

GENERAL NOTES

1. All work detailed on this project will be performed in accordance with "City of Albuquerque Standard Specifications for Public Construction".
2. All work on this project shall be performed in accordance will applicable Federal, State and local laws, rules and regulations concerning construction safety and health.
3. The Contractor shall notify all utility companies when working near their systems. Two days prior to any excavation, Contractor must contact New Mexico One-Call for location of existing utilities. Contractor is responsible for the protection of all existing utilities.
4. All dimensions shown on the drawings for existing structures are approximate dimensions and should be checked in the field by the Contractor prior to start of construction.

CONSTRUCTION NOTES - SPILLWAY RENOVATION - HORIZONTAL SECTION

1. A 10 foot wide, 250 ft. long section of the existing horizontal wire bound riprap on the emergency spillway weir will be renovated. Prior to any renovation efforts, the entire horizontal section will be mechanically brushed and/or air blasted to remove all existing topsoil from the riprap and to reveal the status of the current wire envelope.
2. If the City of Albuquerque (COA) Project Engineer determines that the wire envelope is adequate, the wire enclosed riprap will not be removed, but will instead be further air and/or water blasted to remove all traces of soil from the rock filling for a depth of 3 inches into the rock riprap. The horizontal surface of the wire bound rip rap will then be coated with a 6 inch thick concrete cap, as shown on the drawings to a finished elevation to be determined by the COA Project Engineer.
3. If the COA Project Engineer determines that the wire envelope is inadequate, then the existing wire bound rip rap will be removed and replaced by a new concrete capped gabion section, as shown on the drawings.
4. Existing adjacent sections of sloped wire bound riprap which have been cut to facilitate the removal of the horizontal section will be rewired, as directed by the COA Project Engineer, to prevent movement and escape of rock fill material.
5. All wire removed from the horizontal section will be disposed of at an approved landfill site located on Kirtland Air Force Base (KAFB). All concrete rubble and rock removed from the horizontal section will be placed at various locations along the toe of the existing adjacent flood control dam as directed by the COA Project Engineer.
6. Gabion construction shall be installed following COA Technical Specification Section 610, Gabions. Payment for filter fabric and bedding material will be included in the per cubic yard payment price of the gabions. No welded wire gabions or concrete rubble fill will be allowed for the new gabion construction. Filter fabric shall meet the requirements outlined in Section 603, Riprap Surface Treatment.
7. Lean Fill will be installed following COA Technical Specification Section 207, Lean Fill Construction.
8. Concrete capping on the gabion baskets will be installed following COA Technical Specification Section 602, Portland Cement Concrete for Channel Lining and Dike or Dam Surfacing and will have a minimum 28 day compressive strength of 3500 PSI.

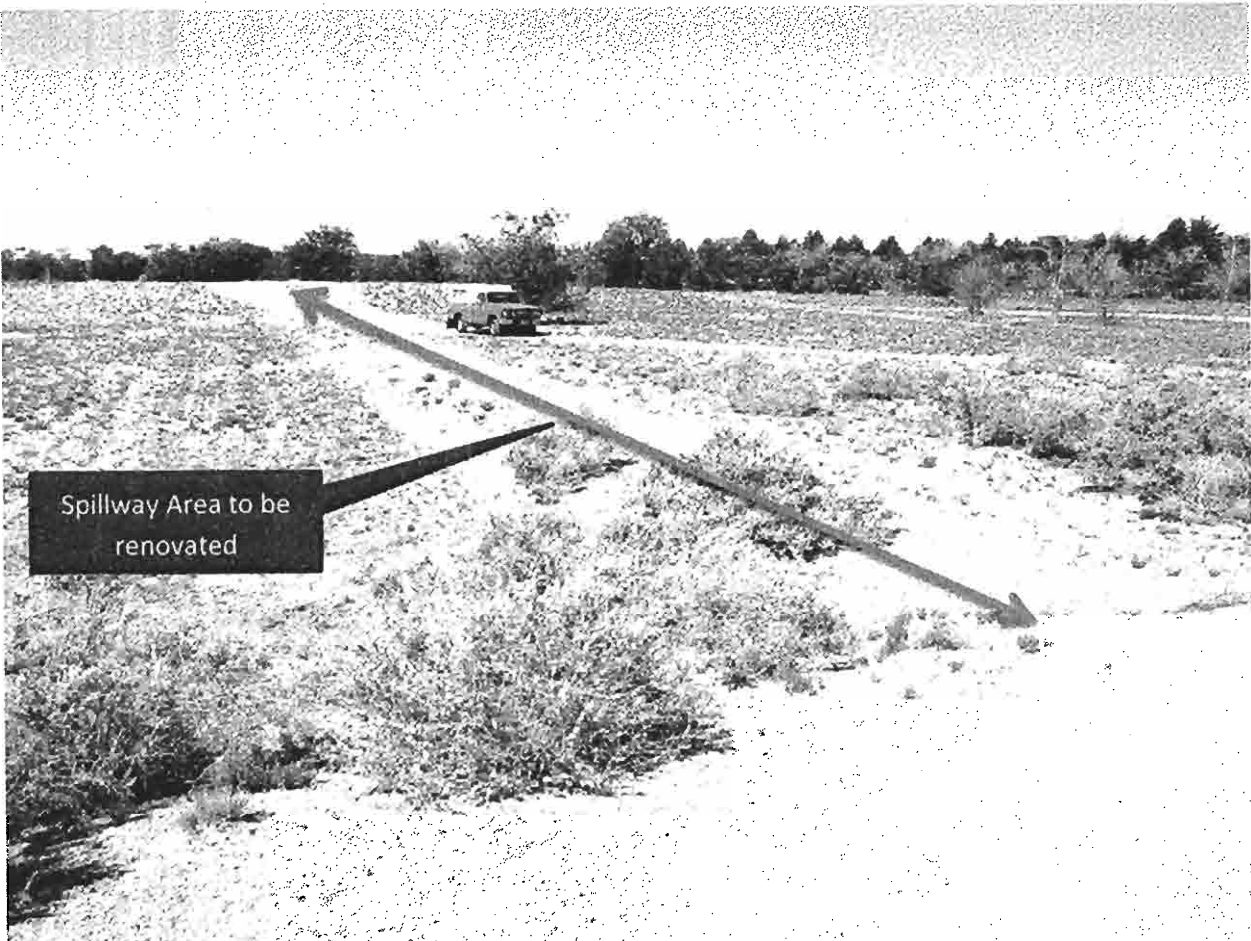


Figure 1: Existing Emergency Spillway Area, looking southwest from northeast end of spillway.

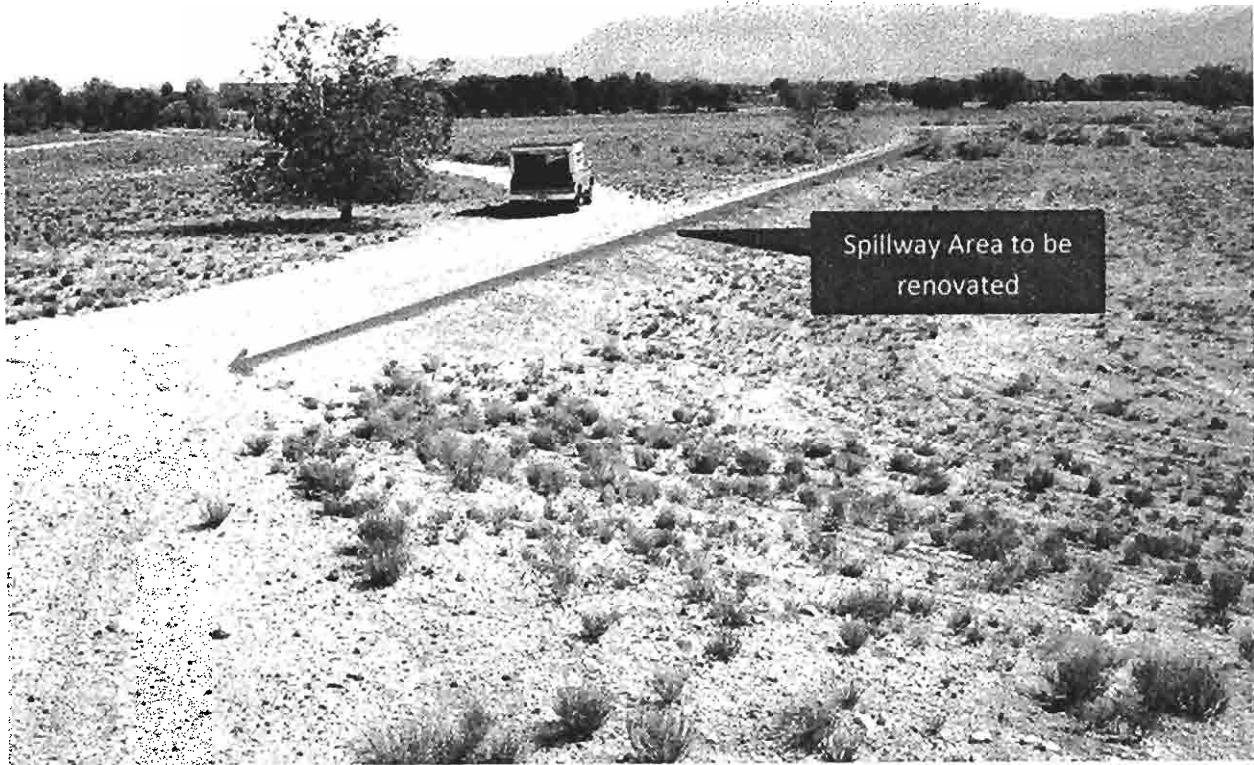
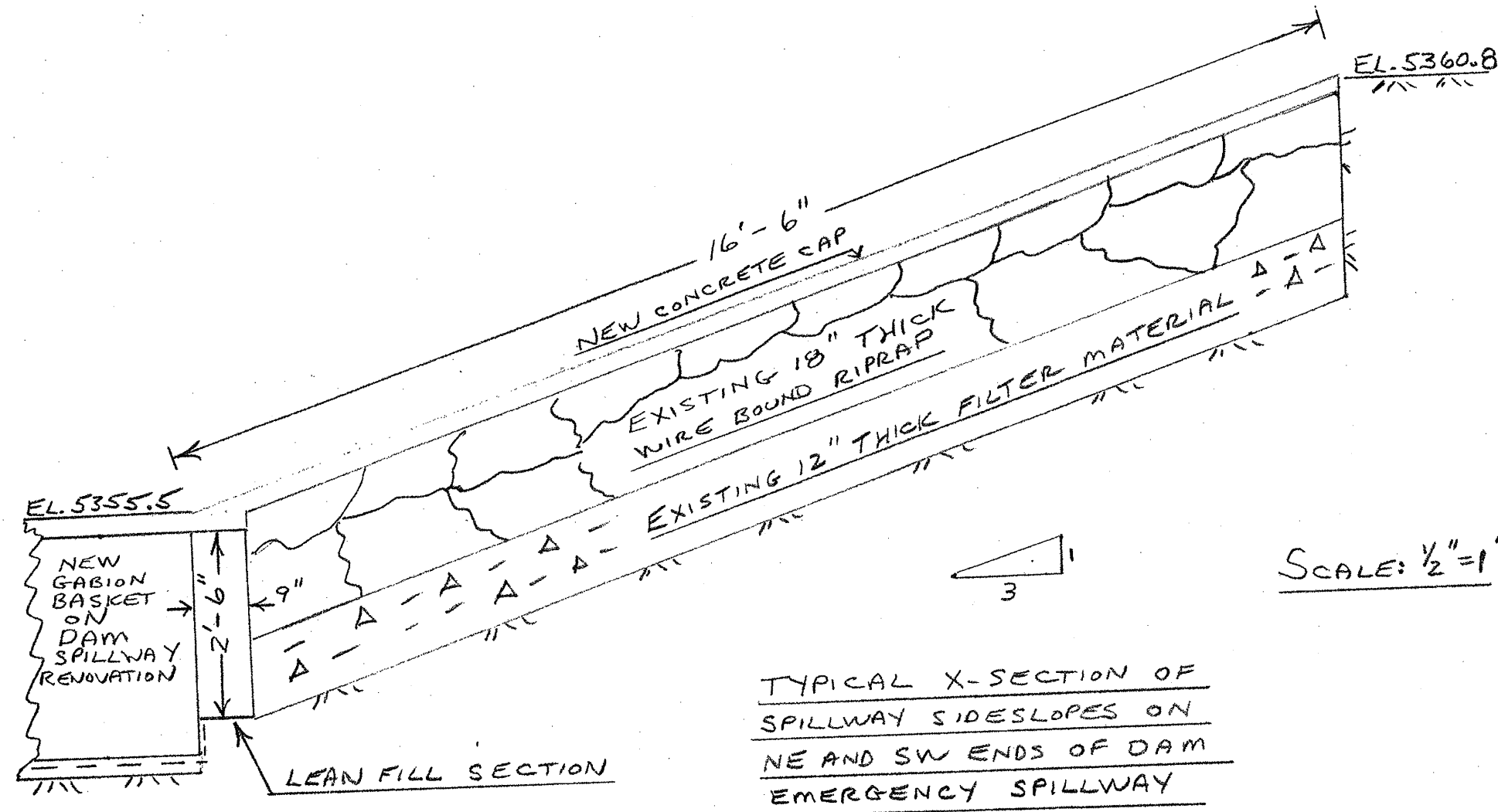
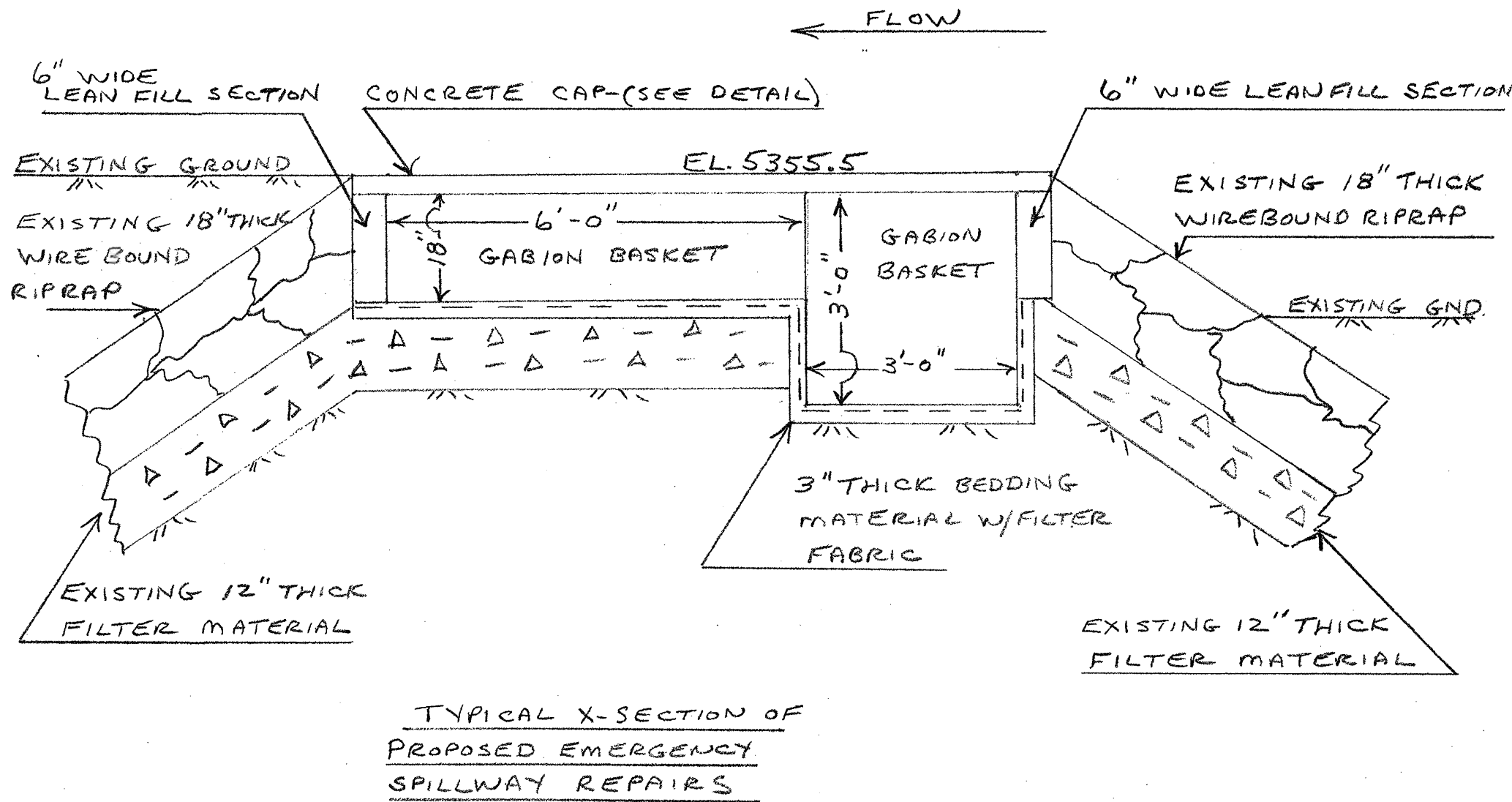
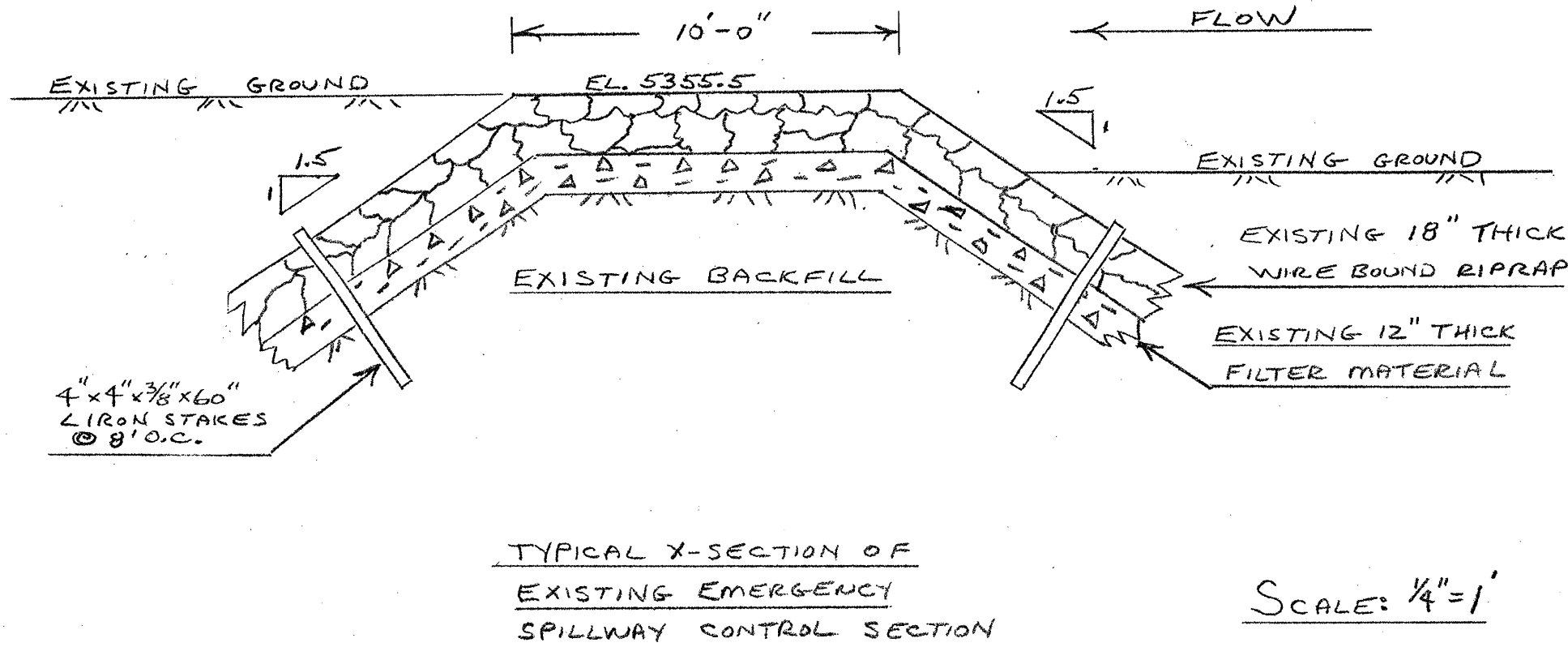


Figure 2: Existing Emergency Spillway Area looking northeast from southwest end of spillway.

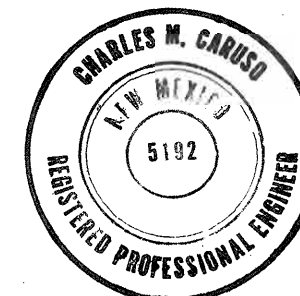


BENCHMARK INFORMATION		
BM No.	DESCRIPTION	ELEVATION
1	Top of Aluminum Cap Stamped "4-L 19", set in concrete post projecting 2 ft. above ground. Located on top of berm of Kirtland Detention Dam, far south end.	5360.91 Feet

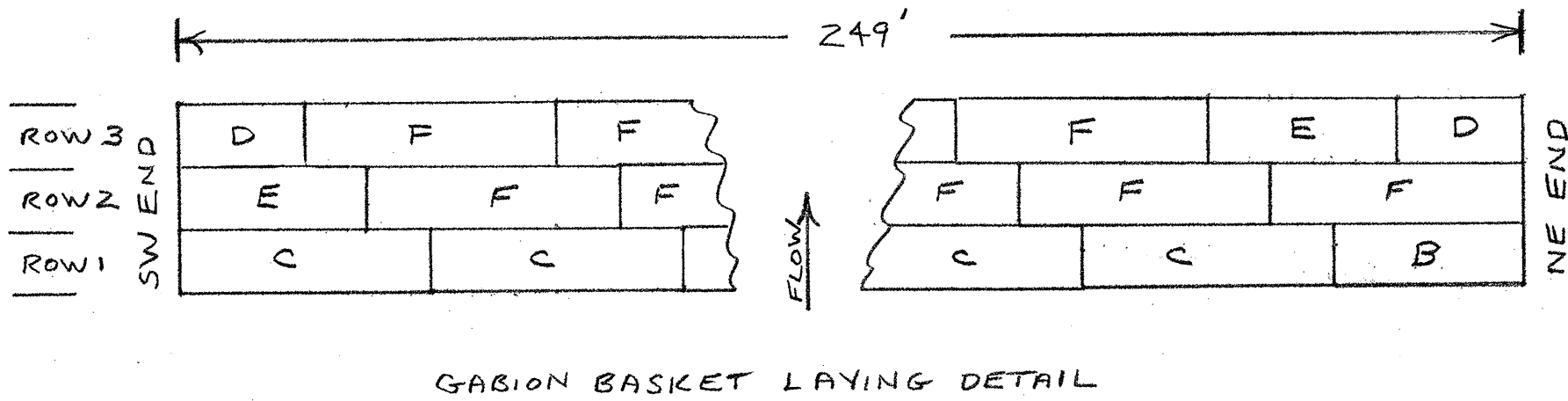
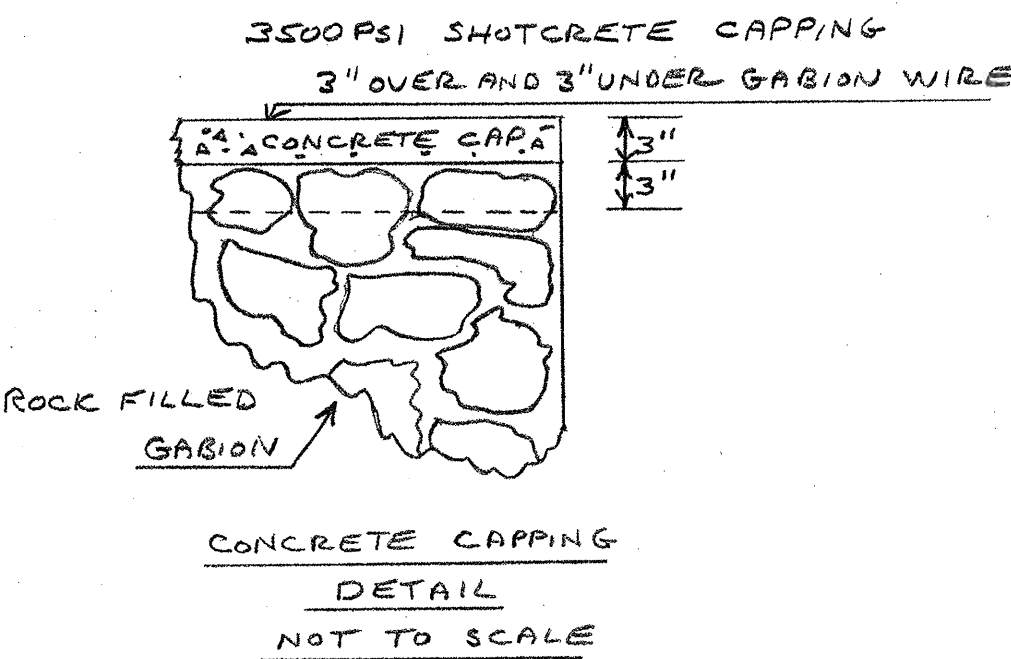
GABION BASKET SCHEDULE - SPILLWAY				
LAYER	LETTER CODE & DIMENSIONS	No. of Baskets	CY Per Basket	Total CY
1	C(12X3X3)	20	4.0	80
	B(9X3X3)	1	3.0	3
2	E(9X3X1.5)	1	1.5	1.5
	F(12X3X1.5)	20	2.0	40
3	D(6X3X1.5)	2	1.0	2
	E(9X3X1.5)	1	1.5	1.5
	F(12X3X1.5)	19	2.0	38
TOTAL CY				166.0

GABION ROCK GRADATION	
Size	Percent Smaller By Weight
12"	100
8"	90-100
6"	20-50
4"	0-5

BEDDING MATERIAL GRADATION	
SIZE OF ROCK	PERCENT SMALLER BY WEIGHT
2 1/2"	100
2"	75-100
1"	35-75
1/2"	10-35
No. 4	0-10



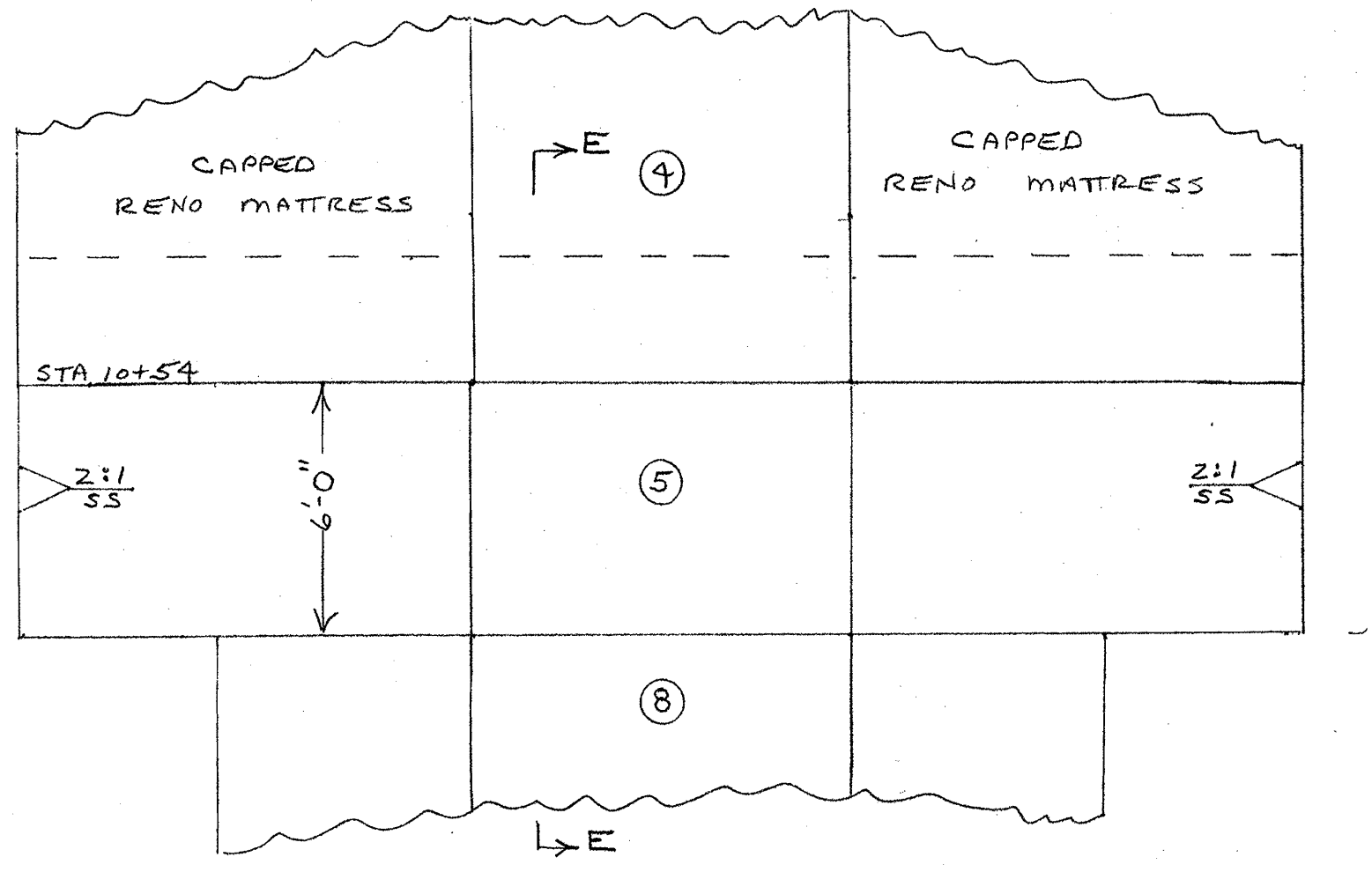
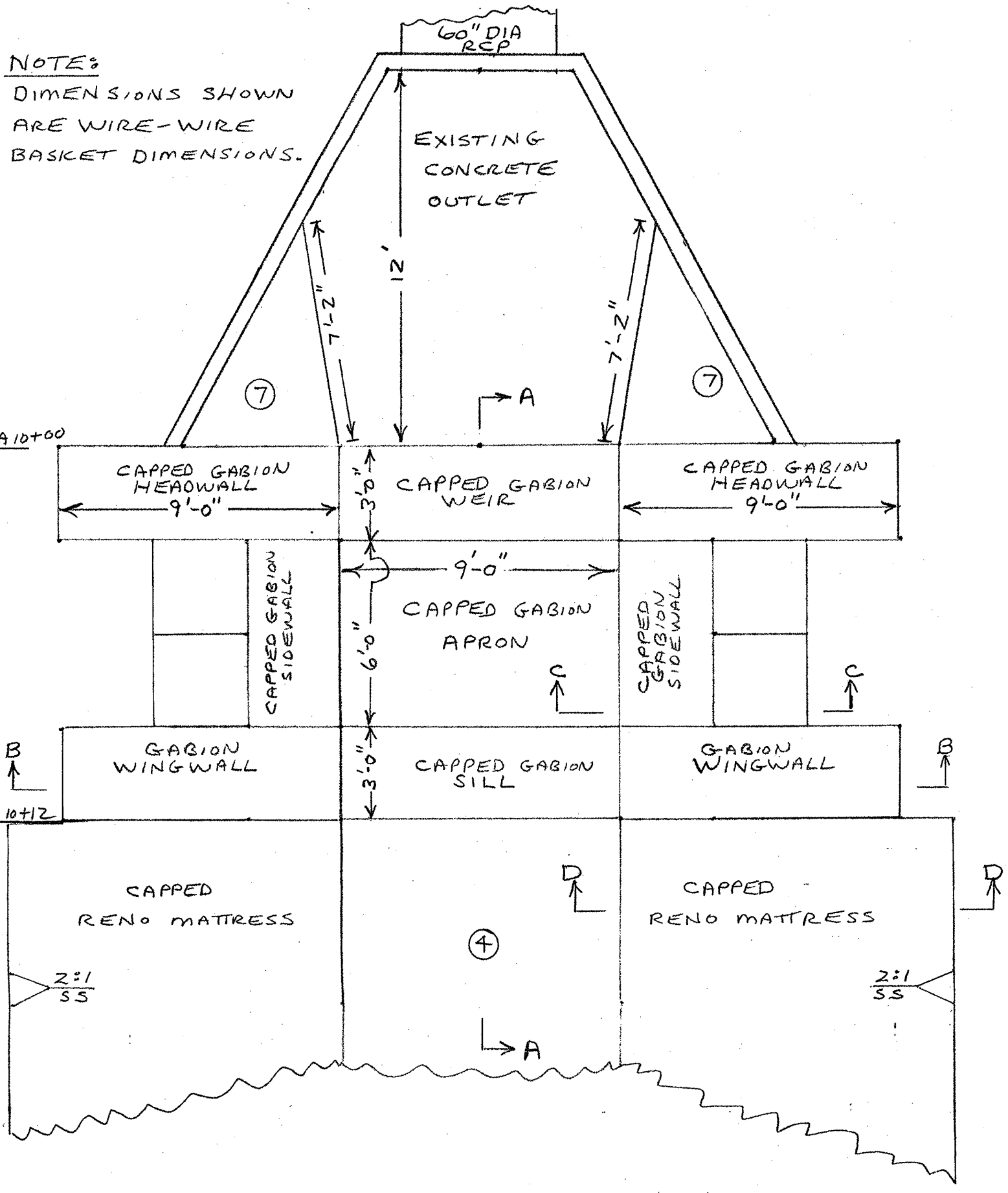
Charles M. Caruso  
8/17/11



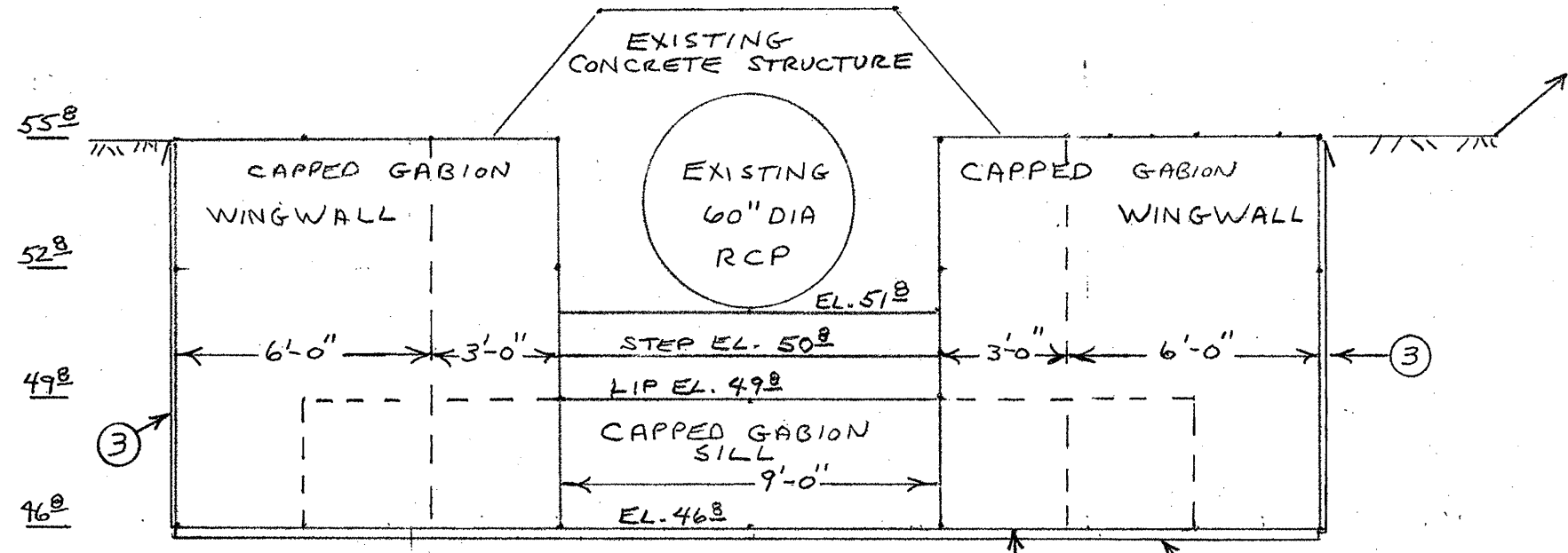
<b>AGRIMEX</b> 10432 Manzanillo, NE Albuquerque, NM 87111 505-275-8826	KIRTLAND DETENTION BASIN PROPOSED RENOVATIONS	Designed : C. Caruso	Date: 7/2011
	PRELIMINARY CONCEPTUAL DESIGN	Drawn: C. Caruso	Date: 7/2011
	EMERGENCY SPILLWAY LOCATION STRUCTURAL DETAILS	Checked:	Date:
		Sheet 1 of 4	



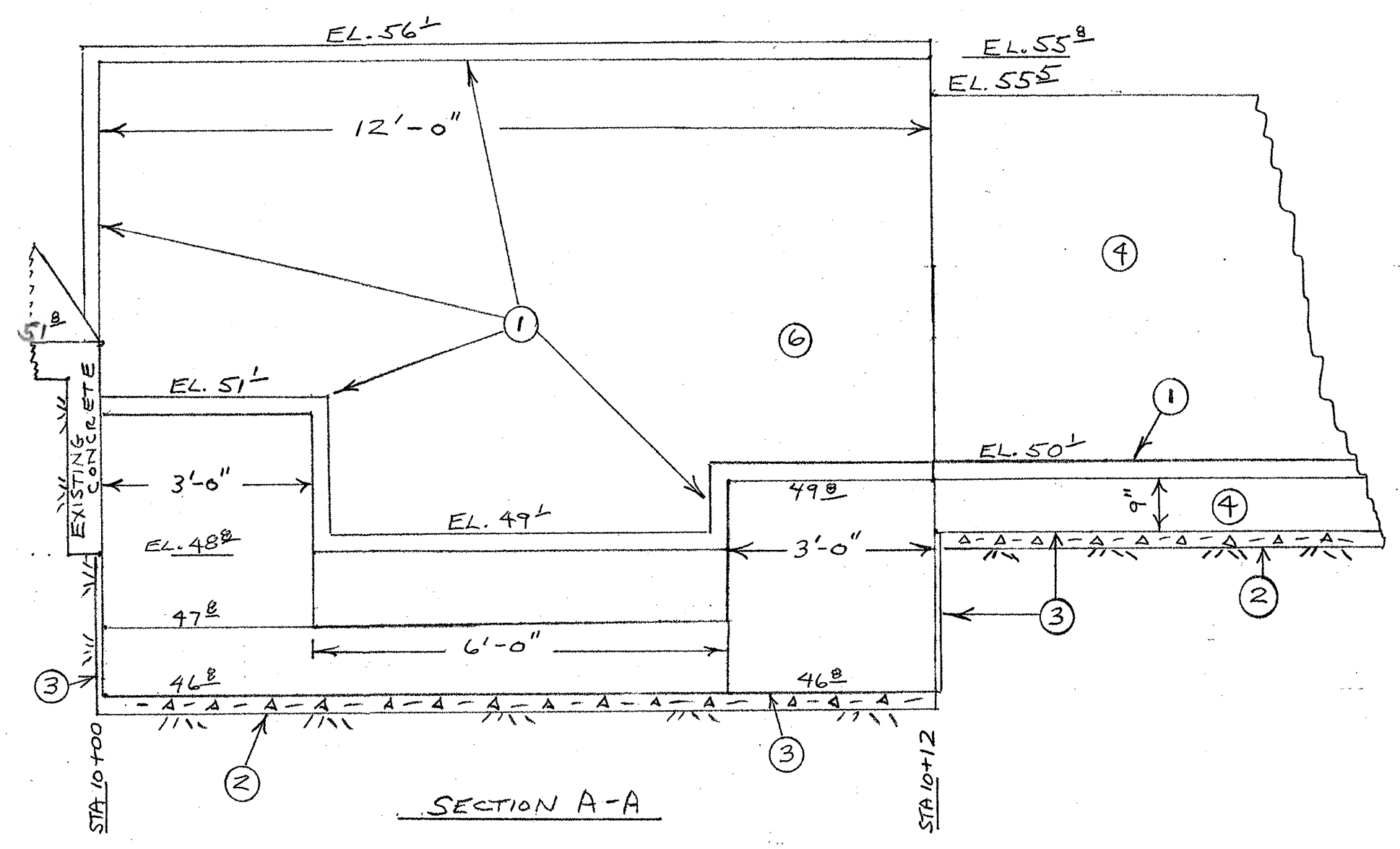
NOTE:  
DIMENSIONS SHOWN  
ARE WIRE-WIRE  
BASKET DIMENSIONS.



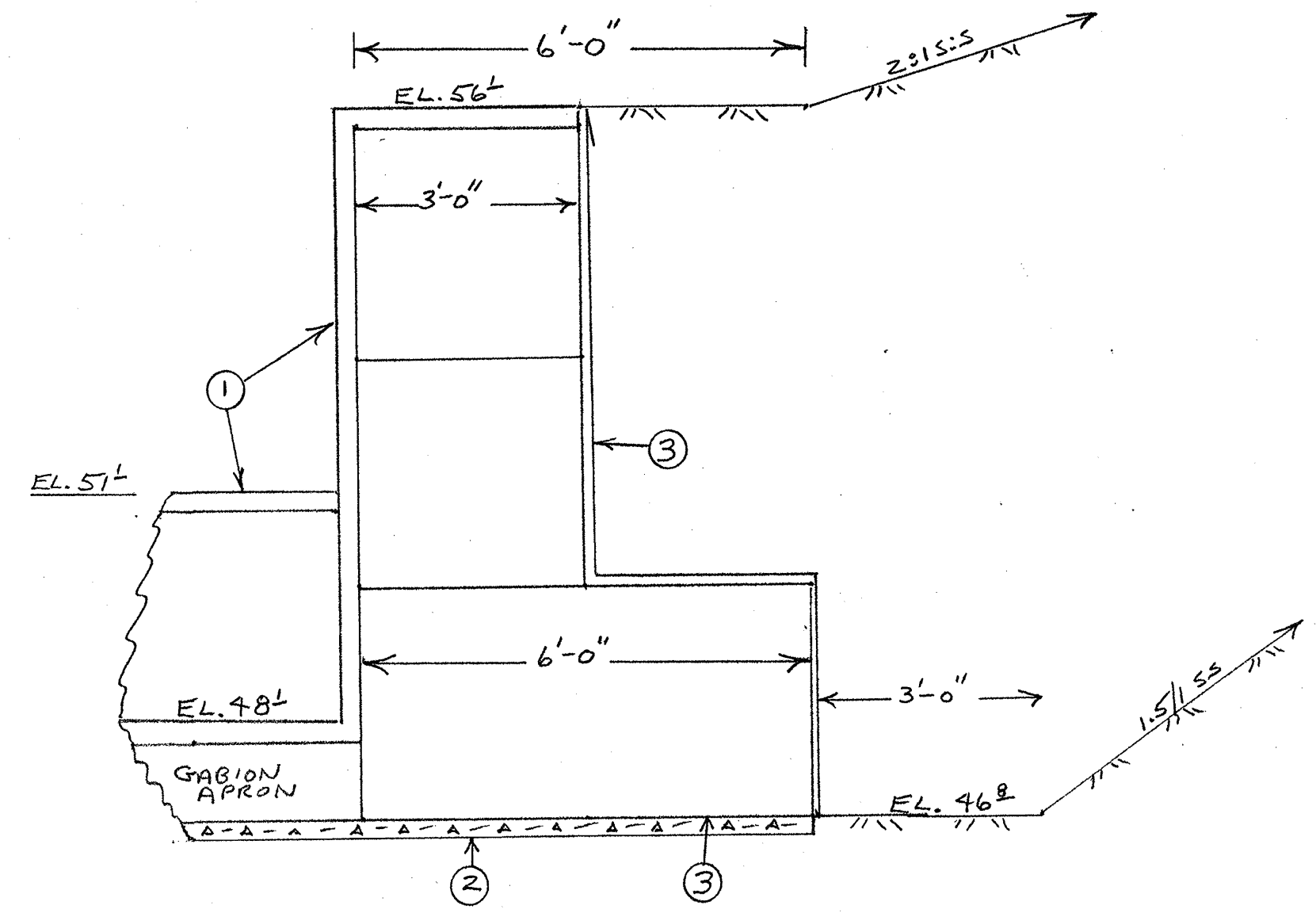
PLAN VIEW  
SCALE: 1/4"=1'



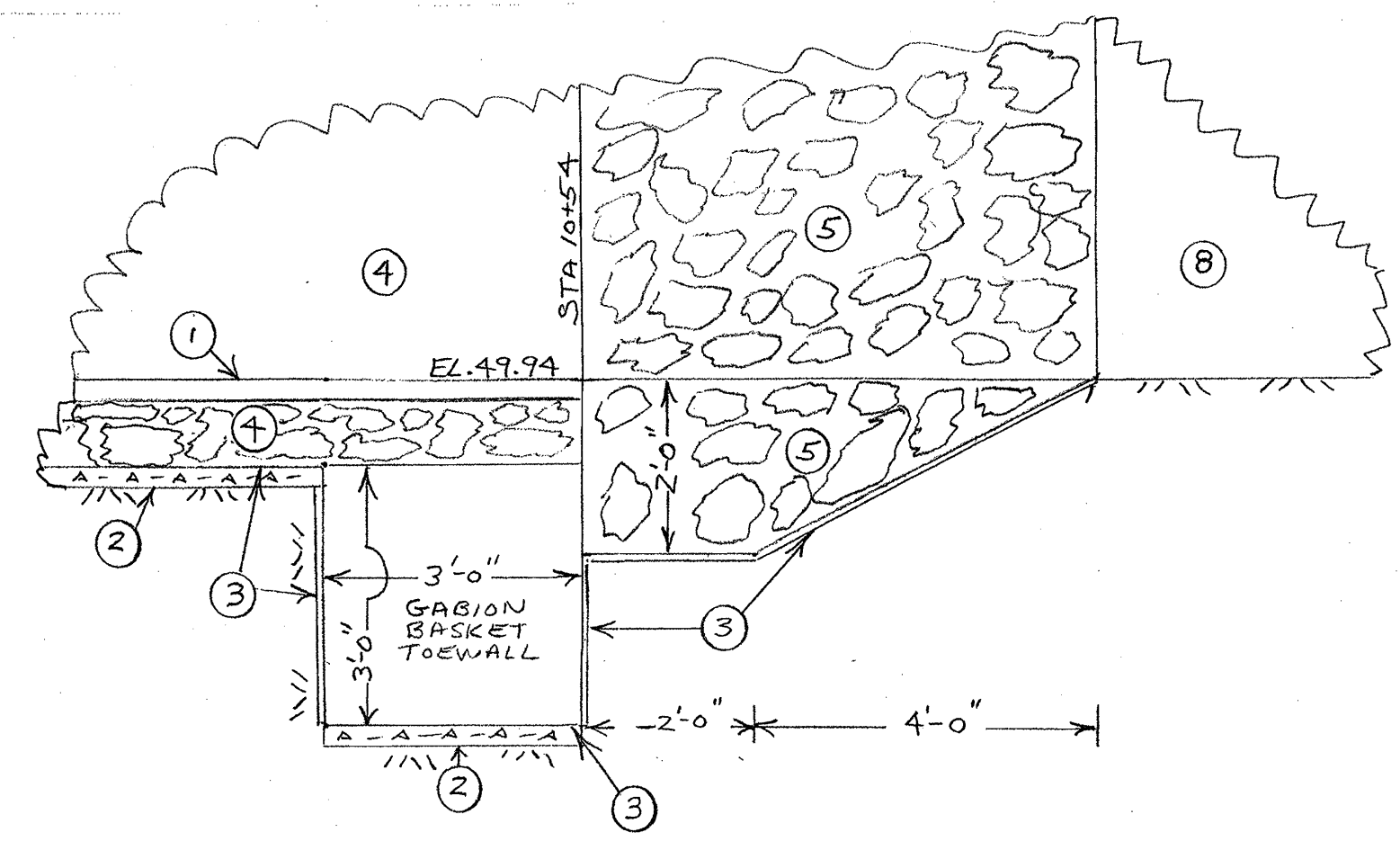
SECTION B-B  
SCALE: 1/4"=1'



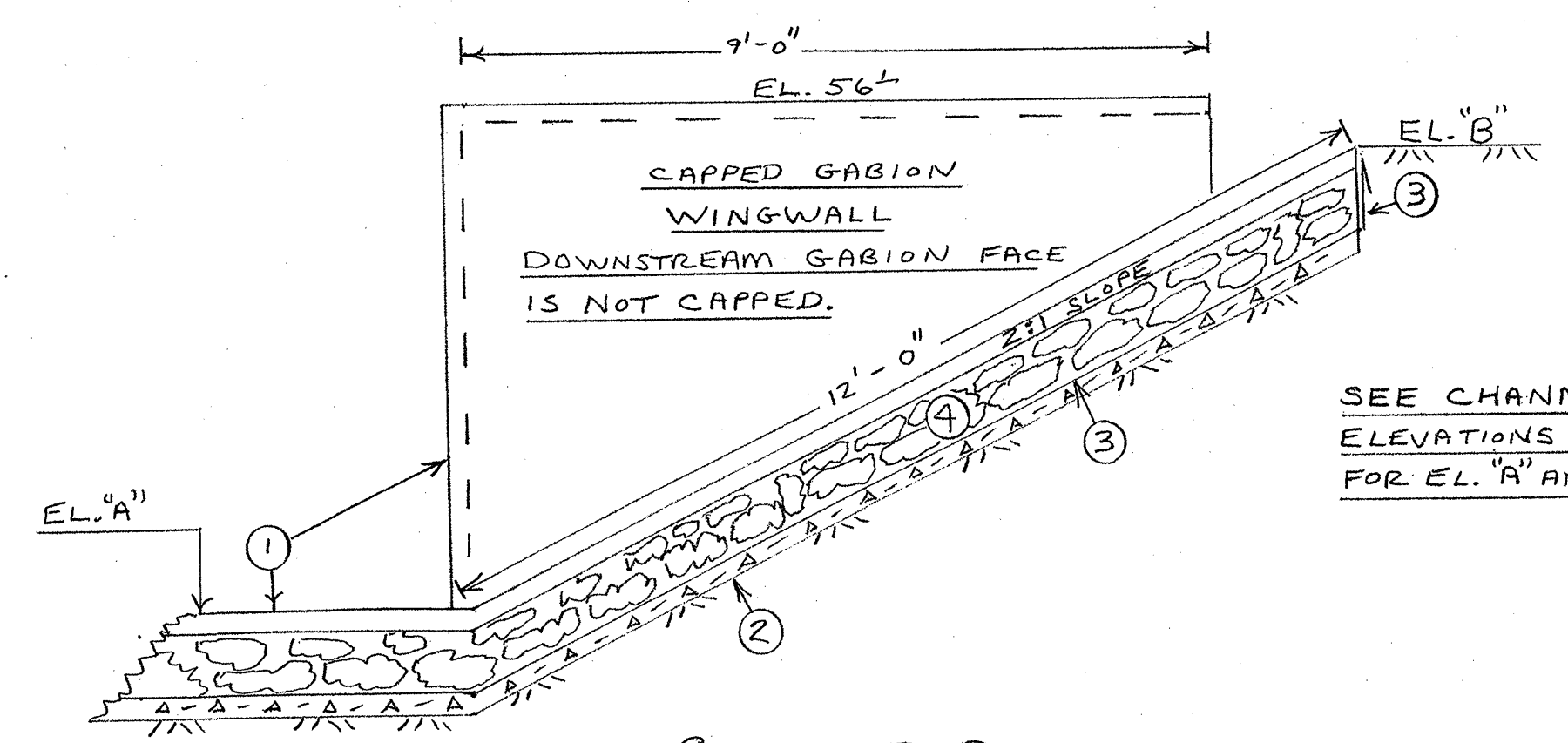
SECTION A-A  
SCALE: 1/2"=1'



SECTION C-C  
SCALE: 1/2"=1'



SECTION E-E  
SCALE: 1/2"=1'



SECTION D-D  
CONCRETE CAPPED RENO MATTRESS  
SCALE: 1/2"=1'

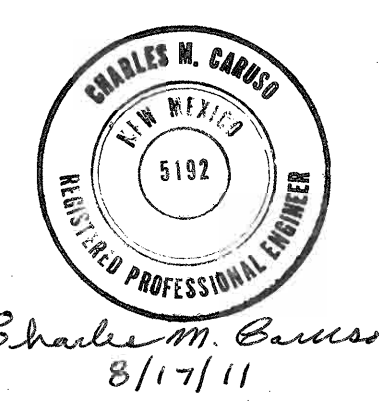
NUMBERED CONSTRUCTION NOTES - GABION DROP AND CHANNEL CONSTRUCTION

1. A concrete capping shall be placed on selected horizontal and vertical faces of the gabion baskets, as shown on the drawings. The concrete capping shall extend 3" above the gabion wire and extend 3" into the body of the gabion basket fill. (See capping detail)
2. A 3" thick layer of bedding material shall be placed under all bases of the gabion construction. Bedding material shall conform to the gradation requirements shown of the drawings.
3. A layer of filter fabric shall be placed between the bedding material and the gabion baskets or Reno Mattresses. A layer of filter fabric shall also be placed at each interface of gabion basket and earth backfill.
4. A 9" thick Reno Mattress will be installed, to the lines and grade as shown on the drawings, from Sta. 10+12 to Sta. 10+54. The Reno Mattress will receive a concrete capping, as described in Construction Note No. 1, above.
5. A secondary loose rock apron shall be placed immediately downstream from the Reno Mattress channel lining, as shown on the drawings. The loose rock shall meet the gradation requirements of COA Technical Specification 109, Riprap Stone, Type L, and as shown on the drawings. No concrete rubble shall be allowed in the loose rock apron fill.
6. The vertical faces of the gabion sidewalls and headwalls, which will be in contact with flowing water, shall be concrete capped, as described in Numbered Construction Note No. 1, above.
7. The triangular space between the existing concrete sidewall and the gabion headwall shall be filled with grouted concrete rubble, as directed by the City of Albuquerque (COA) Project Engineer. The grouted rubble shall consist of flat concrete rubble with a maximum thickness of 6", and shall conform to COA Technical Specification Section 603, Riprap Surface Treatment. The finished facing of the grouted rubble shall receive a concrete capping equaling the appearance of the concrete capping of the gabion baskets.
8. The existing unlined earthen channel, from Sta. 10+60 to Sta. 14+00 will be renovated, to the lines and grades shown on the drawings. This channel renovation shall meet the requirements of COA Technical Specification Section 601, Earthwork for Open Channels, Dikes, or Dams. No broken concrete will be allowed in the channel fill.

GENERAL CONSTRUCTION NOTES - GABION DROP & CHANNEL CONSTRUCTION

1. All large concrete curb and gutter rubble and other trash removed from the channel will be disposed of at an approved landfill site located on Kirtland Air Force Base (KAFB). Smaller concrete rubble and rock removed from the floor of the existing channel will be stockpiled, as directed by the COA Project Engineer, for possible use in project construction.
2. Gabion and Reno Mattress construction shall be installed following COA Technical Specification Section 610, Gabions. Payment for filter fabric, bedding material and structural backfill will be included in the per cubic yard payment price of the gabions. No welded wire gabions or concrete rubble fill will be allowed for the new gabion and/or Reno Mattress construction. Filter fabric shall meet the requirements outlined in Section 603, Riprap Surface Treatment.
3. Concrete capping on the gabion baskets and Reno Mattresses will be installed following COA Technical Specification Section 602, Portland Cement Concrete for Channel Lining and Dike or Dam Surfacing and will have a minimum 28 day compressive strength of 3500 PSI.
4. All work detailed on this project will be performed in accordance with "City of Albuquerque Standard Specifications for Public Construction".
5. All work on this project shall be performed in accordance with applicable Federal, State and local laws, rules and regulations concerning construction safety and health.
6. The Contractor shall notify all utility companies when working near their systems. Two days prior to any excavation, Contractor must contact New Mexico One-Call for location of existing utilities. Contractor is responsible for the protection of all existing utilities.
7. All dimensions shown on the drawings for existing structures are approximate dimensions and should be checked in the field by the Contractor prior to start of construction.

BENCHMARK INFORMATION		
BM No.	DESCRIPTION	ELEVATION
1	Top of Aluminum Cap Stamped "4-L-19", set in concrete post projecting .2 ft. above ground. Located on top of berm of Kirtland Detention Dam, far south end.	5360.91 Feet



**AGRIMEX**  
10432 Manzanillo, NE  
Albuquerque, NM 87111  
505-275-8826

**KIRTLAND DETENTION BASIN  
PROPOSED RENOVATIONS**  
  
PRELIMINARY CONCEPTUAL  
DESIGN  
  
COMMISSARY INLET PIPE LOCATION  
GABION DROP AND CHANNEL  
STRUCTURAL DETAILS

Designed: C. Caruso  
Drawn: C. Caruso  
Checked:  
Sheet 2 of 4

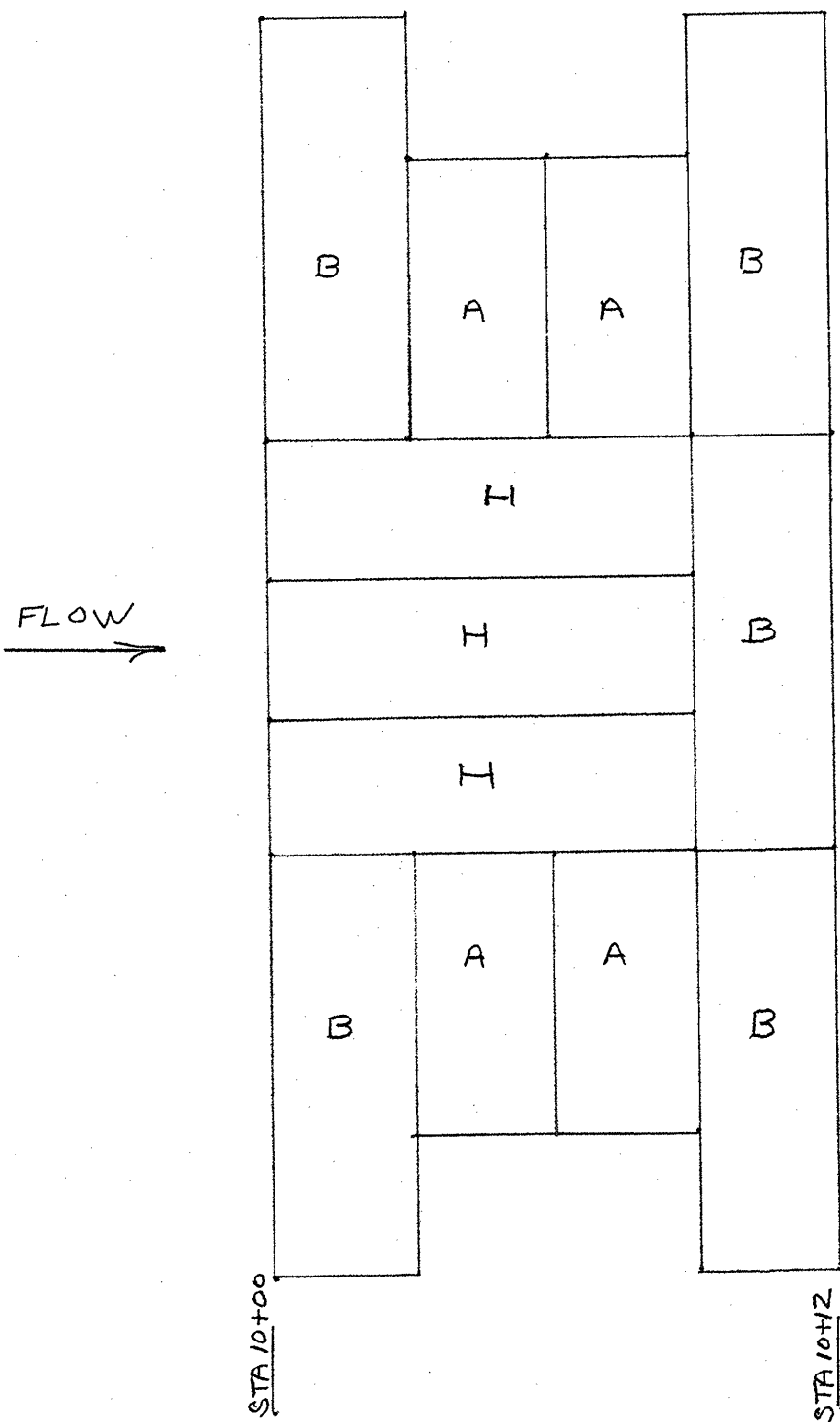
Date: 8/2011  
Date: 8/2011  
Date:  
Date:

GABION BASKET SCHEDULE - DROP STRUCTURE				
LAYER	LETTER CODE & DIMENSIONS	No. of Baskets	CY Per Basket	Total CY
1	A (6x3x3)	4	2.0	8.0
	B (9x3x3)	5	3.0	15.0
	H (9x3x1)	3	1.0	3.0
2	A (6x3x3)	4	2.0	8.0
	B (9x3x3)	1	3.0	3.0
	C (12x3x3)	2	4.0	8.0
	H (9x3x1)	2	1.0	2.0
3	A (6x3x3)	2	2.0	4.0
	B (9x3x3)	4	3.0	12.0
			TOTAL CY	63.0

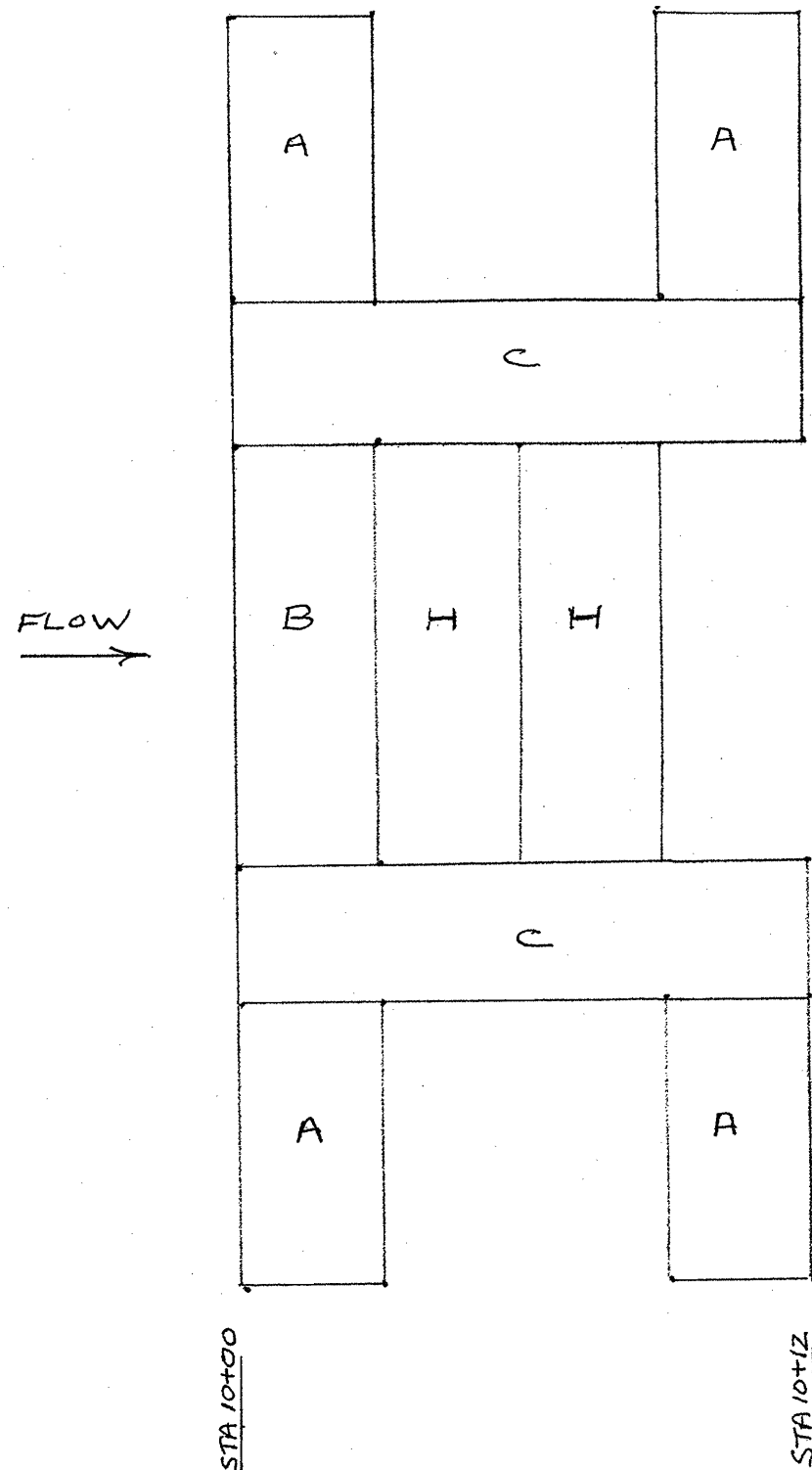
  

BASKET SCHEDULE - RENO MATTRESS & TOEWALL				
LAYER	LETTER CODE & DIMENSIONS	No. of Baskets	CY Per Basket	Total CY
1	T (9x6x9")	7	1.5	10.5
	U (12x6x9")	14	2.0	28.0
	B (9x3x3)	1	3.0	3.0
	C (12x3x3)	2	4.0	8.0
			TOTAL CY	49.5

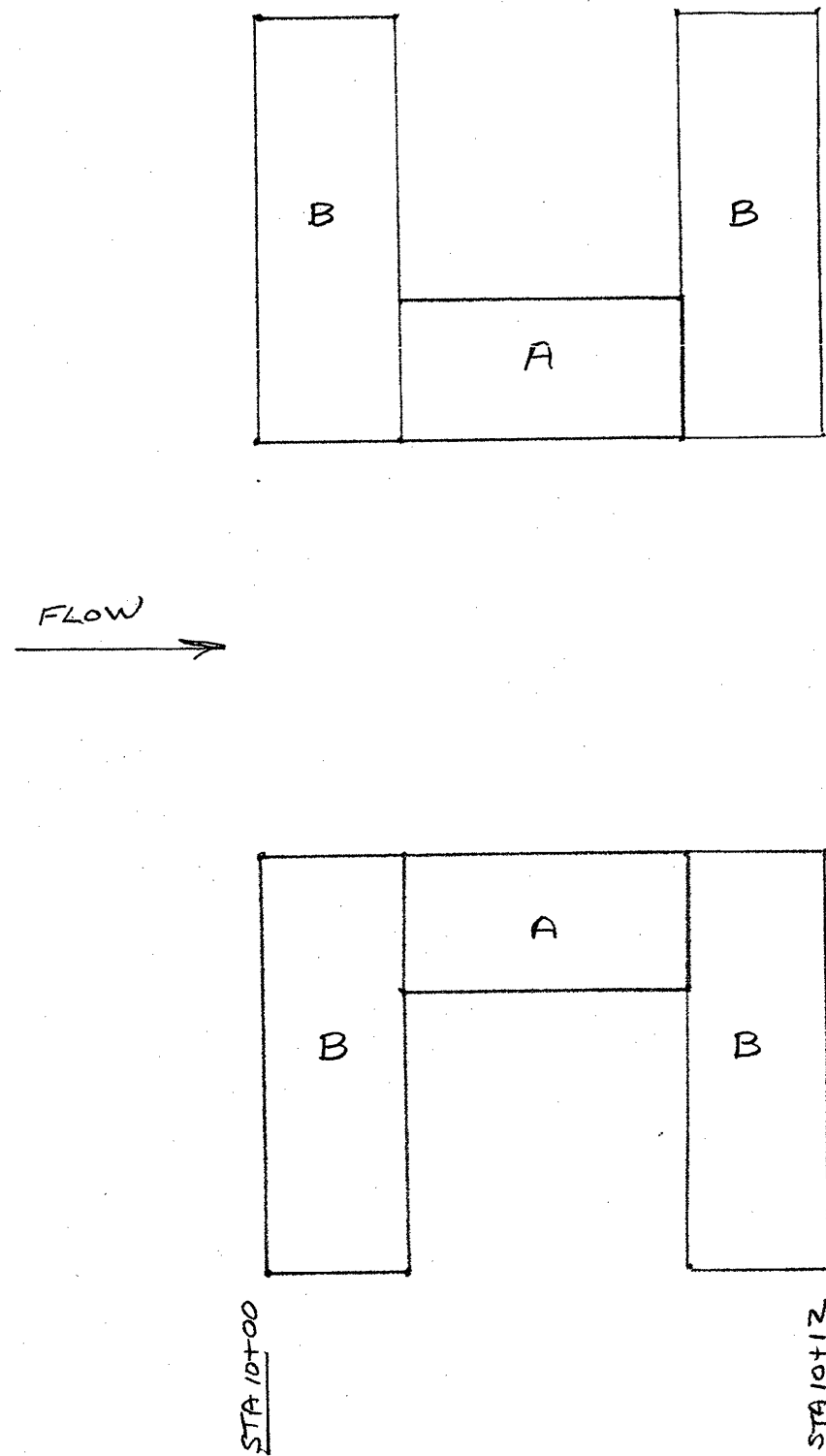
NOTE:  
BASE ELEVATION OF  
FIRST LAYER OF GABIONS  
IN DROP STRUCTURE IS  
46.8.



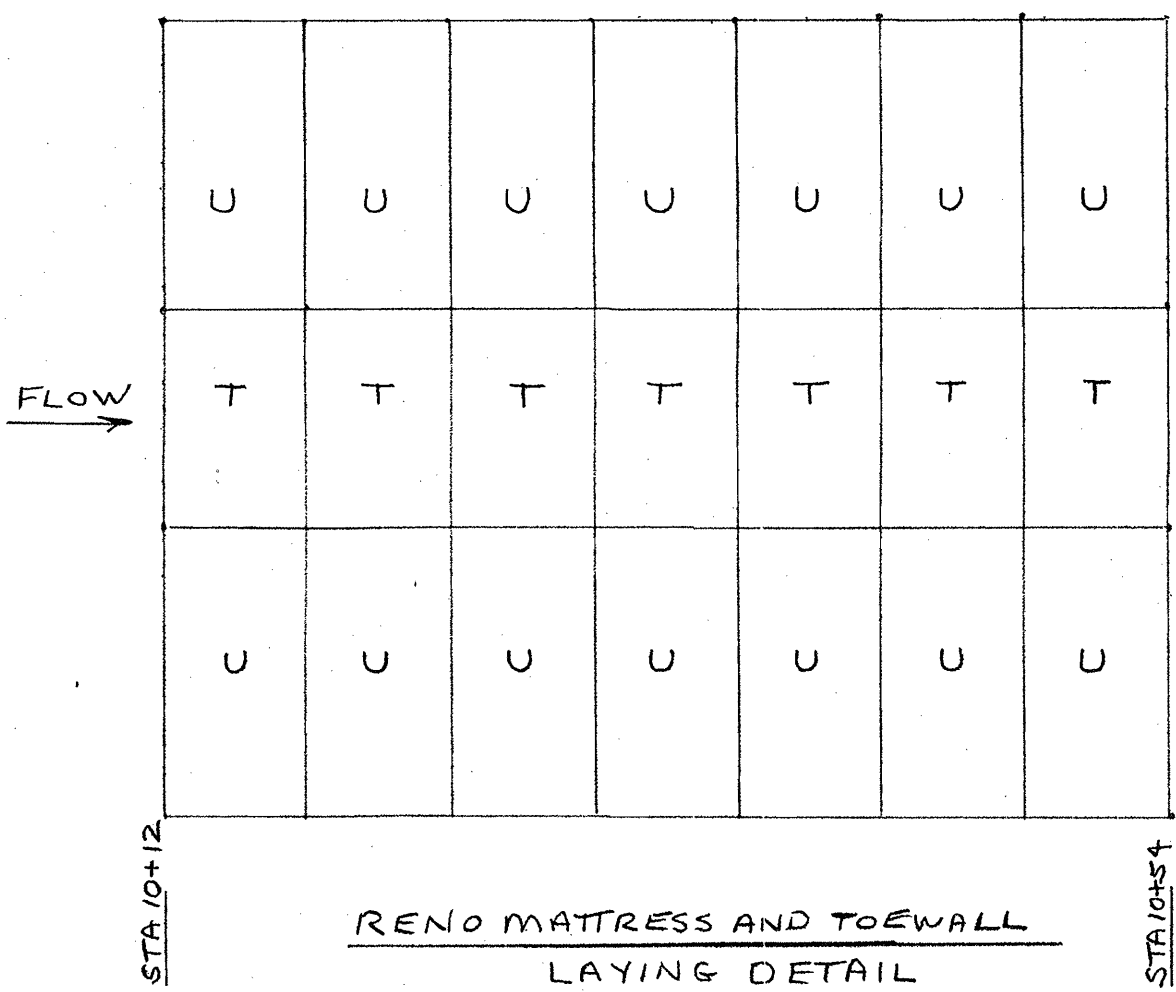
GABION DROP  
GABION STACKING DETAIL  
LAYER No. 1  
SCALE: 1/4"=1'



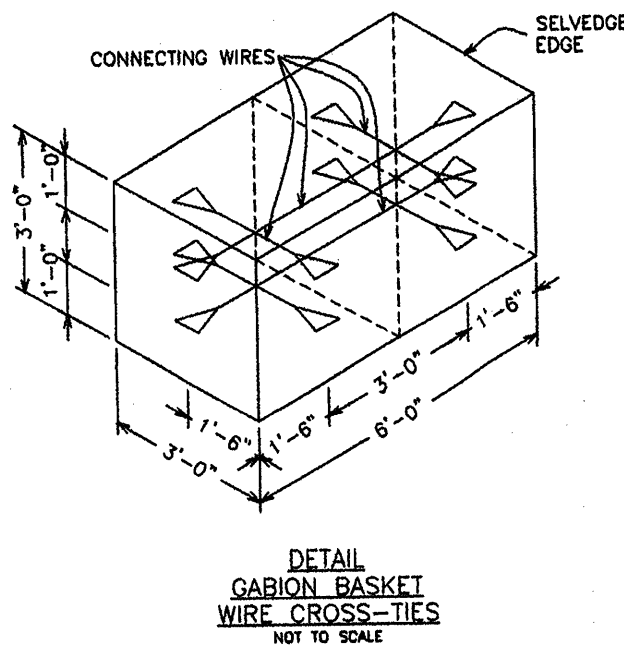
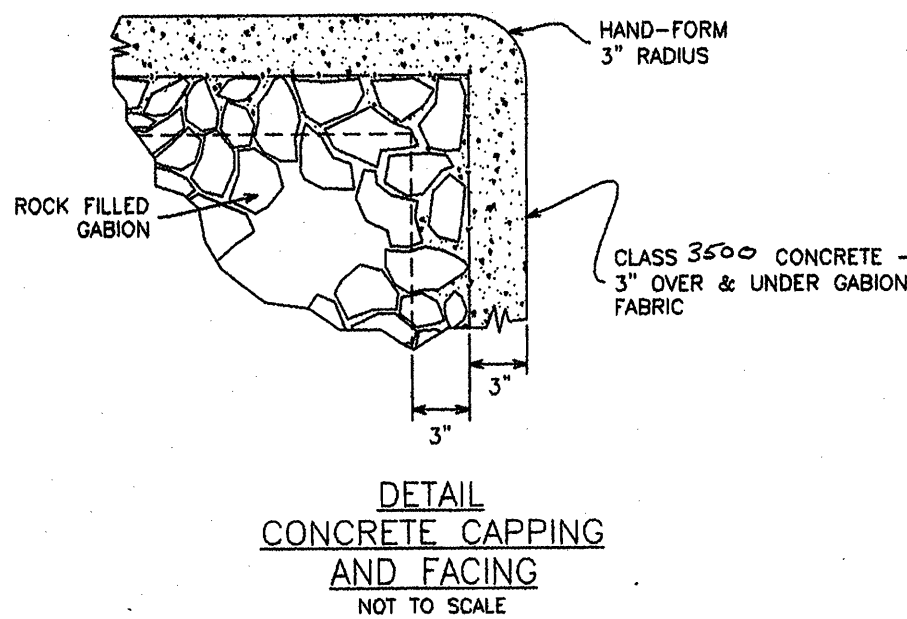
GABION DROP  
GABION STACKING DETAIL  
LAYER No. 2  
SCALE: 1/4"=1'



GABION DROP  
GABION STACKING  
DETAIL  
LAYER No. 3  
SCALE: 1/4"=1'



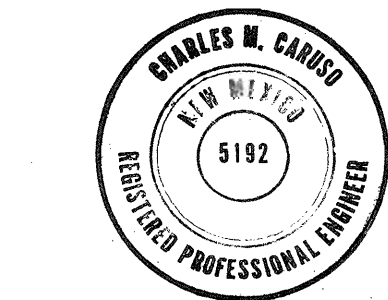
RENO MATTRESS AND TOEWALL  
LAYING DETAIL  
SCALE: 1/8"=1'



GABION ROCK GRADATION	
Size	Percent Smaller By Weight
12"	100
8"	90-100
6"	20-50
4"	0-5

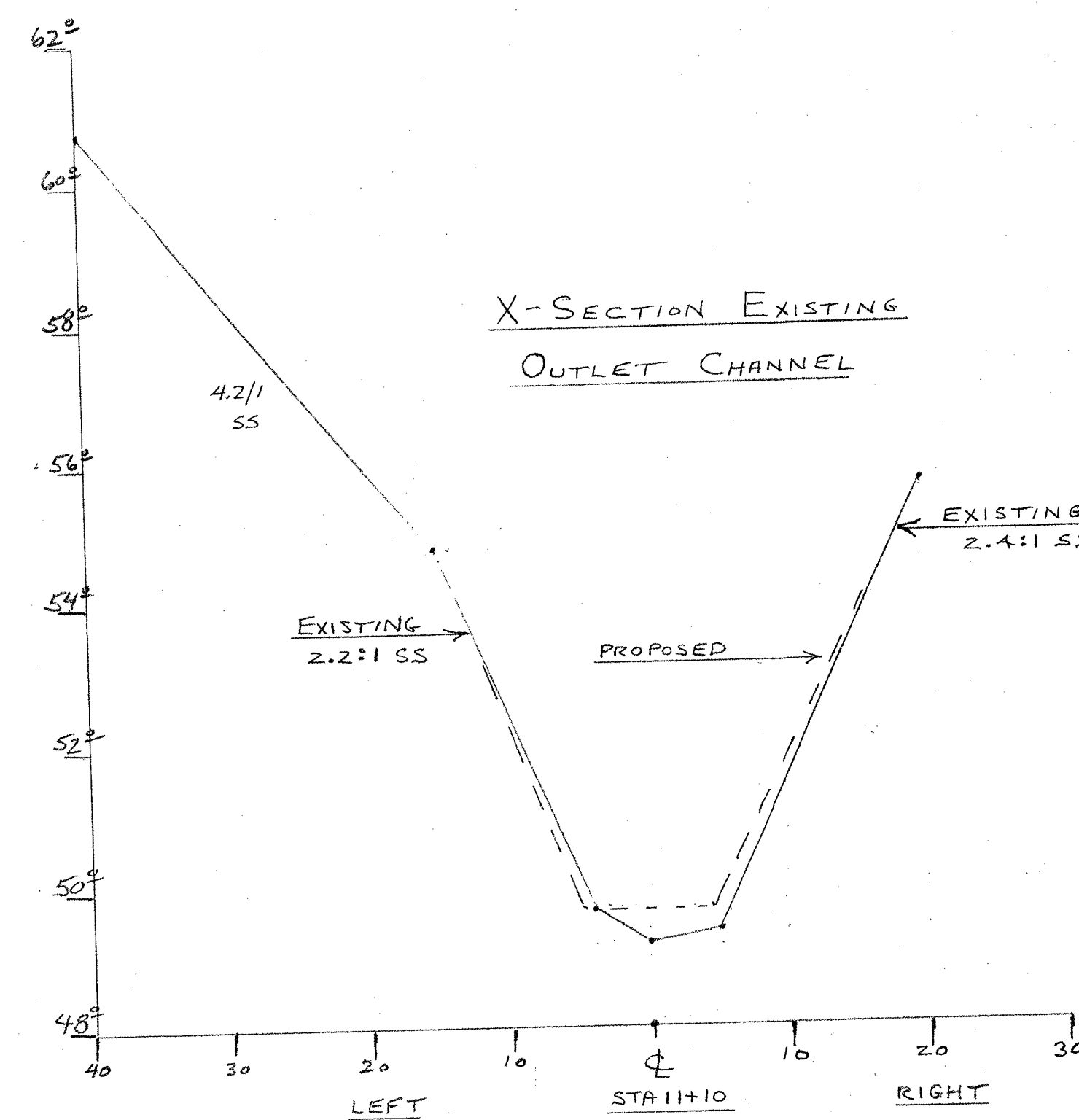
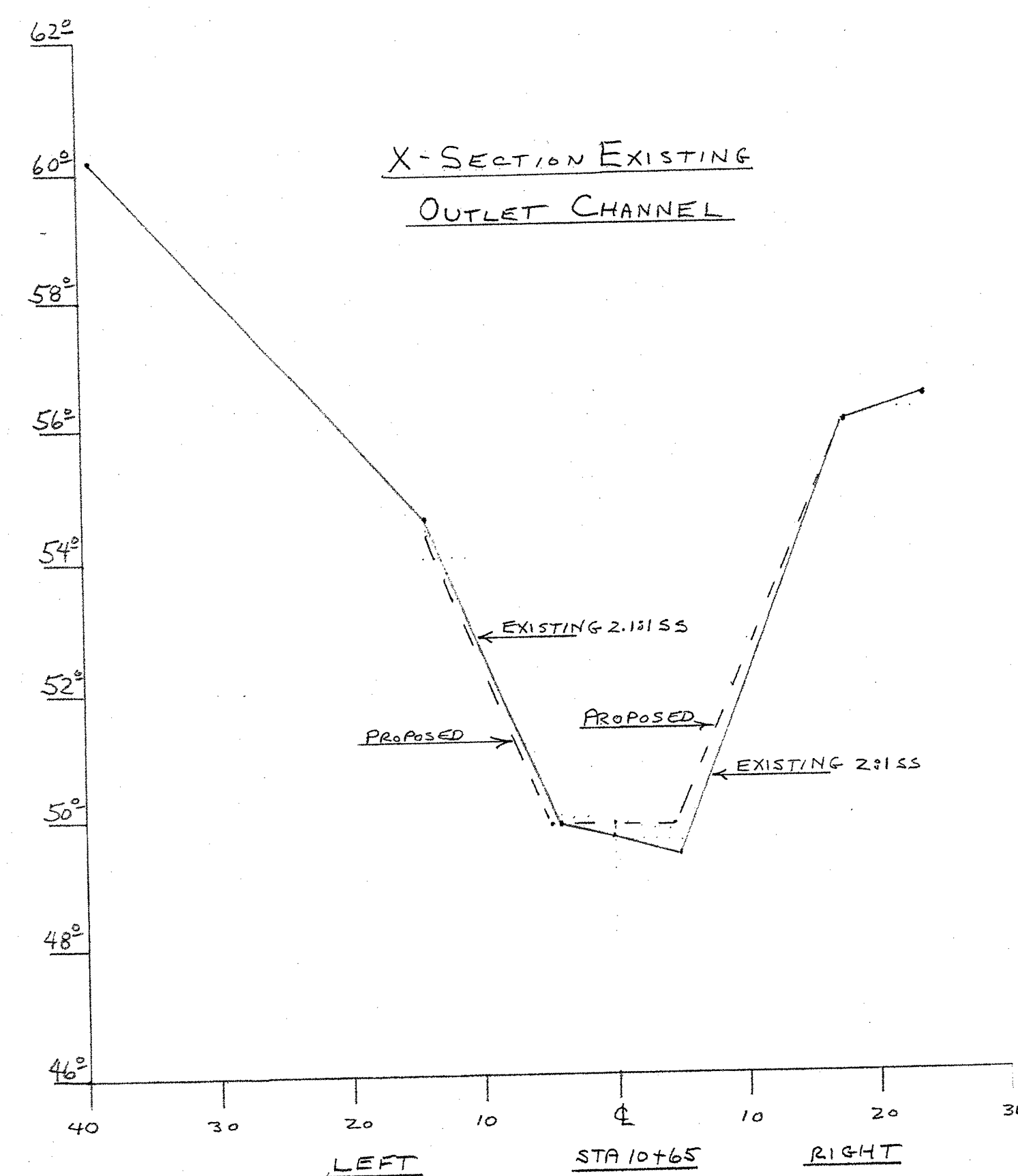
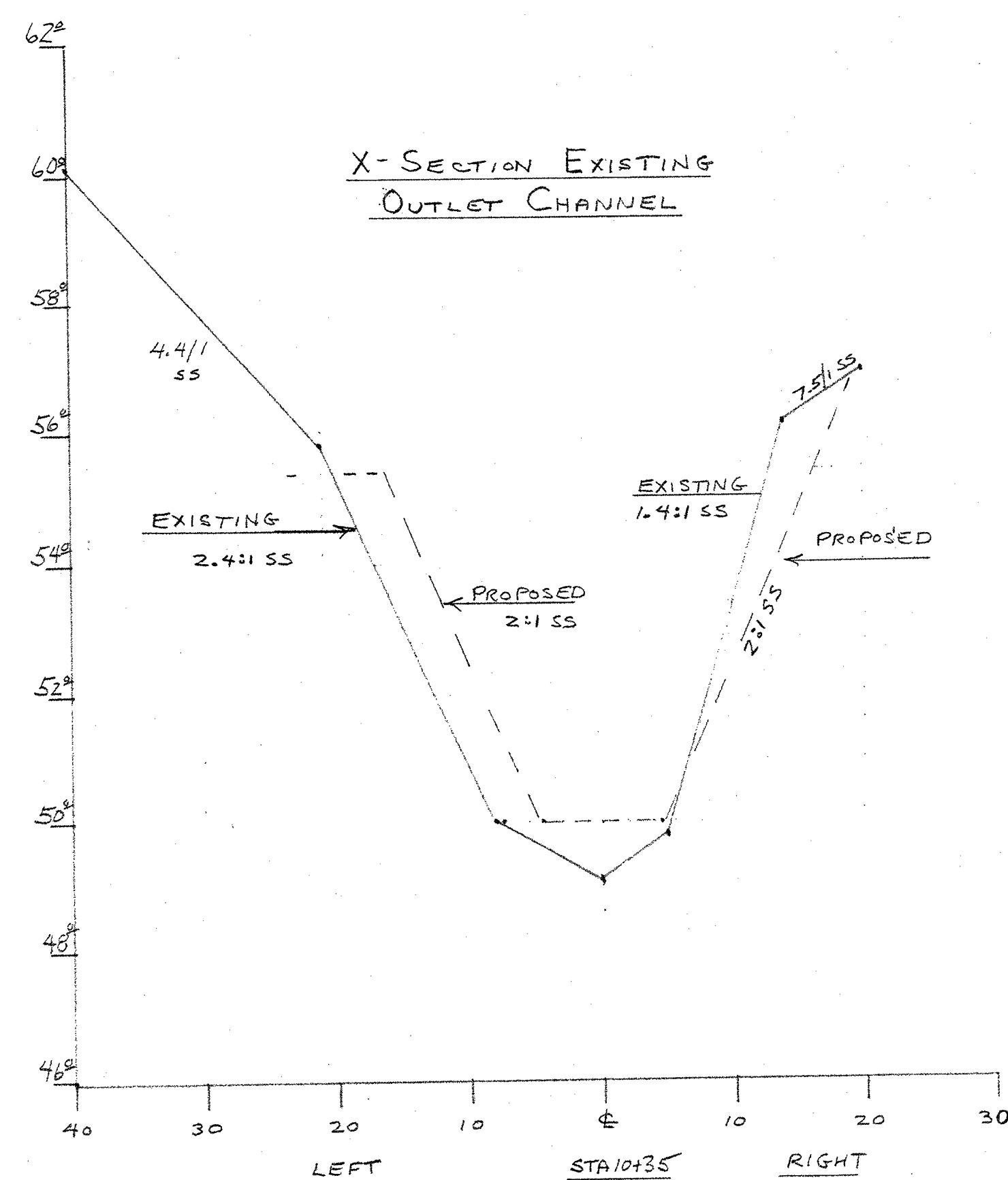
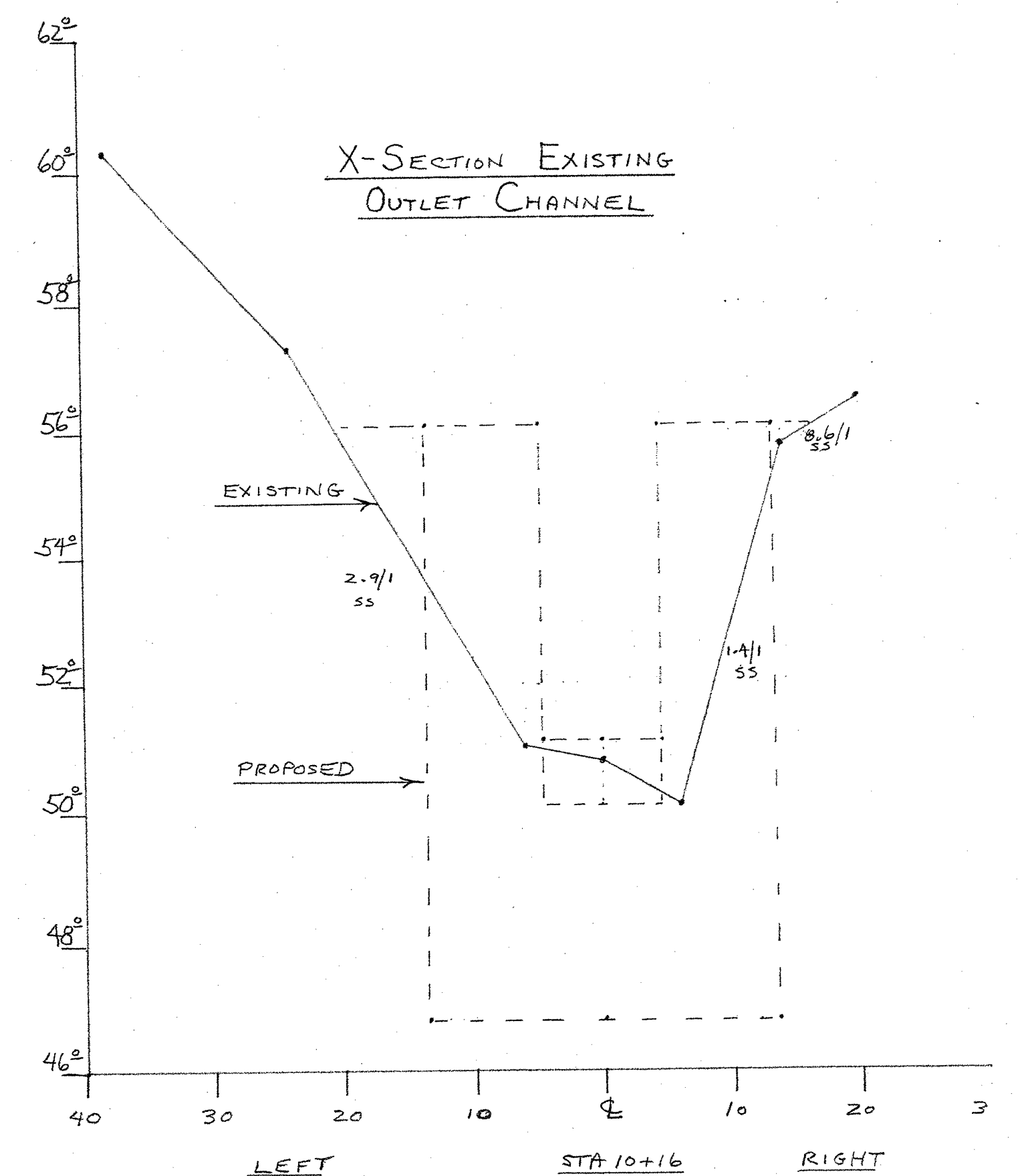
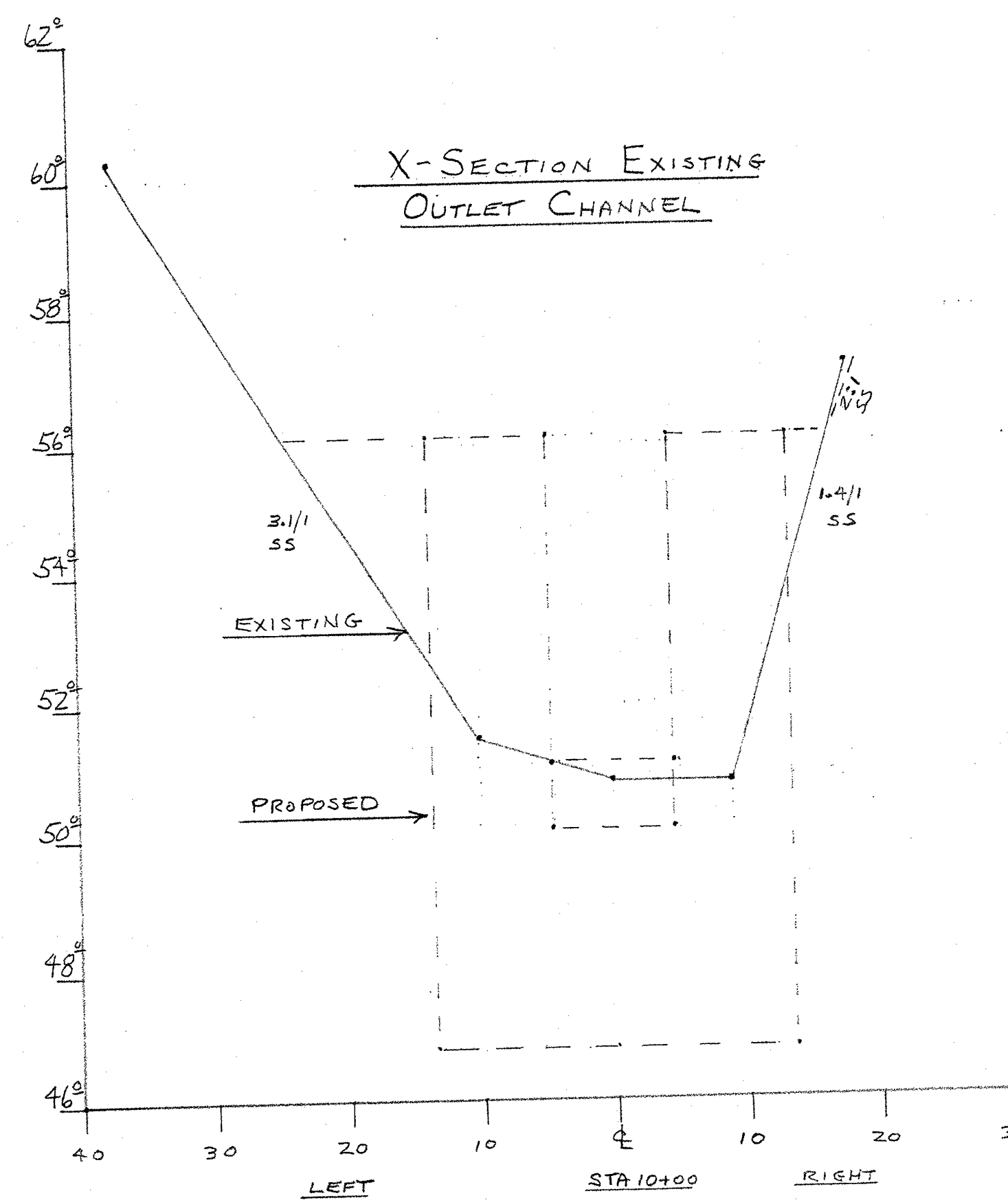
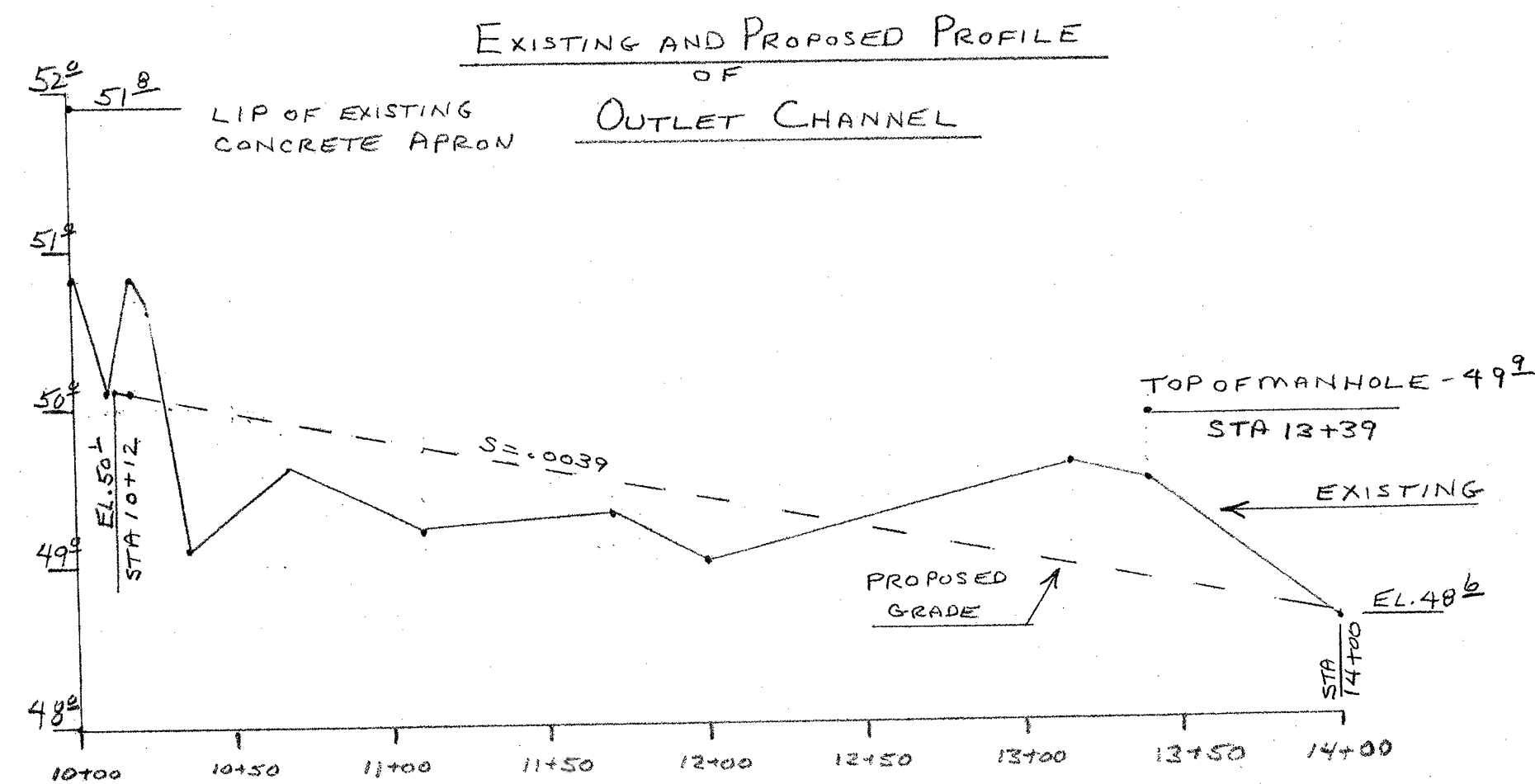
BEDDING MATERIAL GRADATION	
SIZE OF ROCK	PERCENT SMALLER BY WEIGHT
2 1/2"	100
2"	75-100
1"	35-75
1/2"	10-35
No. 4	0-10

LOOSE ROCKFILL APRON GRADATION	
ROCK SIZE (inches)	% SMALLER BY WT.
24	100
18	50-70
12	30-55
6	10

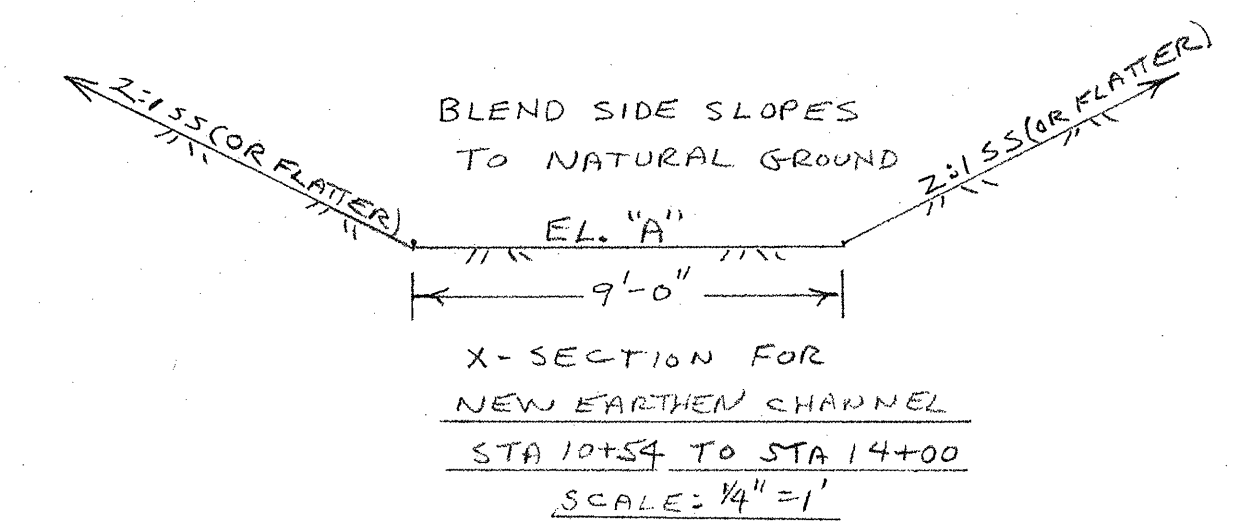


Charles M. Caruso  
8/17/11

<b>AGRIMEX</b> 10432 Manzanillo, NE Albuquerque, NM 87111 505-275-8826	KIRTLAND DETENTION BASIN PROPOSED RENOVATIONS  PRELIMINARY CONCEPTUAL DESIGN  COMMISSARY INLET PIPE LOCATION GABION DROP AND CHANNEL STRUCTURAL DETAILS	Designed : C. Caruso	Date: 8/2011
		Drawn: C. Caruso	Date: 8/2011
		Checked:	Date:
		Sheet 3 of 4	



CHANNEL ELEVATIONS		
STA.	ELEV. "A"	ELEV. "B"
10+12	50.10	55.50
10+30	50.03	55.43
10+35	50.01	55.41
10+40	49.99	55.39
10+54	49.94	55.34
10+75	49.85	BNG
11+00	49.76	BNG
11+10	49.71	BNG
11+50	49.56	BNG
12+00	49.37	BNG
12+50	49.17	BNG
13+00	48.98	BNG
13+50	48.78	BNG
14+00	48.59	BNG



Charles M. Caruso  
8/17/11

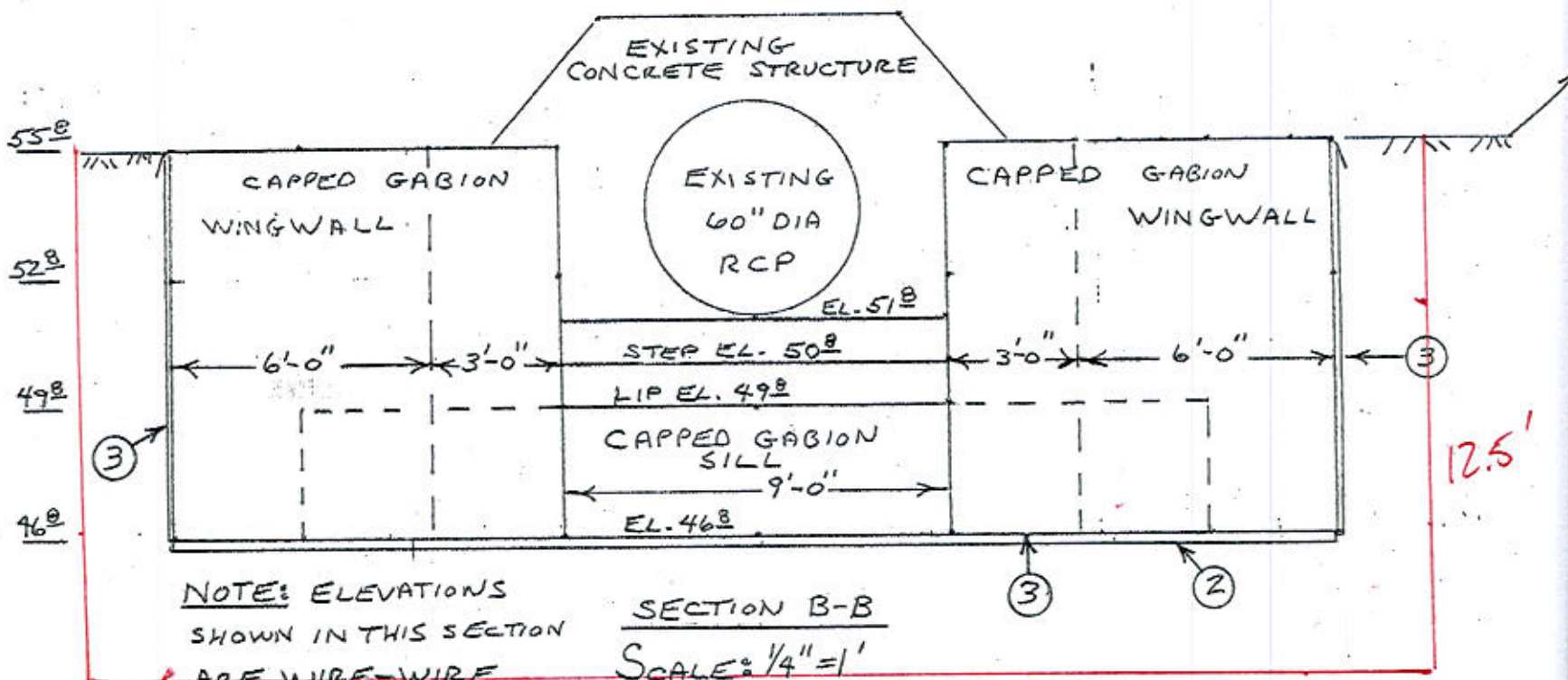
<b>AGRIMEX</b> 10432 Manzanillo, NE Albuquerque, NM 87111 505-275-8826	KIRTLAND DETENTION BASIN PROPOSED RENOVATIONS		Designed: C. Caruso	Date: 8/2011
	PRELIMINARY CONCEPTUAL DESIGN		Drawn: C. Caruso	Date: 8/2011
	COMMISSARY INLET PIPE LOCATION GABION DROP AND CHANNEL CHANNEL X-SECTIONS		Checked:	Date:
			Sheet 4 of 4	



L→E

# PLAN VIEW

SCALE: 1/4" = 1'

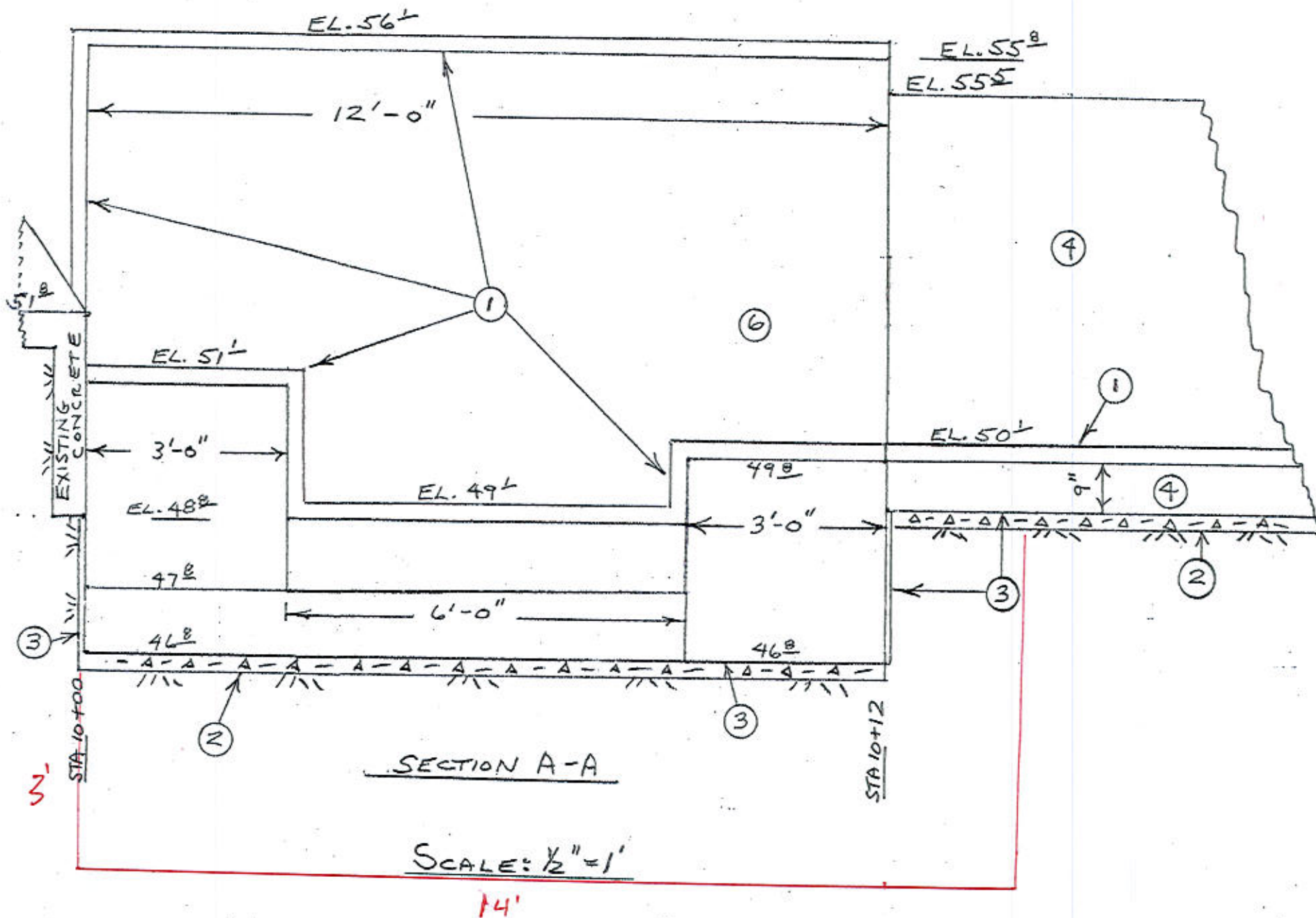


NOTE: ELEVATIONS  
SHOWN IN THIS SECTION  
ARE WIRE-WIRE  
WITHOUT CONCRETE  
CAP.

## SECTION B-B

SCALE: 1/4" = 1'

31'



NOTE:

DIMENSIONS SHOWN  
ARE WIRE-WIRE  
BASKET DIMENSIONS.

