

**CITY OF EL PASO, TEXAS  
REQUEST FOR COUNCIL ACTION (RCA)**

**DEPARTMENT:** Engineering Department  
**AGENDA DATE:** June 24, 2008  
**CONTACT PERSON/PHONE:** R. Alan Shubert, City Engineer Ext. No. 4423  
**DISTRICT(S) AFFECTED:** 1  
**PROJECT NAME/SOLICITATION NO.** Upper Valley Round About – Perpetual Easement Agreement

**SUBJECT:**

That the City Manager be authorized to sign and accept a Perpetual Easement Agreement with El Paso County Water Improvement District in the District's Nemexas Drainage Canal to construct, maintain, and use a traffic "round about" on and across that portion of District Property as more particularly shown in Exhibit B of the Agreement. The cost to the City is \$46,105.70.

**BACKGROUND / DISCUSSION:**

The Upper Valley Round About is proposed to be constructed at the intersection of Country Club and Upper Valley. Additional right of way (portions of two parcels) is required in order to construct the improvements. One of the parcels belongs to El Paso Water County Water Improvement District No. 1 (EPCWID#1). Because the drain still serves an agricultural purpose, the EPCWID#1 board did not approve the conveyance of the parcel in fee simple, rather it offered it as a perpetual surface easement. This accomplishes the same purpose as it will allow the City to build, maintain and operate the improvements required for the project. The price for the parcel is \$46,105.70 valued at \$0.85 per square foot. The price was agreed to with EPWID#1 as a slight increase to the price that was paid in the purchase of portion of the Mesa Drain back in February 2005 at a price of \$0.83 per square foot. The design of the project is complete; however there is still one more parcel that needs to be acquired before the project can go out to bid.

**PRIOR COUNCIL ACTION:**

None

**AMOUNT AND SOURCE OF FUNDING:**

The project right of way is funded by: 2006 Certificates of Obligation

**BOARD / COMMISSION ACTION:**

N/A

\*\*\*\*\*REQUIRED AUTHORIZATION\*\*\*\*\*

**LEGAL:** (if required) \_\_\_\_\_ **FINANCE:** (if required) \_\_\_\_\_

**DEPARTMENT HEAD:** \_\_\_\_\_  
(Example: if RCA is initiated by Financial Services, client department should sign also)  
*Information copy to appropriate Deputy City Manager*

**APPROVED FOR AGENDA:**

**CITY MANAGER:** \_\_\_\_\_ **DATE:** \_\_\_\_\_

CITY CLERK DEPT.  
09 JUN 16 PM 4:39

**RESOLUTION**

BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF EL PASO:

That the City Manager be authorized to sign and accept a Perpetual Easement Agreement with El Paso County Water Improvement District in the District's Nemexas Drainage Canal to construct, maintain, and use a traffic "round about" on and across that portion of District Property as more particularly shown in Exhibit B of the Agreement. The cost to the City is \$46,105.70.

ADOPTED this \_\_\_\_ day of \_\_\_\_\_, 2008.

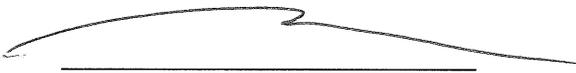
THE CITY OF EL PASO

\_\_\_\_\_  
John Cook  
Mayor

ATTEST:

\_\_\_\_\_  
Richarda Duffy Momsen  
City Clerk

APPROVED AS TO FORM:

  
\_\_\_\_\_  
Lupe Cuellar  
Assistant City Attorney

APPROVED AS TO CONTENT:

  
\_\_\_\_\_  
R. Alan Shubert, P.E., C.B.O.  
City Engineer

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**EASEMENT**

Effective \_\_\_\_\_

**WITNESSETH**

**WHEREAS, EL PASO COUNTY WATER IMPROVEMENT DISTRICT NO.1**, a political subdivision of the State of Texas organized and existing pursuant to Article XVI, Section 59, of the Constitution of the State of Texas, hereinafter referred to as the "District" and the **CITY OF EL PASO, TEXAS**, a home-rule municipal corporation, hereinafter referred to as the "City";

**WHEREAS**, the United States of America conveyed to the District by a deed without warranty on January 19, 1996, recorded in Book 3002, at Page 1025 of the Deed Records of El Paso County, Texas, certain irrigation canals, laterals, and drains, together with other property, collectively hereinafter referred to as the "District's Properties" or "District Property";

**WHEREAS**, the City, desires to construct a traffic control facility hereinafter referred to as a "round about", within the El Paso County limits; such "round about" to be constructed across one of the District's Properties known as the "Nemexis Drainage Canal";

**WHEREAS**, the District requires that permanent easements for public crossings of the District's Properties be granted only to entities with the power of eminent domain; and

**WHEREAS**, the District requires the City to maintain any structures or facilities constructed pursuant to any such easement.

**NOW, THEREFORE**, in consideration of the terms and conditions set forth herein and the payment to the District simultaneously with the execution and delivery of this easement to the City the total amount calculated at a price of \$.85 per square foot. The total sum of Forty Six Thousand One Hundred and Five and 70/100 Dollars (\$46,105.70.) based on 54,242 square feet of easement and other good and valuable consideration, receipt of which is acknowledged, the District hereby grants to the City a perpetual easement in the District's Nemexas Drainage Canal to construct, maintain, and use a traffic "round about" on and across that portion of District Property, hereinafter referred to as the "round about", described more particularly in the field notes and survey plat attached hereto as Exhibit "A" and by reference incorporated herein, on the following terms and conditions.

1 The sole purpose of the "round about" shall be to better control traffic in the designated area and the City is hereby given the ability to (i) construct, reconstruct, install, maintain, inspect, repair operate, replace, or remove, a public street across the District Property. The City and may use the surface of the District Property contiguous and within 75 feet of the limits of the "round about", as may be reasonably necessary, in connection with the construction., reconstruction, installation, maintenance, repair, removal, or replacement of the "round about". Such use of the District's' Property is subject to the City restoring the District Property to the condition such property was in prior to the City's use of such property.

2. The construction drawings and specifications for said "round about" shall be in accordance with the applicable city, state, and federal rules, regulations, specifications, including

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but not limited to the El Paso County Subdivision Regulations, the policies adopted by the District, the District's Design Standards, and in accordance with drawings and specifications approved in writing by the County and the District prior to construction of the "round about". A copy of the drawings and specifications for the "round about", as approved by the District included in Exhibit "B" A attached to this easement.

3. The City, and its employees, agents, contractors, or subcontractors may use such portions of the easement as may be reasonably necessary in connection with the construction, reconstruction, installation, maintenance, repair, removal, or replacement of the "round about", subject to the limitations of the easement and the perpetual maintenance and repair by the City, or its contractor.

4. The District reserves the right of full use and enjoyment of the property encumbered by this easement, subject only to the use by the public of the "round about" permitted by this easement. The District, its employees, agents, contractors, and invitees shall at all times have access from the District's Properties to and through the easement, including without limitation ditch realignment, grading, dredging, raising, or lowering the invert grades, and the City shall prohibit or interfere with ingress to or egress by the District from the District Properties because of construction or for any other reason.

5. The City shall maintain all culverts, bridge, crossing, street, road, or walkway structures constructed or installed, pursuant to this easement and shall immediately clean and unplug any obstruction that may develop under the "round about" so that the movement of irrigation water through the District Property shall never be obstructed. The District shall allow those parties identified by written notice to the District by the City, including without limitations City employees, agents, contractors, or subcontractors and any other party designated in writing by the county as authorized to access the bridge and its abutments for construction and maintenance of the Bridge provided that the area of access shall not extend to a greater distance than 75 feet from the portion of District Property described in Exhibit "B". And further provided that no one shall have the right under this easement to interfere with the District's use of the Nemexas Drainage Canal for conveying, flowing or transporting water or with the District's right to maintain the Nemexas Drainage Canal as may be reasonably necessary to cause the canal to be usable by the District for transportation of water at all times.

6. The District makes no representation or warranty of any nature regarding its interest in the property subject to this easement, which shall be subject in all respects to any agreement, deed, easement, or other legal instrument which may affect, define, or prohibit the granting of this easement. The District is not aware of any legal document or instrument which prohibits the granting of this easement, but if there is any such document or legal instrument which prohibits or does not permit it the granting of this' easement, then this easement shall be deemed null and void from its inception to the extent prohibited or not permitted.

7. This easement shall never be construed to allow any interference with or impediment to such use by the District.

8. In the event the City should fail to repair, clear and maintain the "round about" in accordance with this easement, and such interference materially interferes with the District's

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right to deliver water under the "round about", the District will give the City 48 hours notice to remedy the interference. If the City fails to remedy the interference in such time, the District shall have the right to remedy the interference and recover its reasonable costs from the City.

9. The District acknowledges, subject to the terms and conditions of this easement, that this easement may be dedicated through a subdivision plat as a public right-of-way and may be accepted by the City for maintenance and public use. The City shall not assign this easement without the prior written consent of District, except in the event, that the assignment is to a municipality, the county, the state, or the federal government.

10. Any and all negotiations and prior agreements concerning the subject of this easement are merged herein, and this easement may not be modified or amended hereafter except by a written memorandum executed by the District and the City, acknowledged before a Notary Public, and recorded in the Real Property Records of El Paso County, Texas.

11. Notwithstanding anything to contrary herein, in the event that the City has not completed the "round about" referred to in paragraph 1 hereinabove within five (5) years from the date hereof, then the easement granted herein shall, without entry or suit; immediately revert to and vest in the District and its successors and this instrument shall be null and void. The District shall refund any consideration to the City in such event. No act or omission upon the part of the District or its successors or assigns shall be a waiver of the operation or enforcement of such condition. Upon completion of the construction of the "round about" and written acceptance by the District that the "round about" was constructed as specified in Exhibit "B" and by written acceptance of the "round about" the City shall have the right to record an instrument certifying that this right of reverter has terminated.

**WITNESS THE FOLLOWING SIGNATURES AND SEALS:**

EL PASO COUNTY WATER IMPROVEMENT DISTRICT NO.1:

\_\_\_\_\_  
Johnny Stubbs, President  
Board of Directors

CITY OF EL PASO:

\_\_\_\_\_  
Joyce Wilson, City Manager

APPROVED AS TO FORM:

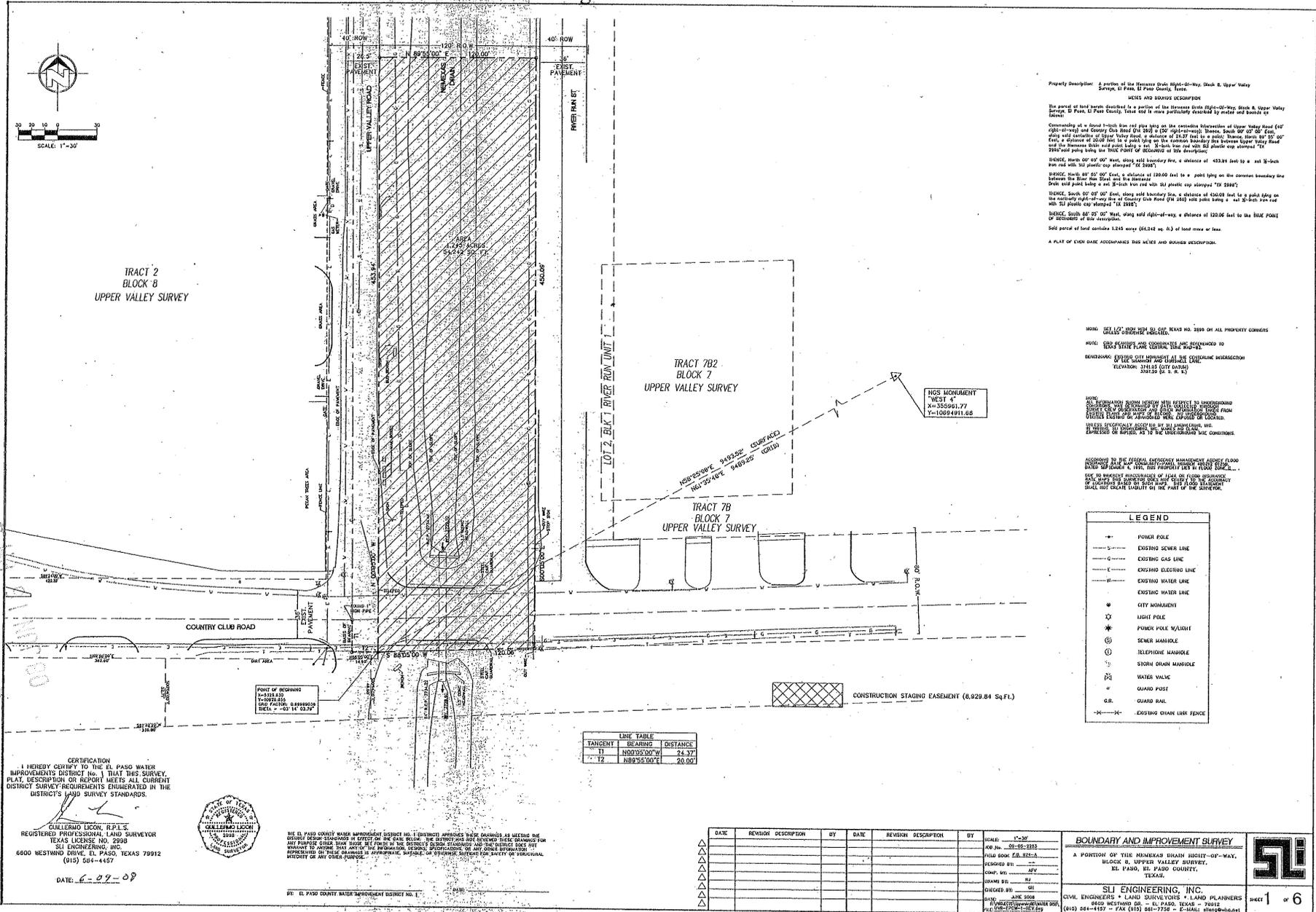
\_\_\_\_\_  
Lupe Cuellar  
Assistant City Attorney

APPROVED AS TO CONTENT:

\_\_\_\_\_  
R. Alan Shubert, P.E., C.B.O.  
City Engineer

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Exhibit "A"  
Page 1 of 2



CITY CLERK DEPT.  
JAN 11 2009

I HEREBY CERTIFY TO THE EL PASO WATER IMPROVEMENTS DISTRICT NO. 1 THAT THIS SURVEY, PLAT DESCRIPTION OR REPORT MEETS ALL CURRENT DISTRICT SURVEY REQUIREMENTS ENUMERATED IN THE DISTRICT'S LAND SURVEY STANDARDS.

**CLEBERD LICON, R.P.T.S.**  
REGISTERED PROFESSIONAL LAND SURVEYOR  
TEXAS LICENSE NO. 2998  
SLI ENGINEERING, INC.  
6600 WESTWOOD DRIVE, EL PASO, TEXAS 79912  
(817) 264-4157

DATE: 6-27-09



THE EL PASO COUNTY WATER IMPROVEMENT DISTRICT NO. 1 DISTRICT APPROVES THESE DRAWINGS AS MEETING THE DISTRICT DESIGN STANDARDS IN EFFECT ON THE DATE BELOW. THE DISTRICT HAS NOT REVIEWED THESE DRAWINGS FOR ANY PURPOSE OTHER THAN TO DETERMINE IF THEY COMPLY WITH THE DISTRICT'S DESIGN STANDARDS AND THE DISTRICT DOES NOT WARRANT TO ANYONE, IN ANY MANNER, THE ACCURACY, COMPLETENESS OR CONSISTENCY OF ANY OTHER INFORMATION, WHETHER OR NOT REFERRED TO HEREIN, OR THE SUITABILITY OF SUCH INFORMATION FOR ANY OTHER PURPOSE.

BY: EL PASO COUNTY WATER IMPROVEMENT DISTRICT NO. 1

Property Description: A portion of the Hennebach Drain Right-Of-Way, Block 8, Upper Valley Survey, El Paso, El Paso County, Texas.

MEAS AND BOUND DESCRIPTION

The parcel of land herein described is a portion of the Hennebach Drain Right-Of-Way, Block 8, Upper Valley Survey, El Paso, El Paso County, Texas and is more particularly described by meter and bounds as follows:

Commencing at a found 1/2-inch iron rod pin lying on the western intersection of Upper Valley Road (of right-of-way) and County Club Road (of right-of-way) (see right-adjacent plat), South 00° 00' 00" East, along and parallel to Upper Valley Road, a distance of 24.37 feet to a public survey mark, North 89° 55' 00" East, a distance of 20.00 feet to a point lying on the common boundary line between Upper Valley Road and the Hennebach Drain and south-southwest 1/4 section 12, T28N, R10E, S10E, and north-south 1/4 section 12, T28N, and going along the TRUE POINT OF BEGINNING of this description;

THENCE, North 89° 55' 00" East, along said boundary line, a distance of 432.84 feet to a set 3/4-inch iron rod with 3/4 plastic cap stamped "TC 2288";

THENCE, North 89° 55' 00" East, a distance of 120.00 feet to a point lying on the common boundary line between the Blue Run Road and the Hennebach Drain;

THENCE, South 00° 00' 00" East, along said boundary line, a distance of 430.00 feet to a point lying on the western right-of-way line of County Club Road (of right-of-way) and north-south 1/4 section 12, T28N, and north-south 1/4 section 12, T28N, S10E, and going along the TRUE POINT OF BEGINNING of this description;

THENCE, South 89° 55' 00" West, along said right-of-way, a distance of 120.00 feet to the TRUE POINT OF BEGINNING of this description.

Said parcel of land contains 1.248 acres (54,324 sq. ft.) of land more or less.

A PLAT OF EVEN DATE ACCOMPANIES THIS MEAS AND BOUND DESCRIPTION.

NOTE: SET 1/2" IRON ROD WITH 3/4" CAP MARK NO. 2288 ON ALL PROPERTY CORNERS OR OTHER BOUNDARY LOCATIONS.

NOTE: THE PROPERTY LINE CORNER IS A 3/4" IRON ROD TO THE CENTER OF THE ROAD.

REMARKS: THE CITY DEPARTMENT AT THE CORNER INTERSECTION OF COUNTY CLUB ROAD AND UPPER VALLEY ROAD IS AT AN ELEVATION OF 3141.83 (CITY DATUM) 3142.00 (C. & G.).

NOTE: THE PROPERTY LINE CORNER IS A 3/4" IRON ROD TO THE CENTER OF THE ROAD. THE PROPERTY LINE IS TO BE SET TO THE CENTER OF THE ROAD. THE PROPERTY LINE IS TO BE SET TO THE CENTER OF THE ROAD.

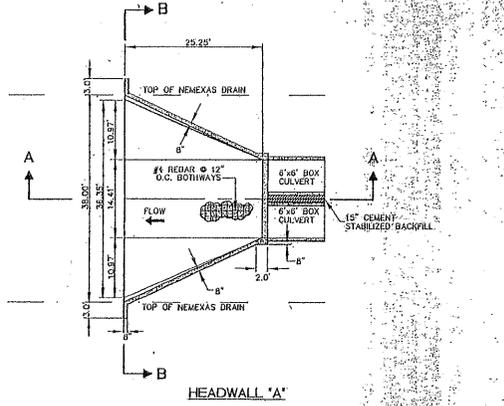
THESE PLANS WERE PREPARED BY SLI ENGINEERING, INC. IN ACCORDANCE WITH THE REQUIREMENTS OF THE DISTRICT OF EL PASO COUNTY WATER IMPROVEMENTS DISTRICT NO. 1. THE DISTRICT HAS NOT REVIEWED THESE DRAWINGS FOR ANY PURPOSE OTHER THAN TO DETERMINE IF THEY COMPLY WITH THE DISTRICT'S DESIGN STANDARDS AND THE DISTRICT DOES NOT WARRANT TO ANYONE, IN ANY MANNER, THE ACCURACY, COMPLETENESS OR CONSISTENCY OF ANY OTHER INFORMATION, WHETHER OR NOT REFERRED TO HEREIN, OR THE SUITABILITY OF SUCH INFORMATION FOR ANY OTHER PURPOSE.

ACCORDING TO THE GENERAL ENGINEERING MANAGEMENT ACTING FLOOD DAMAGE MITIGATION PLAN, THE PROPERTY IS TO BE FENCED.

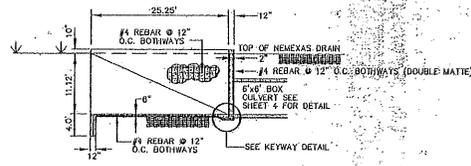
SEE TO VERIFY THE EXISTENCE OF ALL UTILITIES FROM SURVEYING DATA. THE PROPERTY IS TO BE FENCED.

SEE TO VERIFY THE EXISTENCE OF ALL UTILITIES FROM SURVEYING DATA. THE PROPERTY IS TO BE FENCED.

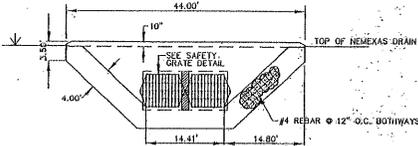
Exhibit "A"  
Page 2 of 2



HEADWALL 'A'

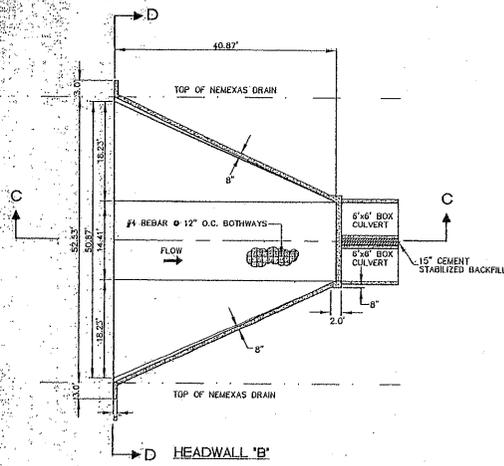


SECTION A-A

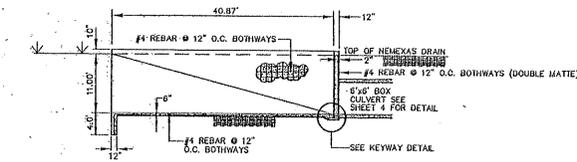


SECTION B-B

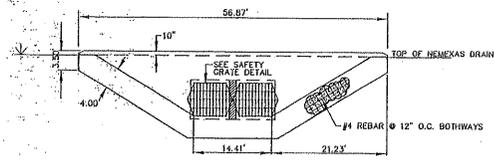
- NOTE:  
1. ALL SUBGRADE TO BE COMPACTED TO 90% DENSITY ASTM D-1557  
2. ALL CAST-IN-PLACE CONCRETE TO BE 3500 PSI.



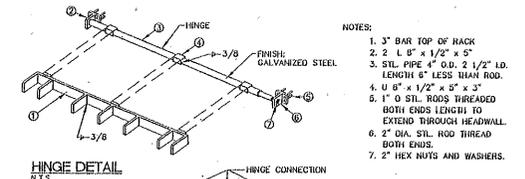
HEADWALL 'B'



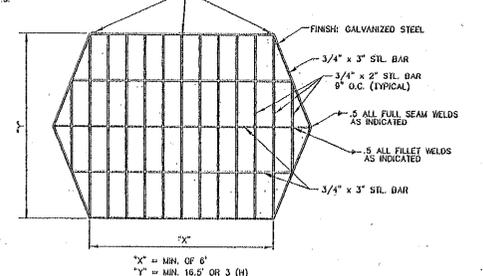
SECTION C-C



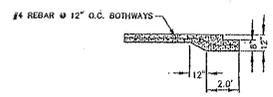
SECTION D-D



HINGE DETAIL



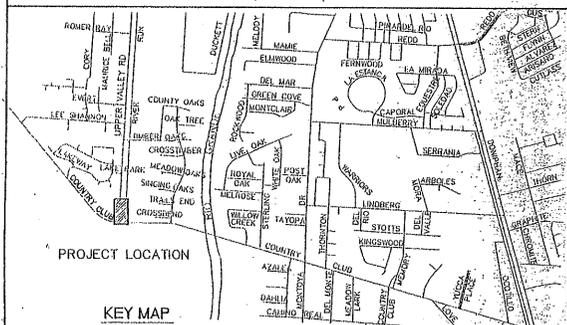
SAFETY GRATE



KEYWAY DETAIL

NOTE:  
ALL INFORMATION SHOWN HEREON WITH RESPECT TO UNDERGROUND CONDITIONS WAS DETERMINED BY DATA COLLECTED THROUGH SURVEY CREW OBSERVATION AND OTHER INFORMATION TAKEN FROM EXISTING PLANS AND MAPS OF RECORD. NO UNDERGROUND UTILITIES EXISTING OR ABANDONED WERE EXPOSED OR LOCATED, UNLESS SPECIFICALLY ACCEPTED BY SJI ENGINEERING, INC. IN WRITING. SJI ENGINEERING, INC. MAKES NO CLAIM, EXPRESSED OR IMPLIED, AS TO THE UNDERGROUND SITE CONDITIONS.

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PROJECT LOCATION

KEY MAP

Copyright 2007 SJI Engineering, Inc.  
This map and survey are being provided solely for the use of El Paso Water Improvements District and no license has been granted, expressed or implied, to copy the survey and/or project except as necessary in conjunction with the original transaction. This transaction shall be effective within six (6) months from the date hereon July 05, 2007.

NOTE:  
ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 480214 OAKS, C., DATED FEBRUARY 18, 2005, THIS PROPERTY LIES IN FLOOD ZONE C-1, ZONE C-1 AREAS OF MINOR FLOODING.  
DUE TO INHERENT INACCURACIES OF FEMA OR FLOOD INSURANCE RATE MAPS THIS SURVEYOR DOES NOT CERTIFY TO THE ACCURACY OF LOCATIONS BASED ON SUCH MAPS. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR.



THE EL PASO COUNTY WATER IMPROVEMENT DISTRICT NO. 1 (DISTRICT) APPROVES THESE DRAWINGS AS MEETING THE DISTRICT DESIGN STANDARDS IN EFFECT ON THE DATE BELOW. THE DISTRICT HAS NOT REVIEWED THESE DRAWINGS FOR ANY PURPOSE OTHER THAN THOSE SET FORTH IN THE DISTRICT'S DESIGN STANDARDS AND THE DISTRICT DOES NOT WARRANT TO ANYONE THAT ANY OF THE INFORMATION, DESIGNS, SPECIFICATIONS, OR ANY OTHER INFORMATION REPRESENTED ON THESE DRAWINGS IS APPROPRIATE, SUITABLE, OR OTHERWISE SUFFICIENT FOR SAFETY OR STRUCTURAL INTEGRITY OR ANY OTHER PURPOSE.

BY: EL PASO COUNTY WATER IMPROVEMENT DISTRICT NO. 1

DATE: \_\_\_\_\_

DATE	REVISION	DESCRIPTION	BY	DATE	REVISION	DESCRIPTION	BY
	1	ISSUE	ST	07-27-07			
	2	ADD SHEET 6 OF 6	ST	09-25-2007			
	3	FIELD BOOK #3 212-A	ST				
	4	REVISION	ST				
	5	CONV. DR.	ST				
	6	DESIGN DR.	ST				
	7	DESIGN DR.	ST				
	8	DESIGN DR.	ST				
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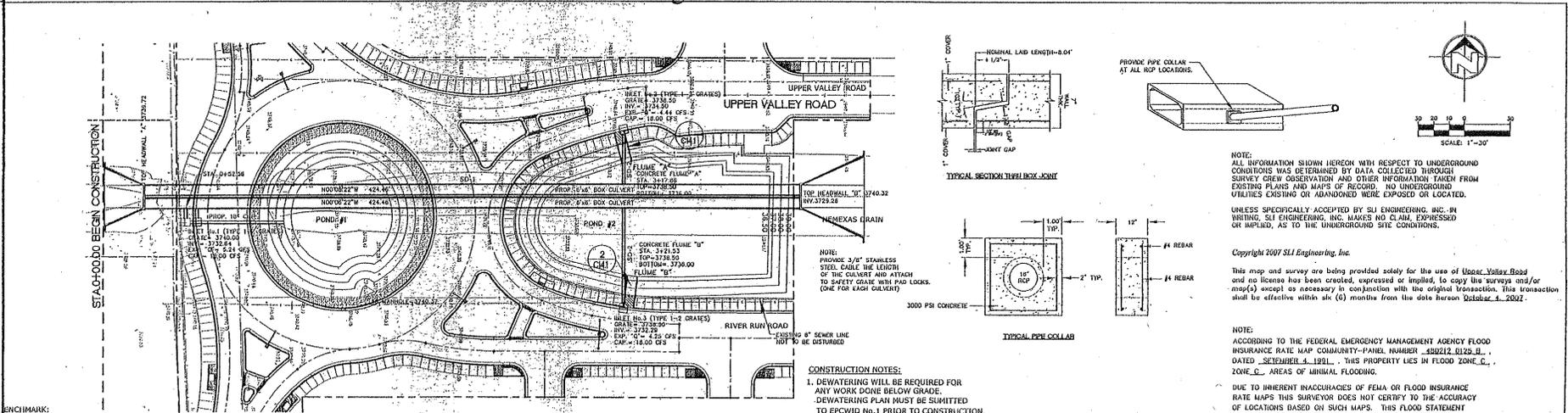
**HEADWALL DETAILS**

A PORTION OF THE NEMEXAS DRAIN RIGHT-OF-WAY, BLACK & UPPER VALLEY SURVEY, EL PASO, EL PASO COUNTY, TEXAS.

**SJI ENGINEERING, INC.**  
CIVIL ENGINEERS • LAND SURVEYORS • LAND PLANNERS  
8000 WESTING DR. - EL PASO, TEXAS - 79912  
(915) 248-4107 - FAX (915) 248-7758 - CEMAL@SJIENGINEERING.COM

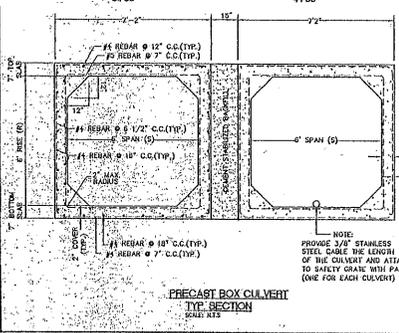
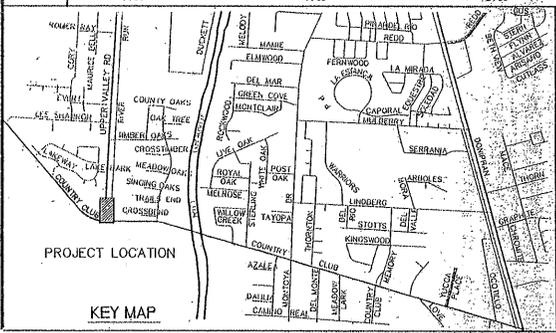
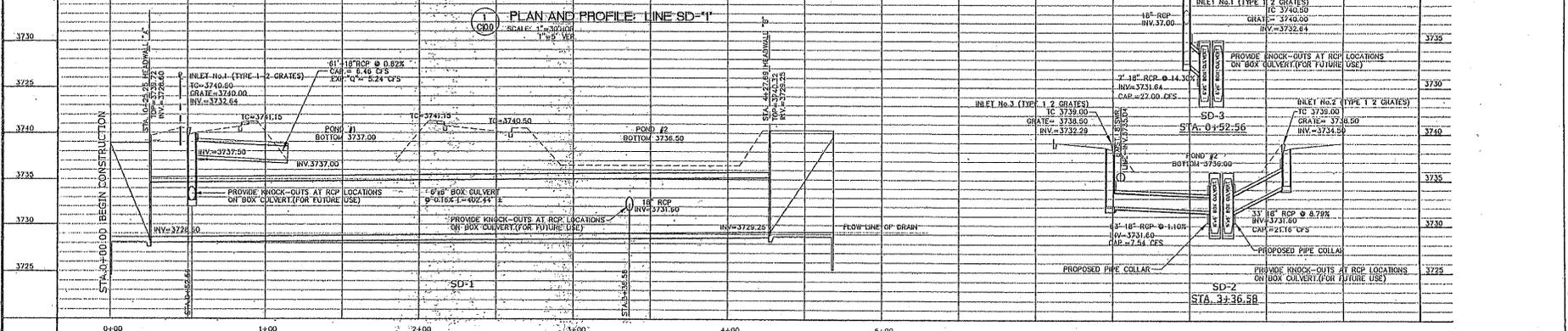
**SHEET 6 OF 6**

Exhibit "B"  
Page 1 of 4



ENCINCHAS:  
MEETING CITY MONUMENT LYING AT THE CENTERLINE  
INTERSECTION OF LEE SHANNON RD. AND CRISWELL LN.  
ELEVATION: 3741.69 (CITY DATUM)  
ELEVATION: 3707.26 (USGS DATUM)

- CONSTRUCTION NOTES:
1. DEWATERING WILL BE REQUIRED FOR ANY WORK DONE BELOW GRADE.
  2. ALL HORIZONTAL DISTANCES ARE CENTER OF STRUCTURE.



NOTE:  
1. REBAR IN ACCORDANCE WITH ASTM SPECIFICATION A-618, TABLE 1 (LATEST EDITION), FOR 3-20 OF EARTH COVER  
2. MINIMUM CONCRETE STRENGTH = 5000 PSI  
3. BOX CULVERT TO MEET THE REQUIREMENTS OF ASTM C753 AND ASTM C 403, TABLE 1 (LATEST EDITION) FOR 3-20 EARTH COVER STANDING SPECIFICATIONS FOR PRECAST CULVERTS.  
4. REBAR SPACINGS CONSTRUCTION PROVIDE KNOCK-OUTS AT ALL RCP PIPE LOCATIONS.

THE EL PASO COUNTY WATER IMPROVEMENT DISTRICT NO. 1 (DISTRICT) APPROVES THESE DRAWINGS AS MEETING THE DISTRICT DESIGN STANDARDS IN EFFECT ON THE DATE BELOW. THE DISTRICT HAS NOT REVIEWED THESE DRAWINGS FOR ANY PURPOSE OTHER THAN THOSE SET FORTH IN THE DISTRICT'S DESIGN STANDARDS AND THE DISTRICT DOES NOT WARRANT TO ANYONE THAT ANY OF THE INFORMATION, DESIGN SPECIFICATIONS, OR ANY OTHER INFORMATION REPRESENTED ON THESE DRAWINGS IS APPROPRIATE, SUITABLE, OR OTHERWISE SUFFICIENT FOR SAFETY OR STRUCTURAL INTEGRITY OR ANY OTHER PURPOSE.

BY: EL PASO COUNTY WATER IMPROVEMENT DISTRICT NO. 1 DATE: \_\_\_\_\_

DATE	REVISION DESCRIPTION	BY	DATE	REVISION DESCRIPTION	BY

SCALE: 1"=30'

APP NO. 55-25-2323

FIELD BOOK EA 2824

DESIGNED BY: ---

COMP. BY: APV

DRAWN BY: SE

CHECKED BY: SE

DATE: AKE 2008

FILE: 55-25-2323-01

**DRAINAGE PLAN**

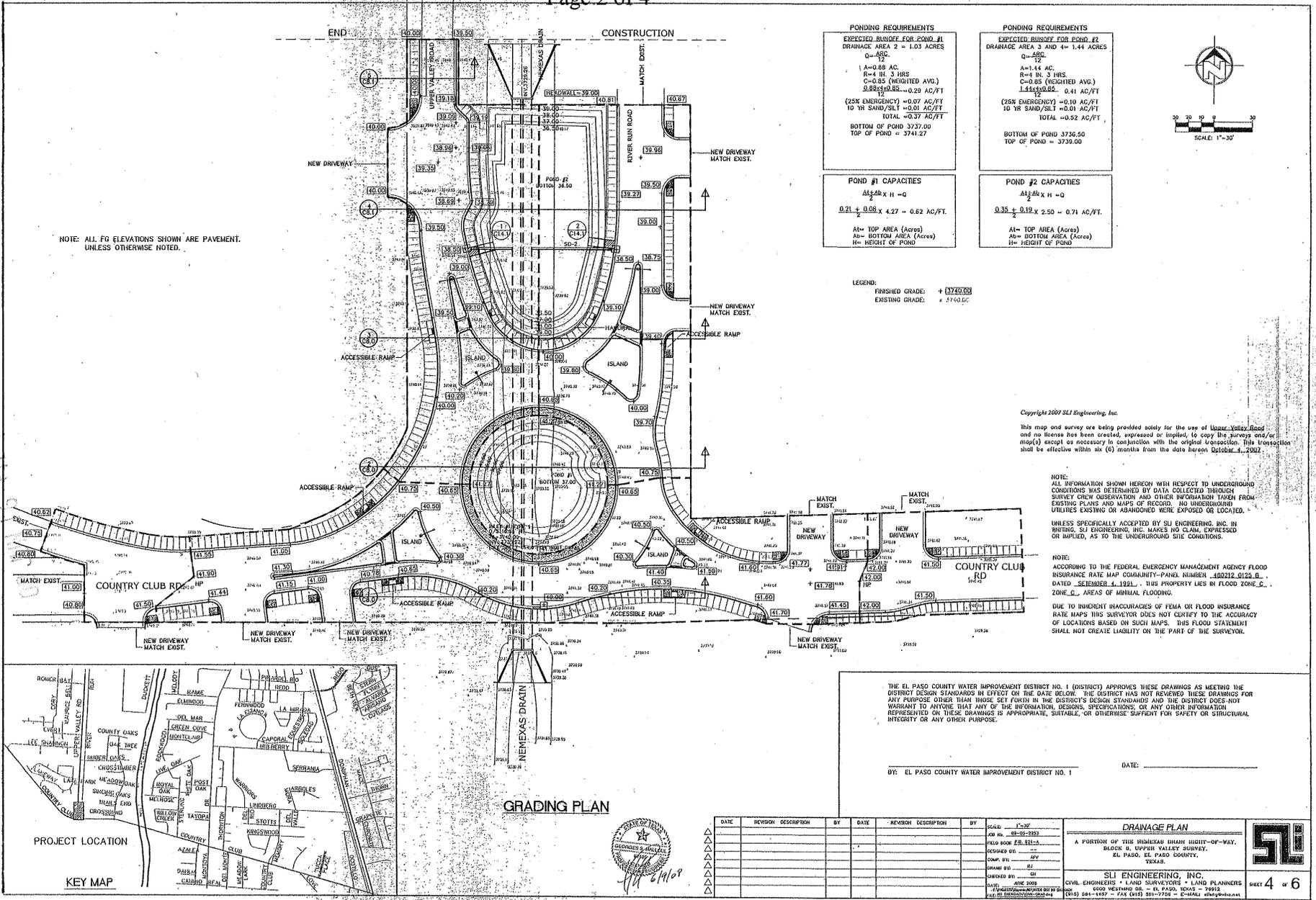
A PORTION OF THE INDIANAS DRAIN BIGHY-OF-WAY, BLOCK 6, UPPER VALLEY SURVEY, TR. PARD, EL PASO COUNTY, TEXAS.

**SLI ENGINEERING, INC.**  
CIVIL ENGINEERS • LAND SURVEYORS • LAND PLANNERS  
4000 WINDWARD DR. - EL PASO, TEXAS - 79902  
(910) 384-1422 • FAX (910) 384-7788 • EMAIL: info@slie.com

**SI**

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Exhibit "B"  
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NOTE: ALL FD ELEVATIONS SHOWN ARE PAVEMENT, UNLESS OTHERWISE NOTED.

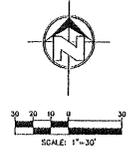
**PONDING REQUIREMENTS**  
EXPECTED RUNOFF FOR POND #1  
DRAINAGE AREA 2 = 1.03 ACRES  
Q = 4.00  
A=0.88 AC.  
R=4 IN. 3 HRS.  
C=0.85 (WEIGHTED AVG.)  
9.88(0.85) = 0.29 AC/FT  
(25% EMERGENCY) = 0.07 AC/FT  
10 YR SAND/SILT = 0.01 AC/FT  
TOTAL = 0.37 AC/FT  
BOTTOM OF POND 37.00  
TOP OF POND = 37.12

**POND #1 CAPACITIES**  
 $A \times H \times H = Q$   
 $0.21 \times 0.08 \times 4.27 = 0.62 \text{ AC/FT}$   
A= TOP AREA (Acres)  
A= BOTTOM AREA (Acres)  
H= HEIGHT OF POND

**PONDING REQUIREMENTS**  
EXPECTED RUNOFF FOR POND #2  
DRAINAGE AREA 3 AND 4 = 1.44 ACRES  
Q = 4.00  
A=1.44 AC.  
R=4 IN. 3 HRS.  
C=0.85 (WEIGHTED AVG.)  
1.44(0.85) = 0.41 AC/FT  
(25% EMERGENCY) = 0.10 AC/FT  
10 YR SAND/SILT = 0.01 AC/FT  
TOTAL = 0.52 AC/FT  
BOTTOM OF POND 37.50  
TOP OF POND = 37.50

**POND #2 CAPACITIES**  
 $A \times H \times H = Q$   
 $0.35 \times 0.19 \times 2.50 = 0.71 \text{ AC/FT}$   
A= TOP AREA (Acres)  
A= BOTTOM AREA (Acres)  
H= HEIGHT OF POND

LEGEND:  
FINISHED GRADE: + 37.40.00  
EXISTING GRADE: + 37.40.00



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NOTE:  
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NOTE:  
ACCORDING TO THE FEDERAL EMERGENCY MANAGEMENT AGENCY FLOOD INSURANCE RATE MAP COMMUNITY-PANEL NUMBER 480212-0125-B, DATED SEPTEMBER 4, 1991, THIS PROPERTY LIES IN FLOOD ZONE C, ZONE C, AREAS OF MINIMAL FLOODING.  
DUE TO INHERENT INACCURACIES OF FEMA OR FLOOD INSURANCE RATE MAPS THIS SURVEYOR DOES NOT CONVEY TO THE ACCURACY OF LOCATIONS BASED ON SUCH MAPS. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR.

THE EL PASO COUNTY WATER IMPROVEMENT DISTRICT NO. 1 (DISTRICT) APPROVES THESE DRAWINGS AS MEETING THE DISTRICT DESIGN STANDARDS IN EFFECT ON THE DATE BELOW. THE DISTRICT HAS NOT REVIEWED THESE DRAWINGS FOR ANY PURPOSE OTHER THAN THOSE SET FORTH IN THE DISTRICT'S DESIGN STANDARDS AND THE DISTRICT DOES NOT WARRANT TO ANYONE THAT ANY OF THE INFORMATION, DESIGN, SPECIFICATIONS, OR ANY OTHER INFORMATION REPRESENTED ON THESE DRAWINGS IS APPROPRIATE, SUITABLE, OR OTHERWISE SUFFICIENT FOR SAFETY OR STRUCTURAL INTEGRITY OR ANY OTHER PURPOSE.

BY: EL PASO COUNTY WATER IMPROVEMENT DISTRICT NO. 1

DATE: \_\_\_\_\_

GRADING PLAN



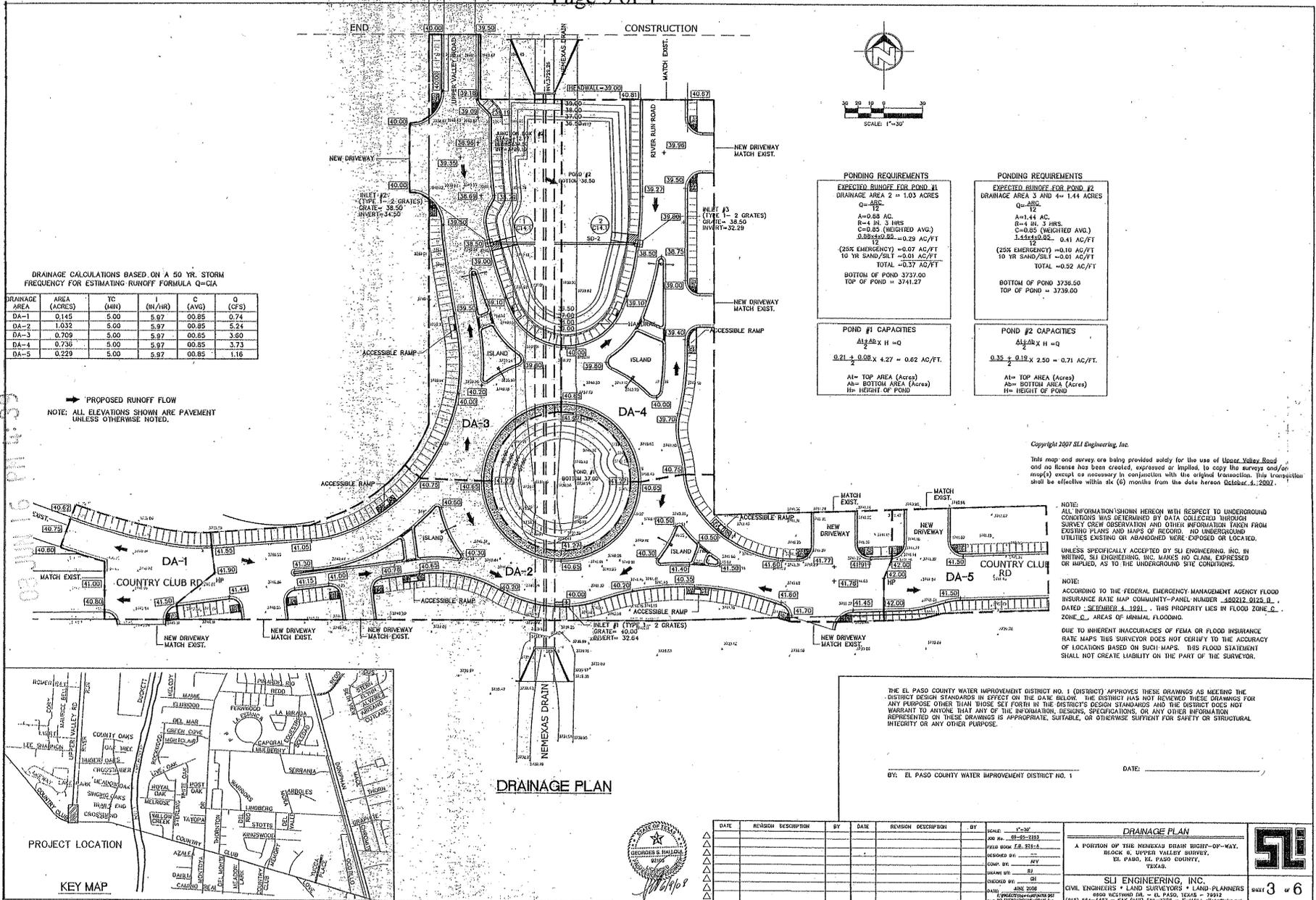
DATE	REVISION DESCRIPTION	BY	DATE	REVISION DESCRIPTION	BY

**DRAINAGE PLAN**  
A PORTION OF THE UPPER VALLEY HIGHWAY-OF-WAY, BLOCK B, UPPER VALLEY SURVEY, EL PASO, EL PASO COUNTY, TEXAS.  
**SLI ENGINEERING, INC.**  
CIVIL ENGINEERS • LAND SURVEYORS • LAND PLANNERS  
4600 WASHINGTON DR. - EL PASO, TEXAS 79912  
(915) 581-1187 - FAX (915) 581-7728 - E-MAIL: slie@slie.com



CITY CLERK DEPT. 04/14/09

Exhibit "B"  
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DRAINAGE CALCULATIONS BASED ON A 50 YR. STORM FREQUENCY FOR ESTIMATING RUNOFF FORMULA Q=CA

DRAINAGE AREA	AREA (ACRES)	TC (HR)	I (IN/HR)	C (AVG)	Q (CFS)
DA-1	0.145	5.00	5.97	00.85	0.74
DA-2	1.032	5.00	5.97	00.85	5.24
DA-3	0.709	5.00	5.97	00.85	3.60
DA-4	0.736	5.00	5.97	00.85	3.73
DA-5	0.229	5.00	5.97	00.85	1.16

**PONDING REQUIREMENTS**  
EXPECTED RUNOFF FOR POND #1  
DRAINAGE AREA 2 = 1.03 ACRES  
Q=0.74  
A=0.58 AC.  
R=4 IN. 3 HRS  
C=0.85 (WEIGHTED AVG.)  
0.85x0.58=0.49 AC/FT  
25% EMERGENCY =0.07 AC/FT  
10 YR SAND/SILT =0.01 AC/FT  
TOTAL =0.57 AC/FT  
BOTTOM OF POND 3737.00  
TOP OF POND = 3741.27

**PONDING REQUIREMENTS**  
EXPECTED RUNOFF FOR POND #2  
DRAINAGE AREA 3 AND 4 = 1.44 ACRES  
Q=5.24  
A=1.44 AC.  
R=4 IN. 3 HRS.  
C=0.85 (WEIGHTED AVG.)  
1.44x0.85=1.22 AC/FT  
25% EMERGENCY =0.11 AC/FT  
10 YR SAND/SILT =0.01 AC/FT  
TOTAL =0.52 AC/FT  
BOTTOM OF POND 3736.50  
TOP OF POND = 3739.00

**POND #1 CAPACITIES**  
 $A_b \times H = Q$   
 $0.21 \times 0.62 \times 4.27 = 0.62 \text{ AC/FT.}$   
A= TOP AREA (Acres)  
A<sub>b</sub>= BOTTOM AREA (Acres)  
H= HEIGHT OF POND

**POND #2 CAPACITIES**  
 $A_b \times H = Q$   
 $0.35 \times 0.12 \times 2.50 = 0.71 \text{ AC/FT.}$   
A= TOP AREA (Acres)  
A<sub>b</sub>= BOTTOM AREA (Acres)  
H= HEIGHT OF POND

PROPOSED RUNOFF FLOW  
NOTE: ALL ELEVATIONS SHOWN ARE PAVEMENT UNLESS OTHERWISE NOTED.

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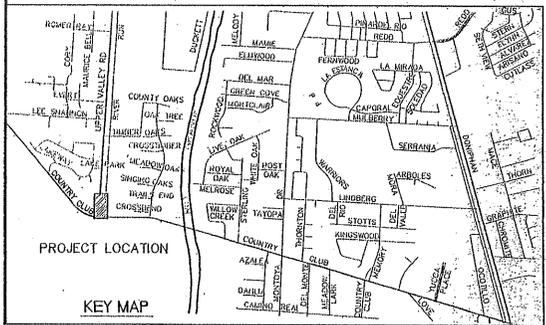
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DUE TO INHERENT INACCURACIES OF FEMA OR FLOOD INSURANCE RATE MAPS THIS SURVEYOR DOES NOT GUARANTEE TO THE ACCURACY OF LOCATIONS BASED ON SUCH MAPS. THIS FLOOD STATEMENT SHALL NOT CREATE LIABILITY ON THE PART OF THE SURVEYOR.

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BY: EL PASO COUNTY WATER IMPROVEMENT DISTRICT NO. 1

DATE: \_\_\_\_\_



DRAINAGE PLAN



DATE	REVISION DESCRIPTION	BY	DATE	REVISION DESCRIPTION	BY

**DRAINAGE PLAN**  
A PORTION OF THE NEMEXAS DRAIN DISTRICT OF WAY, BLOCK N, UPPER VALLEY SURVEY, EL PASO, TEXAS COUNTY, TEXAS.

**SJI ENGINEERING, INC.**  
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DATE: JUNE 2008  
DRAWN BY: SJI  
CHECKED BY: SJI

**SJI**

Sheet 3 of 6

