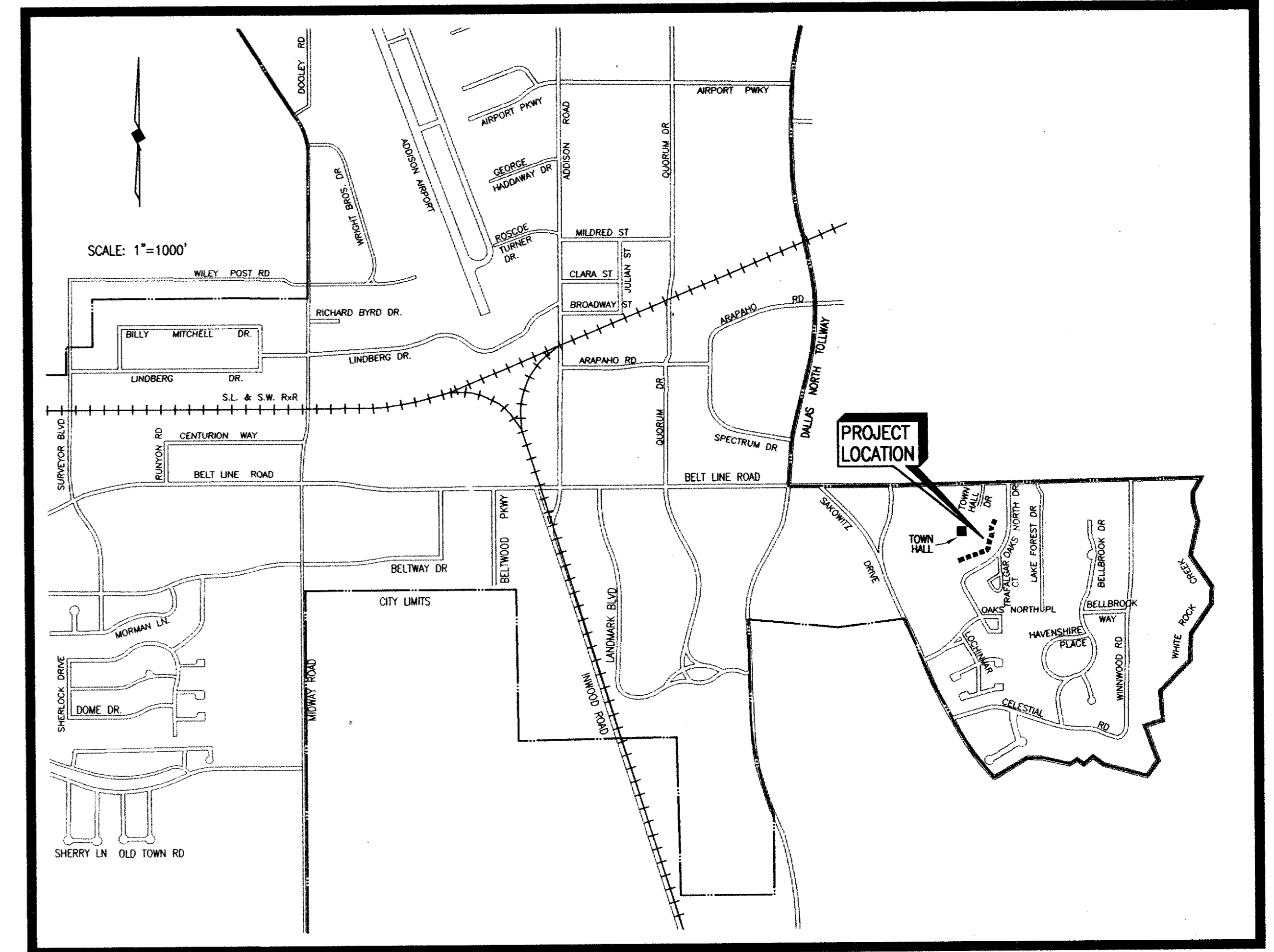


TOWN OF ADDISON, TEXAS

CONSTRUCTION PLANS FOR

TOWNHALL STREAM BANK EROSION PROTECTION

REVISIONS



LOCATION MAP

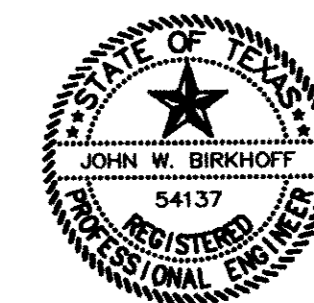
SHEET INDEX

<u>SHEET DESCRIPTION</u>	<u>SHEET NO.</u>
STREAM BANK PROTECTION - PLAN, COORDINATES & CONTROLS	1
STREAM BANK PROTECTION - PLAN (PART A)	2
STREAM BANK PROTECTION - PLAN (PART B)	3
STREAM BANK - PROFILE A & B	4
STREAM BANK - CROSS SECTIONS	5 - 7
STREAM BANK - MISCELLANEOUS DETAILS	8 & 9

SHIMEK, JACOBS & FINKLEA, L.L.P.
CONSULTING ENGINEERS
Dallas, Texas

OCTOBER, 1997

THESE DOCUMENTS ARE FOR
BIDDING, CONSTRUCTION,
AND PERMIT PURPOSES.
John W. Bulliff
DATE: 10/31/97



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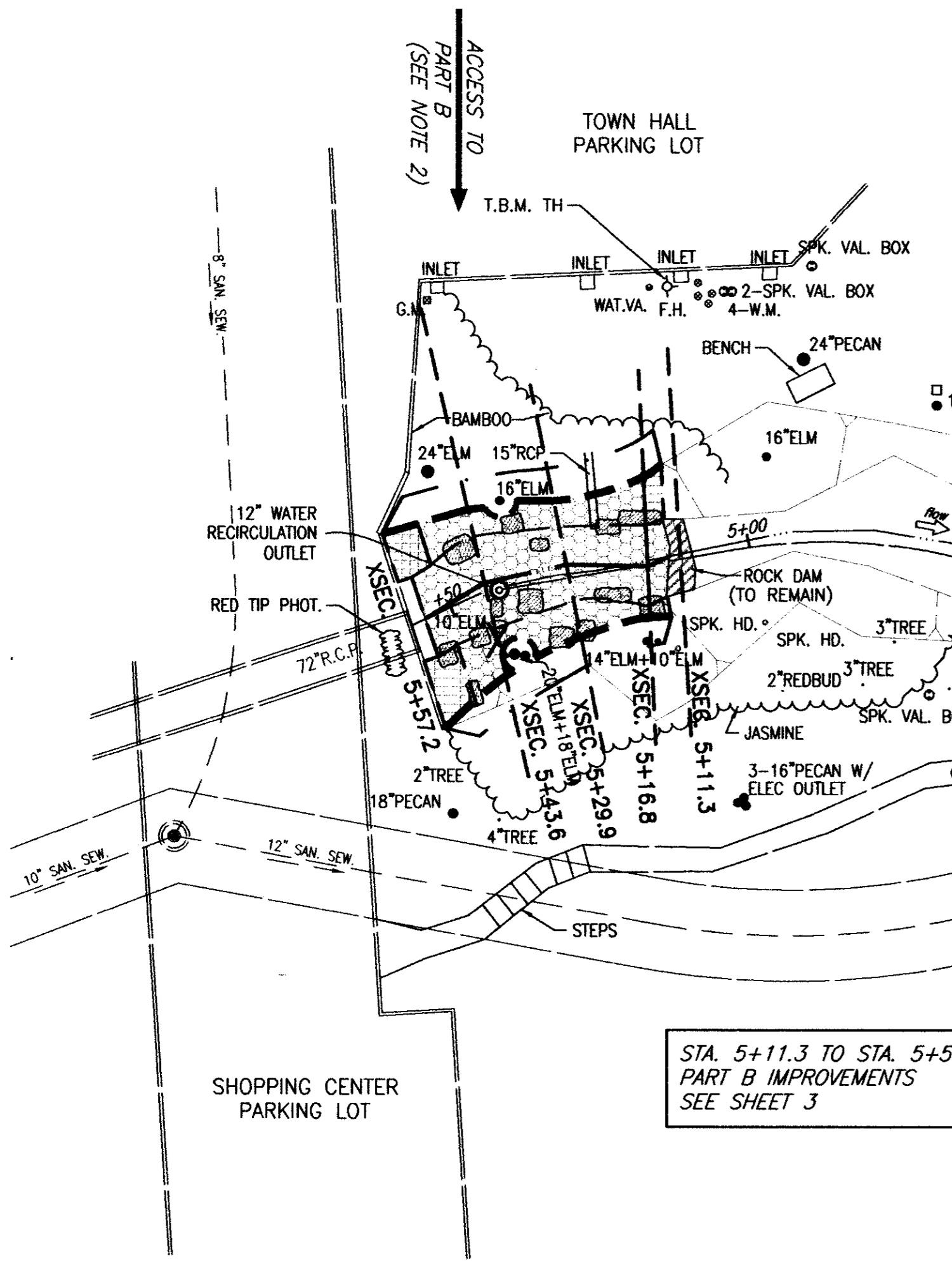
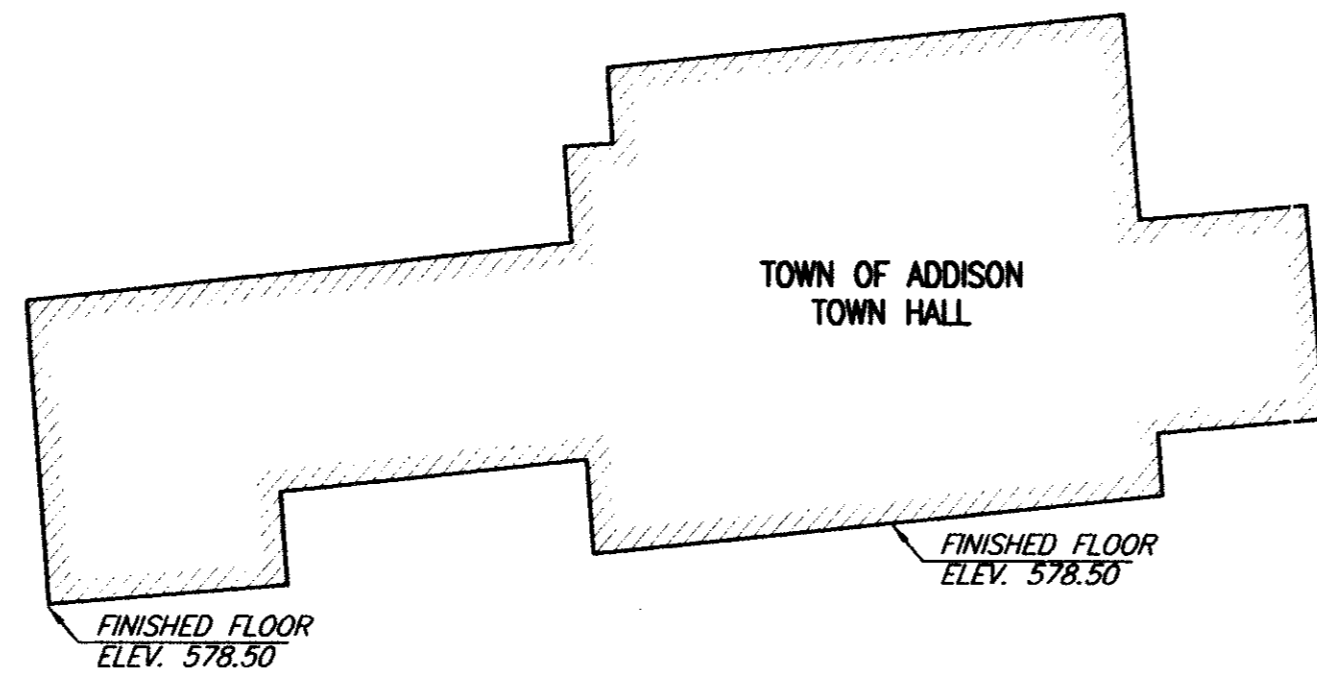
CENTER LINE OF PROP. BOTTOM CURVE DATA

CURVE NO.	Δ	R	T	L	RADIUS POINT	CURVE BEGINNING	CURVE ENDING
CURVE NO.1	48°59'14"	24.28'	11.06'	20.76'	N 4700.4272, E 3976.7123	N 4722.2532, E 3966.0827	N 4706.7293, E 3953.2677
CURVE NO.2	40°19'52"	23.75'	8.72'	16.71'	N 4712.8934, E 3930.3367	N 4706.7293, E 3953.2677	N 4693.3534, E 3943.8280
CURVE NO.3	63°23'14"	17.93'	11.07'	19.84'	N 4678.5991, E 3954.0149	N 4693.3534, E 3943.8280	N 4676.1007, E 3936.2604
CURVE NO.4	12°01'54"	115.27'	12.15'	24.21'	N 4692.1627, E 4050.4044	N 4676.1007, E 3936.2604	N 4652.6599, E 3942.1161
CURVE NO.5	49°49'58"	45.19'	20.99'	39.31'	N 4644.0937, E 3897.7407	N 4652.6599, E 3942.1161	N 4615.7090, E 3932.9097

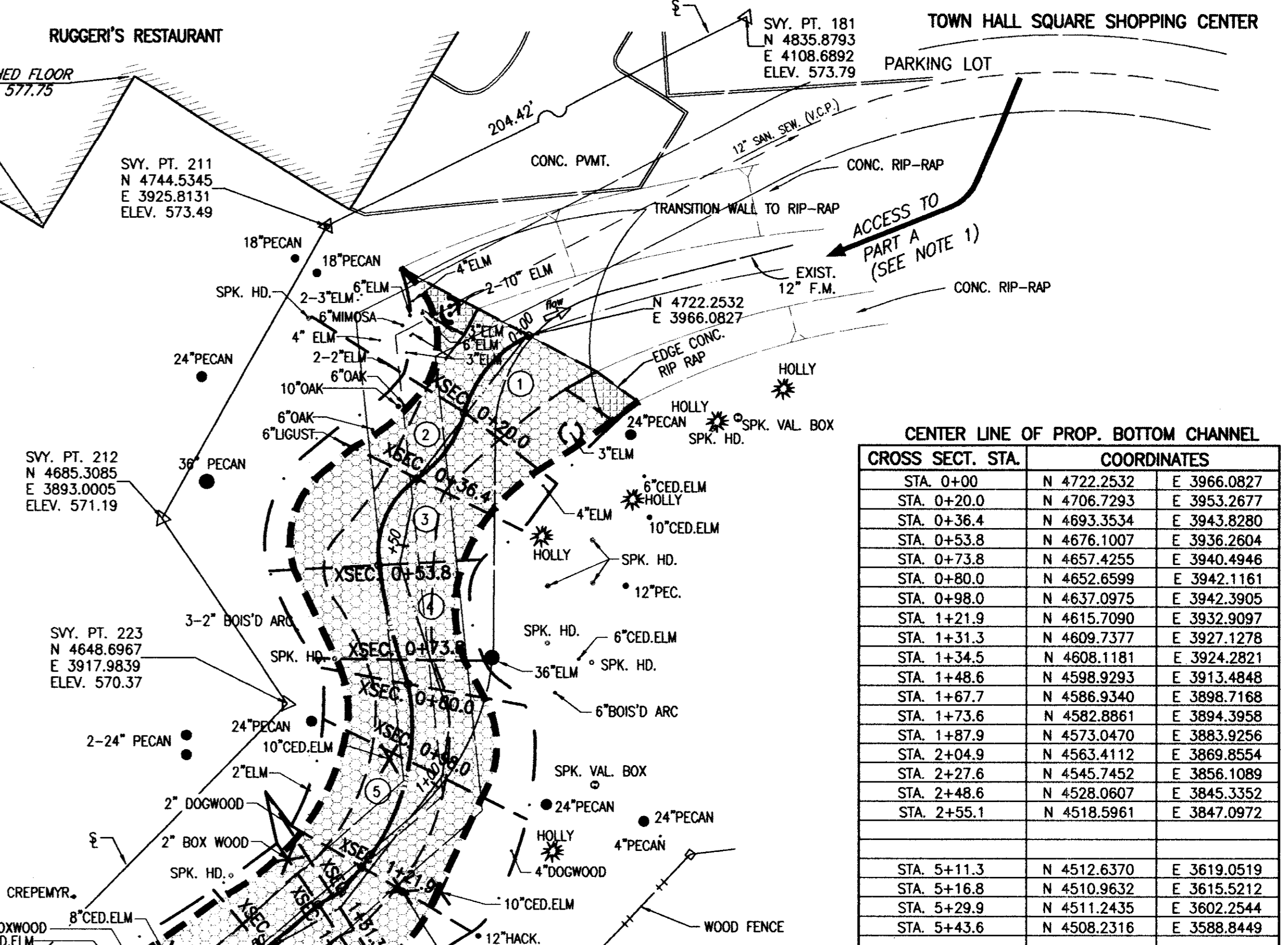
SCALE: 1"=20'

NOTES:

- 1) ACCESS TO PART A IMPROVEMENTS SHALL BE THROUGH EXISTING CONCRETE RIP-RAP LINED CHANNEL LOCATED TO THE EAST OF THE PROJECT. ACCESS TO THE EXISTING CONCRETE RIP-RAP CHANNEL SHALL BE THROUGH THE BACKSIDE OF THE TOWN HALL SQUARE SHOPPING CENTER PARKING LOT.
- 2) ACCESS TO PART B IMPROVEMENTS SHALL BE THROUGH THE TOWN HALL PARKING LOT LOCATED WEST OF TOWN HALL. STAGING AREA SHALL BE LIMITED TO 3 PARKING SPACES AT THE DIRECTION OF THE OWNER.
- 3) THE CONTRACTOR SHALL INSTALL AND MAINTAIN A TEMPORARY CONSTRUCTION FENCE ALONG ALL ACCESS ROUTES. ALL WORK SHALL BE PERFORMED WITHIN THE CHANNEL AND BETWEEN THE TEMPORARY CONSTRUCTION FENCES.



STA. 5+11.3 TO STA. 5+57.2
PART B IMPROVEMENTS
SEE SHEET 3



CENTER LINE OF PROP. BOTTOM CHANNEL

CROSS SECT. STA.	COORDINATES	
STA. 0+00	N 4722.2532	E 3966.0827
STA. 0+20.0	N 4706.7293	E 3953.2677
STA. 0+36.4	N 4693.3534	E 3943.8280
STA. 0+53.8	N 4676.1007	E 3936.2604
STA. 0+73.8	N 4657.4255	E 3940.4946
STA. 0+80.0	N 4652.6599	E 3942.1161
STA. 0+98.0	N 4637.0975	E 3942.3905
STA. 1+21.9	N 4615.7090	E 3932.9097
STA. 1+31.3	N 4609.7377	E 3927.1278
STA. 1+34.5	N 4608.1181	E 3924.2821
STA. 1+48.6	N 4598.9293	E 3913.4848
STA. 1+67.7	N 4586.9340	E 3898.7168
STA. 1+73.6	N 4582.8861	E 3894.3958
STA. 1+87.9	N 4573.0470	E 3883.9256
STA. 2+04.9	N 4563.4112	E 3869.8554
STA. 2+27.6	N 4545.7452	E 3856.1089
STA. 2+48.6	N 4528.0607	E 3845.3352
STA. 2+55.1	N 4518.5961	E 3847.0972
STA. 5+11.3	N 4512.6370	E 3619.0519
STA. 5+16.8	N 4510.9632	E 3615.5212
STA. 5+29.9	N 4511.2435	E 3602.2544
STA. 5+43.6	N 4508.2316	E 3588.8449

LEGEND

- TREE WELL
- TREE REMOVAL & DISPOSAL
- TOP GABION (INSIDE FACE)
- CONSTRUCTION LIMITS
- BOTTOM OF GABIONS
- PROPOSED C OF CHANNEL
- EXISTING C OF CHANNEL
- PROPOSED GABIONS
- PROPOSED GABION TOE WALL TRANSITION
- REMOVE & RELOCATE BOULDER

STA. 0+00 TO STA. 2+55.1
PART A IMPROVEMENTS
SEE SHEET 2

BENCHMARK NO. 22
"I" CUT ON CURB RETURN WEST SIDE OF
MONTFORT DR. & SAKOWITZ DR., N.E. CORNER.
ELEV. 608.63

T.B.M. NO. K 52
TOP OF MANHOLE RIM AT BELTLINE
ROAD AND LAKE FOREST ROAD.
ELEV. 565.46

T.B.M. TH
TOP OF NUT OF FIRE HYDRANT
AT STA 5+11±, 44' RT.
ELEV. 583.41

THESE DOCUMENTS ARE FOR
BIDDING, CONSTRUCTION,
AND PERMIT PURPOSES.
John W. Bullard
DATE: 10/31/97



TOWN OF ADDISON, TEXAS
TOWNHALL STREAM BANK EROSION PROTECTION
PLAN, COORDINATES & CONTROLS

SHIMEK, JACOBS & FINKLEA, L.L.P.
CONSULTING ENGINEERS
Dallas, Texas

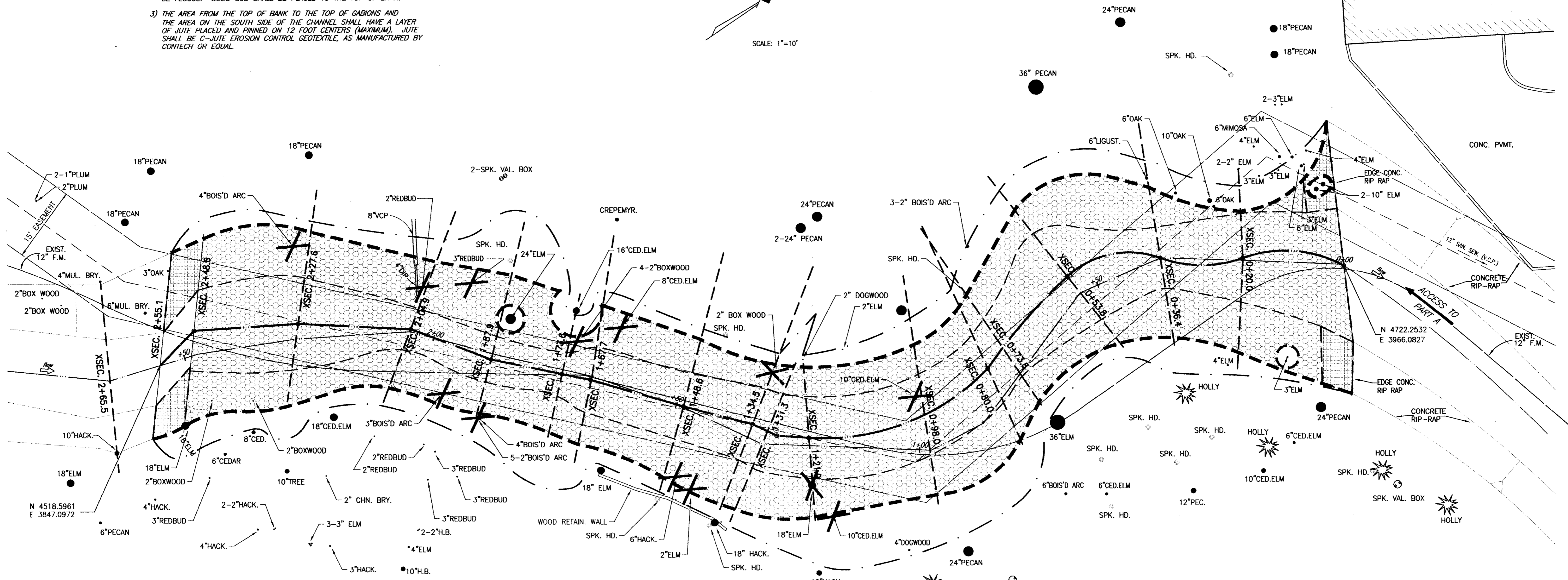
DESIGNED BY: M.H.	PROJECT: 97151	SHEET NO. 1
DRAWN BY: R.J.L.	DATE: OCTOBER, 1997	OF 9 SHEETS

- RESTORATION:
- 1) CONTRACTOR SHALL RESTORE ALL AREAS DISTURBED BY CONSTRUCTION. ALL COMPACTED EARTH SHALL BE TILLED TO A DEPTH OF SIX INCHES.
 - 2) THE AREA ON THE NORTH SIDE OF THE CHANNEL, THE CONTRACTOR SHALL FURNISH, PLACE AND ESTABLISH SOLID SOD. SOLID SOD SHALL BE LAID END TO END, SIDE TO SIDE AND ROLLED. SOLID SOD SHALL BE FESCUE. SOLID SOD SHALL BE PLACED TO THE TOP OF BANK.
 - 3) THE AREA FROM THE TOP OF BANK TO THE TOP OF GABIONS AND THE AREA ON THE SOUTH SIDE OF THE CHANNEL SHALL HAVE A LAYER OF JUTE PLACED AND PINNED ON 12 FOOT CENTERS (MAXIMUM). JUTE SHALL BE C-JUTE EROSION CONTROL GEOTEXTILE, AS MANUFACTURED BY CONTECH OR EQUAL.

TOWN OF ADDISON
TOWN HALL

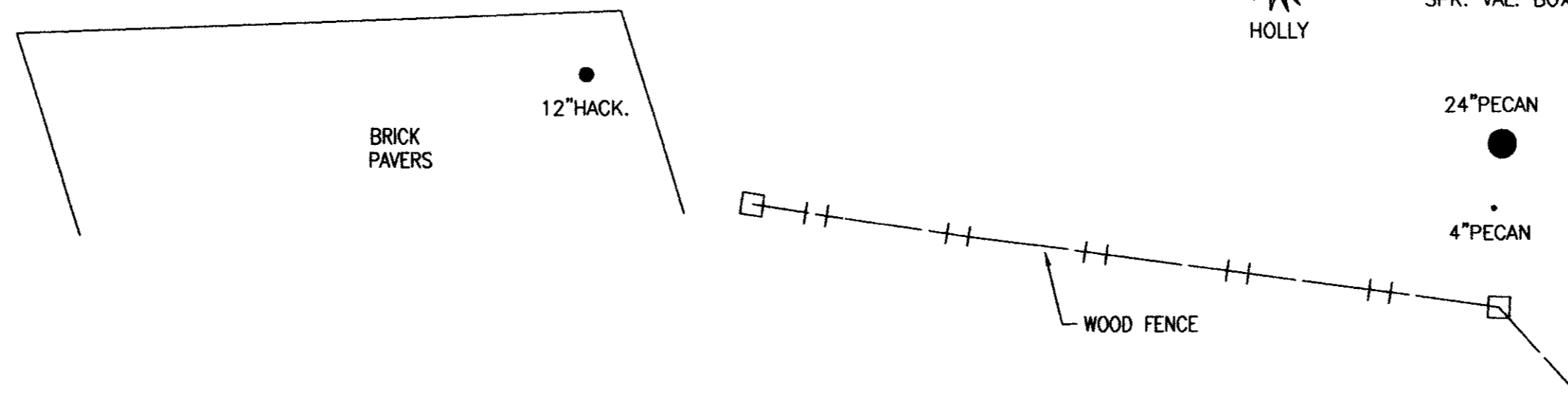
SCALE: 1"=10'

RUGGERI'S RESTAURANT



LEGEND

- TREE WELL
- TREE REMOVAL & DISPOSAL
- TOP GABION (INSIDE FACE)
- CONSTRUCTION LIMITS
- BOTTOM OF GABIONS
- PROPOSED C OF CHANNEL
- EXISTING C OF CHANNEL
- PROPOSED GABIONS
- PROPOSED GABION TOE WALL TRANSITION



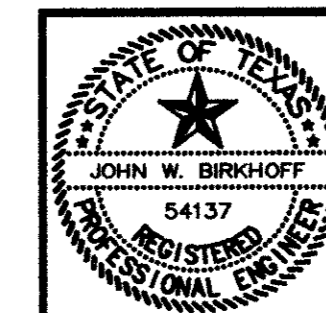
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TOWN OF ADDISON, TEXAS

TOWNHALL STREAM BANK EROSION PROTECTION PLAN (PART A)

SHIMEK, JACOBS & FINKLEA, L.L.P.
CONSULTING ENGINEERS
Dallas, Texas

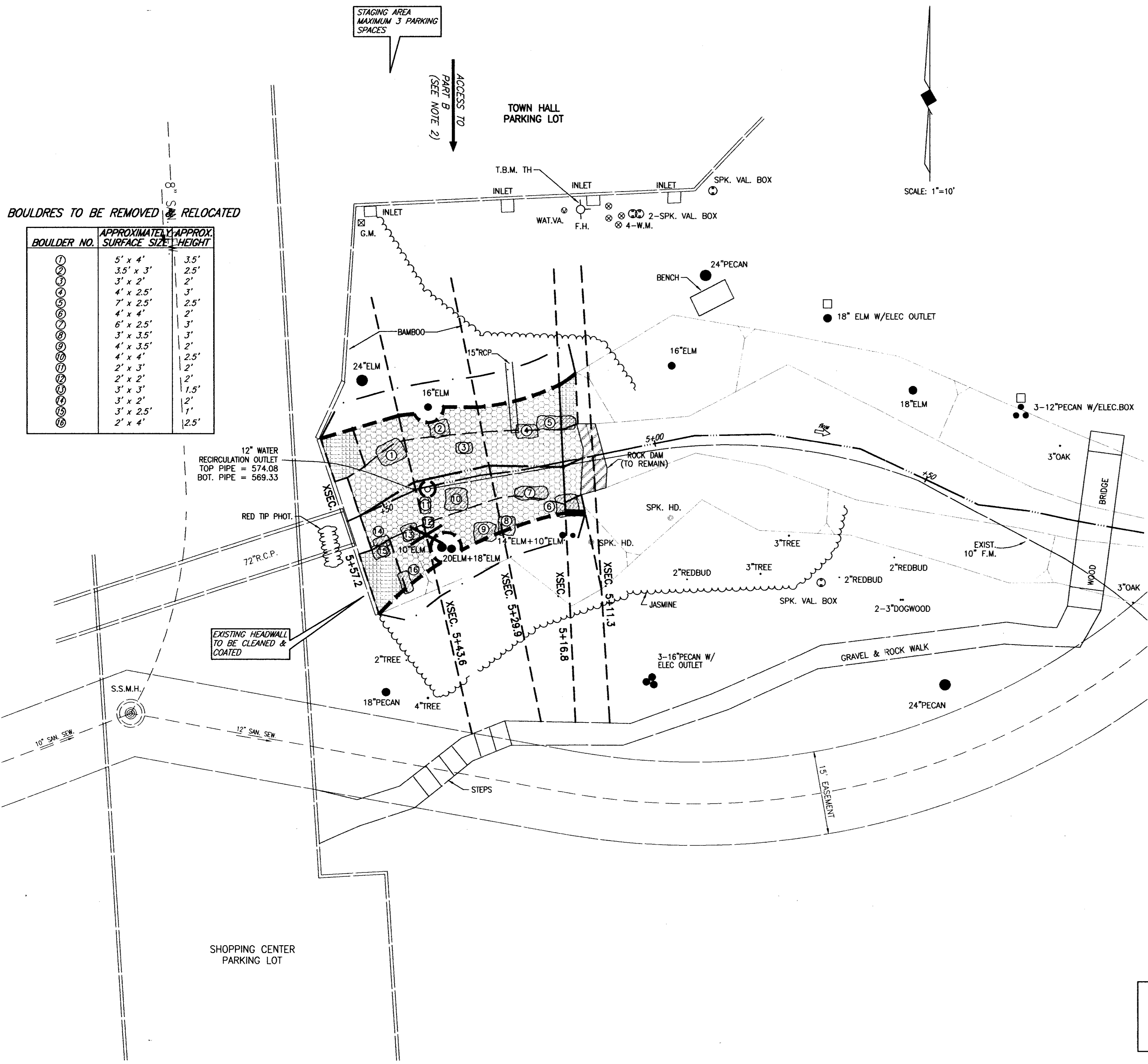
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John W. Bullhoff
DATE: 10/31/97



DESIGNED BY: M.H.	PROJECT: 97151	SHEET NO. 2
DRAWN BY: R.J.L.	DATE: OCTOBER, 1997	OF 9 SHEETS

BOULDERS TO BE REMOVED & RELOCATED

BOULDER NO.	APPROXIMATELY APPROX. SURFACE SIZE	APPROX. HEIGHT
1	5' x 4'	3.5'
2	3.5' x 3'	2.5'
3	3' x 2'	2'
4	4' x 2.5'	3'
5	7' x 2.5'	2.5'
6	4' x 4'	2'
7	6' x 2.5'	3'
8	3' x 3.5'	3'
9	4' x 3.5'	2'
10	4' x 4'	2.5'
11	2' x 3'	2'
12	2' x 2'	2'
13	3' x 3'	1.5'
14	3' x 2'	2'
15	3' x 2.5'	1'
16	2' x 4'	2.5'



- GENERAL NOTES PART A & B**
1. THE ACCESS AND WORK AREAS SHALL BE SECURED DURING NON WORKING HOURS.
 2. ALL TREES DESIGNATED ON THE PLAN TO BE REMOVED SHALL INCLUDE ROOTS. REMOVAL SHALL INCLUDE PROPER DISPOSAL OFFSITE.
 3. CONTRACTOR SHALL RE-ESTABLISH GRASS WITH SOLID SOD IN ALL AREAS DISTURBED BY CONSTRUCTION ACTIVITIES.
 4. ALL VEGETATION REMOVED SHALL BE REPLANTED BY THE OWNER.
- GENERAL NOTES PART B**
1. CONTRACTOR SHALL MINIMIZE THE WIDTH OF ACCESS TO THE WORK AREA.
 2. CONTRACTOR SHALL REMOVE BOULDERS BETWEEN STA. 5+11.3 AND STA. 5+57.2. BOULDERS SHALL BE RELOCATED BETWEEN STA. 5+11.3 AND THE EXISTING WOOD BRIDGE. PLACEMENT SHALL BE AT THE DIRECTION OF THE OWNER.
 3. CONTRACTOR SHALL FILL VOID AREAS BETWEEN BOULDERS LOCATED BETWEEN STA. 5+11.3 AND FOOT BRIDGE WITH FLOWABLE BACK FILL FROM A PUMP TRUCK. FLOWABLE MATERIAL SHALL BE PLANT PRODUCED CEMENT STABILIZED BASE.
 4. SEE SPECIFICATIONS FOR COATING THE TOP AND FACE OF THE HEADWALL AT STA. 5+57.2.
 5. WATER RE-CIRCULATION OUTLET SHALL BE PROTECTED AT ALL TIMES AND REMAIN IN SERVICE FOLLOWING CONSTRUCTION. LAY PROPOSED GABIONS AROUND OUTLET A MINIMUM OF 6 INCH CLEARANCE FROM OUTSIDE OF DIAMETER.

LEGEND

- TREE WELL
- TREE REMOVAL & DISPOSAL
- TOP GABION (INSIDE FACE)
- CONSTRUCTION LIMITS
- BOTTOM OF GABIONS
- PROPOSED C OF CHANNEL
- EXISTING L OF CHANNEL
- PROPOSED GABIONS
- PROPOSED GABION TOE WALL TRANSITION
- REMOVE & RELOCATE BOULDER

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TOWN OF ADDISON, TEXAS

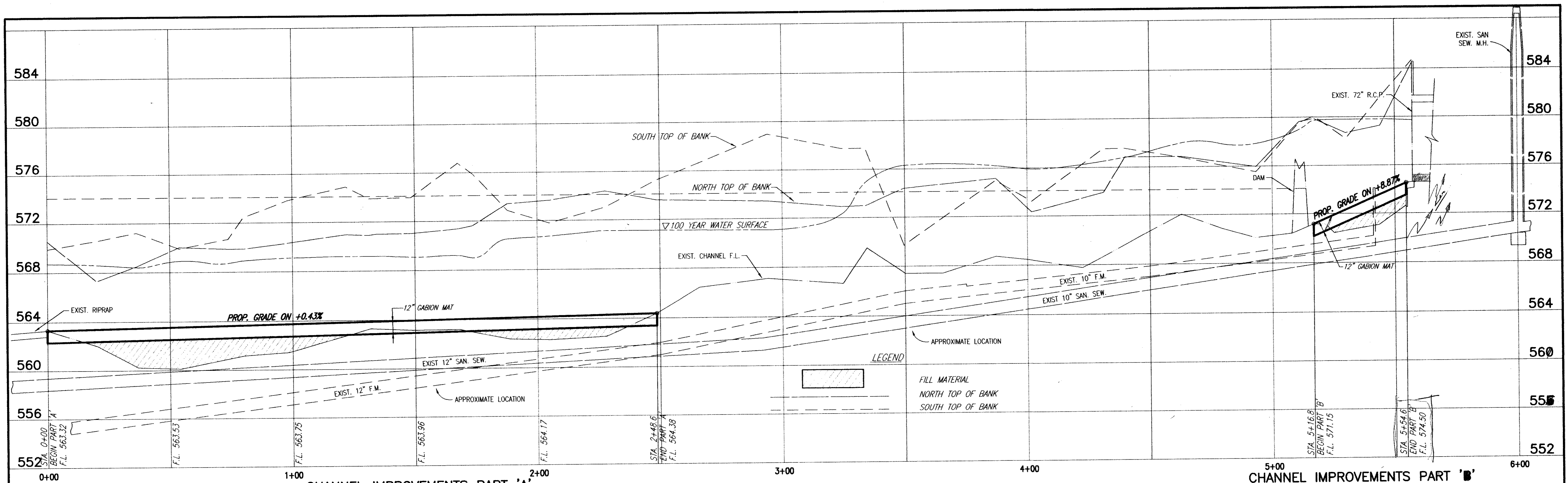
TOWNHALL STREAM BANK EROSION PROTECTION PLAN (PART B)

SHIMEK, JACOBS & FINKLEA, L.L.P.
CONSULTING ENGINEERS
Dallas, Texas

DESIGNED BY: M.H. PROJECT: 97151 SHEET NO. 3
DRAWN BY: R.J.L. DATE: OCTOBER, 1997 OF 9 SHEETS

THESE DOCUMENTS ARE FOR BIDDING, CONSTRUCTION, AND PERMIT PURPOSES.
John W. Birkhoff
DATE: 10/31/97





CHANNEL IMPROVEMENTS PART 'A'

CHANNEL IMPROVEMENTS PART 'B'

**100 YEAR STORM
HYDRAULIC COMPUTATION
FOR EXISTING IMPROVEMENTS**

**100 YEAR STORM
HYDRAULIC COMPUTATION
FOR PROPOSED IMPROVEMENTS**

River Sta.	Q Total (CFS)	W.S. Elev. (FT)	E.G. Elev. (FT)	Vel. Chnl. (FT/S)
5+57.2	564.59	579.93	580.10	3.29
5+43.6	564.59	579.90	580.08	3.39
5+29.9	564.59	579.89	580.03	3.03
5+16.8	564.59	579.82	579.99	3.36
5+11.3	564.59	578.99	579.88	7.58
4+93.3	564.59	577.85	578.45	6.30
4+62.9	564.59	577.95	578.13	3.40
4+39.9	564.59	576.76	577.74	7.93
4+31.1	564.59	576.47	576.84	4.86
4+01.7	564.59	575.87	576.63	7.06
3+87.1	564.59	576.17	576.43	4.13
3+50.1	663.59	576.25	576.35	2.61
3+34.4	663.59	574.95	576.18	9.23
3+24.7	663.59	570.83	575.61	17.54
2+94.0	663.59	569.99	573.33	14.66
2+48.6	663.59	569.80	570.29	5.63
2+27.6	663.59	569.97	570.16	3.48
2+04.9	663.59	569.55	570.08	5.85
1+87.9	663.59	569.14	569.96	7.24
1+73.6	663.59	568.78	569.81	8.15
1+67.7	663.59	568.82	569.72	7.64
1+48.6	663.59	568.91	569.51	6.23
1+34.5	663.59	568.73	569.42	6.68
1+31.3	663.59	568.80	569.37	6.05
1+21.9	663.59	568.76	569.32	6.02
0+98.0	695.26	568.87	569.18	4.50
0+80.0	695.26	568.83	569.15	4.52
0+73.8	695.26	568.71	569.12	5.16
0+53.8	695.26	568.72	569.05	4.63
0+36.4	695.26	568.72	569.00	4.20
0+20.0	695.26	568.68	568.97	4.33
0+00.0	766.32	568.67	568.93	4.13

River Sta.	Q Total (CFS)	W.S. Elev. (FT)	E.G. Elev. (FT)	Vel. Chnl. (FT/S)	Rise (FT)
5+57.2	564.59	579.74	580.06	4.56	
5+43.6	564.59	579.79	580.02	3.80	
5+29.9	564.59	579.81	579.99	3.54	
5+16.8	564.59	579.85	579.96	2.70	0.03
5+11.3	564.59	578.99	579.88	7.58	
4+93.3	564.59	577.85	578.45	6.30	No Rise!
4+62.9	564.59	577.95	578.13	3.40	
4+39.9	564.59	576.76	577.74	7.93	
4+31.1	564.59	576.47	576.84	4.86	
4+01.7	564.59	575.87	576.63	7.06	
3+87.1	564.59	576.17	576.43	4.13	
3+50.1	663.59	576.25	576.35	2.61	
3+34.4	663.59	574.95	576.18	9.23	
3+24.7	663.59	572.35	574.39	11.46	1.02
2+94.0	663.59	571.05	572.52	9.74	1.00
2+48.6	663.59	571.11	571.37	4.08	1.31
2+27.6	663.59	571.09	571.34	3.94	1.12
2+04.9	663.59	570.68	571.26	6.08	1.13
1+87.9	663.59	570.46	571.17	6.76	1.32
1+73.6	663.59	569.03	570.93	11.06	0.25
1+67.7	663.59	569.20	570.02	7.25	0.38
1+48.6	663.59	569.11	569.90	7.12	0.20
1+34.5	663.59	569.16	569.78	6.31	0.43
1+31.3	663.59	569.18	569.76	6.07	0.38
1+21.9	663.59	569.17	569.70	5.81	0.44
0+98.0	695.26	569.12	569.61	5.65	0.25
0+80.0	695.26	568.91	569.53	6.33	0.08
0+73.8	695.26	568.67	569.48	7.24	-
0+53.8	695.26	568.95	569.27	4.57	0.23
0+36.4	695.26	568.44	569.18	6.92	-
0+20.0	695.26	568.56	569.03	5.63	-
0+00.0	766.32	568.67	568.93	4.13	-

BENCHMARK NO. 22
CUT ON CURB RETURN WEST SIDE OF
MONTFORT DR. & SAKOWITZ DR., N.E. CORNER.
ELEV. 608.63

T.B.M. NO. K 52
TOP OF MANHOLE RIM AT BELTLINE
ROAD AND LAKE FOREST ROAD.
ELEV. 565.46

T.B.M. TH
TOP OF NUT OF FIRE HYDRANT
AT STA 5+11±, 44' RT.
ELEV. 583.41

Velocity Rise

*Toll North Westgroves
17110 Dallas Pkwy
Ste 150*

*Gary Cooper
609-9790
Whitetail Realty*

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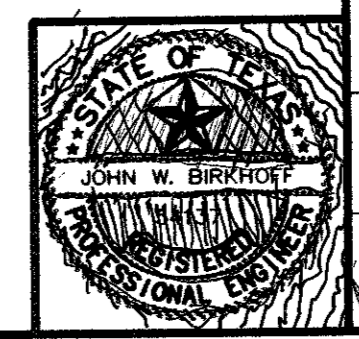
*Mason
214 350 4238*

NOTE:
FILL MATERIAL FOR CHANNEL BOTTOM SHALL
CONSIST OF N.C.T.C.O.G. ITEM 2.11(c)
GRADE 1 COARSE AGGREGATE

COURSE AGGREGATE GRADING
GRADE NO.1-MAXIMUM NOMINAL SIZE 2-1/2 IN. (63 MM)

SIEVE	PERCENT PASSING
3 IN. (75 MM)	100%
2-1/2 IN. (63 MM)	95 - 100%
2 IN. (50 MM)	80 - 100%
1-1/2 IN. (37.5 MM)	50 - 80%
3/4 IN. (19 MM)	20 - 40%
NO. 4 (4.75 MM)	0 - 5%

THESE DOCUMENTS ARE FOR
BIDDING, CONSTRUCTION,
AND PERMIT PURPOSES.
John W. Bullif
DATE: 10/13/1997



TOWN OF ADDISON, TEXAS

TOWNHALL STREAM BANK EROSION PROTECTION
WITH GABION WALLS
PROFILE 'A' & 'B'

SHIMEK, JACOBS & FINKLEA, L.L.P.
CONSULTING ENGINEERS
Dallas, Texas

DESIGNED BY: M.H. PROJECT: '97151 SHEET NO. 4
DRAWN BY: R.J.L. DATE: SEPTEMBER, 1997 OF 9 SHEETS

H:\PROJECTS\ADDISON\97151\KSA.DWG
 BLK - P2XS01, P2XS02, P2XS03, P2XS04, P2XS04B, P2XS05, P2XS06, P2XS06B, P2XS07, P2XS07B, P2XS08
 REVISED: 10/21/97 RUL

575		575	575	575	575	575	575
570		570	570	570	570	570	570
565		565	565	565	565	565	565
560	X-SECTION 0+00	560	560	560	560	560	560
575		575	575	575	575	575	575
570		570	570	570	570	570	570
565		565	565	565	565	565	565
560	X-SECTION 0+73.8	560	560	560	560	560	560
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570		570	570	570	570	570	570
565		565	565	565	565	565	565
560	X-SECTION 0+20.0	560	560	560	560	560	560
575		575	575	575	575	575	575
570		570	570	570	570	570	570
565		565	565	565	565	565	565
560	X-SECTION 0+80.0	560	560	560	560	560	560
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570		570	570	570	570	570	570
565		565	565	565	565	565	565
560	X-SECTION 0+36.4	560	560	560	560	560	560
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565		565	565	565	565	565	565
560	X-SECTION 0+98.0	560	560	560	560	560	560
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565		565	565	565	565	565	565
560	X-SECTION 0+53.8	560	560	560	560	560	560
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570		570	570	570	570	570	570
565		565	565	565	565	565	565
560	X-SECTION 1+31.3	560	560	560	560	560	560
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570		570	570	570	570	570	570
565		565	565	565	565	565	565
560	X-SECTION 1+34.5	560	560	560	560	560	560
575		575	575	575	575	575	575
570		570	570	570	570	570	570
565		565	565	565	565	565	565
560	X-SECTION 1+48.6	560	560	560	560	560	560

LEGEND

- CUT
- BANK FILL
- CHANNEL BOTTOM FILL

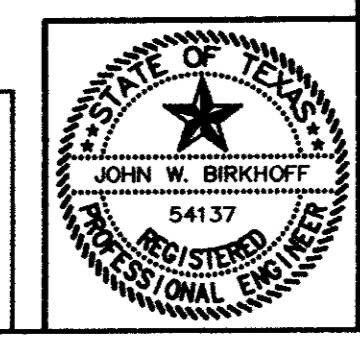
SLOPES = GRADE

- 2 TO 1 = 50.00%
- 1.33 TO 1 = 75.00%
- 1.17 TO 1 = 85.71%
- 1 TO 1 = 100.00%
- 0.83 TO 1 = 120.00%
- 0.67 TO 1 = 150.00%
- 0.50 TO 1 = 200.00%
- 0.33 TO 1 = 300.00%

THESE DOCUMENTS ARE FOR BIDDING, CONSTRUCTION, AND PERMIT PURPOSES.

John W. Bullhoff

DATE: 10/21/97



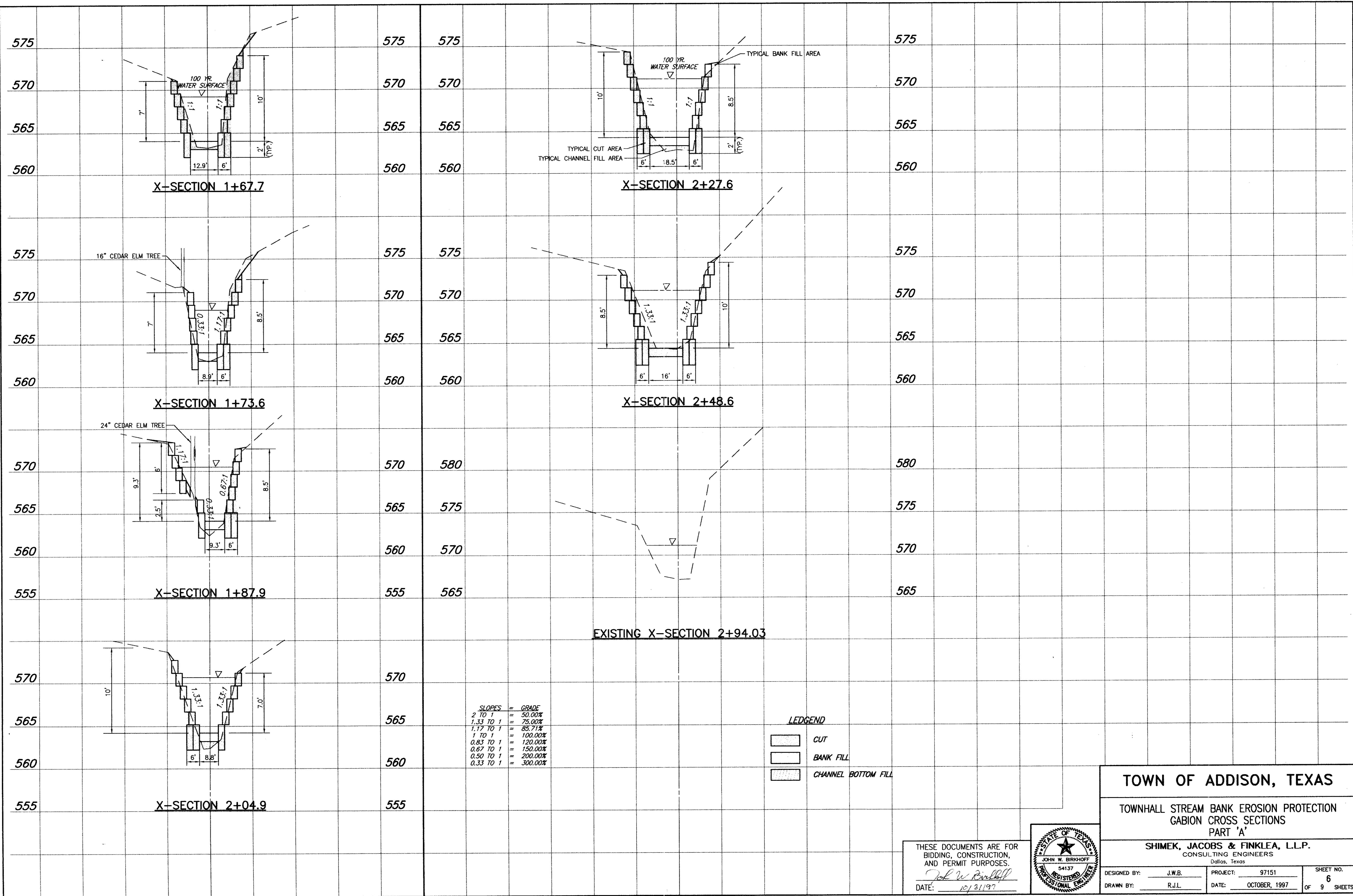
TOWN OF ADDISON, TEXAS

TOWNHALL STREAM BANK EROSION PROTECTION
GABION CROSS SECTIONS
PART 'A'

SHIMEK, JACOBS & FINKLEA, L.L.P.
CONSULTING ENGINEERS
Dallas, Texas

DESIGNED BY: J.W.B.	PROJECT: 97151	SHEET NO. 5
DRAWN BY: R.J.L.	DATE: OCTOBER, 1997	OF 9 SHEETS

H:\PROJECTS\ADDISON\97151\97151SSB.DWG
 BLK - P2XS09, P2XS08, P2XS10, P2XS11, P2XS12, P2XS13, P2XS15
 REVISED: 10/21/97 RLL
 SCALE: 1"=50'



X-SECTION 1+67.7

X-SECTION 2+27.6

X-SECTION 1+73.6

X-SECTION 2+48.6

X-SECTION 1+87.9

EXISTING X-SECTION 2+94.03

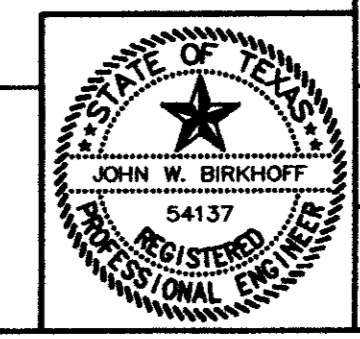
X-SECTION 2+04.9

SLOPES	GRADE
2 TO 1	= 50.00%
1.33 TO 1	= 75.00%
1.17 TO 1	= 85.71%
1 TO 1	= 100.00%
0.83 TO 1	= 120.00%
0.67 TO 1	= 150.00%
0.50 TO 1	= 200.00%
0.33 TO 1	= 300.00%

LEGEND

	CUT
	BANK FILL
	CHANNEL BOTTOM FILL

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John W. Birckhoff
 DATE: 10/31/97



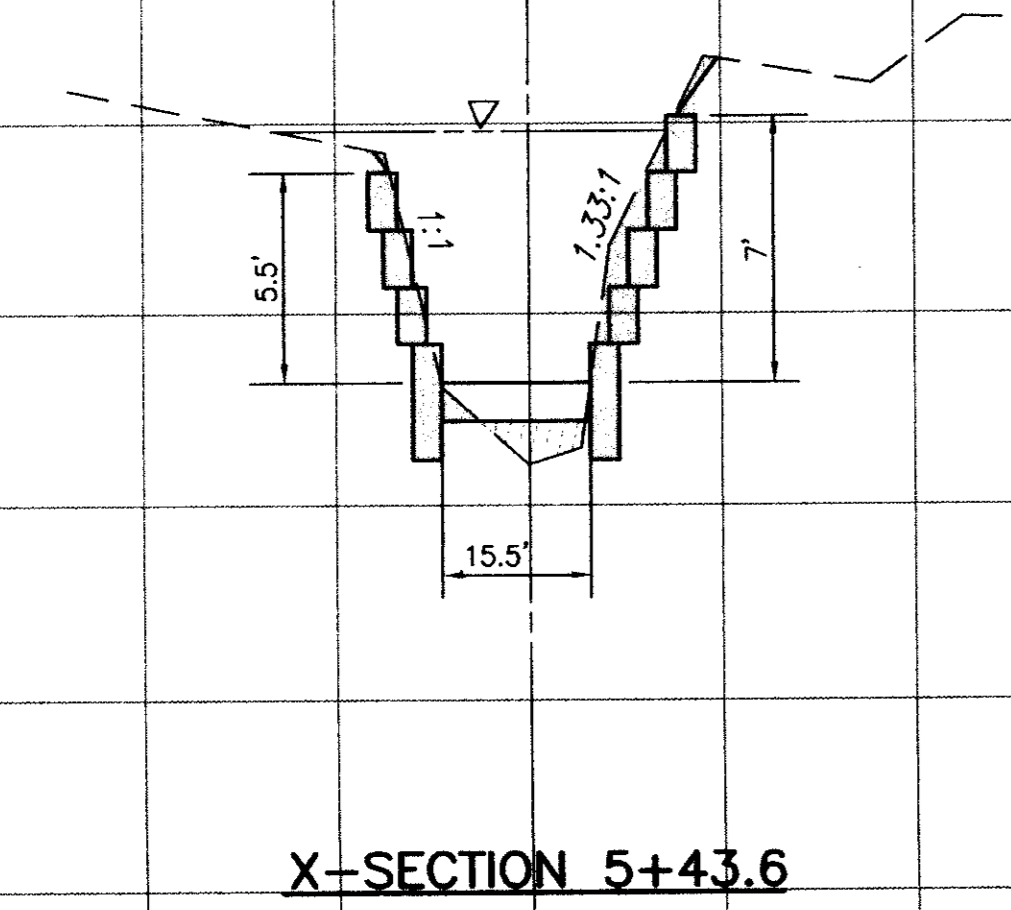
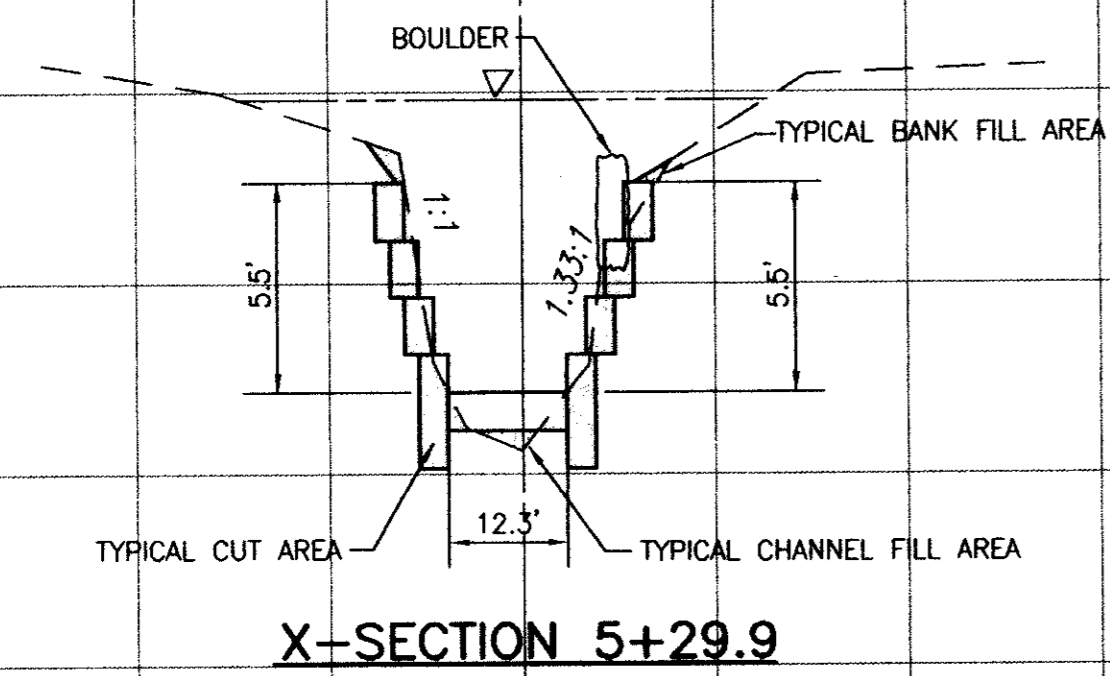
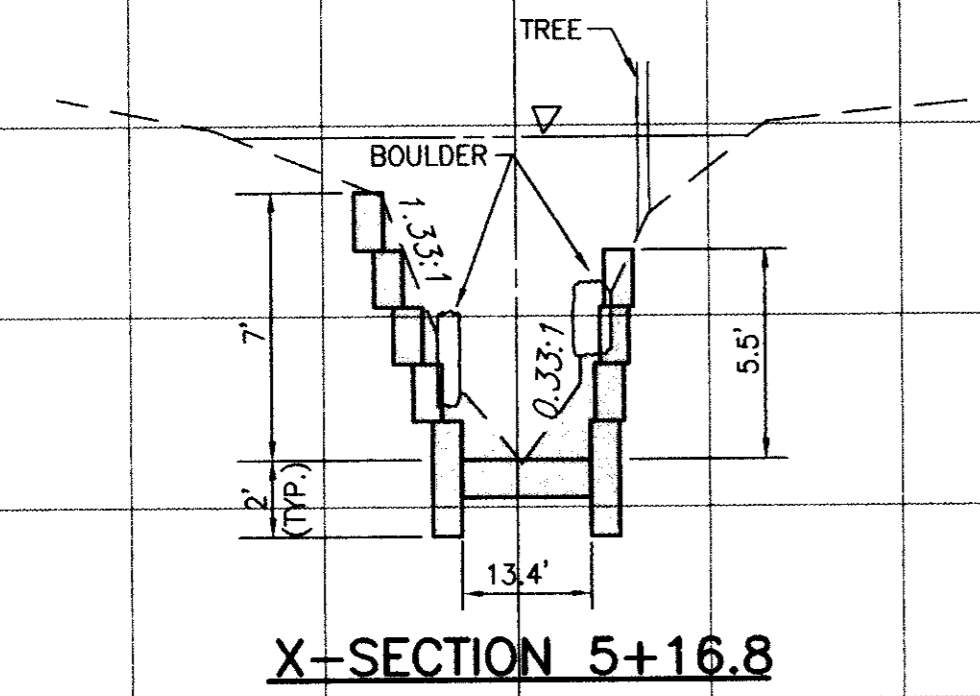
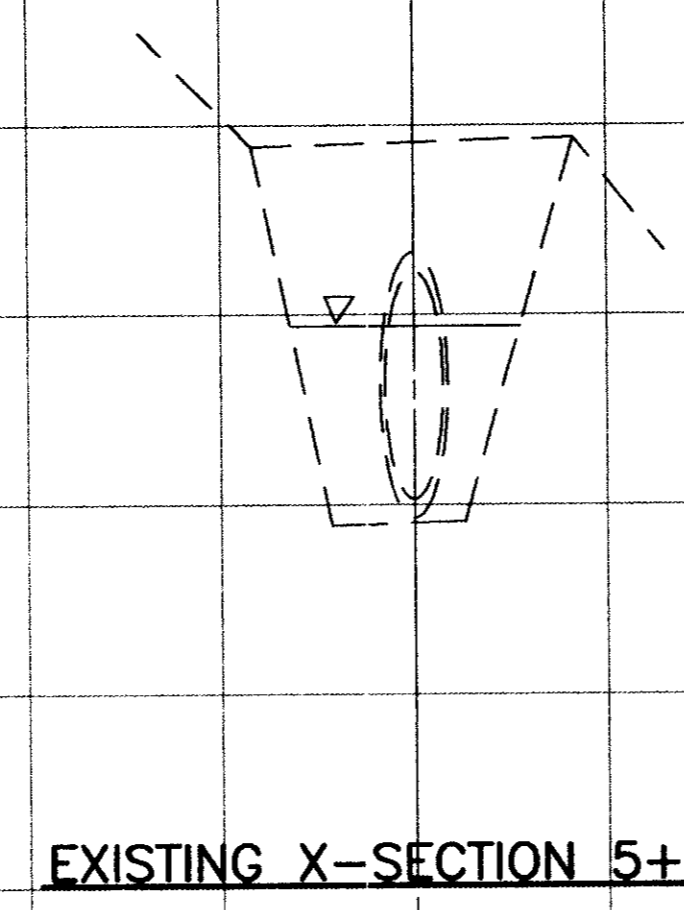
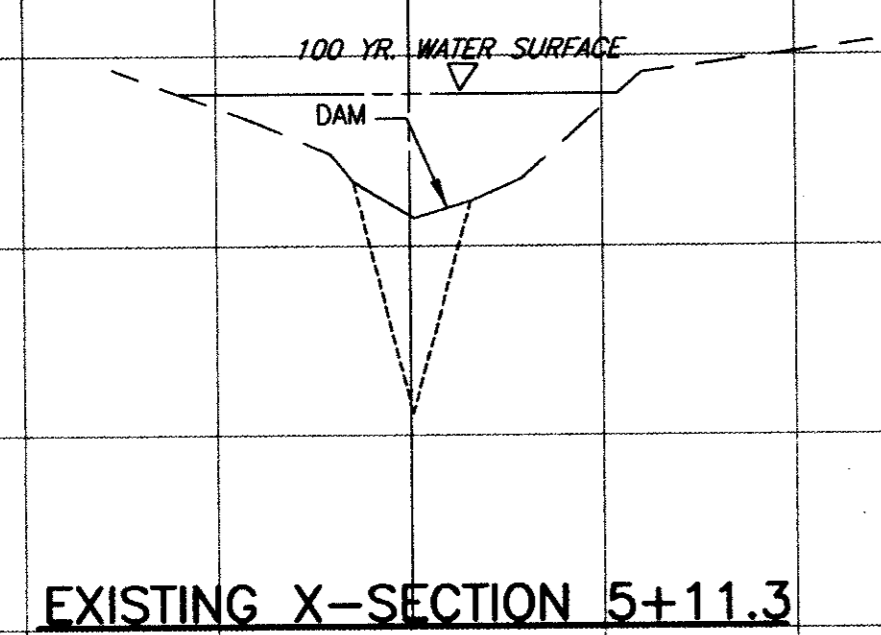
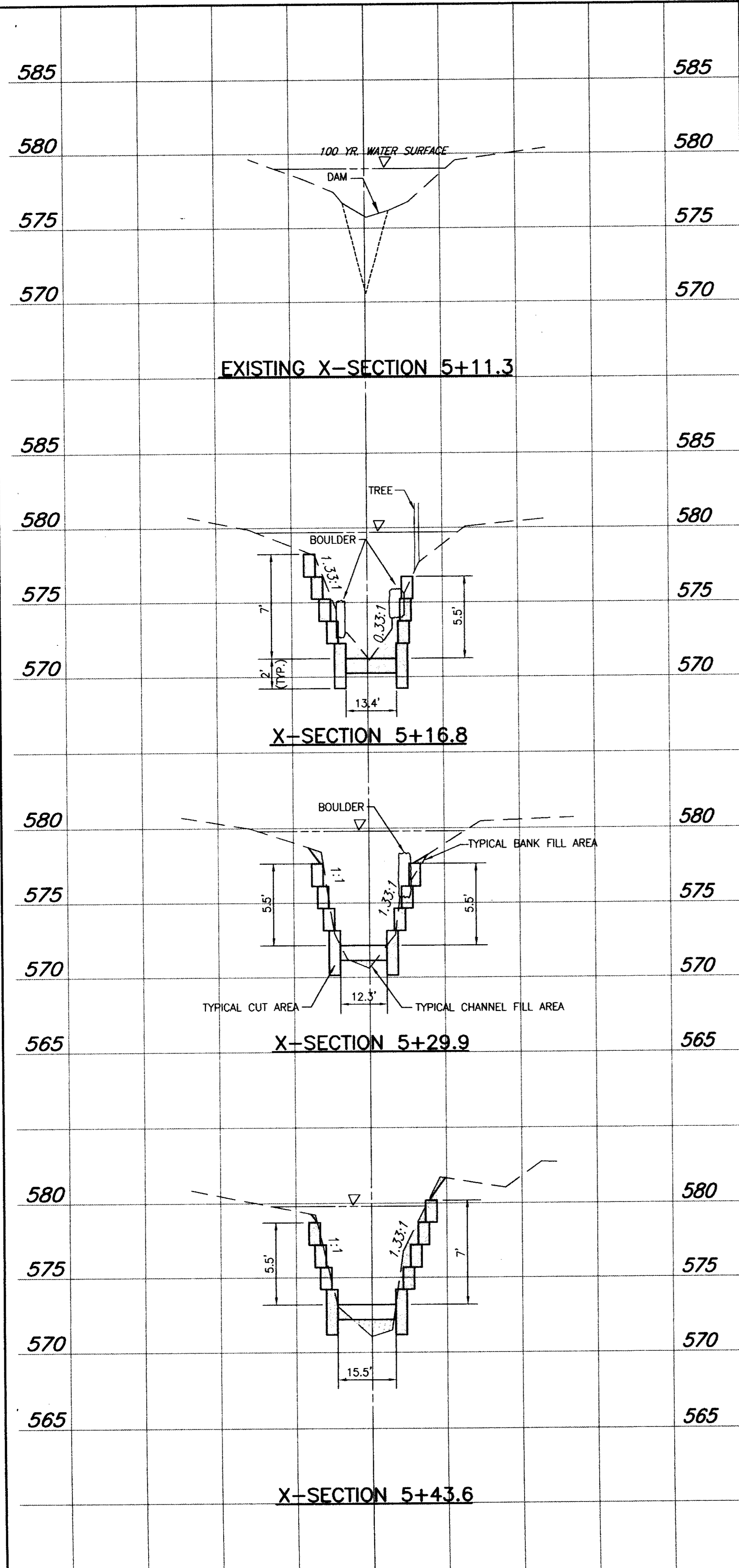
TOWN OF ADDISON, TEXAS

TOWNHALL STREAM BANK EROSION PROTECTION
GABION CROSS SECTIONS
PART 'A'

SHIMEK, JACOBS & FINKLEA, L.L.P.
CONSULTING ENGINEERS
Dallas, Texas

DESIGNED BY: J.W.B.	PROJECT: 97151	SHEET NO. 6
DRAWN BY: R.J.L.	DATE: OCTOBER, 1997	OF 9 SHEETS

BLK- XS-511, XS-517, XS-530, XS-544, XS-557
 H:\PROJECTS\ADDISON\97151\97151VSC.DWG
 REVISED: 10/21/97 RLL



SLOPES = GRADE

2 TO 1	= 50.00%
1.33 TO 1	= 75.00%
1.17 TO 1	= 85.71%
1 TO 1	= 100.00%
0.83 TO 1	= 120.00%
0.67 TO 1	= 150.00%
0.50 TO 1	= 200.00%
0.33 TO 1	= 300.00%

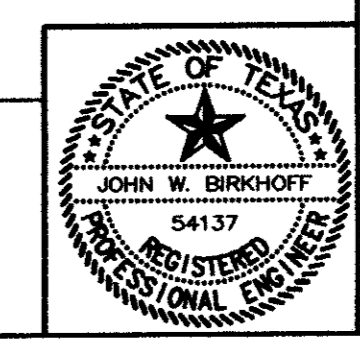
LEGEND

[White Box]	CUT
[Hatched Box]	BANK FILL
[Dotted Box]	CHANNEL BOTTOM FILL

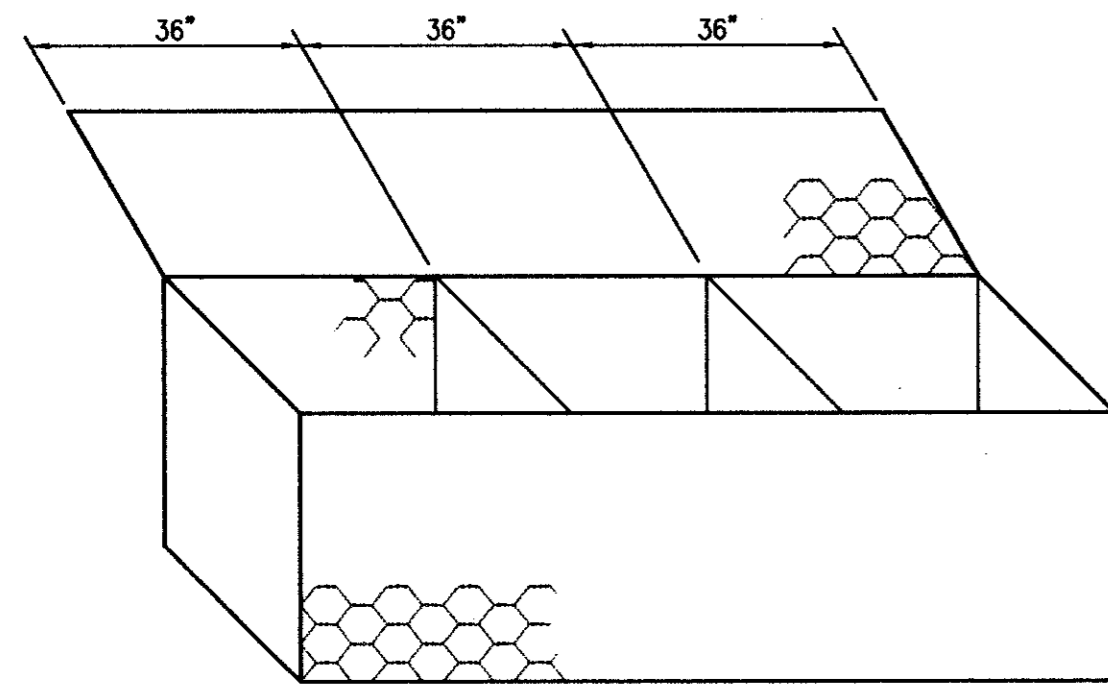
TOWN OF ADDISON, TEXAS
 TOWNHALL STREAM BANK EROSION PROTECTION
 GABION CROSS SECTIONS
 PART 'B'

SHIMEK, JACOBS & FINKLEA, L.L.P.
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John W. Burkhoff
 DATE: 10/21/97

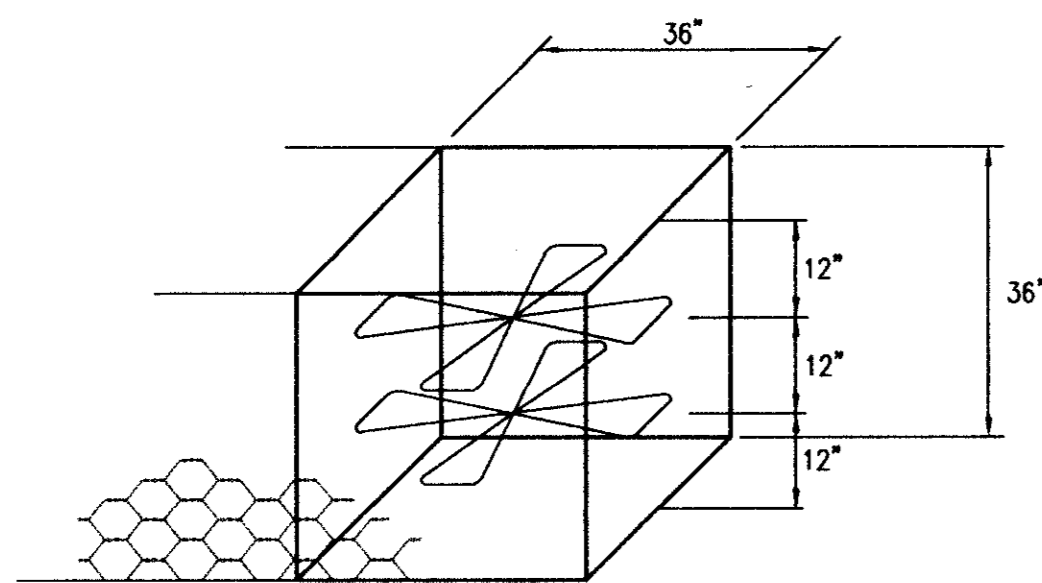


DESIGNED BY: J.W.B.	PROJECT: 97151	SHEET NO. 7
DRAWN BY: R.J.L.	DATE: OCTOBER, 1997	OF 9 SHEETS



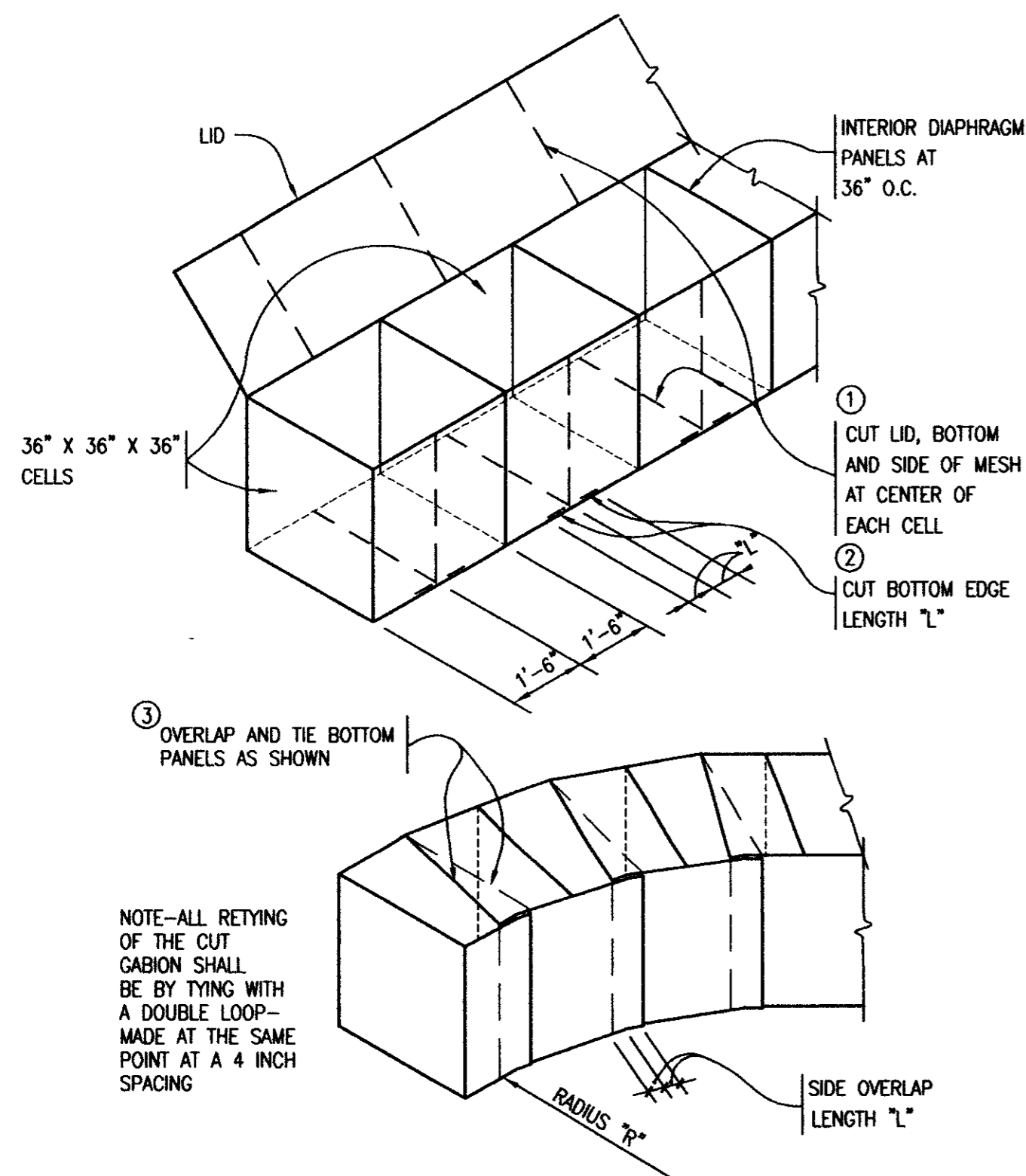
GABION CONTAINER

N.T.S.
NOTE: GABION MAY BE CUT BUT SHALL BE RETIED IN A MANNER TO PRODUCE A CLOSED CELL AND ALL TIES SHALL BE IN CONFORMANCE WITH DETAILS

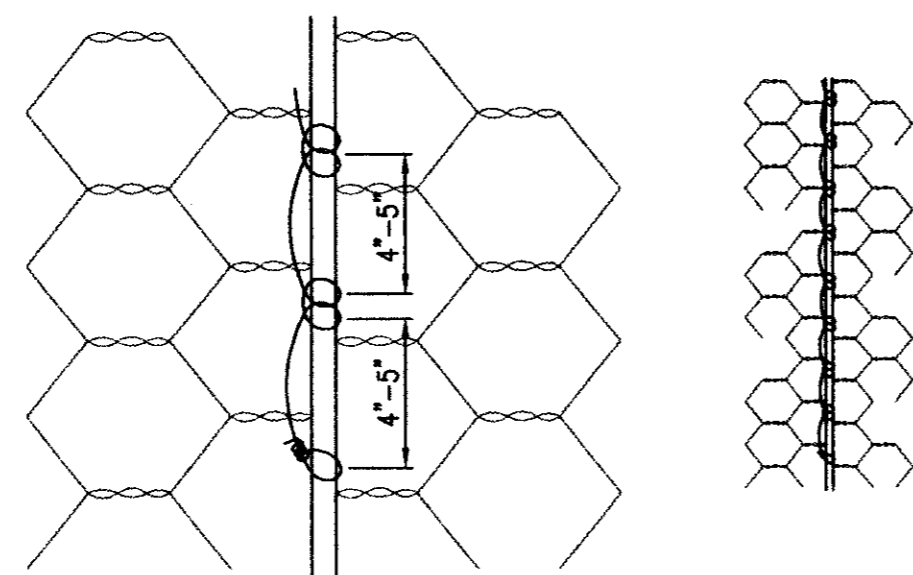


INNER TIE WIRE

N.T.S.

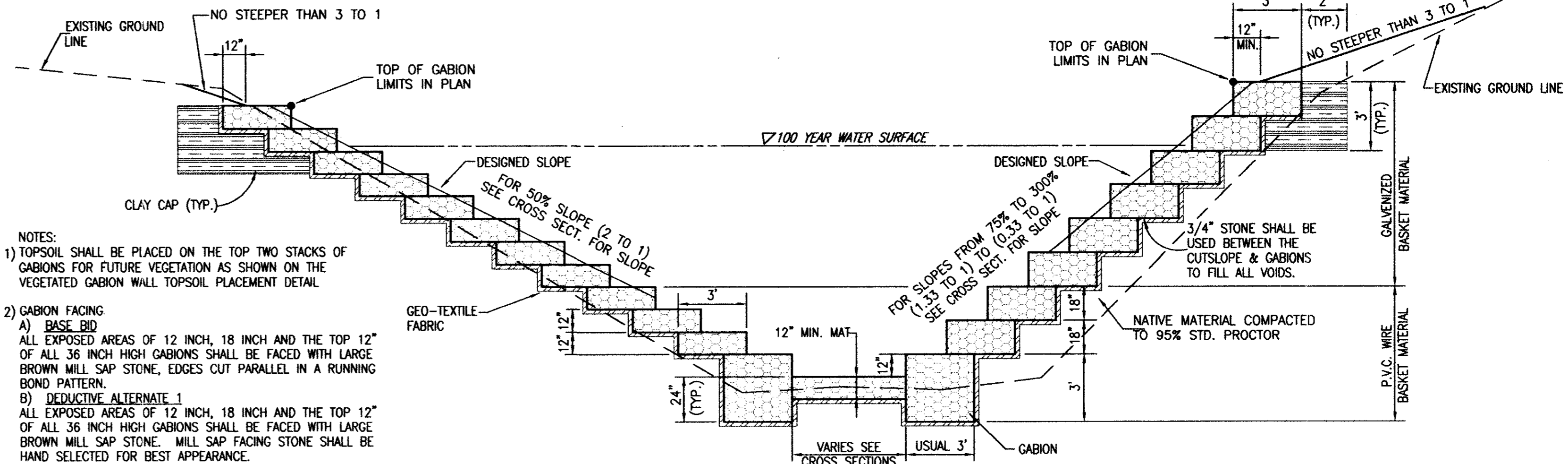


GABION RADIUS PROCEDURE



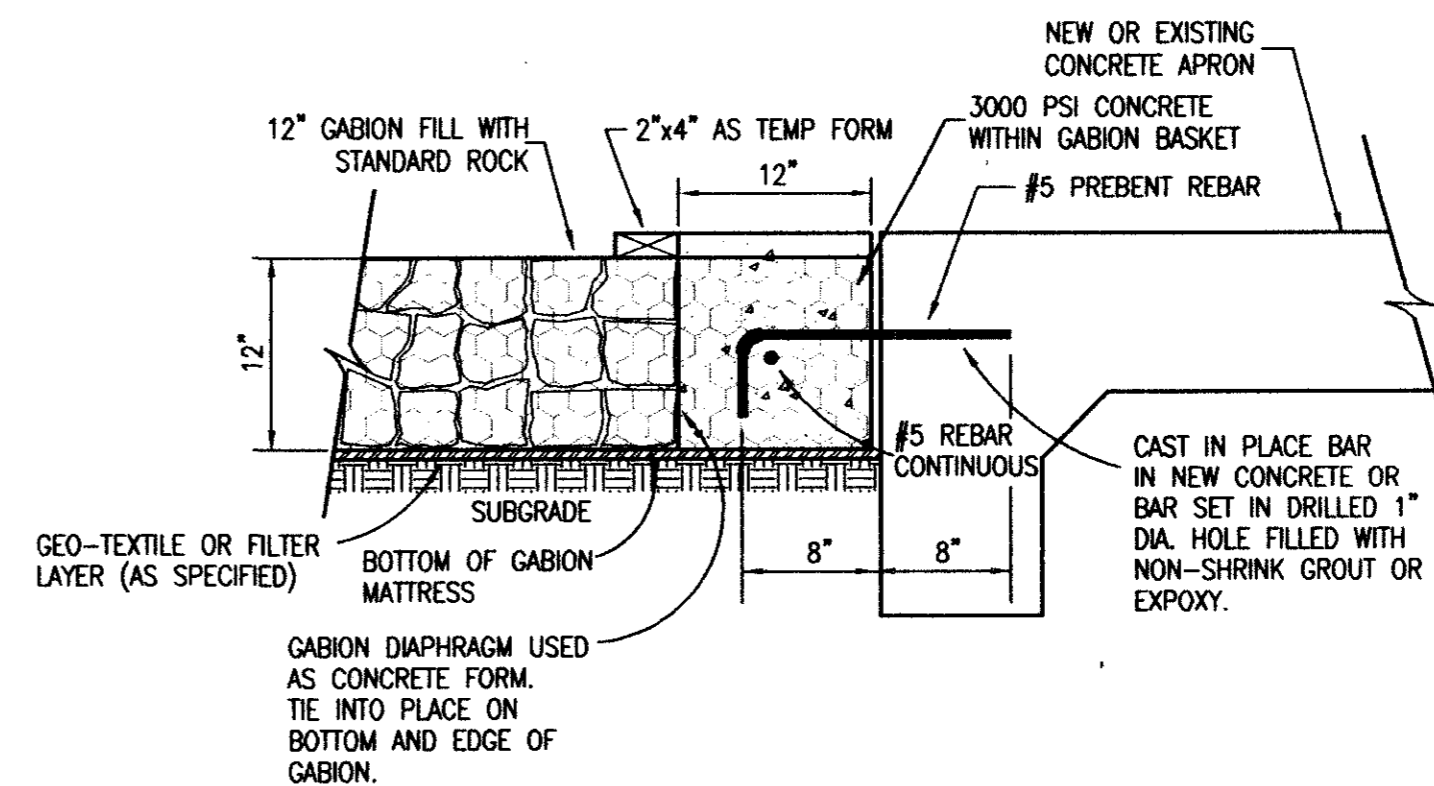
GABION TIE

N.T.S.
NOTE: ALL TYING OF GABIONS SHALL BE AS SHOWN



TYPICAL CHANNEL SECTION W/GABIONS

- NOTES:
- 1) TOPSOIL SHALL BE PLACED ON THE TOP TWO STACKS OF GABIONS FOR FUTURE VEGETATION AS SHOWN ON THE VEGETATED GABION WALL TOPSOIL PLACEMENT DETAIL.
 - 2) GABION FACING
 - A) BASE BID
ALL EXPOSED AREAS OF 12 INCH, 18 INCH AND THE TOP 12" OF ALL 36 INCH HIGH GABIONS SHALL BE FACED WITH LARGE BROWN MILL SAP STONE, EDGES CUT PARALLEL IN A RUNNING BOND PATTERN.
 - B) DEDUCTIVE ALTERNATE 1
ALL EXPOSED AREAS OF 12 INCH, 18 INCH AND THE TOP 12" OF ALL 36 INCH HIGH GABIONS SHALL BE FACED WITH LARGE BROWN MILL SAP STONE. MILL SAP FACING STONE SHALL BE HAND SELECTED FOR BEST APPEARANCE.
 - C) DEDUCTIVE ALTERNATE 2
ALL EXPOSED AREAS OF 12 INCH, 18 INCH AND THE TOP 12" OF ALL 36 INCH HIGH GABIONS SHALL BE FACED WITH STANDARD TAN TO TANH BROWN GABION STONE.



GABION MATTRESS TO CONCRETE ATTACHMENT

GENERAL NOTES:

1. CONTRACTOR SHALL PROTECT UNDERGROUND SPRINKLER SYSTEMS. ANY DAMAGED CAUSED DUE TO CONSTRUCTION SHALL BE IMMEDIATELY REPAIRED AT CONTRACTORS EXPENSE. CONTRACTOR SHALL RELOCATE ALL SPRINKLER HEADS KNOWN AND UNKNOWN WITHIN THE LIMITS OF THE PROPOSED TOP OF BANK. THE HEADS SHALL BE LOCATED 3 FEET FROM PROPOSED TOP OF BANK. COST SHALL BE SUBSIDIARY TO THE PROJECT. AT CONTRACTORS EXPENSE. ALL REPAIRS AND RELOCATED WORK SHALL BE UNDERTAKEN BY AN IRRIGATOR LICENSED IN THE STATE OF TEXAS (NO PAY ITEM).
2. CONTRACTOR SHALL HAVE A LICENSED LANDSCAPE FIRM TRIM EXISTING TREES FOR CONSTRUCTION PURPOSES (NO PAY ITEM).
3. CONTRACTOR SHALL FURNISH, PLACE AND MAINTAIN SOLID SOD IN ALL DISTURBED AREAS FROM CONSTRUCTION ACTIVITIES. GROUND SHALL BE AERATED PRIOR TO PLACING SOD. SOLID SOD SHALL BE WATERED A MINIMUM OF TWICE A DAY FOR 45 DAYS.
4. REINFORCED CONCRETE PAVEMENT SHALL BE N.C.T.C.O.G. ITEM 7.4.5, CLASS A CONCRETE, 3000 P.S.I. COMPRESSIVE STRENGTH @ 28 DAYS. MINIMUM 5 SACK CEMENT PER CUBIC YARD. MAXIMUM W/C = 0.5. REINFORCING SHALL BE NO.3 DEFORMED BARS ON 18 INCH CENTERS. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING UTILITIES (GAS LINES, WATER & SERVICE LINES) BY EXCAVATION PRIOR TO CONSTRUCTION.
6. CONTRACTOR SHALL USE PEA GRAVEL OF CRUSHED STONE AS FILL MATERIAL BEHIND ALL PROPOSED GABIONS WITH EXPOSED TREE ROOTS.

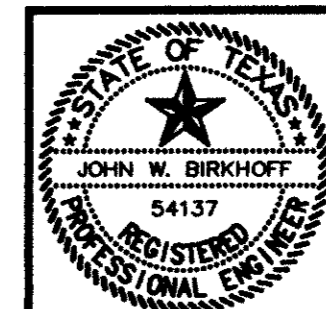
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SIDE OVERLAP LENGTH "L" AS A FUNCTION OF RADIUS "R"	
RADIUS "R"	LENGTH "L"
4'-0"	7 3/4"
5'-0"	6 3/4"
6'-0"	6"
8'-0"	5"
10'-0"	4"
12'-0"	3 1/2"
15'-0"	3"
20'-0"	4 3/4"

*CUT EVERY OTHER CELL

GABION RADIUS PROCEDURE

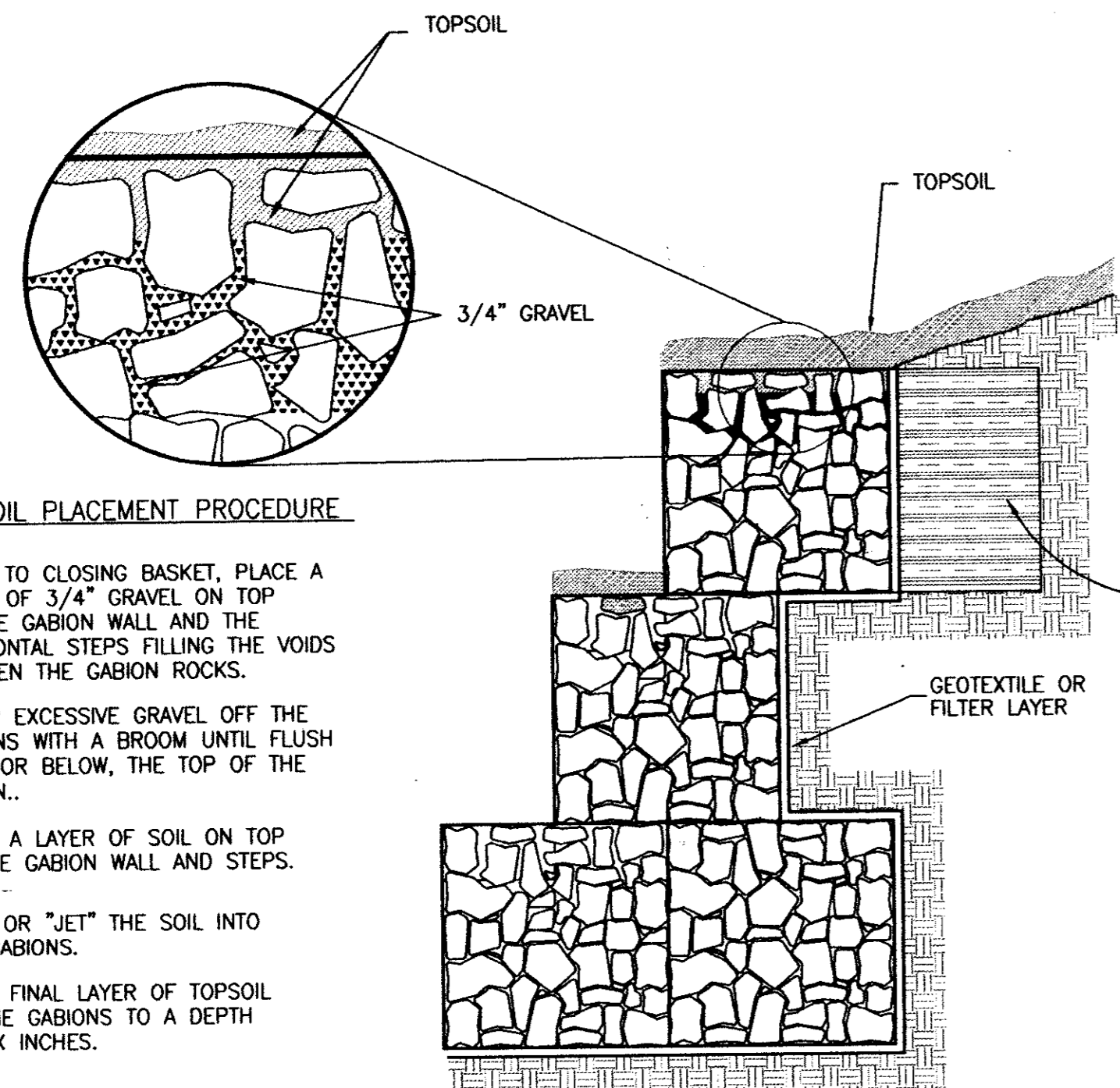
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TOWN OF ADDISON, TEXAS
 TOWNHALL STREAM BANK EROSION PROTECTION
 MISCELLANEOUS DETAILS

SHIMEK, JACOBS & FINKLEA, L.L.P.
 CONSULTING ENGINEERS
 Dallas, Texas

DESIGNED BY: M.H. PROJECT: 97151 SHEET NO. 8
 DRAWN BY: J.L.Y. DATE: OCTOBER, 1997 OF 9 SHEETS



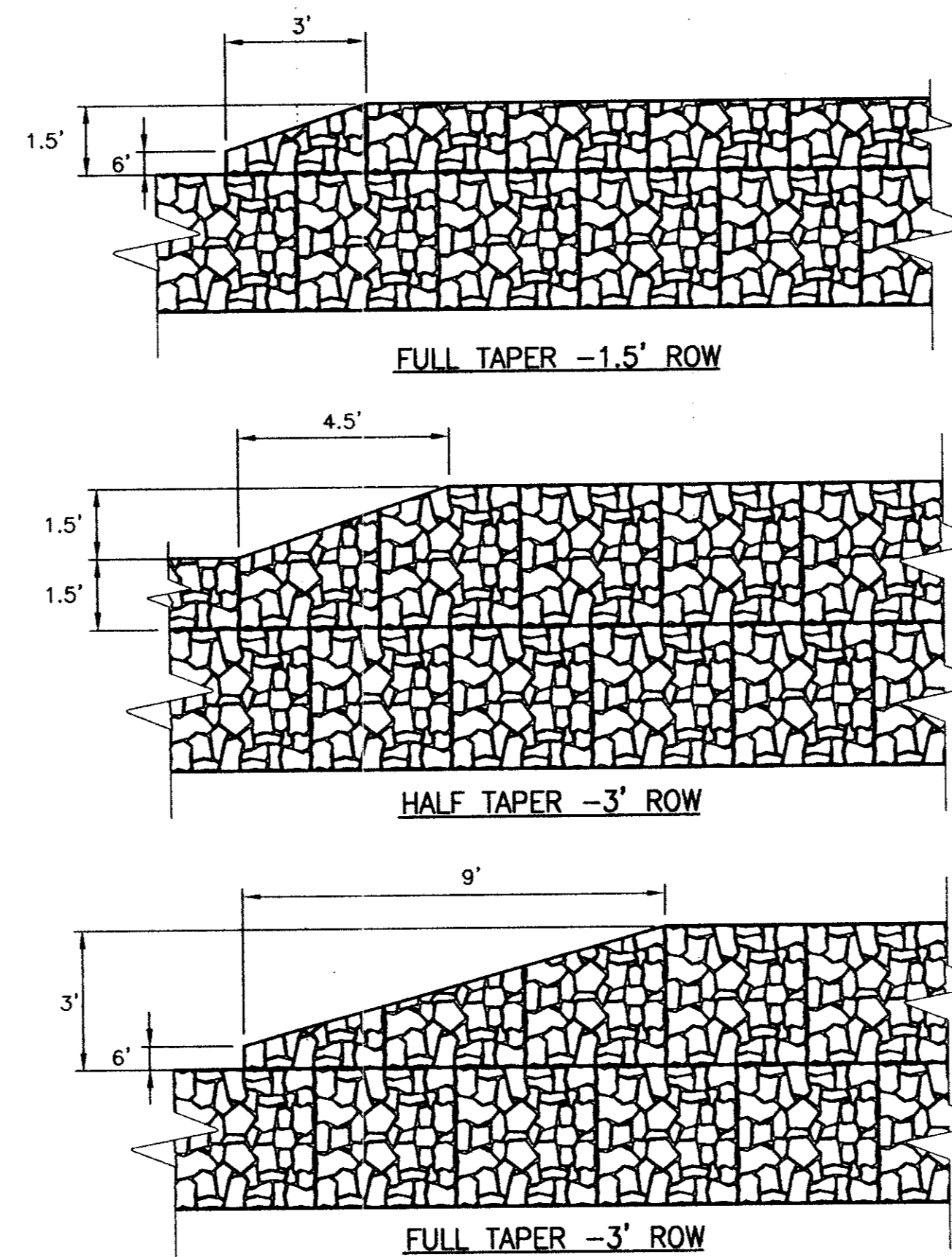
TOPSOIL PLACEMENT PROCEDURE

1. PRIOR TO CLOSING BASKET, PLACE A LAYER OF 3/4" GRAVEL ON TOP OF THE GABION WALL AND THE HORIZONTAL STEPS FILLING THE VOIDS BETWEEN THE GABION ROCKS.
2. SWEEP EXCESSIVE GRAVEL OFF THE GABIONS WITH A BROOM UNTIL FLUSH WITH, OR BELOW, THE TOP OF THE GABION.
3. PLACE A LAYER OF SOIL ON TOP OF THE GABION WALL AND STEPS.
4. WASH OR "JET" THE SOIL INTO THE GABIONS.
5. PLACE FINAL LAYER OF TOPSOIL ON THE GABIONS TO A DEPTH OF SIX INCHES.

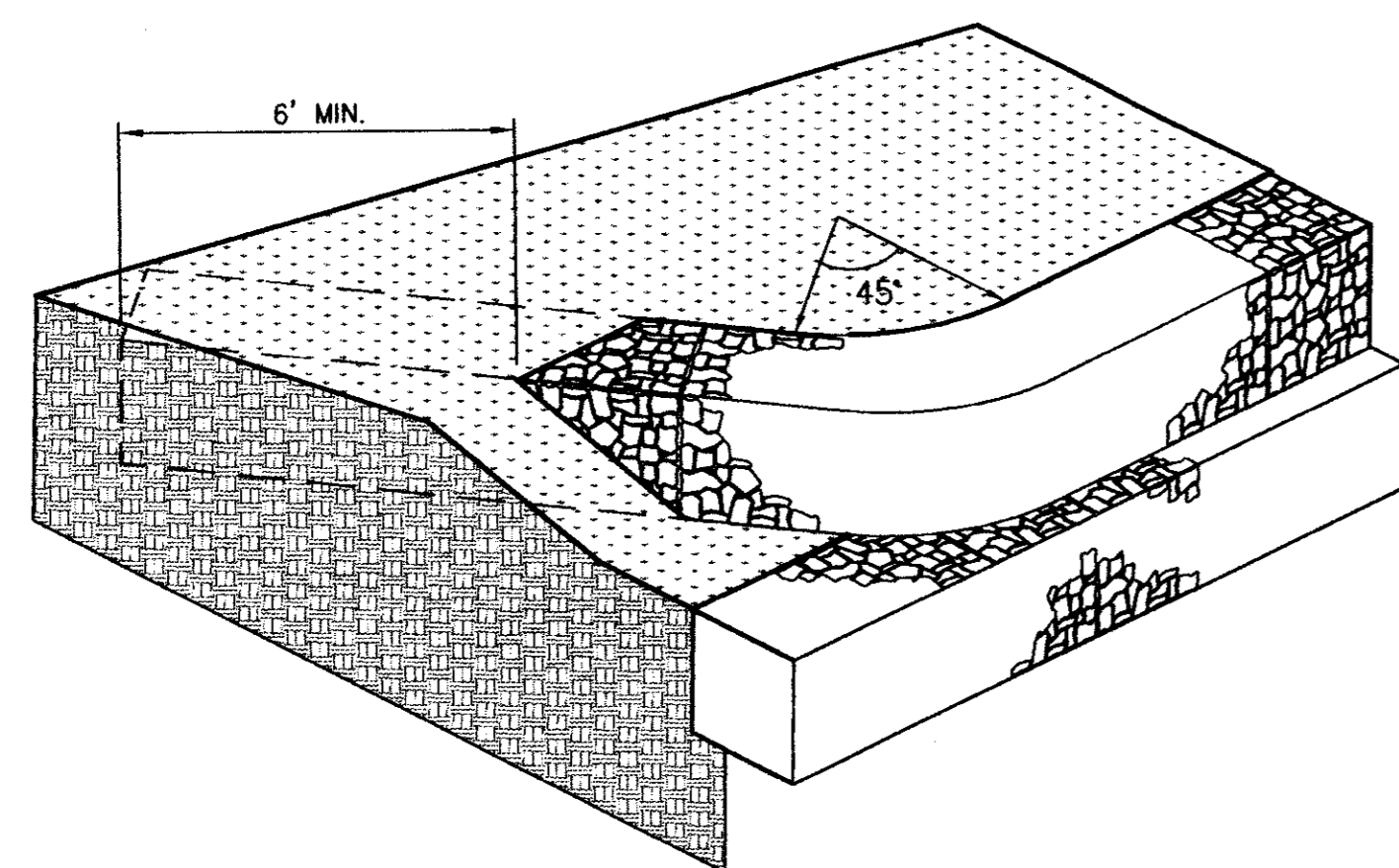
SECTION

NOTE:
DO NOT USE SHARP TOOLS WHEN SPREADING TOPSOIL ON GABIONS

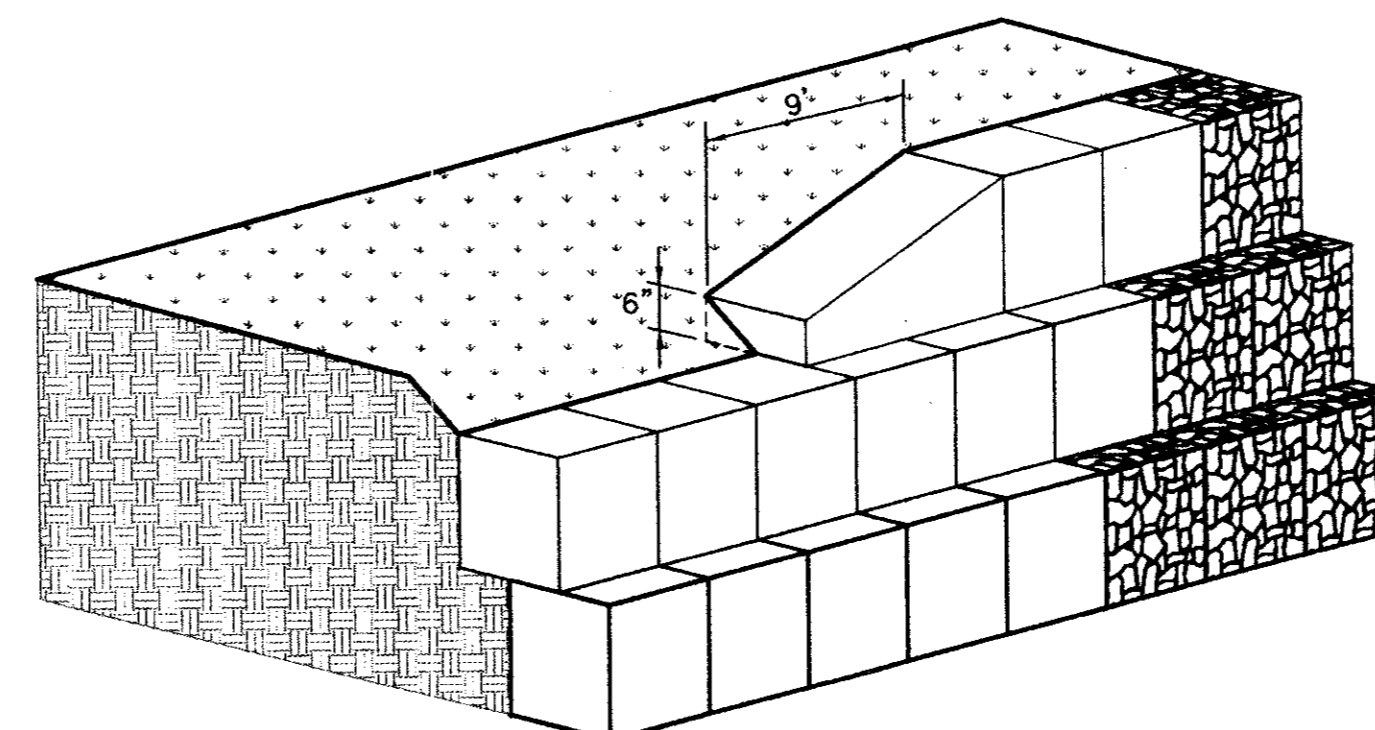
**VEGETATED GABION WALL
TOPSOIL PLACEMENT**



TAPERED WALL HEIGHT TRANSITION



RADIUSED HEIGHT TRANSITION



**STANDARD TAPER
FOR WALL HEIGHTS TRANSITIONS**

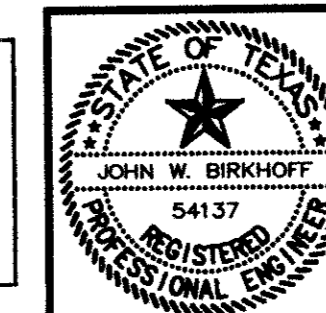
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TOWN OF ADDISON, TEXAS

**TOWNHALL STREAM BANK EROSION PROTECTION
MISCELLANEOUS DETAILS**

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DRAWN BY: J.L.Y.	DATE: OCTOBER, 1997	OF 9 SHEETS