

SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA

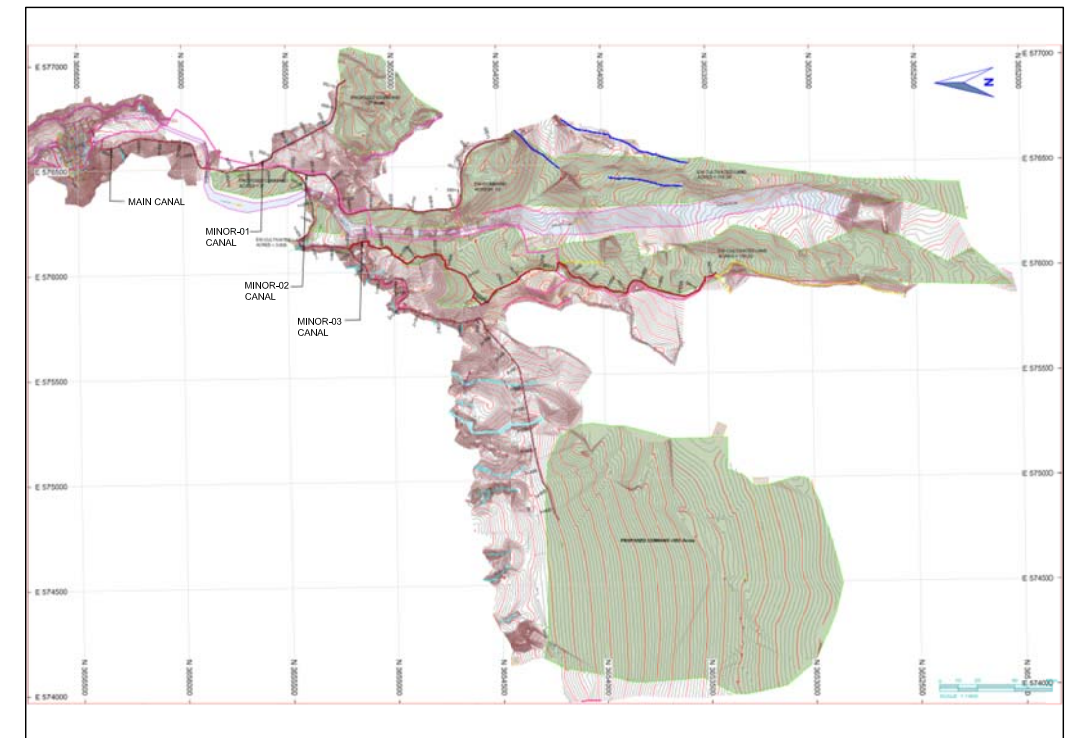
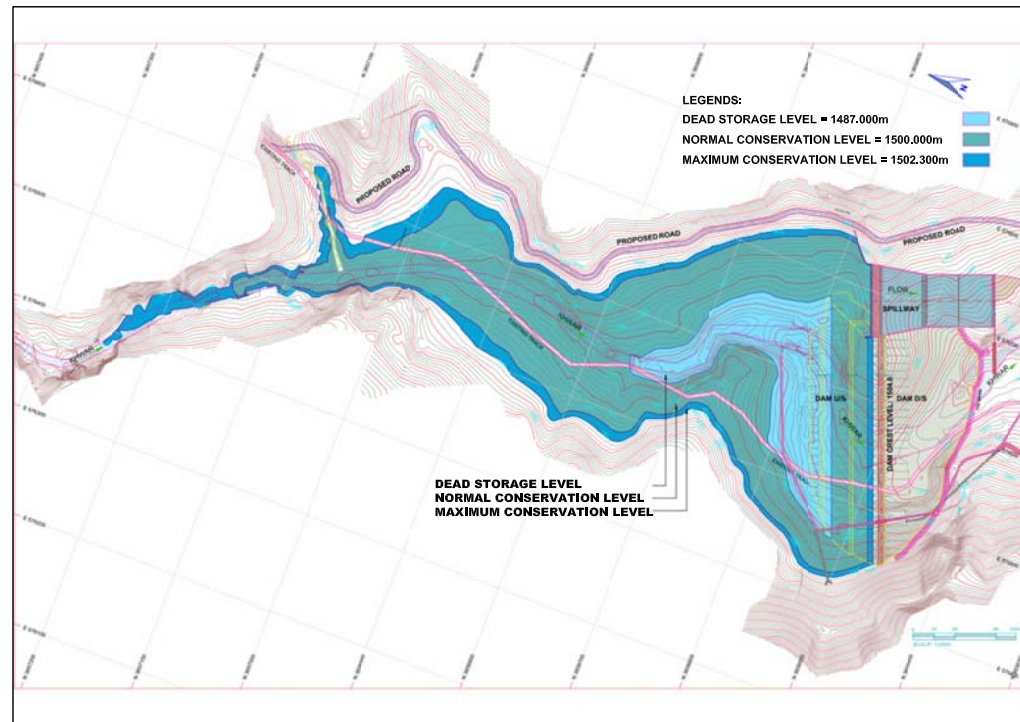


ZANGOTAI SMALL DAM - NORTH WAZIRISTAN

TENDER DRAWINGS

VOLUME II

SEPTEMBER, 2021



CONSULTING ASSOCIATES PESHAWAR

NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com

IN ASSOCIATION WITH



GHASSAN SATTAR KHAN CONSULTING ENGINEER


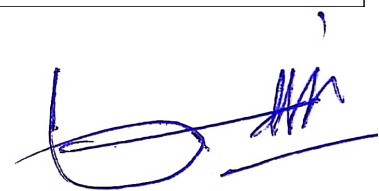
PASE 3 CHAWAK, NEAR TO SHAHAB ORTHOPEDIC HOSPITAL





[Handwritten signature]

Scanned with CamScanner

LD-LIST OF DRAWINGS

DRAWING NO				DRAWING TITLE	DRAWING NO				DRAWING TITLE
CONSULTING ASSOCIATES	PACKAGE-IX	TYPE	NO		CONSULTING ASSOCIATES	PACKAGE-IX	TYPE	NO	
LD-LIST OF DRAWINGS					MC-MAIN CHANNEL				
CA	PK-IX	LD	01	LIST OF DRAWINGS (SHEET 01 OF 01)	CA	PK-IX	MC	06	MAIN CHANNEL PLAN & PROFILE RD = 2+900 TO 3+480 (SHEET 06 OF 07)
GLD-GENERAL LAYOUT DRAWINGS					M1-MINOR-01				
CA	PK-IX	GLD	01	PROJECT LOCATION MAP (SHEET 01 OF 01)	CA	PK-IX	MC	07	MAIN CHANNEL PLAN & PROFILE RD = 3+480 TO 3+660 (SHEET 07 OF 07)
CA	PK-IX	GLD	02	COMMAND AREA MAP (SHEET 01 OF 01)	CA	PK-IX	MC	08	MAIN CHANNEL & MINOR-01, 02 & 03 TYPICAL SECTIONS (SHEET 01 OF 01)
GEO-GEOLOGICAL MAPS					M2-MINOR-02				
CA	PK-IX	GEO	01	PROJECT AREA GEOLOGICAL MAP (SHEET 01 OF 01)	CA	PK-IX	M1	01	MINOR-01 PLAN & PROFILE RD = 0+000 TO 0+580 (SHEET 01 OF 02)
DM-DAM					M3-MINOR-03				
CA	PK-IX	DM	01	DAM LAYOUT PLAN (SHEET 01 OF 01)	CA	PK-IX	M2	01	MINOR-02 PLAN & PROFILE RD = 0+000 TO 0+580 (SHEET 01 OF 03)
CA	PK-IX	DM	02	DAM TYPICAL CROSS SECTION (SHEET 01 OF 01)	CA	PK-IX	M2	02	MINOR-02 PLAN & PROFILE RD = 0+580 TO 1+160 (SHEET 02 OF 03)
CA	PK-IX	DM	03	DAM SECTION & PLAN (SEE DETAIL "A") (SHEET 01 OF 01)	CA	PK-IX	M2	03	MINOR-02 PLAN & PROFILE RD = 1+160 TO 1+390 (SHEET 03 OF 03)
CA	PK-IX	DM	04	DAM INSTRUMENTATION LAYOUT PLAN (SHEET 01 OF 01)	M3-MINOR-03				
CA	PK-IX	DM	05	DAM INSTRUMENTATION DETAILS (SHEET 01 OF 01)	CA	PK-IX	M3	01	MINOR-03 PLAN & PROFILE RD = 0+000 TO 0+580 (SHEET 01 OF 04)
SP-SPILLWAY					CA	PK-IX	M3	02	MINOR-03 PLAN & PROFILE RD = 0+580 TO 1+160 (SHEET 02 OF 04)
CA	PK-IX	SP	01	SPILLWAY GENERAL PLAN & PROFILE (SHEET 01 OF 01)	CA	PK-IX	M3	03	MINOR-03 PLAN & PROFILE RD = 1+160 TO 1+740 (SHEET 03 OF 04)
CA	PK-IX	SP	02	SPILLWAY DETAIL PROFILE (SHEET 01 OF 01)	CA	PK-IX	M3	04	MINOR-03 PLAN & PROFILE RD = 1+740 TO 2+230 (SHEET 04 OF 04)
CA	PK-IX	SP	03	SPILLWAY REINFORCEMENT DETAILS (SHEET 01 OF 01)	HS-HYDRAULIC STRUCTURES				
CA	PK-IX	SP	04	DETAIL & EXCAVATION SECTIONS (SHEET 01 OF 07)	CA	PK-IX	HS	01	AQUEDUCT STRUCTURE DETAILS (SHEET 01 OF 02)
CA	PK-IX	SP	05	DETAIL & EXCAVATION SECTIONS (SHEET 02 OF 07)	CA	PK-IX	HS	02	AQUEDUCT STRUCTURE DETAILS (SHEET 02 OF 02)
CA	PK-IX	SP	06	DETAIL & EXCAVATION SECTIONS (SHEET 03 OF 07)	CA	PK-IX	HS	03	PIPE CULVERT DETAILS (SHEET 01 OF 02)
CA	PK-IX	SP	07	DETAIL & EXCAVATION SECTIONS (SHEET 04 OF 07)	CA	PK-IX	HS	04	PIPE CULVERT DETAILS (SHEET 02 OF 02)
CA	PK-IX	SP	08	DETAIL & EXCAVATION SECTIONS (SHEET 05 OF 07)	CA	PK-IX	HS	05	BOX CULVERT DETAILS (SHEET 01 OF 01)
CA	PK-IX	SP	09	DETAIL & EXCAVATION SECTIONS (SHEET 06 OF 07)	CA	PK-IX	HS	06	TYPICAL SUPER PASSAGE DETAILS (SHEET 01 OF 01)
CA	PK-IX	SP	10	DETAIL & EXCAVATION SECTIONS (SHEET 07 OF 07)	CA	PK-IX	HS	07	TYPICAL PIPE OUTLET DETAILS (SHEET 01 OF 01)
DC-DIVERSION CHANEL					CA	PK-IX	HS	08	FALL STRUCTURE DETAILS (SHEET 01 OF 01)
CA	PK-IX	DC	01	DIVERSION CHANNEL PLAN & PROFILE (SHEET 01 OF 01)	CA	PK-IX	HS	09	TAIL CLUSTER DETAILS (SHEET 01 OF 01)
IA-INTAKE TOWER & ACCESS BRIDGE					AR-ACCESS ROAD				
CA	PK-IX	IA	01	INTAKE TOWER & ACCESS BRIDGE LAYOUT PLAN (SHEET 01 OF 01)	CA	PK-IX	AR	01	PLAN & PROFILE RD = 0+000 TO 0+580 (SHEET 01 OF 03)
CA	PK-IX	IA	02	ACCESS BRIDGE GENERAL PLAN & PROFILE (SHEET 01 OF 01)	CA	PK-IX	AR	02	PLAN & PROFILE RD = 0+580 TO 1+160 (SHEET 02 OF 03)
CA	PK-IX	IA	03	INTAKE TOWER DETAIL PLAN & SECTIONS (SHEET 01 OF 01)	CA	PK-IX	AR	03	PLAN & PROFILE RD = 1+160 TO 1+407 (SHEET 03 OF 03)
CA	PK-IX	IA	04	ACCESS BRIDGE SECTIONS & DETAILS (SHEET 01 OF 01)	CA	PK-IX	AR	04	ACCESS ROAD TYPICAL CROSS SECTIONS (SHEET 01 OF 02)
CA	PK-IX	IA	05	INTAKE TOWER REINFORCEMENT SECTIONS & DETAILS (SHEET 01 OF 02)	CA	PK-IX	AR	05	ACCESS ROAD TYPICAL CROSS SECTIONS (SHEET 02 OF 02)
CA	PK-IX	IA	06	INTAKE TOWER REINFORCEMENT SECTIONS & DETAILS (SHEET 02 OF 03)	INSPECTION HUT				
CA	PK-IX	IA	07	INTAKE TOWER REINFORCEMENT SECTIONS & DETAILS (SHEET 03 OF 03)	CA	PK-IX	IH	01	DETAILED WORKING PLAN (SHEET 01 OF 01)
CA	PK-IX	IA	08	DELIVERY PIPE DETAIL PROFILE (SHEET 01 OF 01)	CA	PK-IX	IH	02	DETAILED SECTIONS AND ELEVATION (SHEET 01 OF 01)
CA	PK-IX	IA	09	DELIVERY PIPE TYPICAL SECTIONS, DETAILS & REINFORCEMENT DETAILS (SHEET 01 OF 01)	CA	PK-IX	IH	03	VERANDAH BEAM REINFORCEMENT LONG SECTION & SECTIONS (SHEET 01 OF 01)
MC-MAIN CHANNEL					CA	PK-IX	IH	04	SLAB REINFORCEMENT DETAILS (SHEET 01 OF 01)
CA	PK-IX	MC	01	MAIN CHANNEL PLAN & PROFILE RD = 0+000 TO 0+580 (SHEET 01 OF 07)	 				
CA	PK-IX	MC	02	MAIN CHANNEL PLAN & PROFILE RD = 0+580 TO 1+160 (SHEET 02 OF 07)					
CA	PK-IX	MC	03	MAIN CHANNEL PLAN & PROFILE RD = 1+160 TO 1+740 (SHEET 03 OF 07)					
CA	PK-IX	MC	04	MAIN CHANNEL PLAN & PROFILE RD = 1+740 TO 2+320 (SHEET 04 OF 07)					
CA	PK-IX	MC	05	MAIN CHANNEL PLAN & PROFILE RD = 2+320 TO 2+900 (SHEET 05 OF 07)					

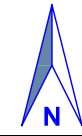
CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUOD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN TITLE: LIST OF DRAWINGS LIST OF DRAWINGS (SHEET 01 OF 01)	DRAWING NO. CA-PK-IX-LD-01	REV 01	SCALE N.T.S



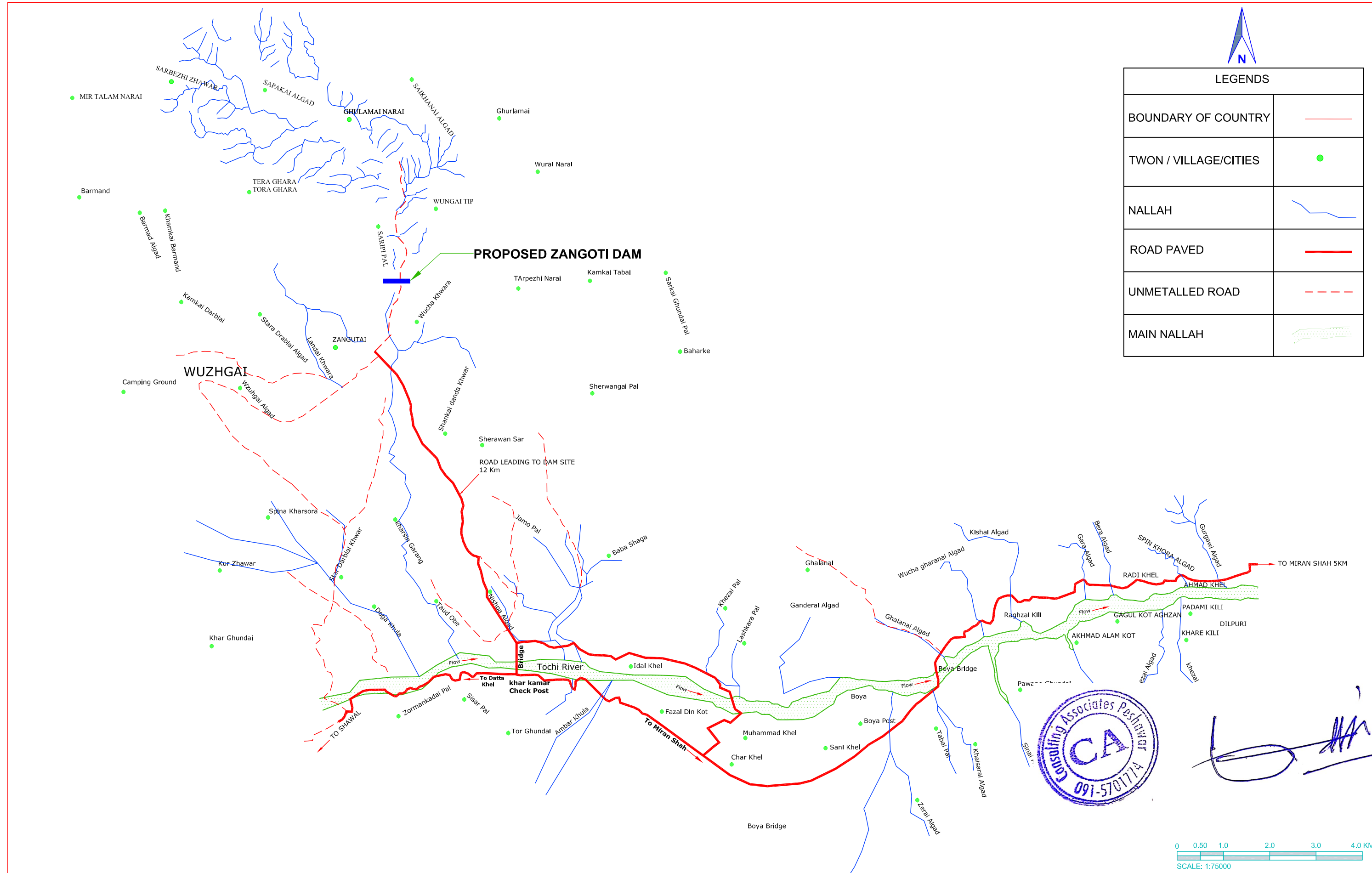
A handwritten signature in blue ink, consisting of a stylized 'L' followed by several vertical strokes.

Scanned with CamScanner

GLD-GENERAL LAYOUT DRAWINGS



LEGENDS	
BOUNDARY OF COUNTRY	—
TWON / VILLAGE/CITIES	●
NALLAH	—
ROAD PAVED	—
UNMETALLED ROAD	- - -
MAIN NALLAH	—



CLIENT:

SMALL DAMS SECTION
 MERGED AREAS,
 IRRIGATION DEPARTMENT
 KHYBER PAKHTUNKHWA

CONSULTING ASSOCIATES
 IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
 NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
 BEHID GUL CNG, JAMRUOD ROAD PEHSAWAR, PAKISTAN
 PH: +92 91 5701774 Fax: 92 91 5701775
 EMAIL: Consultingassociates127@gmail.com




REV	DESCRIPTION	DATE

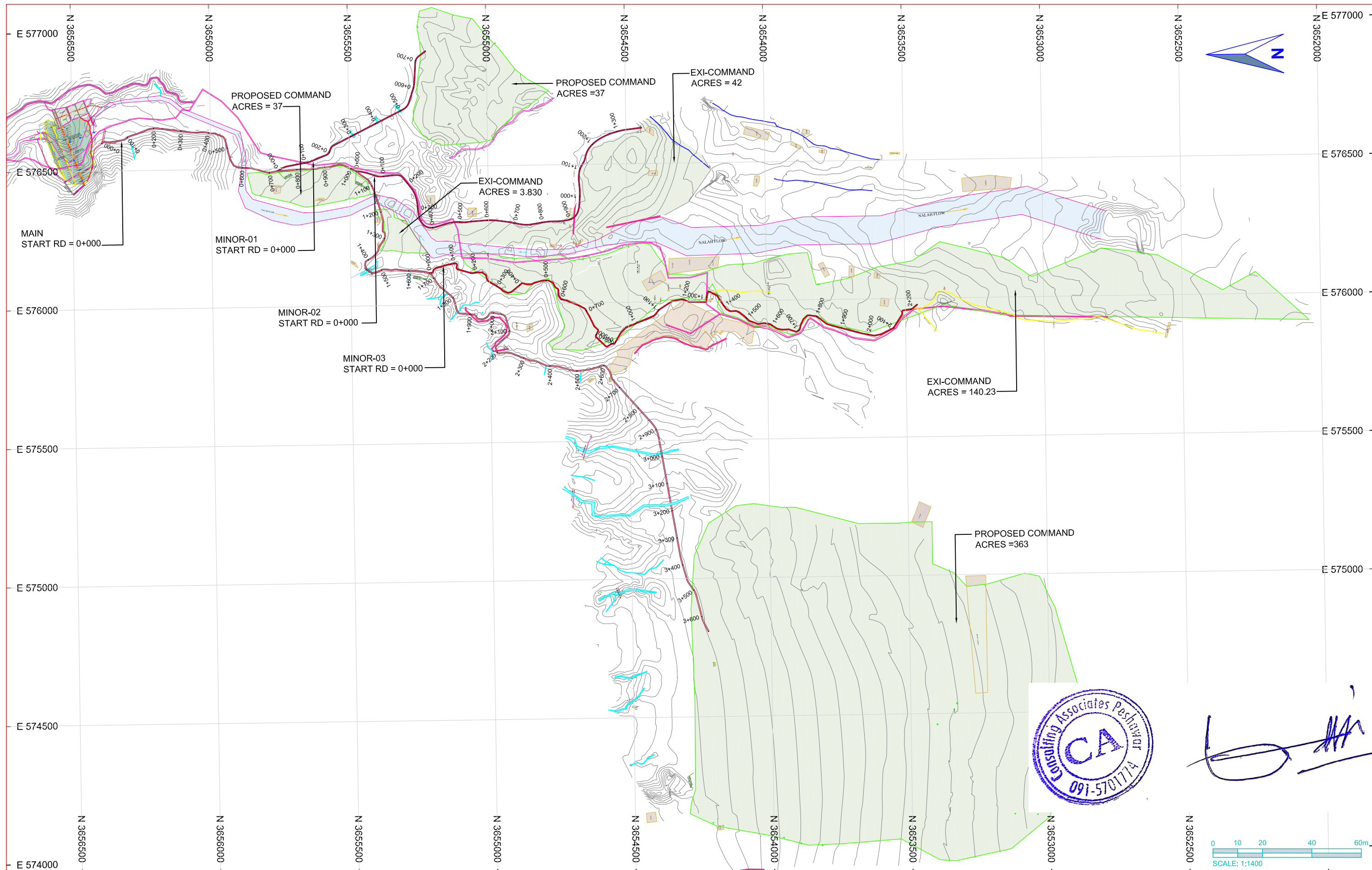
NOTES:
 1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
 FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
 PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
 PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)

TITLE: GENERAL LAYOUT DRAWINGS

PROJECT LOCATION MAP
 (SHEET 01 OF 01)

		SCALE 1:75000
DRAWING NO.		REV
CA-PK-IX-GLD-01		01



[Handwritten signature]

CLIENT:



**SMALL DAMS / POWER SECTION
MERGED AREAS
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA**

CONSULTING ASSOCIATES PESHAWAR
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUD ROAD PESHAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com



REV	DESCRIPTION	DATE

NOTES:
1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM (DISTRICT NORTH WAZIRISTAN)

TITLE: GENERAL LAYOUT DRAWINGS

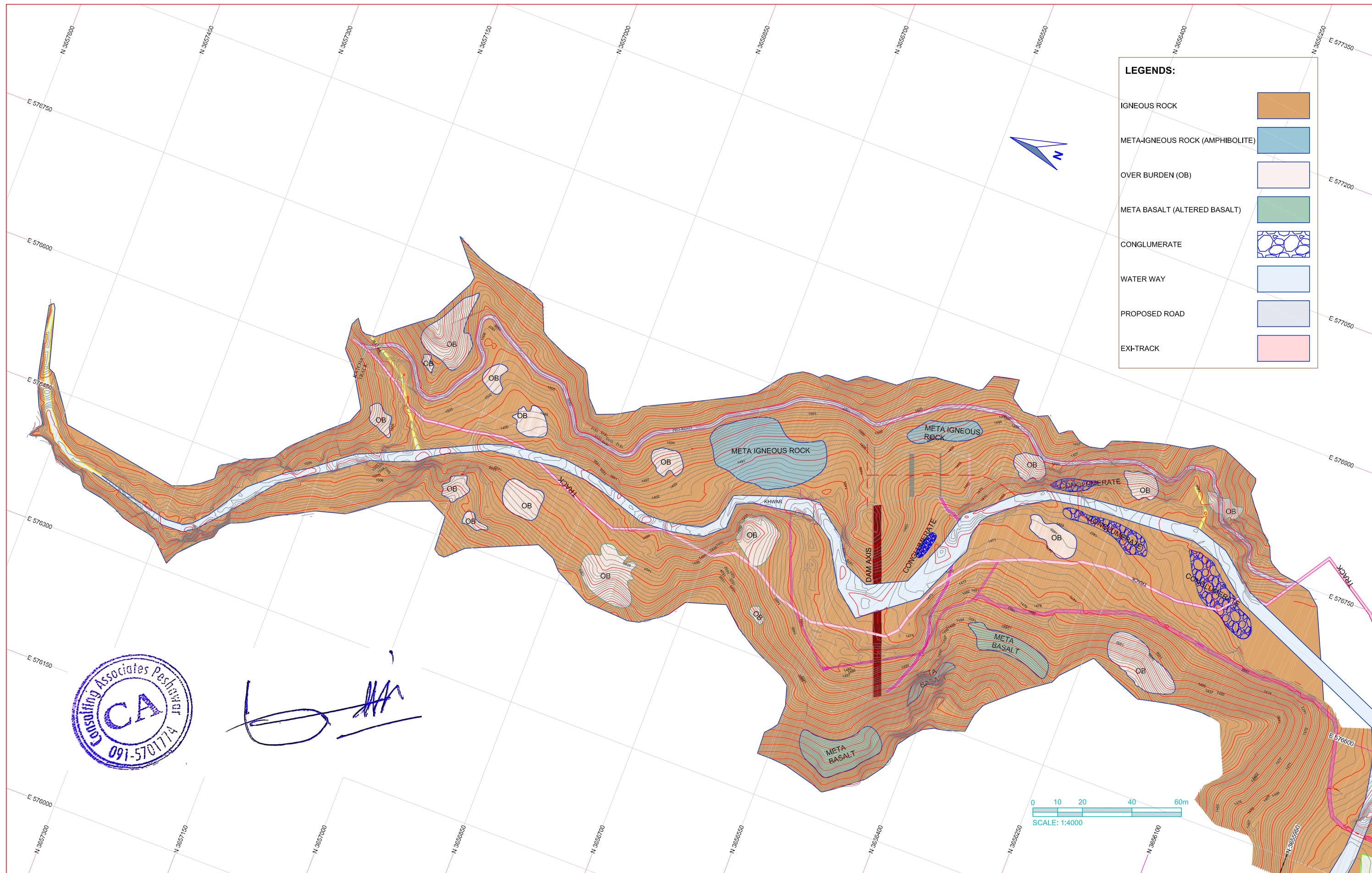
COMMAND AREA MAP
(SHEET 01 OF 01)

	SCALE 1:1400
	DATE MAR, 2020
DRAWING NO.	REV
CA-PK-IX-GLD-02	01

GEO-GEOLOGICAL MAPS



A handwritten signature in blue ink, consisting of a large, stylized initial 'L' followed by several loops and a final flourish.



LEGENDS:

IGNEOUS ROCK	
META-IGNEOUS ROCK (AMPHIBOLITE)	
OVER BURDEN (OB)	
META BASALT (ALTERED BASALT)	
CONGLOMERATE	
WATER WAY	
PROPOSED ROAD	
EXI-TRACK	



[Handwritten signature]

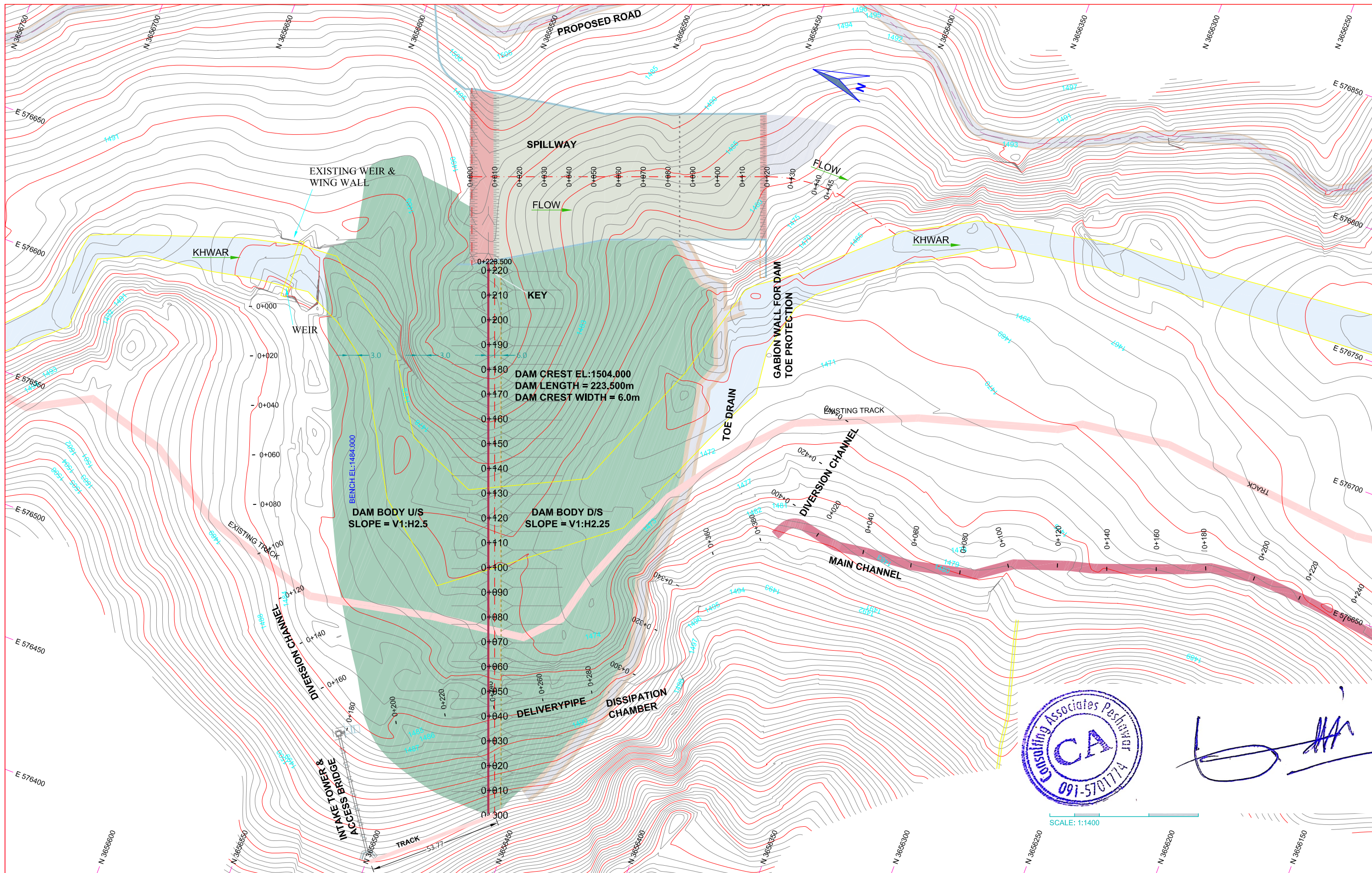


CLIENT: SMALL DAMS / POWER SECTION MERGED AREAS IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultngassociates127@gmail.com	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM (DISTRICT NORTH WAZIRISTAN)	SCALE 1:4000
TITLE: GEOLOGICAL MAPS PROJECT AREA GEOLOGICAL MAP (SHEET 01 OF 01)						DRAWING NO. CA-PK-IX-GEO-01	REV 01


DM-DAM



A handwritten signature in blue ink, consisting of a large, stylized initial 'L' followed by several loops and a final flourish.

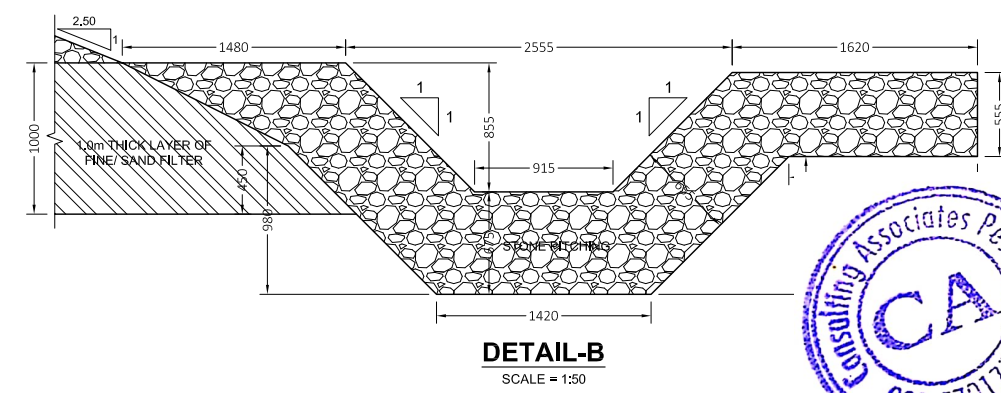
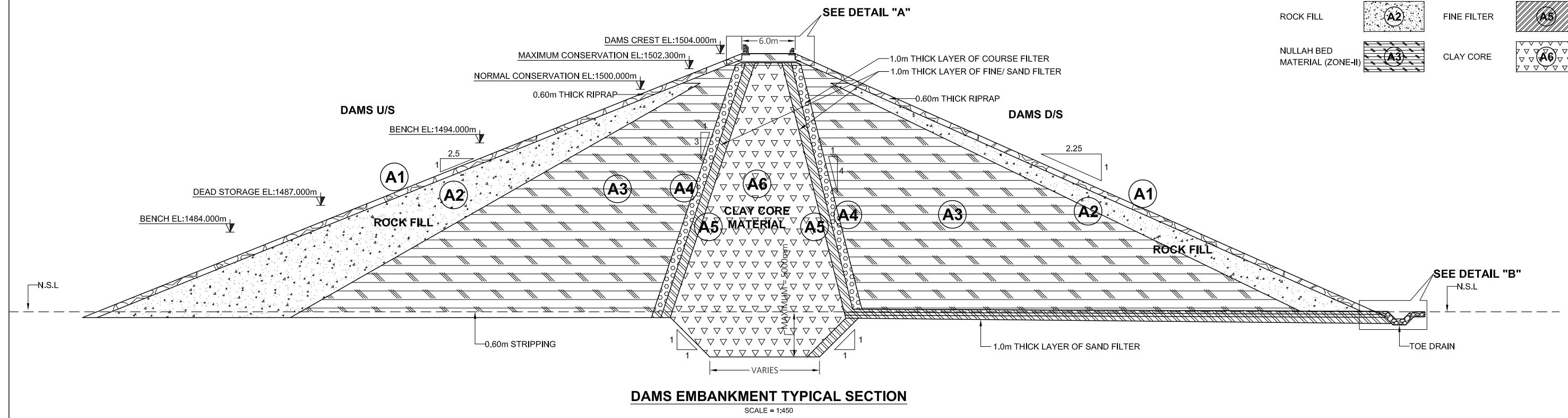


[Handwritten signature]

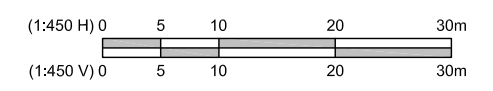
CLIENT:  SMALL DAMS MERGED AREAS, IRRIGATION DEPARTMENT, KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES PESHAWAR IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PESHAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultgassattar127@gmail.com	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)	SCALE 1:1400
		TITLE: DAM		DRAWING NO.			
DAM LAYOUT PLAN (SHEET 01 OF 01)						CA-PK-IX-DM-01	

LEGENDS:

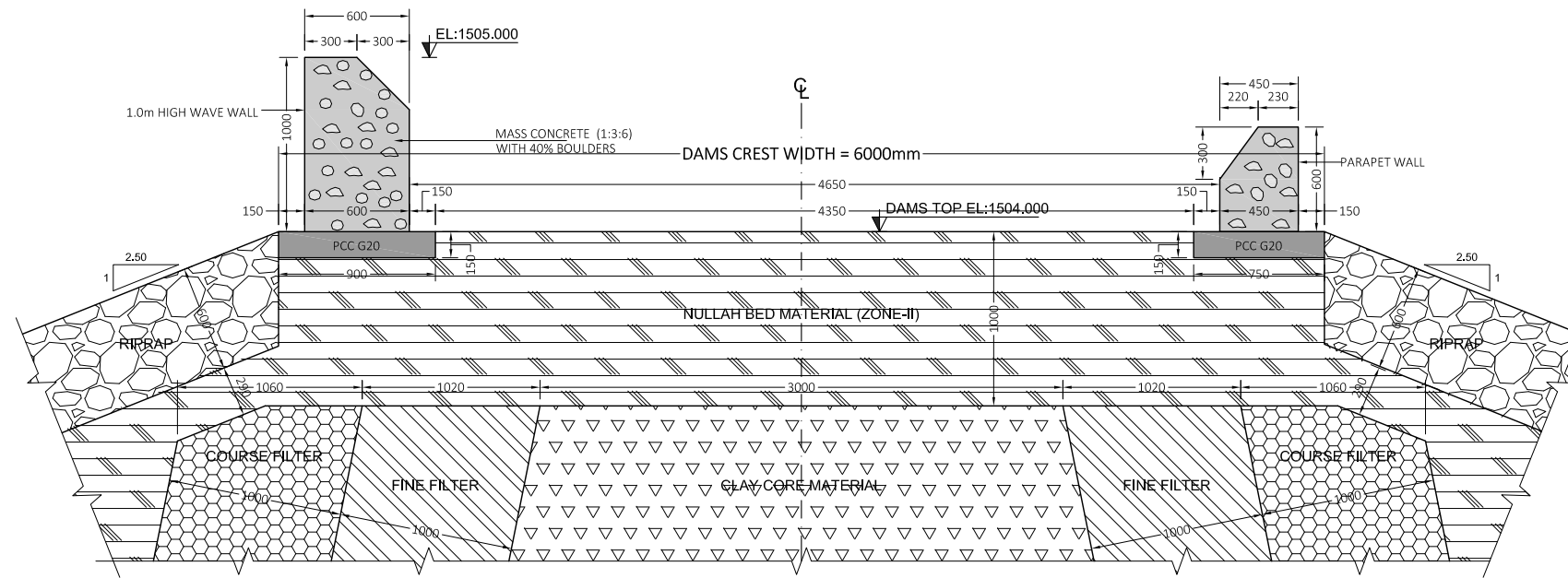
RIPRAP		COURSE FILTER	
ROCK FILL		FINE FILTER	
NULLAH BED MATERIAL (ZONE-II)		CLAY CORE	



[Handwritten signature]



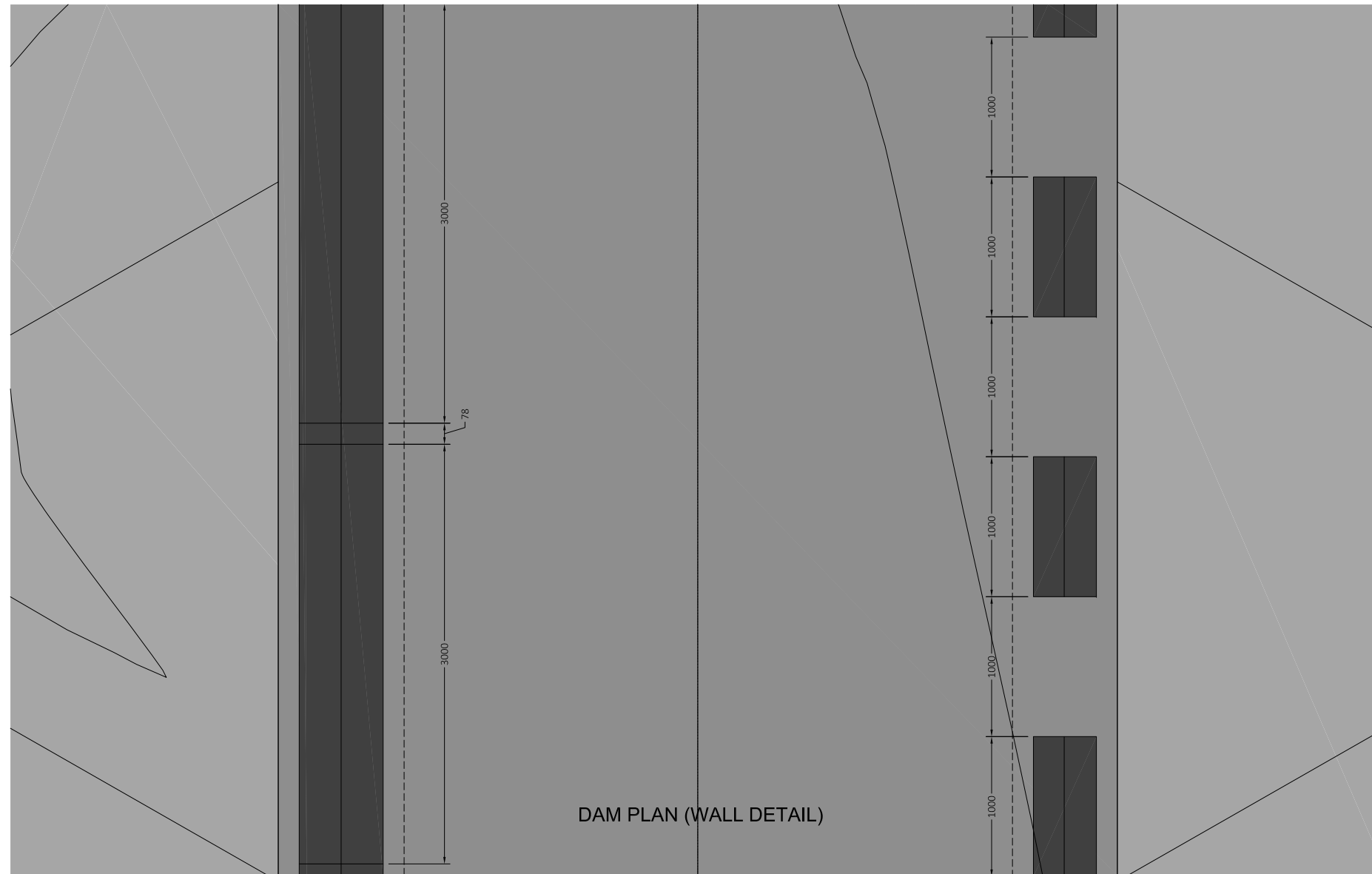
<p>CLIENT:</p> <p>SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA</p>	<p>CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultgassociates127@gmail.com</p>	REV	DESCRIPTION	DATE	<p>NOTES:</p> <p>1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.</p>	<p>PROJECT:</p> <p>FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM NORTH WAZIRISTAN</p>	<p>TITLE:</p> <p>DAMS</p>	<p>DAM TYPICAL CROSS SECTION (SHEET 01 OF 02)</p>	SCALE H = 1:450 V = 1:450



LEGENDS:

RIPRAP		COURSE FILTER	
ROCK FILL		FINE FILTER	
NULLAH BED MATERIAL (ZONE-II)		CLAY CORE	

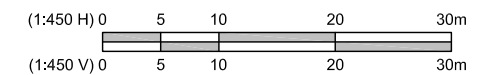
DETAIL-A
SCALE = 1:40



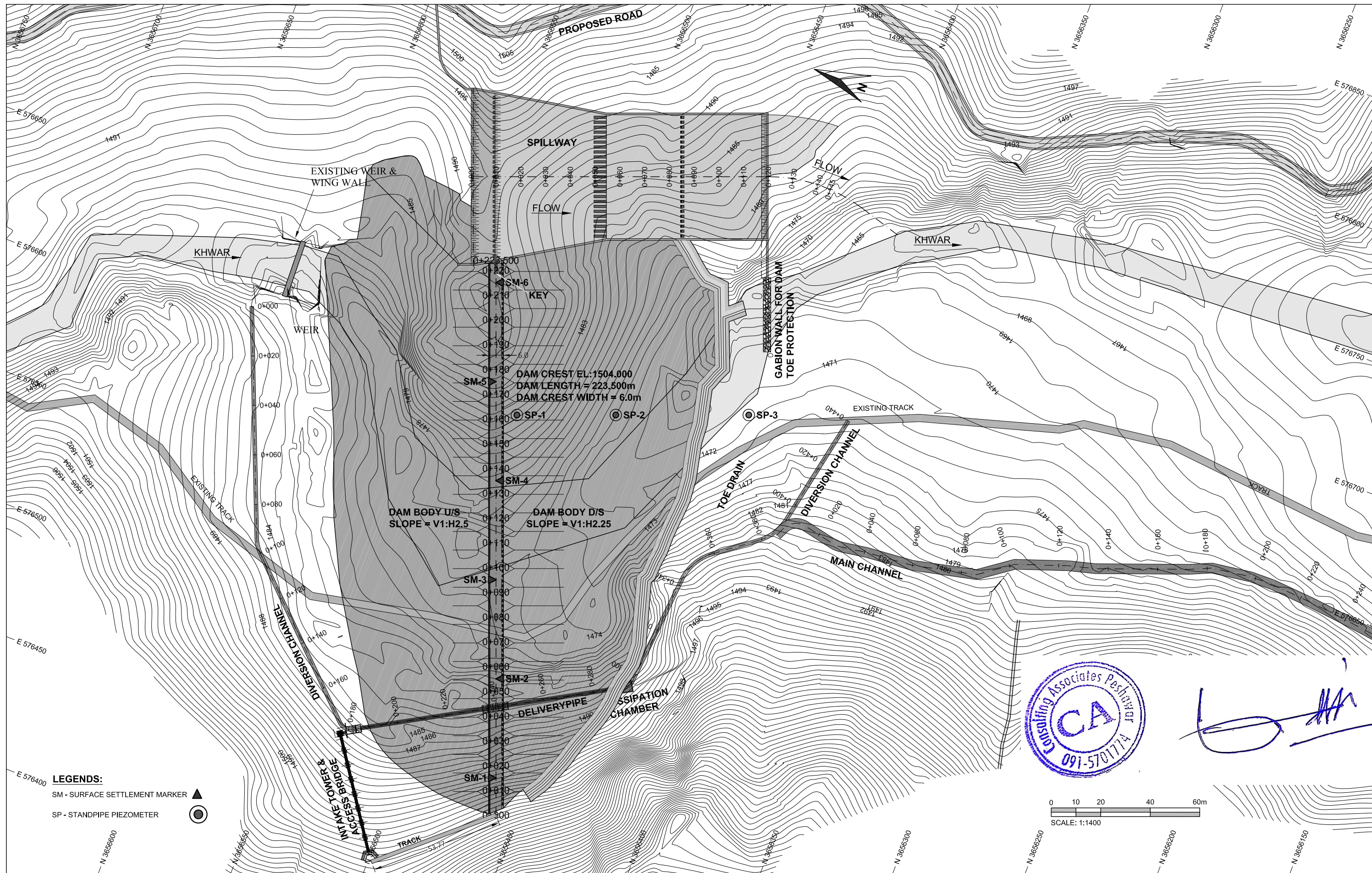
DAM PLAN (WALL DETAIL)



[Handwritten signature]





CLIENT: SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CHG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM NORTH WAZIRISTAN TITLE: DAMS DAM SECTION & PLAN (SEE DETAIL "A") (SHEET 02 OF 02)	SCALE H = 1:450 V = 1:450
							DRAWING NO. CA-PK-IX-DM-03

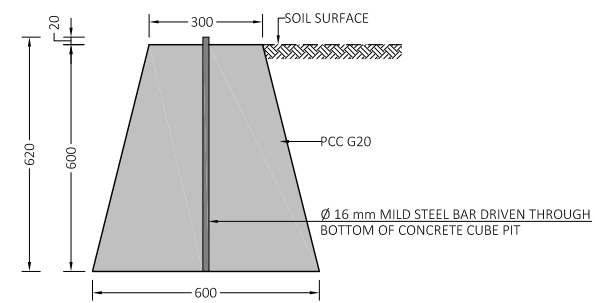


[Handwritten signature]

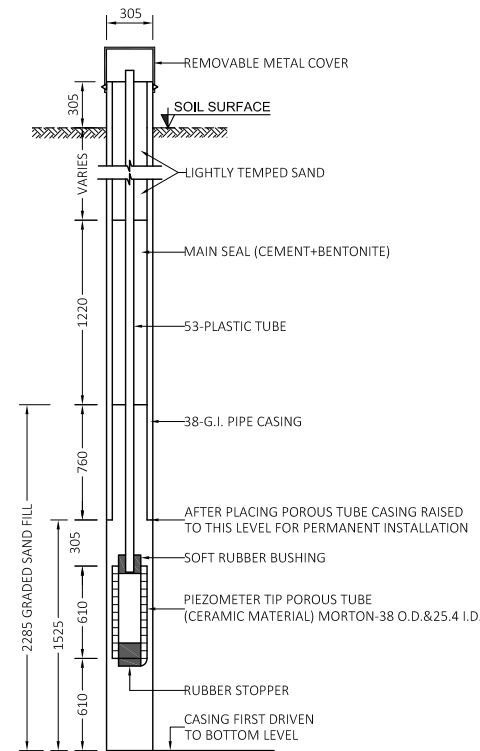


- LEGENDS:**
- SM - SURFACE SETTLEMENT MARKER ▲
 - SP - STANDPIPE PIEZOMETER ●

CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES PESHAWAR IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PESHAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)	SCALE 1:1400





SURFACE SETTLEMENT MARKER TYPICAL DETAIL
SCALE = 1:20



STANDPIPE PIEZOMETER TYPICAL DETAIL
SCALE = 1:50

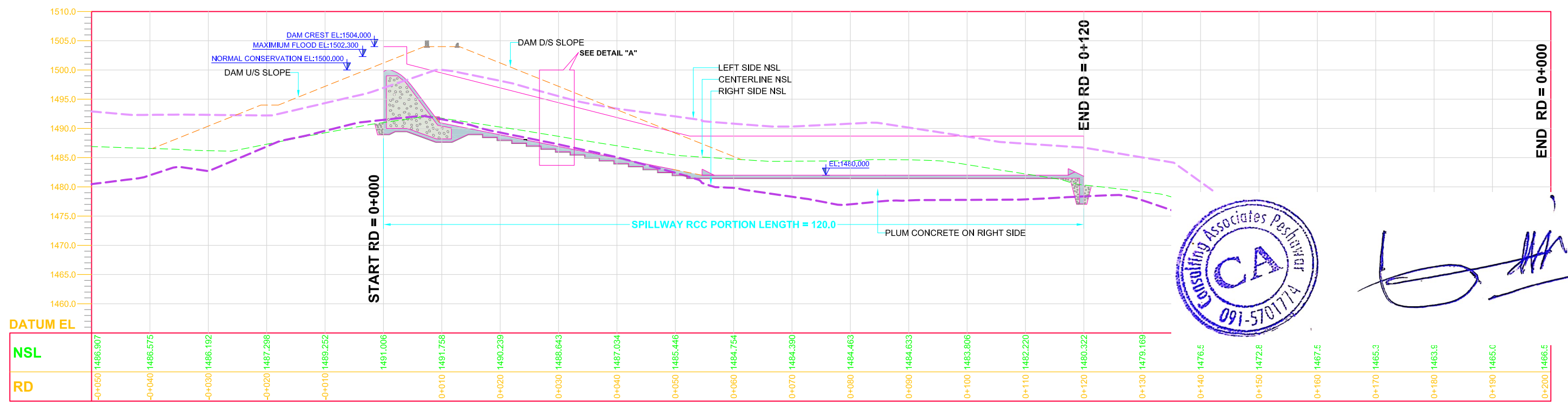
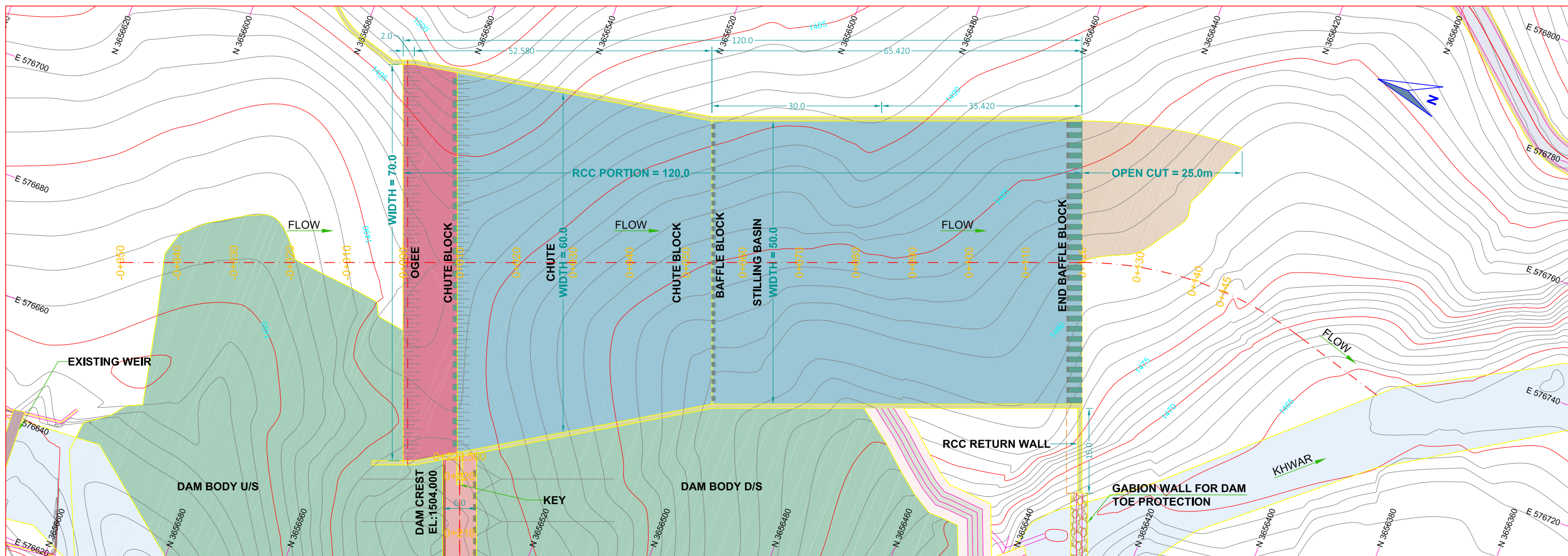


CLIENT:  SMALL DAM SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)	DRAWING NO. CA-PK-IX-DM-05 <small>Scanned with CamScanner</small>	SCALE AS SHOWN

SP-SPILLWAY





A handwritten signature in blue ink, consisting of a large, stylized initial 'L' followed by several vertical strokes and a horizontal line at the end.



GENERAL PLAN & PROFILE OF SPILLWAY

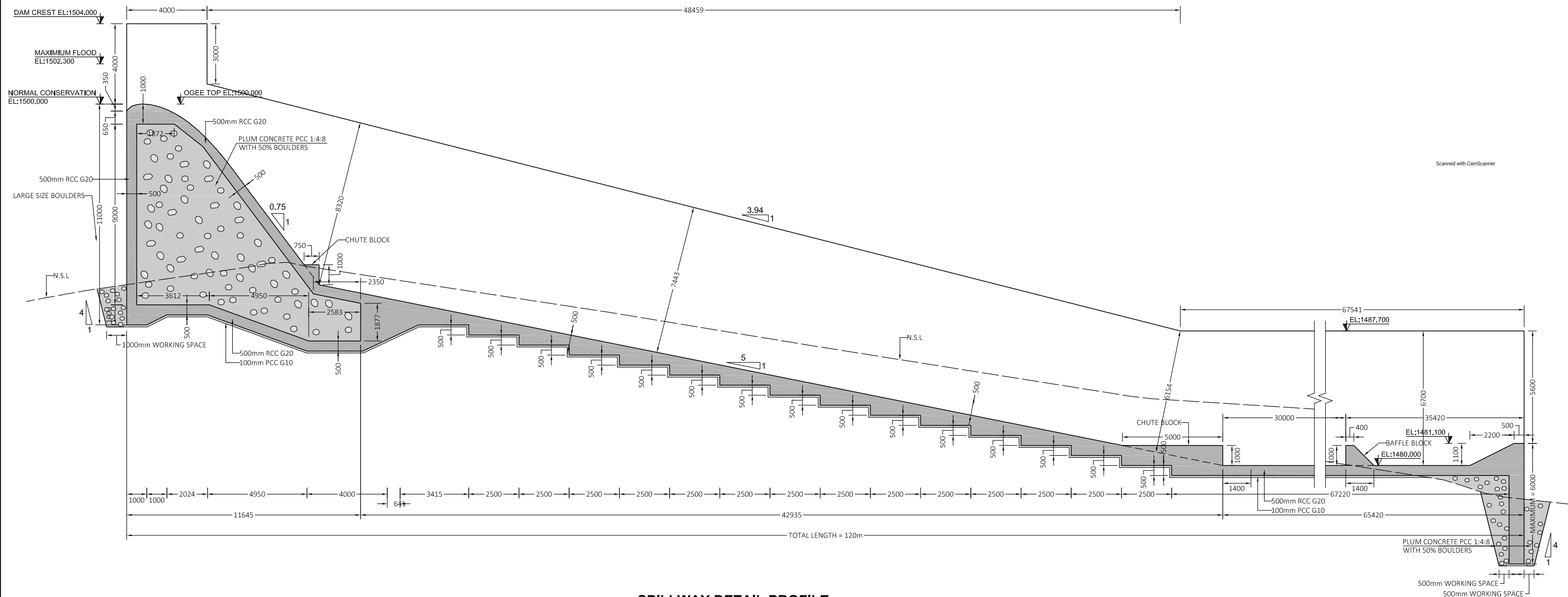


[Handwritten signature]

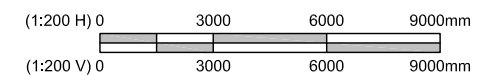
CLIENT:  SMALL DAMS SECTION IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PESHAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN	SCALE H = 700 V = 700



[Handwritten signature]



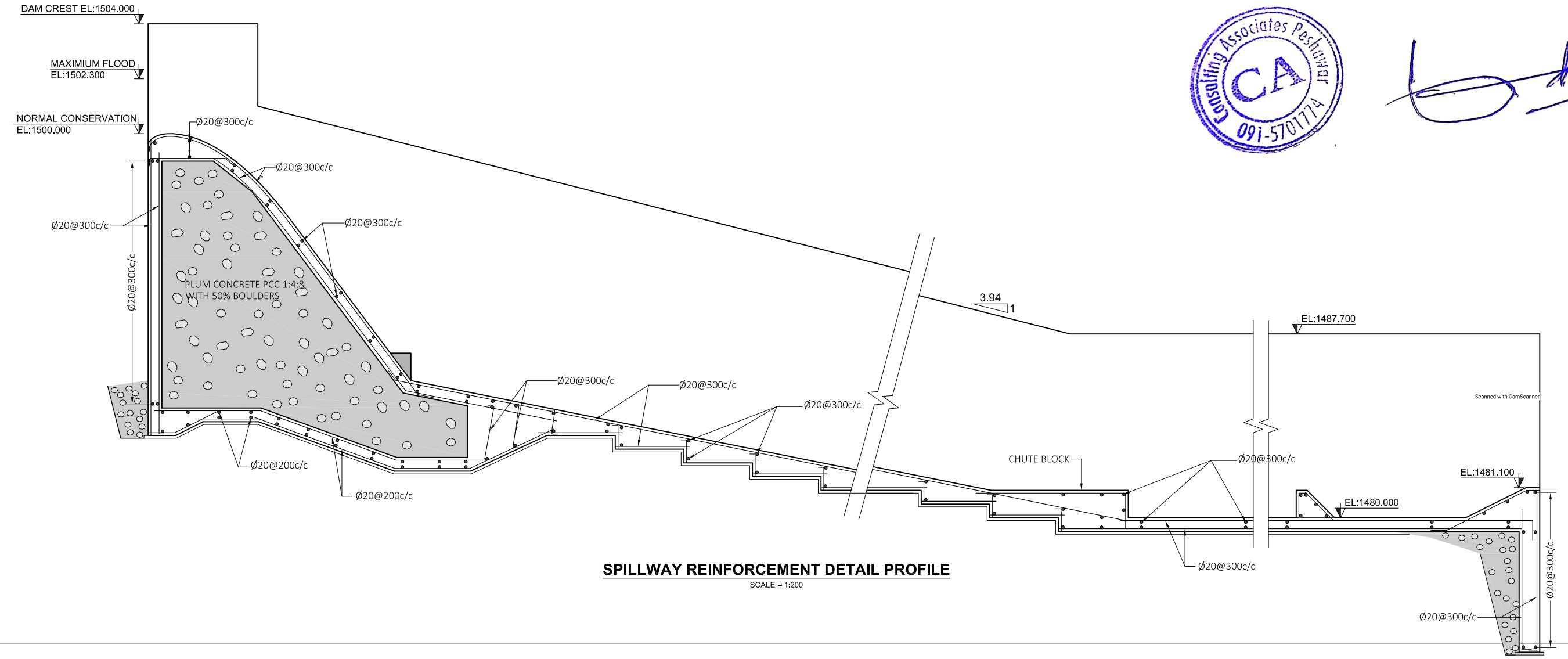
SPILLWAY DETAIL PROFILE
SCALE = 1:200



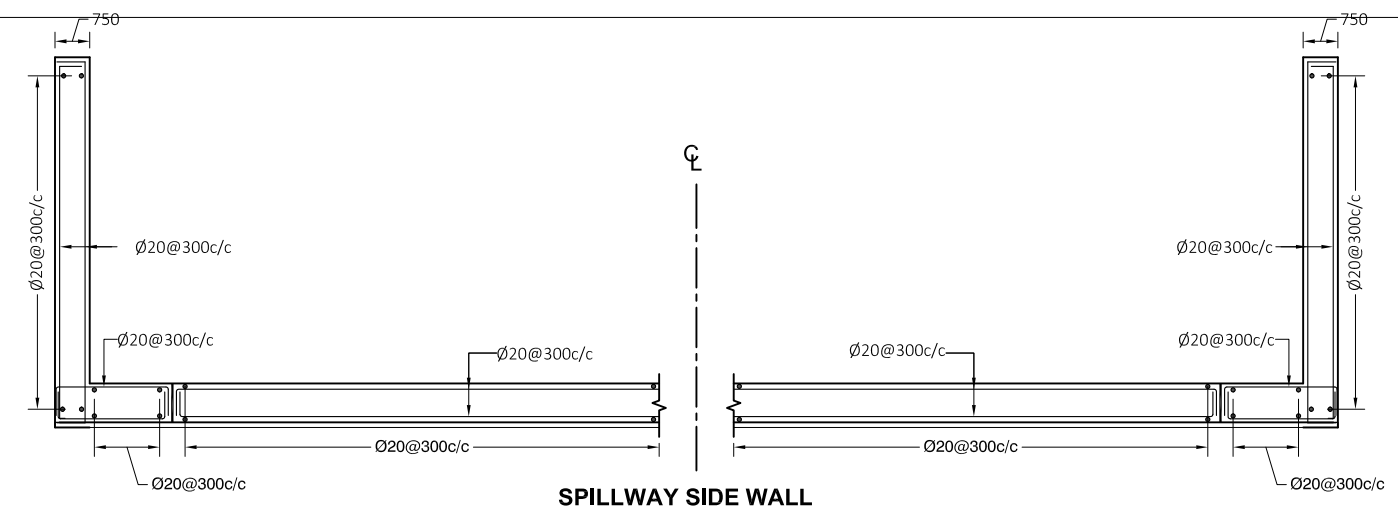
CLIENT: SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultgassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN TITLE: <u>SPILLWAY</u> SPILLWAY DETAIL PROFILE (SHEET 01 OF 01)	SCALE 1:200 DRAWING NO. CA-PK-IX-SP-02	REV 01



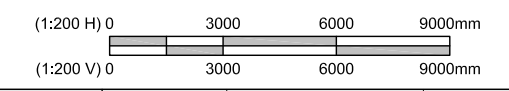
[Handwritten signature]





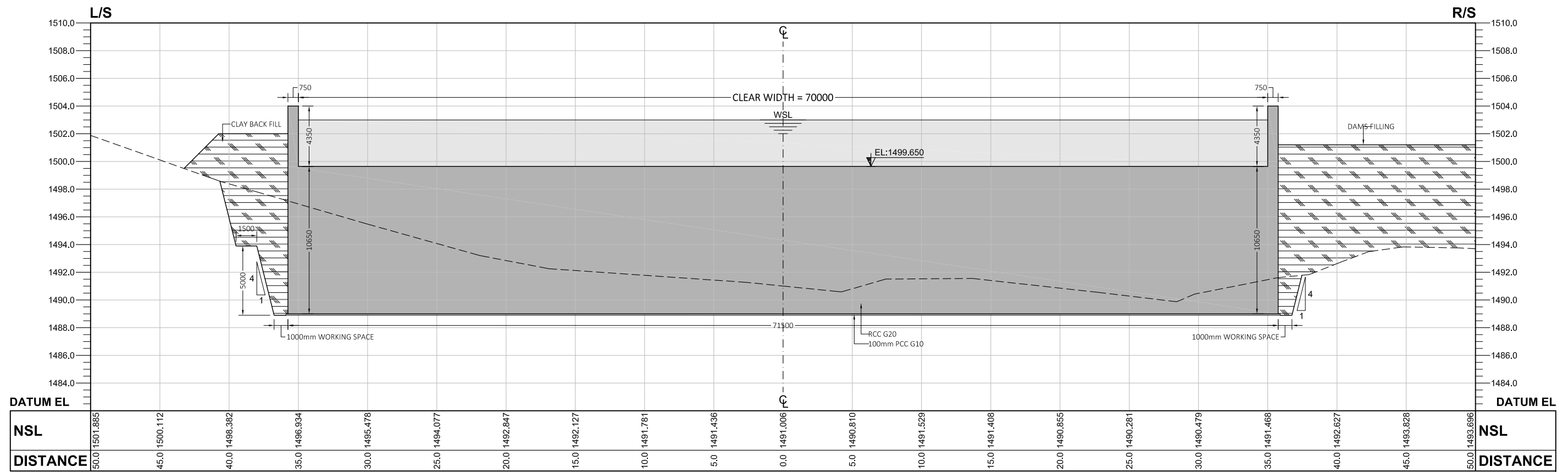
SPILLWAY REINFORCEMENT DETAIL PROFILE
SCALE = 1:200



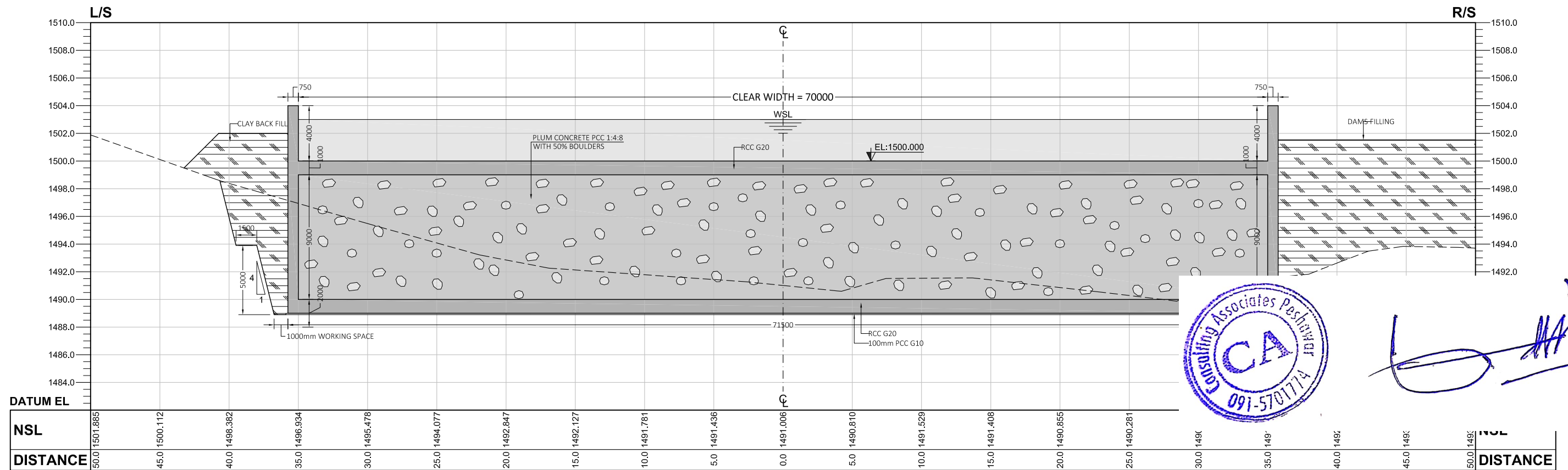
SPILLWAY SIDE WALL REINFORCEMENT DETAILS
SCALE = 1:200



CLIENT:  SMALL DAMS SECTION MERGED AREAS IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)	DRAWING NO. CA-PK-IX-SP-03	SCALE 1:200



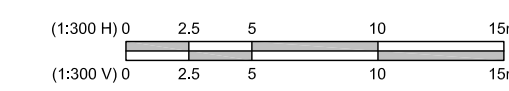
RD = 0+000





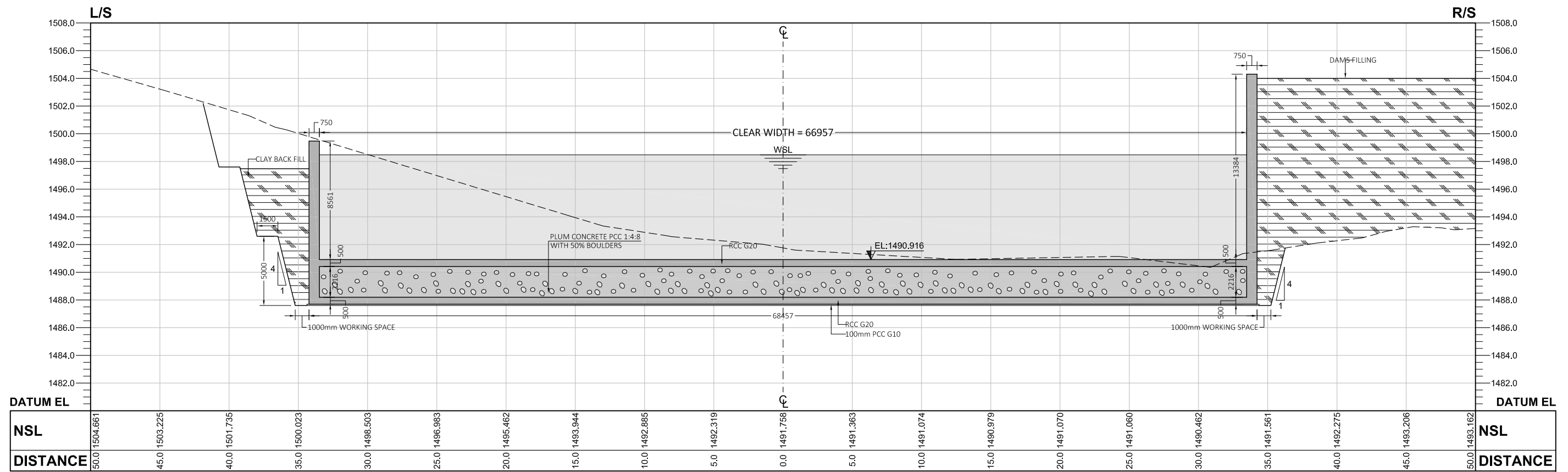
RD = 0+000.810



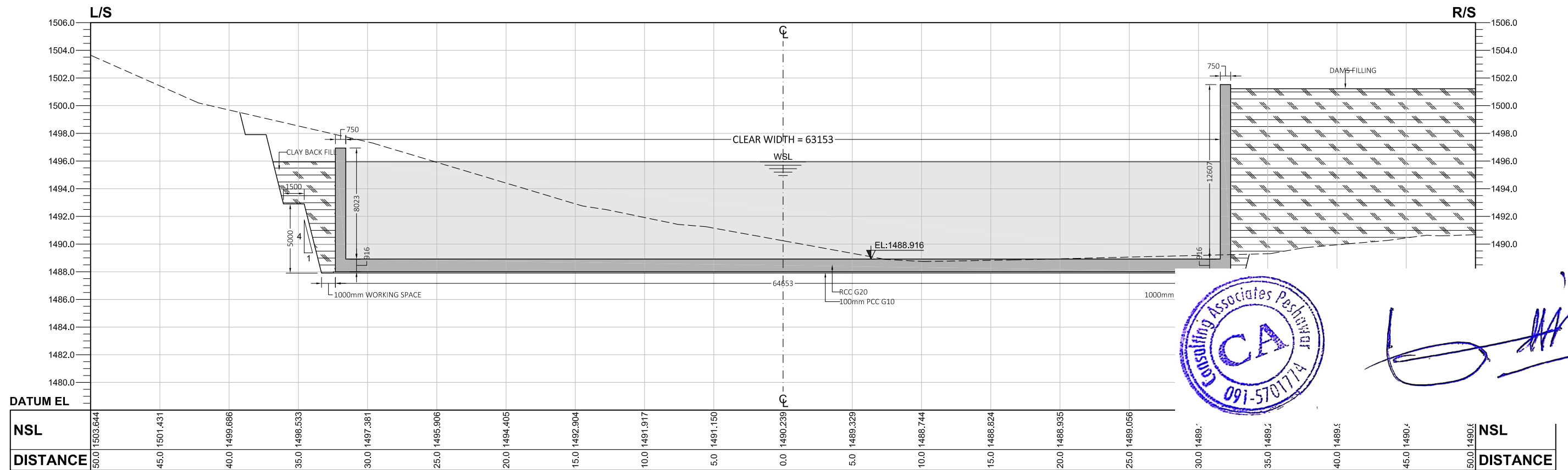
[Handwritten Signature]



CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CHG, JAMRUD ROAD PESHAWAR, PAKISTAN Ph: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultngassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S. SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM- NORTH WAZIRISTAN TITLE: <u>SPILLWAY</u> DETAIL & EXCAVATION SECTIONS (SHEET 01 OF 07)	DRAWING NO. CA-PK-IX-SP-04	SCALE 1:300
								REV



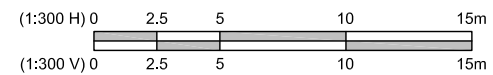
RD = 0+010





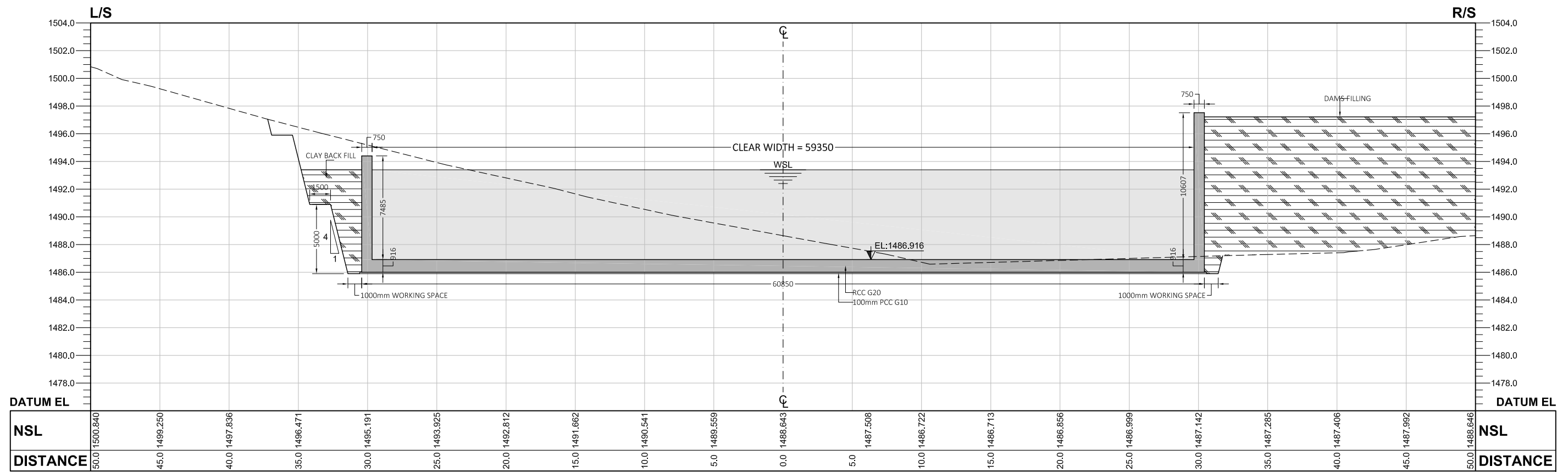
RD = 0+020



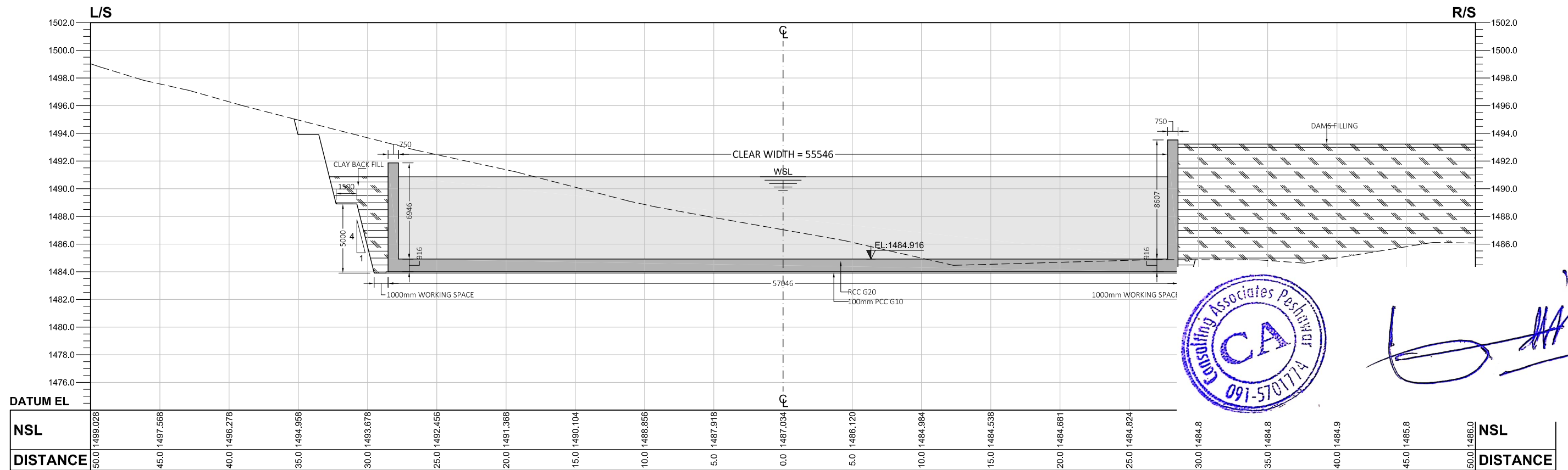
[Handwritten signature]



CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CHG, JAMRUD ROAD PEHSAWAR, PAKISTAN Ph: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultngassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM- NORTH WAZIRISTAN TITLE: <u>SPILLWAY</u> DETAIL & EXCAVATION SECTIONS (SHEET 02 OF 07)	DRAWING NO. CA-PK-IX-SP-05 <small>Scanned with CamScanner</small>	SCALE	REV
								1:300	



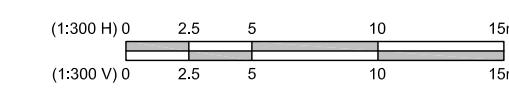
RD = 0+030





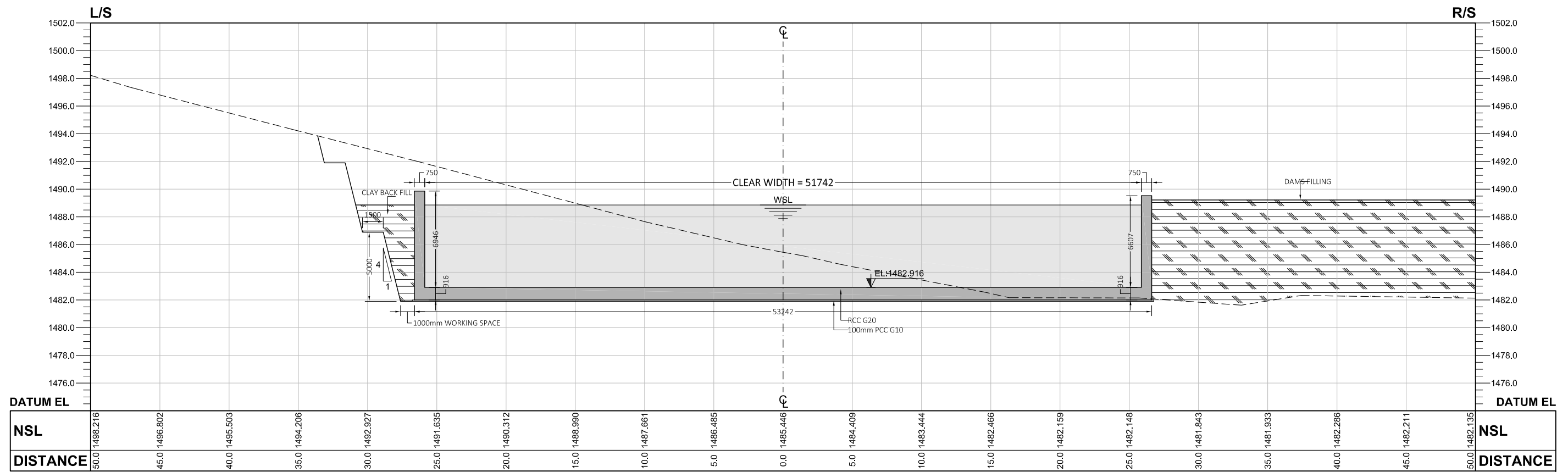
RD = 0+040



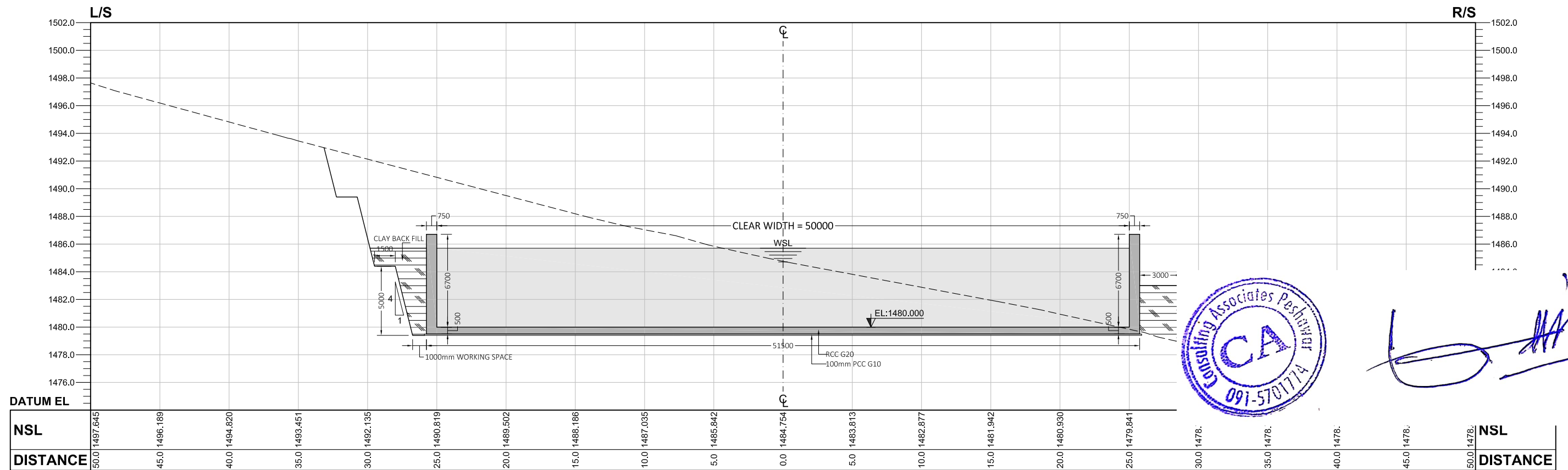
[Handwritten signature]



CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CHG, JAMRUD ROAD PESHAWAR, PAKISTAN Ph: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultngassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM- NORTH WAZIRISTAN TITLE: <u>SPILLWAY</u> DETAIL & EXCAVATION SECTIONS (SHEET 03 OF 07)	SCALE 1:300 DRAWING NO. CA-PK-IX-SP-06 Scanned with CamScanner	REV



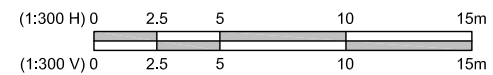
RD = 0+050




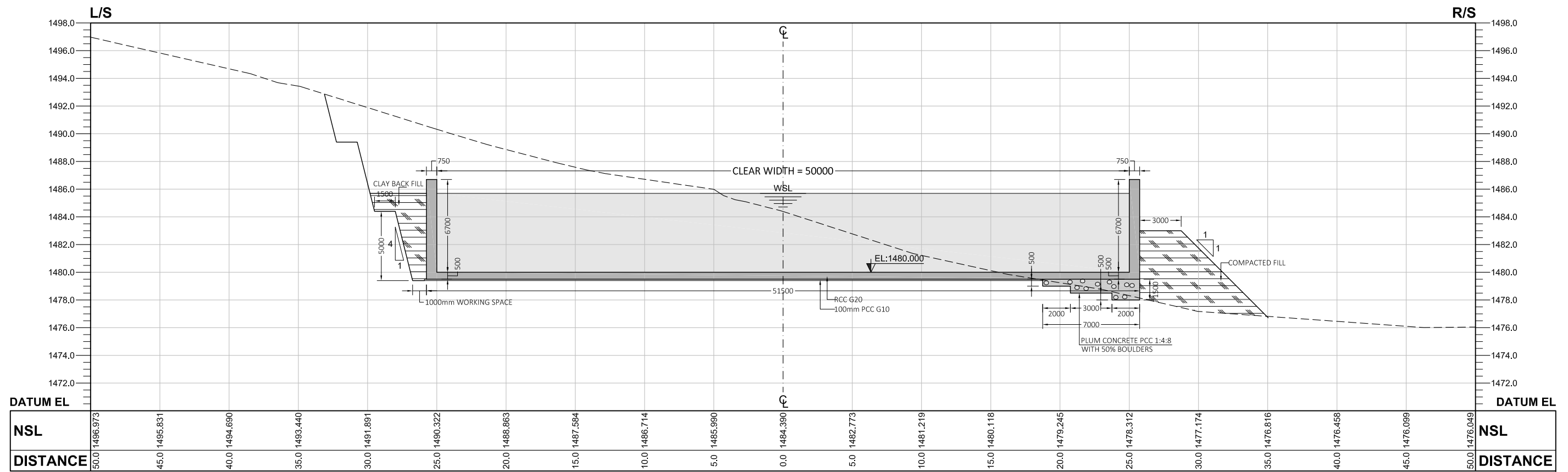
RD = 0+060



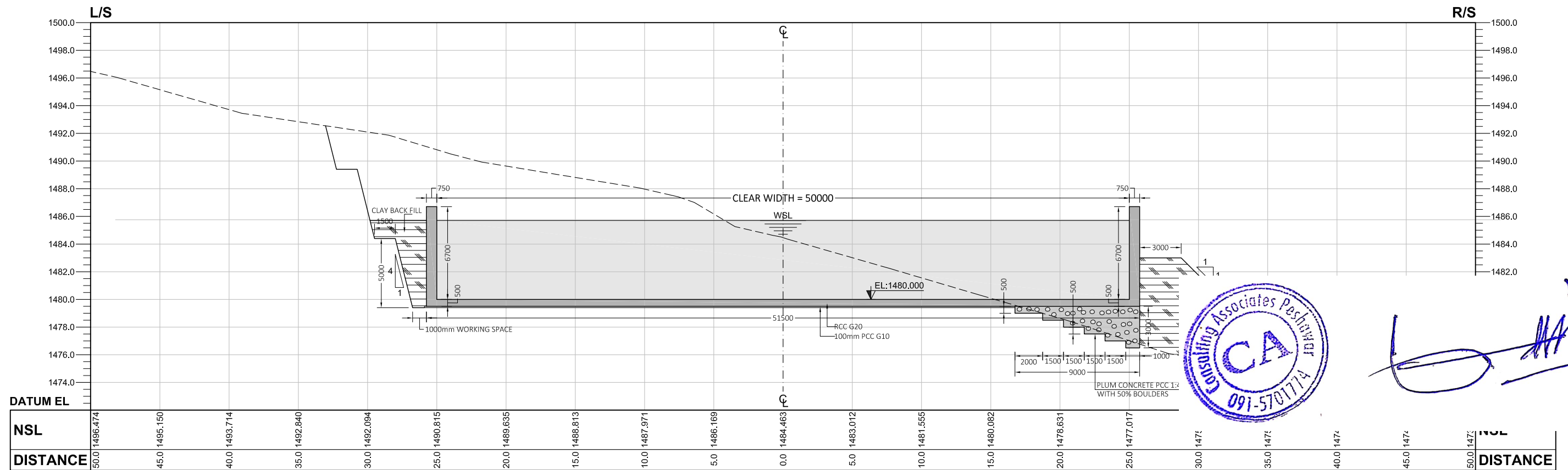
[Handwritten signature]



CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CHG, JAMRUD ROAD PESHAWAR, PAKISTAN Ph: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consult@ngassodates127@gmail.com	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM- NORTH WAZIRISTAN TITLE: SPILLWAY DETAIL & EXCAVATION SECTIONS (SHEET 04 OF 07)	DRAWING NO. CA-PK-IX-SP-07 <small>Scanned with CamScanner</small>	SCALE 1:300
								REV



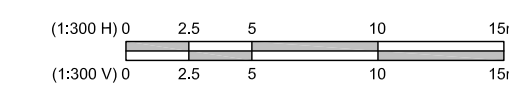
RD = 0+070




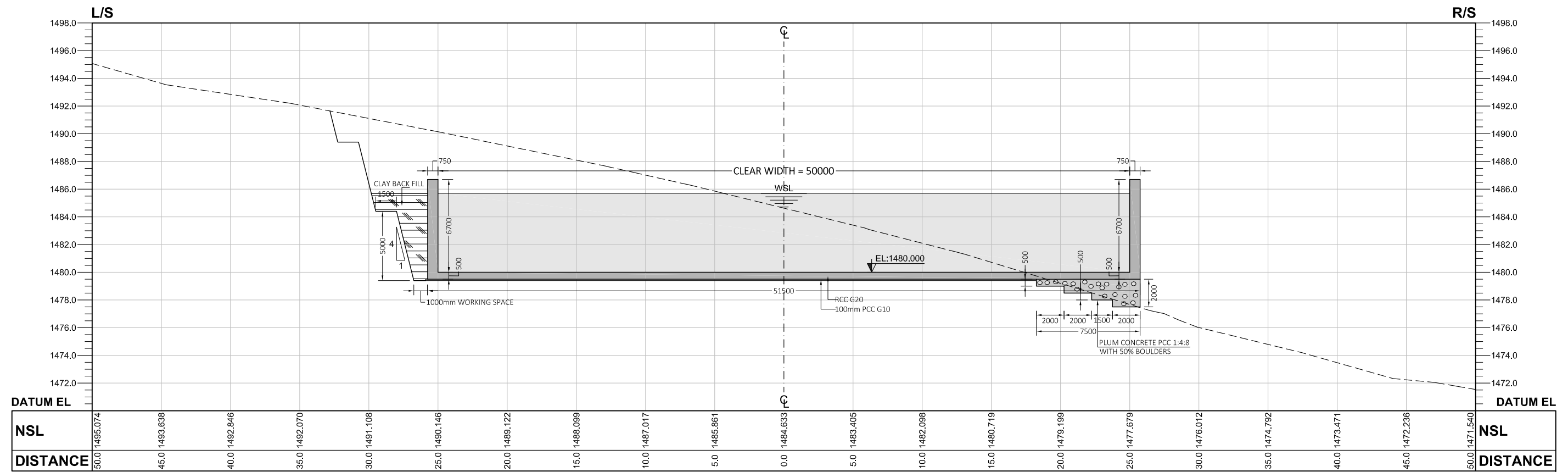
RD = 0+080



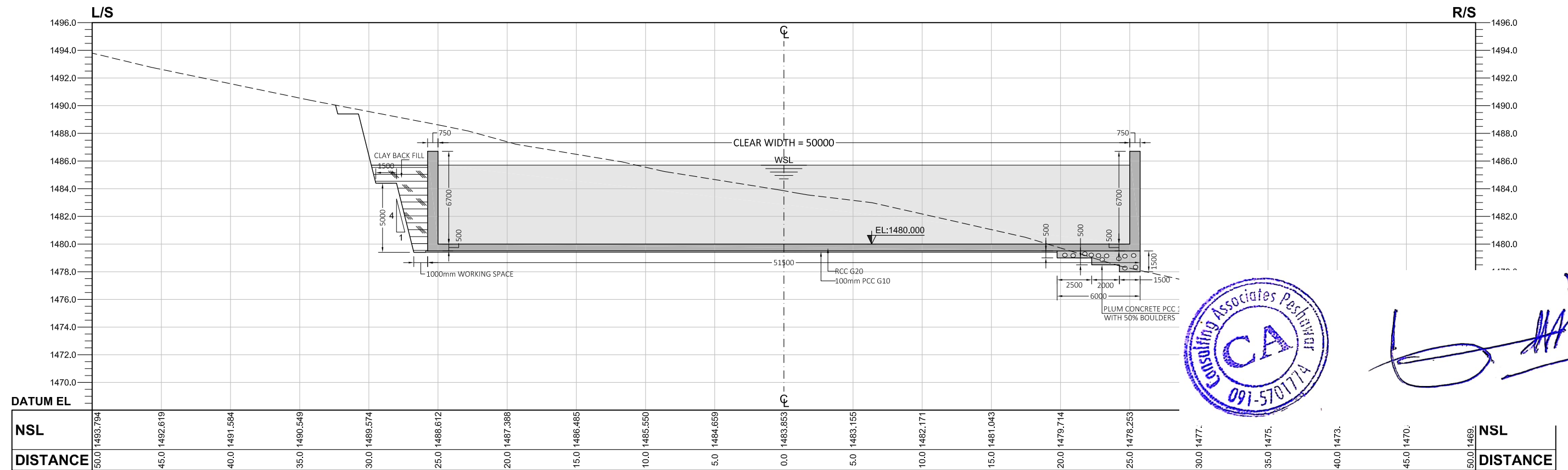
[Handwritten signature]



CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CHG, JAMRUD ROAD PESHAWAR, PAKISTAN Ph: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S. SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM- NORTH WAZIRISTAN TITLE: SPILLWAY DETAIL & EXCAVATION SECTIONS (SHEET 05 OF 07)	SCALE 1:300 DRAWING NO. CA-PK-IX-SP-08	REV 01



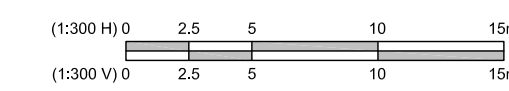
RD = 0+090





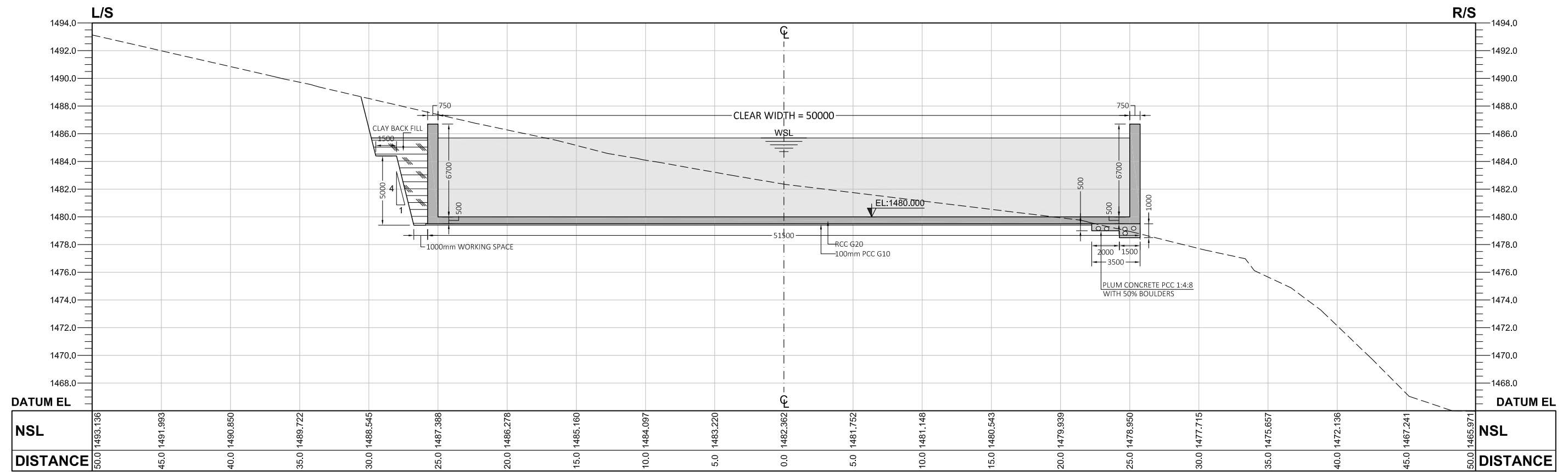
RD = 0+100



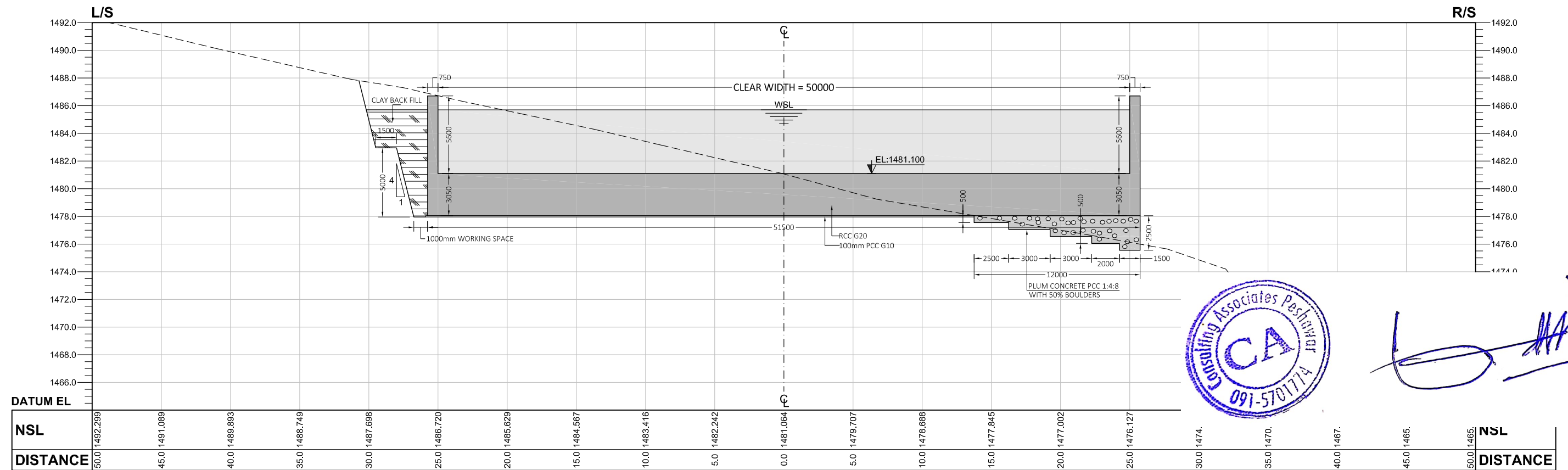
[Handwritten signature]



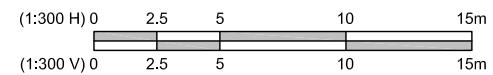
CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CHG, JAMRUD ROAD PESHAWAR, PAKISTAN Ph: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM- NORTH WAZIRISTAN TITLE: <u>SPILLWAY</u> DETAIL & EXCAVATION SECTIONS (SHEET 06 OF 07)	SCALE 1:300 DRAWING NO. CA-PK-IX-SP-09 <small>Scanned with CamScanner</small>	REV





RD = 0+110



RD = 0+120



[Handwritten signature]

CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CHG, JAMRUD ROAD PESHAWAR, PAKISTAN Ph: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultgassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM- NORTH WAZIRISTAN TITLE: <u>SPILLWAY</u> DETAIL & EXCAVATION SECTIONS (SHEET 07 OF 07)	SCALE 1:300 DRAWING NO. CA-PK-IX-SP-10 <small>Scanned with CamScanner</small>	REV

DC-DIVERSION CHANNEL

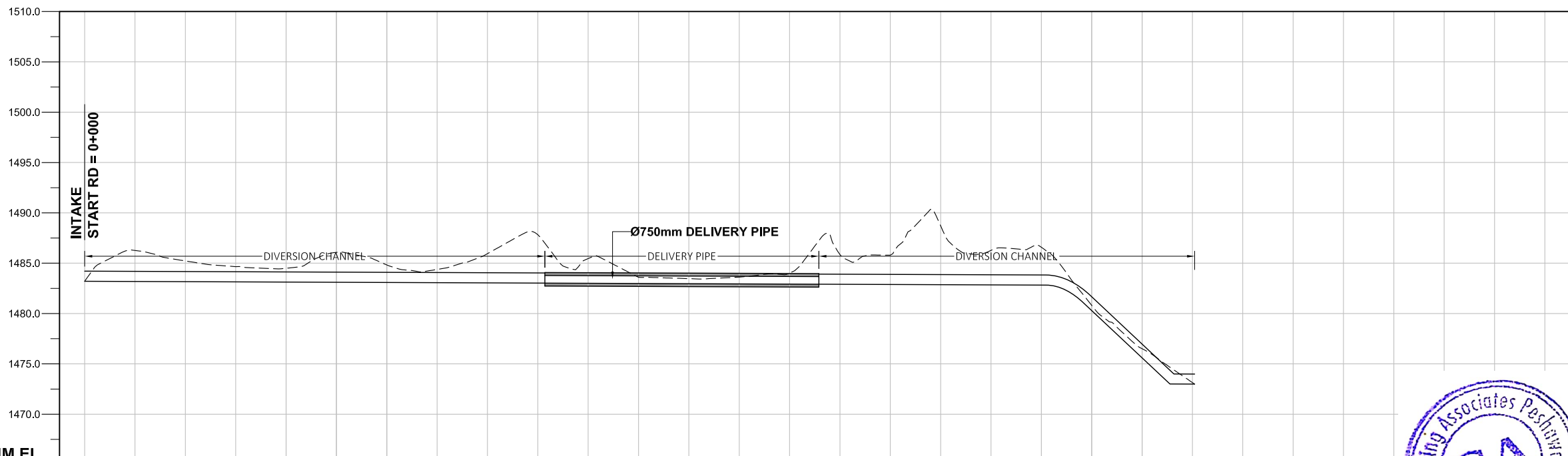


A handwritten signature in blue ink, consisting of a large, stylized initial 'L' followed by several vertical strokes.



LEGENDS:

- DESIGN BED LEVEL ————
- NATURAL SURFACE LEVEL - - - - -
- INDEX CONTOUR ———— 1500 ————
- INTERMEDIATE CONTOUR ———— 1501 ————
- PROPOSED MAIN CANAL [Symbol]
- ROAD OR KACHA TRACK [Symbol]
- RIVER OR KHWAR [Symbol]
- NULLAH [Symbol]
- HOUSE [Symbol]
- VILLAGE [Symbol]
- GRAVE YARD [Symbol]
- CULTIVATED LAND [Symbol]
- BRIDGE OR CULVERT [Symbol]
- ELECTRIC POLE [Symbol]
- OUTLET [Symbol]
- BENCH MARK [Symbol]



ABBREVIATIONS OF DRAWING

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CANAL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03

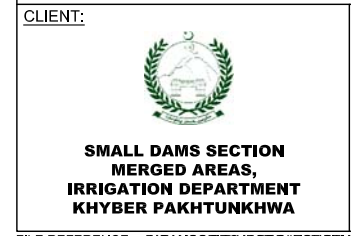
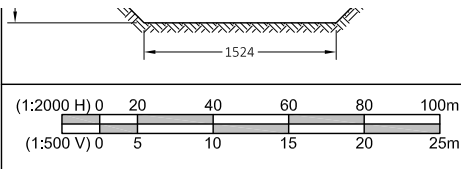
DATUM EL

Design parameters → $n = 0.035 / Q = 50.00 \text{ Cusecs} / V = 0.60 \text{ m/s}, W = 1523.00\text{mm}, D = 914.00\text{mm}, S = 1:1000$ →

DBL	NSL	RD
1483.209	1483.209	0+000
1483.189	1486.264	0+020
1483.169	1485.223	0+040
1483.149	1484.656	0+060
1483.129	1484.495	0+080
1483.109	1486.076	0+100
1483.089	1484.818	0+120
1483.069	1484.382	0+140
1483.049	1485.942	0+160
1483.029	1487.823	0+180
1483.009	1485.459	0+200
1482.989	1483.597	0+220
1482.969	1483.462	0+240
1482.949	1483.620	0+260
1482.929	1484.016	0+280
1482.909	1485.845	0+300
1482.889	1485.793	0+320
1482.869	1488.708	0+340
1482.849	1486.277	0+360
1482.829	1486.585	0+380
1480.292	1480.813	0+400
1475.597	1476.507	0+420
1472.983	1473.146	0+440



[Handwritten signature]



CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com

REV	DESCRIPTION	DATE

NOTES:
1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM- NORTH WAZIRISTAN

TITLE:
DIVERSION CHANNEL

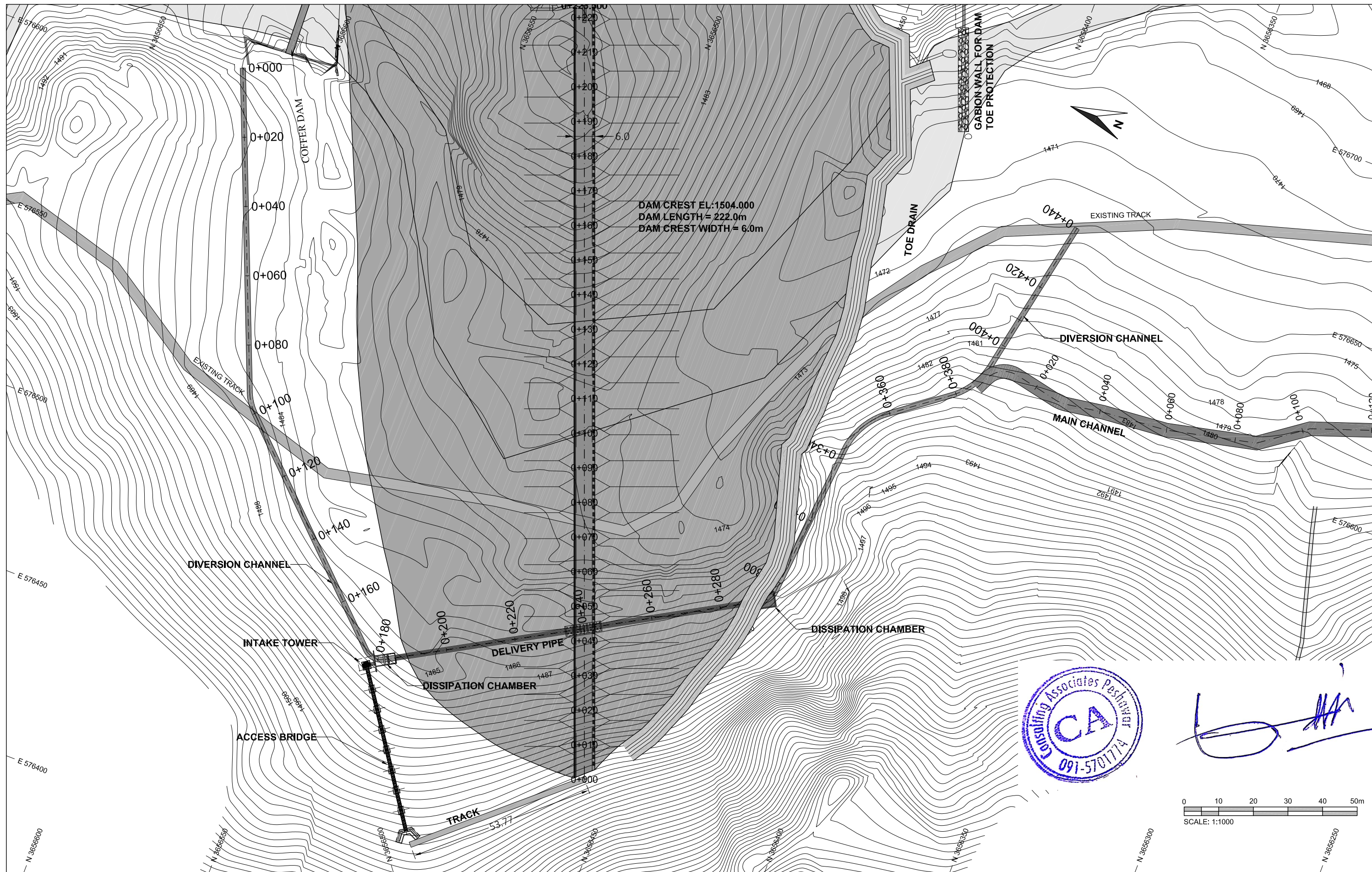
DIVERSION CHANNEL PLAN & PROFILE (RD = 0+000 TO 0+440)
(SHEET 01 OF 01)

SCALE H = 1:2000 V = 1:500
DRAWING NO. CA-PK-IX-ZG-DC-01
REV

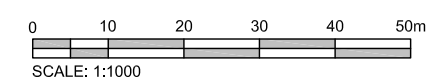
IA-INTAKE TOWER & ACCESS BRIDGE




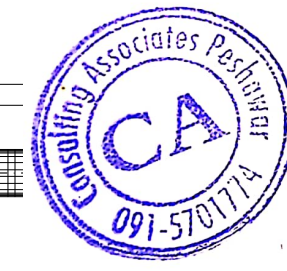
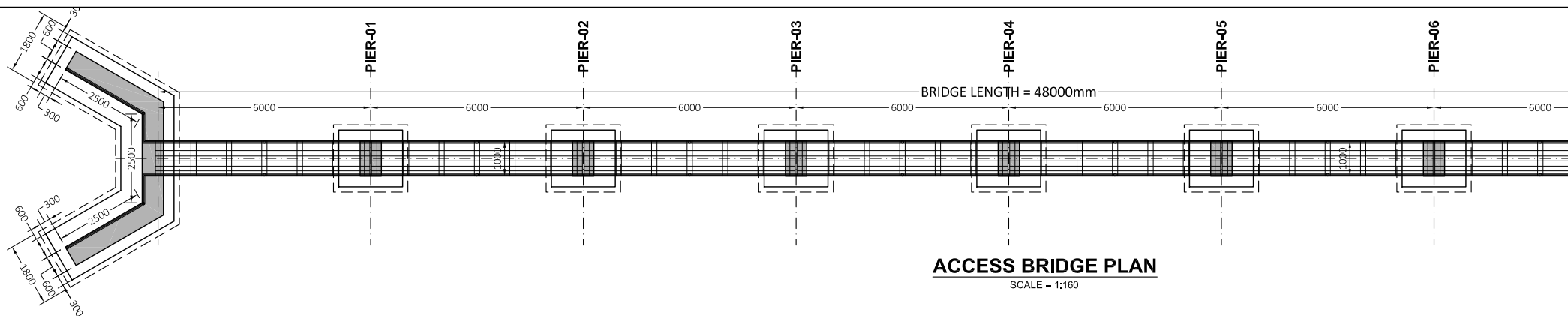
A handwritten signature in blue ink, appearing to be "L. M. M.", written over a horizontal line.



[Handwritten signature]

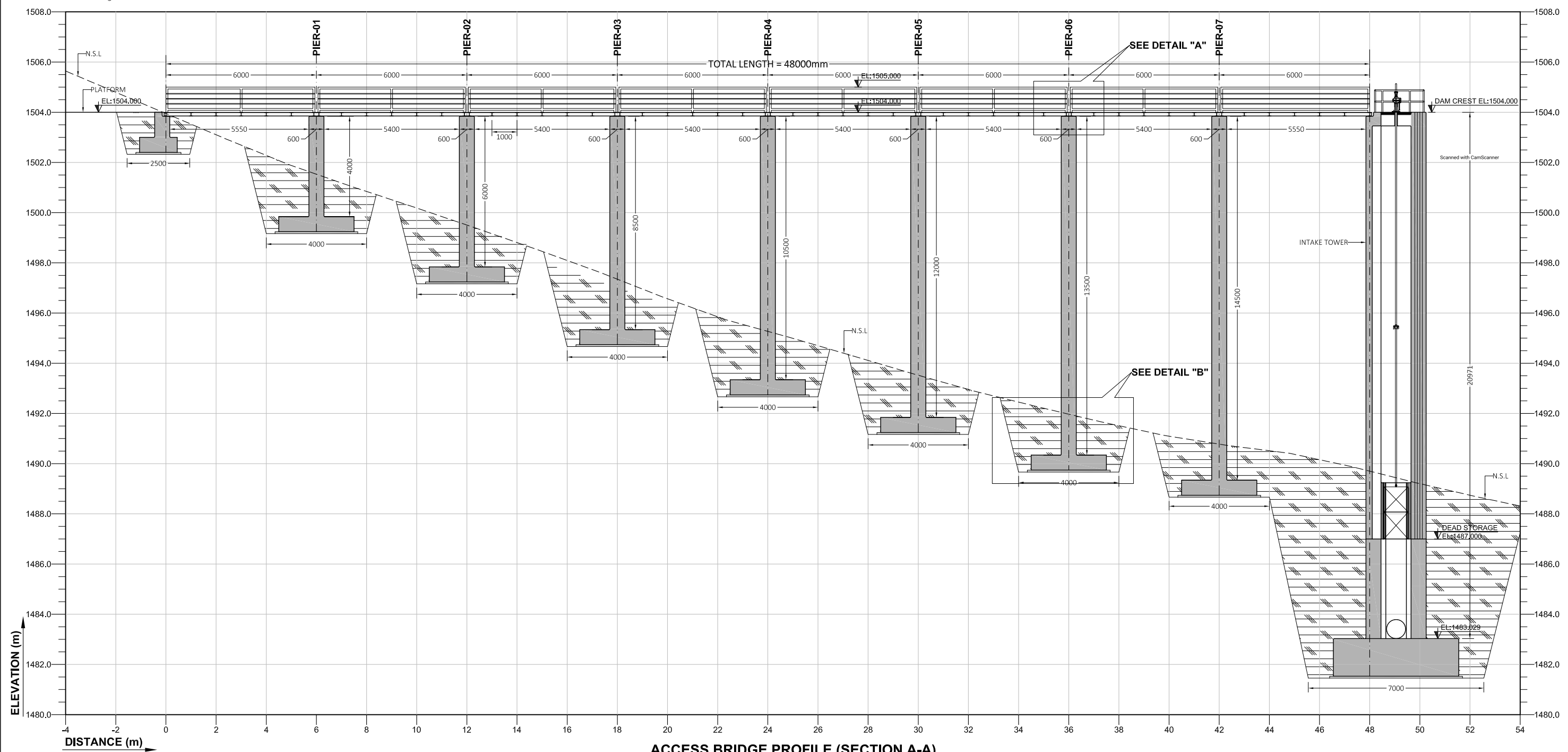


CLIENT:  GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com	REV 	DESCRIPTION 	DATE 	NOTES: 1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM- NORTH WAZIRISTAN	SCALE 1:1000
	TITLE: INTAKE TOWER & ACCESS BRIDGE INTAKE TOWER & ACCESS BRIDGE (SHEET 01 OF 01)	DRAWING NO. CA-PK-IX-IA-01	REV				





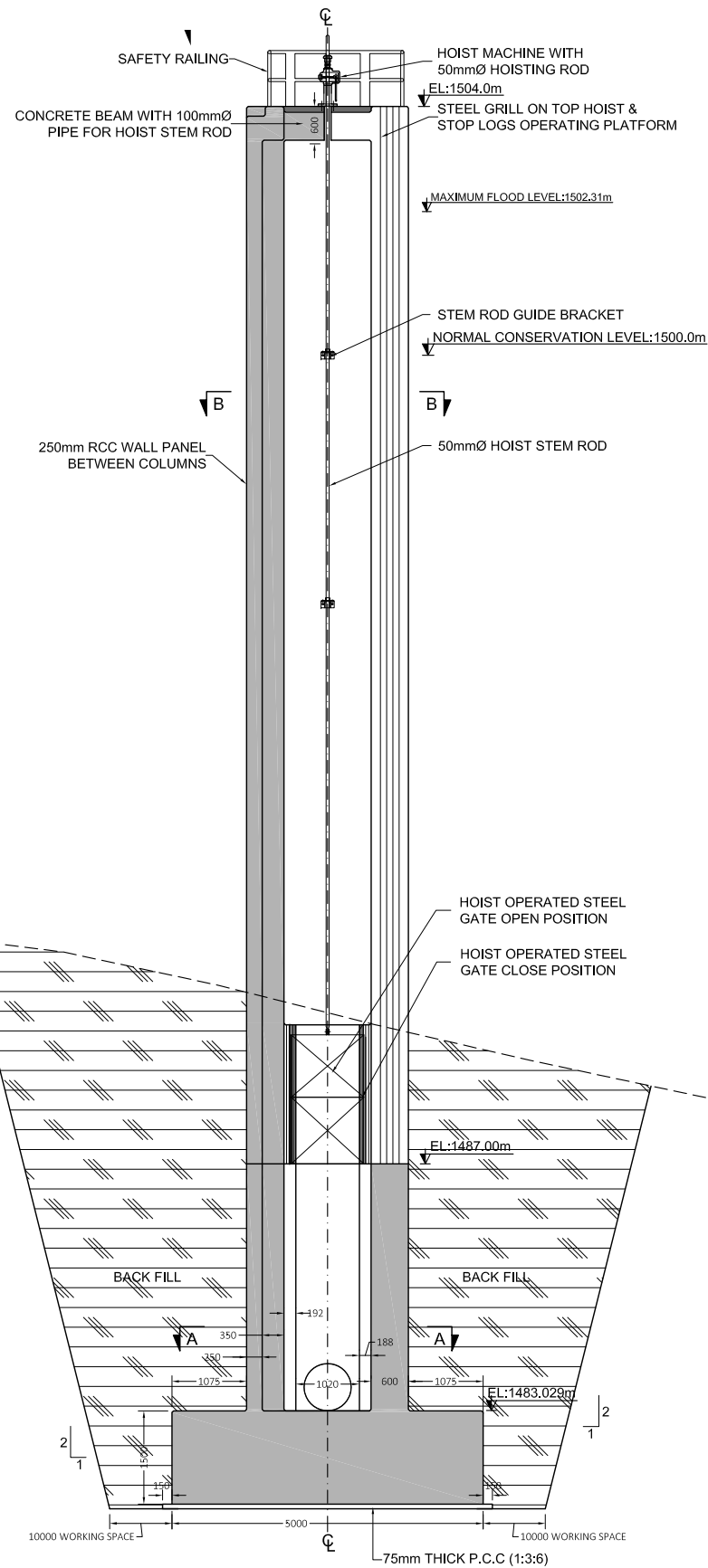
Handwritten signature and initials in blue ink.

ACCESS BRIDGE PLAN
SCALE = 1:160

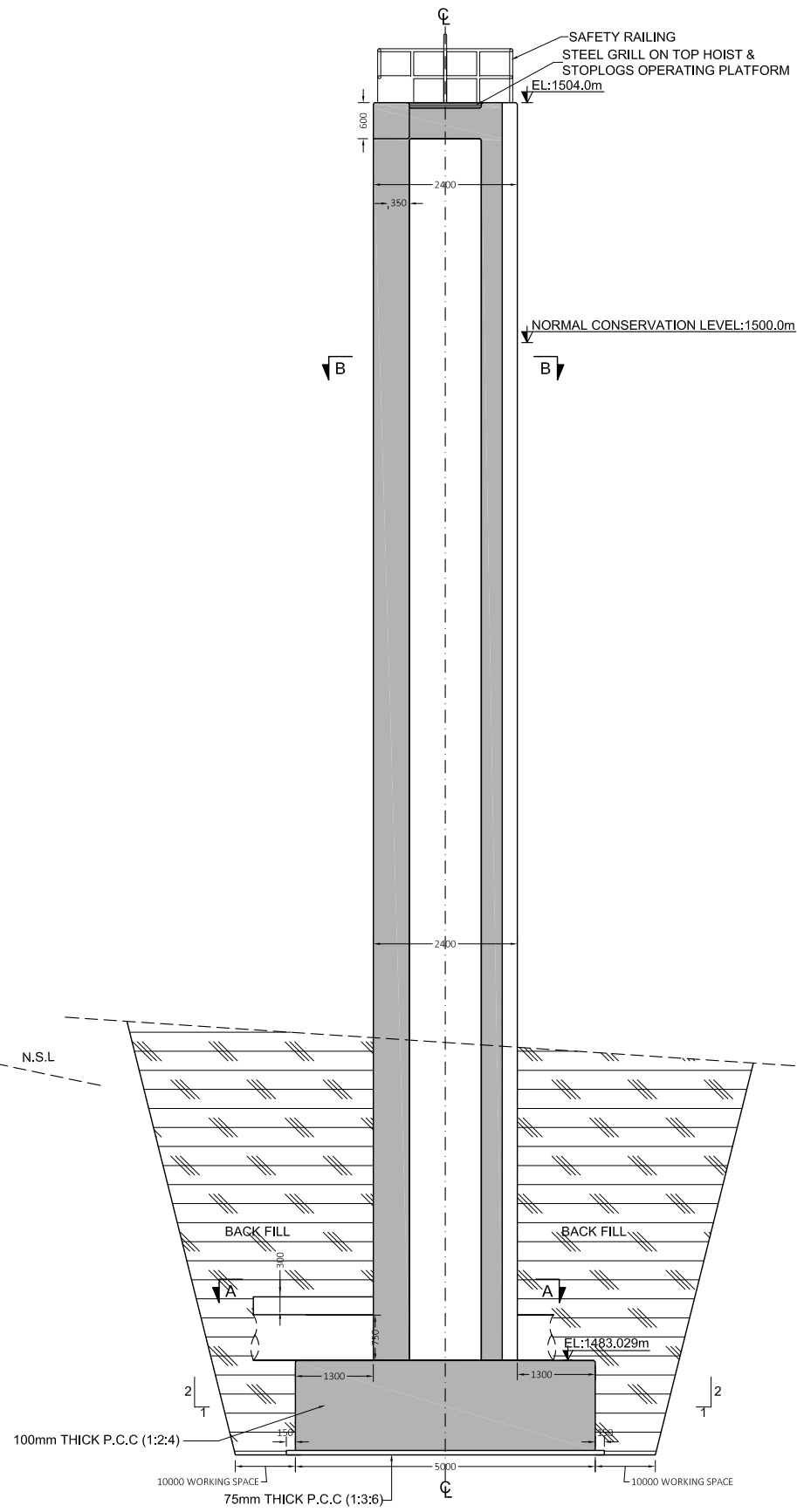


ACCESS BRIDGE PROFILE (SECTION A-A)
SCALE = 1:160

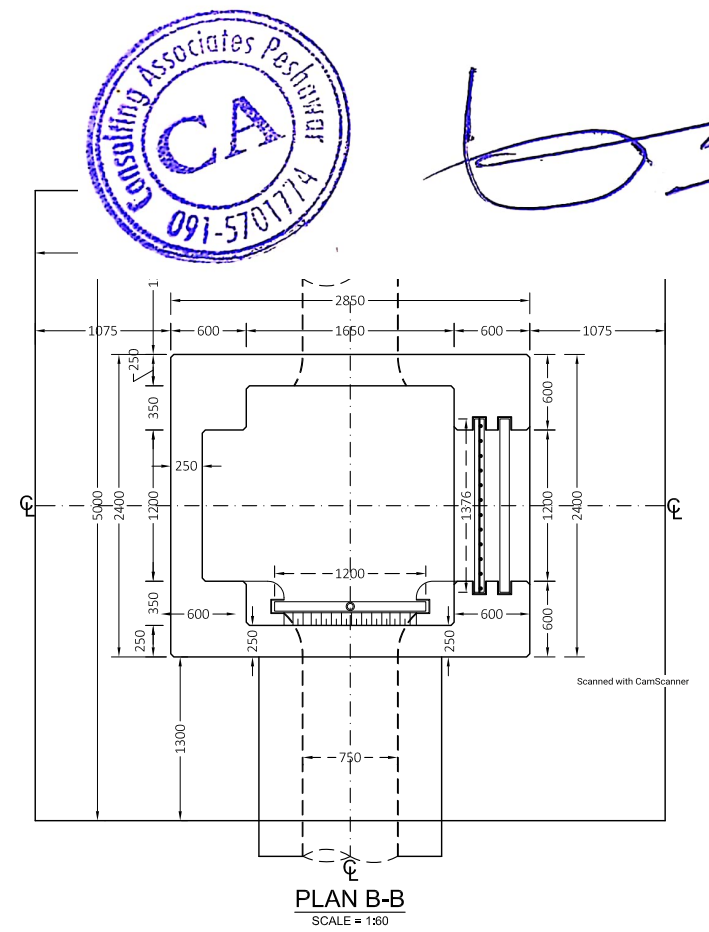
CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN) TITLE: INTAKE TOWER & ACCESS BRIDGE ACCESS BRIDGE GENERAL PLAN & PROFILE (SHEET 01 OF 01)	SCALE 1:160



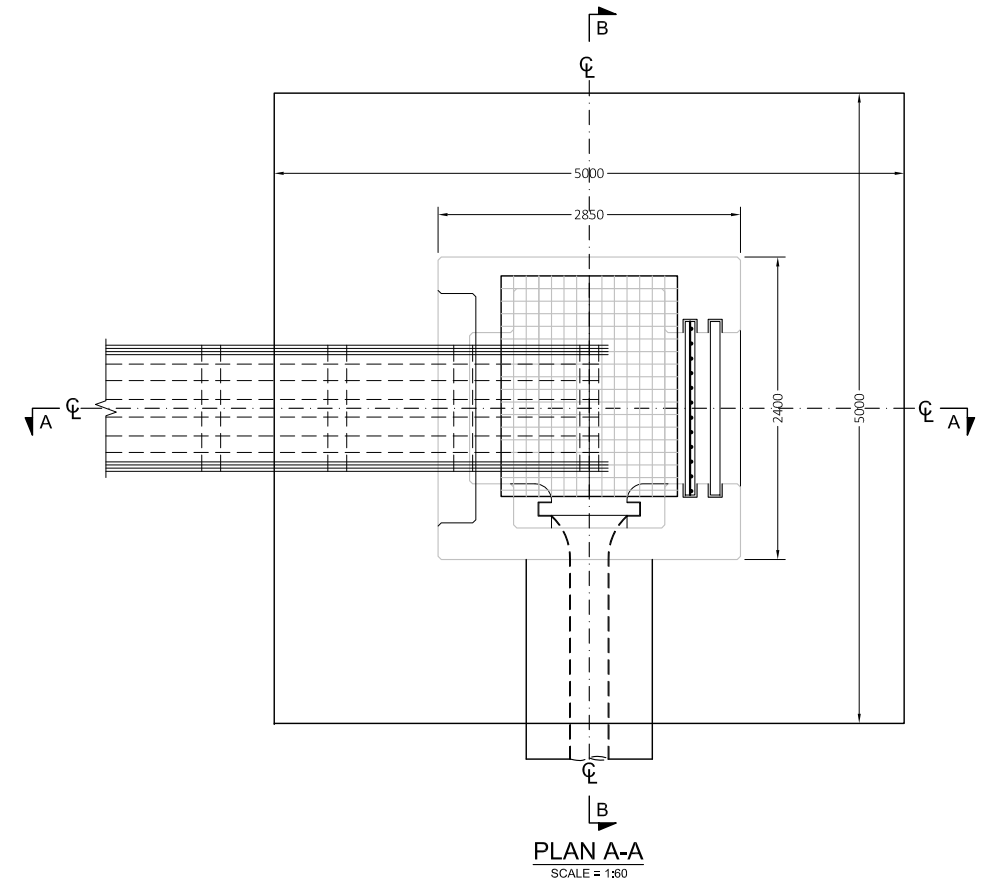
SECTIONAL ELEVATION A-A (ON PLAN A-A & B-B)
SCALE: 1:110




SECTIONAL ELEVATION B-B (ON PLAN A-A & B-B)
SCALE: 1:110



PLAN B-B
SCALE = 1:300



PLAN A-A
SCALE = 1:300

CLIENT:

**SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA**

CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com

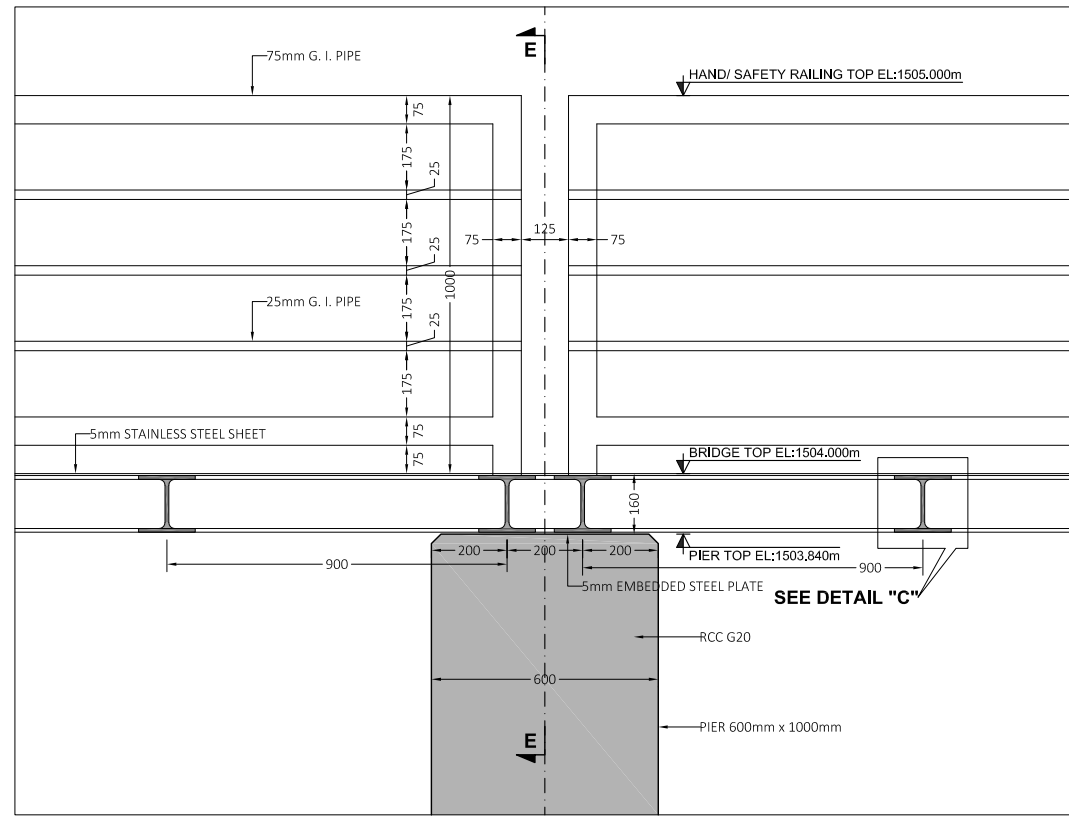


REV	DESCRIPTION	DATE

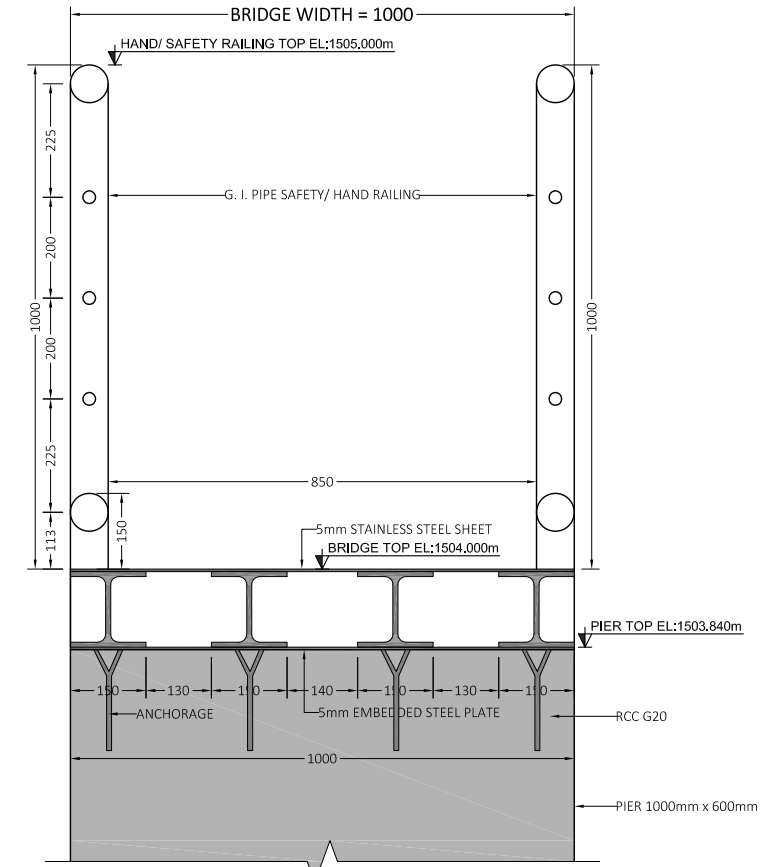
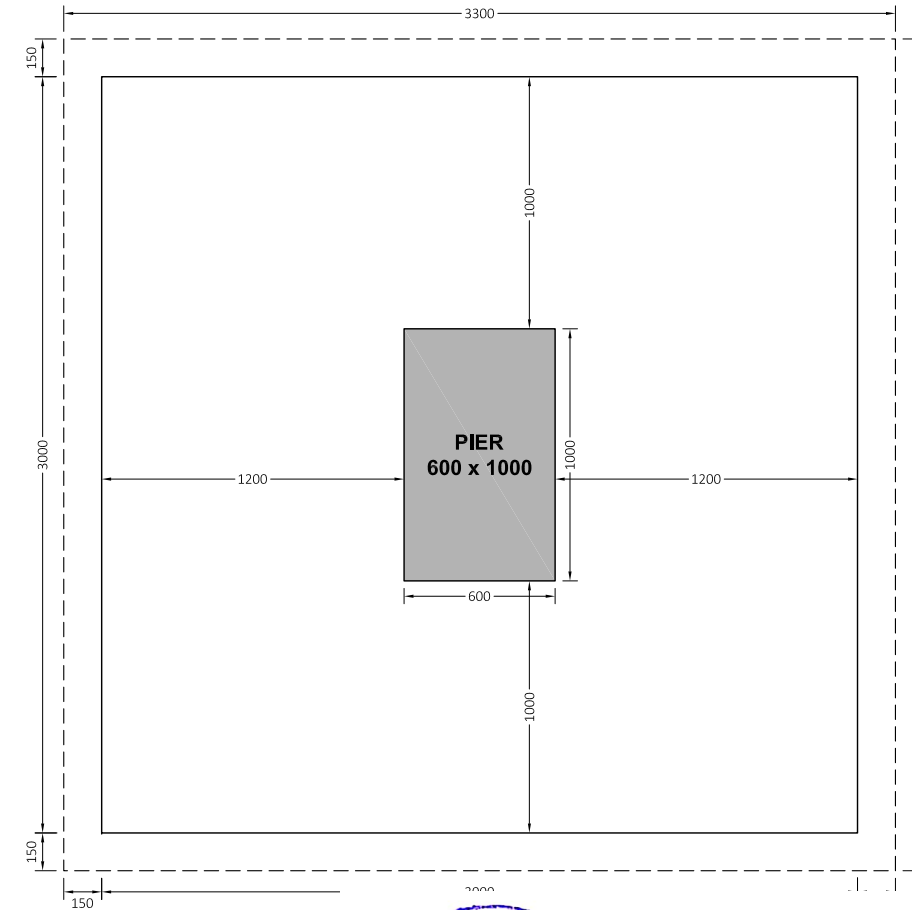
NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)
TITLE: **INTAKE TOWER & ACCESS BRIDGE**
INTAKE TOWER DETAIL PLAN & SECTIONS
(SHEET 01 OF 01)

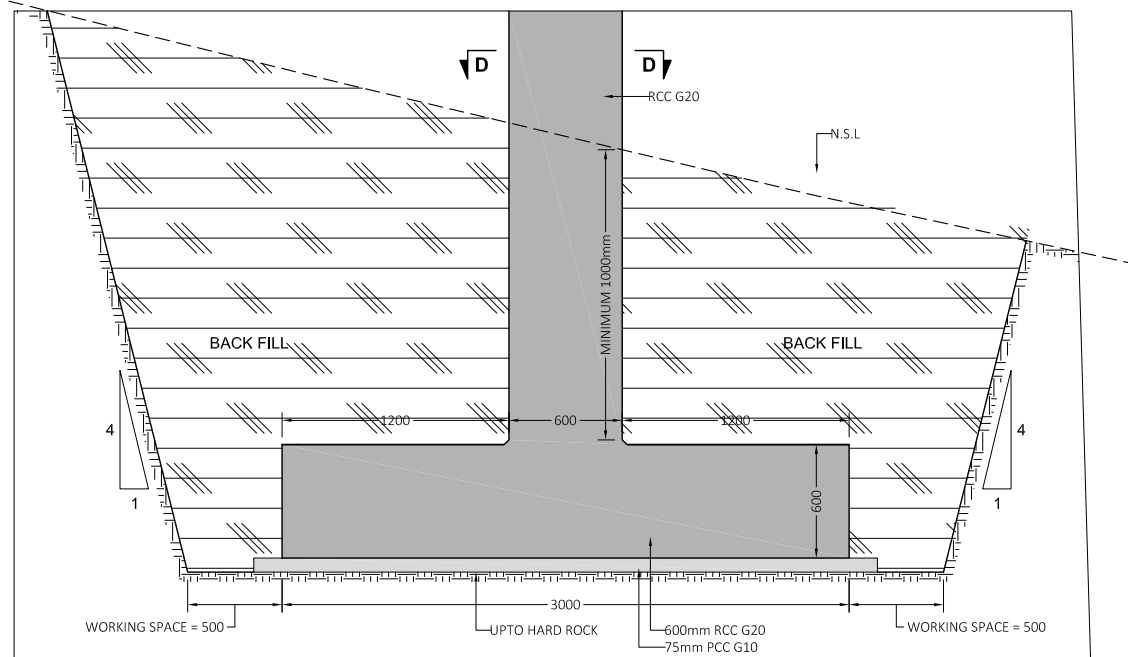
DRAWING NO.	REV	SCALE AS SHOWN
CA-PK-IX-IA-03	01	



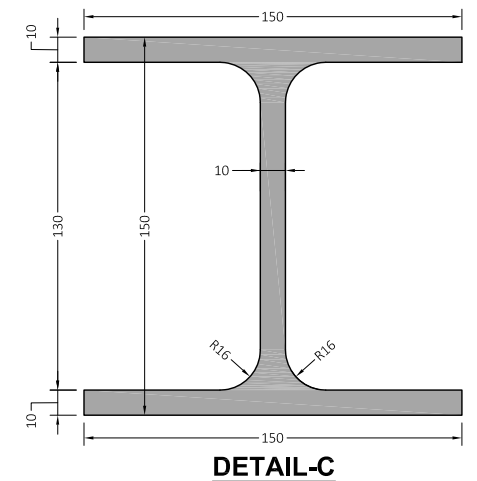
DETAIL-A
SCALE = 1:20



SECTION E-E
SCALE = 1:15





DETAIL-B
SCALE = 1:40

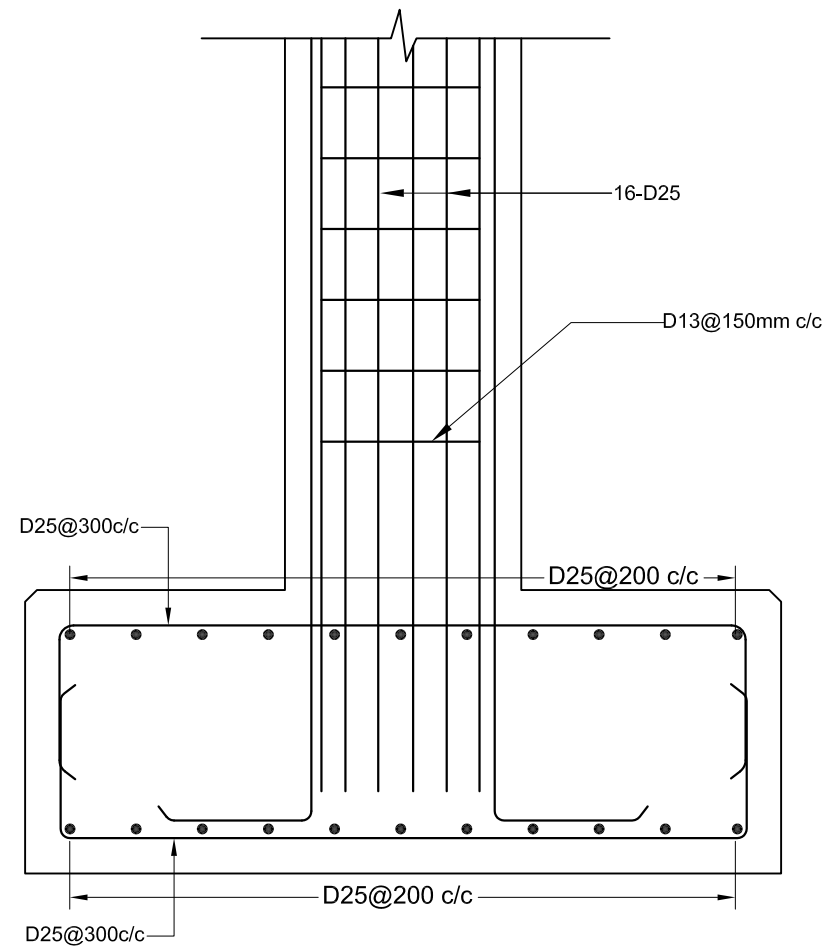


DETAIL-C



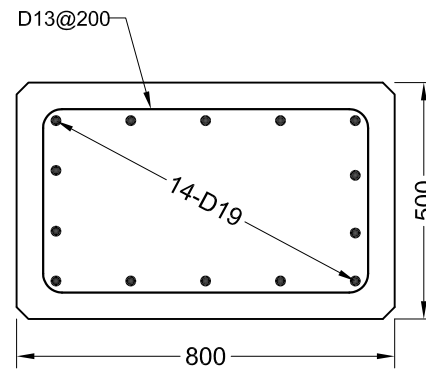
[Handwritten signature]

CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)	DRAWING NO. CA-PK-IX-IA-04	SCALE AS SHOWN REV 01



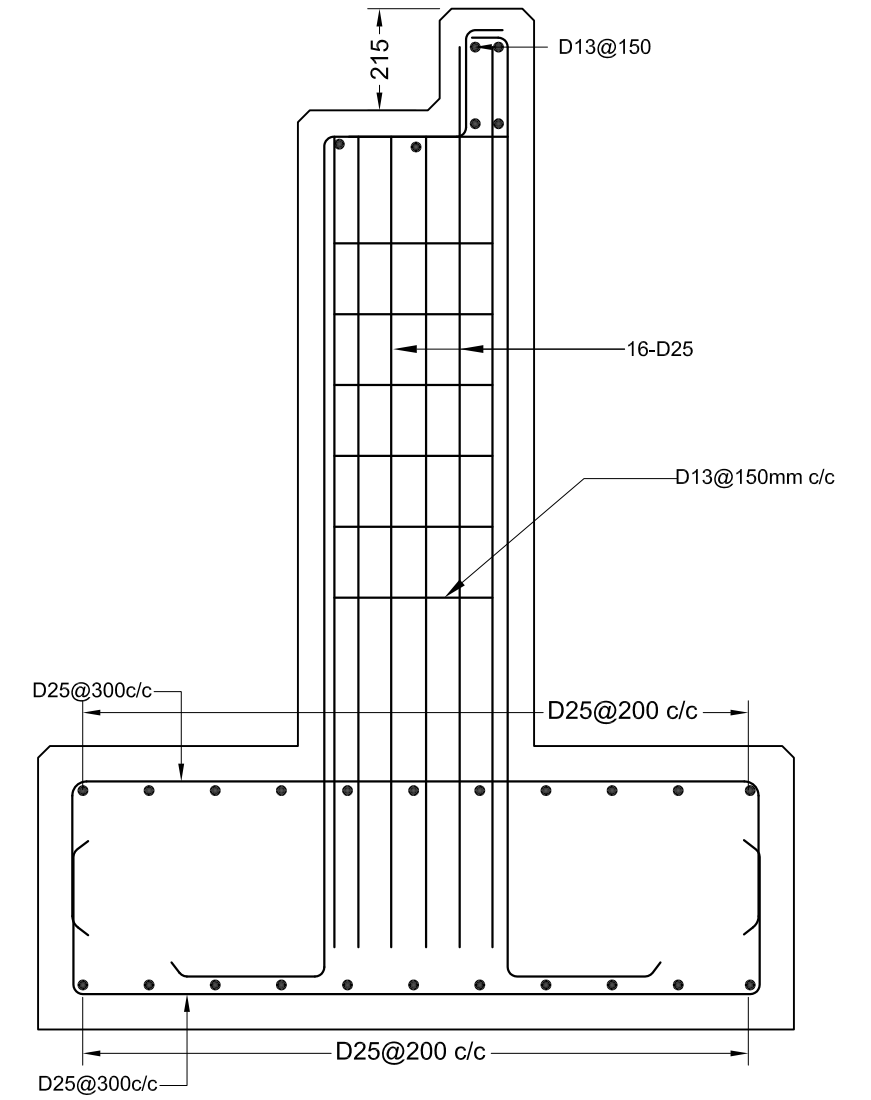
PIER REINFORCEMENT DETAILS

SCALE = 1:25



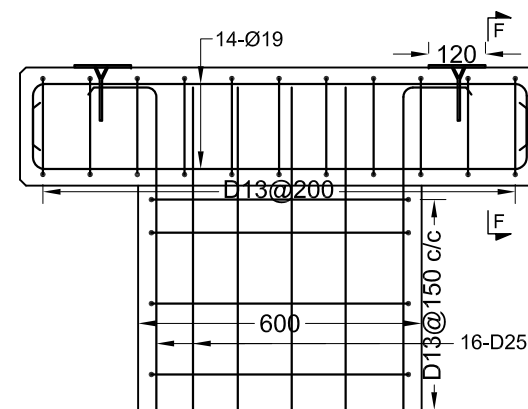
SECTION F-F

SCALE = 1:25



ABUTMENT REINFORCEMENT DETAILS



SCALE = 1:25

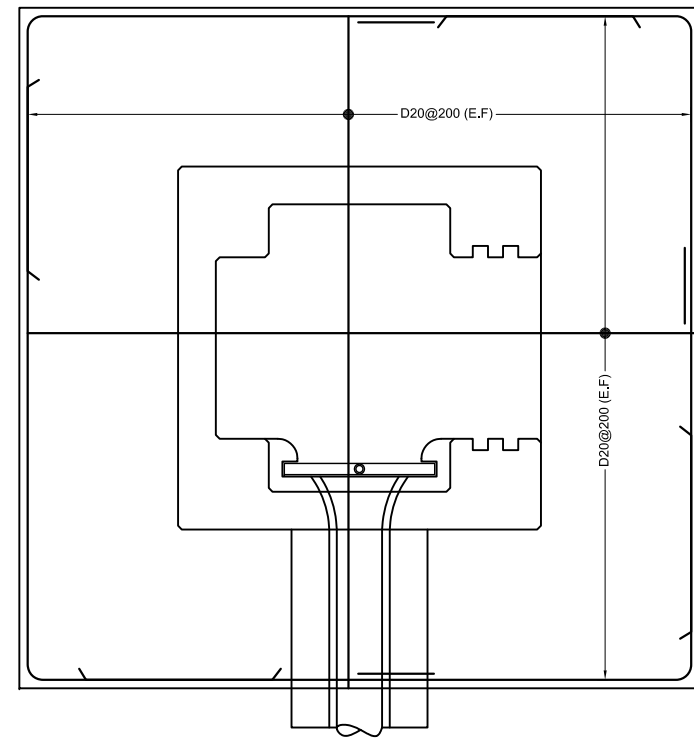


**CENTRAL PIER CROSS HEAD
BEAM REINFORCEMENT DETAILS**

SCALE = 1:25

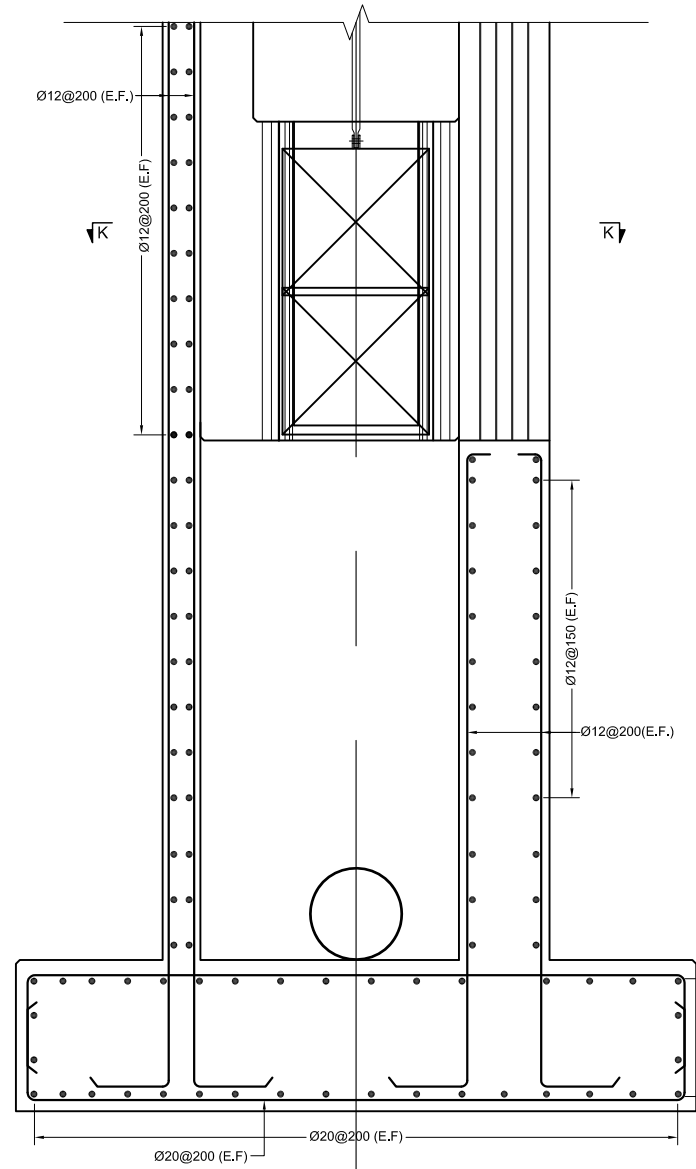


CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT:	FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)	DRAWING NO.	REV	SCALE AS SHOWN
						TITLE:				
FILE REFERENCE: F:\ZANGOTAI DAM PROJECT\FINAL DRAWINGS\SS\2021-09-13 TENDER DRAWINGS\06-INTAKE TOWER & ACCESS BRIDGE\02 INTAKE TOWER & ACCESS BRIDGE DETAILS.DWG						INTAKE TOWER REINFORCEMENT SECTIONS & DETAILS (SHEET 01 OF 03)				

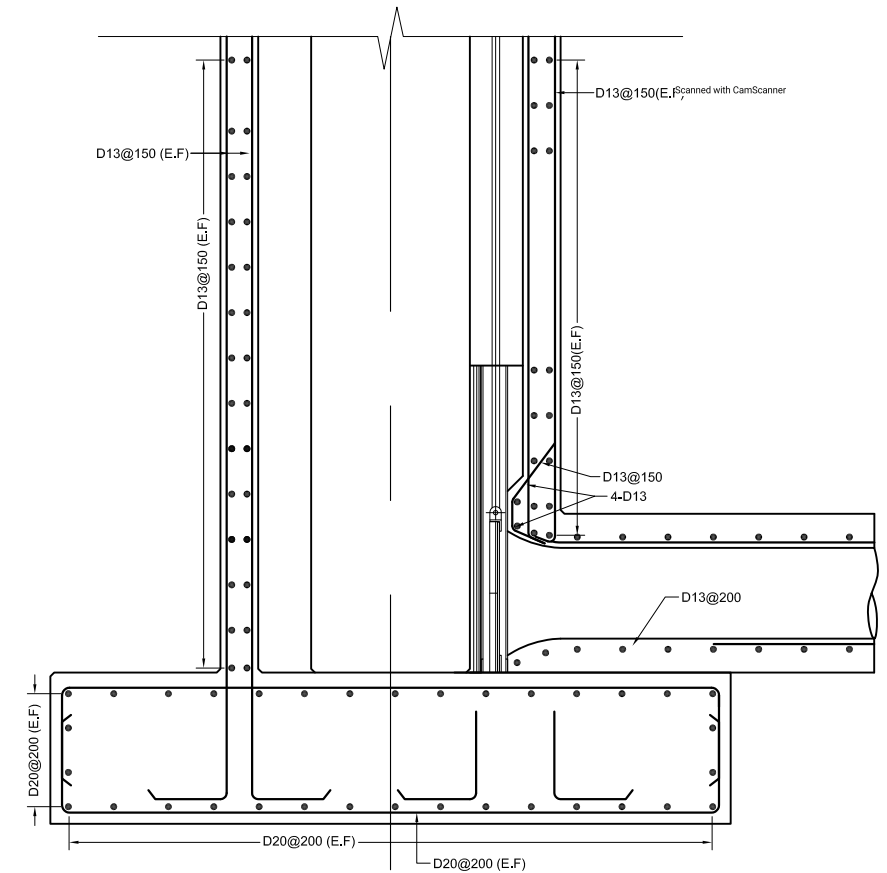
INTAKE TOWER FOUNDATION REINFORCEMENT PLAN

SCALE = 1:50





REINFORCEMENT SECTION A-A

SCALE: 1:50



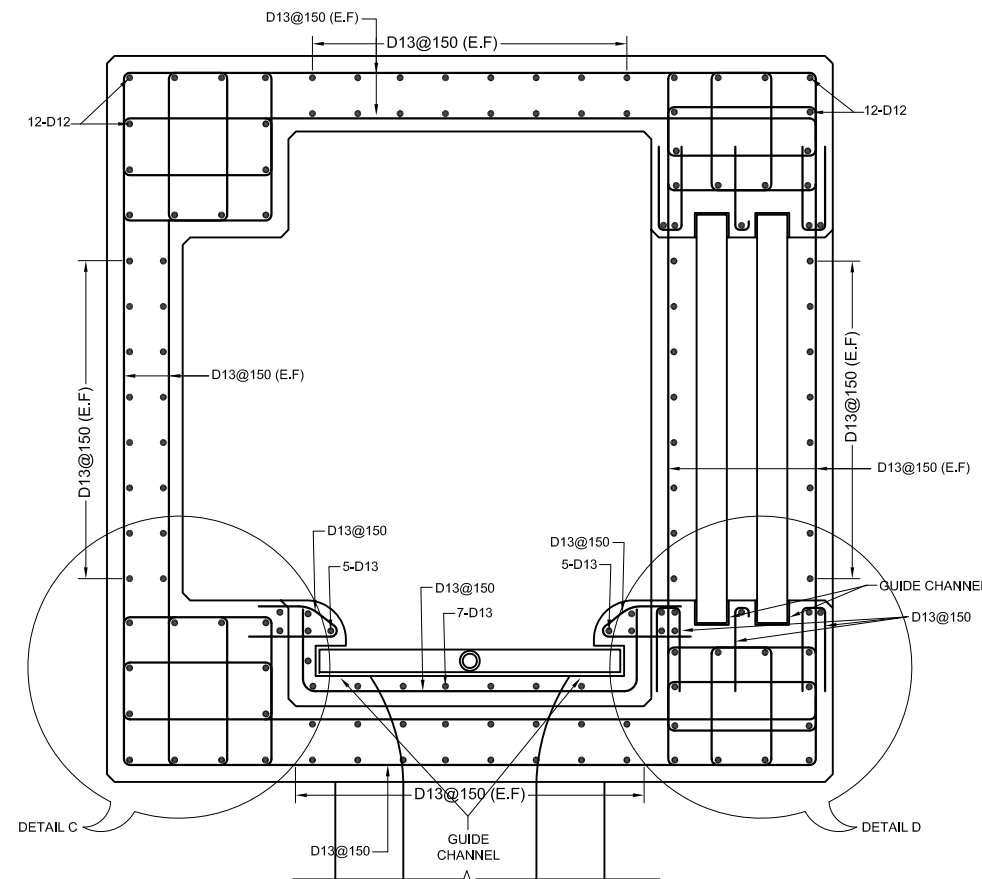
REINFORCEMENT SECTION B-B

SCALE = 1:50

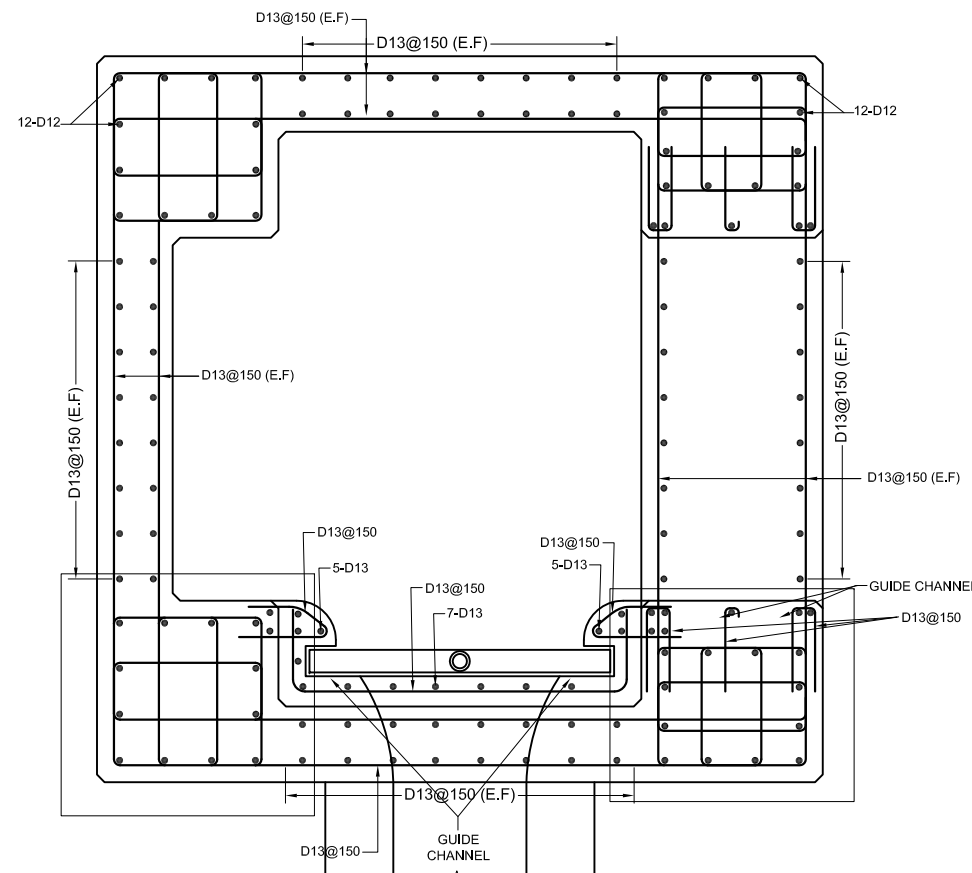
CLIENT:  SMALL DAMS / POWER SECTION MERGED AREAS IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultgassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM (DISTRICT NORTH WAZIRISTAN)	DRAWING NO. CA-PK-IX-IA-06	SCALE AS SHOWN
								DATE MAR, 2020
TITLE: INTAKE TOWER & ACCESS BRIDGE INTAKE TOWER REINFORCEMENT SECTIONS & DETAILS (SHEET 02 OF 03)							REV	01



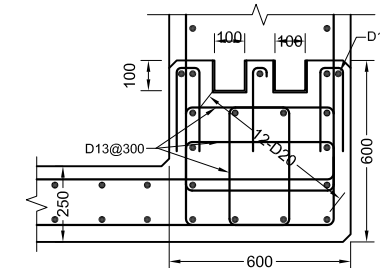
[Handwritten Signature]



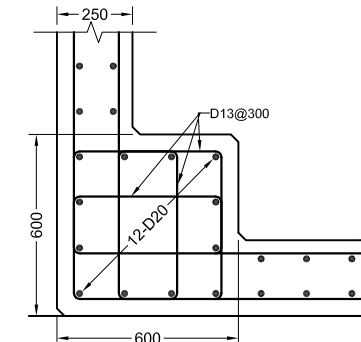
INTAKE TOWER REINFORCEMENT PLAN
SCALE = 1:25



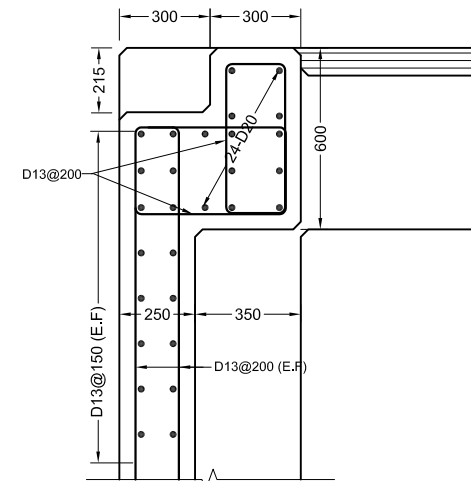
INTAKE TOWER REINFORCEMENT PLAN
SCALE = 1:25



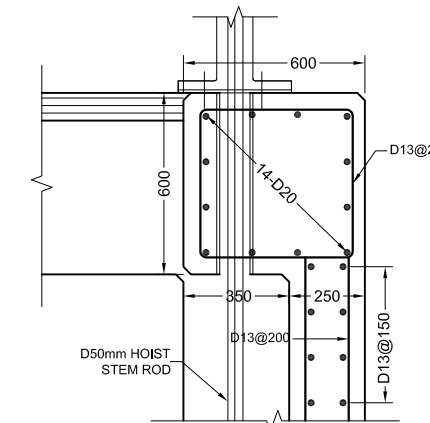
DETAIL-D
SCALE = 1:25





DETAIL-C
SCALE = 1:25



**INTAKE TOWER TOP BEAMS
ACCESS BRIDGE SIDE DETAILS**
SCALE = 1:25

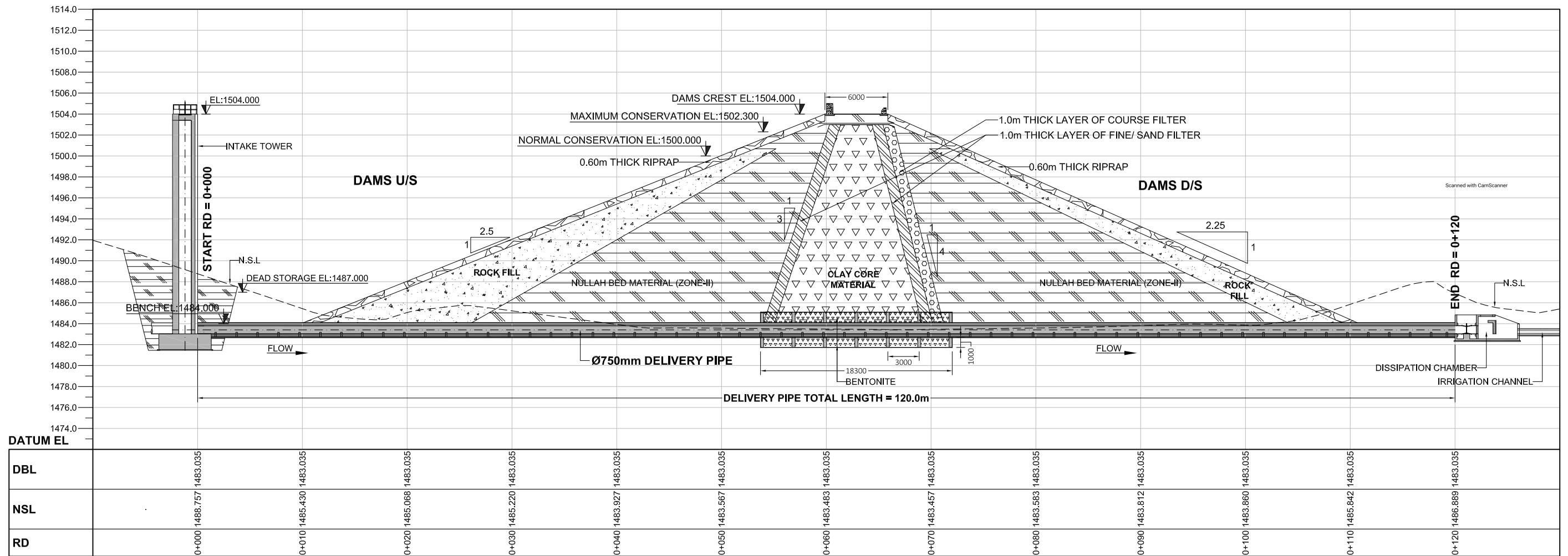


**INTAKE TOWER TOP BEAMS
OUTLET PIPE SIDE DETAILS**
SCALE = 1:25

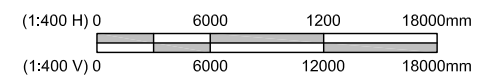
CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUOD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)	SCALE AS SHOWN
TITLE: INTAKE TOWER & ACCESS BRIDGE INTAKE TOWER REINFORCEMENT SECTIONS & DETAILS (SHEET 03 OF 03)						DRAWING NO. CA-PK-IX-IA-07	REV



[Handwritten signature]



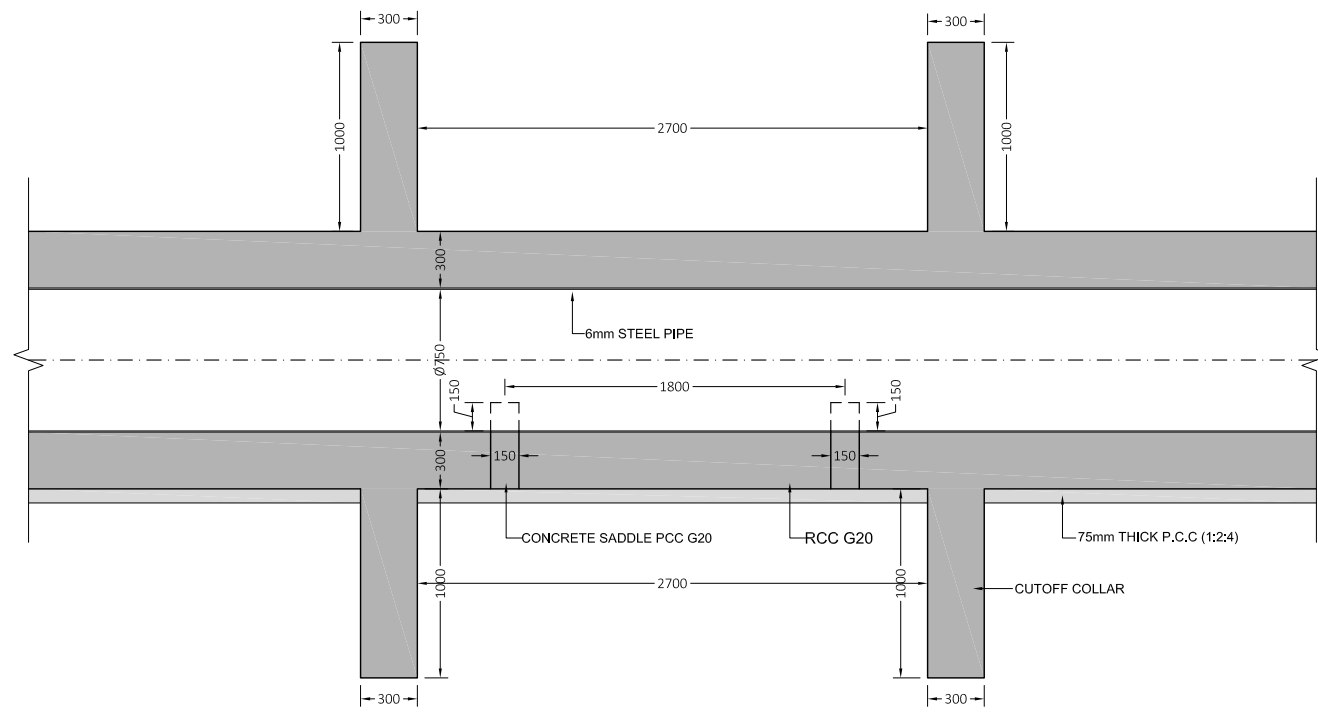
DELIVERY PIPE PROFILE



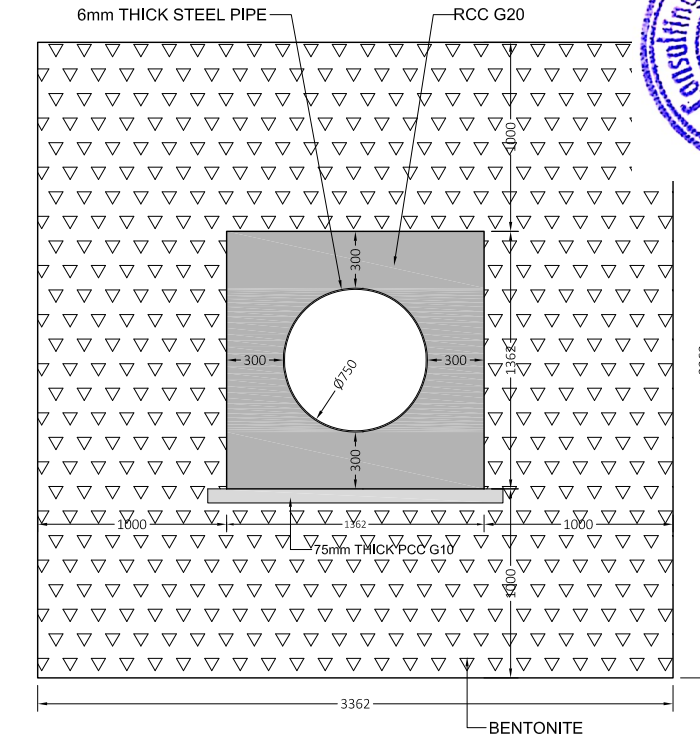
CLIENT: SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultgassociates127@gmail.com	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)	SCALE H = 1:400 V = 1:400
TITLE: INTAKE TOWER & ACCESS BRIDGE						DRAWING NO. CA-PK-IX-IA-08	REV 01
DELIVERY PIPE DETAIL PROFILE (SHEET 01 OF 01)							



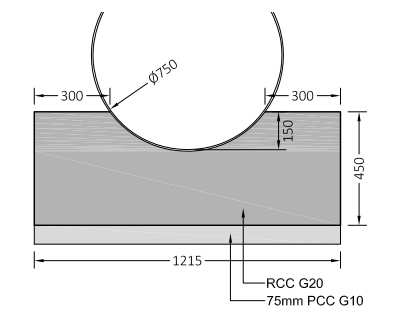
[Handwritten Signature]



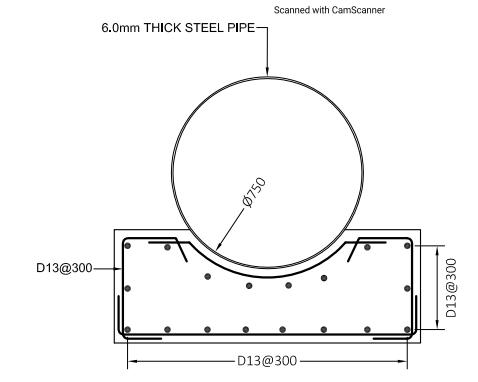
DELIVERY PIPE TYPICAL LONG SECTION
SCALE = 1:40



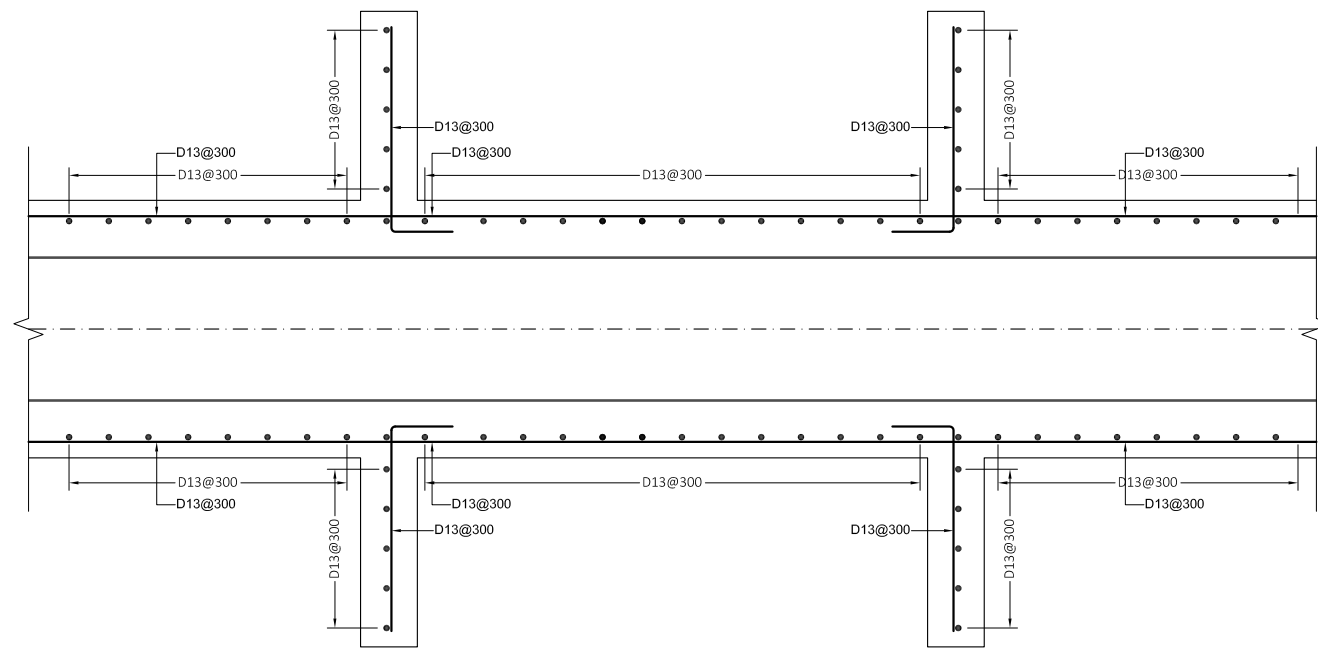
BENTONITE PORTION TYPICAL DETAIL
SCALE = 1:40



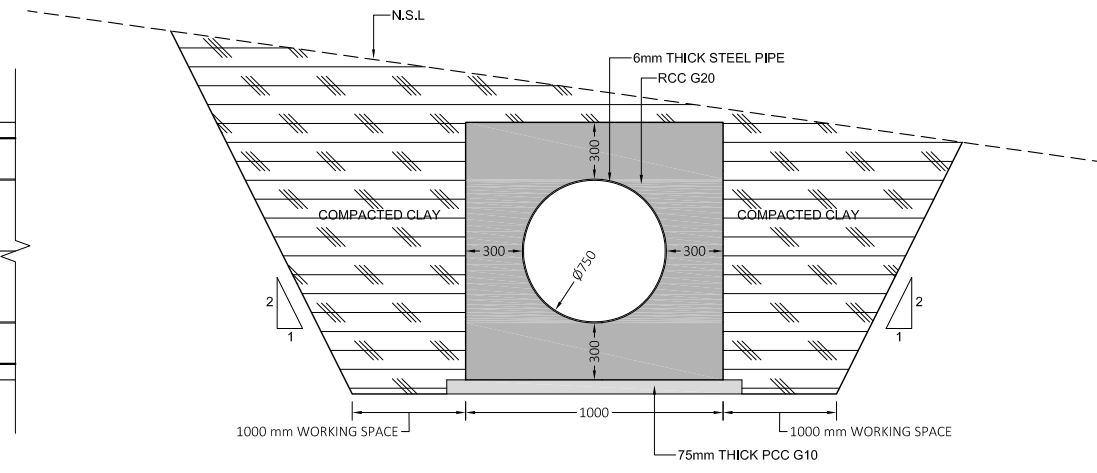
CONCRETE SADDLE TYPICAL DETAIL
SCALE = 1:30



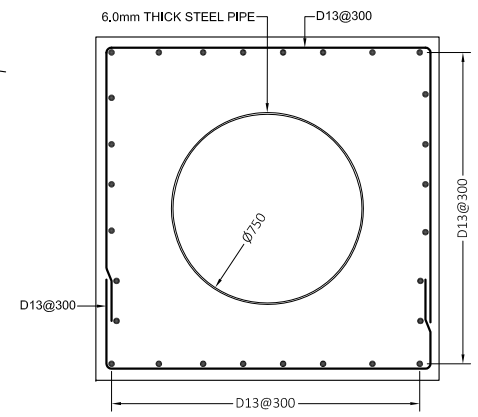
CONCRETE SADDLE REINFORCEMENT DETAIL
SCALE = 1:30



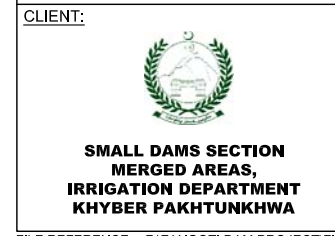
DELIVERY PIPE REINFORCEMENT PLAN
SCALE = 1:40



DELIVERY PIPE TYPICAL SECTION
SCALE = 1:40



DELIVERY PIPE REINFORCEMENT DETAIL
SCALE = 1:30



CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com

REV	DESCRIPTION	DATE

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)

TITLE: INTAKE TOWER & ACCESS BRIDGE

DELIVERY PIPE TYPICAL SECTIONS, DETAILS & REINFORCEMENT DETAILS (SHEET 01 OF 01)

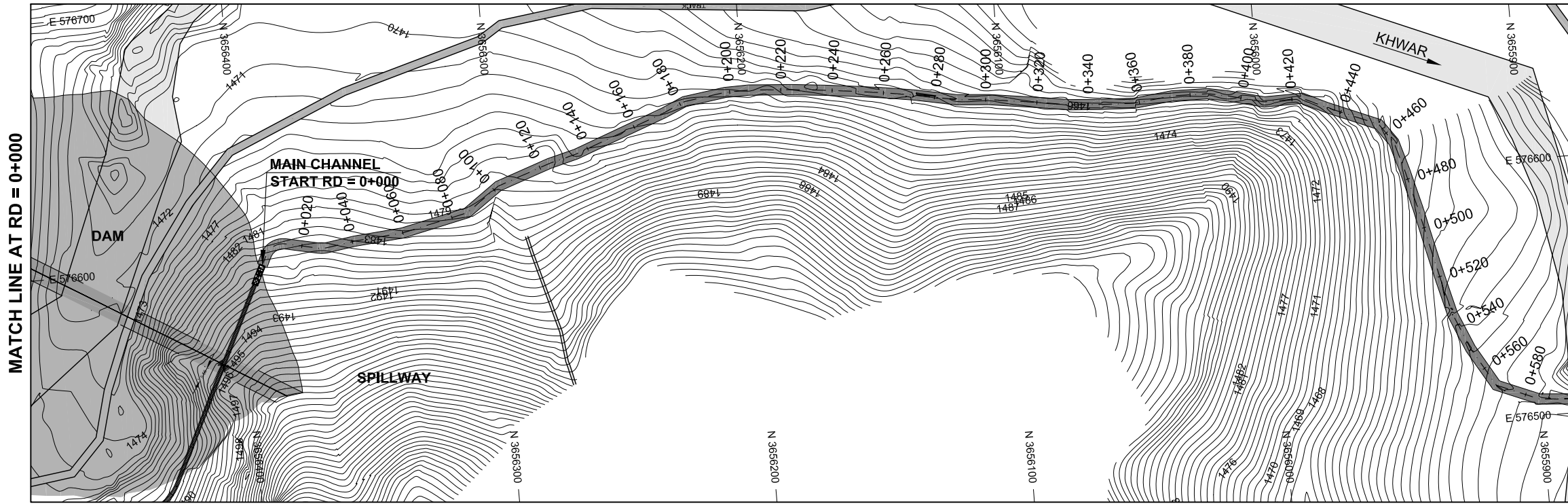
DRAWING NO.	REV	SCALE AS SHOWN
CA-PK-IX-IA-09		



[Handwritten signature]

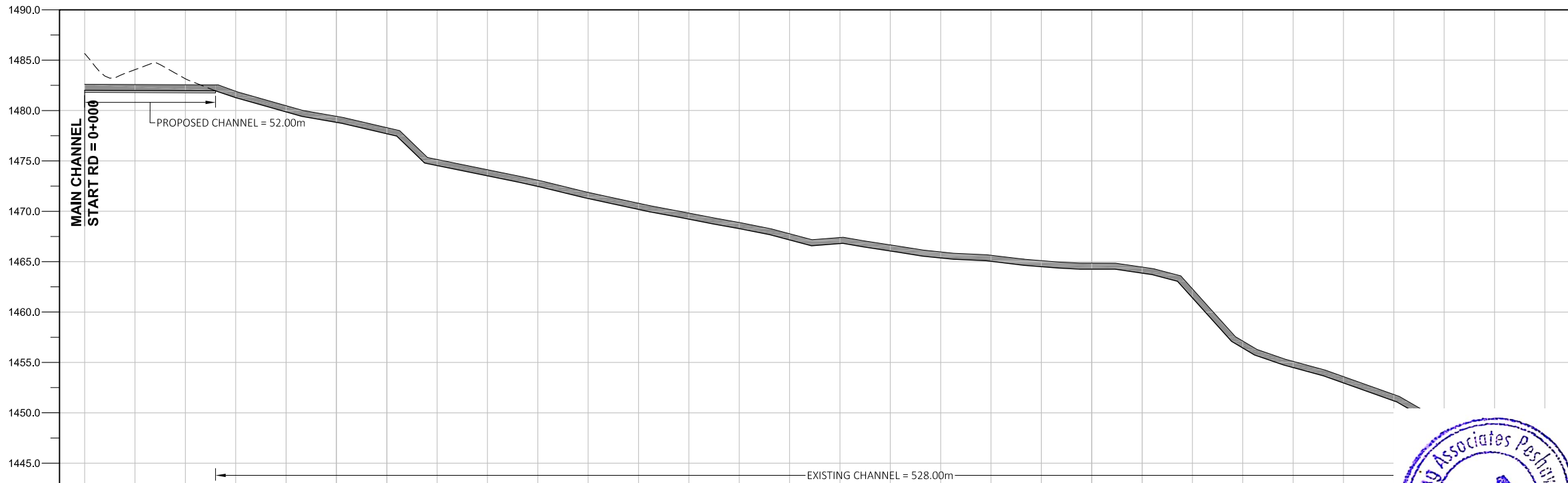
Scanned with CamScanner

MC-MAIN CHANNEL



LEGENDS:

- DESIGN BED LEVEL
- NATURAL SURFACE LEVEL
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- PROPOSED MAIN CHANNEL
- ROAD OR KACHA TRACK
- RIVER OR KHWAR
- NULLAH
- HOUSE
- VILLAGE
- GRAVE YARD
- CULTIVATED LAND
- BRIDGE OR CULVERT
- ELECTRIC POLE
- OUTLET
- BENCH MARK



ABBREVIATIONS OF DRAWING

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CHANNEL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03

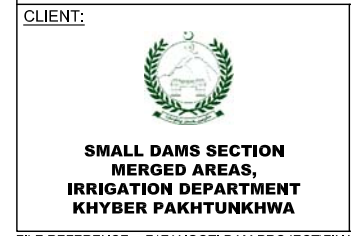
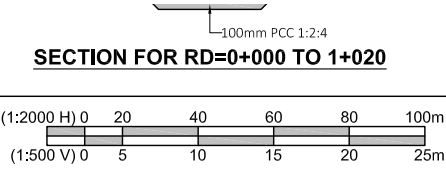
DATUM EL

Design parameters: $n = 0.018$ $Q = 3.280$ Cusecs $V = 0.527$ m/s $FB = 300$ mm $W = 460$ mm $D = 250$ mm $S = \text{VARIES}$

DBL	NSL	RD
1482.000		0+000
1481.980		0+020
1481.960		0+040
1481.274		0+060
1479.860		0+080
1478.821		0+100
1477.693		0+120
1474.536		0+140
1473.517		0+160
1472.467		0+180
1471.264		0+200
1470.185		0+220
1468.215		0+240
1466.278		0+260
1467.156		0+280
1466.795		0+300
1466.059		0+320
1465.369		0+340
1465.033		0+360
1464.500		0+380
1464.261		0+400
1463.858		0+420
1461.411		0+440
1456.427		0+460
1454.486		0+480
1452.961		0+500
1451.460		0+520
14		0+540
14		0+560
14		0+580



[Handwritten signature]



CONSULTING ASSOCIATES
 IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
 NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
 BEHID GUL CNG, JAMRUOD ROAD PEHSAWAR, PAKISTAN
 PH: +92 91 5701774 Fax: 92 91 5701775
 EMAIL: Consultingassociates127@gmail.com

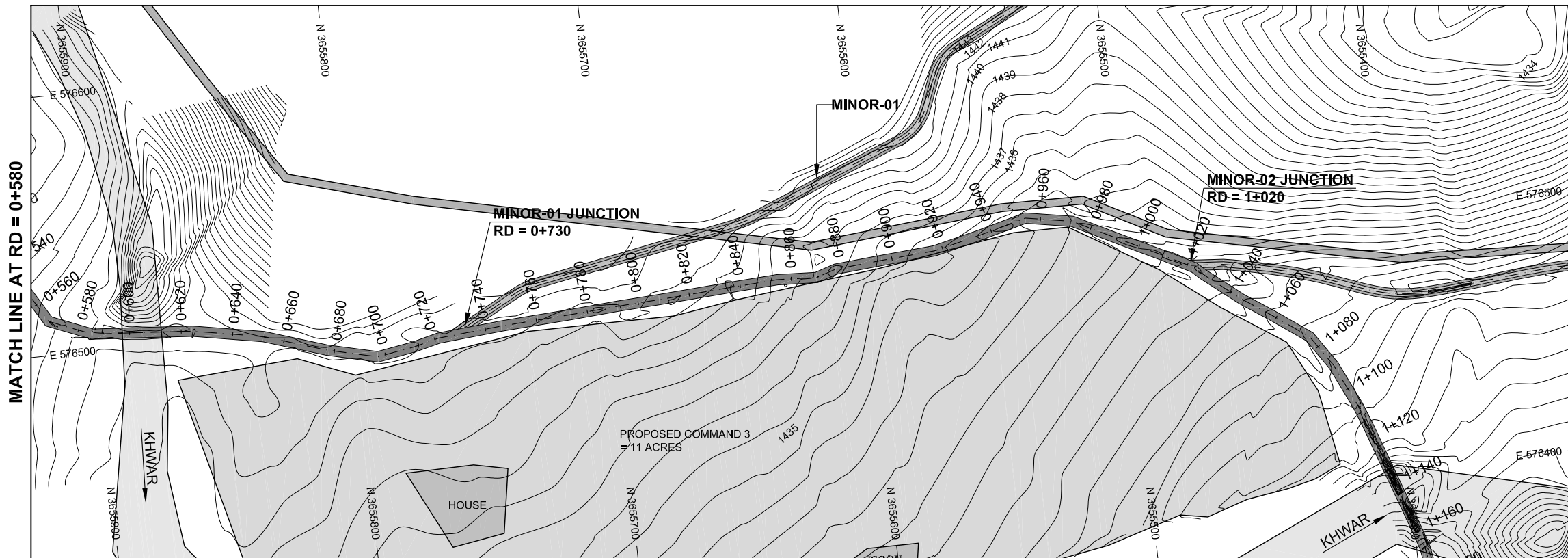
REV	DESCRIPTION	DATE

NOTES:
 1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
 FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
 PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
 PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)

TITLE: MAIN CHANNEL
 MAIN CHANNEL PLAN & PROFILE RD = 0+000 TO 0+580
 (SHEET 01 OF 07)

CLIENT:	SCALE H = 1:2000 V = 1:500
DRAWING NO. CA-PK-IX-MC-01	REV 01

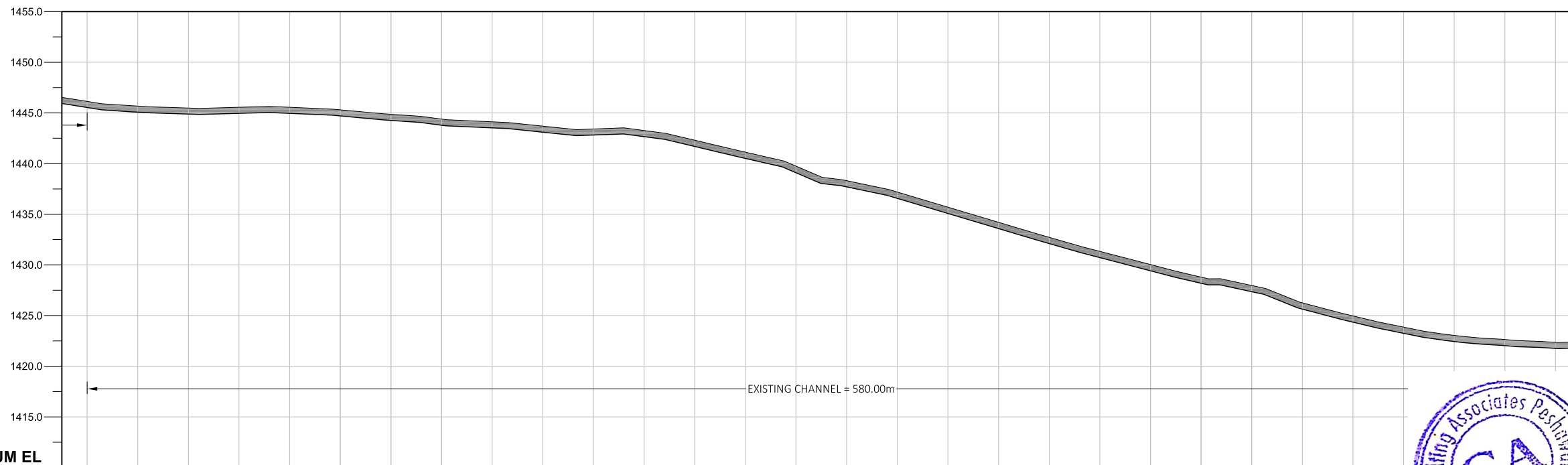


LEGENDS:

- DESIGN BED LEVEL ———
- NATURAL SURFACE LEVEL - - - - -
- INDEX CONTOUR ——— 1500 ———
- INTERMEDIATE CONTOUR ——— 1501 ———
- PROPOSED MAIN CHANNEL [Symbol]
- ROAD OR KACHA TRACK [Symbol]
- RIVER OR KHUWAR [Symbol]
- NULLAH [Symbol]
- HOUSE [Symbol]
- VILLAGE [Symbol]
- GRAVE YARD [Symbol]
- CULTIVATED LAND [Symbol]
- BRIDGE OR CULVERT [Symbol]
- ELECTRIC POLE [Symbol]
- OUTLET [Symbol]
- BENCH MARK [Symbol]

ABBREVIATIONS OF DRAWING

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CHANNEL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03



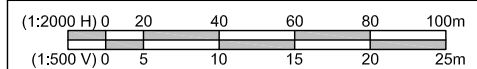
DATUM EL

Design parameters

n = 0.018 Q = 3,280 Cusecs V = 0.527 m/s FB = 300mm W = 460mm D = 250mm S = VARIES

DBL	1445.527	1445.070	1444.880	1444.954	1444.953	1444.700	1444.255	1443.778	1443.519	1443.092	1442.813	1442.656	1441.687	1440.509	1439.092	1437.695	1436.562	1435.073	1433.581	1432.102	1430.720	1429.419	1428.185	1427.360	1425.636	1424.348	1423.249			
NSL																														
RD	0+580	0+600	0+620	0+640	0+660	0+680	0+700	0+720	0+740	0+760	0+780	0+800	0+820	0+840	0+860	0+880	0+900	0+920	0+940	0+960	0+980	1+000	1+020	1+040	1+060	1+080	1+100	1+120	1+140	1+160

SECTION FOR RD=0+000 TO 1+020



CLIENT:

**SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA**

**CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER**
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CHG, JAMRUD ROAD PESHAWAR, PAKISTAN
Ph: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com

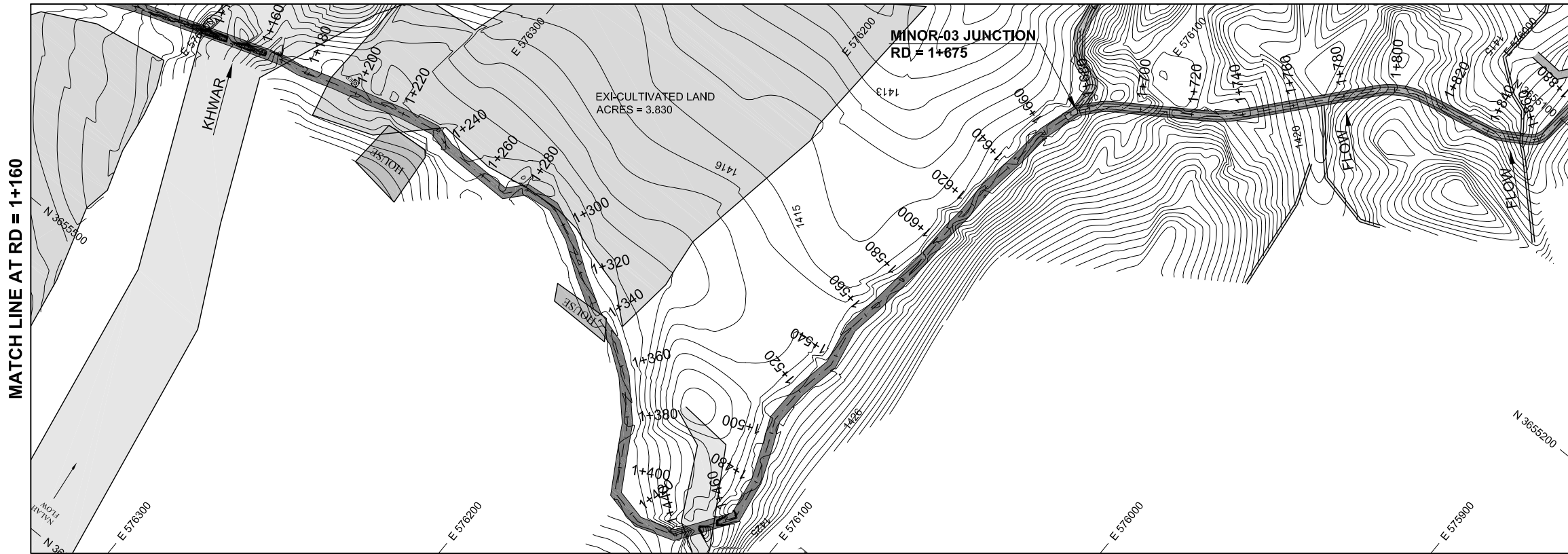
REV	DESCRIPTION	DATE

NOTES:
1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)

TITLE: MAIN CHANNEL
MAIN CHANNEL PLAN & PROFILE RD = 0+580 TO 1+160
(SHEET 02 OF 07)

DRAWING NO.	REV	SCALE H = 1:2000 V = 1:500
CA-PK-IX-MC-02	01	

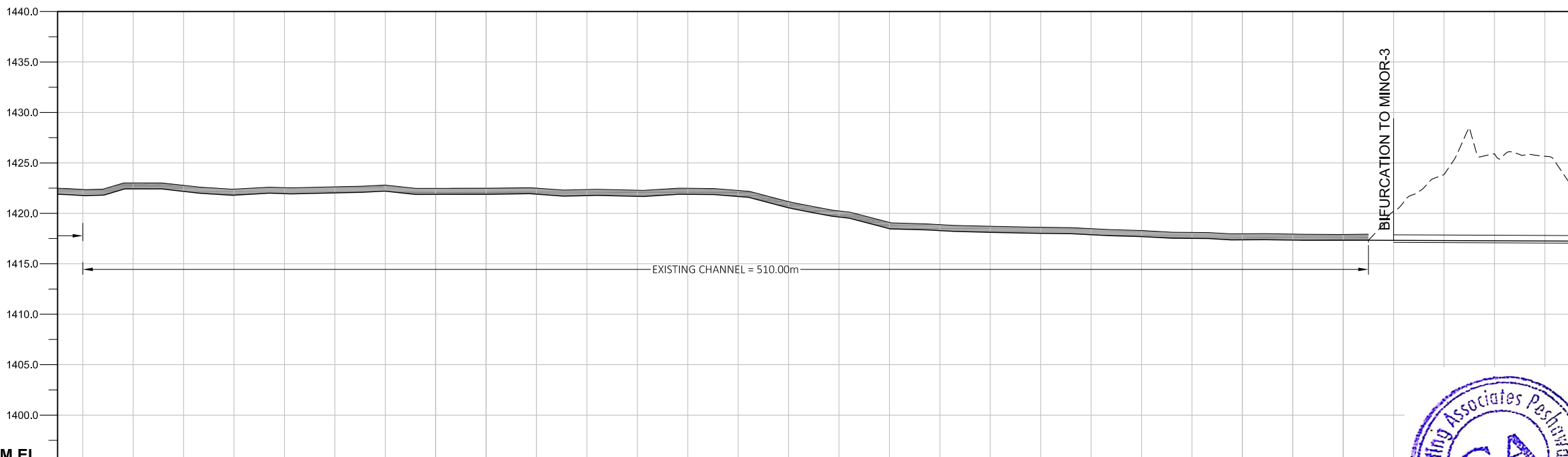


LEGENDS:

- DESIGN BED LEVEL ———
- NATURAL SURFACE LEVEL - - - - -
- INDEX CONTOUR ——— 1500 ———
- INTERMEDIATE CONTOUR ——— 1501 ———
- PROPOSED MAIN CHANNEL [Symbol]
- ROAD OR KACHA TRACK [Symbol]
- RIVER OR KHWAR [Symbol]
- NULLAH [Symbol]
- HOUSE [Symbol]
- VILLAGE [Symbol]
- GRAVE YARD [Symbol]
- CULTIVATED LAND [Symbol]
- BRIDGE OR CULVERT [Symbol]
- ELECTRIC POLE [Symbol]
- OUTLET [Symbol]
- BENCH MARK [Symbol]

ABBREVIATIONS OF DRAWING

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CHANNEL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03



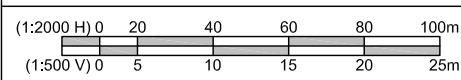
DATUM EL

Design parameters	n = 0.018 Q = 3.12 Cusecs V = 0.5 m/s FB = 300mm W = 460mm D = 230mm / S = 1:1000																													
DBL	1421.760	1422.416	1422.170	1421.793	1421.947	1422.022	1422.193	1421.875	1421.880	1421.893	1421.752	1421.688	1421.885	1421.665	1420.544	1419.634	1418.479	1418.282	1418.117	1418.020	1417.879	1417.692	1417.510	1417.369	1417.343	1417.330	1420.184	1417.320		
NSL																														
RD	1+160	1+180	1+200	1+220	1+240	1+260	1+280	1+300	1+320	1+340	1+360	1+380	1+400	1+420	1+440	1+460	1+480	1+500	1+520	1+540	1+560	1+580	1+600	1+620	1+640	1+660	1+680	1+700	1+720	1+740



[Handwritten signature]

SECTION FOR RD=1+020 TO 1+670



CLIENT:

**SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA**

**CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER**
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHIND GUL CHG, JAMRUD ROAD PESHAWAR, PAKISTAN
Ph: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultngassociates127@gmail.com

REV	DESCRIPTION	DATE

NOTES:

- ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)

TITLE: MAIN CHANNEL

MAIN CHANNEL PLAN & PROFILE RD = 1+160 TO 1+740
(SHEET 03 OF 07)

DRAWING NO.	REV
CA-PK-IX-MC-03	01

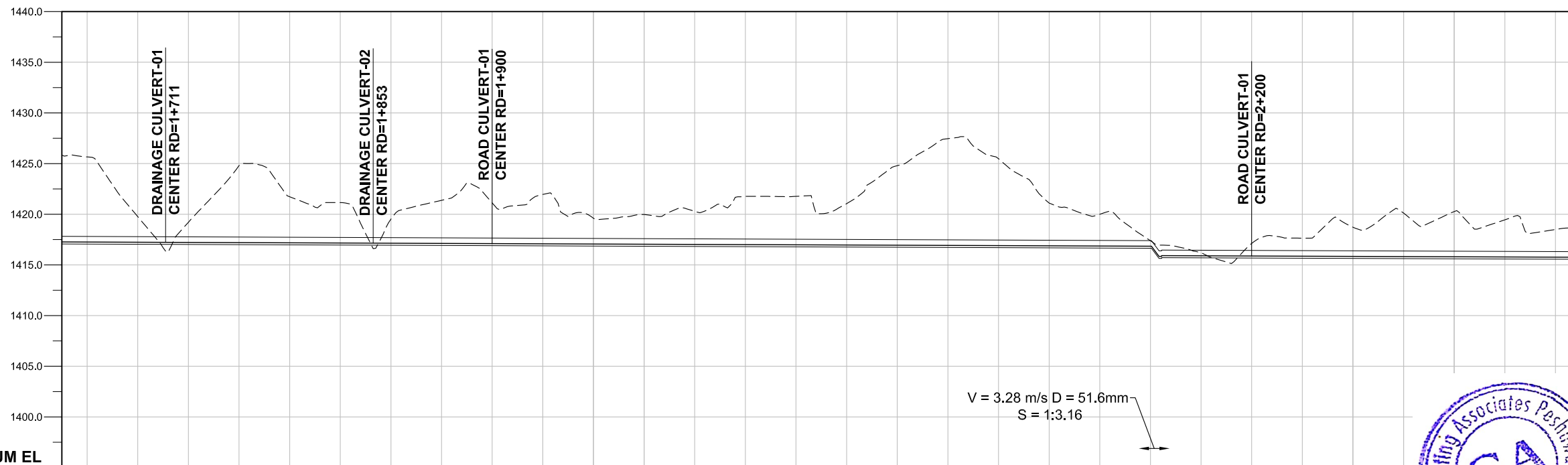


LEGENDS:

- DESIGN BED LEVEL ———
- NATURAL SURFACE LEVEL - - - - -
- INDEX CONTOUR ——— 1500 ———
- INTERMEDIATE CONTOUR ——— 1501 ———
- PROPOSED MAIN CHANNEL [Symbol]
- ROAD OR KACHA TRACK [Symbol]
- RIVER OR KHWAR [Symbol]
- NULLAH [Symbol]
- HOUSE [Symbol]
- VILLAGE [Symbol]
- GRAVE YARD [Symbol]
- CULTIVATED LAND [Symbol]
- BRIDGE OR CULVERT [Symbol]
- ELECTRIC POLE [Symbol]
- OUTLET [Symbol]
- BENCH MARK [Symbol]

ABBREVIATIONS OF DRAWING

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CHANNEL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03



DATUM EL

Design parameters

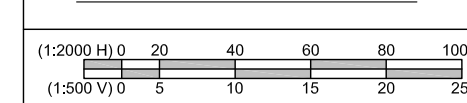
n = 0.018 Q = 2.12 Cusecs V = 0.4 m/s FB = 300mm W = 460mm D = 195mm / S = 1:1000

DBL	NSL	RD
1417.260	1425.655	1+740
1417.240	1419.765	1+760
1417.220	1419.205	1+780
1417.200	1424.798	1+800
1417.180	1421.726	1+820
1417.160	1421.151	1+840
1417.140	1419.523	1+860
1417.120	1421.370	1+880
1417.100	1421.117	1+900
1417.080	1421.954	1+920
1417.060	1419.603	1+940
1417.040	1419.972	1+960
1417.020	1420.288	1+980
1417.000	1421.764	2+000
1416.980	1421.763	2+020
1416.960	1421.044	2+040
1416.940	1424.791	2+060
1416.920	1427.453	2+080
1416.900	1425.481	2+100
1416.880	1421.099	2+120
1416.860	1420.002	2+140
1416.840	1417.382	2+160
1415.901	1416.187	2+180
1415.881	1417.119	2+200
1415.861	1417.640	2+220
1415.841	1418.718	2+240
1415.821	1420.116	2+260
1415.801	1420.261	2+280
1415.781	1419.448	2+300
1415.761	1418.498	2+320



[Handwritten signature]

SECTION FOR RD=1+667 TO TAIL



CLIENT:

**SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA**

**CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER**
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CHG, JAMRUD ROAD PESHAWAR, PAKISTAN
Ph: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com

REV	DESCRIPTION	DATE

NOTES:
1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)

TITLE: MAIN CHANNEL
MAIN CHANNEL PLAN & PROFILE RD = 1+740 TO 2+320
(SHEET 04 OF 07)

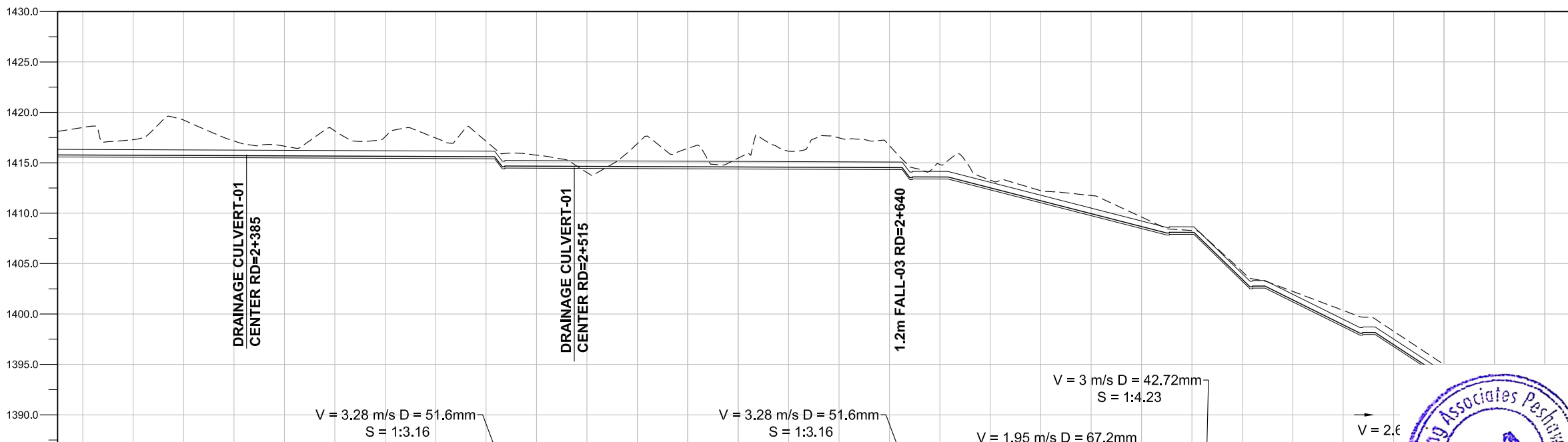
DRAWING NO.	REV
CA-PK-IX-MC-04	01



- LEGENDS:**
- DESIGN BED LEVEL
 - NATURAL SURFACE LEVEL
 - INDEX CONTOUR
 - INTERMEDIATE CONTOUR
 - PROPOSED MAIN CHANNEL
 - ROAD OR KACHA TRACK
 - RIVER OR KHWAR
 - NULLAH
 - HOUSE
 - VILLAGE
 - GRAVE YARD
 - CULTIVATED LAND
 - BRIDGE OR CULVERT
 - ELECTRIC POLE
 - OUTLET
 - BENCH MARK

ABBREVIATIONS OF DRAWING

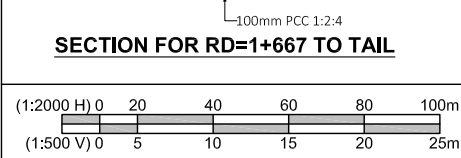
COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CHANNEL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03



Design parameters	n = 0.018 Q = 2.12 Cusecs V = 0.4 m/s FB = 300mm W = 460mm D = 195mm / S = 1:1000																													
DBL	1415.761	1415.741	1415.721	1415.701	1415.681	1415.661	1415.641	1415.621	1415.601	1414.662	1414.642	1414.622	1414.602	1414.582	1414.562	1414.542	1414.522	1413.583	1412.509	1411.230	1409.951	1408.672	1408.096	1403.429	1401.398	1398.922	1396.960	1394.964	1391.927	1390.632
NSL	1418.498	1417.281	1415.721	1417.157	1416.640	1418.155	1417.590	1417.452	1417.130	1415.752	1414.029	1416.899	1416.421	1415.454	1416.146	1417.466	1416.698	1414.819	1413.273	1412.227	1411.753	1409.613	1408.281	1404.209	1402.240	1400.357	1398.291	1394.964	1391.927	1390.632
RD	2+320	2+340	2+360	2+380	2+400	2+420	2+440	2+460	2+480	2+500	2+520	2+540	2+560	2+580	2+600	2+620	2+640	2+660	2+680	2+700	2+720	2+740	2+760	2+780	2+800	2+820	2+840	2+860	2+880	2+900



[Handwritten signature]



CLIENT:

SMALL DAMS SECTION
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA

**CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER**

NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN
Ph: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consult@ingassodates127@gmail.com

REV	DESCRIPTION	DATE

NOTES:

1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)

TITLE: MAIN CHANNEL

MAIN CHANNEL PLAN & PROFILE RD = 2+320 TO 2+900 (SHEET 05 OF 07)

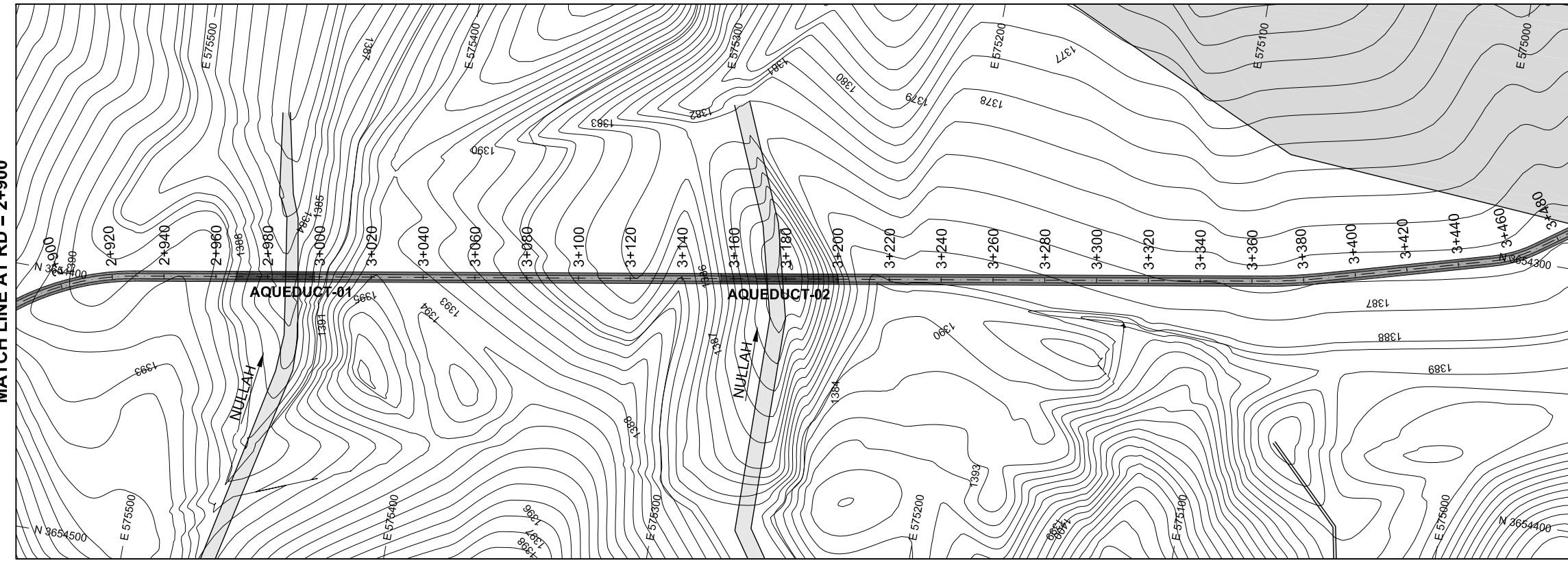
DRAWING NO.	REV
CA-PK-IX-MC-05	01



LEGENDS:

- DESIGN BED LEVEL
- NATURAL SURFACE LEVEL
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- PROPOSED MAIN CHANNEL
- ROAD OR KACHA TRACK
- RIVER OR KHWAR
- NULLAH
- HOUSE
- VILLAGE
- GRAVE YARD
- CULTIVATED LAND
- BRIDGE OR CULVERT
- ELECTRIC POLE
- OUTLET
- BENCH MARK

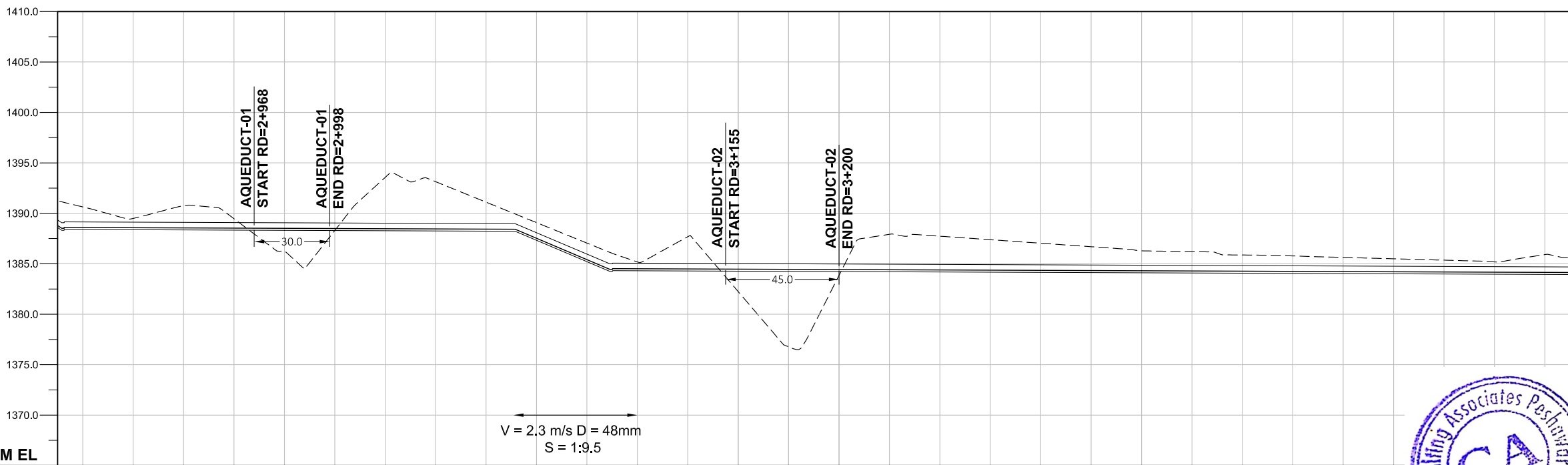
MATCH LINE AT RD = 2+900



MATCH LINE AT RD = 3+480

ABBREVIATIONS OF DRAWING

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CHANNEL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03

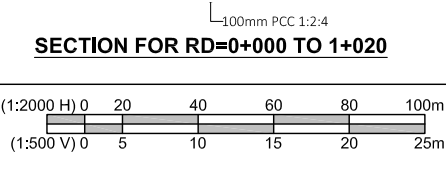


DATUM EL

Design parameters	n = 0.018 Q = 2.12 Cusecs V = 0.4 m/s FB = 300mm W = 460mm D = 195mm / S = 1:1000																													
DBL	1388.588	1388.588	1388.548	1388.528	1388.508	1388.488	1388.468	1388.448	1388.428	1388.523	1388.407	1388.509	1388.489	1388.469	1388.449	1388.429	1388.409	1388.389	1388.369	1388.349	1388.329	1388.309	1388.289	1388.269	1388.249	1388.229	1388.209			
NSL	1390.632	1389.493	1388.548	1389.461	1388.261	1388.305	1388.565	1388.468	1389.130	1388.448	1389.103	1388.428	1389.076	1388.523	1387.049	1388.407	1388.851	1388.429	1387.919	1388.409	1387.732	1388.389	1387.385	1388.369	1387.037	1388.349	1386.628	1388.229		
RD	2+900	2+920	2+940	2+960	2+980	3+000	3+020	3+040	3+060	3+080	3+100	3+120	3+140	3+160	3+180	3+200	3+220	3+240	3+260	3+280	3+300	3+320	3+340	3+360	3+380	3+400	3+420	3+440	3+460	3+480



Handwritten signature and initials in blue ink.



CLIENT:

SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA

**CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER**

NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CHG, JAMRUD ROAD PESHAWAR, PAKISTAN
Ph: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultgassodates127@gmail.com

REV	DESCRIPTION	DATE

NOTES:

1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)

TITLE: MAIN CHANNEL

MAIN CHANNEL PLAN & PROFILE RD = 2+900 TO 3+480
(SHEET 06 OF 07)

DRAWING NO.	REV
CA-PK-IX-MC-06	01



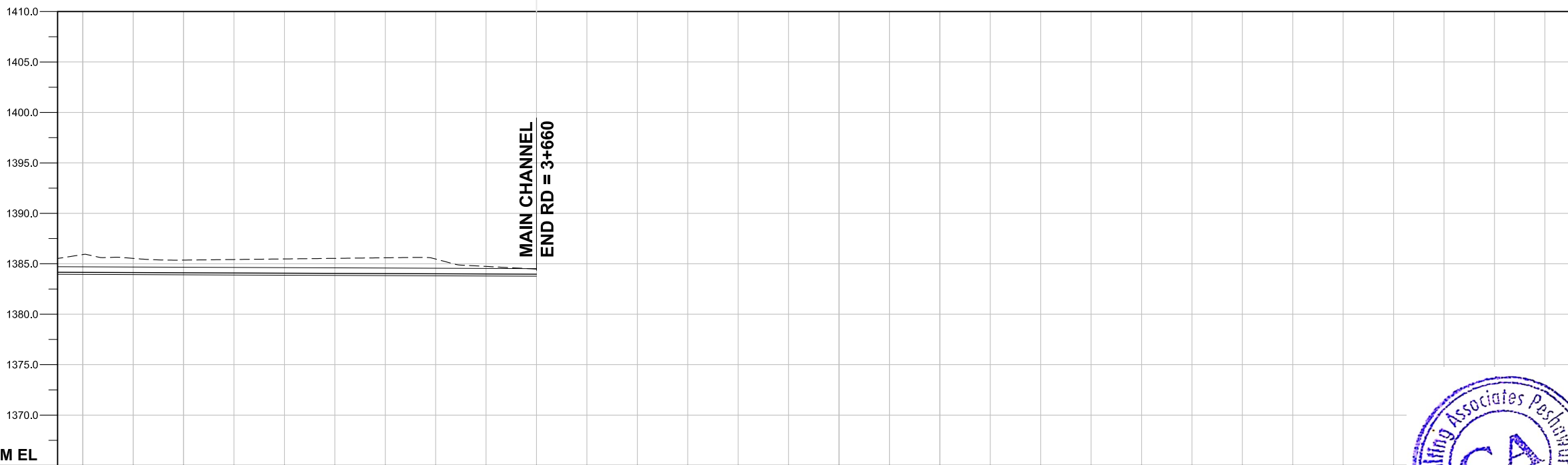
LEGENDS:

- DESIGN BED LEVEL —————
- NATURAL SURFACE LEVEL - - - - -
- INDEX CONTOUR ———1500———
- INTERMEDIATE CONTOUR ———1501———
- PROPOSED MAIN CHANNEL —————
- ROAD OR KACHA TRACK —————
- RIVER OR KHWAR —————
- NULLAH —————
- HOUSE —————
- VILLAGE —————
- GRAVE YARD —————
- CULTIVATED LAND —————
- BRIDGE OR CULVERT —————
- ELECTRIC POLE EP
- OUTLET —————
- BENCH MARK BM-1



ABBREVIATIONS OF DRAWING

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CHANNEL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03

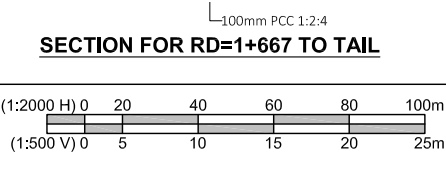


DATUM EL

Design parameters	n = 0.018 Q = 2.12 Cusecs V = 0.4 m/s FB = 300mm W = 460mm D = 195mm / S = 1:1000									
DBL	1384.149	1384.129	1384.109	1384.089	1384.069	1384.049	1384.029	1384.009	1383.989	1383.968
NSL	1385.908	1385.530	1385.363	1385.420	1385.478	1385.536	1385.593	1385.467	1384.738	1384.474
RD	3+480	3+500	3+520	3+540	3+560	3+580	3+600	3+620	3+640	3+660



[Handwritten signature]



CLIENT:

**SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA**

**CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER**
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CHG, JAMRUD ROAD PESHAWAR, PAKISTAN
Ph: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultngassodates127@gmail.com

REV	DESCRIPTION	DATE

NOTES:

1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

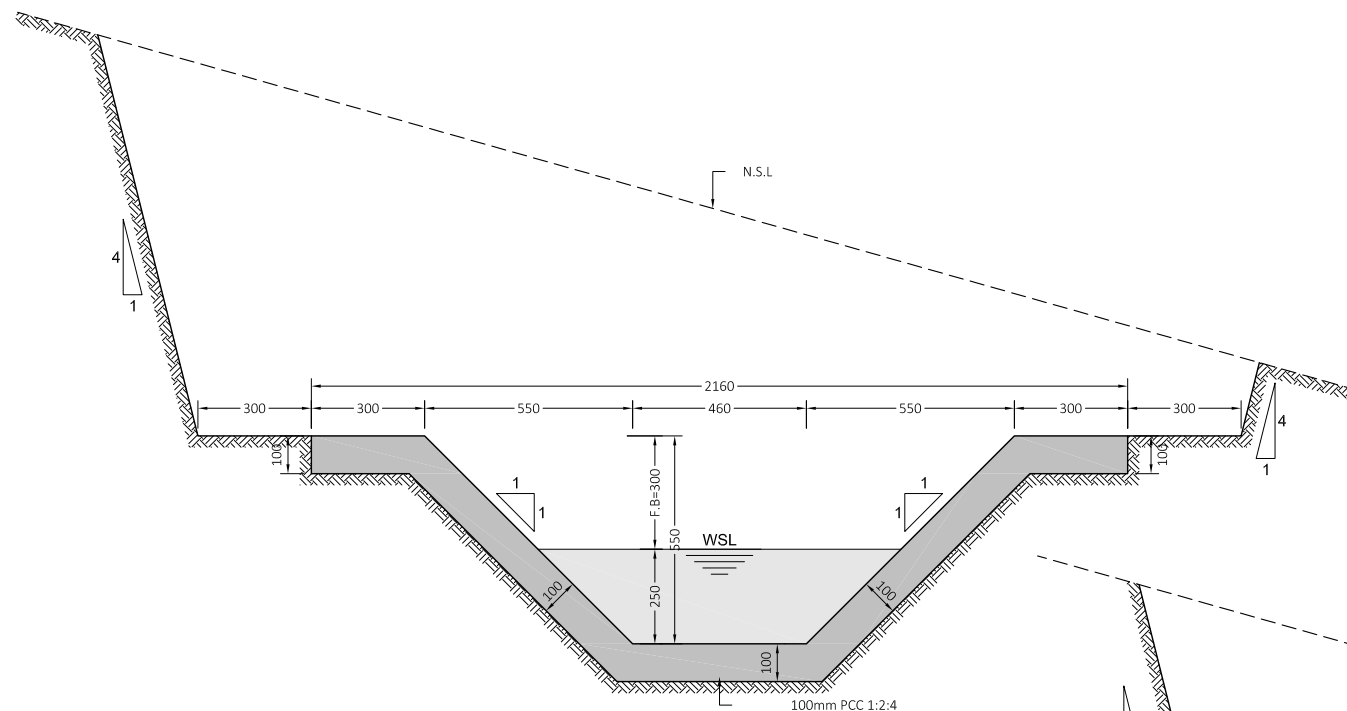
PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)

TITLE: MAIN CHANNEL
MAIN CHANNEL PLAN & PROFILE RD = 3+480 TO 3+660
(SHEET 07 OF 07)

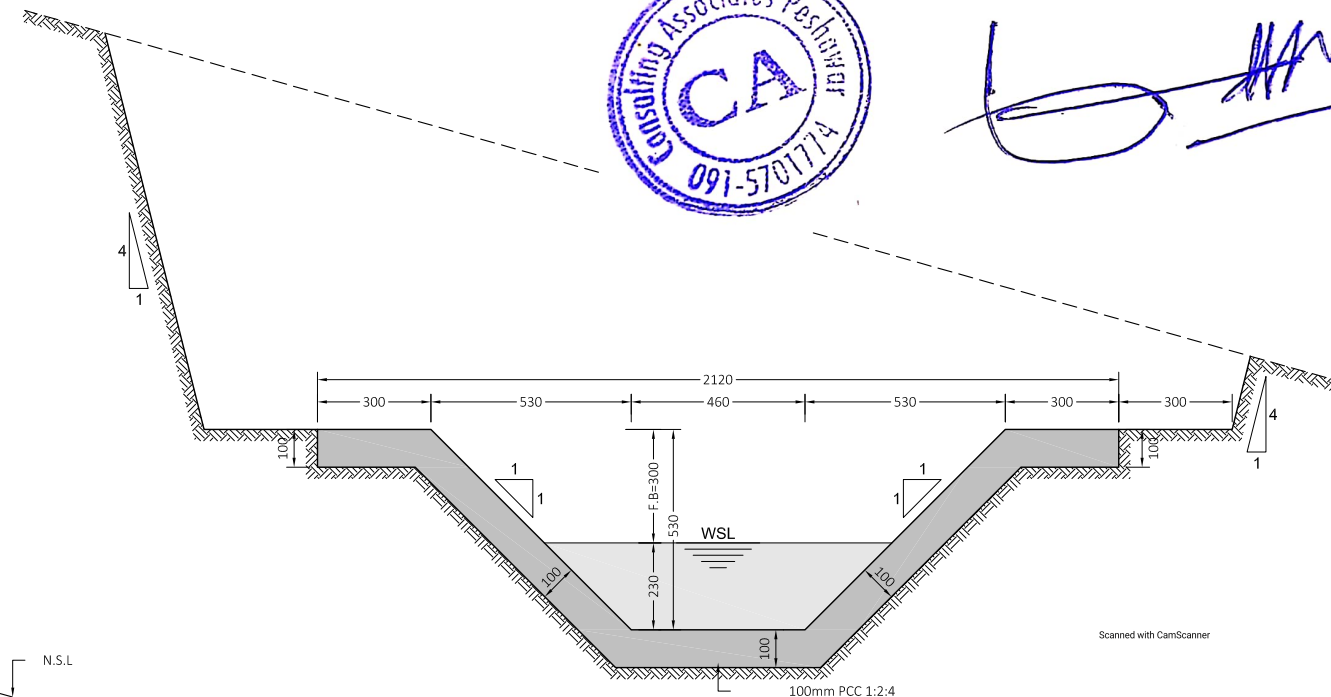
DRAWING NO.	REV
CA-PK-IX-MC-07	01



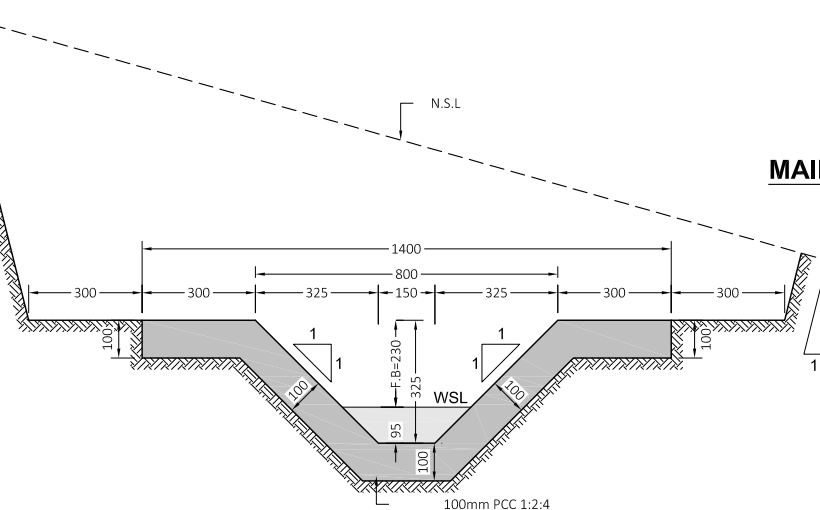
[Handwritten signature]



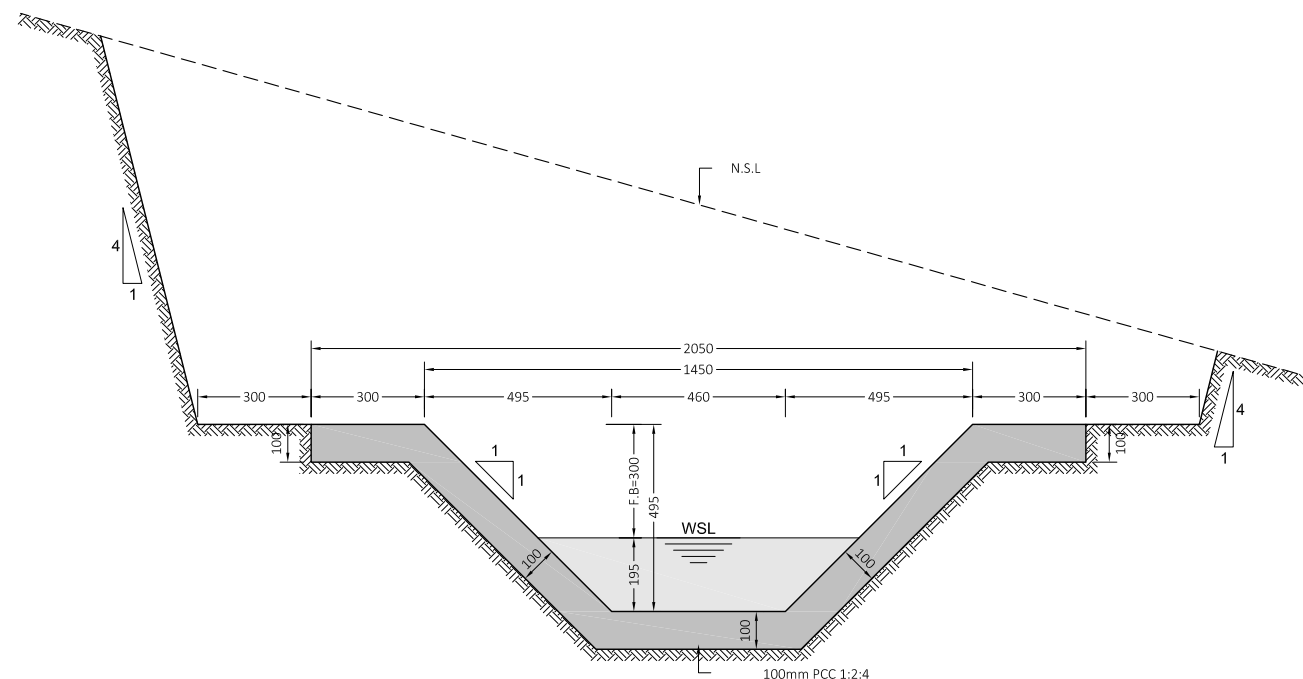
MAIN CHANNEL SECTION FROM RD=0+000 TO 1+020
SCALE = 1:20



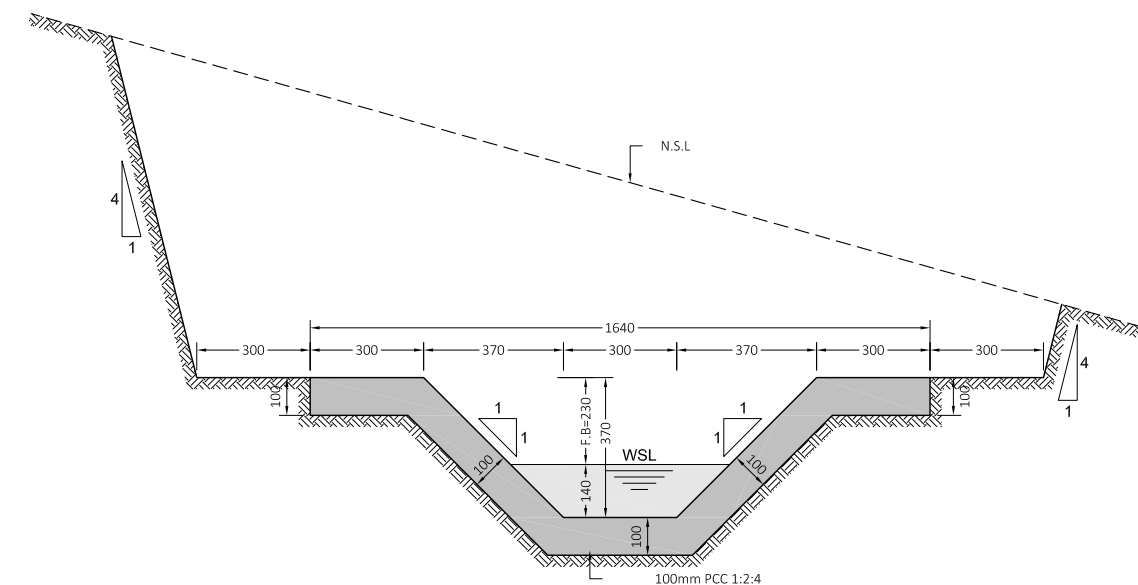
MAIN CHANNEL SECTION FROM RD=1+020 TO 1+667
SCALE = 1:20





SECTION FOR MINOR-01 & 02
SCALE = 1:20



MAIN CHANNEL SECTION FROM RD=1+667 TO TAIL
SCALE = 1:20



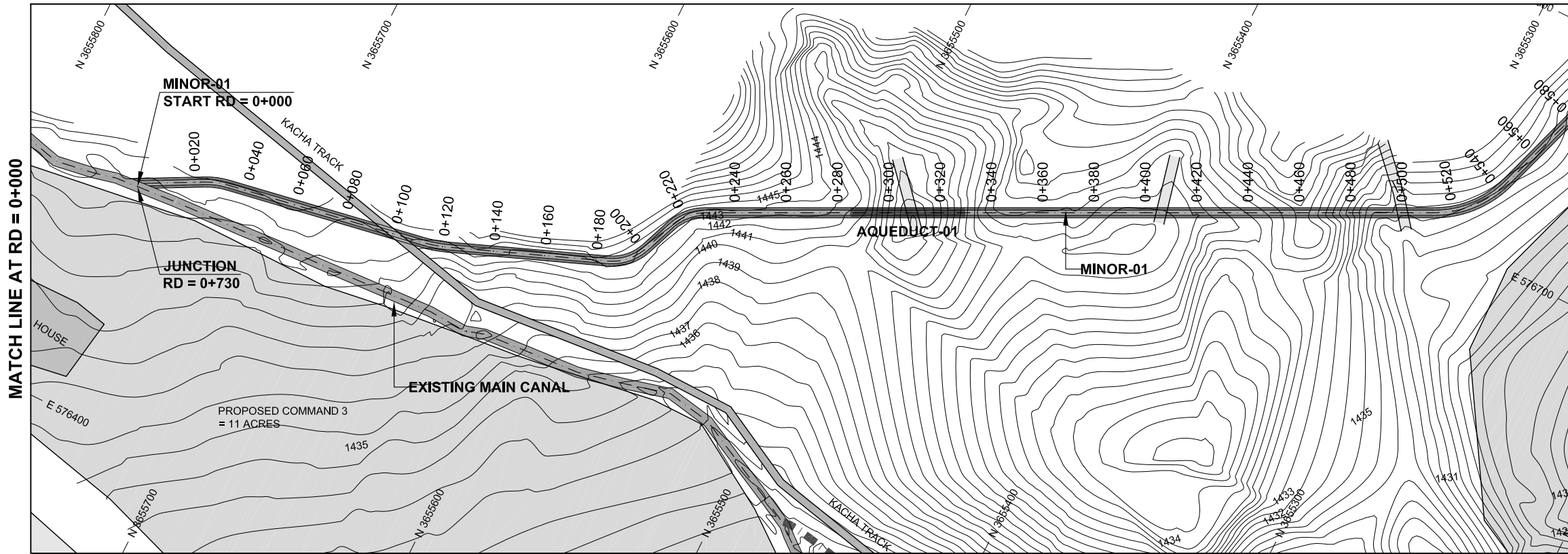
SECTION FOR MINOR-03
SCALE = 1:20

CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)	DRAWING NO. CA-PK-IX-MC-08	SCALE 1:20

M1-MINOR-01



A handwritten signature in blue ink, consisting of a large, stylized initial 'L' followed by several vertical strokes.

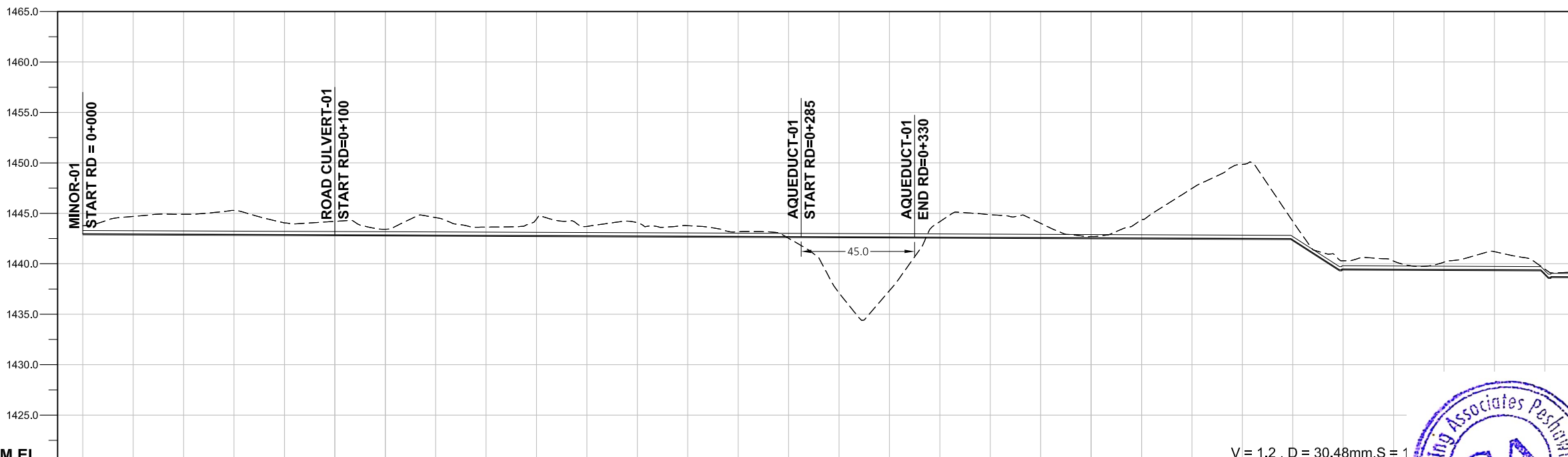


LEGENDS:

- DESIGN BED LEVEL
- NATURAL SURFACE LEVEL
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- PROPOSED MINOR-01
- ROAD OR KACHA TRACK
- RIVER OR KHWAR
- NULLAH
- HOUSE
- VILLAGE
- GRAVE YARD
- CULTIVATED LAND
- BRIDGE OR CULVERT
- ELECTRIC POLE
- OUTLET
- BENCH MARK

ABBREVIATIONS OF DRAWING

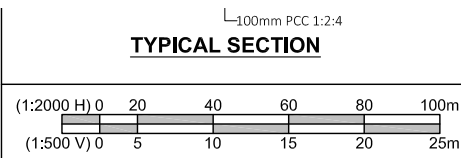
COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CANAL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03



DATUM EL

Design parameters	n = 0.018, Q = 0.20 Cusecs, V = 0.3 m/s, FB = 230mm W = 150mm, D = 95mm, S = 1:1000																																																									
DBL	1443.761	1442.970	1444.690	1442.950	1444.903	1442.930	1445.288	1442.910	1444.047	1442.890	1444.201	1442.870	1443.422	1442.850	1444.573	1442.830	1443.633	1442.810	1444.426	1442.790	1443.700	1442.770	1444.055	1442.750	1443.774	1442.730	1443.171	1442.710	1442.520	1442.690	1437.113	1442.670	1437.332	1442.650	1444.176	1442.630	1444.855	1442.610	1444.006	1442.590	1442.707	1442.570	1444.373	1442.550	1447.461	1442.530	1449.848	1442.510	1444.207	1442.369	1440.297	1439.471	1440.262	1439.451	1440.162	1441.198	1441.198	1439.472
NSL	1443.761	1442.970	1444.690	1442.950	1444.903	1442.930	1445.288	1442.910	1444.047	1442.890	1444.201	1442.870	1443.422	1442.850	1444.573	1442.830	1443.633	1442.810	1444.426	1442.790	1443.700	1442.770	1444.055	1442.750	1443.774	1442.730	1443.171	1442.710	1442.520	1442.690	1437.113	1442.670	1437.332	1442.650	1444.176	1442.630	1444.855	1442.610	1444.006	1442.590	1442.707	1442.570	1444.373	1442.550	1447.461	1442.530	1449.848	1442.510	1444.207	1442.369	1440.297	1439.471	1440.262	1439.451	1440.162	1441.198	1441.198	1439.472
RD	0+000	0+020	0+040	0+060	0+080	0+100	0+120	0+140	0+160	0+180	0+200	0+220	0+240	0+260	0+280	0+300	0+320	0+340	0+360	0+380	0+400	0+420	0+440	0+460	0+480	0+500	0+520	0+540	0+560	0+580																												

V = 1.2, D = 30.48mm, S = 1

CLIENT:

**SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA**

CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUOD ROAD PEHSAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com

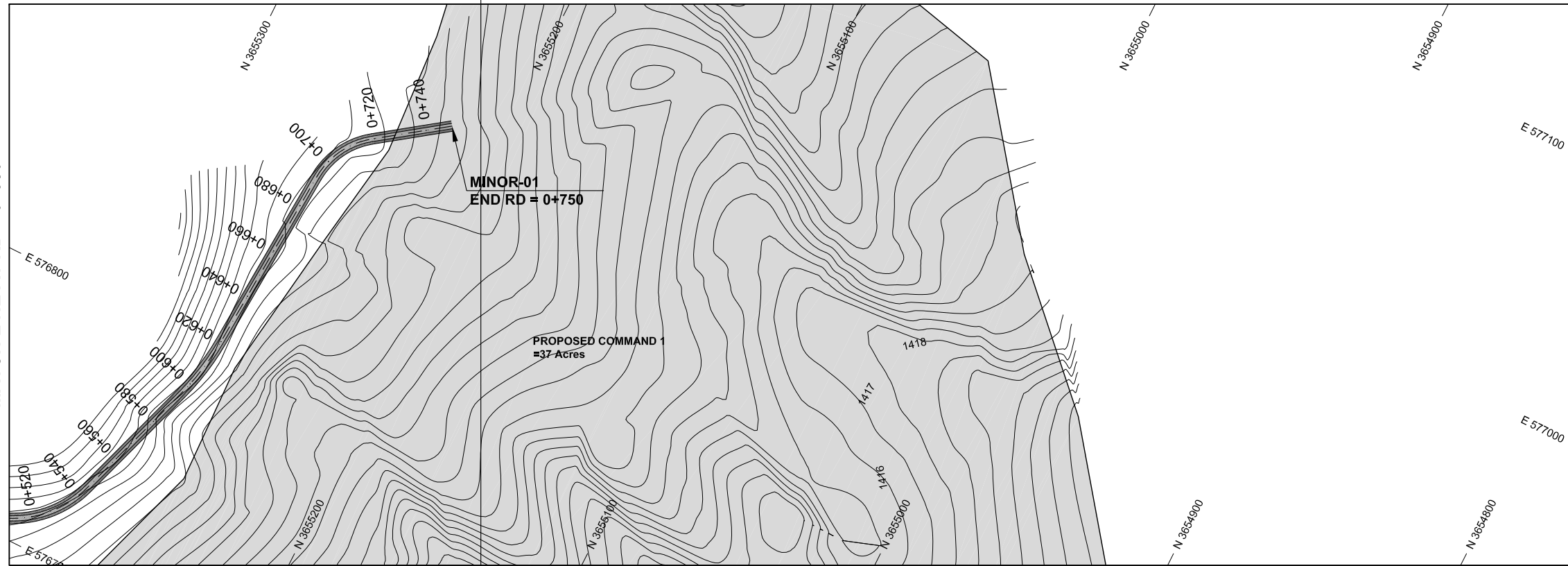
REV	DESCRIPTION	DATE

NOTES:
1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN

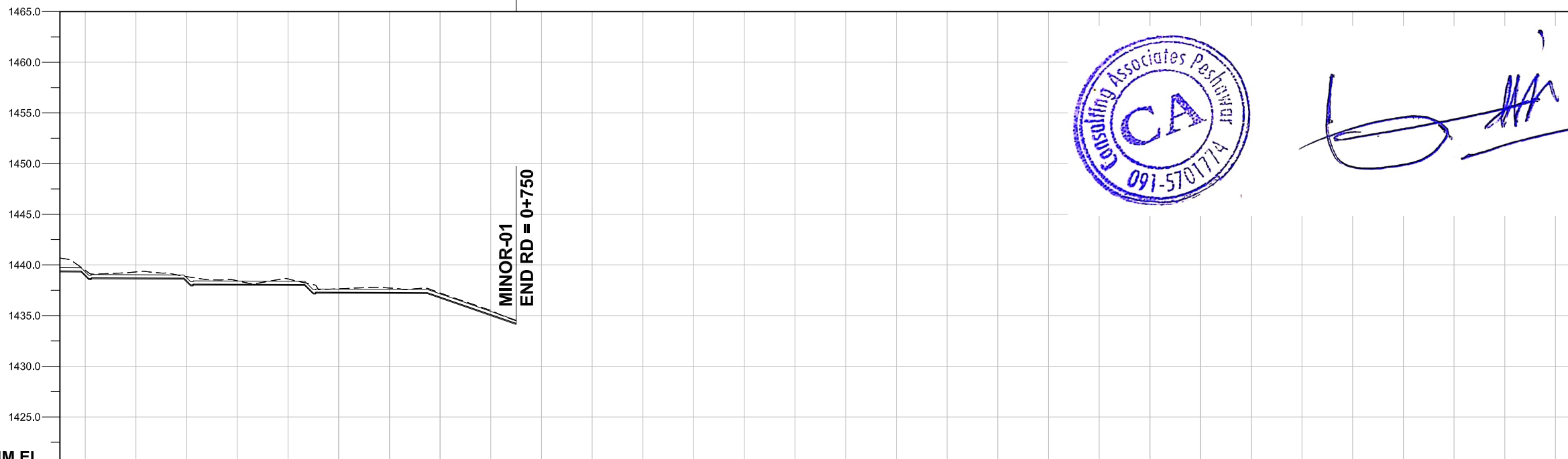
TITLE: MINOR-01
MINOR-01 PLAN & PROFILE RD = 0+000 TO 0+580
(SHEET 01 OF 02)

DRAWING NO.	REV
CA-PK-IX-M1-01	01



LEGENDS:

- DESIGN BED LEVEL ———
- NATURAL SURFACE LEVEL - - - - -
- INDEX CONTOUR ——— 1500 ———
- INTERMEDIATE CONTOUR ——— 1501 ———
- PROPOSED MINOR-01 [Symbol]
- ROAD OR KACHA TRACK [Symbol]
- RIVER OR KHWAR [Symbol]
- NULLAH [Symbol]
- HOUSE [Symbol]
- VILLAGE [Symbol]
- GRAVE YARD [Symbol]
- CULTIVATED LAND [Symbol]
- BRIDGE OR CULVERT [Symbol]
- ELECTRIC POLE [Symbol]
- OUTLET [Symbol]
- BENCH MARK [Symbol]



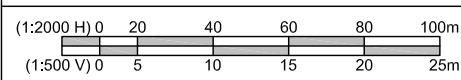
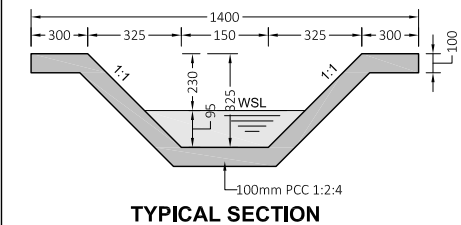
[Handwritten signature]

ABBREVIATIONS OF DRAWING

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CANAL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03

DATUM EL

Design parameters	V = 1.2 , D = 30.48mm, S = 1:6									
DBL	1438.996	1438.706	1438.417	1438.081	1438.061	1437.291	1437.271	1436.823	1435.088	1434.220
NSL	1439.472	1439.310	1438.841	1438.432	1438.627	1437.648	1437.721	1437.236	1435.509	1434.500
RD	0+580	0+600	0+620	0+640	0+660	0+680	0+700	0+720	0+740	0+750



CLIENT:

SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA

CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com

REV	DESCRIPTION	DATE

NOTES:

- ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN

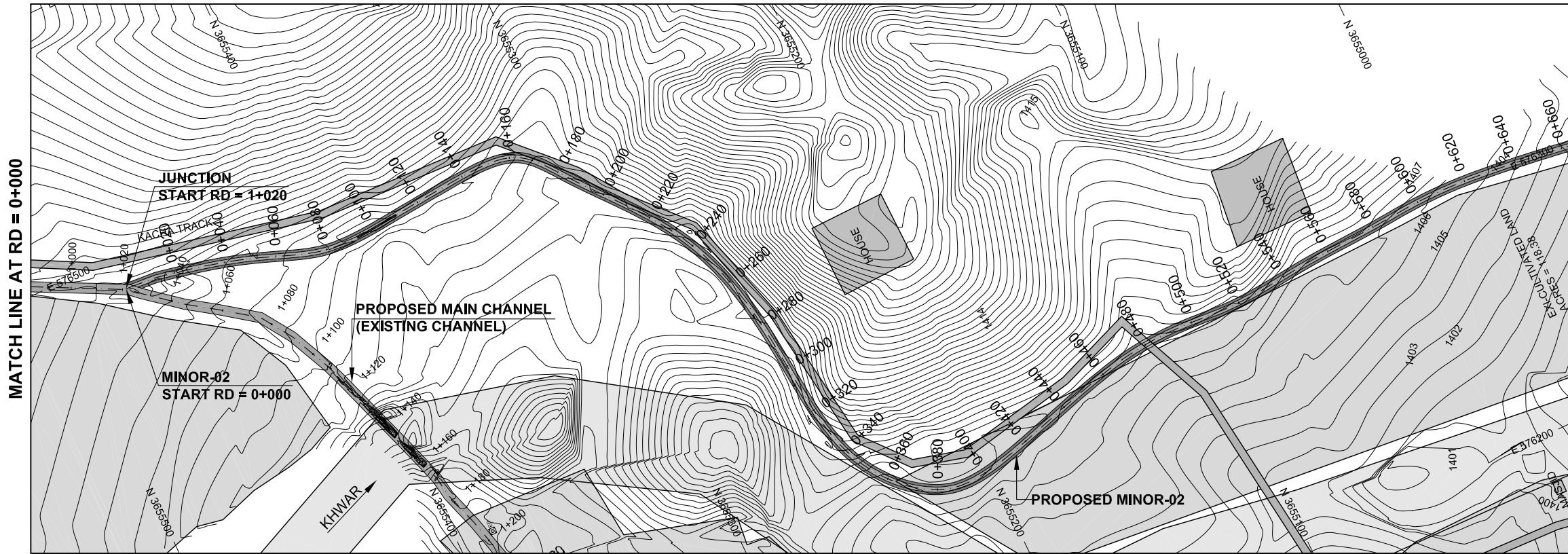
TITLE: MINOR-01
MINOR-01 PLAN & PROFILE RD = 0+580 TO 0+750
(SHEET 02 OF 02)

DRAWING NO.	REV	SCALE
CA-PK-IX-M1-02	01	H = 1:2000 V = 1:500

M2-MINOR-02



A handwritten signature in blue ink, consisting of a large, stylized initial 'L' followed by several cursive letters.

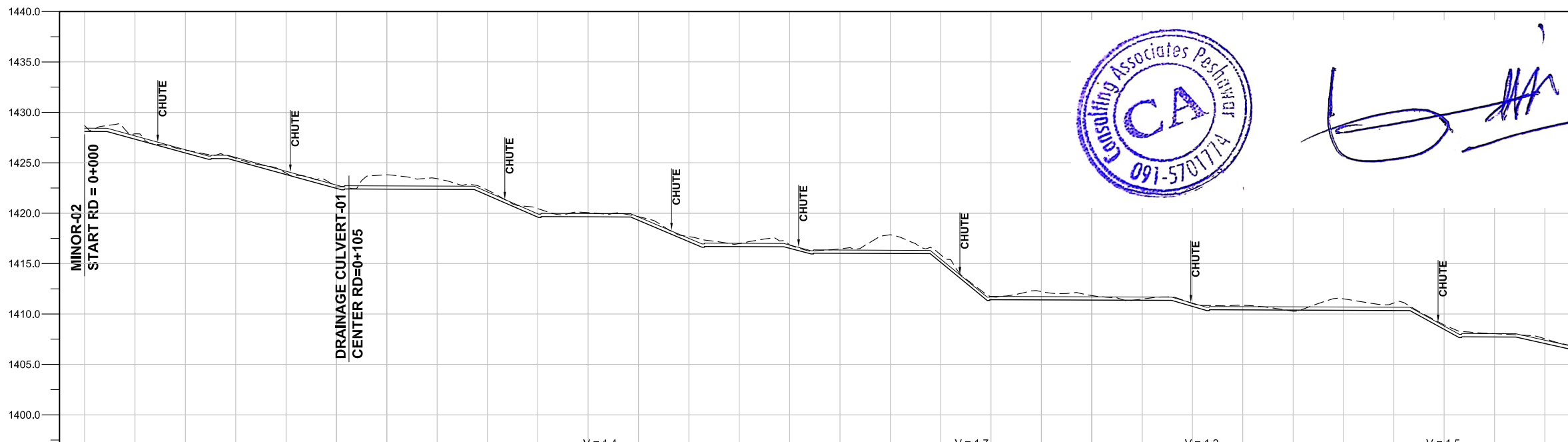


LEGENDS:

DESIGN BED LEVEL	—
NATURAL SURFACE LEVEL	- - - -
INDEX CONTOUR	—1500—
INTERMEDIATE CONTOUR	—1501—
PROPOSED MINOR-02	▬▬▬▬▬▬
ROAD OR KACHA TRACK	▬▬▬▬▬▬
RIVER OR KHWAR	▬▬▬▬▬▬
NULLAH	▬▬▬▬▬▬
HOUSE	▭
VILLAGE	▭
GRAVE YARD	▭
CULTIVATED LAND	▭
BRIDGE OR CULVERT	▭
ELECTRIC POLE	⊙
OUTLET	⊙
BENCH MARK	⊙

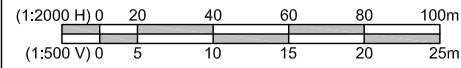
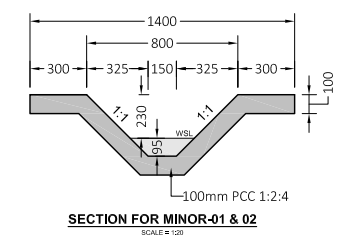
ABBREVIATIONS OF DRAWING

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CANAL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03



DATUM EL: $V = 1.2, D = 30.48 \text{ mm}, S = 1:14.7$ $V = 1.4, D = 27.46 \text{ mm}, S = 1:9.3$ $V = 1.7, D = 21.33 \text{ mm}, S = 1:5$ $V = 1.2, D = 30.48 \text{ mm}, S = 1:14$ $V = 1.5, D = 24.38 \text{ mm}, S = 1:7.4$

Design parameters	n = 0.018, Q = 0.20 Cusecs, V = 0.3 m/s, FB = 230mm W = 150mm, D = 95mm, S = 1:1000																													
DBL	1428.083	1427.315	1425.948	1425.181	1423.814	1422.447	1422.362	1422.342	1422.758	1419.590	1419.620	1419.272	1417.155	1416.668	1416.502	1416.002	1415.982	1415.109	1411.404	1411.384	1410.737	1410.389	1410.369	1410.349	1410.329	1408.460	1407.705	1407.055		
NSL	1428.682	1427.871	1425.948	1425.441	1423.976	1422.585	1422.447	1422.424	1422.295	1420.446	1420.062	1419.650	1417.678	1416.978	1416.847	1416.460	1415.856	1415.873	1411.700	1411.830	1411.033	1410.854	1410.277	1410.349	1411.088	1408.914	1408.049	1407.543		
RD	0+000	0+020	0+040	0+060	0+080	0+100	0+120	0+140	0+160	0+180	0+200	0+220	0+240	0+260	0+280	0+300	0+320	0+340	0+360	0+380	0+400	0+420	0+440	0+460	0+480	0+500	0+520	0+540	0+560	0+580



CLIENT:

**SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA**

CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUOD ROAD PEHSAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com

REV	DESCRIPTION	DATE

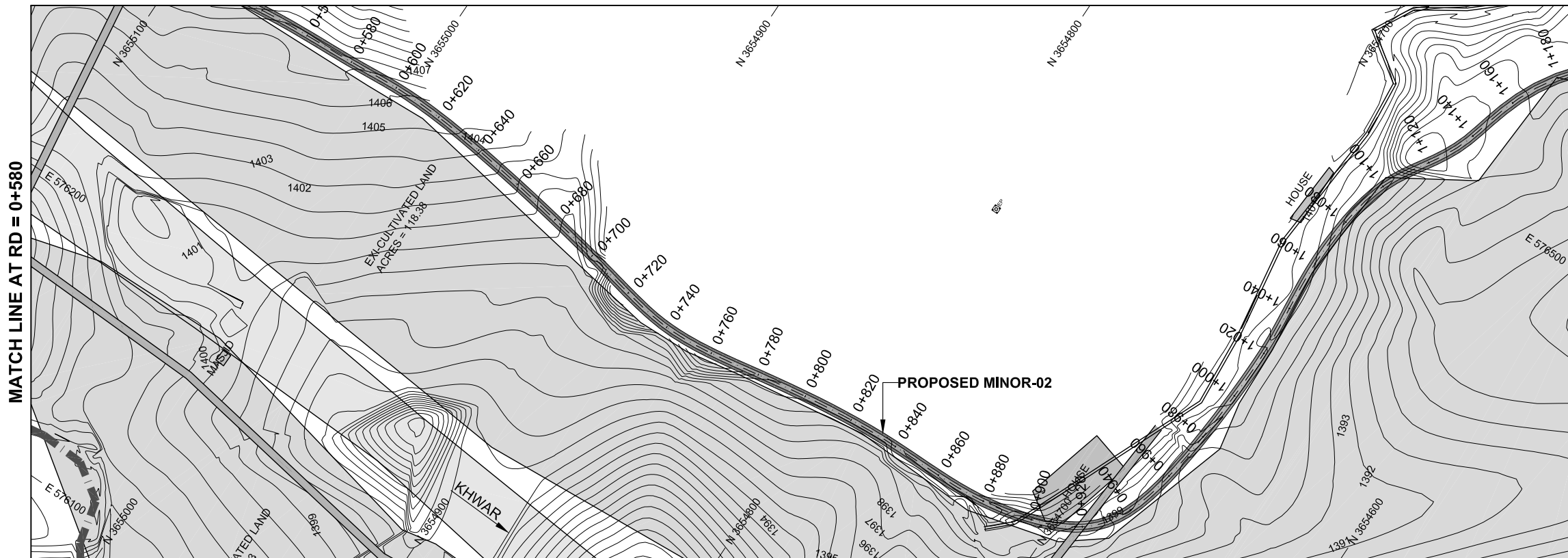
NOTES:
1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN

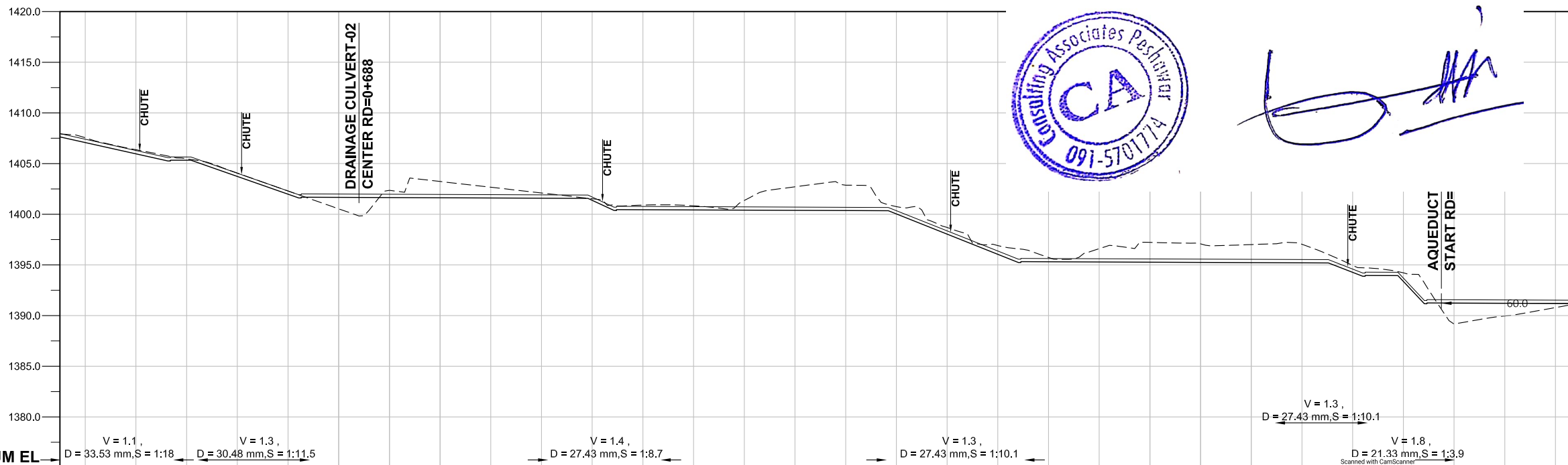
TITLE: MINOR-02

MINOR-02 PLAN & PROFILE RD = 0+000 TO 0+580
(SHEET 01 OF 03)

SCALE H = 1:2000 V = 1:500
DRAWING NO. CA-PK-IX-M2-01
REV 01



- LEGENDS:**
- DESIGN BED LEVEL
 - NATURAL SURFACE LEVEL
 - INDEX CONTOUR
 - INTERMEDIATE CONTOUR
 - PROPOSED MINOR-02
 - ROAD OR KACHA TRACK
 - RIVER OR KHUWAR
 - NULLAH
 - HOUSE
 - VILLAGE
 - GRAVE YARD
 - CULTIVATED LAND
 - BRIDGE OR CULVERT
 - ELECTRIC POLE
 - OUTLET
 - BENCH MARK

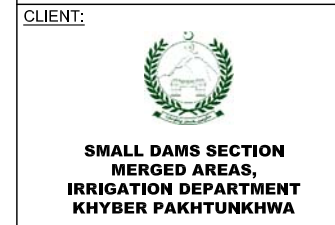
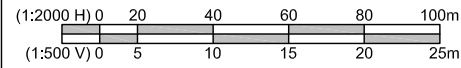
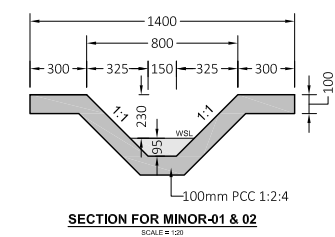


[Handwritten signature]

ABBREVIATIONS OF DRAWING

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CANAL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03

Design parameters	n = 0.018, Q = 0.20 Cusecs, V = 0.3 m/s, FB = 230mm W = 150mm, D = 95mm, S = 1:1000																													
DBL	1407.055	1405.942	1405.311	1403.707	1401.956	1401.646	1401.626	1401.606	1401.586	1401.566	1401.355	1400.423	1400.403	1400.363	1400.343	1400.008	1398.018	1396.029	1395.289	1395.269	1395.249	1395.229	1395.209	1395.189	1394.246	1393.352	1391.217	1391.197	1391.177	
NSL	1407.543	1406.368	1405.467	1404.060	1402.290	1401.530	1401.356	1401.230	1401.100	1401.000	1401.530	1400.904	1400.834	1400.383	1400.363	1400.750	1398.695	1396.910	1395.731	1395.289	1395.269	1395.225	1395.074	1395.006	1397.039	1394.949	1394.216	1389.169	1389.957	1391.177
RD	0+580	0+600	0+620	0+640	0+660	0+680	0+700	0+720	0+740	0+760	0+780	0+800	0+820	0+840	0+860	0+880	0+900	0+920	0+940	0+960	0+980	1+000	1+020	1+040	1+060	1+080	1+100	1+120	1+140	1+160



CONSULTING ASSOCIATES
 IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
 NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
 BEHID GUL CNG, JAMRUOD ROAD PEHSAWAR, PAKISTAN
 PH: +92 91 5701774 Fax: 92 91 5701775
 EMAIL: Consultingassociates127@gmail.com

REV	DESCRIPTION	DATE

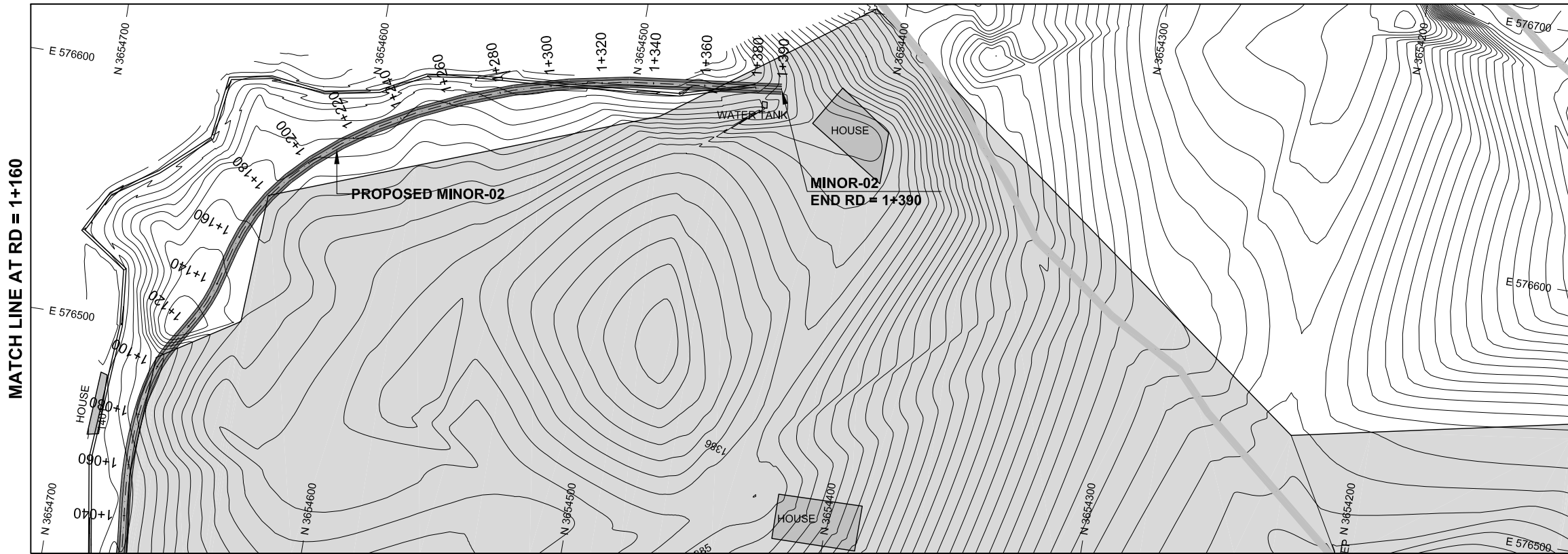
NOTES:
 1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
 FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
 PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
 PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN

TITLE: MINOR-02

MINOR-02 PLAN & PROFILE RD = 0+580 TO 1+160
 (SHEET 02 OF 03)

SCALE H = 1:2000 V = 1:500
DRAWING NO. CA-PK-IX-M2-02
REV 01

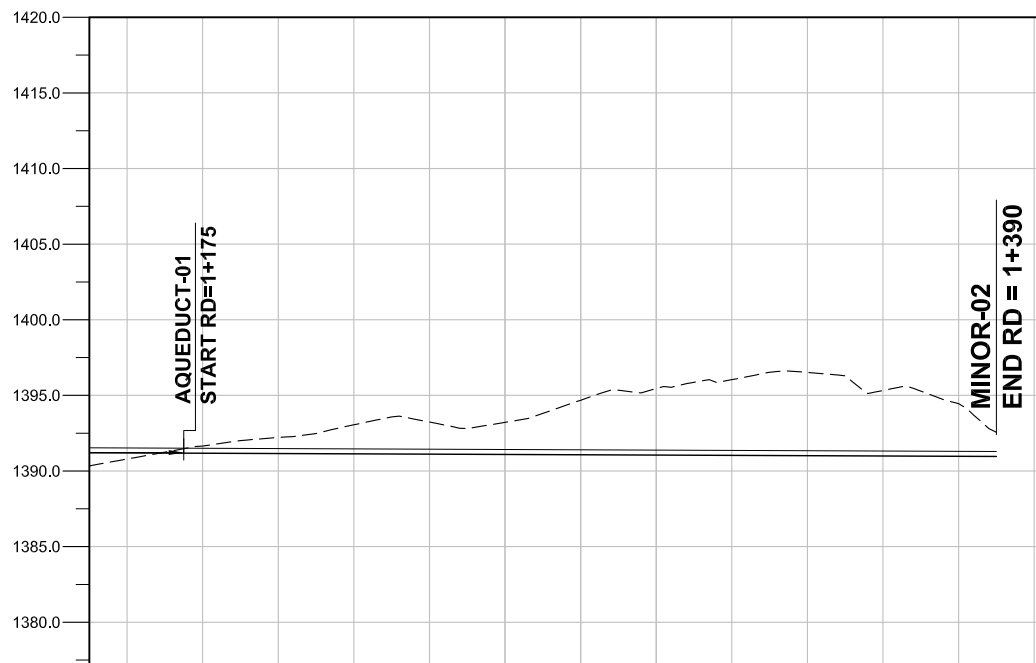


LEGENDS:

DESIGN BED LEVEL	—
NATURAL SURFACE LEVEL	- - -
INDEX CONTOUR	—1500—
INTERMEDIATE CONTOUR	—1501—
PROPOSED MINOR-02	—
ROAD OR KACHA TRACK	—
RIVER OR KHWAR	—
NULLAH	—
HOUSE	—
VILLAGE	—
GRAVE YARD	—
CULTIVATED LAND	—
BRIDGE OR CULVERT	—
ELECTRIC POLE	—EP
OUTLET	—
BENCH MARK	—BM-1

ABBREVIATIONS OF DRAWING

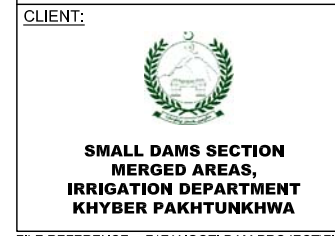
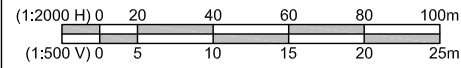
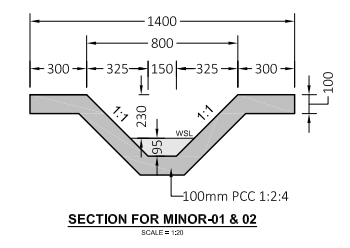
COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF WATER	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CANAL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03



[Handwritten signature]

DATUM EL

Design parameters	n = 0.018, Q = 0.20 Cusecs, V = 0.3 m/s, FB = 230mm W = 150mm, D = 95mm, S = 1:1000													
DBL	1390.798	1391.177	1391.157	1391.137	1391.117	1391.097	1391.077	1391.057	1391.037	1391.017	1390.997	1390.977	1390.957	1390.937
NSL	1390.798	1391.647	1391.137	1392.220	1393.053	1393.235	1393.217	1394.660	1395.450	1396.038	1396.516	1396.977	1397.454	1397.932
RD	1+160	1+180	1+200	1+220	1+240	1+260	1+280	1+300	1+320	1+340	1+360	1+380	1+390	



CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUOD ROAD PEHSAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com

REV	DESCRIPTION	DATE

NOTES:
1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN

TITLE: MINOR-02

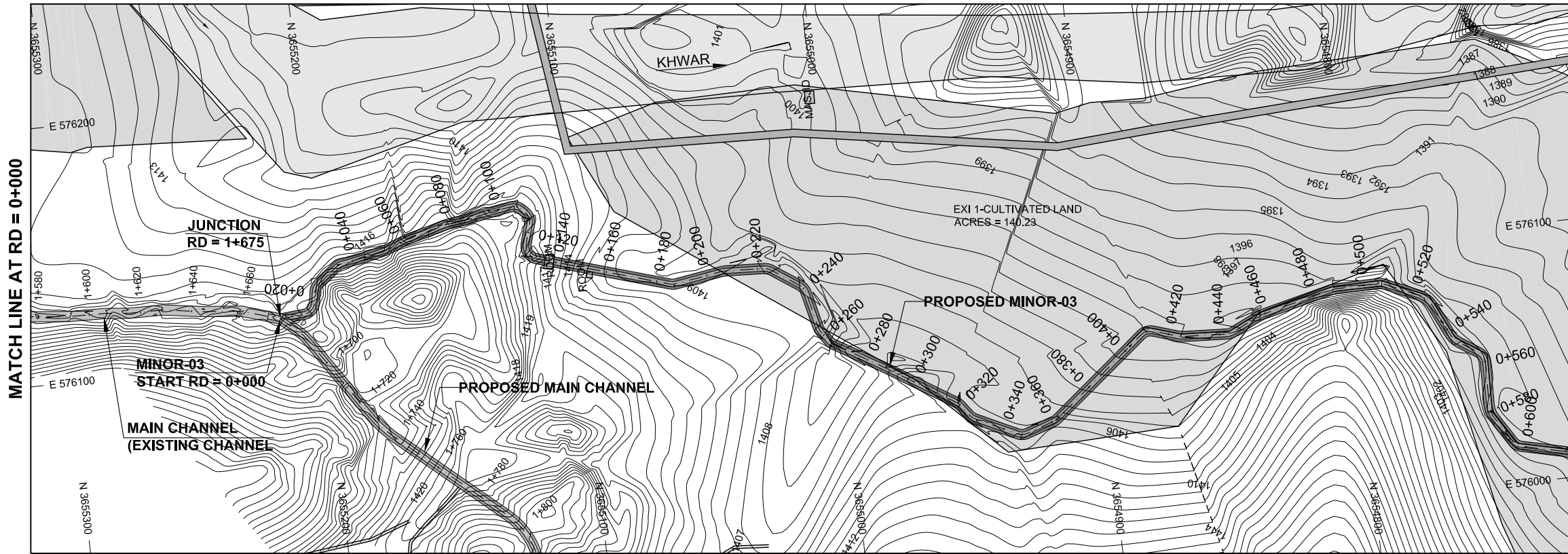
MINOR-02 PLAN & PROFILE RD = 1+160 TO 1+390
(SHEET 03 OF 03)

DRAWING NO.	REV
CA-PK-IX-M2-03	01

MINOR-03



A handwritten signature in blue ink, consisting of a large, stylized initial 'L' followed by several vertical strokes.

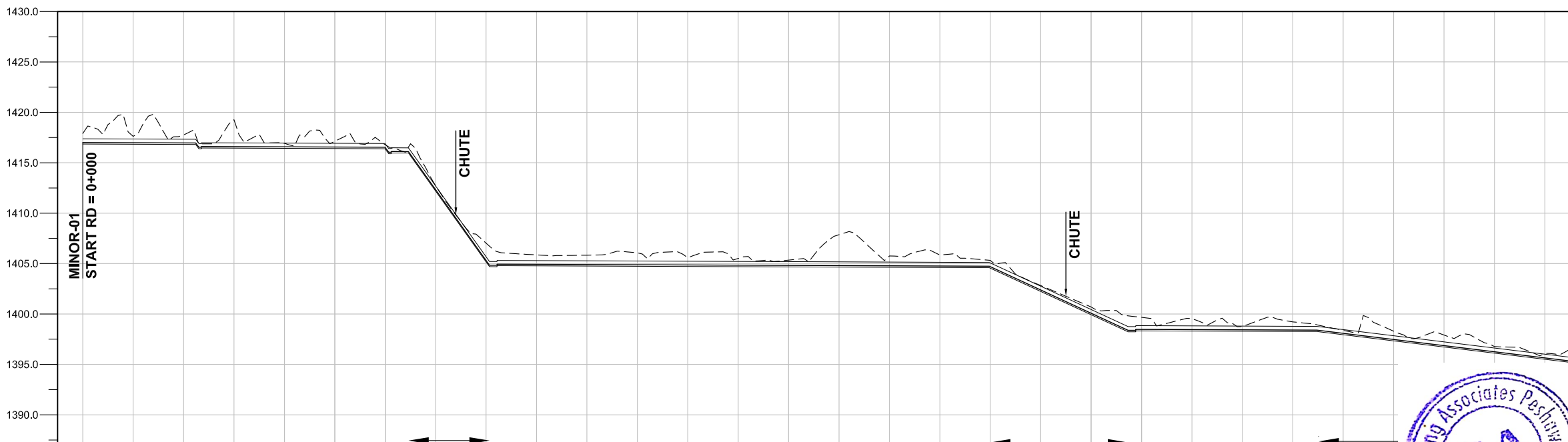


LEGENDS:

- DESIGN BED LEVEL ———
- NATURAL SURFACE LEVEL - - - - -
- INDEX CONTOUR ——— 1500 ———
- INTERMEDIATE CONTOUR ——— 1501 ———
- PROPOSED MINOR-03 [Symbol]
- ROAD OR KACHA TRACK [Symbol]
- RIVER OR KHWAR [Symbol]
- NULLAH [Symbol]
- HOUSE [Symbol]
- VILLAGE [Symbol]
- GRAVE YARD [Symbol]
- CULTIVATED LAND [Symbol]
- BRIDGE OR CULVERT [Symbol]
- ELECTRIC POLE [Symbol]
- OUTLET [Symbol]
- BENCH MARK [Symbol]

ABBREVIATIONS OF DRAWING

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
WATER LEVEL	WL
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF CHANNEL	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CANAL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03



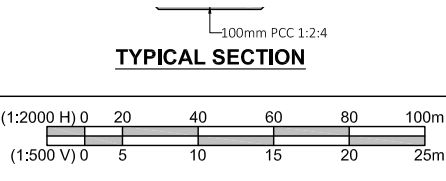
DATUM EL

Design parameters: $n = 0.018$, $Q = 0.75$ Cusecs, $V = 0.348$ m/s, $FB = 230$ mm, $W = 300$ mm, $D = 140$ mm, $Slope = 1:1000$

RD	DBL	NSL
0+000	1417.905	1417.905
0+020	1417.614	1416.980
0+040	1417.752	1416.960
0+060	1419.265	1416.596
0+080	1416.923	1416.576
0+100	1417.129	1416.556
0+120	1416.779	1416.495
0+140	1412.707	1412.323
0+160	1407.027	1405.311
0+180	1405.859	1404.919
0+200	1405.833	1404.899
0+220	1406.075	1404.879
0+240	1405.586	1404.859
0+260	1405.511	1404.839
0+280	1405.344	1404.819
0+300	1407.862	1404.799
0+320	1405.756	1404.779
0+340	1405.851	1404.759
0+360	1405.321	1404.694
0+380	1402.821	1402.384
0+400	1400.698	1400.075
0+420	1399.672	1398.472
0+440	1399.530	1398.452
0+460	1398.757	1398.432
0+480	1399.219	1398.412
0+500	1398.375	1398.085
0+520	1398.299	1397.476
0+540	1397.916	13
0+560	1396.769	13
0+580	1396.093	13



[Handwritten signature]



CLIENT:

SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA

CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com

REV	DESCRIPTION	DATE

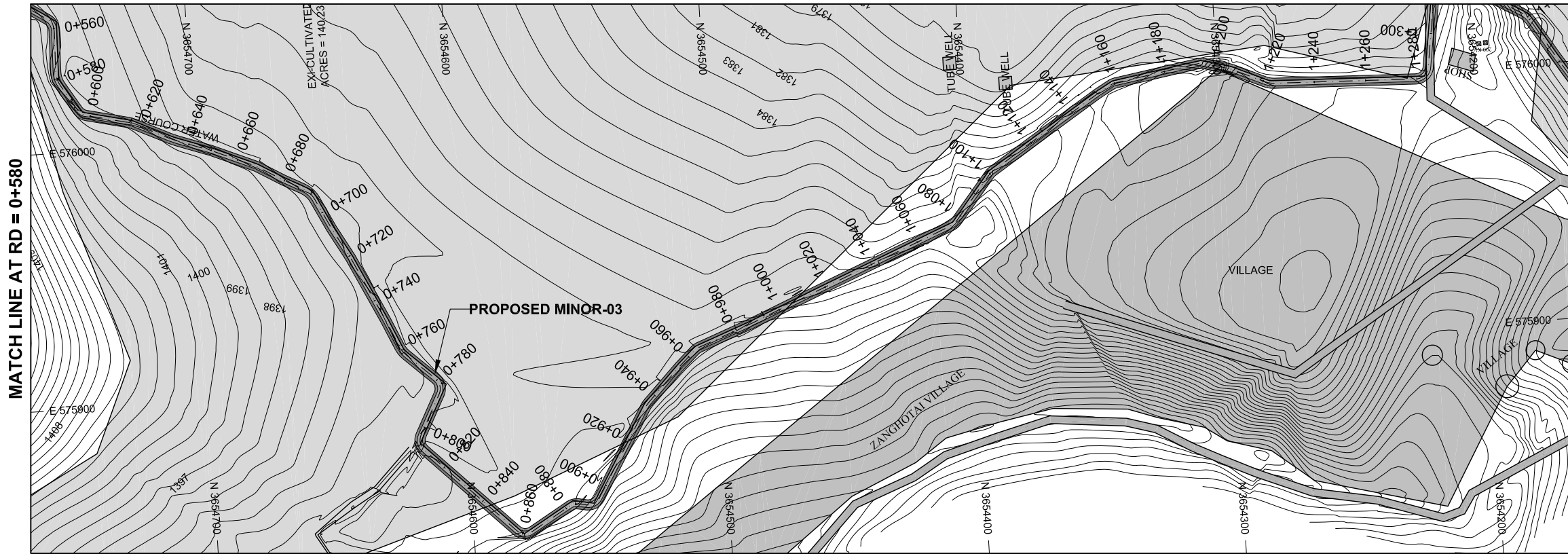
NOTES:
1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN

TITLE: **MINOR-03**

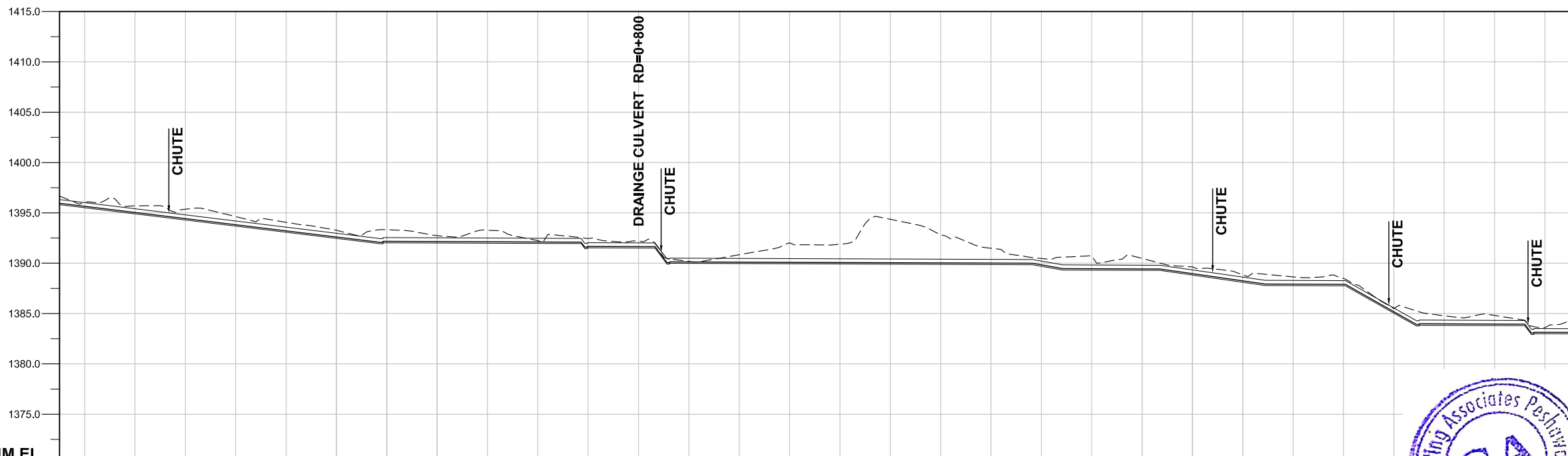
MINOR-03 PLAN & PROFILE RD = 0+000 TO 0+580
(SHEET 01 OF 04)

DRAWING NO.	REV
CA-PK-IX-M3-01	01



LEGENDS:

- DESIGN BED LEVEL ———
- NATURAL SURFACE LEVEL - - - - -
- INDEX CONTOUR ——— 1500 ———
- INTERMEDIATE CONTOUR ——— 1501 ———
- PROPOSED MINOR-03 [Symbol]
- ROAD OR KACHA TRACK [Symbol]
- RIVER OR KHWAR [Symbol]
- NULLAH [Symbol]
- HOUSE [Symbol]
- VILLAGE [Symbol]
- GRAVE YARD [Symbol]
- CULTIVATED LAND [Symbol]
- BRIDGE OR CULVERT [Symbol]
- ELECTRIC POLE [Symbol]
- OUTLET [Symbol]
- BENCH MARK [Symbol]



ABBREVIATIONS OF DRAWING

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
WATER LEVEL	WL
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF CHANNEL	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CANAL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03

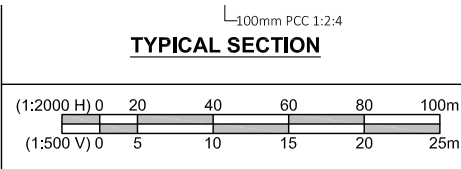
DATUM EL ←

Design parameters → V = 1.81 m/s, D=39.6mm, Slope = 1:9 n = 0.018, Q = 0.75 Cusecs, V = 0.348 m/s, FB = 230mm, W = 300mm, D = 140mm, Slope = 1:1000 V = 1.81 m/s

Station	DBL	NSL	RD
0+580	1396.093	1395.649	1396.093
0+600	1395.691	1395.040	1395.691
0+620	1395.357	1394.430	1395.357
0+640	1394.628	1393.821	1394.628
0+660	1394.060	1393.212	1394.060
0+680	1393.268	1392.603	1393.268
0+700	1393.319	1392.168	1393.319
0+720	1392.731	1392.148	1392.731
0+740	1393.268	1392.128	1393.268
0+760	1392.248	1392.108	1392.248
0+780	1392.452	1391.667	1392.452
0+800	1392.193	1391.647	1392.193
0+820	1390.173	1390.127	1390.173
0+840	1390.839	1390.107	1390.839
0+860	1392.029	1390.087	1392.029
0+880	1391.902	1390.067	1391.902
0+900	1394.359	1390.047	1394.359
0+920	1392.813	1390.027	1392.813
0+940	1391.482	1390.007	1391.482
0+960	1390.467	1389.835	1390.467
0+980	1390.740	1389.451	1390.740
1+000	1390.472	1389.431	1390.472
1+020	1389.637	1388.964	1389.637
1+040	1388.841	1388.249	1388.841
1+060	1388.641	1387.919	1388.641
1+080	1388.497	1387.899	1388.497
1+100	1385.499	1385.181	1385.499
1+120	1384.775	1	1384.775
1+140	1384.810	1	1384.810
1+160	1383.591	1	1383.591



[Handwritten signature]



CLIENT:

SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA

CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUOD ROAD PEHSAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultgassodates127@gmail.com

REV	DESCRIPTION	DATE

NOTES:

1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

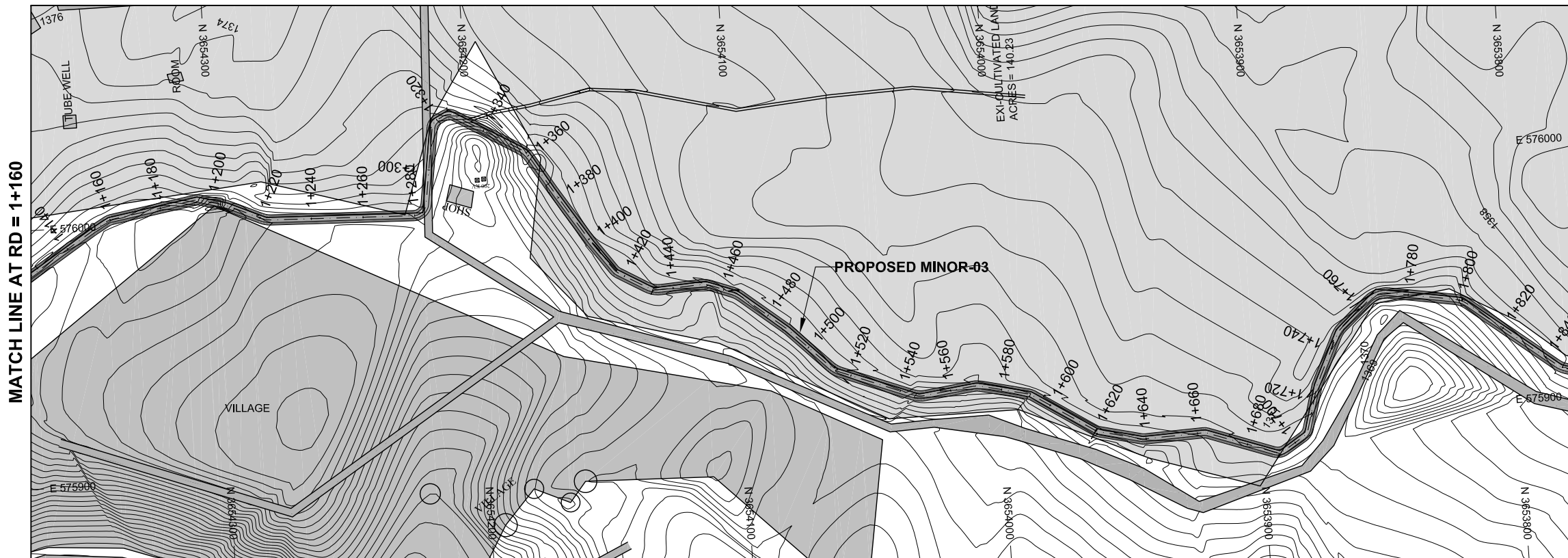
PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN

TITLE: MINOR-03

MINOR-03 PLAN & PROFILE RD = 0+580 TO 1+160
(SHEET 02 OF 04)

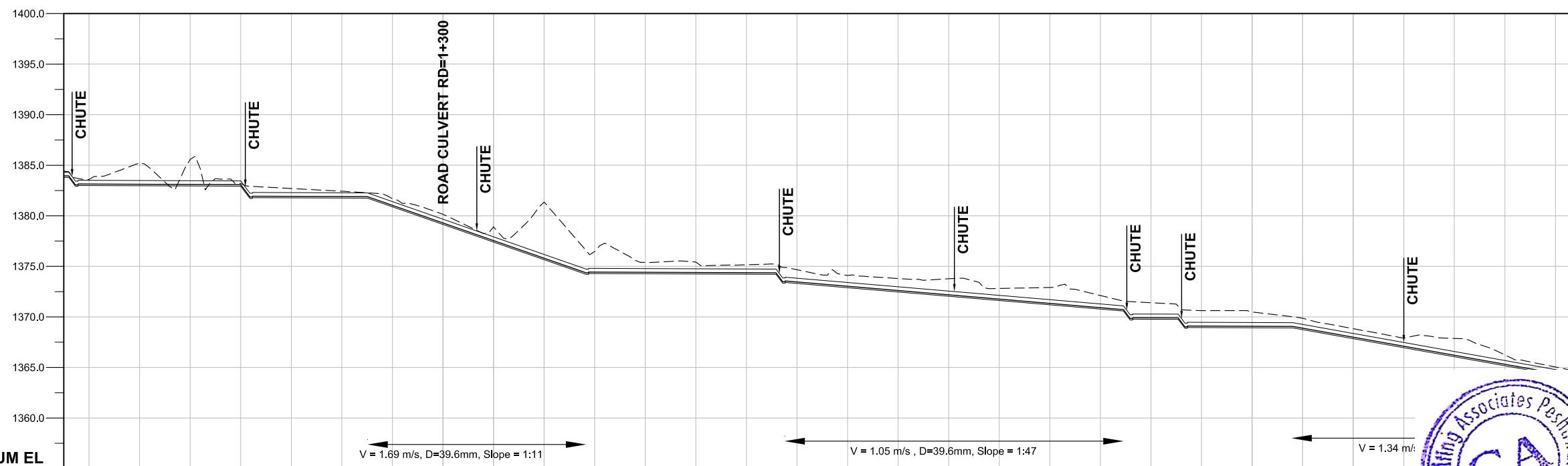
DRAWING NO.	REV
CA-PK-IX-M3-02	01

SCALE
H = 1:2000
V = 1:500



LEGENDS:

- DESIGN BED LEVEL ————
- NATURAL SURFACE LEVEL - - - - -
- INDEX CONTOUR ———— 1500 ————
- INTERMEDIATE CONTOUR ———— 1501 ————
- PROPOSED MINOR-03 [Symbol]
- ROAD OR KACHA TRACK [Symbol]
- RIVER OR KHWAR [Symbol]
- NULLAH [Symbol]
- HOUSE [Symbol]
- VILLAGE [Symbol]
- GRAVE YARD [Symbol]
- CULTIVATED LAND [Symbol]
- BRIDGE OR CULVERT [Symbol]
- ELECTRIC POLE [Symbol]
- OUTLET [Symbol]
- BENCH MARK [Symbol]



ABBREVIATIONS OF DRAWING

COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
WATER LEVEL	WL
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF CHANNEL	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CANAL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03

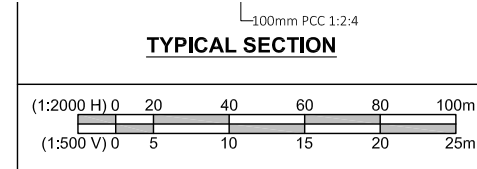
DATUM EL

Design parameters ← $n = 0.018, Q = 0.75 \text{ Cusecs}, V = 0.348 \text{ m/s}, \text{FB} = 230\text{mm}, W = 300\text{mm}, D = 140\text{mm}, \text{Slope} = 1:1000$

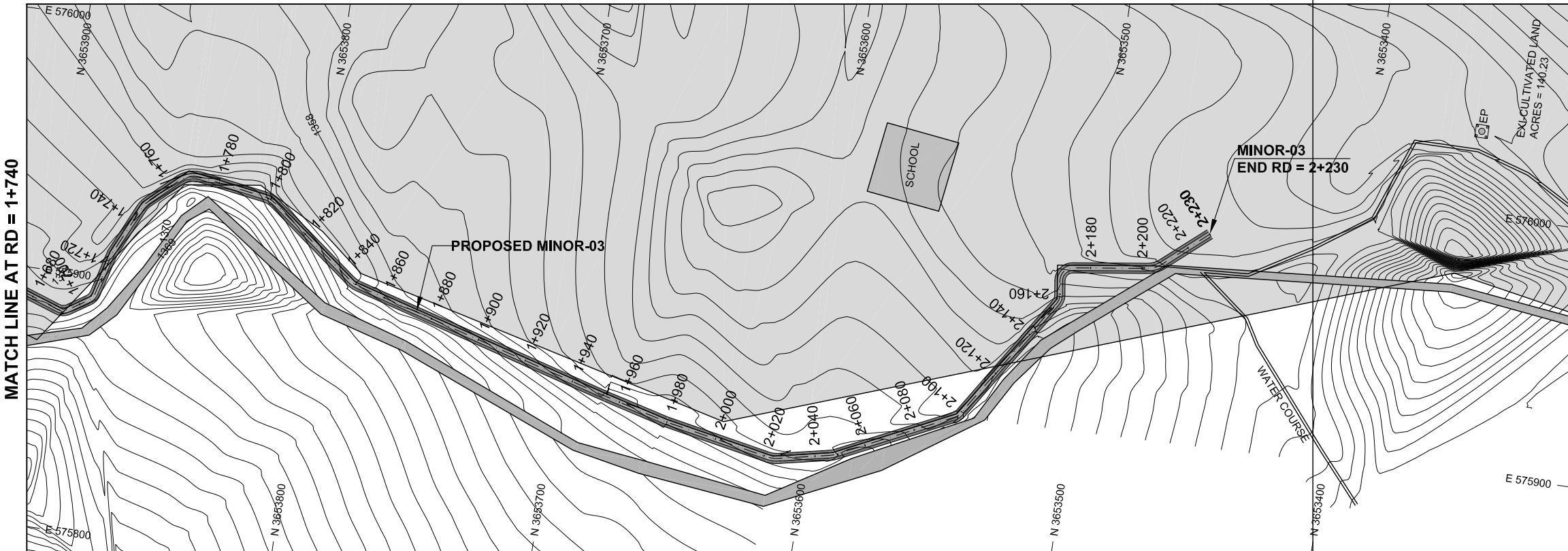
DBL	NSL	RD
1383.132	1383.591	1+160
1383.112	1385.229	1+180
1383.092	1385.570	1+200
1383.072	1383.196	1+220
1381.918	1382.695	1+240
1381.898	1382.425	1+260
1381.028	1381.664	1+280
1379.285	1380.144	1+300
1377.543	1378.902	1+320
1375.800	1381.361	1+340
1374.429	1376.459	1+360
1374.409	1375.391	1+380
1374.389	1375.431	1+400
1374.369	1375.156	1+420
1373.455	1374.667	1+440
1373.032	1374.089	1+460
1372.609	1373.796	1+480
1372.185	1373.770	1+500
1371.762	1372.811	1+520
1371.339	1372.908	1+540
1370.916	1372.116	1+560
1369.911	1371.403	1+580
1369.091	1370.622	1+600
1369.071	1370.480	1+620
1368.885	1369.861	1+640
1367.992	1368.834	1+660
1367.099	1367.893	1+680
1367.867	1367.867	1+700
1366.235	1366.235	1+720
1365.050	1365.050	1+740



[Handwritten signature]



CLIENT: GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUOD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultgassodates127@gmail.com	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUOD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultgassodates127@gmail.com	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN	SCALE H = 1:2000 V = 1:500
		SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	 				

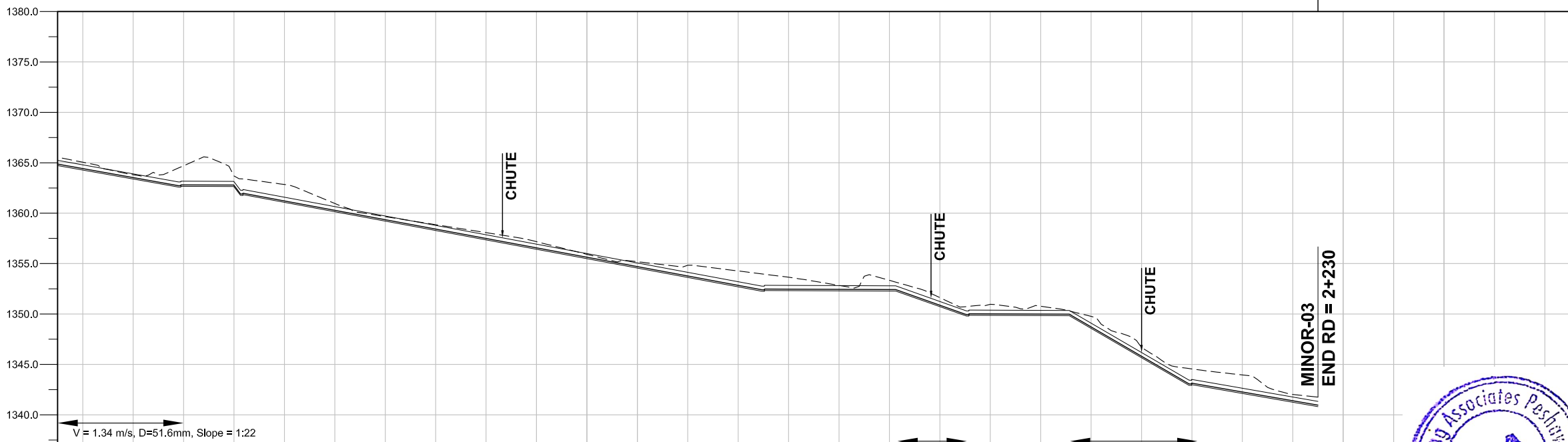


LEGENDS:

- DESIGN BED LEVEL ———
- NATURAL SURFACE LEVEL - - - - -
- INDEX CONTOUR ——— 1500 ———
- INTERMEDIATE CONTOUR ——— 1501 ———
- PROPOSED MINOR-03 [Symbol]
- ROAD OR KACHA TRACK [Symbol]
- RIVER OR KHWAR [Symbol]
- NULLAH [Symbol]
- HOUSE [Symbol]
- VILLAGE [Symbol]
- GRAVE YARD [Symbol]
- CULTIVATED LAND [Symbol]
- BRIDGE OR CULVERT [Symbol]
- ELECTRIC POLE [Symbol]
- OUTLET [Symbol]
- BENCH MARK [Symbol]

ABBREVIATIONS OF DRAWING

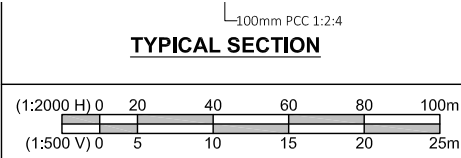
COEFFICIENT	n
DISCHARGE	Q
VELOCITY	V
WATER LEVEL	WL
FREE BOARD	FB
WIDTH OF CHANNEL	W
DEPTH OF CHANNEL	D
SLOPE	S
DESIGN BED LEVEL	DBL
NATURAL SURFACE LEVEL	NSL
REDUCED LEVEL	RD
ELEVATION	EL
METER	m
MILLIMETER	mm
MAIN CANAL	MC
MINOR-01	M-01
MINOR-02	M-02
MINOR-03	M-03



Design parameters	- n = 0.018, Q = 0.75 Cusecs, V = 0.348 m/s, FB = 230mm, W = 300mm, D = 140mm, Slope = 1:1000 -																			
DBL	1364.421	1363.529	1362.805	1362.756	1361.216	1360.284	1359.353	1358.422	1357.491	1356.560	1355.628	1354.697	1353.766	1352.835	1351.904	1350.973	1350.042	1349.111	1348.180	1347.249
NSL	1365.050	1363.808	1362.805	1362.686	1361.216	1360.955	1359.655	1358.860	1358.068	1357.171	1356.274	1355.377	1354.480	1353.583	1352.686	1351.789	1350.892	1349.995	1349.098	1348.201
RD	1+740	1+760	1+780	1+800	1+820	1+840	1+860	1+880	1+900	1+920	1+940	1+960	1+980	2+000	2+020	2+040	2+060	2+080	2+100	2+120



[Handwritten signature]



CLIENT:

**SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA**

CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUOD ROAD PEHSAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com

REV	DESCRIPTION	DATE

NOTES:

- ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN

TITLE: MINOR-03

MINOR-03 PLAN & PROFILE RD = 1+740 TO 2+230
(SHEET 04 OF 04)

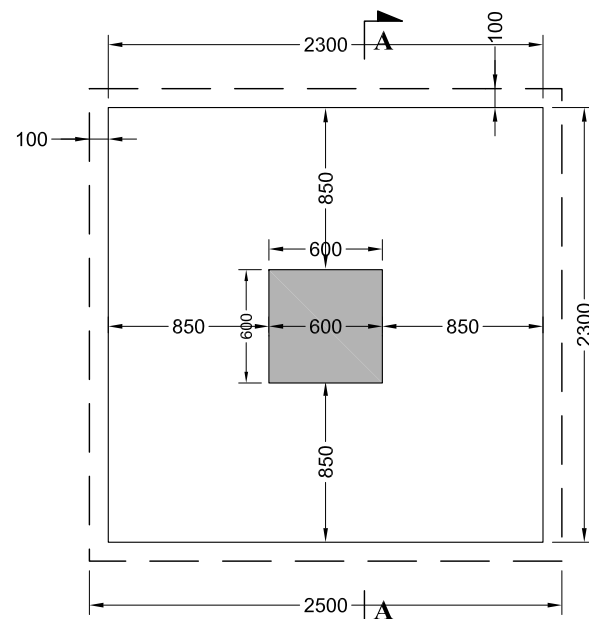
DRAWING NO.	REV
CA-PK-IX-M3-04	01

SCALE
H = 1:2000
V = 1:500

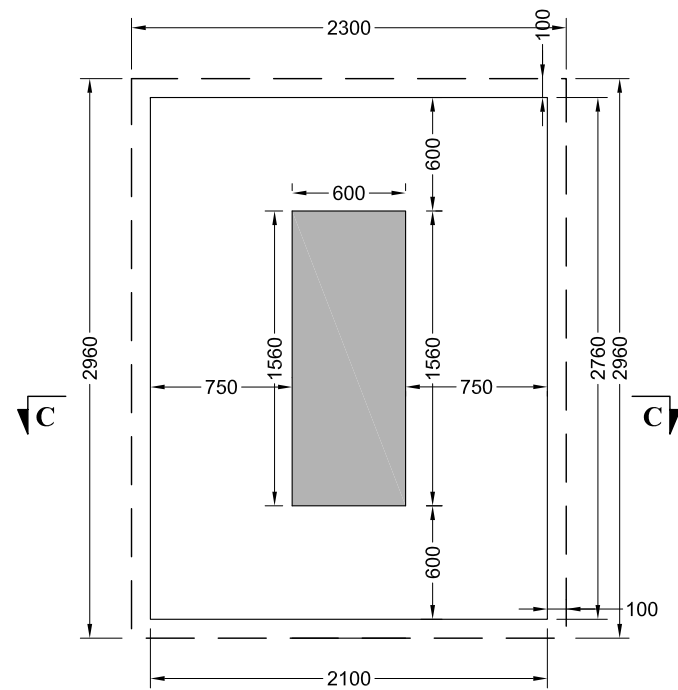
HS-HYDRAULIC STRUCTURES



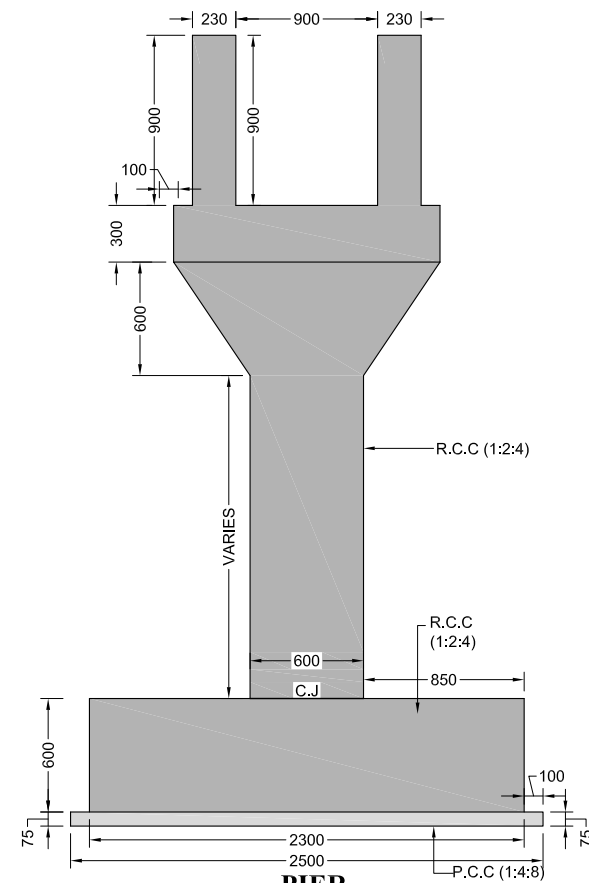
A handwritten signature in blue ink, consisting of a large, stylized initial 'L' followed by several cursive letters.



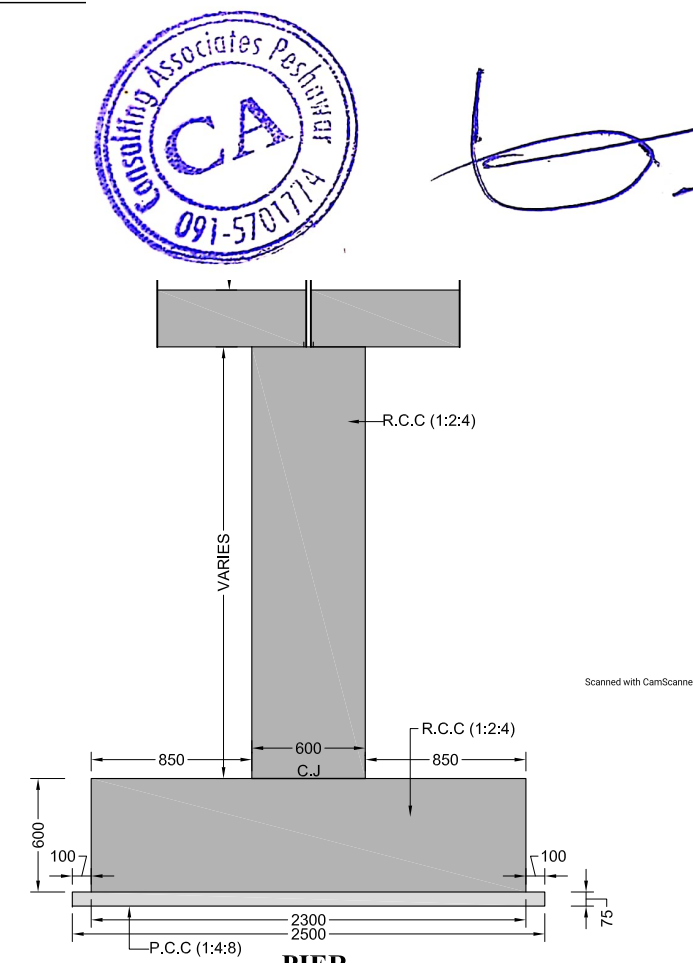
PIER FOOTING PLAN



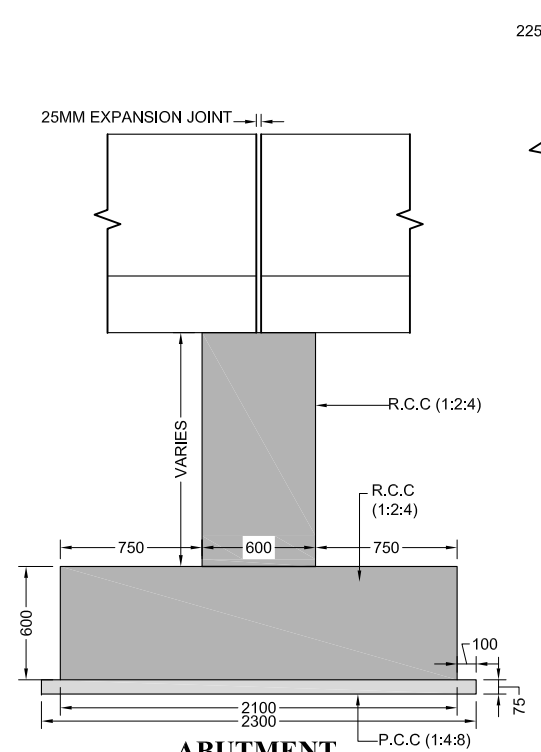
ABUTMENTS FOOTING PLAN



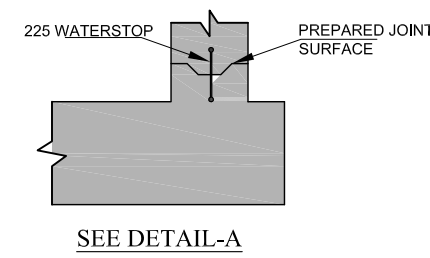
PIER SECTION A-A



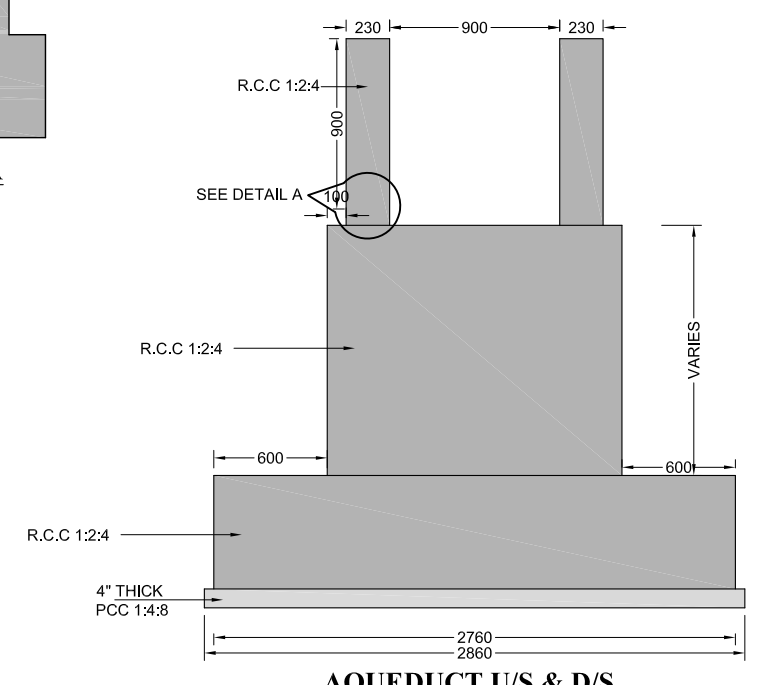
PIER SECTION B-B



ABUTMENT SECTION C-C





SEE DETAIL-A

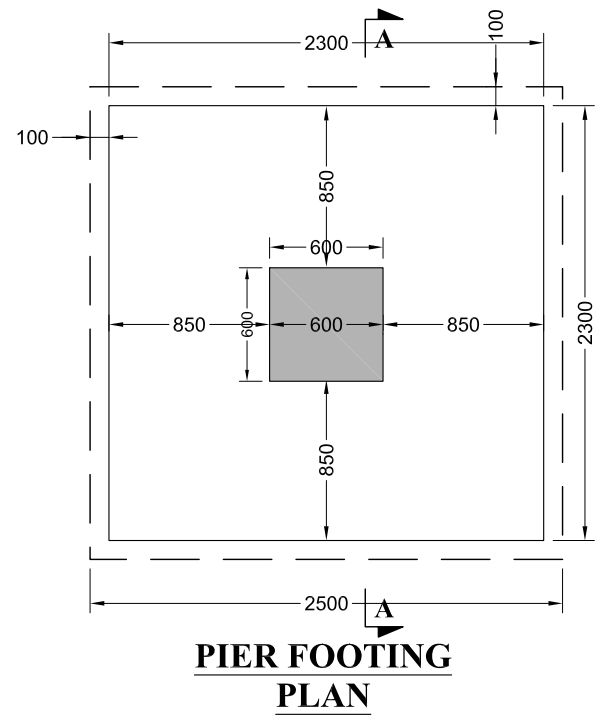


AQUEDUCT U/S & D/S SECTION (TYPICAL)

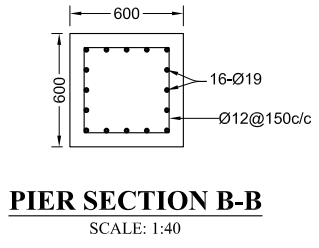


[Handwritten signature]

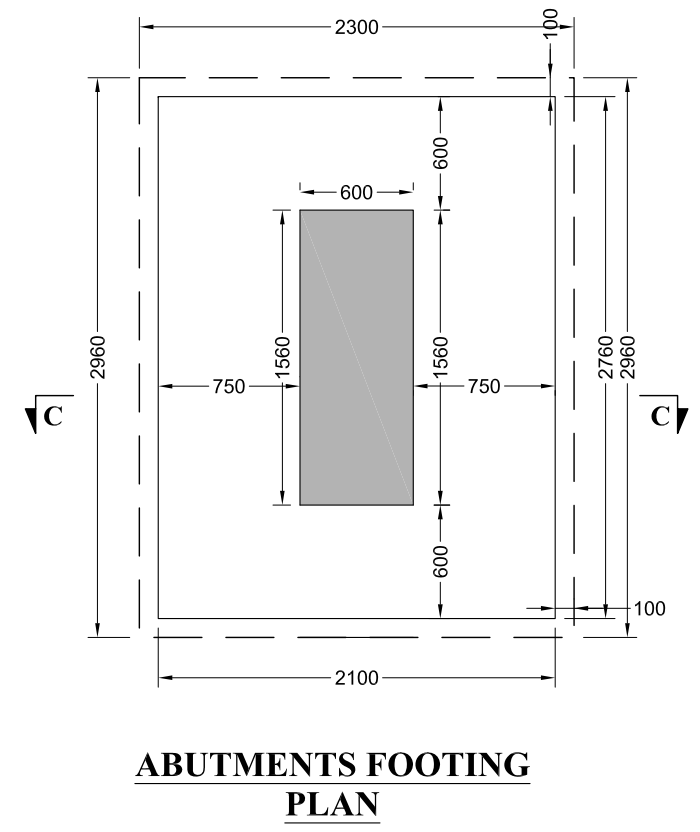
CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CHNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM- NORTH WAZIRISTAN TITLE: HYDRAULIC STRUCTURES AQUEDUCT STRUCTURE DETAILS (SHEET 01 OF 02)	DRAWING NO. CA-PK-IX-HS-01	SCALE AS SHOWN REV



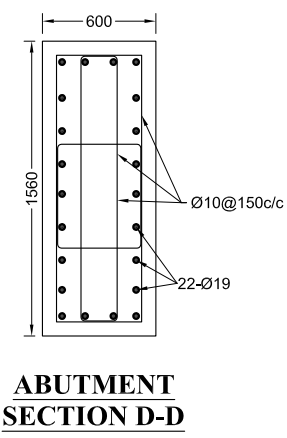
PIER FOOTING PLAN



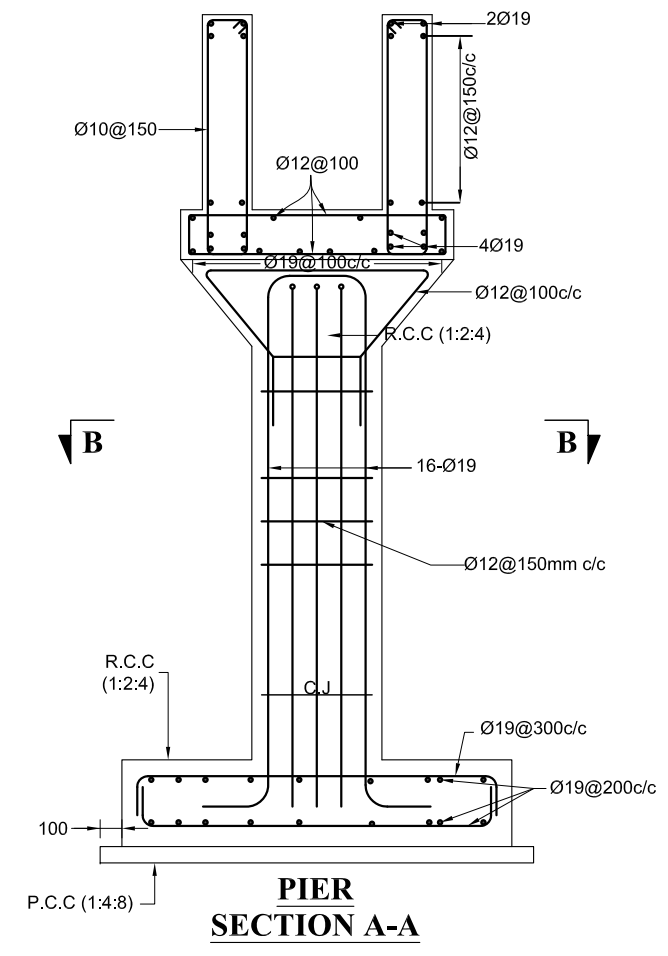
PIER SECTION B-B
SCALE: 1:40



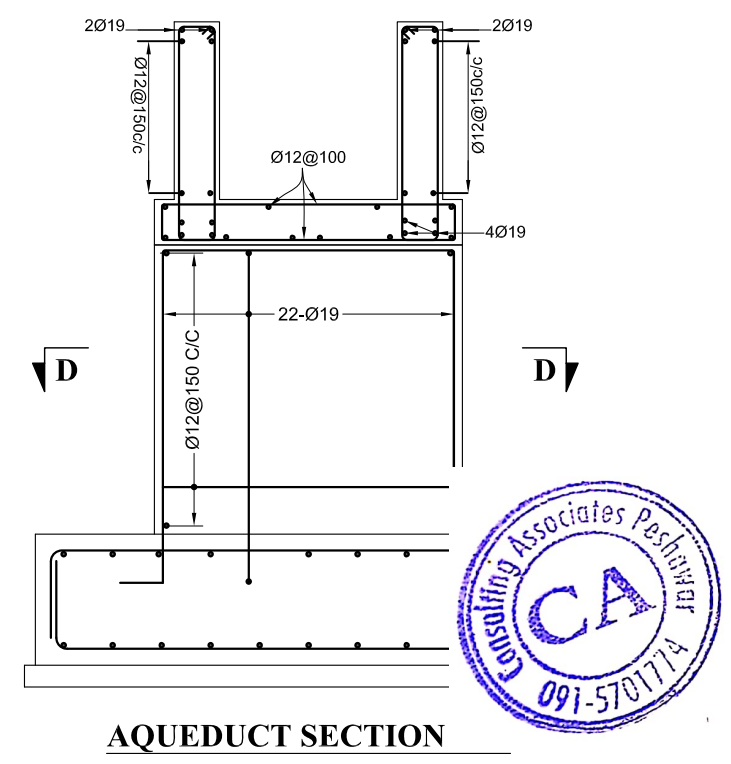
ABUTMENTS FOOTING PLAN



ABUTMENT SECTION D-D

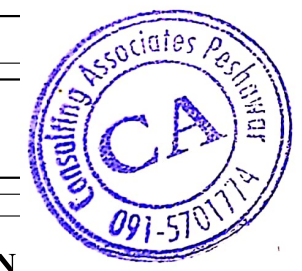




PIER SECTION A-A

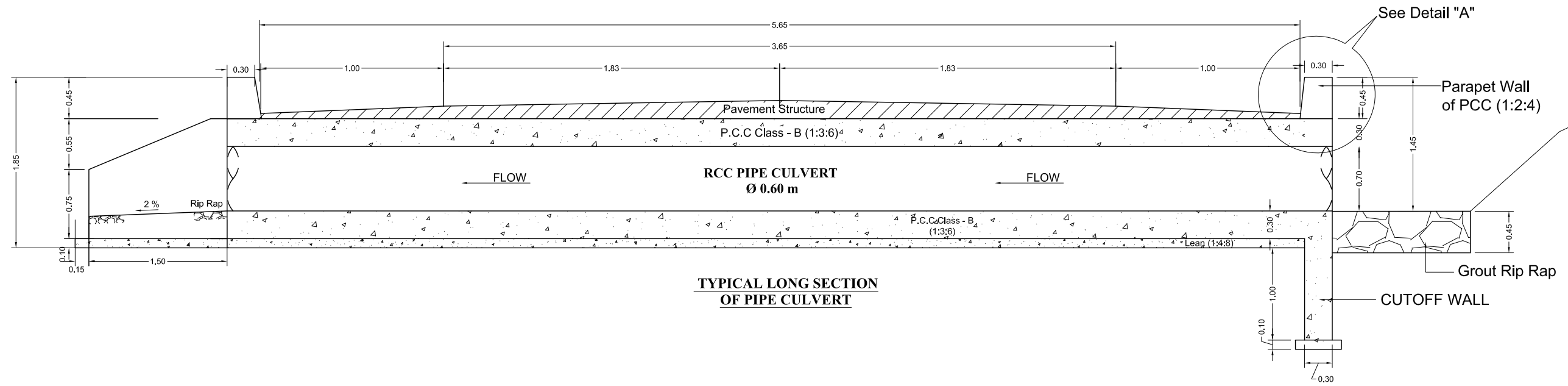


AQUEDUCT SECTION

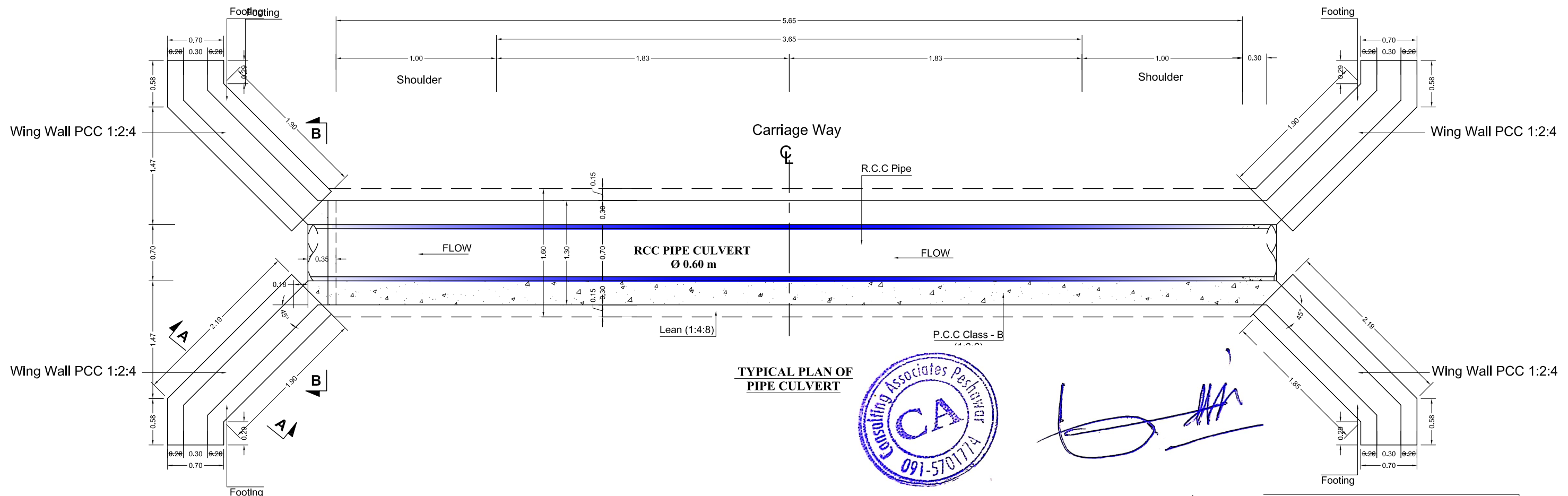
- NOTES**
- 1- ALL DIMENSIONS AND LEVELS ARE IN METER.
 - 2- LAP LENGTH = 48 X DIA OF BAR.
 - 3- R.C.C 4000 PSI , 28 DAYS.
 - 4- P.C.C 2000 PSI , 28 DAYS.
 - 5- REINFORCEMENT SHALL BE DEFORMED BARS HAVING YIELD STRENGTH OF 60000 PSI.
 - 6- SHUTTERING OF BASE SLAB OF AQUEDUCT CHANNEL & ITS SIDE WALLS SHOULD BE REMOVED AT THE SAME TIME



CLIENT:  GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV DESCRIPTION DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM- NORTH WAZIRISTAN	SCALE AS SHOWN
	TITLE: AQUEDUCT STRUCTURE DETAILS (SHEET 02 OF 02)		DRAWING NO. CA-PK-IX-HS-02	REV



TYPICAL LONG SECTION OF PIPE CULVERT





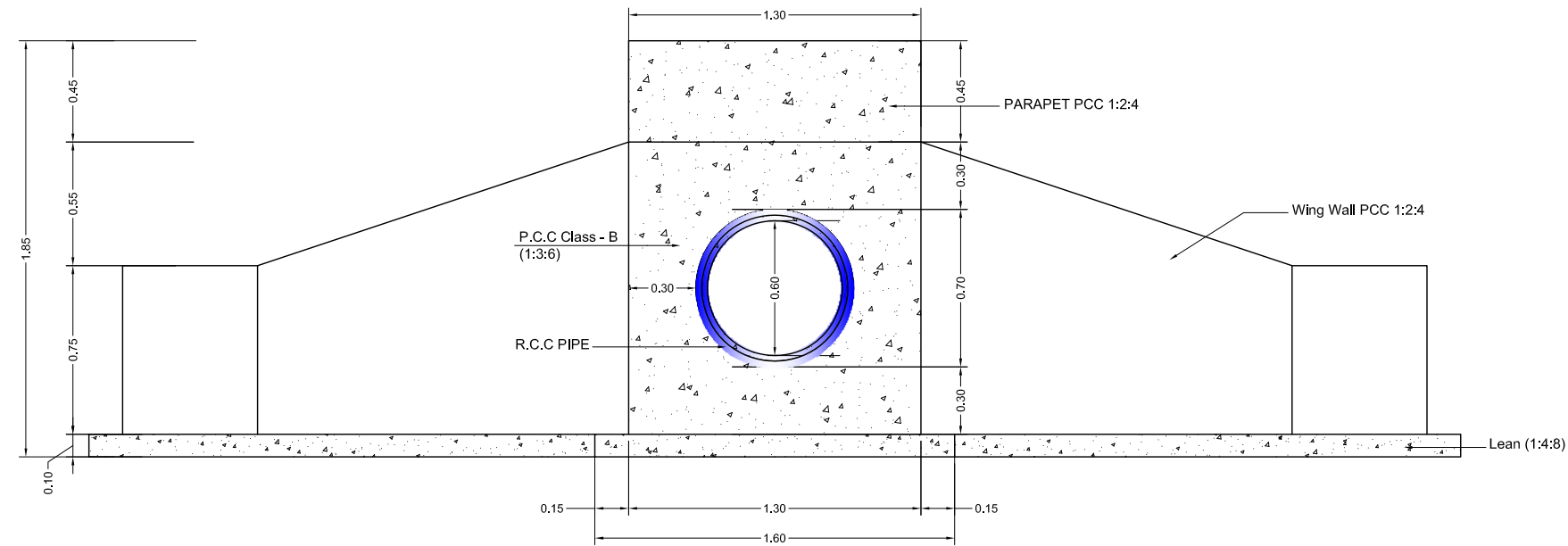
TYPICAL PLAN OF PIPE CULVERT



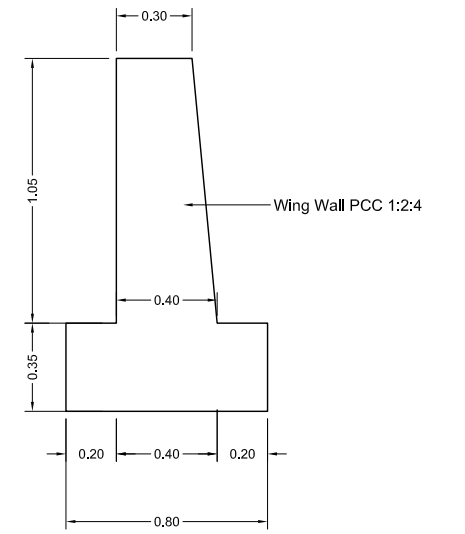
[Handwritten signature]

NOTE:-
ADJUST DRAIN HEIGHT AROUND PIPE CULVERT OR AS PER ENGINEER DIRECTION

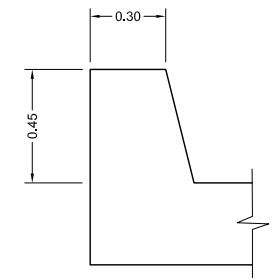
CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM- NORTH WAZIRISTAN TITLE: <u>HYDRAULIC STRUCTURES</u>	DRAWING NO. CA-PK-IX-HS-03	SCALE
								AS SHOWN
						PIPE CULVERT DETAILS (SHEET 01 OF 02)	REV	



**CROSS SECTION AT B-B
OF PIPE CULVERT**



WING WALL SECTION A-A





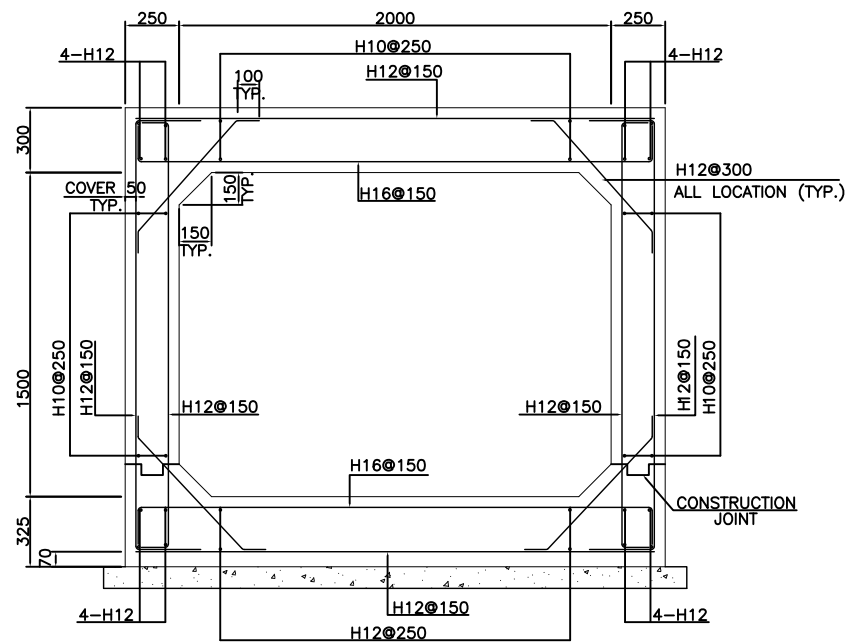
DETAIL-A



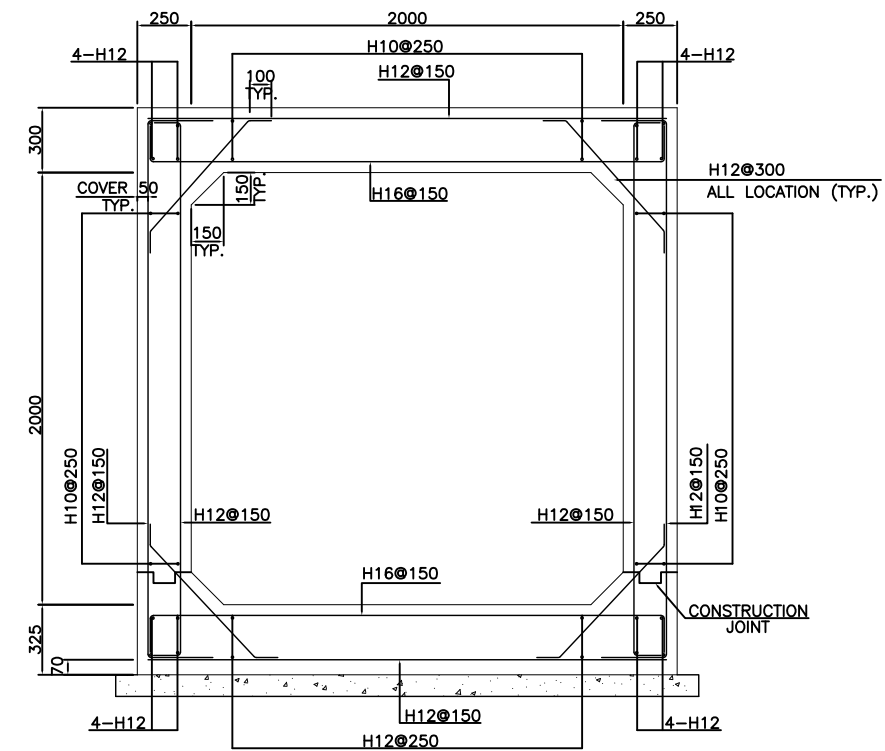
[Handwritten signature]

Scanned with CamScanner

CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM- NORTH WAZIRISTAN TITLE: <u>HYDRAULIC STRUCTURES</u>	DRAWING NO. CA-PK-IX-HS-04	SCALE AS SHOWN
								REV



SINGLE CELL (1 x 2M x 1.5M)

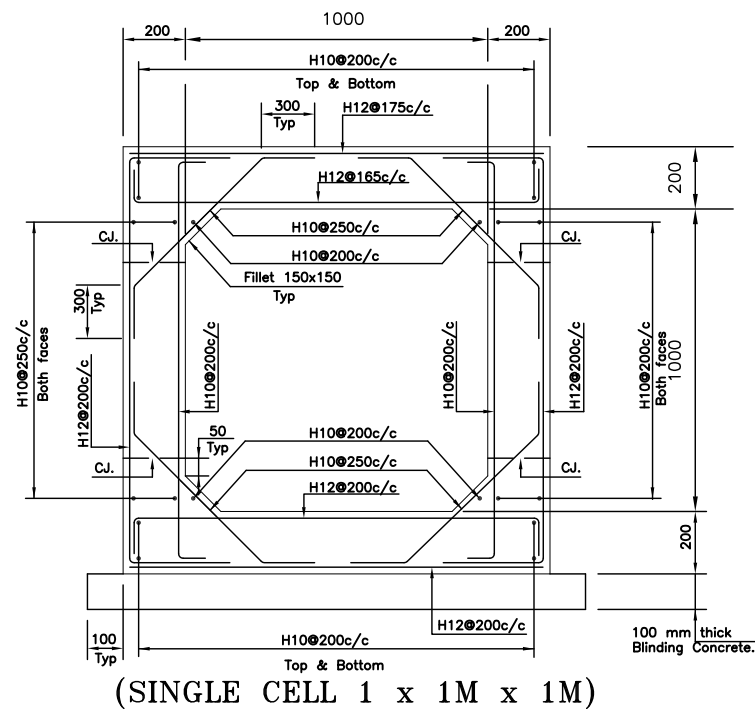


SINGLE CELL (1 x 2M x 2M)

NOTES:-



- * * BAR CUT LENGTH SHALL BE IN ACCORDANCE WITH LENGTH OF CULVERT.
- ALL STURCTURAL CONCRETE SHALL BE CLASS "A' CONCRETE.
- ALL STURCTURAL REINFORCEMENT SHALL BE GRADE 60 STEEL.
- MINIMUM COVER TO THE REINFORCEMENT SHALL BE 50mm.
- OVERLAP LENGTH OF REBAR SHALL BE 48XDIA OF BARS.
- FOR CULVERTS WITH SPAN LESS THAN ANY OF THOUS SHOWN IN TABLE, USE REINFORCEMENT AND SPACING FOR NEXT GREATER SIZE SPAN.MARK NECESSARY CHANGES IN BAR LENGTH AND QUANTITIES.
- EXPENSION JOINTS SHALL BE PROVIDED AT MAX.15m LENGTH IF NECESSARY.
- n= NUMBER OF CELLS
- LAP= 48 TIMES DIA OF BAR
- FOR BARS MARKED D,E,F, & G IN MULTIPLE CELLS CULVERTS, THE LAP SHALL BE PROVIDED AT LOCATIONS AS FOLLOWS:
 - (i) FOR BARS C & F AT MID OF CULVERT CELL.
 - (ii) FOR BARS D & E AT C.L OF INTERNAL WALL.
- THE EXTRA LENGTH OF BARS C, D, E & F DUE TO SKEW EFFECT SHALL BE BENT IN THE WALLS MAINTAINING THE CONCRETE COVER
- C.J MEANS CONSTRUCTION JOINT
- THIS DRAWING SHOULD BE READ IN CONJUNCTION WITH DRAWING NO. BHN-KHN-43210-306

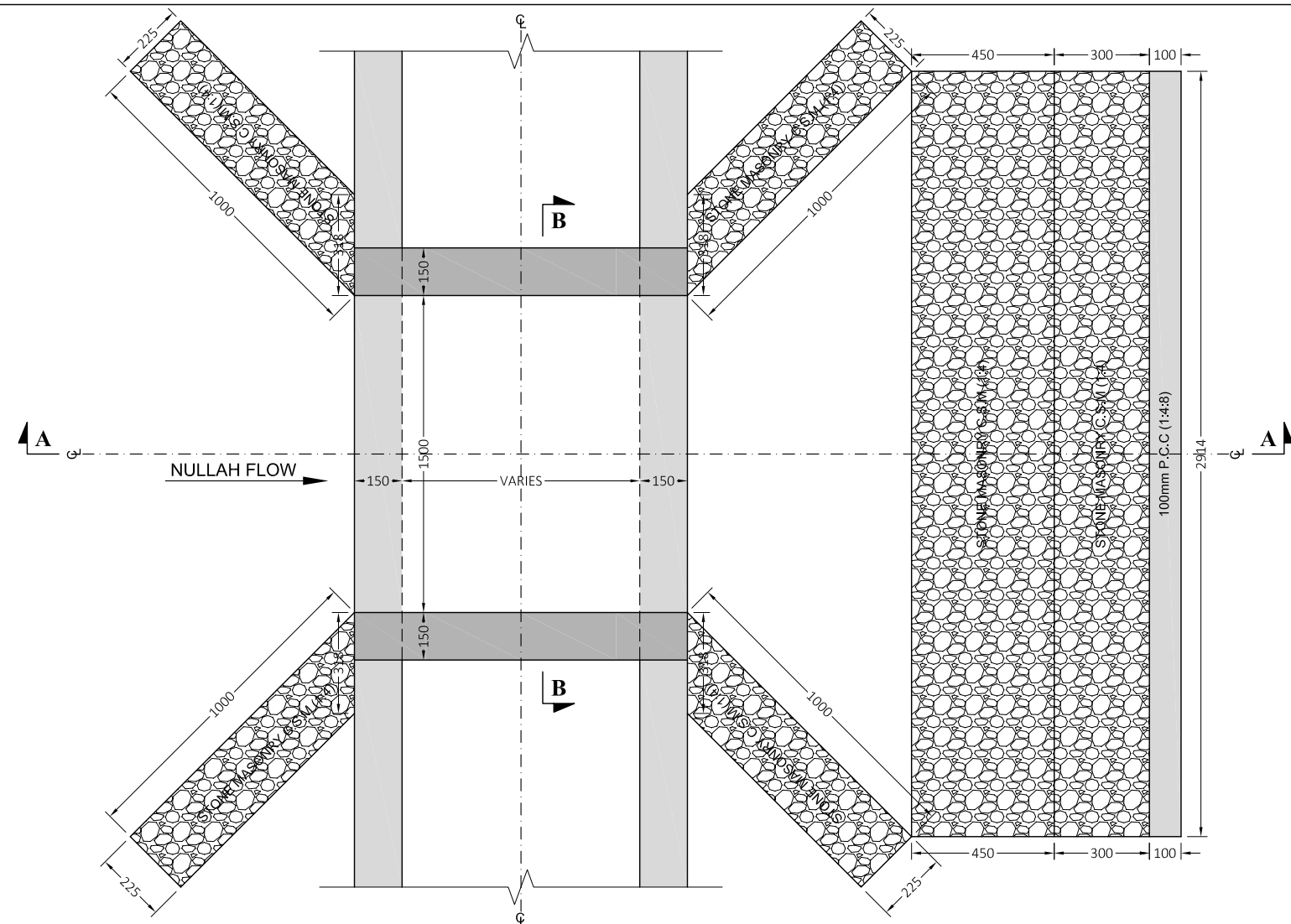
NOTE:-
ADJUST LENGTH BOX CULVERT AS PER SITE OR AS DIRECTED BY ENGRNEER



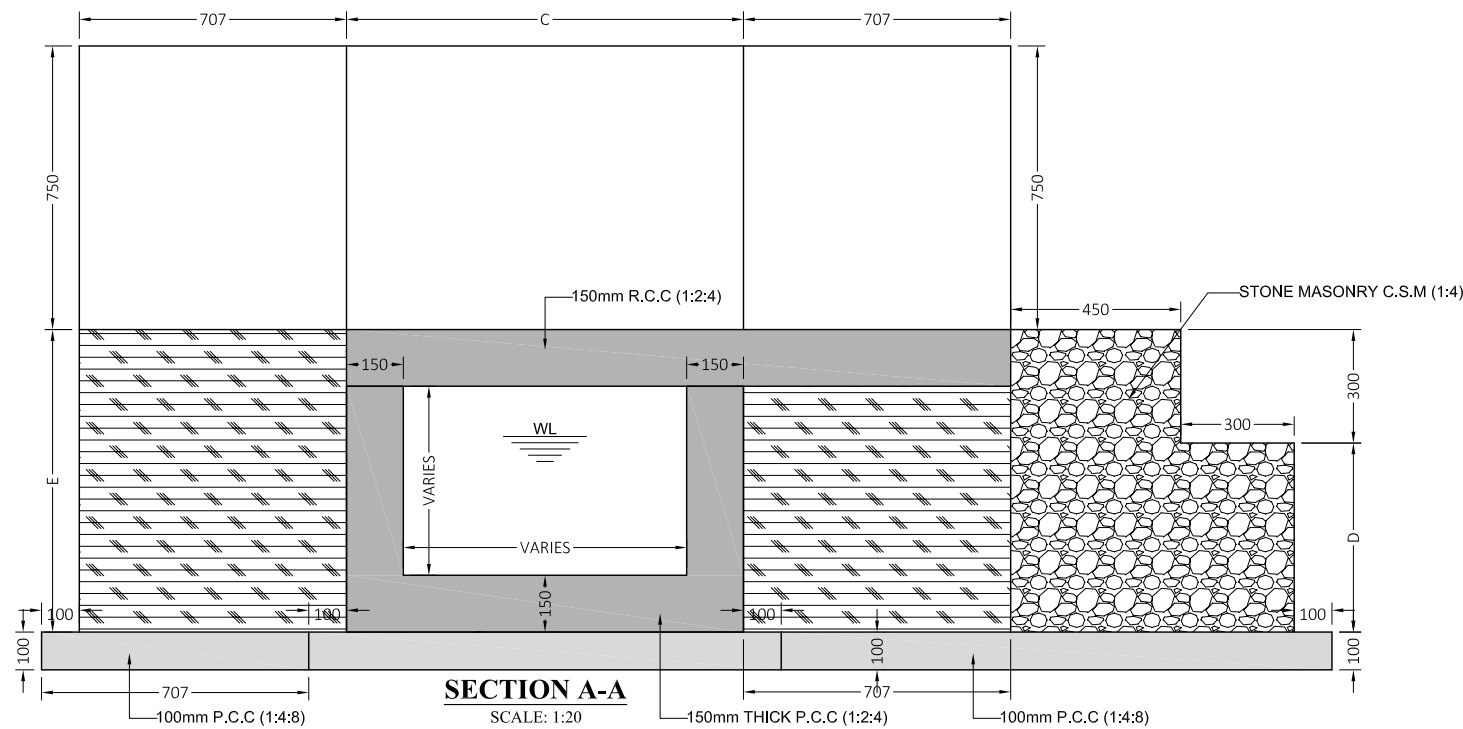
(SINGLE CELL 1 x 1M x 1M)



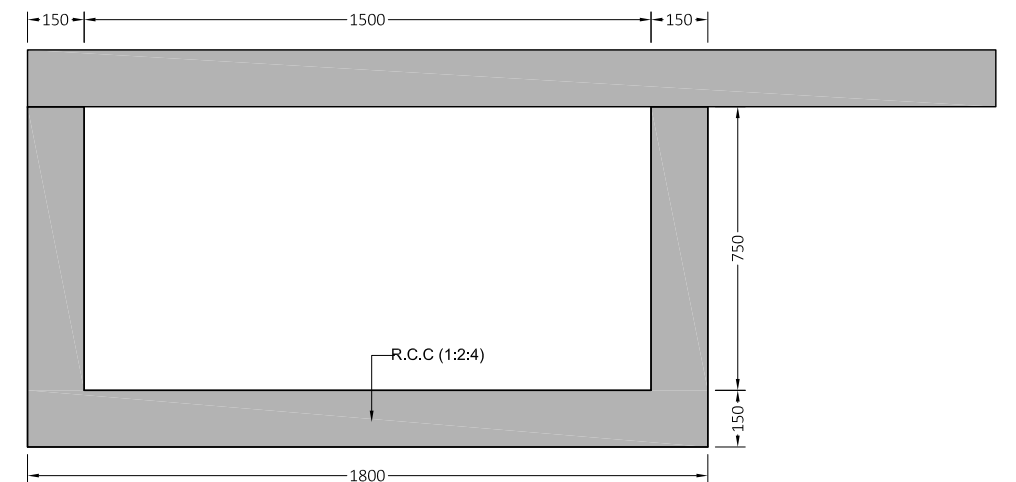
CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM- NORTH WAZIRISTAN TITLE: <u>HYDRAULIC STRUCTURES</u> BOX CULVERT DETAILS (SHEET 01 OF 01)	SCALE AS SHOWN
							DRAWING NO. CA-PK-IX-HS-05



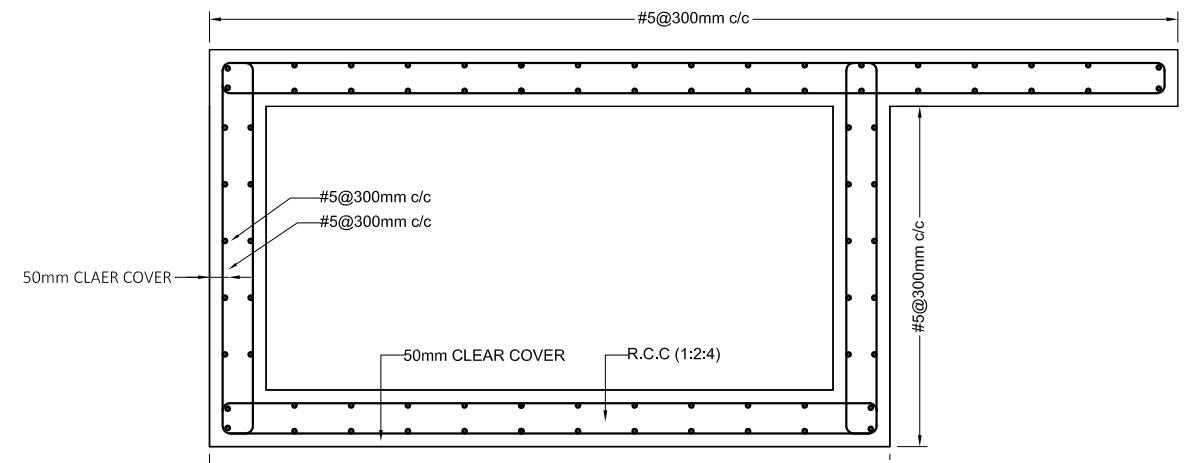
PLAN
SCALE: 1:20



SECTION A-A
SCALE: 1:20



SECTION B-B
SCALE: 1:20



SECTION B-B R



[Handwritten signature]

CLIENT:

**SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA**

CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUOD ROAD PEHSAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com



REV	DESCRIPTION	DATE

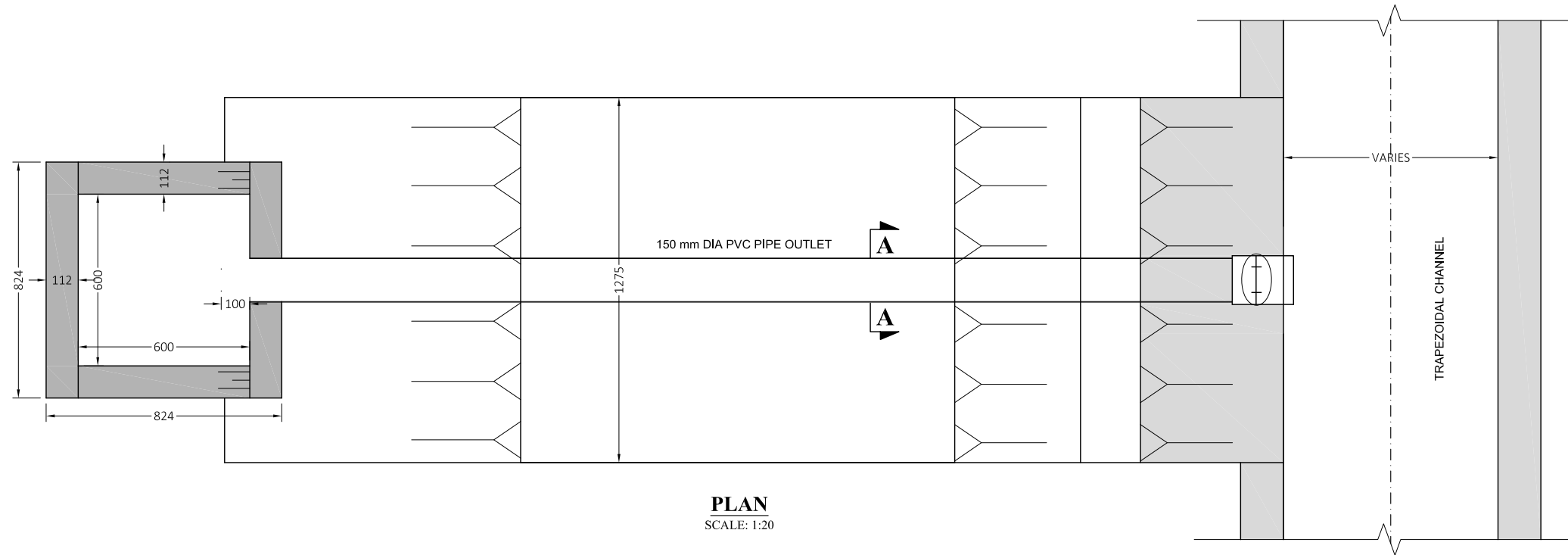
NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN

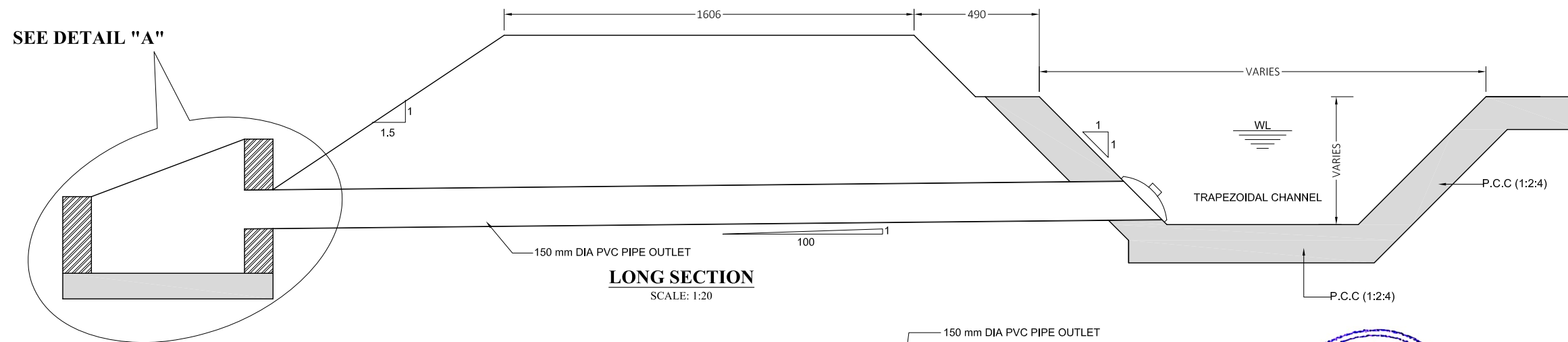
TITLE: HYDRAULIC STRUCTURES

TYPICAL SUPER PASSAGE DETAILS
(SHEET 01 OF 02)

DRAWING NO.	REV	SCALE AS SHOWN
CA-PK-IX-HS-06	01	

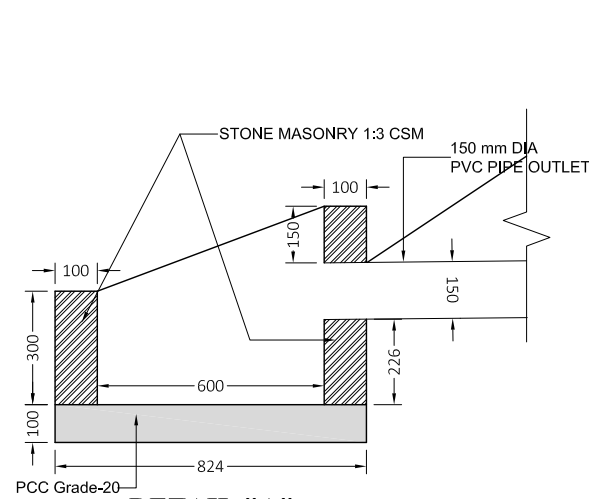


PLAN
SCALE: 1:20

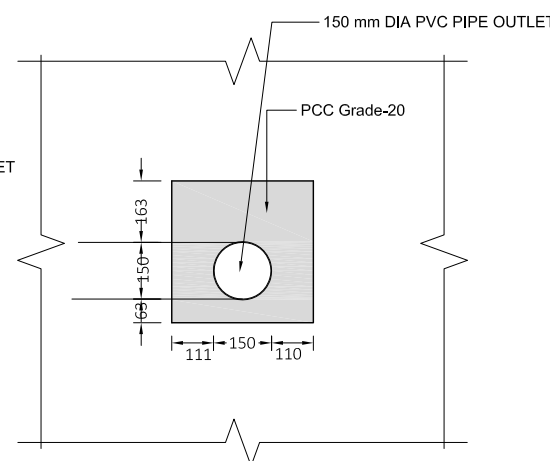


LONG SECTION
SCALE: 1:20

SEE DETAIL "A"



DETAIL "A"
SCALE: 1:20



SECTION A-A
SCALE: 1:20



CLIENT:

**SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA**

CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com

REV	DESCRIPTION	DATE

NOTES:
1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN

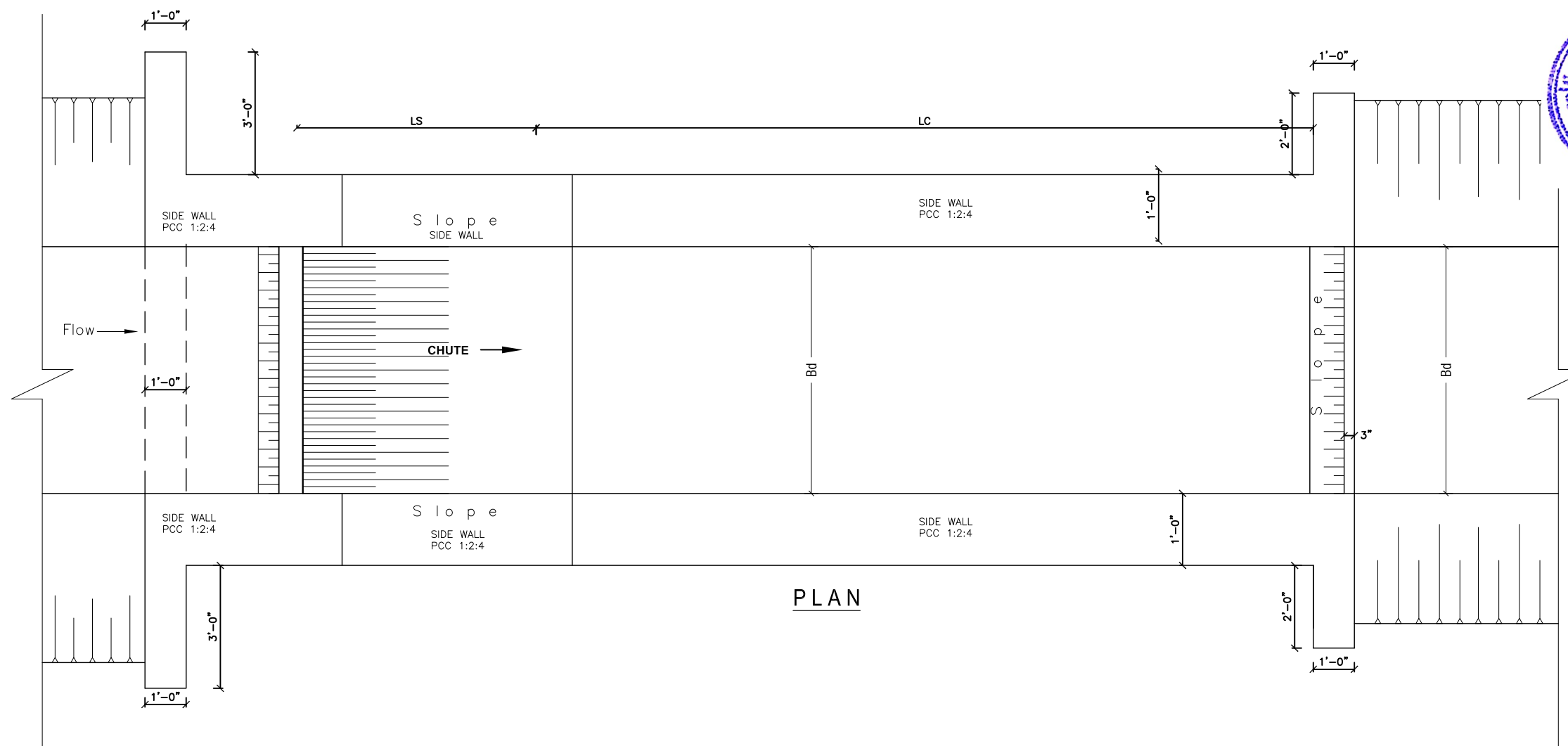
TITLE: HYDRAULIC STRUCTURES

TYPICAL PIPE OUTLET DETAILS
(SHEET 02 OF 02)

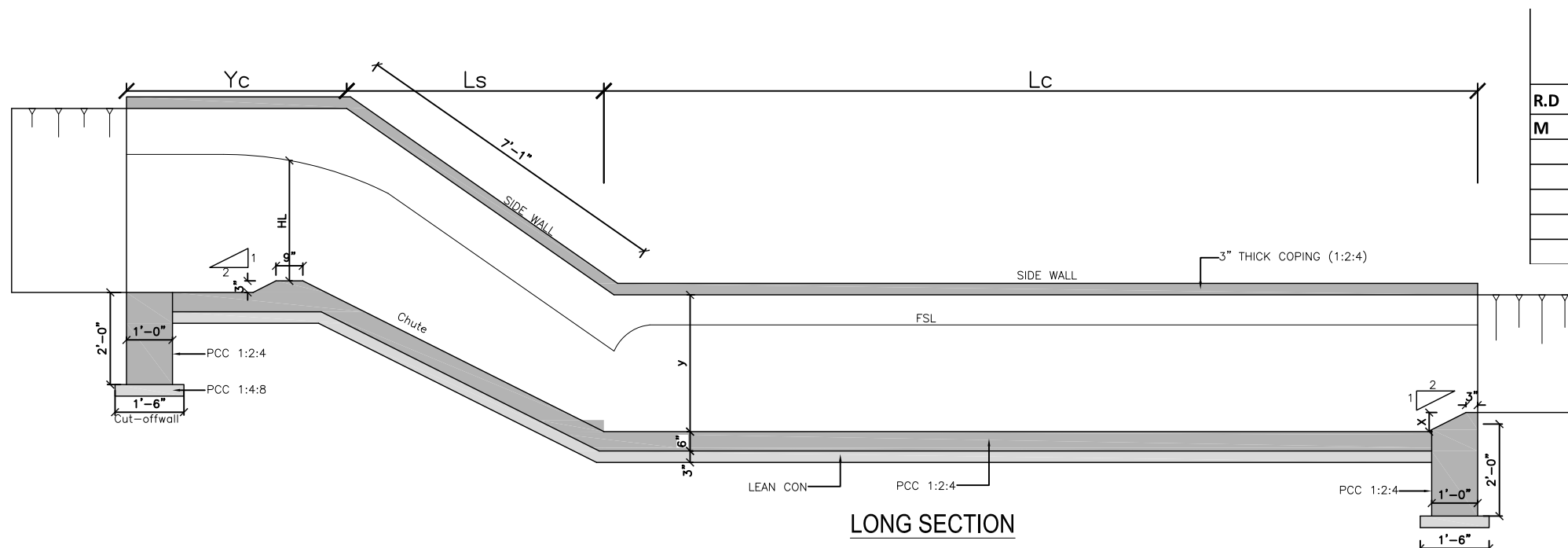
DRAWING NO.	REV	SCALE AS SHOWN
CA-PK-IX-HS-07	01	



[Handwritten signature]





Scanned with CamScanner

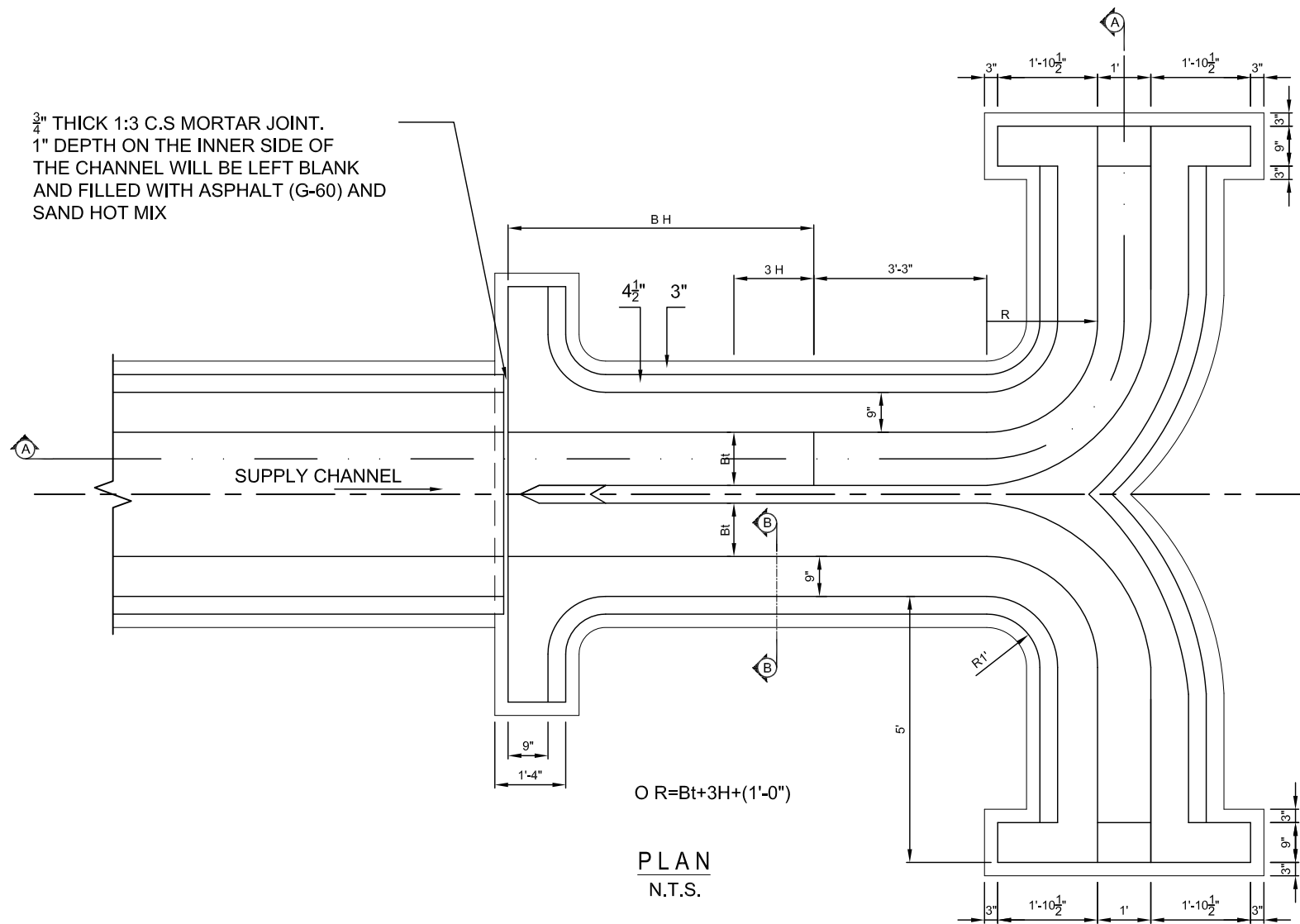


Hydraulic Design of Chute Drop (ft)

FALL ON MINOR CHANNEL

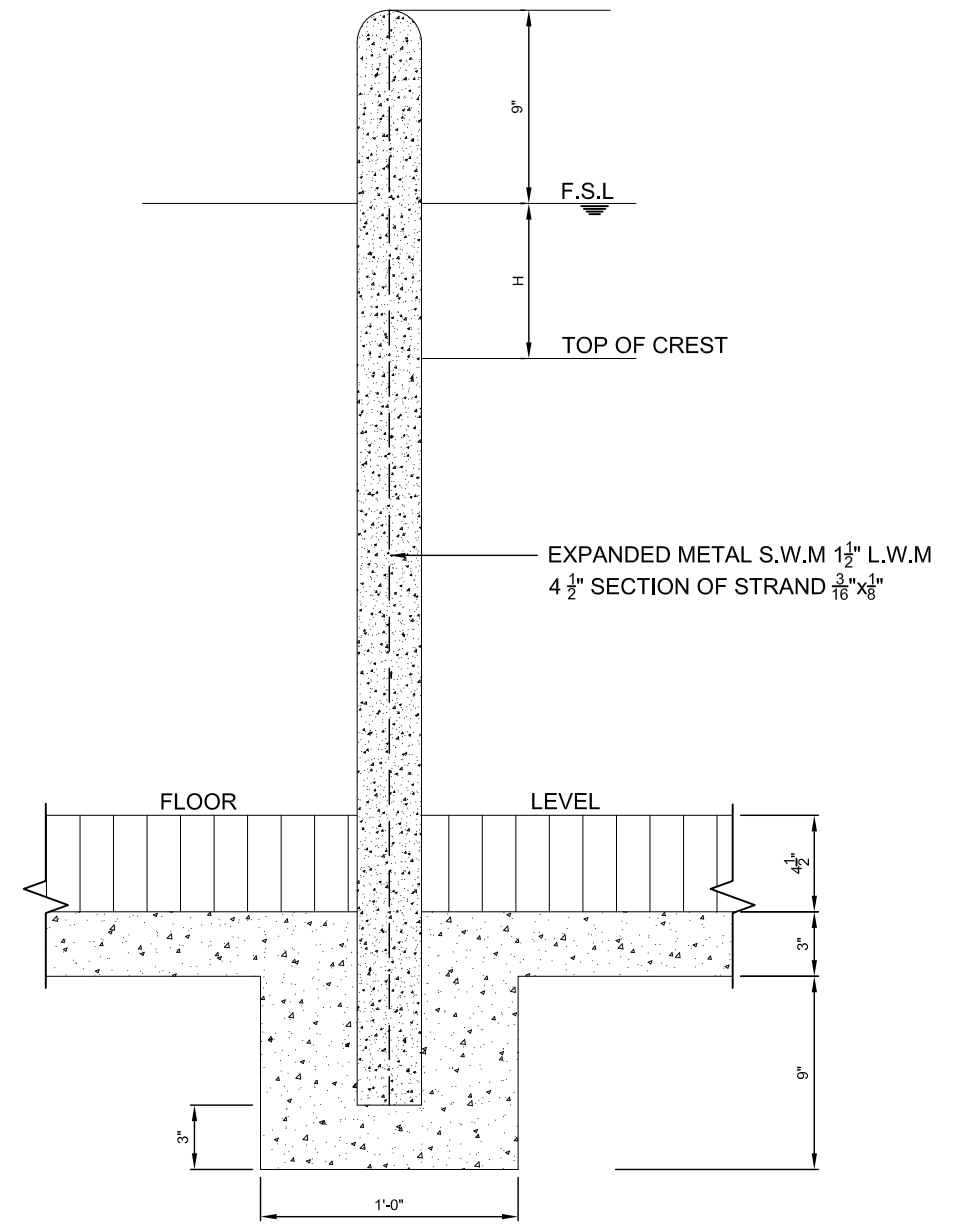
R.D	Width (Bd)	Discharge	H _t	L _s	L _c	L _d	X	YC	Y
M	ft	Cusec	ft	ft	ft	ft	ft	ft	ft
	3	10.66	1.10	12.17	10.95	5.37	1	1.52	5
	3	10.66	1.10	7.42	8.55	4.89	1	1.52	5
	3	10.66	1.10	6.56	8.04	4.77	1	1.52	5
	3	10.66	1.10	3.28	5.69	4.19	1	1.52	5
	3	10.66	1.10	1.64	4.02	3.67	1	1.52	5

CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: ConsultIngassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN	SCALE AS SHOWN

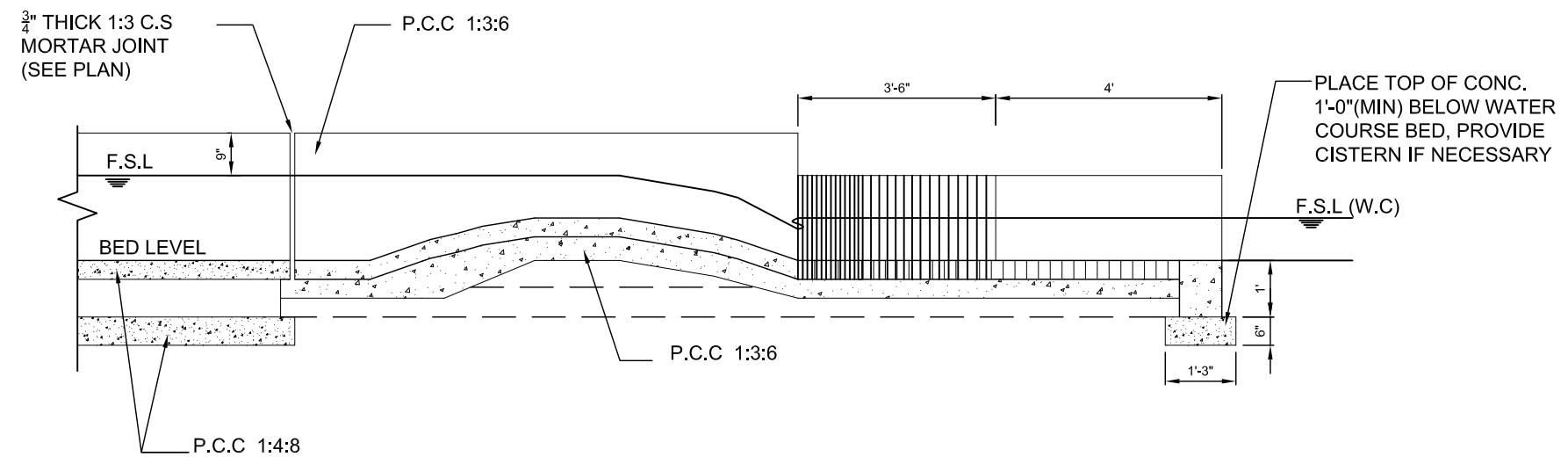


$O R = Bt + 3H + (1'-0")$

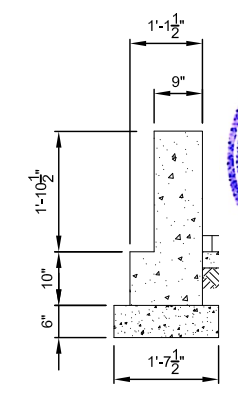
PLAN
N.T.S.



DETAIL OF DIVIDE WALL
N.T.S.



SECTION A-A
N.T.S.



SECTION B-B



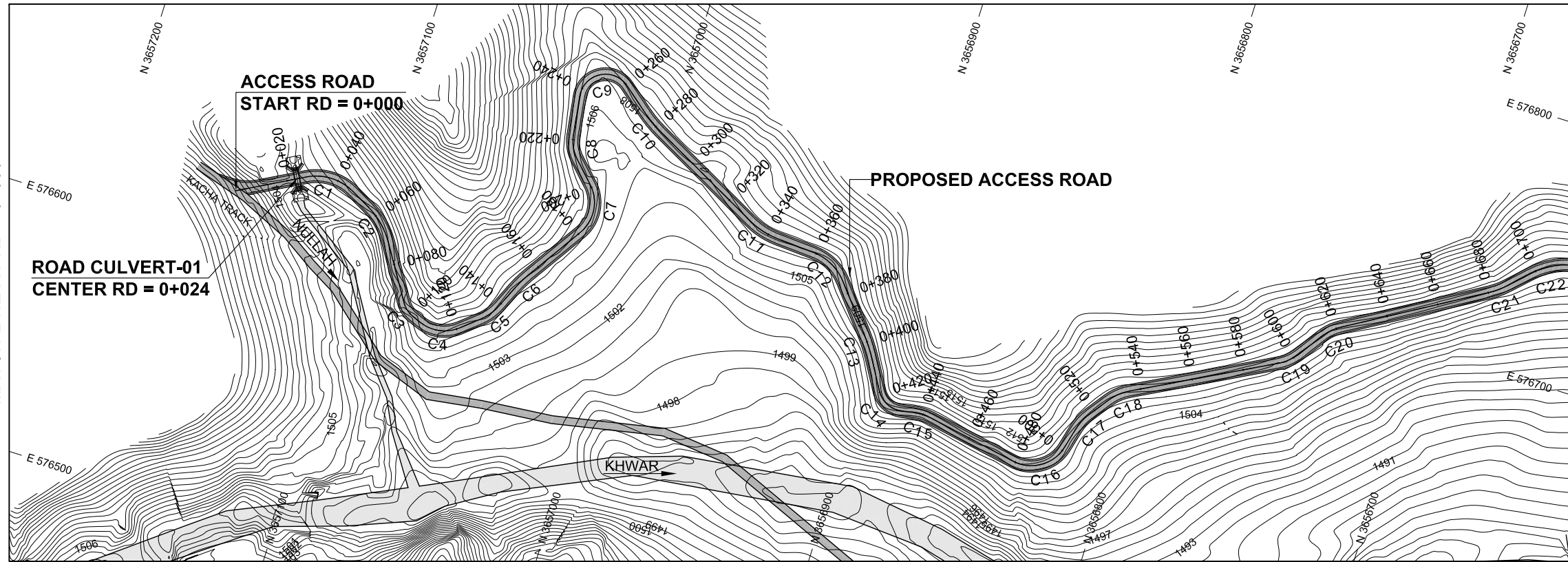
[Handwritten signature]

	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM- NORTH WAZIRISTAN TITLE: HYDRAULIC STRUCTURES TAIL CLUSTER DETAILS (SHEET 01 OF 01)	DRAWING NO. CA-PK-IX-HS-09	SCALE AS SHOWN
								REV

AR-ACCESS ROAD

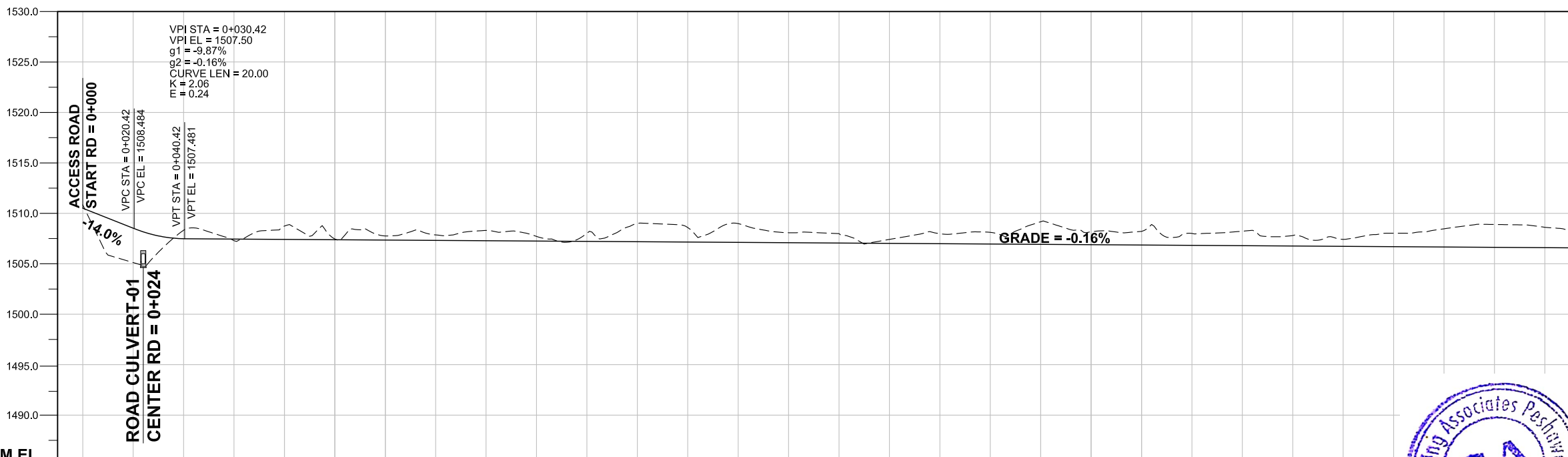


A handwritten signature in blue ink, consisting of a large, stylized initial 'L' followed by several smaller, less distinct characters.



LEGENDS:

- FINISHED ROAD LEVEL
- NATURAL SURFACE LEVEL
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- PROPOSED ACCESS ROAD
- ROAD OR KACHA TRACK
- RIVER OR KHWAR
- NULLAH
- HOUSE
- VILLAGE
- GRAVE YARD
- CULTIVATED LAND
- BRIDGE OR CULVERT
- ELECTRIC POLE
- OUTLET
- BENCH MARK



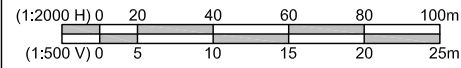
DATUM EL

Design parameters → CARRIAGE WAY WIDTH = 3.65m/ SHOULDERS WIDTH = 0.675m/ TOTAL ROAD WIDTH = 5.0m

RD	0+000	0+020	0+040	0+060	0+080	0+100	0+120	0+140	0+160	0+180	0+200	0+220	0+240	0+260	0+280	0+300	0+320	0+340	0+360	0+380	0+400	0+420	0+440	0+460	0+480	0+500	0+520	0+540	0+560	0+580	
FRL	1510.840	1505.122	1508.482	1507.482	1508.736	1507.416	1507.756	1507.317	1508.303	1507.251	1508.013	1507.185	1508.582	1507.119	1508.075	1507.063	1507.412	1507.979	1508.954	1508.163	1508.888	1508.855	1508.822	1508.226	1507.798	1507.420	1508.723	1508.028	1508.466	1508.894	1508.612
NSL	1510.840	1505.122	1508.482	1507.482	1508.736	1507.416	1507.756	1507.317	1508.303	1507.251	1508.013	1507.185	1508.582	1507.119	1508.075	1507.063	1507.412	1507.979	1508.954	1508.163	1508.888	1508.855	1508.822	1508.226	1507.798	1507.420	1508.723	1508.028	1508.466	1508.894	1508.612



[Handwritten signature]



CLIENT:

SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA

CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com

REV	DESCRIPTION	DATE

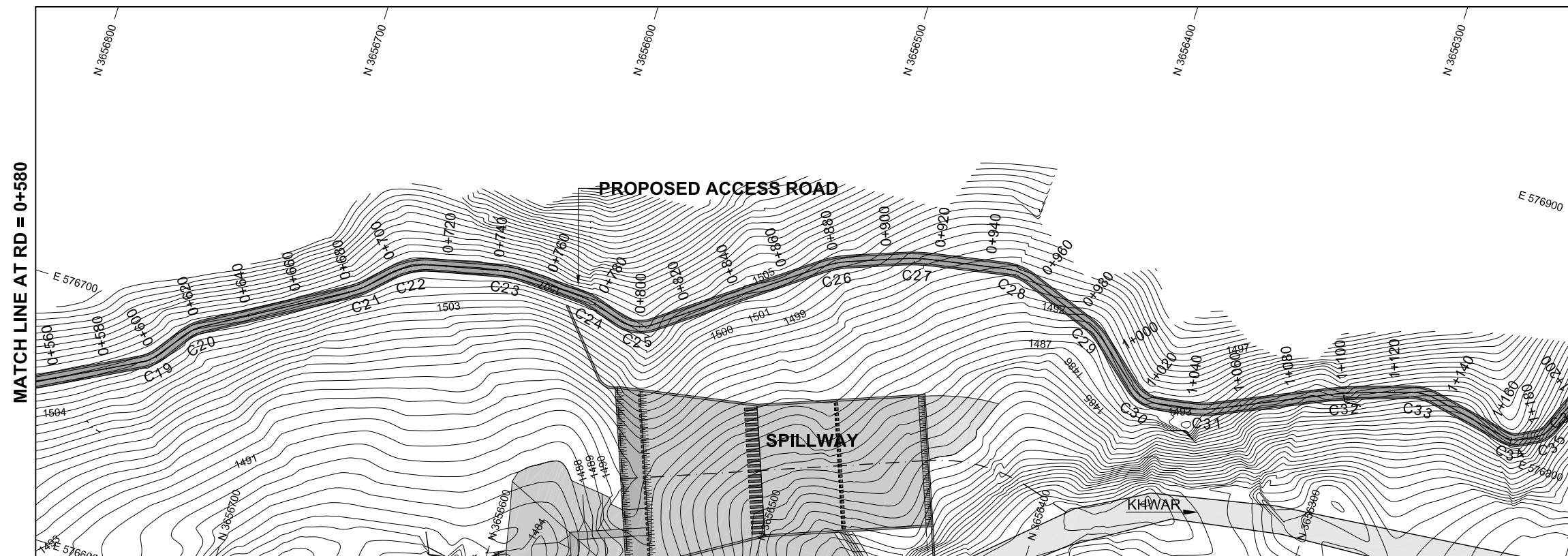
NOTES:
1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN

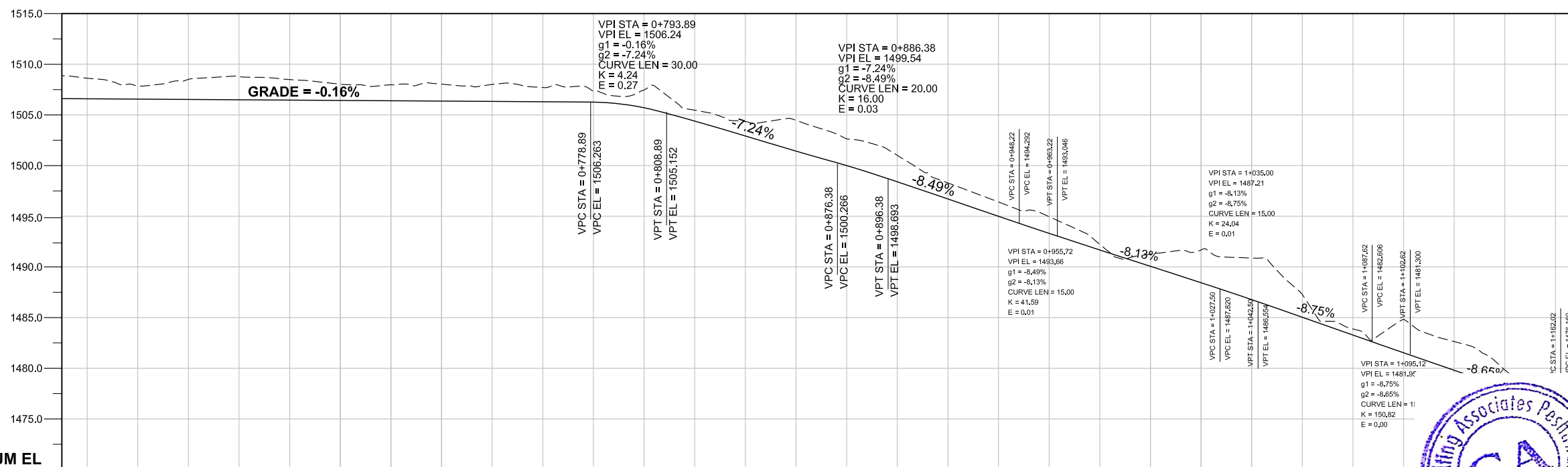
TITLE:
ACCESS ROAD

PLAN & PROFILE RD = 0+000 TO 0+580
(SHEET 01 OF 03)

DRAWING NO.	REV
CA-PK-IX-AR-01	01



- LEGENDS:**
- FINISHED ROAD LEVEL ———
 - NATURAL SURFACE LEVEL - - - - -
 - INDEX CONTOUR ——— 1500 ———
 - INTERMEDIATE CONTOUR ——— 1501 ———
 - PROPOSED ACCESS ROAD [Pattern]
 - ROAD OR KACHA TRACK [Pattern]
 - RIVER OR KHVAR [Pattern]
 - NULLAH [Pattern]
 - HOUSE [Symbol]
 - VILLAGE [Symbol]
 - GRAVE YARD [Symbol]
 - CULTIVATED LAND [Pattern]
 - BRIDGE OR CULVERT [Symbol]
 - ELECTRIC POLE [Symbol]
 - OUTLET [Symbol]
 - BENCH MARK [Symbol]



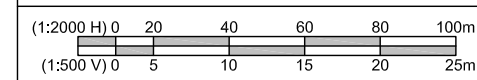
DATUM EL

Design parameters ← CARRIAGE WAY WIDTH = 3.65m/ SHOULDERS WIDTH = 0.675m/ TOTAL ROAD WIDTH = 5.0m

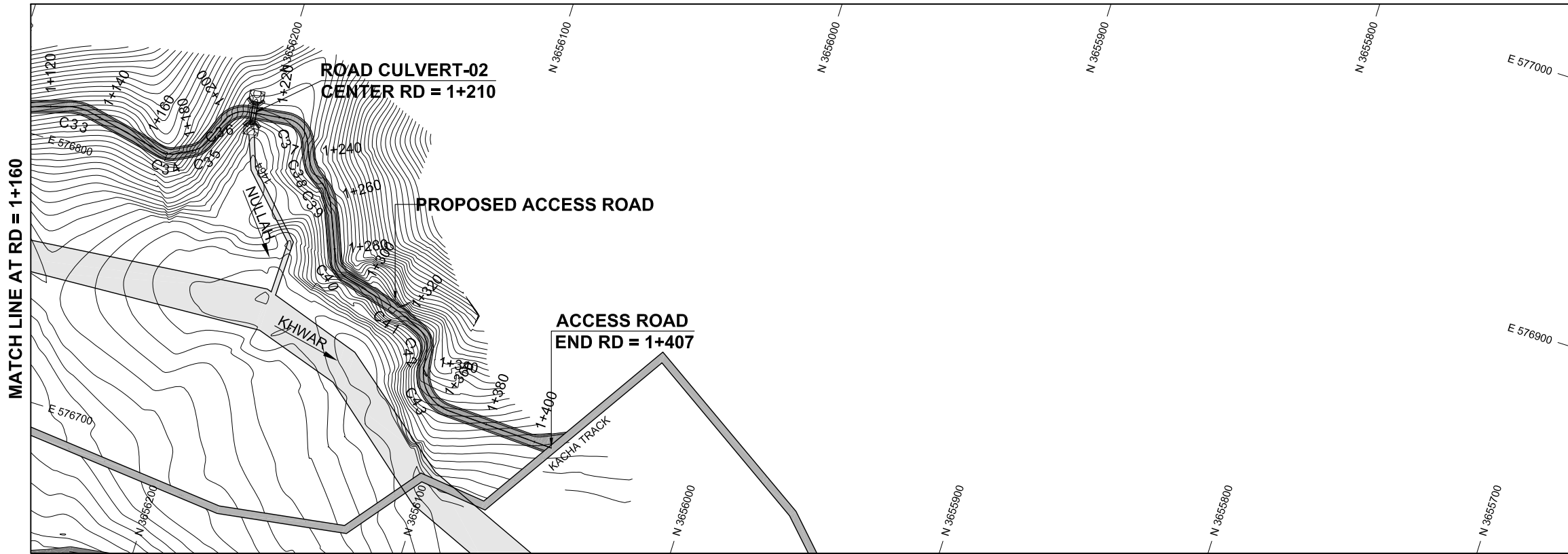
RD	FRL	NSL
0+580	1508.612	1506.591
0+600	1507.863	1506.568
0+620	1508.504	1506.525
0+640	1508.783	1506.492
0+660	1508.482	1506.459
0+680	1508.028	1506.426
0+700	1507.964	1506.393
0+720	1508.032	1506.360
0+740	1508.001	1506.327
0+760	1507.701	1506.294
0+780	1507.331	1506.259
0+800	1507.452	1506.702
0+820	1505.458	1504.348
0+840	1504.339	1502.900
0+860	1504.462	1501.452
0+880	1502.626	1500.000
0+900	1501.013	1498.386
0+920	1498.290	1496.688
0+940	1496.401	1494.990
0+960	1494.954	1493.309
0+980	1492.231	1491.682
1+000	1491.251	1490.056
1+020	1491.666	1488.430
1+040	1490.875	1486.772
1+060	1487.288	1485.023
1+080	1483.878	1483.272
1+100	1484.839	1481.527
1+120	1482.630	1
1+140	1479.837	1
1+160	1478.589	1



Handwritten signature and initials in blue ink.

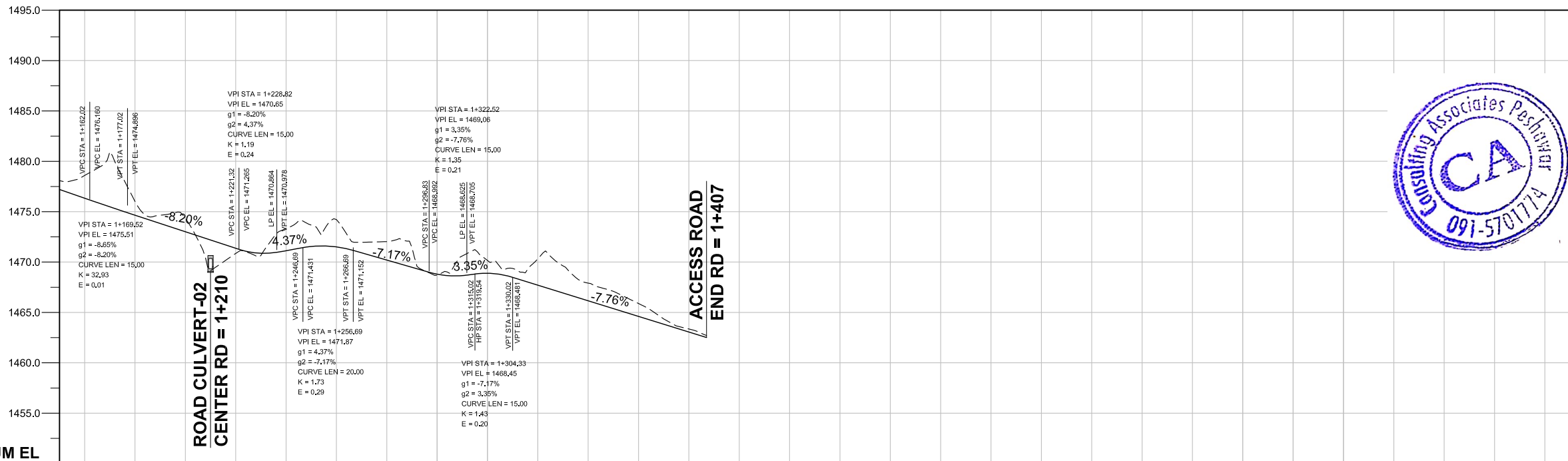


CLIENT: GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUOD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUOD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com	REV DESCRIPTION DATE	NOTES: 1. ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN	TITLE: ACCESS ROAD PLAN & PROFILE RD = 0+580 TO 1+160 (SHEET 02 OF 03)	SCALE H = 2000 V = 500
						DRAWING NO. CA-PK-IX-AR-02



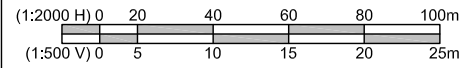
LEGENDS:

- FINISHED ROAD LEVEL
- NATURAL SURFACE LEVEL
- INDEX CONTOUR
- INTERMEDIATE CONTOUR
- PROPOSED ACCESS ROAD
- ROAD OR KACHA TRACK
- RIVER OR KHWAR
- NULLAH
- HOUSE
- VILLAGE
- GRAVE YARD
- CULTIVATED LAND
- BRIDGE OR CULVERT
- ELECTRIC POLE
- OUTLET
- BENCH MARK



[Handwritten signature]

DATUM EL	Design parameters	CARRIAGE WAY WIDTH = 3.65m/ SHOULDERS WIDTH = 0.675m/ TOTAL ROAD WIDTH = 5.0m													
FRL		1476.335	1474.652	1473.012	1471.373	1471.139	1471.502	1470.198	1468.800	1469.887	1467.707	1466.155	1464.604	1463.053	1462.070
NSL		1478.589	1476.011	1474.337	1473.012	1473.323	1474.214	1472.026	1468.677	1470.161	1470.328	1467.911	1466.894	1463.356	1462.070
RD		1+160	1+180	1+200	1+220	1+240	1+260	1+280	1+300	1+320	1+340	1+360	1+380	1+400	1+407



CLIENT:

**SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA**

CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUOD ROAD PEHSAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com

REV	DESCRIPTION	DATE

NOTES:

- ALL DIMENSIONS & LEVELS ARE IN METERS UNLESS OTHERWISE SPECIFIED.

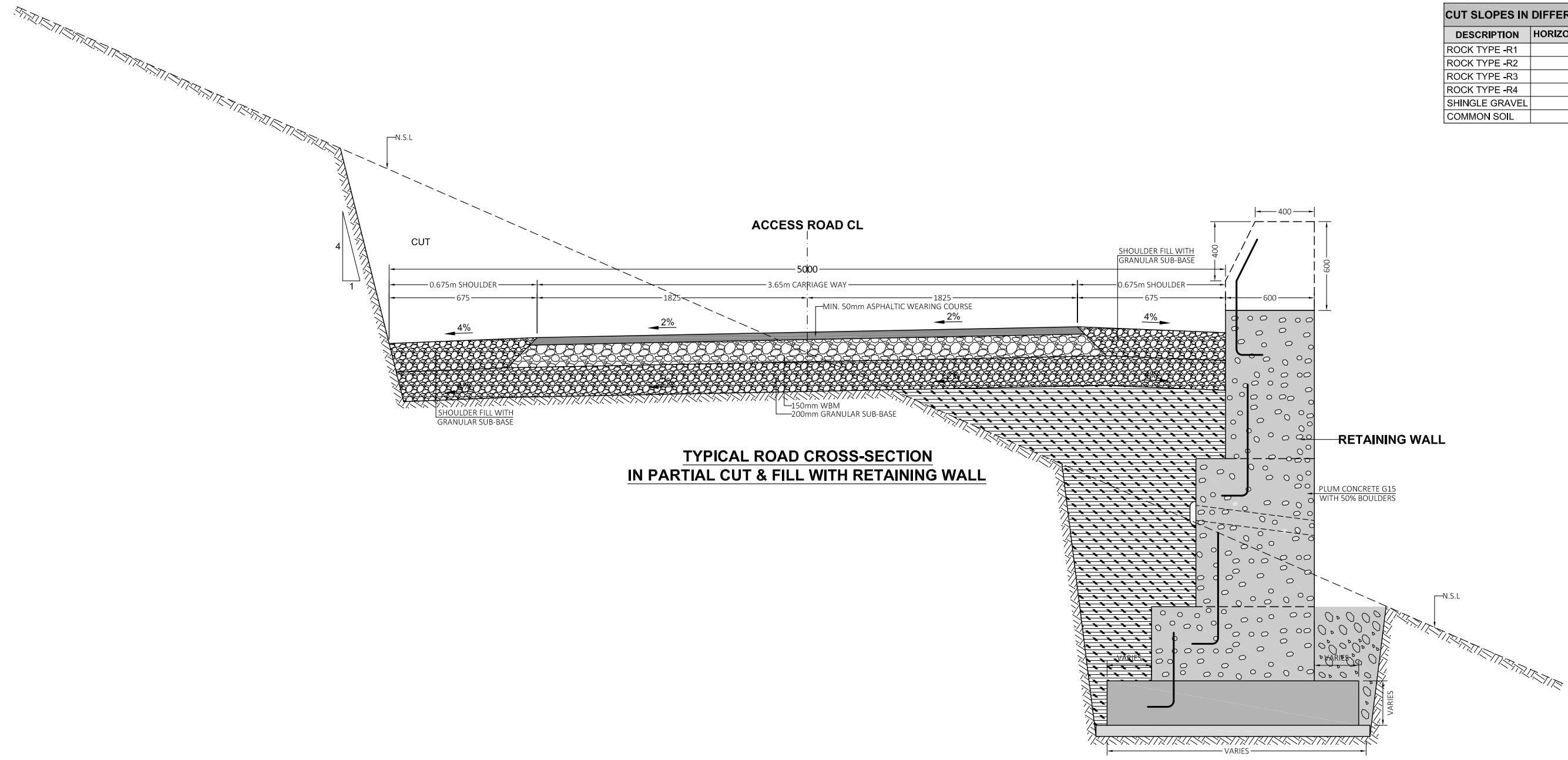
PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN

TITLE: ACCESS ROAD

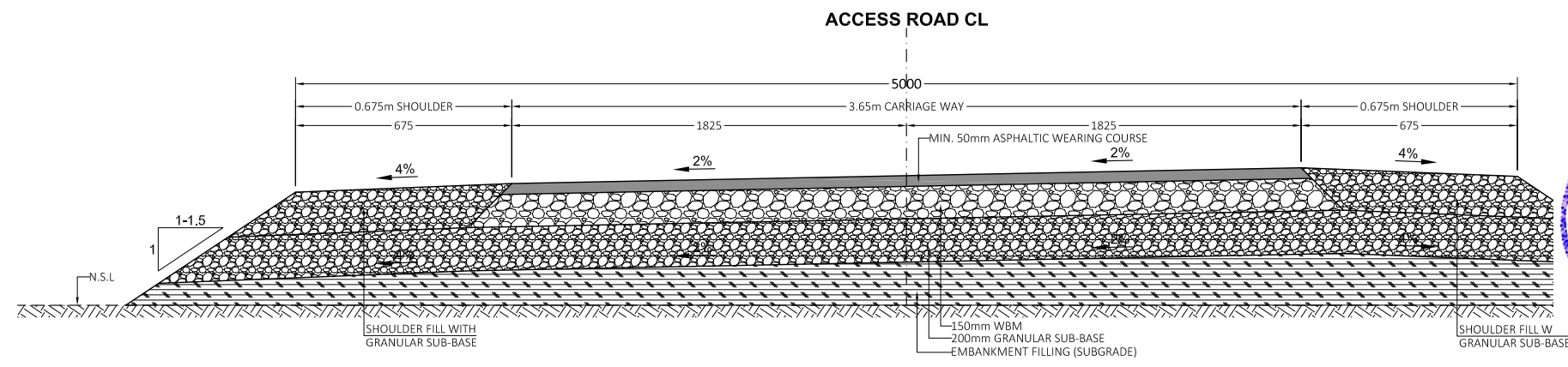
PLAN & PROFILE RD = 1+160 TO 1+407
(SHEET 03 OF 03)

SCALE H = 2000 V = 500
DRAWING NO. CA-PK-IX-AR-03
REV 01

CUT SLOPES IN DIFFERENT TYPES ROCK/SOIL		
DESCRIPTION	HORIZONTAL (H)	VERTICAL (V)
ROCK TYPE -R1	1	8
ROCK TYPE -R2	1	4-8
ROCK TYPE -R3	1	3-4
ROCK TYPE -R4	1	2-3
SHINGLE GRAVEL	1	1-2
COMMON SOIL	1	1



**TYPICAL ROAD CROSS-SECTION
IN PARTIAL CUT & FILL WITH RETAINING WALL**





TYPICAL ROAD CROSS-SECTION IN FILL

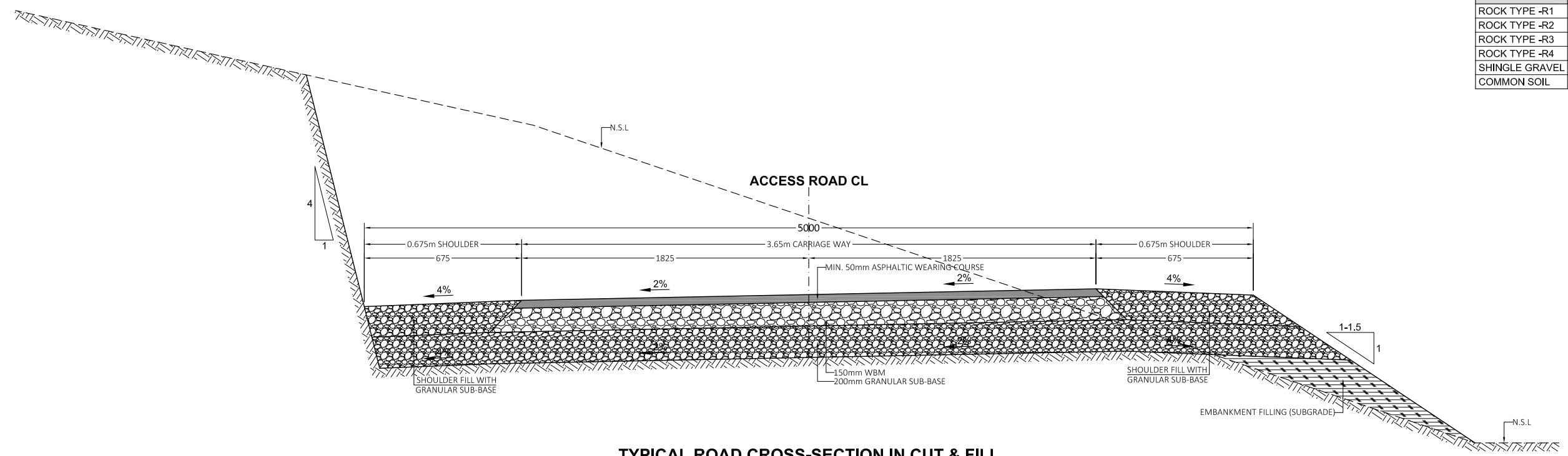


[Handwritten signature]



CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN TITLE: ACCESS ROAD ACCESS ROAD TYPICAL CROSS SECTIONS (SHEET 01 OF 02)	SCALE 1:30
						CA-PK-IX-AR-04 01	

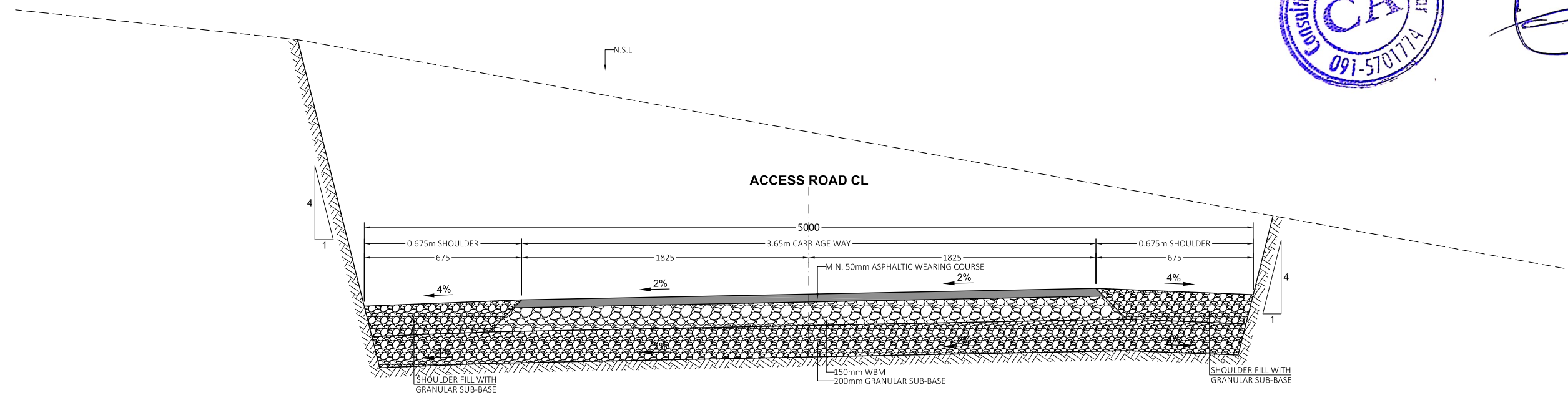
CUT SLOPES IN DIFFERENT TYPES ROCK/SOIL		
DESCRIPTION	HORIZONTAL (H)	VERTICAL (V)
ROCK TYPE -R1	1	8
ROCK TYPE -R2	1	4-8
ROCK TYPE -R3	1	3-4
ROCK TYPE -R4	1	2-3
SHINGLE GRAVEL	1	1-2
COMMON SOIL	1	1



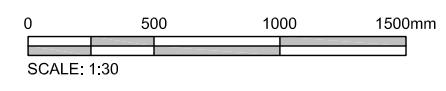
TYPICAL ROAD CROSS-SECTION IN CUT & FILL





[Handwritten signature]



TYPICAL ROAD CROSS-SECTION IN CUT

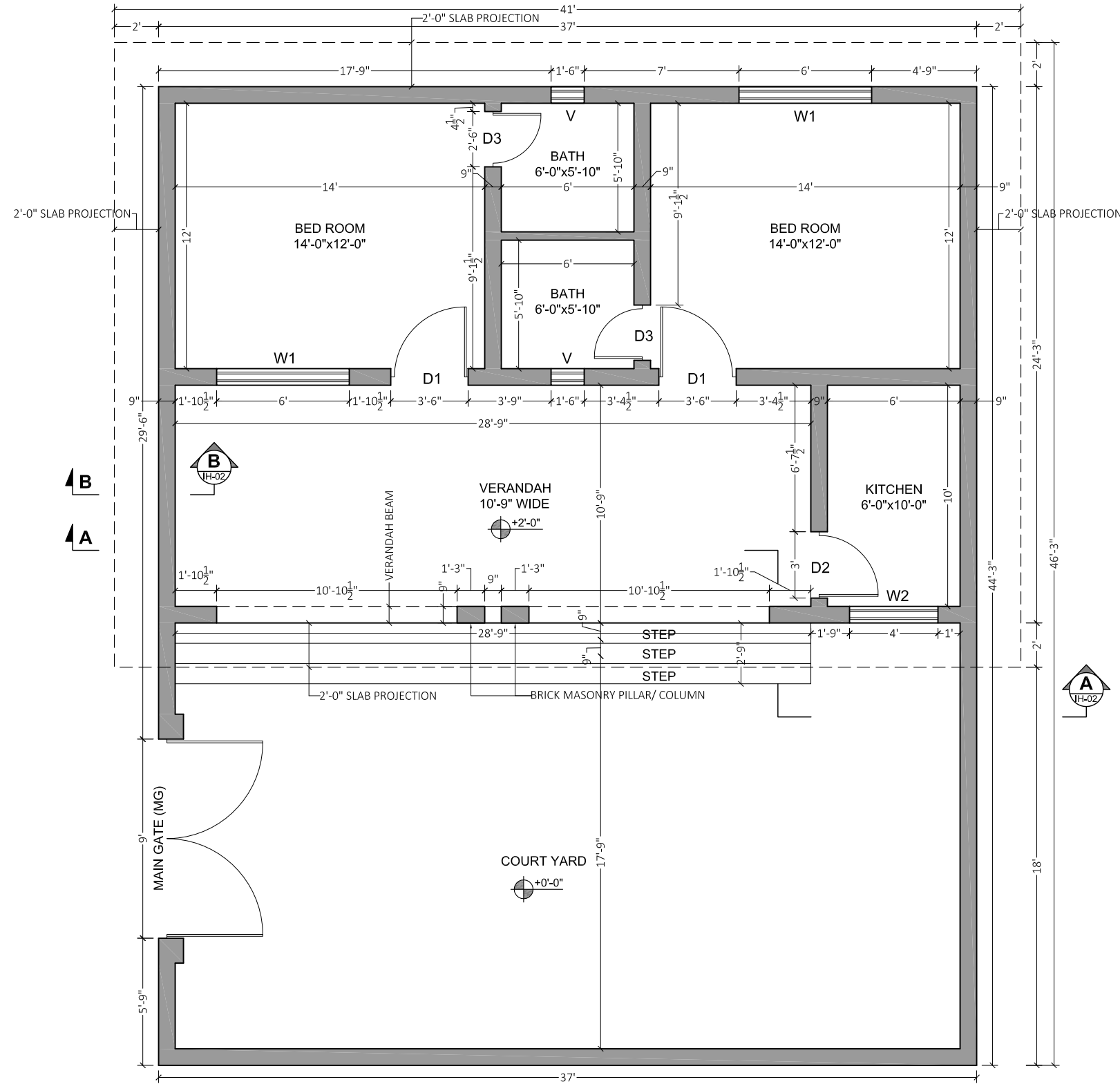
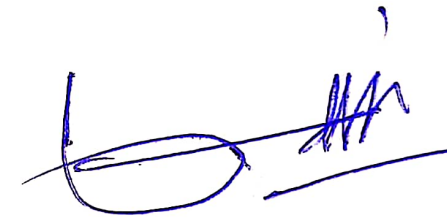


CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS ARE IN MILLIMETERS & LEVELS IN METERS UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN TITLE: ACCESS ROAD ACCESS ROAD TYPICAL CROSS SECTIONS (SHEET 02 OF 02)	DRAWING NO. CA-PK-IX-AR-04	REV 01	SCALE 1:30

IH-INSPECTION HUT



A handwritten signature in blue ink, consisting of a large, stylized initial 'L' followed by several loops and a final flourish.



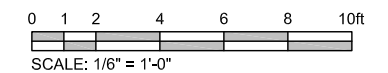
GROUND FLOOR PLAN
SCALE: 1/6" = 1'-0"

SCHEDULE OF DOOR AND WINDOWS

S.NO	TYPE	SIZE
1.	D1	3-6"x7'-0"
2.	D2	3-0"x7'-0"
3.	D3	2-6"x7'-0"
4.	W1	6-0"x4'-6"
5.	W2	4-0"x4'-6"
6.	V	1-6"x1'-6"
7.	MG	9-0"x8'-0"

SCHEDULE OF AREA (SFT)

1.	TOTAL PLOT AREA	1637.250
2.	TOTAL COVERED AREA	1158.250
3.	TOTAL OPEN AREA	666.000



CLIENT:

**SMALL DAMS SECTION
MERGED AREAS,
IRRIGATION DEPARTMENT
KHYBER PAKHTUNKHWA**

**CONSULTING ASSOCIATES
IN ASSOCIATION WITH
GHASSAN SATTAR KHAN CONSULTING ENGINEER**
NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR,
BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN
PH: +92 91 5701774 Fax: 92 91 5701775
EMAIL: Consultingassociates127@gmail.com

REV	DESCRIPTION	DATE

NOTES:
1. ALL DIMENSIONS AND LEVELS ARE IN FEET AND INCHES UNLESS OTHERWISE SPECIFIED.

PROJECT:
FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF
PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS
PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)

TITLE: INSPECTION HUT

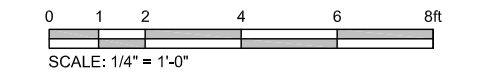
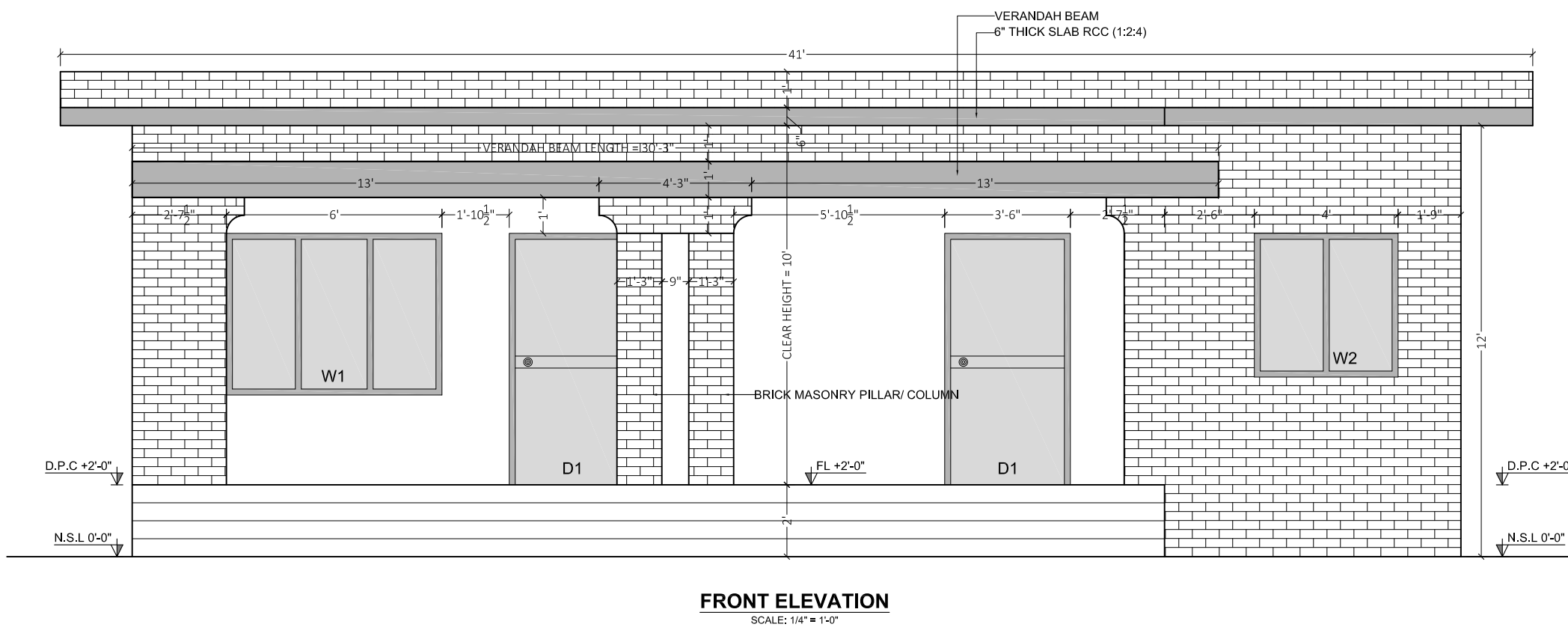
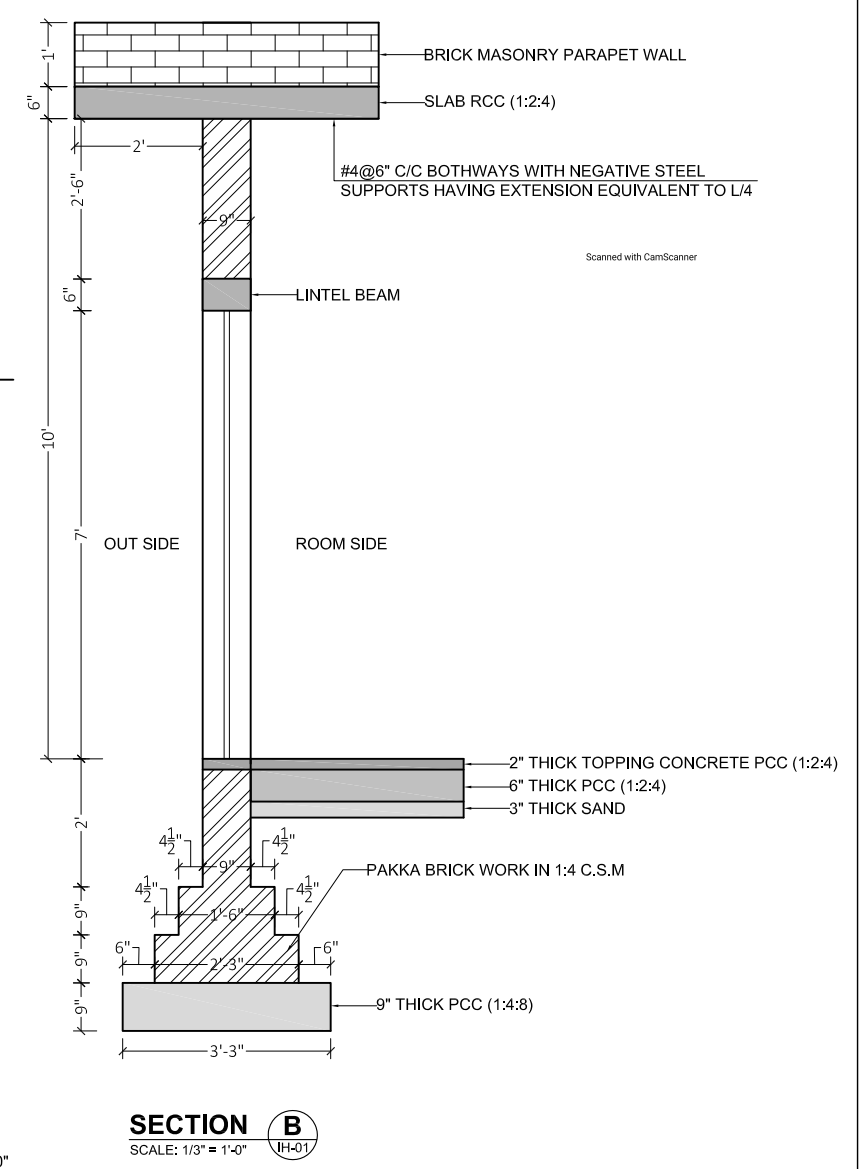
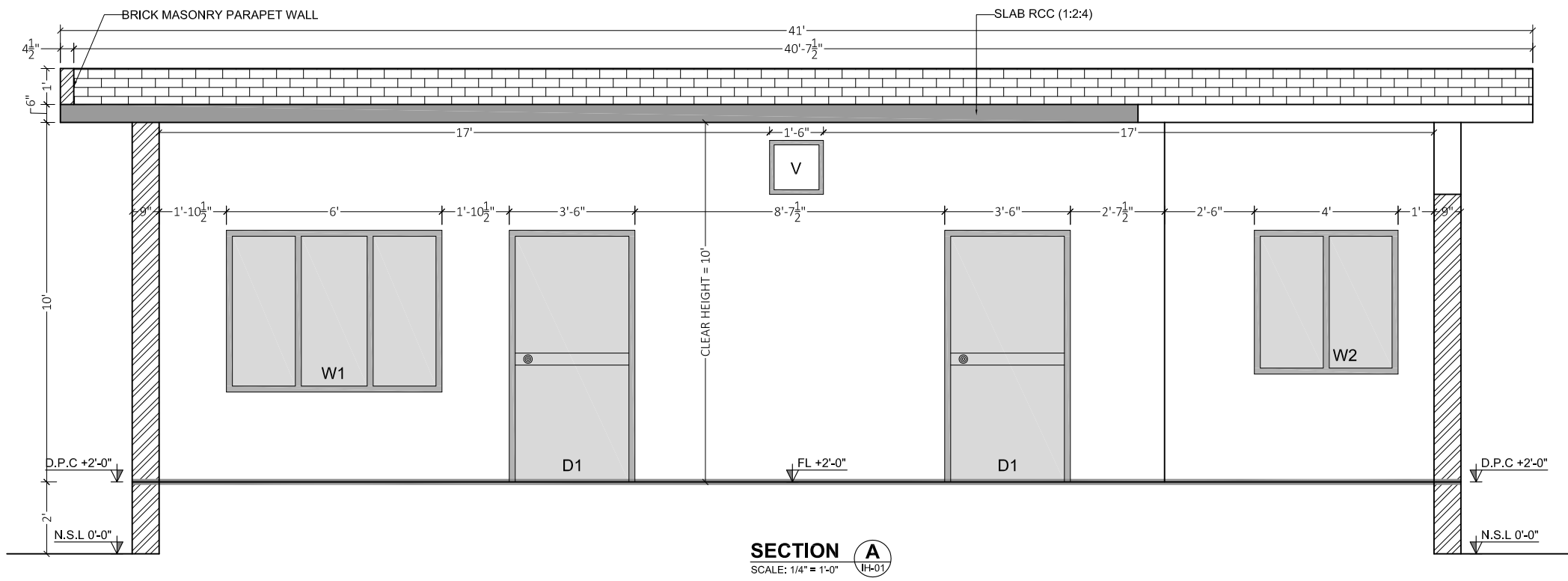
DETAILED WORKING PLAN
(SHEET 01 OF 01)



DRAWING NO.	REV
CA-PK-IX-IH-01	01

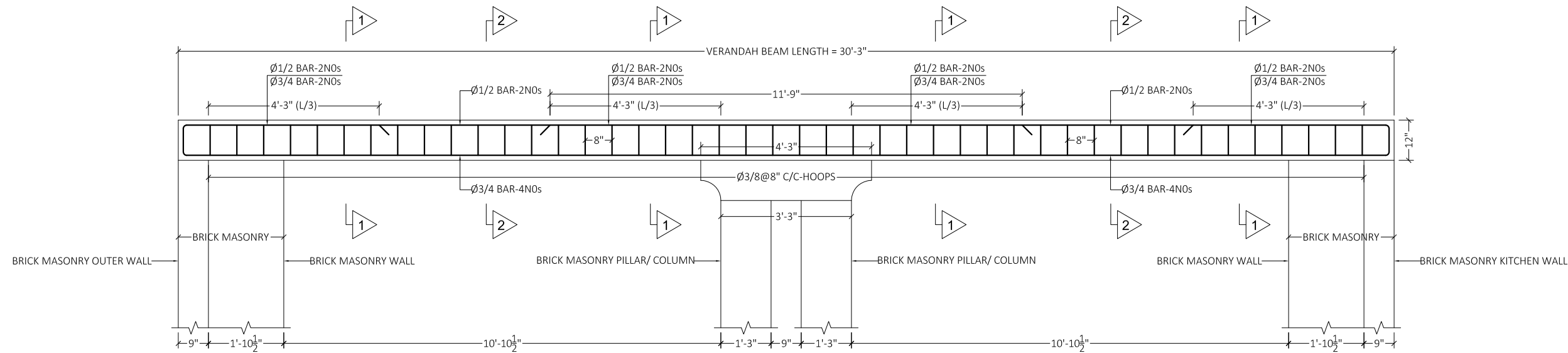
SCALE
1/6" = 1'-0"



[Handwritten signature]

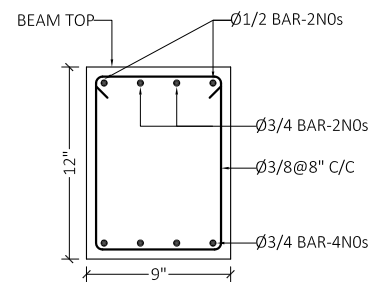


CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS AND LEVELS ARE IN FEET AND INCHES UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)	SCALE AS SHOWN

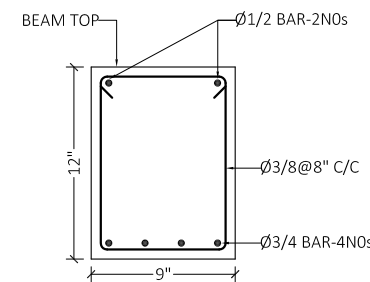


LONG SECTION OF VERANDAH BEAM

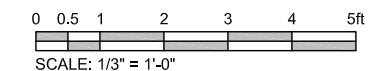
SCALE: 1/3" = 1'-0"





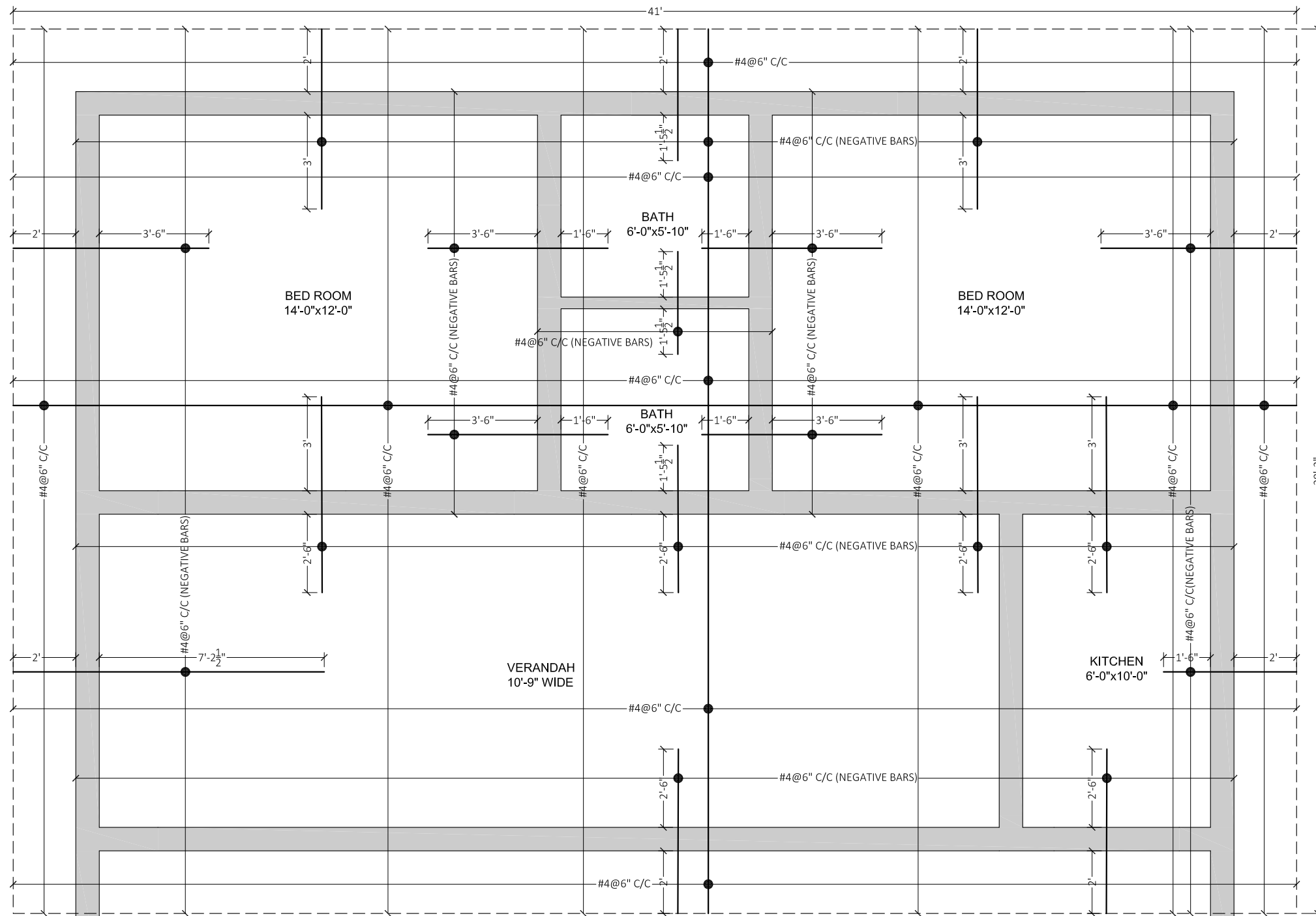
SECTION 1-1



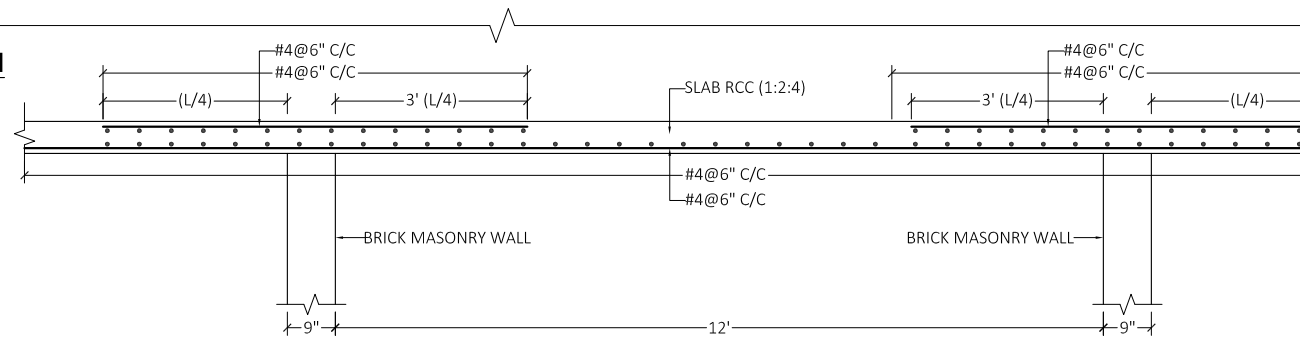
SECTION 2-2



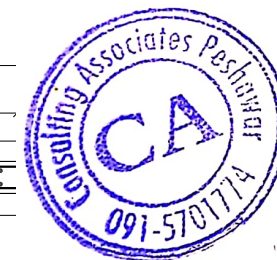
CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS AND LEVELS ARE IN FEET AND INCHES UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)	DRAWING NO. CA-PK-IX-IH-03	SCALE AS SHOWN



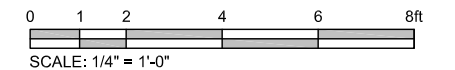
SLAB REINFORCEMENT PLAN
SCALE: 1/4" = 1'-0"





SLAB REINFORCEMENT DETAIL
SCALE: 1/3" = 1'-0"



[Handwritten signature]



CLIENT:  SMALL DAMS SECTION MERGED AREAS, IRRIGATION DEPARTMENT KHYBER PAKHTUNKHWA	CONSULTING ASSOCIATES IN ASSOCIATION WITH GHASSAN SATTAR KHAN CONSULTING ENGINEER NEAR DEANS COMPLEX APARTMENTS, BOARD BAZAR, BEHID GUL CNG, JAMRUD ROAD PEHSAWAR, PAKISTAN PH: +92 91 5701774 Fax: 92 91 5701775 EMAIL: Consultingassociates127@gmail.com 	REV	DESCRIPTION	DATE	NOTES: 1. ALL DIMENSIONS AND LEVELS ARE IN FEET AND INCHES UNLESS OTHERWISE SPECIFIED.	PROJECT: FEASIBILITY STUDY, DETAILED DESIGN & PREPARATION OF PC-I OF 05 NO'S SMALL DAMS IN MERGED AREAS DISTRICTS PACKAGE-IX ZANGOTAI SMALL DAM - NORTH WAZIRISTAN)	SCALE AS SHOWN
		TITLE: INSPECTION HUT		DRAWING NO.			
SLAB REINFORCEMENT DETAILS (SHEET 01 OF 01)						CA-PK-IX-IH-04	01