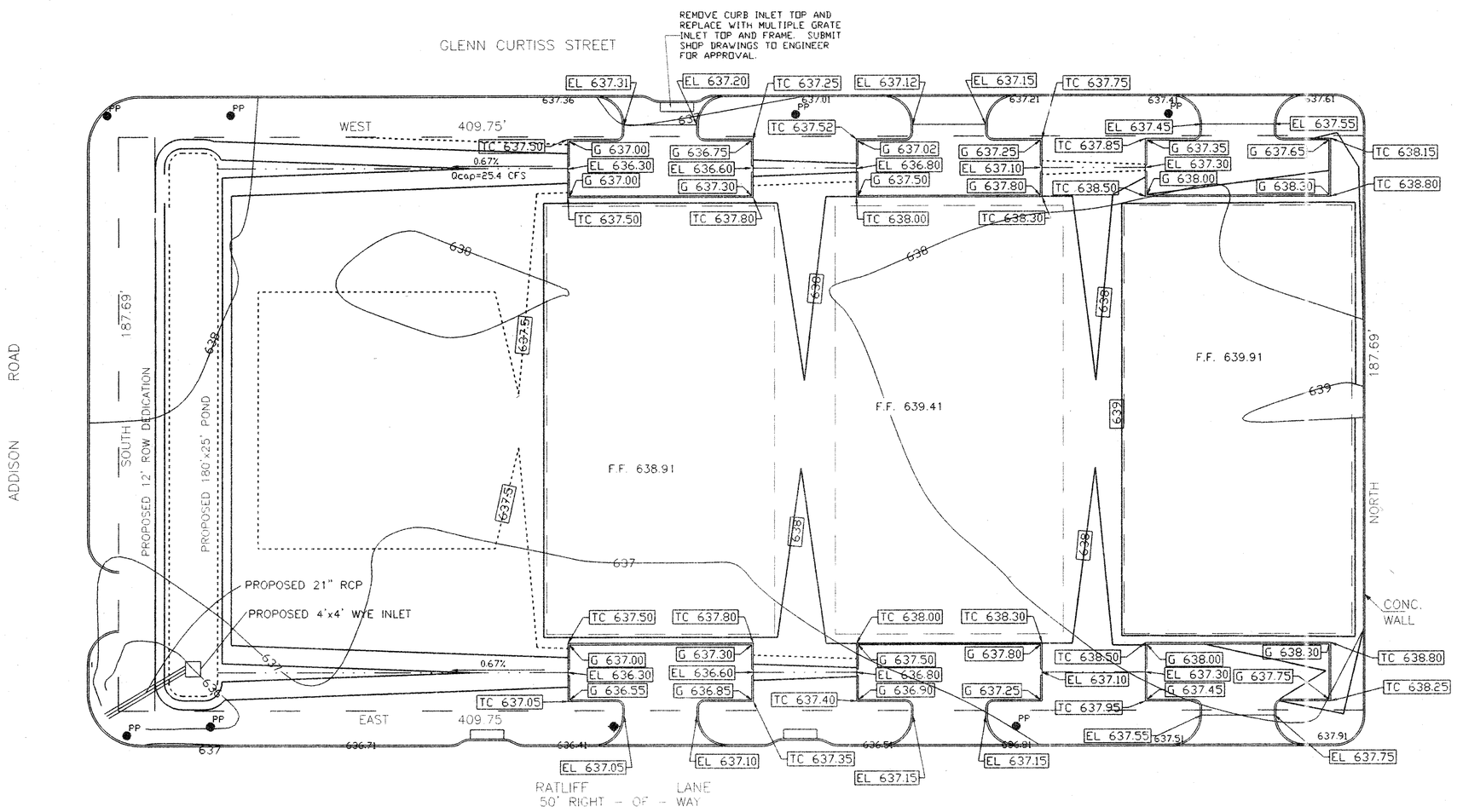
Farmers Branch, TX 75234
Ph 972 241-0336
Fx 972 241-0370

TF STONE PROJECT
PROPOSED FACILITIES
DIMENSIONAL CONTROL PLAN
ADDISON, TX

DATE: 8/18/98
O.E. JOB NO. 1309801
SHEET NO. 3 OF 8 SHEETS



LEGEND		
WV	=	WATER VALVE
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SS	=	SANITARY SEWER
OE	=	OVERHEAD ELECTRIC

0 20 40
SCALE: 1" = 20'

DESIGNED BY: O.E. DRAWN BY: O.E.

NOTE AND REVISIONS
5/10/99 ADDED GRADING/PAVING FOR BLDGs. 2 & 3

SEAL

JIM O'BRIEN 59091 REGISTERED PROFESSIONAL ENGINEER STATE OF TEXAS

5/10/99

FOR CONSTRUCTION

PREPARED BY:

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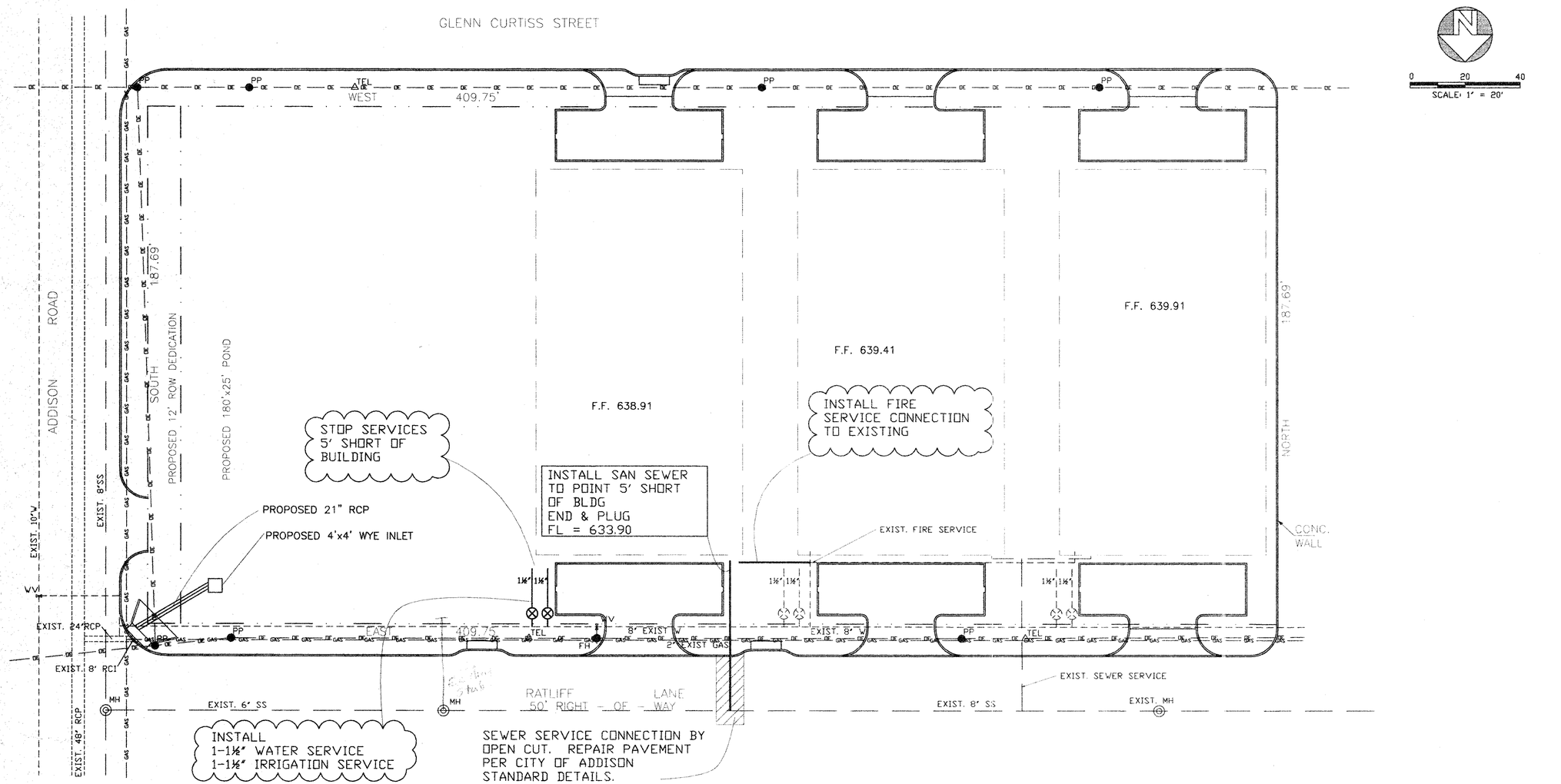
Fx. 972 241-0339

TF STONE PROJECT
PROPOSED FACILITIES
GRADING PLAN
ADDISON, TX

DATE: 8/18/98

O.E. JOB NO. 1309801

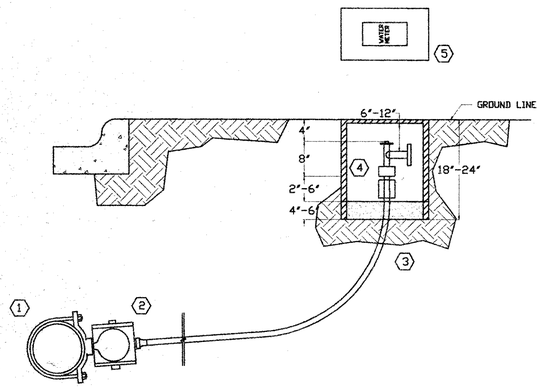
SHEET NO. 6 OF 8 SHEETS



0 20 40
SCALE: 1" = 20'

LEGEND
WV = WATER VALVE
FH = FIRE HYDRANT
MH = MANHOLE
GAS = LONE STAR GAS LINE
STS = STORM SEWER
W = WATERLINE
PP = POWER POLE
TEL = TELEPHONE LINE MARKER
SS = SANITARY SEWER
OE = OVERHEAD ELECTRIC

WATER AND SEWER PLAN

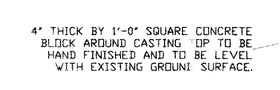


COPPER SERVICE CONNECTION WITH METER BOX DETAILS
N.T.S.

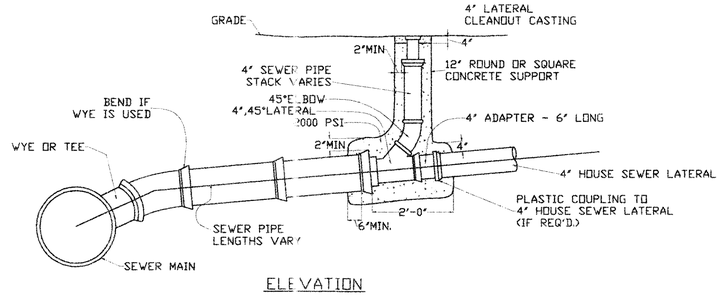
TOWN OF ADDISON
3/4" - 2" WATER SERVICE
APPROVED MATERIALS and PROCEDURES

1. Double-strap bronze tapping saddle with CC. (AWWA taper) threads: Mueller #BR2B, Ford #202B, or McDonald #3825.
2. Corporation stop with AWWA taper thread (CC) by conductive compression connection: Mueller H-15013 or B25008 (1.5", 2"), Mueller H-15008 or H-25008m(3/4", 1"), Ford FB 1000 or F1000 (1.5", 2", -6-G, respectively), (3/4", 1", -3-G, -4-G, respectively), McDonald 4701T or 4701BT
3. Pipe and meter size shall be determined by owner with approval of Building Inspection or Public Works/Engineering Departments: Piping shall be continuous type "K" copper from corporation to curb stop.
4. 90 degree angle curb stop with lock-wing: Mueller H-14277 or B24276 (1.5", 2"), Ford KV43-666W-G or FV43-777W-G (1.5", 2"), Mueller H-14277 or B24258 (3/4", 1"), Ford KV43-332W-G or KV43-444W-G (3/4",1"), McDonald 4646BT or 4606BT. All companion flanges (1.5", 2") shall be brass.
5. Meter boxes shall be of sufficient size to accommodate the curb stop, meter, and all connections. They shall have a cover with reader lid. Boxes may be stacked to achieve sufficient depth (see "B&C" above).
6. In-line curb-stops, meter yokes/setters, and/or meter risers may be considered on a case by case basis dependent on situation and subject to approval of Utility Inspector and/or Utility Foreman. No hand valves will be allowed on the inlet side of the meter.
7. The type of Backflow Prevention Assembly required shall depend upon the degree of hazard or potential hazard which exists. See Utility Rules for further information.
8. The tapping saddle and corporation stop must be poly-wrapped (8 mil) and hand backfilled with sand to a depth of 12". Additional backfill may be done by machine, with material free of rocks and clods exceeding three (3) inches in diameter. CAUTION! Inspection must be called for and completed prior to backfill, or tap must be re-exposed by the contractor so that inspection may be completed by the Town's representative.
9. Tap Fees: 3/4" = $50.00 1"= $100.00 1.5" = $150.00 2" = $400.00

Lawn irrigation sprinklers are exempt from tap fees.
Connection to an existing service will require a $35.00 connection fee.



PLAN



ELEVATION

ALL PVC SANITARY SEWER PIPE TO BE SDR WITH INTEGRAL BELL. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD LOCATE HORIZONTALLY EACH 4" SERVICE IN RELATION TO SANITARY SEWER STATIONING.

FIELD TIES ARE TO BE INCLUDED AND RECORDED ON ALUMINIZED SANITARY SEWER TAPE. THIS TAPE, GREEN OR RED IN COLOR, IS TO BE ATTACHED TO THE 4" SERVICE AT THE ROW LINE AND BROUGHT TO THE SURFACE TO BE USED AS A PERMANENT MARKER.

DESIGNED BY: O.E. DRAWN BY: O.E.

NOTE AND REVISIONS
5/10/99 ADDED GRADING/PAVING FOR BLDGs. 2 & 3

SEAL

PREPARED BY:
O'BrienEngineering
13016 Bee Street, Suite 202
Farmers Branch, Tx 75234
Ph: 972 241-0336
Fx: 972 241-0370

TF STONE PROJECT
PROPOSED FACILITIES
WATER AND SEWER PLAN AND DETAILS
ADDISON, TX

DATE: 8/18/98

O.E. JOB. NO.
1309801

SHEET NO.
7
OF 8 SHEETS

CONSTRUCTION NOTES

GENERAL

1. The CONTRACTOR shall be responsible for being familiar with and having a working knowledge of these PLANS, the project area, and all codes, regulations or laws applicable to the project.
2. All construction shall conform to the requirements of the "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" by North Central Texas Council of Governments (NCTCOG) most recent amendment.
3. The CONTRACTOR shall provide "As Built" plans to the ENGINEER so that the reproducible sheets of the engineering plans may be corrected to reflect "As Built" conditions, as necessary.
4. The OWNER will designate a construction staging area on the Owner's property. The CONTRACTOR shall obtain written permission from the OWNER for specific materials to be stockpiled or specific equipment to be stored, prior to beginning construction.
5. The CONTRACTOR shall not allow soils and debris to enter existing inlets or drainage facilities.
6. The CONTRACTOR shall limit his work to the property as shown on the drawings. Existing on-site facilities shall not be disturbed except as noted on the plans. All disturbed or damaged areas outside the construction limits shall be restored at CONTRACTOR'S expense.
7. The CONTRACTOR shall maintain adequate drainage at all times. All groundwater, seepage, storm water, or water from any source that may occur or accumulate in excavations during the progress of the work shall be removed. All excavations shall be kept entirely free of standing water at all times during the construction work or until otherwise directed by the ENGINEER. All expenses necessary to comply with this requirement shall be born by the CONTRACTOR.
8. The CONTRACTOR shall not dispose wastes or any other materials into streams or waterways. Excess material shall be hauled away each day and not be allowed to accumulate.
9. The CONTRACTOR shall not burn or bury rubbish and waste materials on the project site.
10. The CONTRACTOR shall wet down dry materials to allay dust and prevent blowing dust.
11. All dimensions shown on the plans with respect to pipes are to the centerline of pipe, unless noted otherwise.
12. The CONTRACTOR shall be responsible for notifying the ENGINEER, the City Engineer, the Police and Fire Departments at least 24 hours in advance when any roadway will be closed or reopened.
13. The CONTRACTOR shall be required to provide and maintain all necessary warning and safety devices (flashing lights, barricades, signs, etc. in conformance with the "Texas Manual on Uniform Traffic Control") to protect public safety and health until the work has been completed and accepted by the CITY.
14. The locations of existing utilities shown on these plans are approximate. It is the responsibility of the CONTRACTOR to locate and verify in the field any utilities that may conflict with his construction. The CONTRACTOR shall be responsible for all fees and costs associated with relocating or protecting existing utilities. At least 48 hours prior to beginning construction in the vicinity of existing underground utilities, the CONTRACTOR shall notify all applicable utility companies, line locators and appropriate City departments.
15. The CONTRACTOR must have a set of plans "Approved" by the CITY on this project at all times.
16. Product Manufacturer's name(s) and/or model numbers are used herein to set a standard of quality and are not intended to be a restraint of trade or prevent submittals of other manufacturers' products of equal quality and equal colors, for products so mentioned.
17. The CONTRACTOR shall institute and, throughout the course of this project, maintain a trench safety program as required by current applicable code. The cost for the trench safety program shall not be paid for separately but shall be incidental to other related work items.

GRADING

1. All vegetation and debris shall be removed from areas to be graded, prior to commencing with excavation or filling. The top 3" of topsoil shall be removed and stockpiled prior to the start of grading operations. The location for stockpiling must be approved by the Engineer prior to placing any materials.
2. Material excavated during construction of the pond at the south end of the site, is intended to be used for construction of fill pads throughout the site. Materials suitable for fill shall be stockpiled at a location to be approved by the Engineer.
3. All fills shall be placed in lifts of 6 to 8 inches. Each lift shall be compacted to 95% standard proctor density prior to placement of subsequent lifts. Areas designated on the plans for grading shall be finished to the designed grades +0.1 Foot. Any fill placed beneath areas to be grassed shall be compacted to 90% standard density.
4. All debris or deleterious materials shall be disposed of properly and not be allowed to accumulate. Disposal of such materials shall not be allowed in streams, waterways, drainageways, drainage facilities, or public or private lands except where proper permitting has been obtained. The Contractor shall not burn or bury rubbish or waste materials on the project site without the approval of the engineer of governing authorities.
5. The Contractor shall maintain adequate drainage at all times. Water shall not be allowed to accumulate or remain in excavations.

PAVING & FLATWORK

1. The cost of elevation adjustment of manholes, valves, cleanouts, irrigation heads, pullboxes and water meters shall be subsidiary to the other items of the project. All meters, valves and manholes requiring adjustment shall be cross-referenced by the CONTRACTOR so that they may be easily relocated after paving. All elevation adjustments shall be completed prior to placing the pavement.
2. All dimensions and station locations shown on the plans are to back of curb unless noted otherwise.
3. Sidewalk/pavement interfaces shall be reconstructed to comply with the most recent guidelines of Americans with Disabilities Act (ADA).
4. Sidewalks shall be constructed of 4" thick, 2,500 psi concrete, reinforced with #3 bars on 18" longitudinal centers, 24" lateral centers at locations shown on the drawing. Sidewalk subgrades shall be 1" sand cushion, compacted to 95% standard proctor density. Sidewalk edges shall have a 1/4" rounded edge.
5. Transverse expansion joints shall be placed at intervals of 40' along sidewalks. Expansion joints shall be provided with a pre-molded filler throughout the depth and length of the joint, except that the top 1" of the joint shall be sealed with hot poured rubber sealing compound. 24" long No. 6 smooth dowel bars shall be placed at 12" center to center along the joint. A 1" void shall be formed at one end of the bar by wrapping the bar in a closed end dowel sleeve.
6. Transverse contraction (control) joints shall be placed at intervals of 3' along sidewalks. Form joints with a hand tool or similar device to achieve a 3/8" deep recess with 1/4" rounded edges.

CONCRETE

1. Concrete for the aprons shall be of hard rock aggregate and shall develop a minimum compressive strength of 3,000 psi at 28 days. Maximum size of coarse aggregate shall be 1 1/2". Contractor must obtain approval for his choice of concrete supplier from the ENGINEER prior to beginning work.
2. Concrete shall have a maximum slump of four (4) inches. A water/cement ratio of 0.5 shall not be exceeded to arrive at an acceptable slump for workability purposes.
3. All concrete shall be designed, mixed, transported, and placed in accordance with the latest specifications of the "Standard Specifications for Public Works Construction" by North Central Texas Council of Governments (most recent update).
4. The CONTRACTOR shall trowel finish all placed concrete unless noted otherwise.

REINFORCING STEEL

1. All reinforcing steel shall conform to ASTM A615, Grade 60. Foreign steel is acceptable if mill certificates showing compliance with ASTM are provided.
2. All reinforcement shall be designed and detailed in accordance with the latest edition of the ACI "Manual of Standard Practice for Detailing Concrete Structures" (ACI 315).
3. All reinforcing bar bends shall be made cold.
4. Reinforcing steel shall be free of dirt, loose rust, loose mill scale, paint, oil, grease or any other substance that could prevent development of a good bond.
5. Reinforcement shall be supported using bar chairs to provide the following minimum concrete cover:
   Cast against and permanently exposed to earth 3 in.
   Formed, exposed to earth or weather 2 in
6. Where splicing occurs, bars shall be lapped a minimum of 18 inches.

STORM SEWER

1. All storm sewer pipe shall be reinforced concrete pipe, Class III (RCP), unless noted otherwise. Embedment, backfill and compaction is subsidiary to pipe installation.
2. The CONTRACTOR shall remove and salvage existing pipes where indicated on the plans.
3. The CONTRACTOR shall install proposed storm sewer pipe of the size and types specified (or approved equal) to the lines and grades shown on the plans. Connections shall be made to the specifications of the manufacturer.
4. A concrete collar shall be poured around RCP storm sewer pipes at changes in pipe size and at all field connected laterals.

TRENCH

1. The CONTRACTOR shall institute and, throughout the course of this project, maintain a viable trench safety program at all times, in compliance with Texas House Bill 1569, effective September 1, 1989.
2. The maximum length of open excavation for trenches shall be limited to 100 lineal feet regardless of depth. All trenches shall be backfilled at the end of the day and a drivable surface provided. A drivable surface shall be as determined by the ENGINEER.
3. Areas which have been backfilled to comply with the requirements of paragraph #2, above, but have not been properly compacted, shall be promptly removed at the start of the next working day and compacted in accordance with appropriate sections of the specifications.

EMBEDMENT

1. Embedment of storm sewer pipe and laterals under pavement or subject to vehicular traffic, shall be Class "B+" as specified in "STANDARD SPECIFICATIONS FOR PUBLIC WORKS CONSTRUCTION" by North Central Texas Council of Governments (NCTCOG) most recent amendment. Select (or granular) material above the crushed stone shall be compacted to a minimum of 90 percent of maximum density as determined by ASTM D 698.
2. Embedment of storm sewer pipe not under pavement or subject to vehicular traffic shall be Class "C".
3. All water and sewer lines which may be adjusted, shall receive Class "B-1" embedment except where concrete encasement is specified.

BACKFILL

1. Backfill under pavement shall have a uniform density of not less than 95% of the maximum density as determined by ASTM D698. Backfill not under pavement shall have a uniform density of not less than 90% of the maximum density as determined by ASTM D698.
2. Backfilling shall be accomplished using friable native material free of boulders, organic material, trash and debris. Backfill shall be placed in 6 to 8 inch lifts each compacted to specified densities.

WATER

1. All water main construction shall conform to the minimum requirements of the Texas State Department of Health Rules and Regulations for public water and sewer systems.
2. New water lines and existing water pipes which are to be removed or relocated shall be replaced with pipes of the same size and material, and of equal or better grade according to the following, unless otherwise specified: water mains 8" or less shall be Class 200, AWWA C900 P.V.C. water pipe; 12" water mains shall be Class 150, AWWA C900 P.V.C. water pipe or AWWA C303 RCCP; water mains larger than 12" shall be AWWA C303 pre-tensioned concrete cylinder water pipe. PVC pipe color shall be blue.
3. Fire hydrants shall be placed not less than 3' nor more than 6' behind the curb. Fire hydrants shall be compression type complying with requirements of AWWA C-502 as manufactured by Mueller.
4. All water mains shall have a minimum cover of 36" below finished grades.
5. All water mains shall be pressure tested in accordance with the NCTCOG Specifications. The CONTRACTOR shall flush and sterilize all water mains. The ~~XXX~~ will take water samples and have laboratory tests performed to prove the water mains to be free of bacteria/micro-organisms.
6. Thrust control shall be provided with the use of retainer glands at all fittings.

SANITARY SEWER

1. All sanitary sewer main construction shall conform to the minimum requirements of the Texas State Department of Health Rules and Regulations for public water and sewer systems and to the Town of Addison plumbing codes and Standards and Specifications for the Town of Addison. Where conflicts occur, the local ordinance shall take precedence.
2. New sanitary sewer lines and existing sewer pipes which are to be removed or relocated shall be replaced with pipes of the same size and material, and of equal or better grade and, unless otherwise specified, shall be SDR 35 PVC (ASTM D-3034).
3. All sanitary sewers shall be constructed to the slopes and grades indicated on the plans.
4. Where sewer manholes are specified, they shall be standard cast-in-place with the diameter specified.
5. Services which are to be connected to the main or to manholes shall be installed at a minimum of 8" above the main flowline. Connections to the manhole shall be accomplished using a manhole coupling or rubber ring water stops as recommended by the pipe manufacturer.

LANDSCAPE, SEEDING & TREES

1. All landscaping in rights-of-way or easements shall be approved by the ENGINEER prior to construction.
2. Damage to existing landscape to remain shall be replaced with like kind and size, material and workmanship (or better) at the CONTRACTOR'S expense.
3. All areas disturbed by work shall be seeded unless otherwise noted on the plans. Payment shall be made for work required inside grading limits and construction limits as shown on plans. All turf areas disturbed outside these limits shall be the responsibility of the CONTRACTOR and shall be reestablished at no cost to the OWNER.
4. The CONTRACTOR shall exercise utmost of caution during all phases of the project to protect existing trees and shrubs.

EROSION PROTECTION DURING CONSTRUCTION

1. The Contractor shall erect and maintain hay bales or silt fences throughout the project during construction to control the loss of material due to erosion.
2. Upon completion of construction, silt fences and hay bales shall be removed and disposed of appropriately. Accumulated silt shall be spread and graded to drain. Graded areas shall be seeded or hydromulched and watered until the grass is established.

FOR CONSTRUCTION

DESIGNED BY: G.E. DRAWN BY: G.E.

NOTE AND REVISIONS
5/10/99 reword sidewalk, staining, and subgrade

SEAL

PREPARED BY:
O'BrienEngineering
13016 Bee Street, Suite 202
Farmers Branch, TX 75234
Ph: 972 241-0336
Fx: 972 241-0370

TF STONE PROJECT
PROPOSED FACILITIES

GENERAL NOTES AND

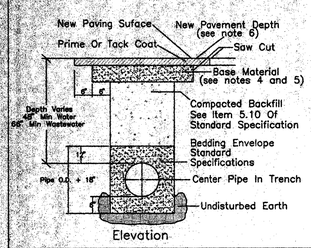
TOWN OF ADDISON, TEXAS

DATE: 12/02/98

O.E. JOB. NO. 1309801

SHEET NO. 8 OF 8 SHEETS

Typical Trench With Paved Surface



Elevation

Notes:

1. The existing paving surface shall be saw cut in a straight line, a minimum of 12" wider than the undisturbed sides of the trench, symetrical about the center line of the excavation.
2. Any concrete paving shall be saw cut 6" wider than undisturbed sides of excavation.
3. If excavation area is open for temporary public use, the surface shall be maintained levelwith adjacent riding surface with cold mix or temporary hot mix.
4. Road base and surface materials in the trench cut shall be replaced in kind of equal thickness or with minimum base thickness of 10 inches, whichever is greatest.
5. All damaged areas of pavementoutside the trench cut shall be removed and replaced with a minimum of 8 inches of base or match existing, whichever is greater.
6. Surface pavement shall be of the kind and thickness as existing, or minimum 2", whichever is greater.

City Of Addison Utility – Special Construction Notes

1. The city standard construction specificatione current at the time of bidding shall govern material and methods used to do this work.
2. At least 48 hours befoe beginning any water and wastewater construction in public R.O.W. or public easement, the contractor shall notify Transportaion and Public Services Inspection Division for main line construction, or water and watewater utillity taps inspection for taps only construction.
3. The contractor shall contact the Austin area "one call" system at 472-2822 for existing utillity locations prior to any excavation. In advance of construction , the contractor shall verify th locations of all utilities to be extended, tied to, or altered, or subject to damage/inconvenience by the construction operators. The City of Austin Water and Wastewater Maintenance responsibility ends at R.O.W. easement lines.
4. No other utility service/appurtenances shall be placed near the property line, or other assigned location designated for water and wastewater utility service that would interfere with the water and wastewater services.
5. Pressure taps shall be in accordance with city standard specification. The contractor shall do all excavation etc. and shall furnish, install and air test the sleeve and valve.
6. Thrust restraint shall be in accordance with city standard specification and NFPA 24 underground fire code.
7. Water line testing and sterilization shall be performed in accordance with city standard specificatin.

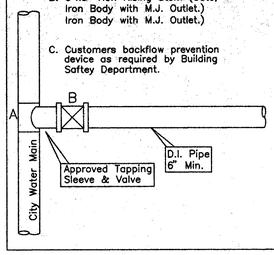
Fire Line Installation

List Of Materials

A. Tyler Type 8"x6"Tapping Sleve

B. 6"x6" Non Rising Stem (Gate, Iron Body with M.J. Outlet.) Iron Body with M.J. Outlet.)

C. Customers backflow prevention device as required by Building Saftey Department.



Notes

1. All work in street R.O.W. shall be in accordance with City Standard specifications.

Physical characteristics of the block are determined from the following formulas:

$$Vg = \frac{PA \sin \theta}{Wm} \quad \text{(neglecting } W_{\gamma}\text{)}$$

$$Vg = \frac{T_{\gamma} - W_{\gamma}}{Wm} \quad \text{(including } W_{\gamma}\text{)} \quad \text{where } W\gamma = 1/2\ Wc\ Lx$$

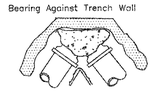
Where Vg = Volume of thrust block (ft^3)
P = Design pressure (psi)
A = Cross sectional area of pipe ($in^2 = 36\ D'\pi_3$)
W_m = Density of thrust block material (lb/ft^3)
T = Resultant thrust force (lb)
γ = Backfill soil density (lb/ft^3)
L = Minimum required restrained pipe length (ft)

Earth cover (We) is neglected when determining (Wc) if unstable conditions are anticipated. The horizontal thrust component (Tx) is counteracted by soil pressure on the vertical face of the block (Fp) or by joint restraint.

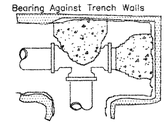
Allowable soil bearing pressure determines the minimum size of the block base.

Typical Thrust Blocks

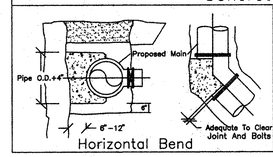
Bearing Against Trench Wall



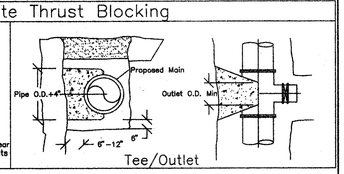
Bearing Against Trench Walls



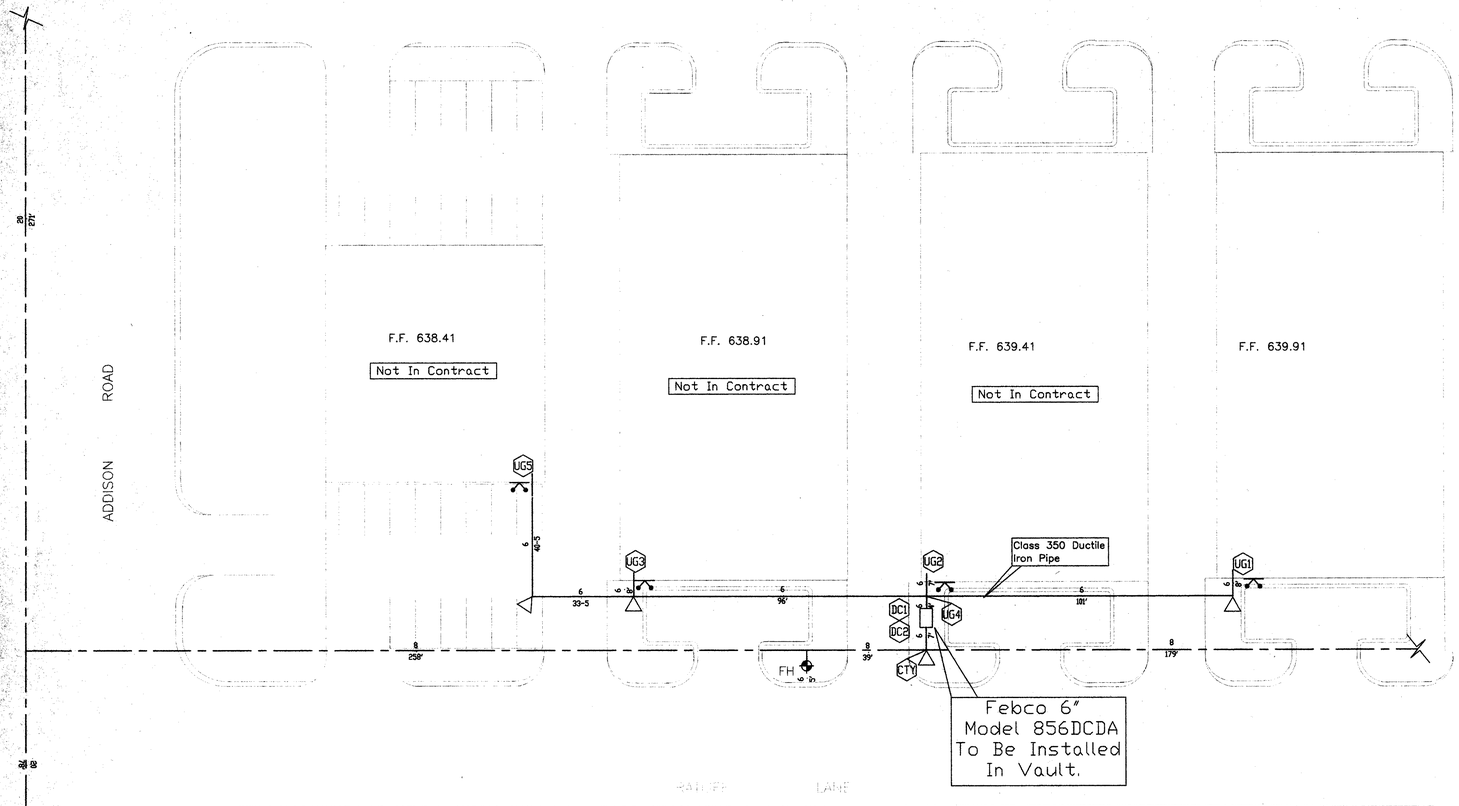
Concrete Thrust Blocking



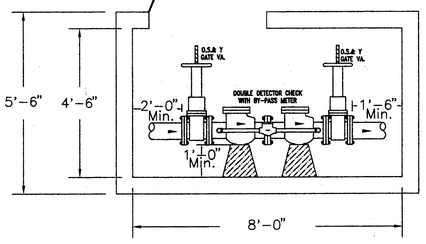
Horizontal Bend

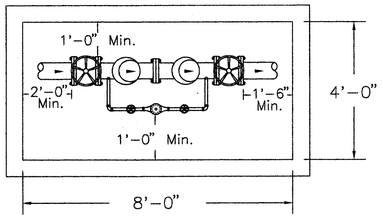


Tee/Outlet



1. Vault Door To Be Bilco Model K-5 Aluminum 42" x 42"
2. Febco 6" Model 856 Double Detector Check With A Hersey ER1 Register With Pit-Pak To Be Installed In Vault Per City Of Addison
3. Vault Is Required To Have a Concrete Floor Per City Of Addison
4. City Tapping Sleve Is To Be The Tyler Style.
5. The Detector Meter Piping Shall Have An In-line Or Angle Curb-Stop Of An Approved Ball Valve Before The Meter And The Compatible Double-Check Or RPZ Assembly After The Meter, And A Test Port After After The Assembly.
6. Mainline Piping Shall Include A Mechanical-Joint Flange Adapter On The Inlet End Of The Assembly To Facilitate Future Removal Or Replacement Of The Assembly.





BEFORE DIGGING CONTACT
SOUTHWESTEN BELL
1-800-395-0440
DALLAS WATER UTILITIES
311

NORTH

0 20 40
SCALE: 1" = 20'

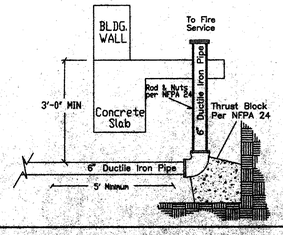
Legend

Fire Hydrant
Water Mains
Water Meter
Thrust Block
Free Standing Fire Department Connection

Notes

1. All 6" fire service mains to be Ductile Iron Class 350.
2. All 6" underground piping and vault to be installed by US Fire Protection
3. All Underground Piping To Conform To NFPA 24 And City of Addison Fire And Building Codes.

UNDERGROUND DETAIL



FLOW TEST INFORMATION

Taken By: Addison Fire Dept.
Observed By: Addison Fire Dept.
Date Taken: November 7, 1997
Time Taken: 8:20 AM
STATIC: 52.0 psi RESIDUAL: 46.0 psi
FLOW: 2095.0 gpm
Flow Test Was Taken One Block South Of Ratliff Lane.

REVISIONS

1. ADDED VAULT DETAILS FOR UNDERGROUND INSTALLATION. JASON WYNNS 11-23-98
2.
3.
4.

RME 0169 RICK MORRISON

U. S. FIRE PROTECTION
P.O.BOX 270948
DALLAS, TEXAS 75227
972-226-5444

PROJECT: Delta Warehouse fka Addison TX

SHEET TITLE: Site Plan

BUILDING #'S 1

DATE 7-23-98
SCALE 1" = 20'
JOB # 7580
DESIGN BY Jason Wynns
DRAWN BY Jason Wynns
CHECKED BY
TEXAS SCR. 8142
SHEET 1 of 2

DELTA WAREHOUSE

PROVISIONS

SITE AREA	76906.0
HARDSCAPE	63541.0
LANDSCAPE	13365.0
REQUIRED	10%
PROVIDED	17.378%

STREET LANDSCAPE BUFFER

REQUIRED 20' LANDSCAPE BUFFER
PROVIDED 20' LANDSCAPE BUFFER

REQUIRED (1) 4" CALIPER TREE
(8) SHRUBS @ 20' FRONTAGE
(8) SHRUBS @ 20' FRONTAGE
FRONTAGE 193'-0"

10 TREES OR 5 TREES/ 10 ORNAMENTAL
78 SHRUBS

OFF-STREET LOADING

SEE ARCHITECTURAL
SCREENING FENCE PROVIDED

PARKING LOT SCREENING

REQUIRED: EVERGREEN SHRUBS, 3' O.C. IN A DOUBLE STAGGERED ROW
(1) 4" TREE @ 35 PERIMETER FT

PROVIDED: EVERGREEN SHRUBS
21 TREES

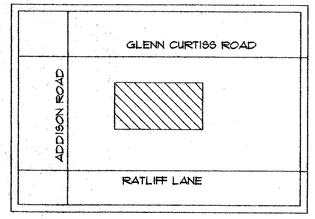
MAINTENANCE

- PROMPT REMOVAL OF ALL LITTER, TRASH, REFUSE AND WATER
- LAWN MOWING ON A WEEKLY BASIS DURING THE GROWING SEASON
- SHRUB PRUNING ACCORDING TO ACCEPTED PRACTICES OF LANDSCAPE PROFESSIONALS TO MAINTAIN PLANTS IN A HEALTHY CONDITION
- TREE PRUNING ACCORDING TO TREE-PRUNING GUIDELINES PUBLISHED BY THE INTERNATIONAL SOCIETY OF ARBORICULTURE 1995
- WATERING OF LANDSCAPED AREAS ON A REGULAR BASIS TO MAINTAIN GOOD PLANT HEALTH
- KEEPING LANDSCAPE LIGHTING IN WORKING ODER
- KEEPING LAWN AND GARDEN AREAS ALIVE, FREE OF WEEDS, AND ATTRACTIVE CLEANING ABUTTING WATERWAYS AND LANDSCAPED AREAS LYING BETWEEN PUBLIC RIGHT-OF-WAY LINES AND THE PROPERTY UNLESS SUCH STREETS, WATERWAYS OR LANDSCAPED AREAS ARE EXPRESSLY DESIGNATED TO BE MAINTAINED BY APPLICABLE GOVERNMENTAL AUTHORITY

OWNER

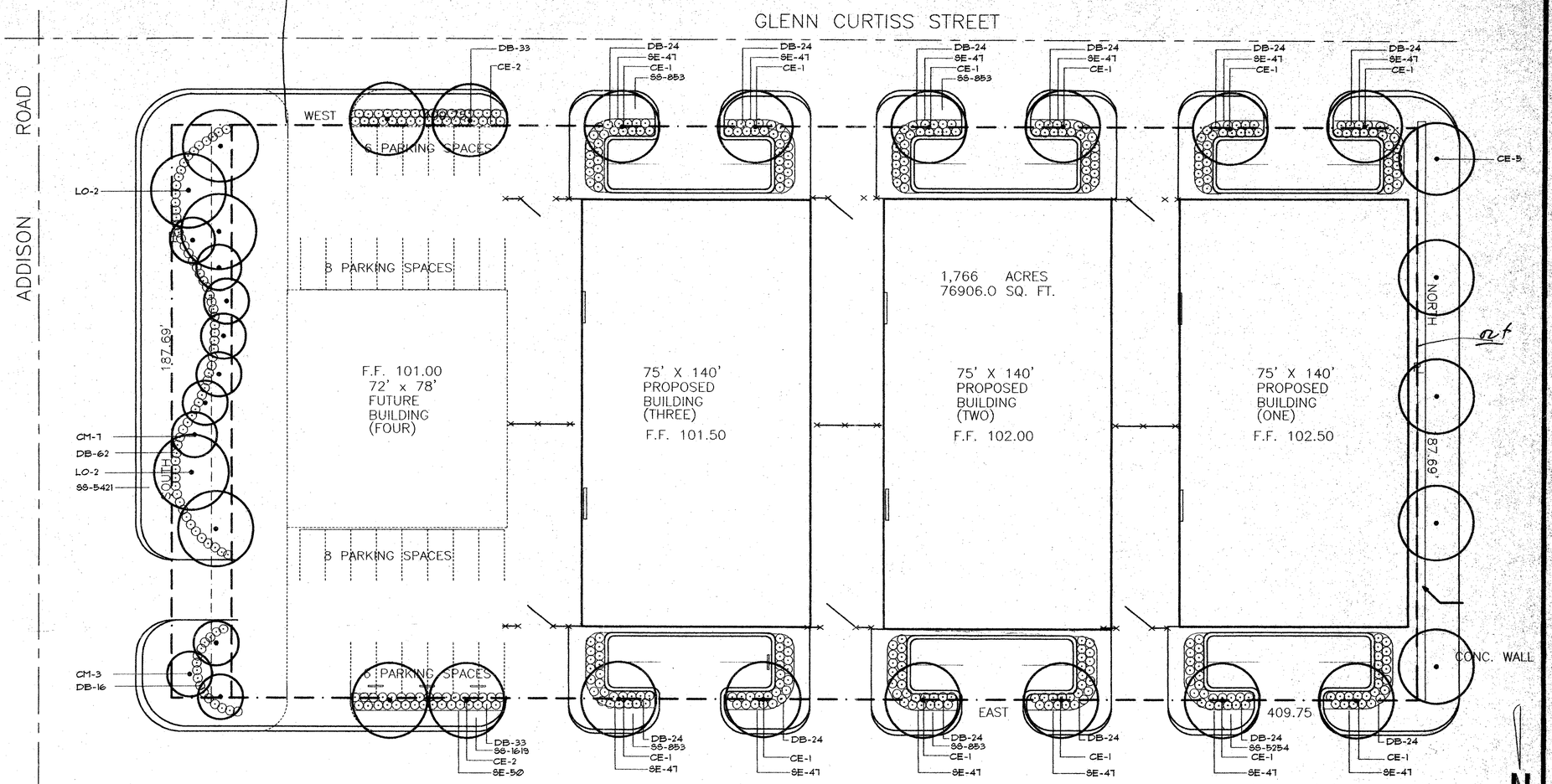
T.F. STONE COMPANIES, INC.
13760 NOEL ROAD SUITE 100
DALLAS, TEXAS 75240

LOCATION MAP

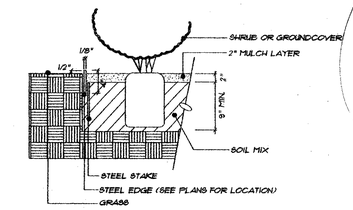


PLANT LIST

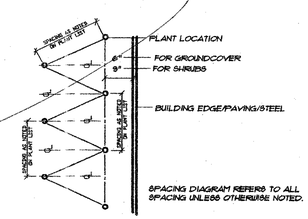
PLAN NAME	PLANT NAME	BOTANICAL NAME	QUANTITY	SIZE	HEIGHT	SPREAD	SPACING
CE	CEDAR ELM	ULMUS CRASSIFOLIA	21	4"	14'	7'	AS SHOWN
CM	CREPEMYRTLE	LAGERSTROEMIA INDICA	10	10'	10'	4'	AS SHOWN
DB	DWARF BURFORD HOLLY	ILEX CORNUTA 'DWARF BURFORD'	432	5 GAL	36"	18"	AS SHOWN
LO	LIVE OAK	QUERCUS VIRGINIANA	5	4"	14'	7'	AS SHOWN
SS	SOLID SOD BERMUDA		14775 SQFT.				
SE	STEEL EDGE		664 LIN. FT.	13 G			



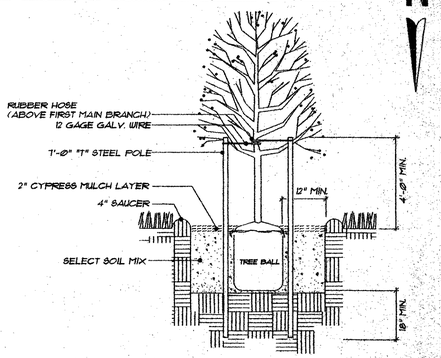
THIS PLAN MUST BE REVIEWED & APPROVED BY PARKS DEPT.



BED-PREP W/ STEEL EDGE
N.T.S.



PLANT SPACING DIAGRAM
N.T.S.



TREE STAKING AND PLANTING
ALL TREES
N.T.S.

REV.	DATE	DESCRIPTION	BY

STATE OF TEXAS — HERBERT L. MEEKS — 1403 — LANDSCAPE ARCHITECT

M · D · G
MEEKS DESIGN GROUP
1100 CENTENNIAL BLVD. #120
RICHARDSON, TEXAS 75081
(972)690-7474
FAX (972)690-7878

PRIVATE PROPERTY
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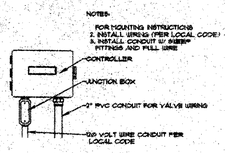
PRIVATE PROPERTY

Delta
CONSTRUCTION SERVICES COMPANY
11500 STEMMONS FREEWAY, SUITE 100
DALLAS, TEXAS 75229 / 972-556-0505

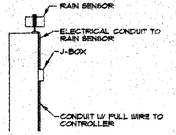
LANDSCAPE PLAN

T. F. STONE COMPANIES, INC.
13760 NOEL ROAD SUITE 100
DALLAS, TEXAS 75240

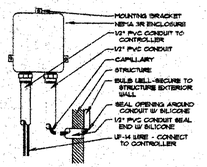
CAD BY	DELTA-JMS	ISSUED	07/09/98
SIZE	FILE NO.	DWG NO	PL1.01
REV			
SCALE	20	CHK'D BY	
JOB NO	TFS-801		



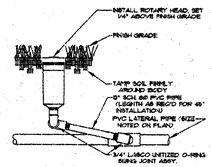
WALLMOUNT CONTROLLER



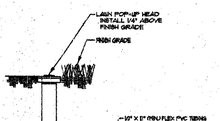
RAIN STAT



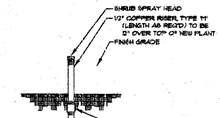
TEMPERATURE SENSOR



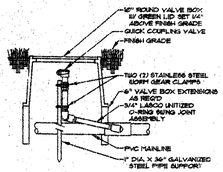
ROTARY HEAD



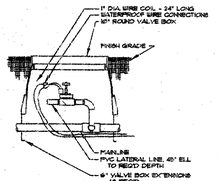
LAWN SPRAY HEAD



SHRUB SPRAY HEAD

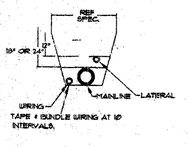


QUICK COUPLING VALVE



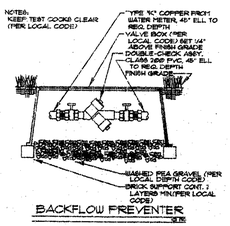
REMOTE CONTROL VALVE

MAINLINE, LATERAL, & WIRING

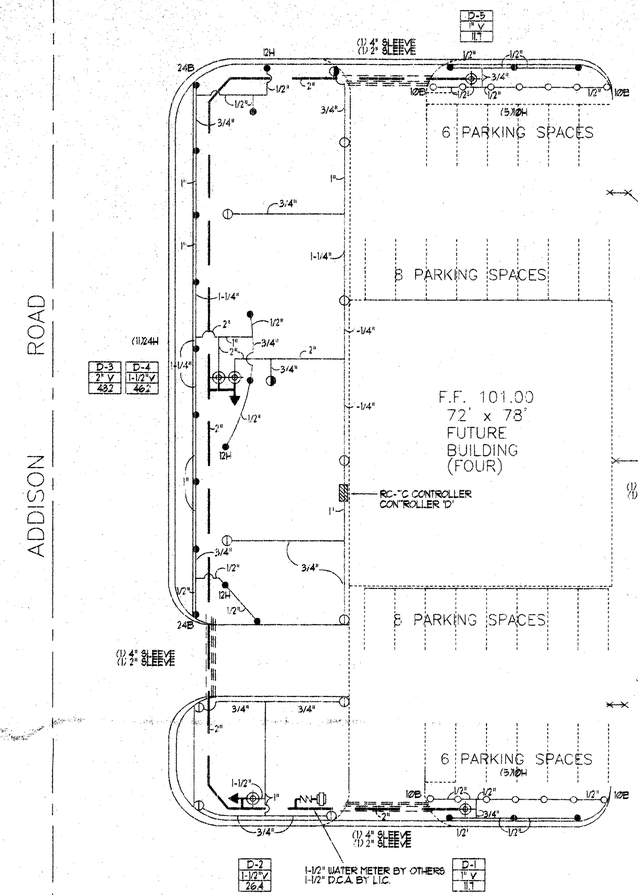


TAPE 4 BUNDLE WIRING AT 10' INTERVALS.

TRENCHING DETAIL



BACKFLOW PREVENTER



NOTES:

1. ALL 24 VOLT LEAD AND COMMON VALVE WIRING SHALL BE A MINIMUM OF #14 GA. SINGLE CONDUCTOR. REFER TO MANUFACTURER'S RECOMMENDATIONS FOR PROPER WIRE SIZE. WIRE SPLICES SHALL BE PERIMETER AND WATERPROOF.
2. COORDINATE INSTALLATION OF IRRIGATION SYSTEM WITH LANDSCAPE CONTRACTOR TO ENSURE ALL PLANT MATERIAL WILL BE WATERED IN ACCORDANCE WITH THE INTENT OF THE PLANS AND SPECIFICATIONS.
3. LATERAL PIPING SHALL HAVE A MINIMUM OF 12" OF COVER. MAINLINE AND PIPING UNDER PAVING SHALL HAVE A MINIMUM OF 18" OF COVER.
4. PIPING AND VALVES IN PAVING SHOWN FOR CLARITY, INSTALL IN ADJACENT PLANTING BED OR LAWN AREA.
5. CONNECT LAWN SPRAY HEADS TO LATERAL PIPING WITH 1/2" FLEXIBLE PVC AND 1/2" SCH40 PVC FITTINGS AS REQUIRED, PER DETAIL SHOWN. USE WELD-ON #705 SOLVENT AND #6750 PRIMER ON THESE CONNECTION CONNECTIONS.
6. CONNECT ROTARY HEADS TO LATERAL PIPE WITH LASCO "UNITIZED" O-RING SWING JOINTS PER DETAIL SHOWN, PTTO-350, SUPPLY SWING JOINTS WITH ONE (1) COUPLER PER WITH SLIVEL, HOSE ELL, 12418 AND NO RESPECTIVELY.
7. INSTALL QUICK COUPLING VALVES IN TEN (10") INCH VALVE BOX PER DETAIL SHOWN. CONNECT QUICK COUPLING VALVES TO MAINLINE PIPE WITH LASCO "UNITIZED" O-RING SWING JOINTS PER DETAIL SHOWN, PTTO-350, SUPPLY SWING JOINTS WITH ONE (1) COUPLER PER WITH SLIVEL, HOSE ELL, 12418 AND NO RESPECTIVELY.
8. INSTALL REMOTE CONTROL VALVES IN TEN (10") VALVE BOXES PER DETAIL SHOWN.
9. PERFORM ELECTRICAL WORK IN ACCORDANCE WITH LOCAL BUILDING CODE. POWER (120V) SHALL BE LOCATED IN A JUNCTION BOX WITHIN FIVE (5') FEET OF CONTROLLER LOCATION BY OTHER TRADES.
10. SLEEVES SHALL BE CLASS 200 PVC, SIZED AS NOTED ON PLANS AND INSTALLED BY OTHER TRADES.
11. ROUTE COPPER WIRE FROM CONTROLLER TO REMOTE SENSORS IN SERIES PRIOR TO CONNECTING TO REMOTE CONTROL VALVES.
12. TEN DAYS PRIOR TO START OF CONSTRUCTION, VERIFY STATIC PRESSURE. IF STATIC PRESSURE IS LESS THAN 1200 PSI, DO NOT START WORK UNTIL NOTIFIED TO PROCEED BY OWNER. DESIGN PRESSURE IS 60PSI PSI.
13. CONTRACTOR IS TO VERIFY THE LOCATION OF THE CONTROLLER AS PER T-E OWNER'S REQUEST.

IRRIGATION LEGEND:

SYMBOL	DESCRIPTION	MANUFACTURER	MODEL NO.
●	LAWN SPRAY HEAD	WEATHER-MATIC	1806 W/ 4ASP, 4SQH, OR 4SBQ NOZZLES UNLESS NOTED OTHERWISE
○	SHRUB SPRAY HEAD	WEATHER-MATIC	10 ADAPTER W/ 06PA OR 1806 NOZZLES OR 1806S 1806-B ADAPTER W/ 4SHP NOZZLE UNLESS NOTED OTHERWISE
■	LAWN CENTER STRIP HEAD	WEATHER-MATIC	36PP W/ 1512 NOZZLE
■	LAWN END STRIP HEAD	WEATHER-MATIC	36PP W/ 1512 NOZZLE
◑	SMALL ROTARY PART-CIRCLE	HUNTER	PGP W/ #1 NOZZLE
⊕	SMALL ROTARY FULL-CIRCLE	HUNTER	PGP W/ #10 NOZZLE
◑	ROTARY PART-CIRCLE	HUNTER	PGP W/ #10 NOZZLE
▲	QUICK COUPLING VALVE	WEATHER-MATIC	V075R
⊕	REMOTE CONTROL VALVE	WEATHER-MATIC	952(40)CR, SIZED AS SHOWN
▨	CONTROLLER	RAINBIRD	ESP SERIES W/ 7500 RAINSTAT AND TEKN A-RUNC-1 TEFEN SENSOR
———	MAINLINE PIPING	REFER TO SPEC.	CLASS 200 PVC
- - - -	LATERAL PIPING	REFER TO SPEC.	3/4" & LARGER - CLASS 200 PVC 1/2" - CLASS 315 PVC
M	BACKFLOW PREVENTER	FEBCO	825Y
▯	WATER METER	REFER TO SPEC.	PER LOCAL BUILDING CODE
5 / 1-1/2"V / 31.1	STATION NUMBER VALVE SIZE GPM (APPROX.)		

RADIUS LEGEND:

F = 360°
E = 270°
D = 240°
C = 225°
H = 180°
B = 135°
A = 120°
Q = 90°

RATLIFF LANE

THIS PLAN MUST BE REVIEWED & APPROVED BY P.A.R.K.S. DEPT.

STATE OF TEXAS SETH A. NEIMAN 5981 LICENSED IRRIGATOR

3-1-99

IRRI-TECH CORPORATION
DESIGN DEPARTMENT
12650 SCHROEDER RD.
DALLAS, TEXAS 75243
(972)231-5181 FAX(972)231-5172

REV.	DATE	DESCRIPTION	BY

M · D · G
MEEKS DESIGN GROUP
1100 CENTENNIAL BLVD. #120
RICHARDSON, TEXAS 75081
(972)690-7474
FAX (972)690-7878

Delta
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11500 STEMMONS FREEWAY, SUITE 100
DALLAS, TEXAS 75229 / 972-556-0505

IRRIGATION PLAN

T. F. STONE COMPANIES, INC.
13760 NOEL ROAD SUITE 100
DALLAS, TEXAS 75240

CAD BY DELTA-JMS | ISSUED 07/09/98

SIZE | FILE NO | DWG NO PL1.02 | REV

SCALE 20 | CHK'D BY | JOB NO TFS-801