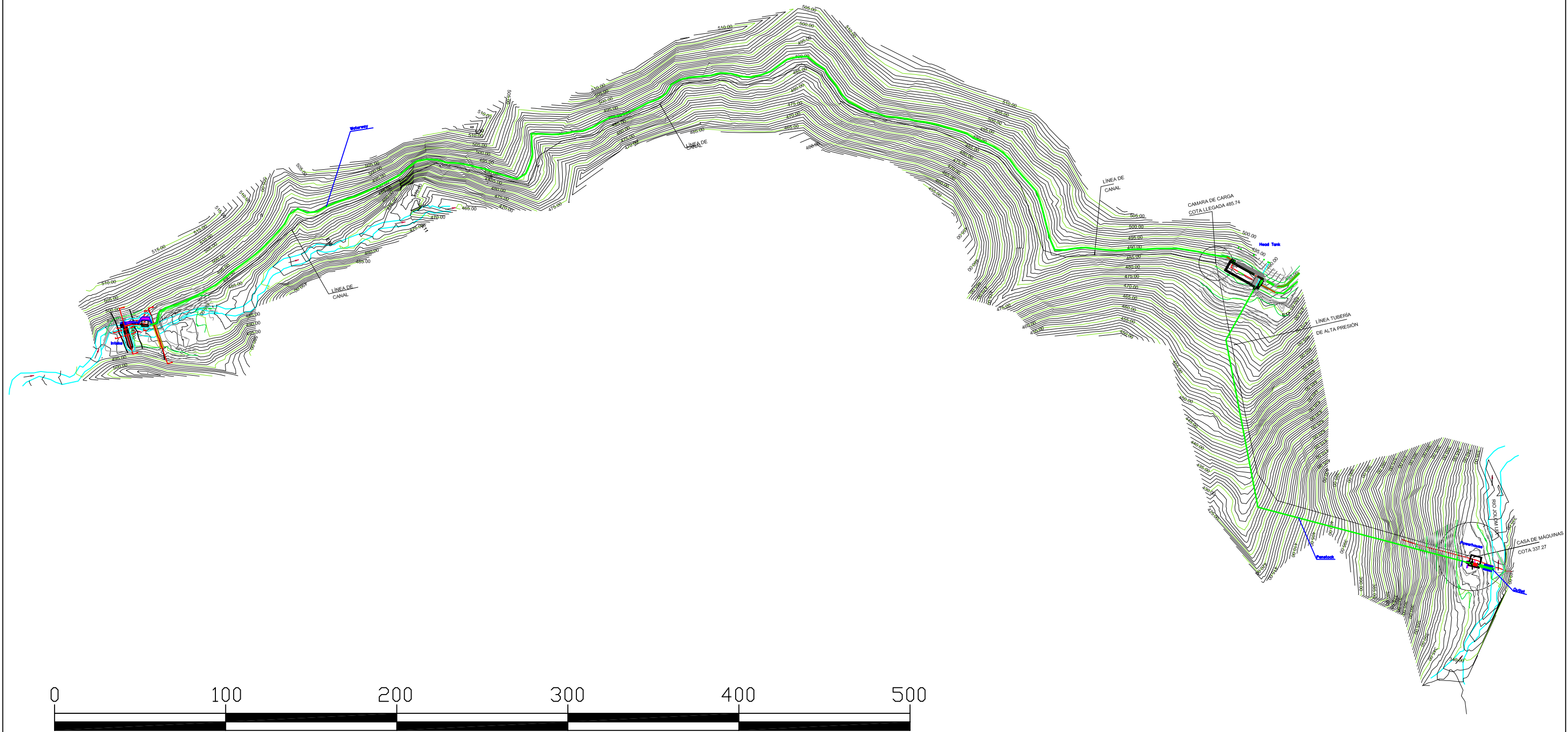
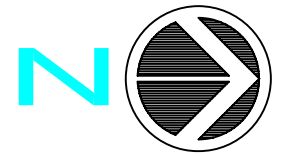


JOLOM IJIX



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT & LOCATION:

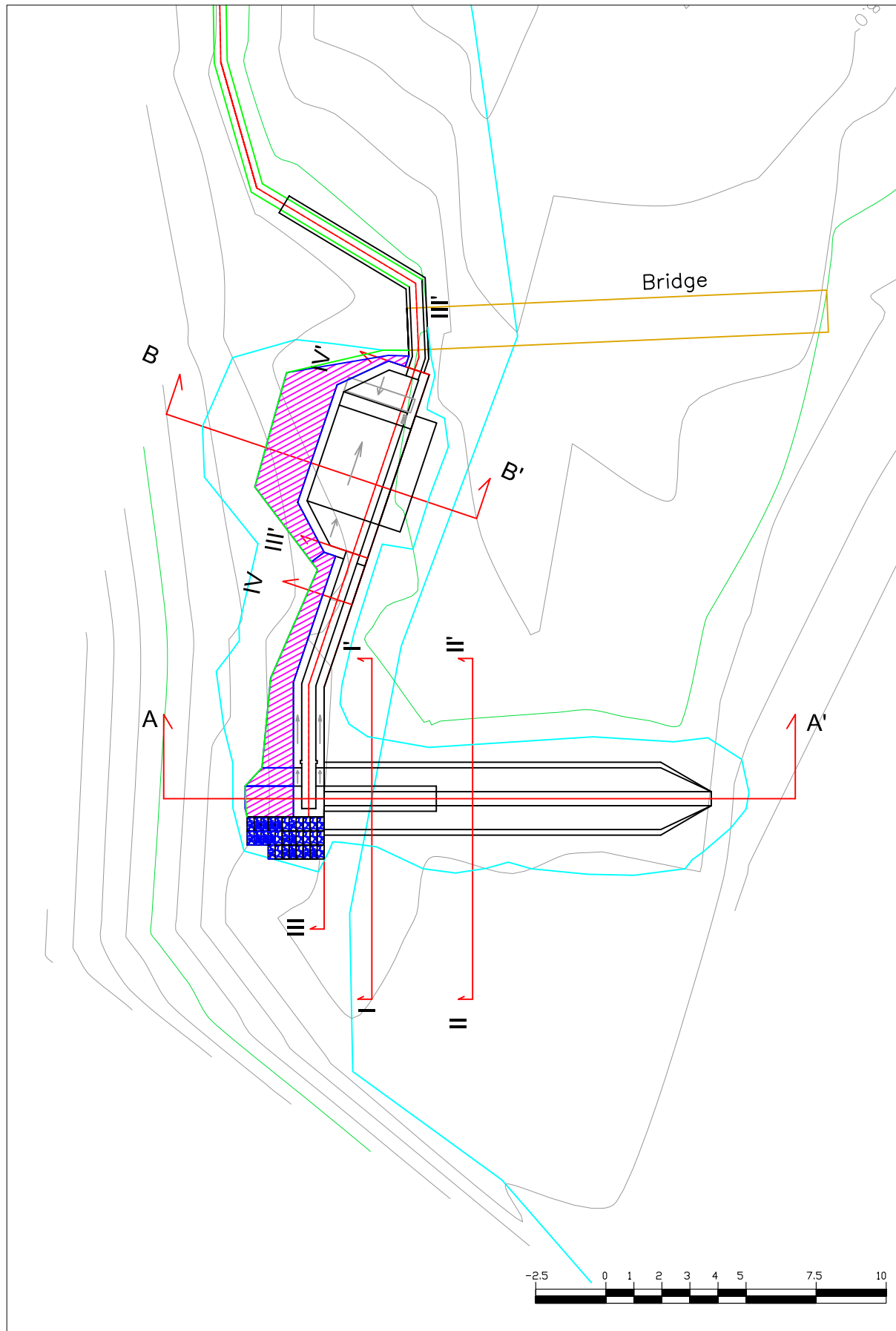
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Jolom Ijix Micro Hydropower Project
Plan View
(Scale: As Drawing)

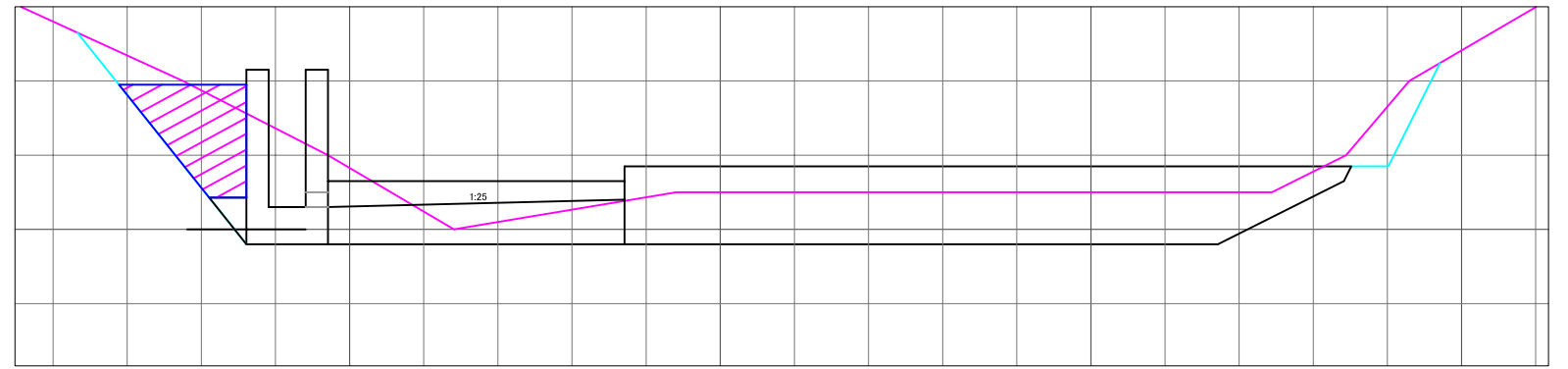
DRAWING NO.

J-G-001



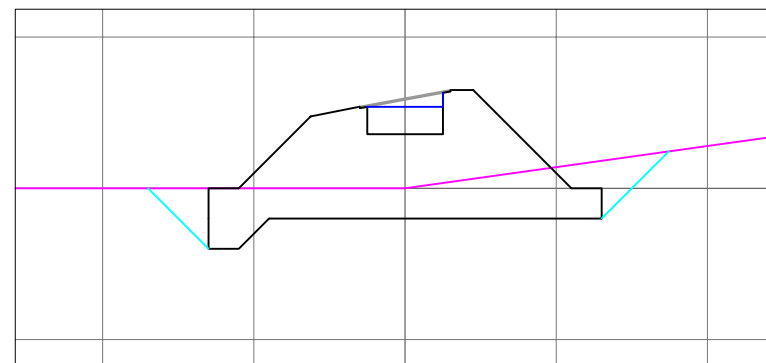
Plan

(S=1:200)

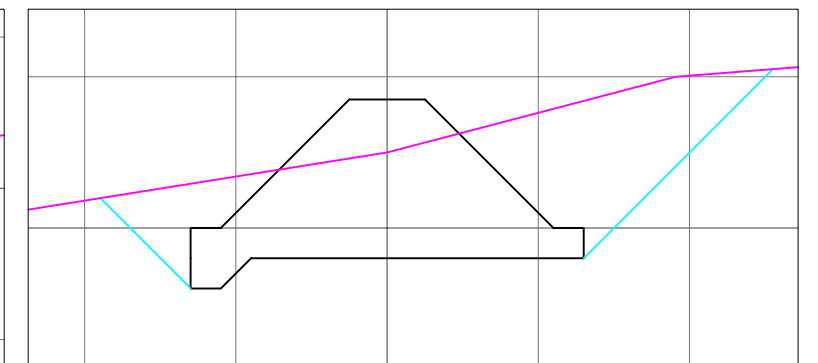


(S=1:100)

Weir Axis Section

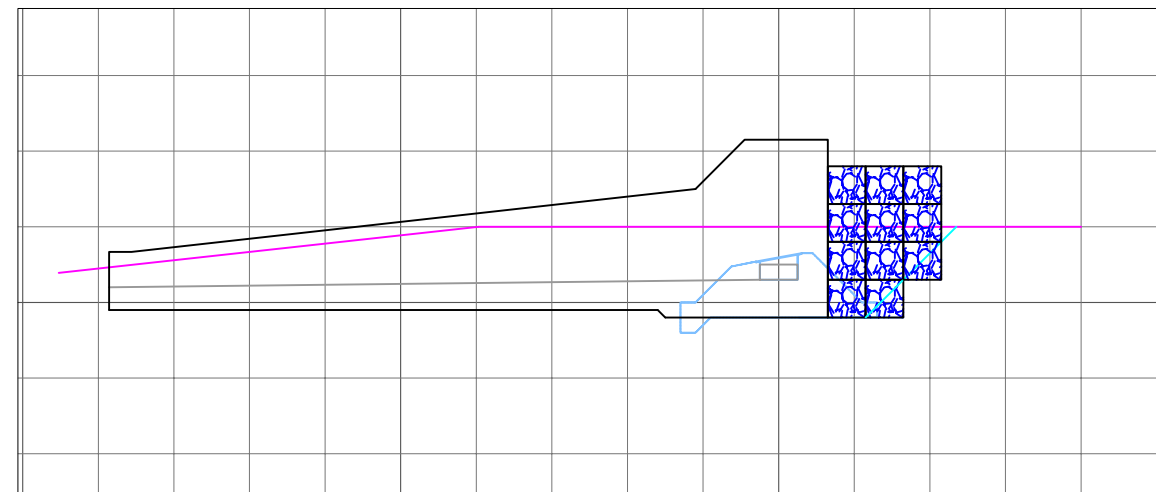


Intake Section



(S=1:50)

Higher Section



(S=1:100)

Along Waterway Wall



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT & LOCATION:

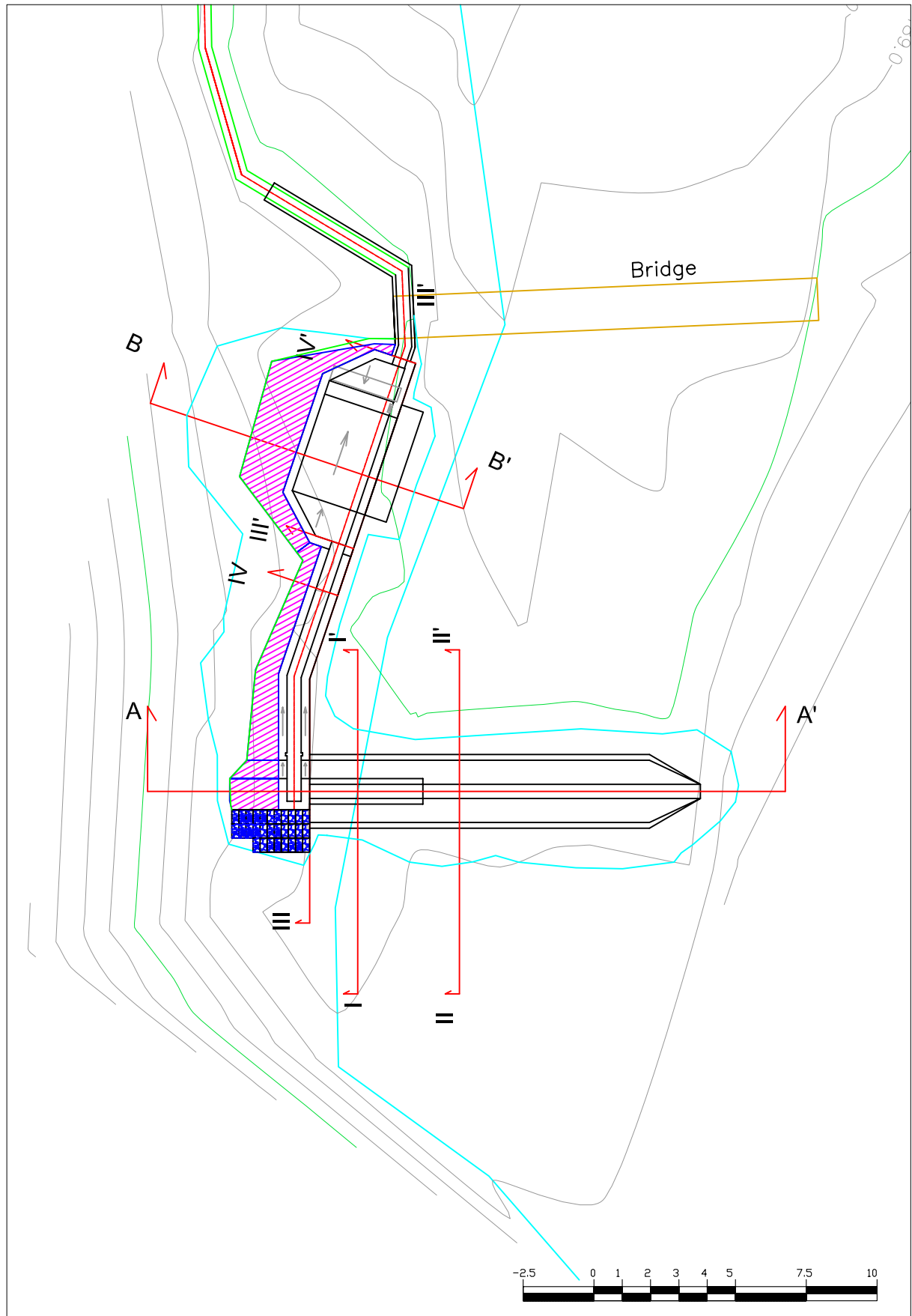
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Jolom Ijix Micro Hydropower Project
INTAKE WEIR
(Scale: As Drawing)

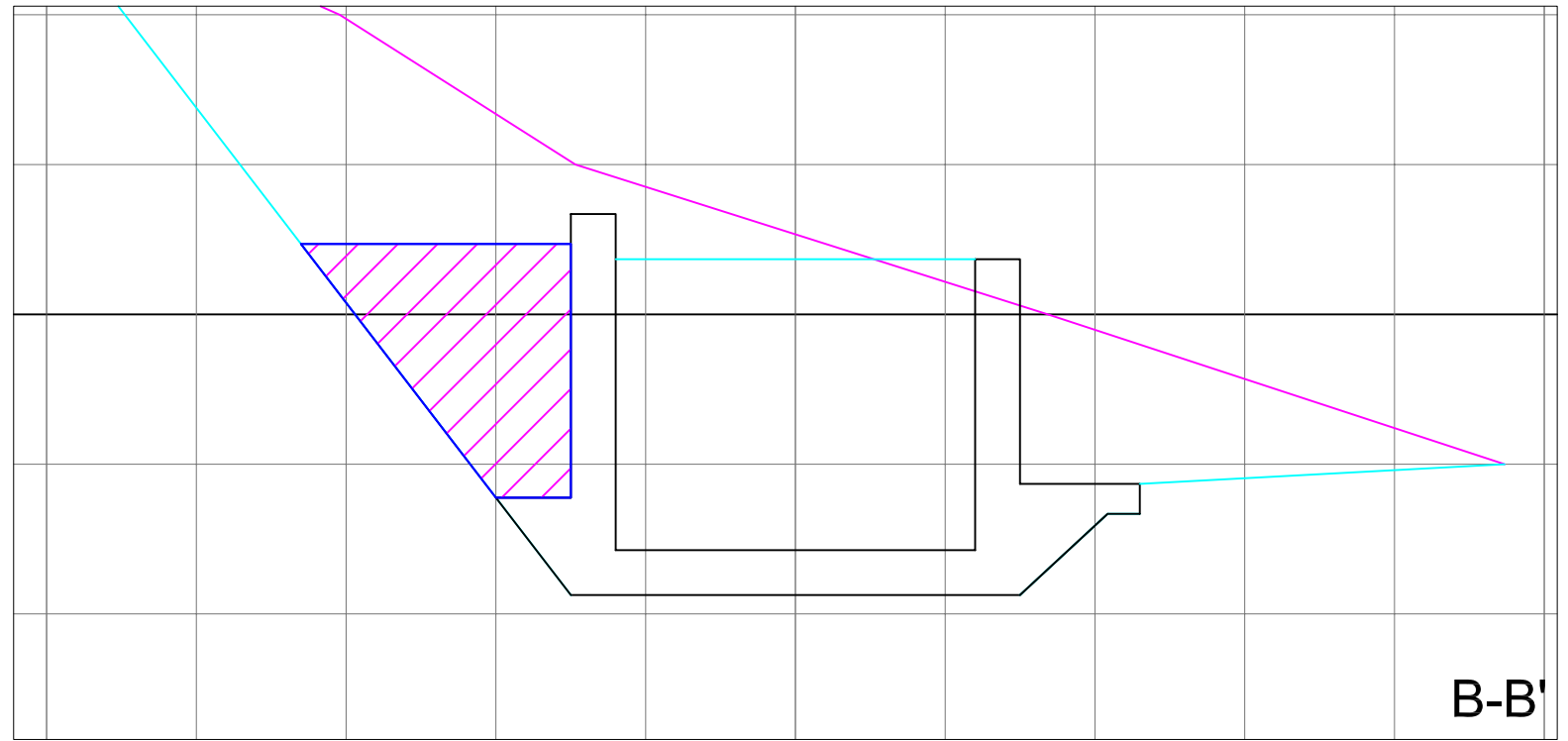
DRAWING NO.

J-C-001



Plan

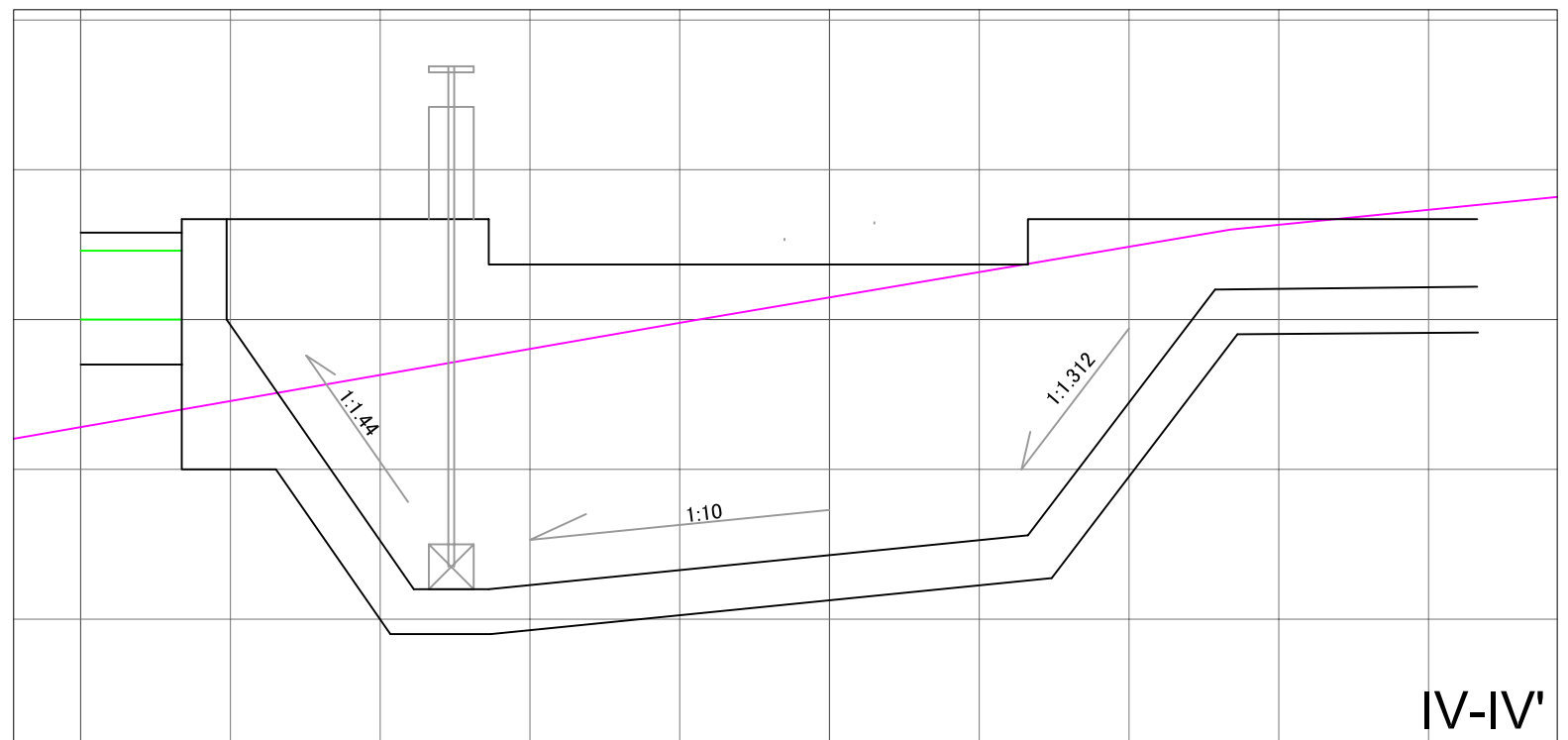
(S=1:200)



B-B'

(S=1:50)

Section



IV-IV'

(S=1:50)

Longitudinal Profile



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT & LOCATION:

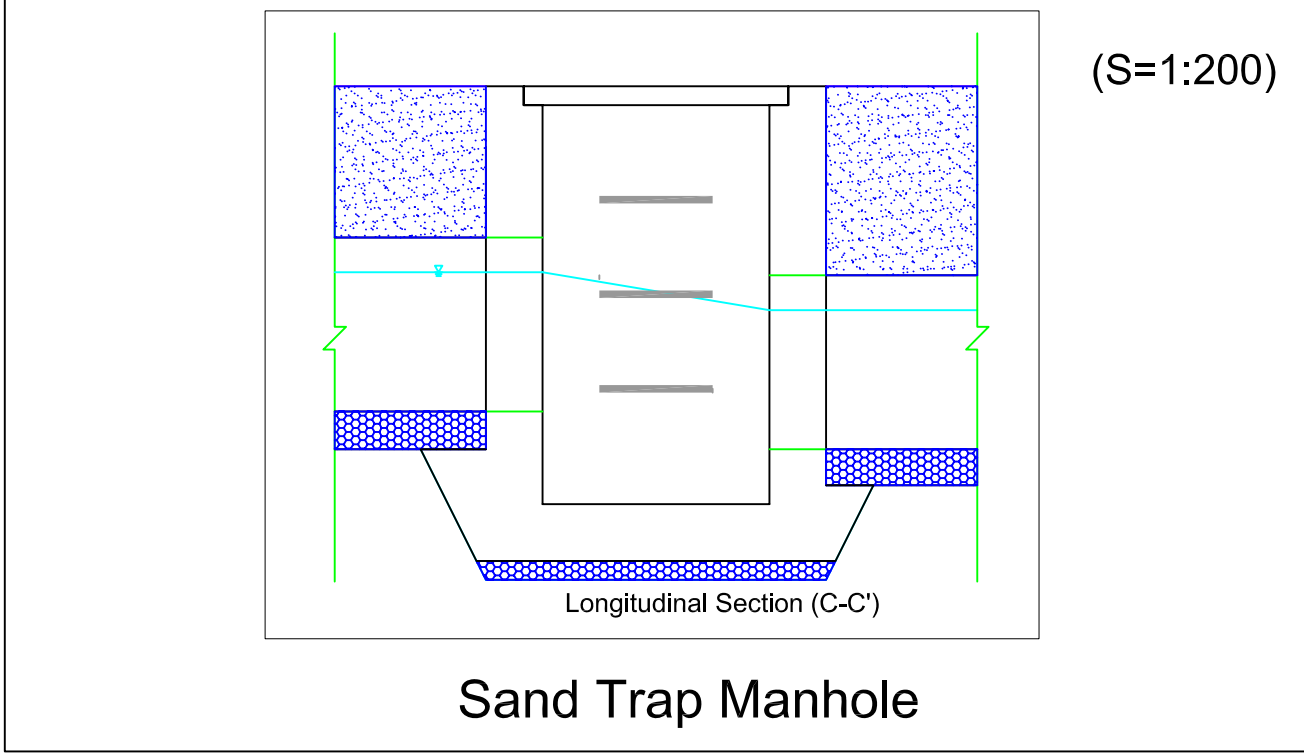
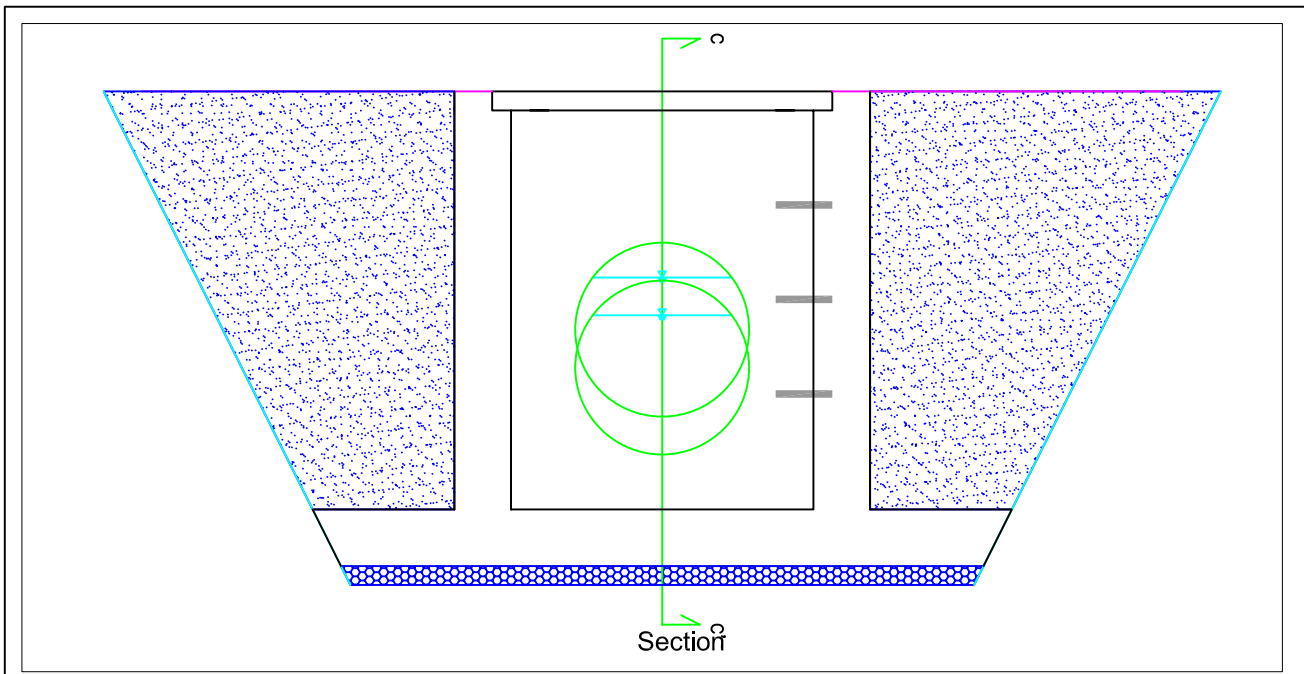
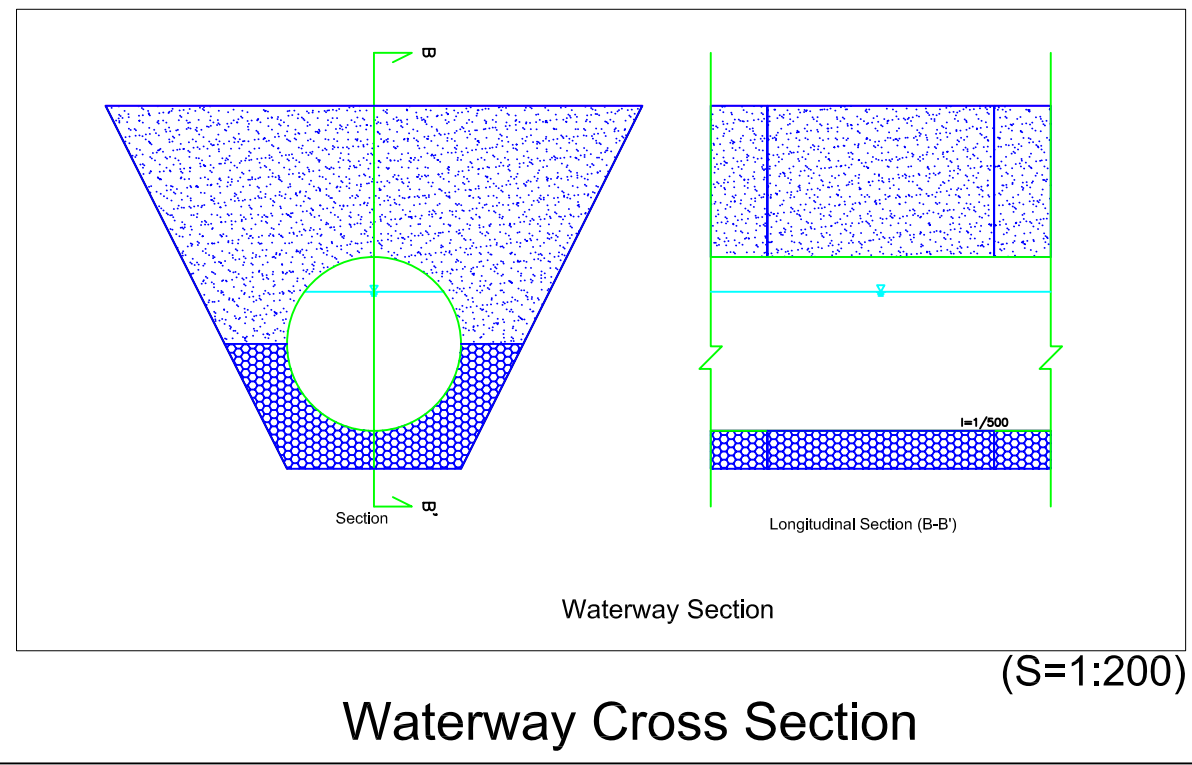
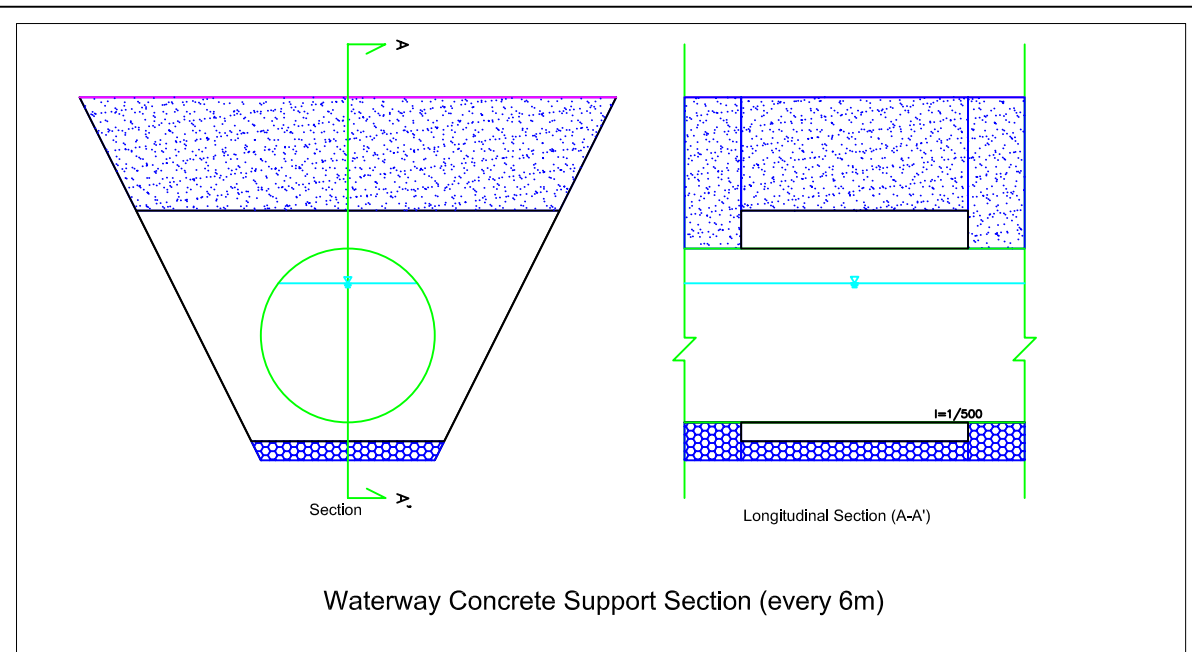
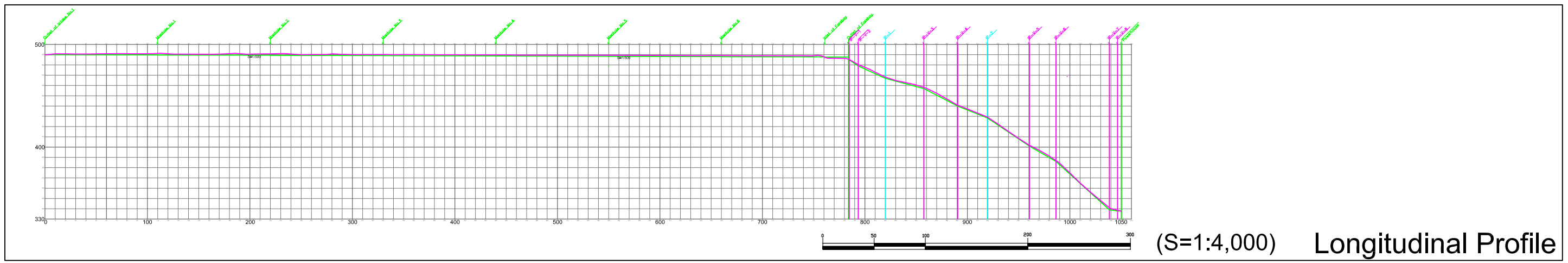
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The Republic of Guatemala

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Jolom Ijix Micro Hydropower Project
INTAKE WEIR – Stilling Basin
(Scale; As Drawing)

DRAWING NO.

J-C-002

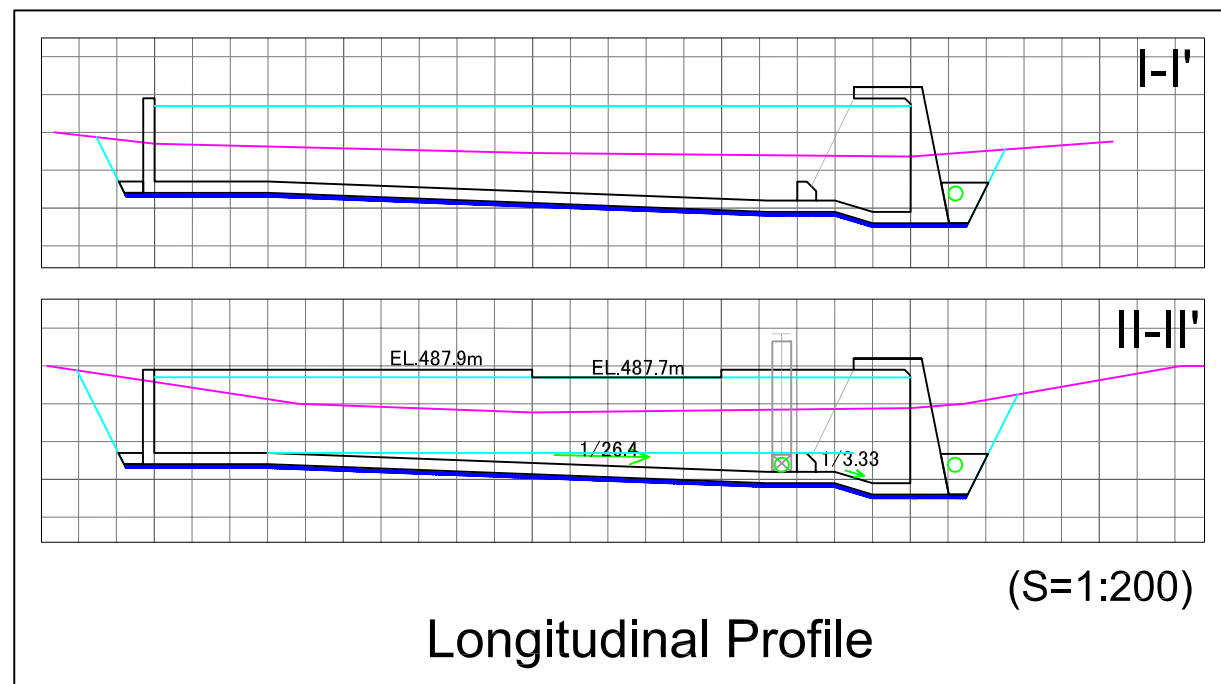
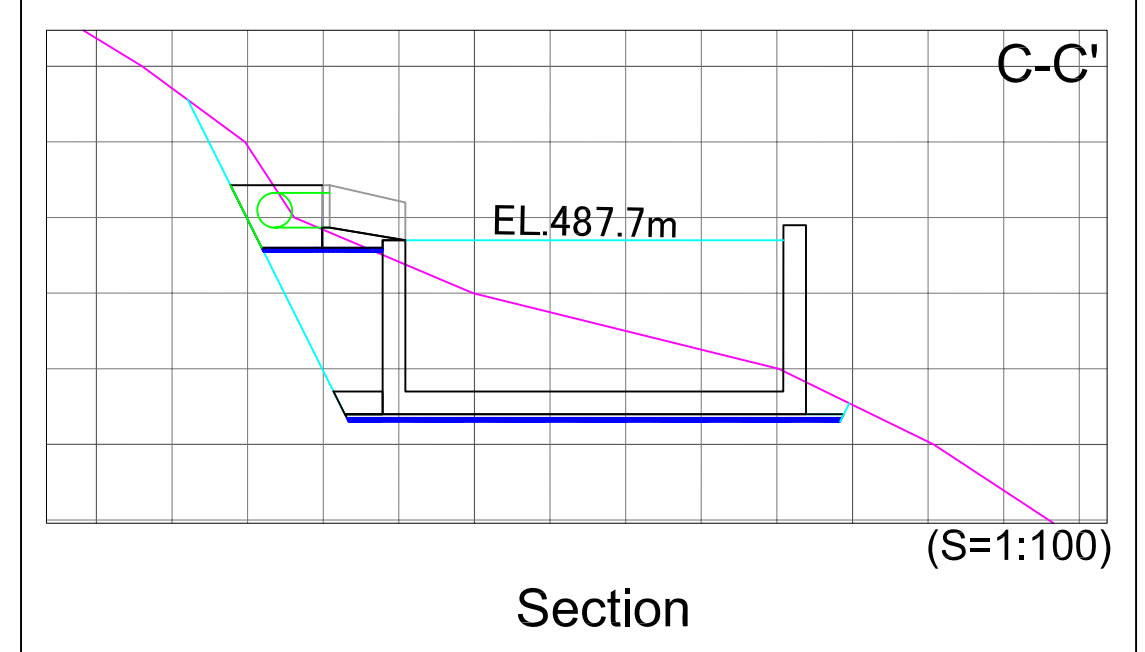
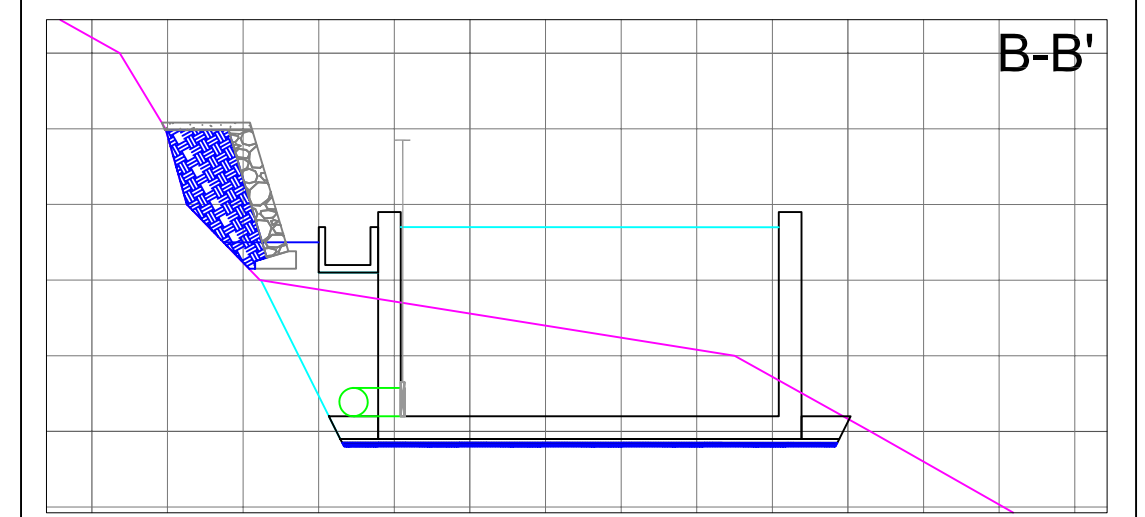
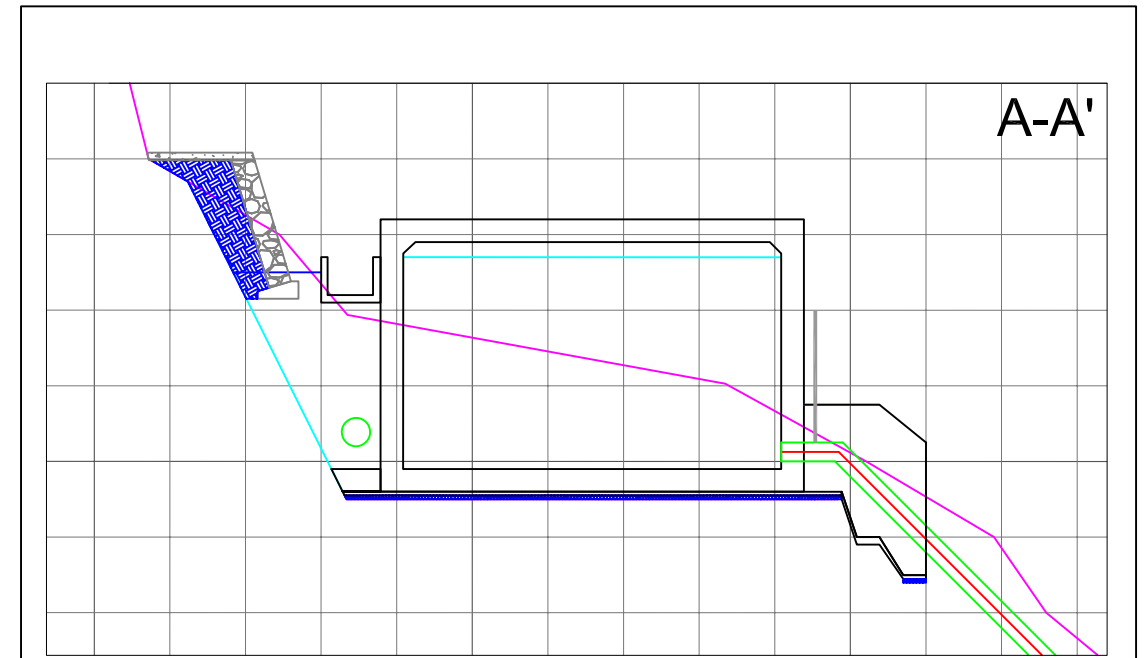
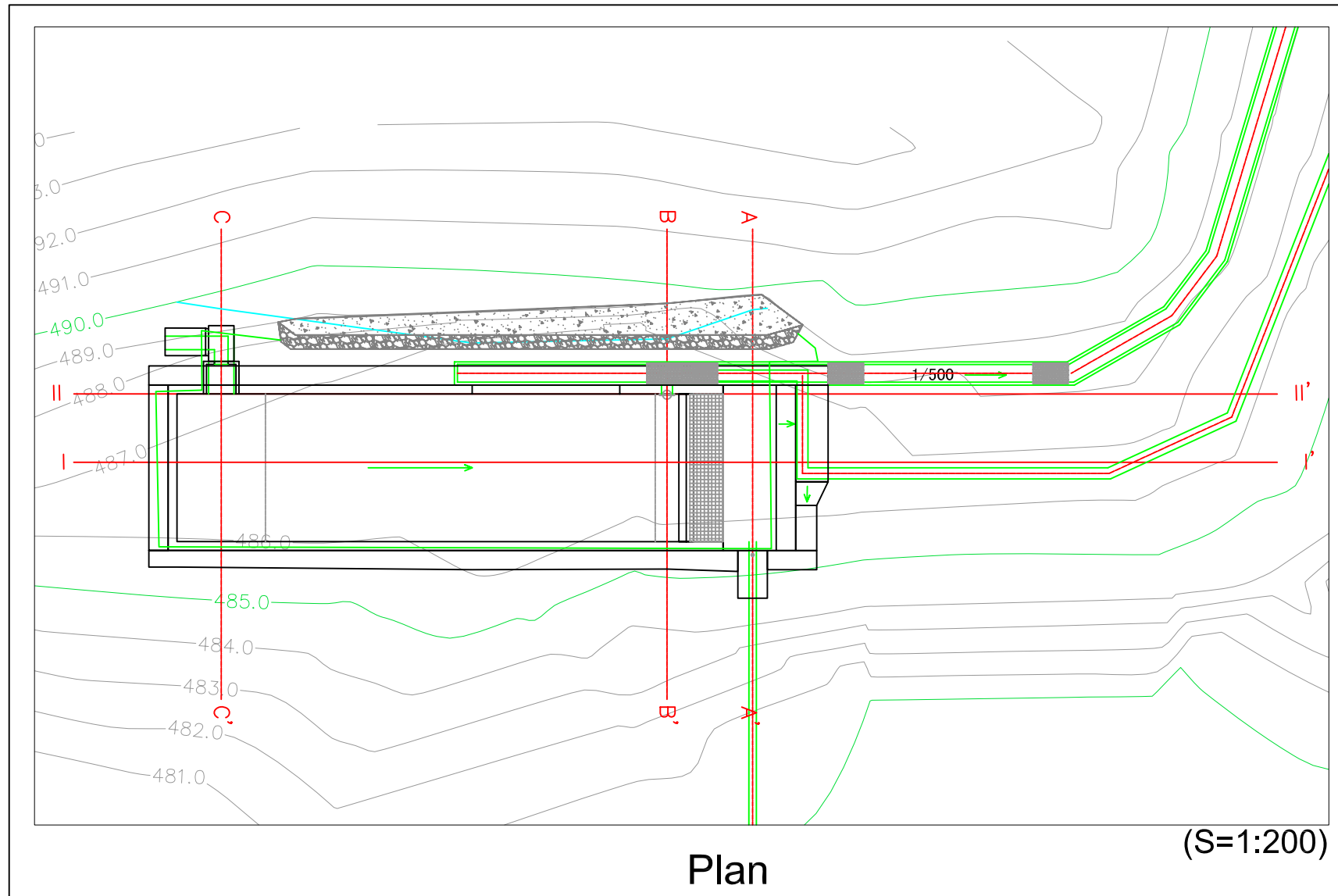


JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT & LOCATION:
 Preparatory Survey on the Project for Promotion of
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 Jolom Ijix Micro Hydropower Project
 Waterway(1) – Longitudinal Profile
 (Scale: As Drawing)

DRAWING NO.
 J-C-003



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT & LOCATION:

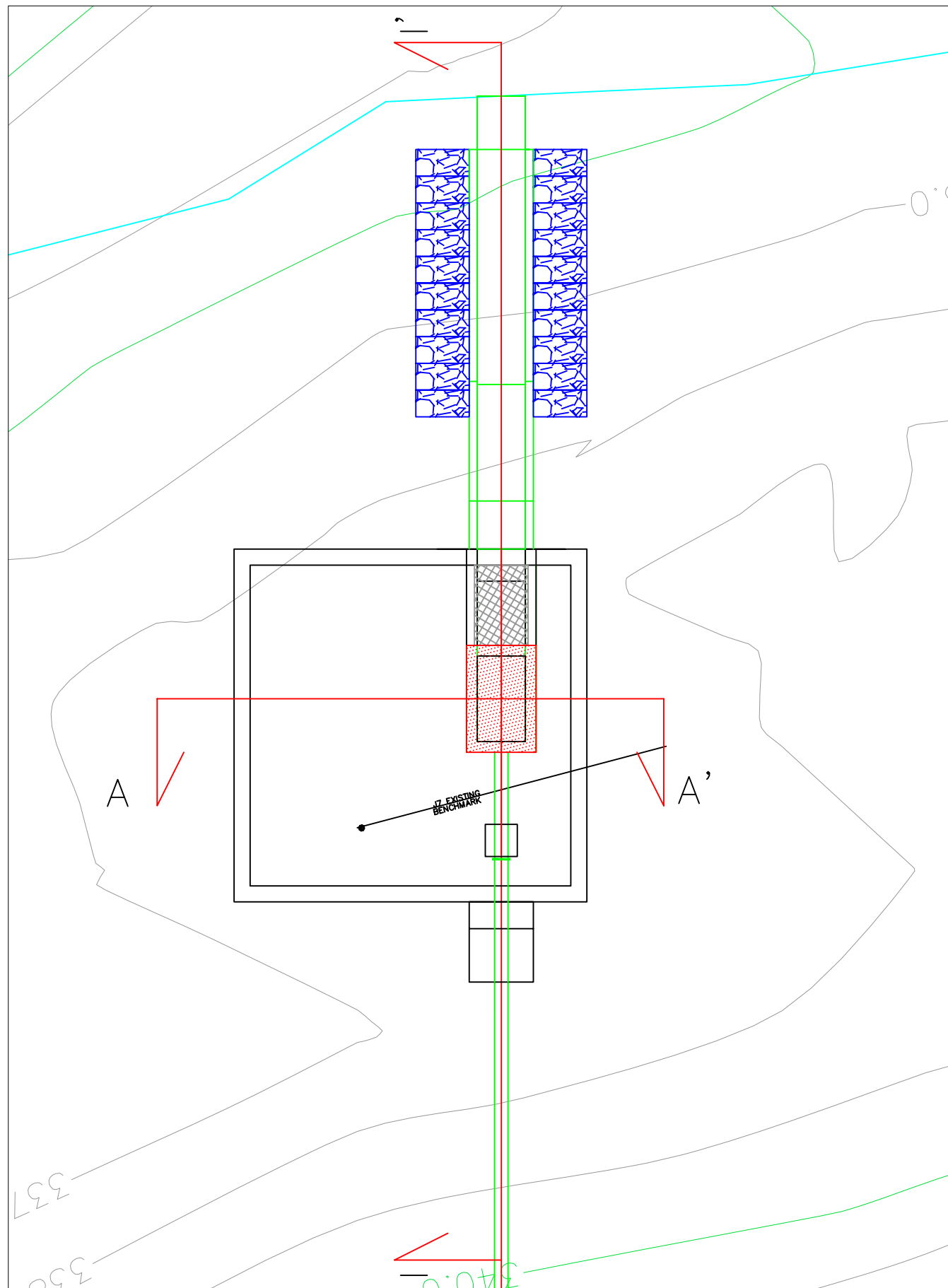
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Production Activities by Clean Energy in the North Villages
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Jolom Ijix Micro Hydropower Project
Head Tank
(Scale: As Drawing)

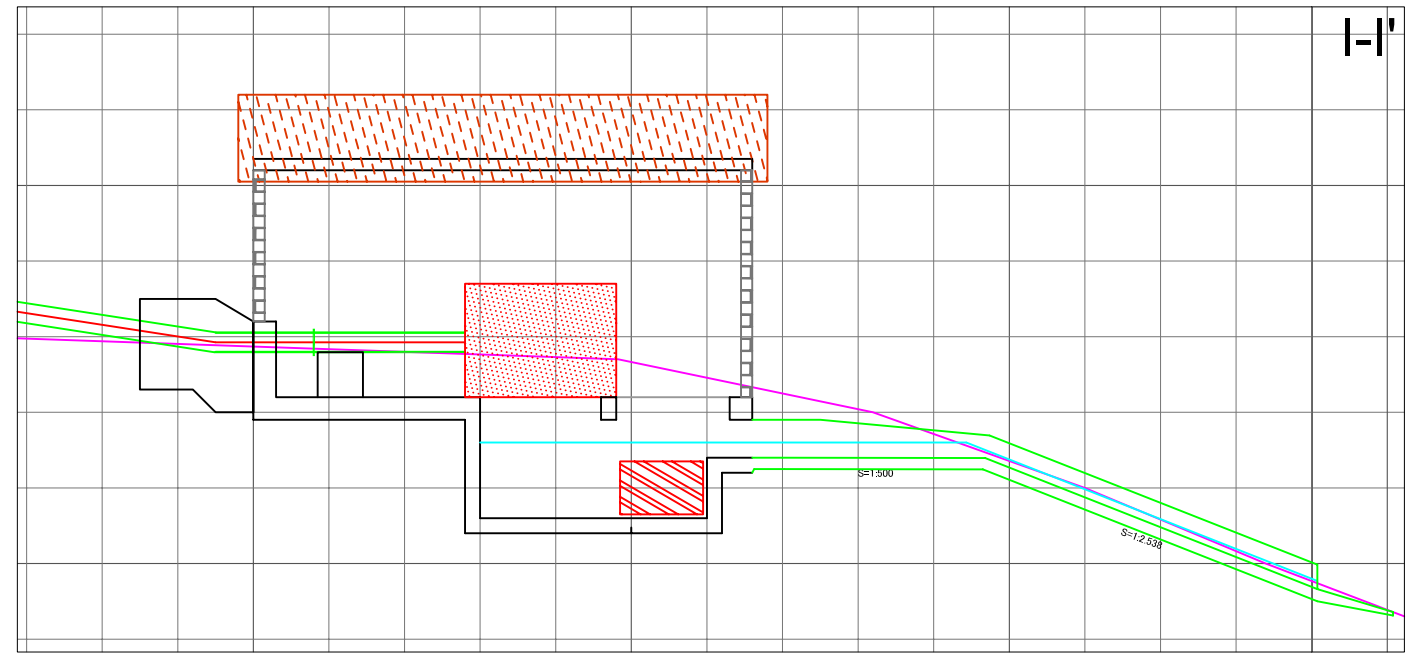
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J-C-004



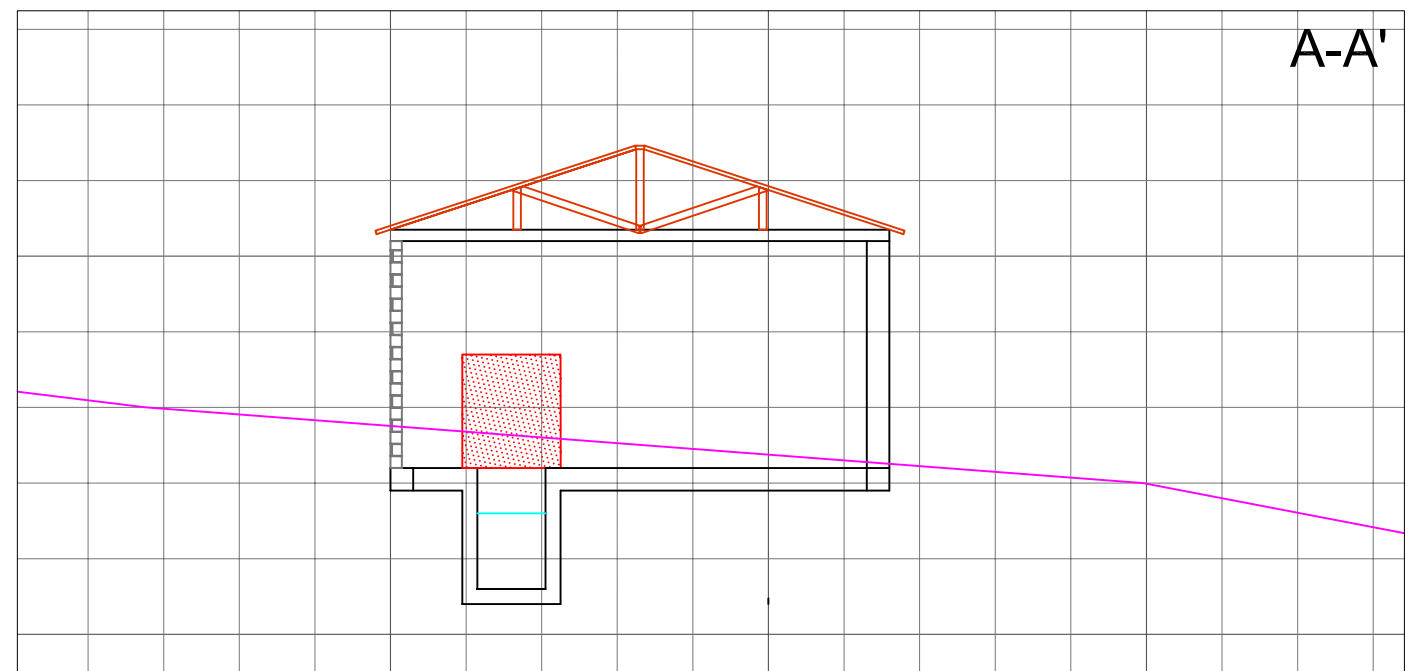
Plan

(S=1:100)



Longitudinal Profile

(S=1:100)



Section

(S=1:100)



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT & LOCATION:

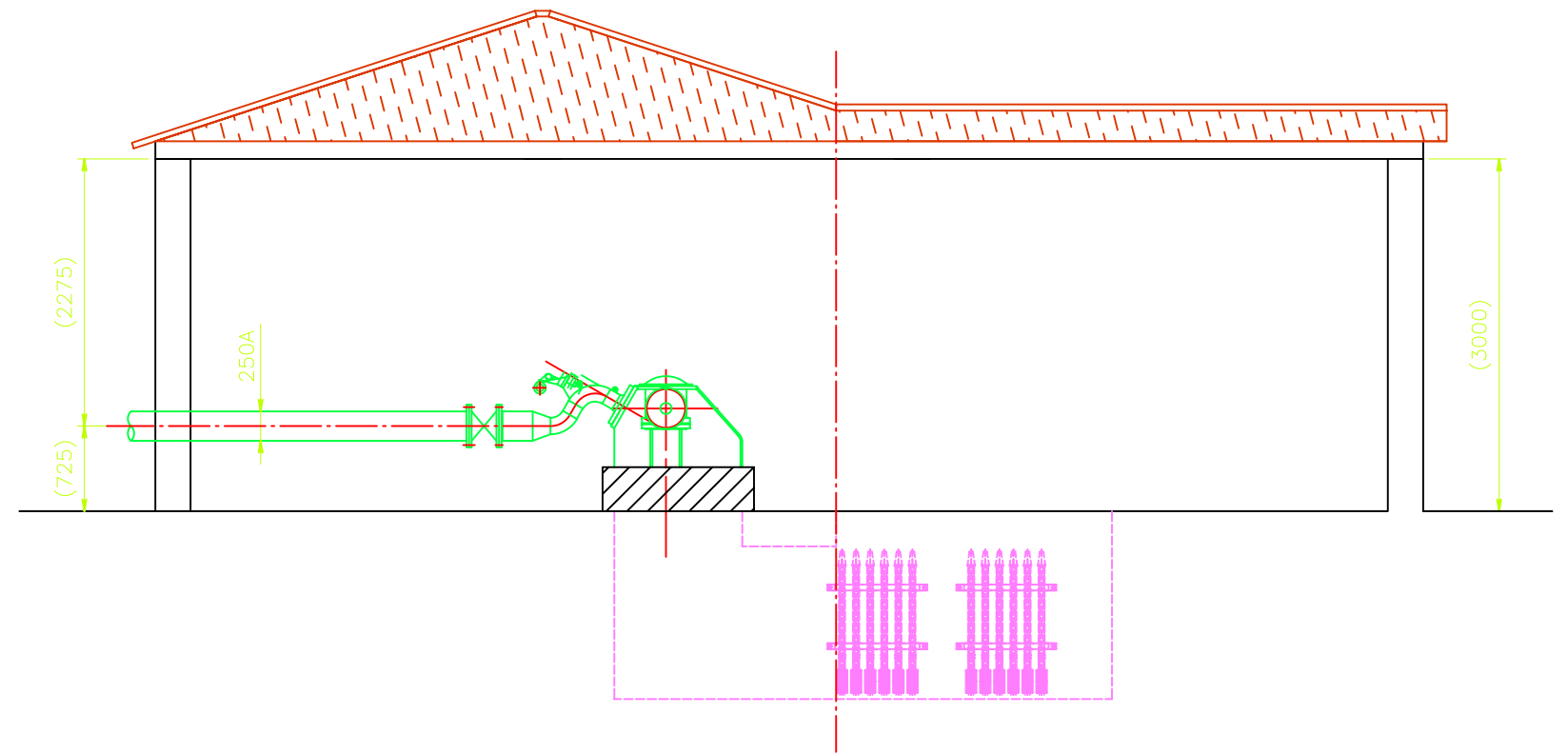
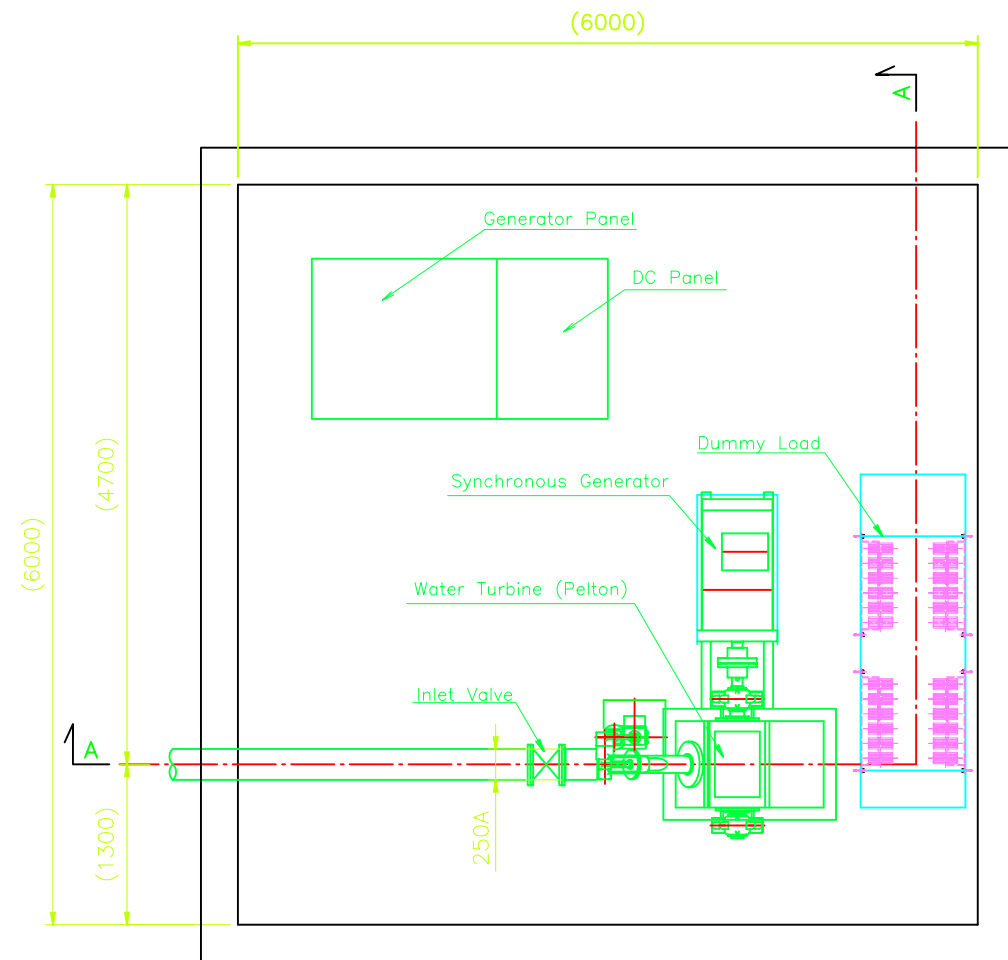
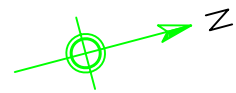
Preparatory Survey on the Project for Promotion of Production Activities by Clean Energy in the North Villages The Republic of Guatemala

SHEET CONTENTS

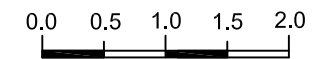
Jolom Ijix Micro Hydropower Project Powerhouse and Outlet (Scale: S=1:40)

DRAWING NO.

J-C-005



A - A



| | Turbine Discharge (m ³ /s) | Effective Head (m) | Speed (min ⁻¹) | Rated Capacity (kVA) |
|------------|--|-----------------------|-------------------------------|-------------------------|
| Jolom Ijix | 0.10 | 145.0 | 1200 | 120 |



JAPAN INTERNATIONAL COOPERATION AGENCY

PROJECT & LOCATION:

Preparatory Survey on the Project for Promotion of
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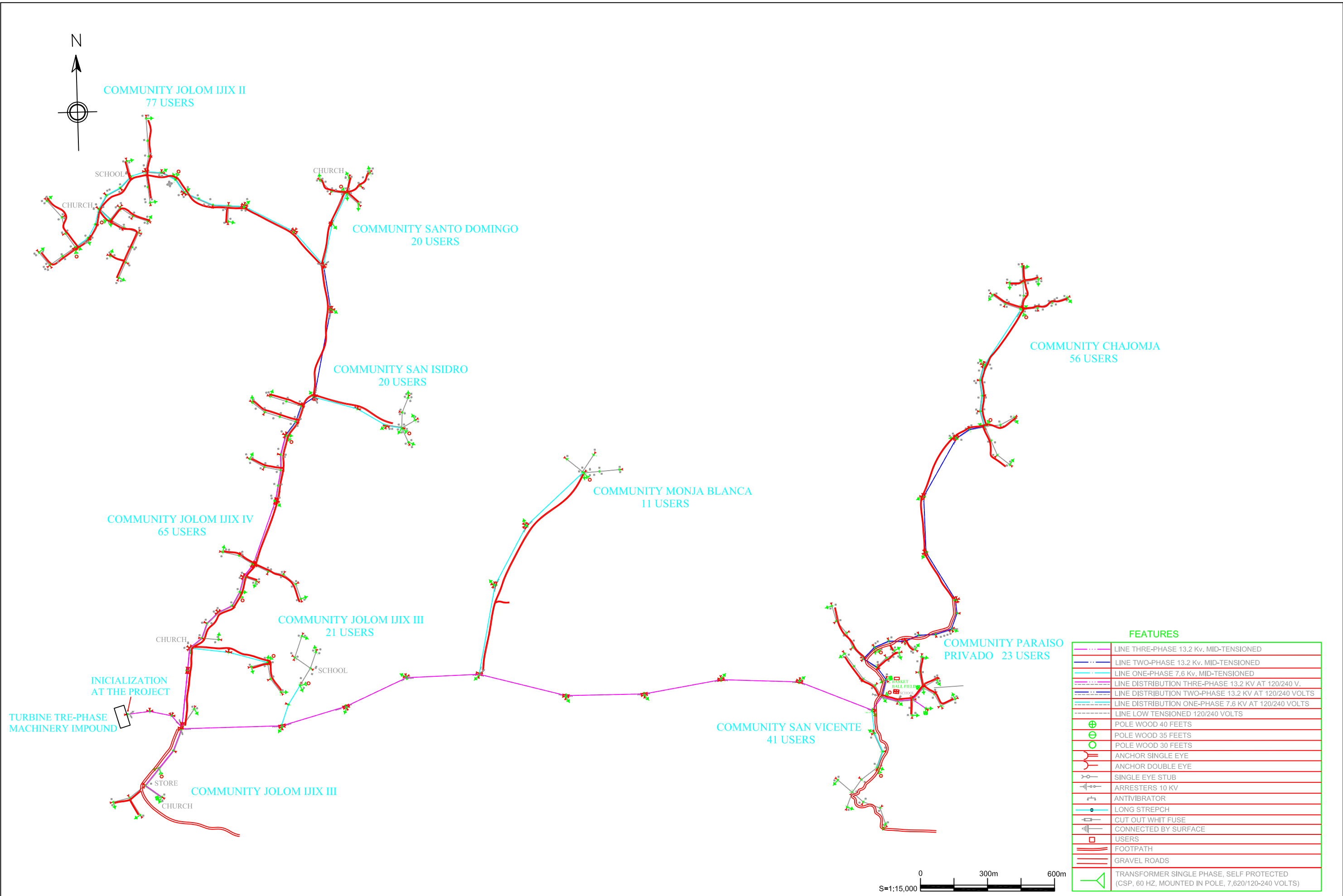
SHEET CONTENTS

Jolom Ijix Micro Hydro Power Project
Layout Plan in the Powerhouse

DRAWING NO.

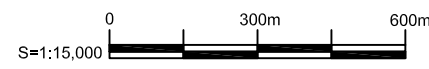
J-E-001

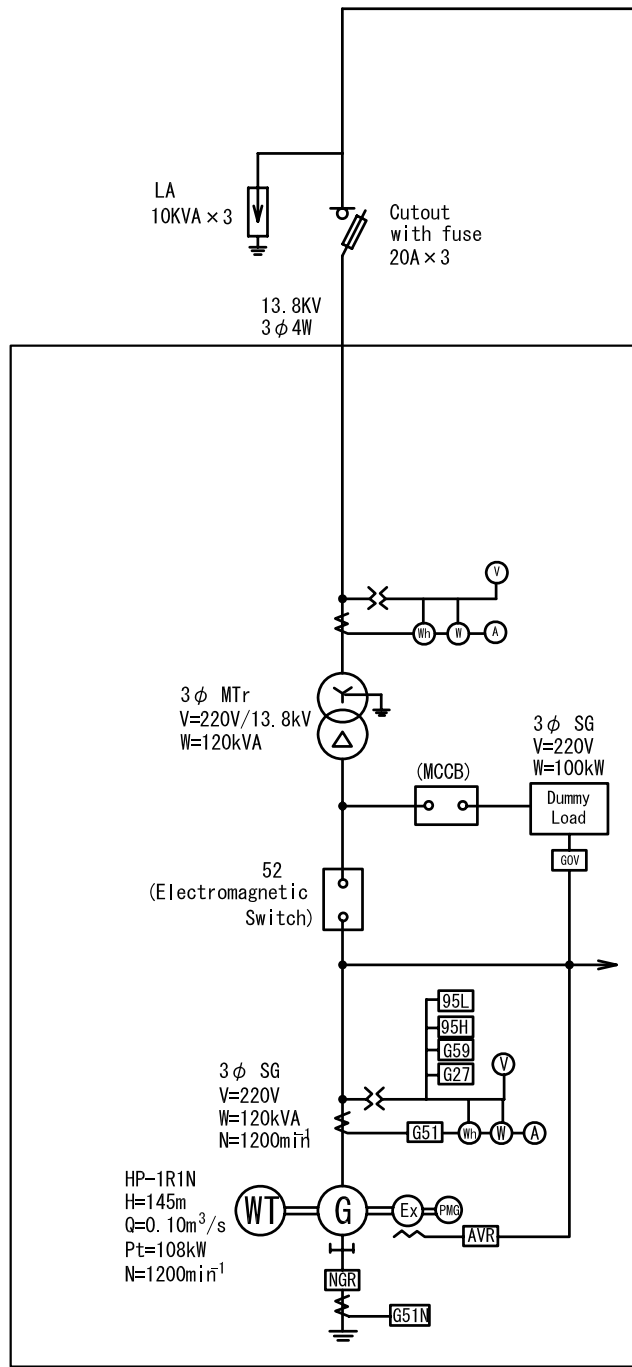
(S=1:60)



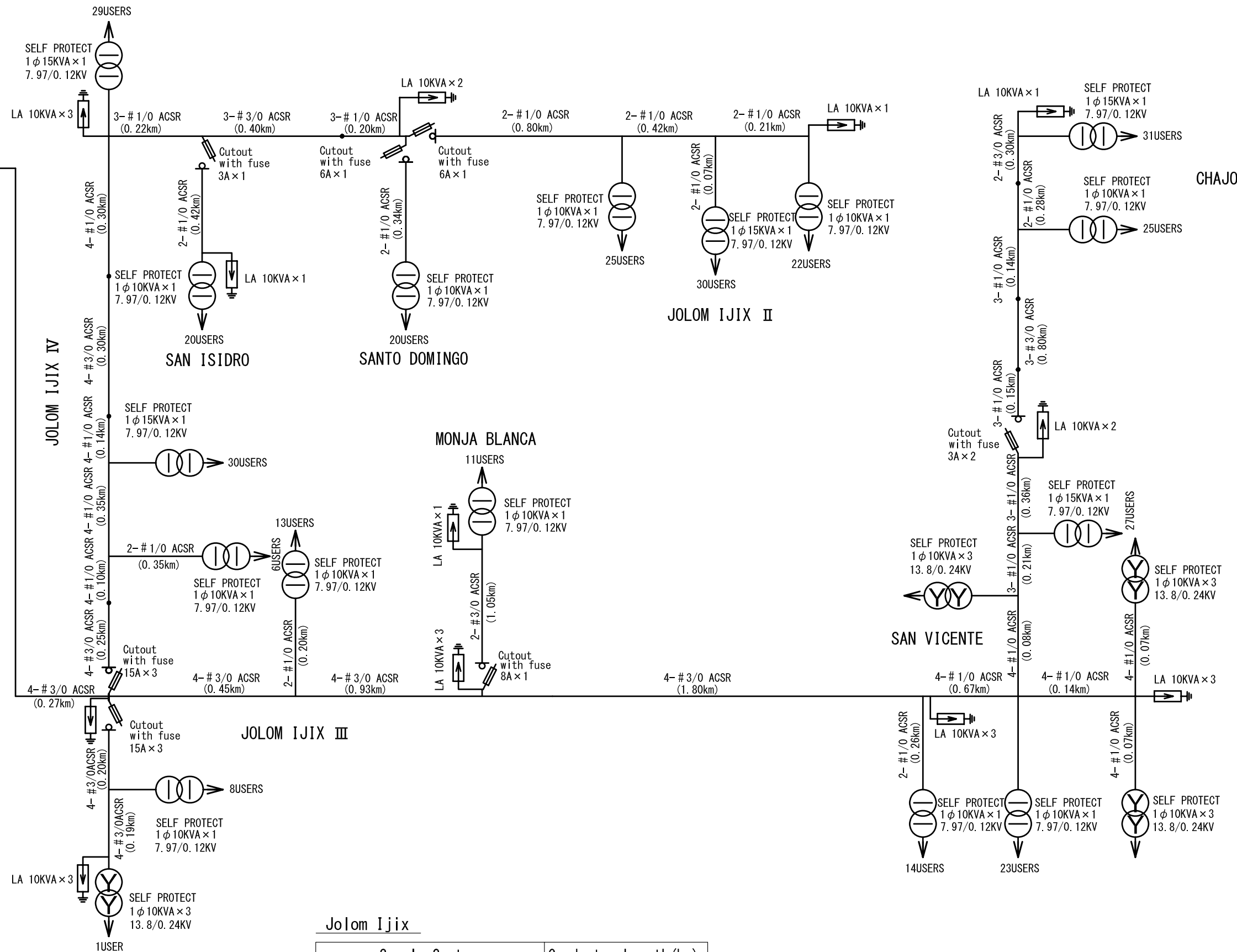
FEATURES

| | |
|--|---|
| | LINE THREE-PHASE 13.2 Kv. MID-TENSIONED |
| | LINE TWO-PHASE 13.2 Kv. MID-TENSIONED |
| | LINE ONE-PHASE 7.6 Kv. MID-TENSIONED |
| | LINE DISTRIBUTION THREE-PHASE 13.2 KV AT 120/240 V. |
| | LINE DISTRIBUTION TWO-PHASE 13.2 KV AT 120/240 VOLTS |
| | LINE DISTRIBUTION ONE-PHASE 7.6 KV AT 120/240 VOLTS |
| | LINE LOW TENSIONED 120/240 VOLTS |
| | POLE WOOD 40 FEETS |
| | POLE WOOD 35 FEETS |
| | POLE WOOD 30 FEETS |
| | ANCHOR SINGLE EYE |
| | ANCHOR DOUBLE EYE |
| | SINGLE EYE STUB |
| | ARRESTERS 10 KV |
| | ANTIVIBRATOR |
| | LONG STREPC |
| | CUT OUT WHIT FUSE |
| | CONNECTED BY SURFACE |
| | USERS |
| | FOOTPATH |
| | GRAVEL ROADS |
| | TRANSFORMER SINGLE PHASE, SELF PROTECTED (CSP, 60 HZ, MOUNTED IN POLE, 7,620/120-240 VOLTS) |





Jolom Ijix Power Station



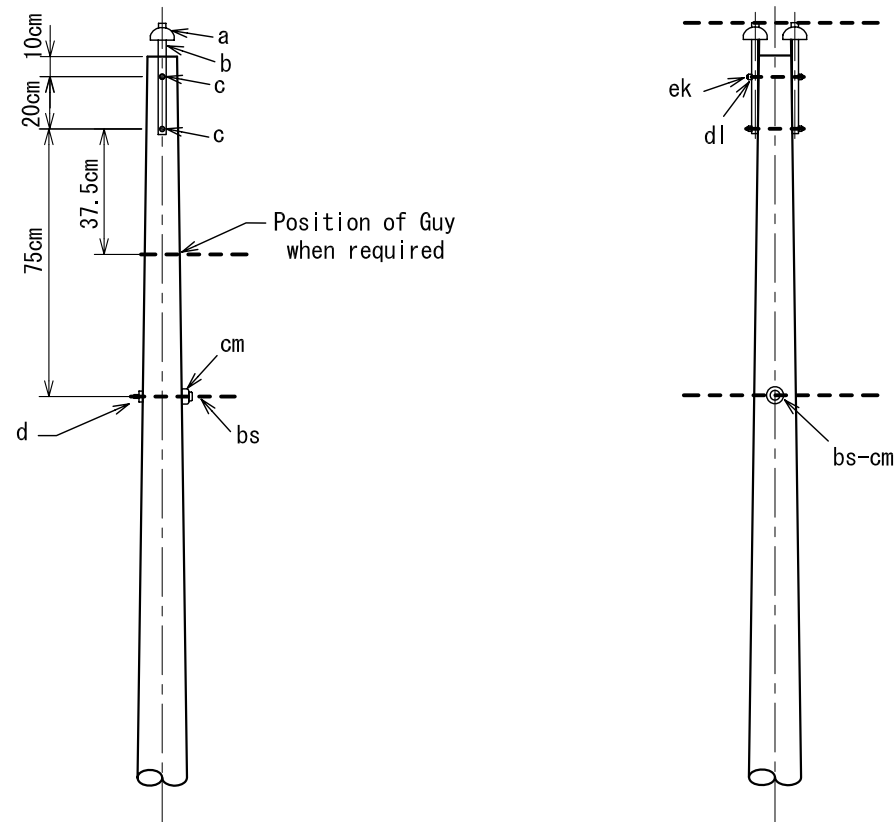
Jolom Ijix

| Supply System | Conductor Length (km) |
|-------------------------------|-----------------------|
| Three (3) Phase Four (4) Wire | 5.71 |
| Two (2) Phase Three (3) Wire | 2.46 |
| Single (1) Phase Two (2) Wire | 4.71 |
| Total | 12.88 |



THREE PROJECTS

7. 97/13. 8kV. PRIMARY, SINGLE PHASE 0° TO 5° ANGLE



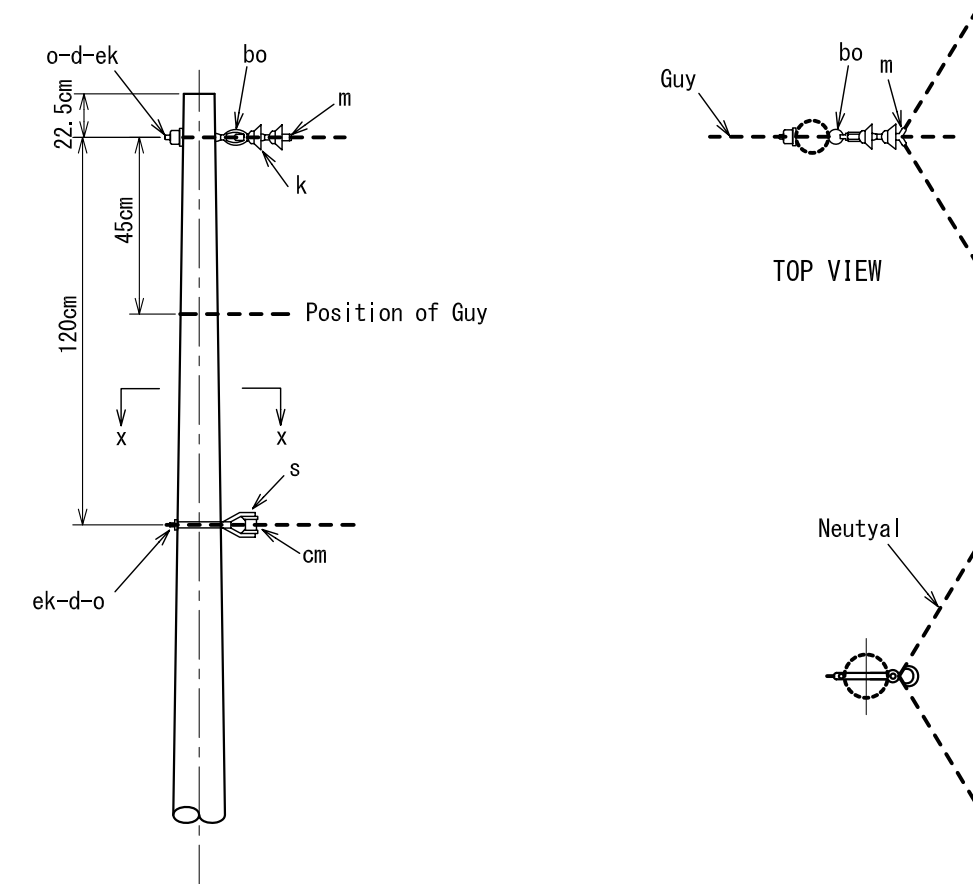
ELEVATION

SIDE VIEW

| Item | Materials | Item | Materials |
|------|-------------------------------------|------|---------------------------------|
| a- | Pin type insulator | cm- | 1 3/4" dia x 1 1/2" pipe spacer |
| b- | 20" Pole top pin | dl- | 3/4" dia x 1 1/2" pipe spacer |
| c- | 5/8" x 12" Machine bolts | ek- | 5/8" locknut |
| d- | 3/16" x 2 1/4" - 13/16" hole washer | bv-1 | Armor rod (single support)* |
| bs- | 9" Single upset bolt | bv-2 | Armor rod (double support)* |
| Tw- | Tie wire* | | |

*Conductor Accessories

7. 97/13. 8kV. PRIMARY, SINGLE PHASE 30° TO 60° ANGLE



ELEVATION

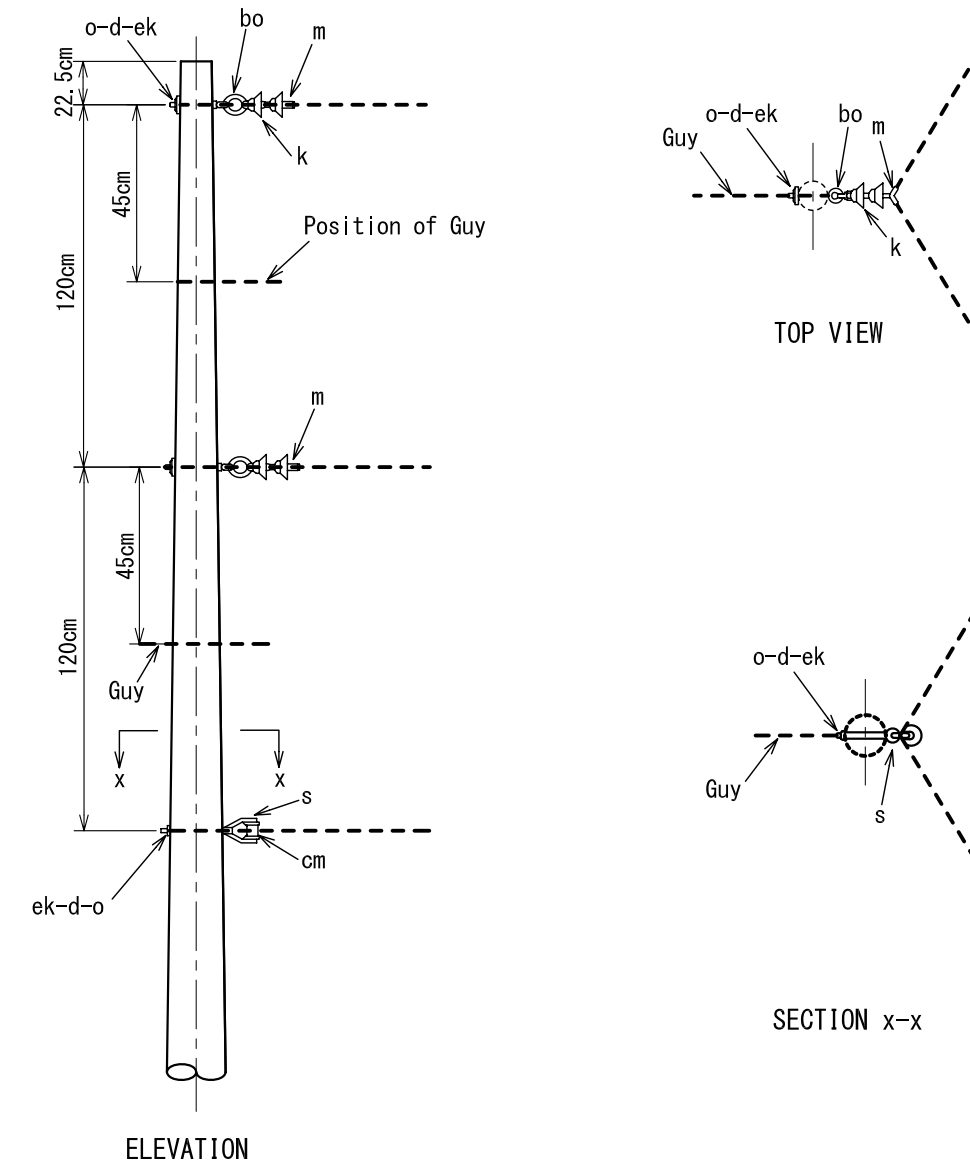
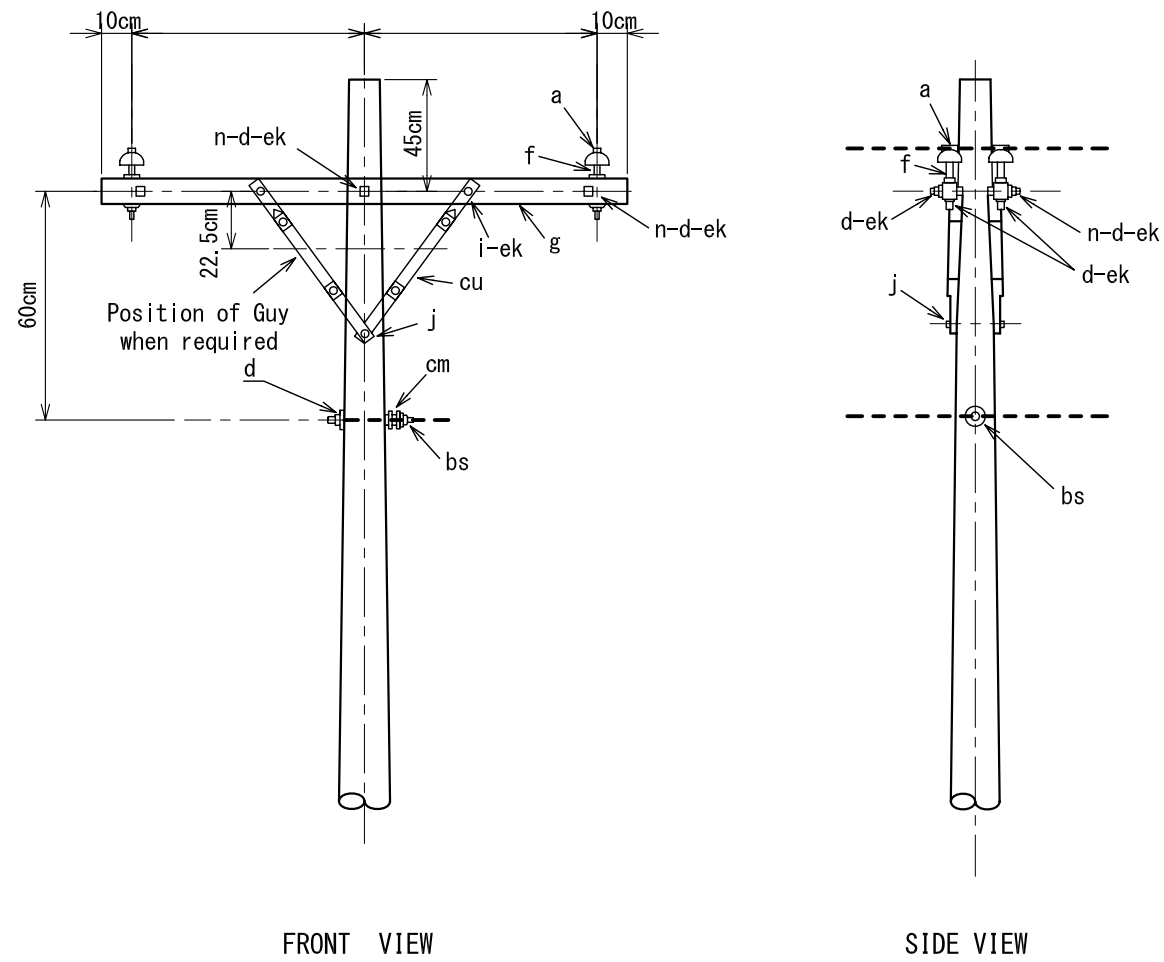
SECTION x-x

| Item | Materials | Item | Materials |
|------|-----------------------------|------|-----------------------------------|
| d- | 2 1/4" x 3 1/6" Hole washer | cm- | 1 3/4" dia groove spool insulator |
| k- | Suspension insulator | bo- | Anchor shackle |
| o- | 5/8" x 9" Eye bolt | ek- | 5/8" locknuts |
| m- | Suspension clamp | tw- | Tie wire* |
| s- | Secondary swinging clevis | bv- | Armor rod (single support)* |

*Conductor Accessories

7.97/13.8kV. TWO PHASE, 0° TO 5° ANGLE

7.97/13.8kV. TWO PHASE, 30° TO 60° ANGLE



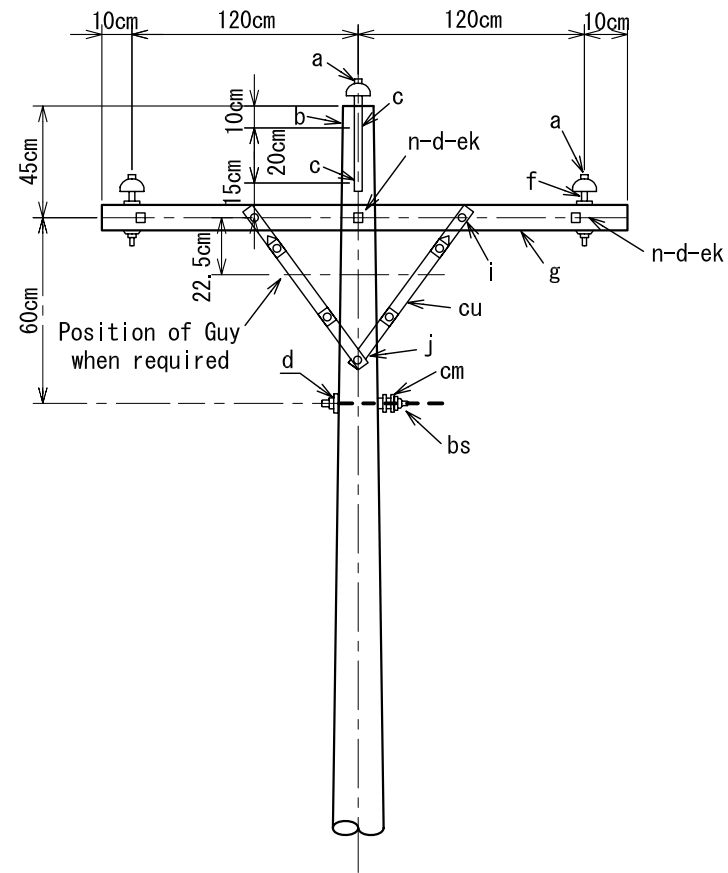
| Item | Materials | Quantity | Item | Materials | Quantity |
|------|----------------------------------|----------|------|------------------------------------|----------|
| a- | Pin type insulator | 4 | j- | 1/2" x 4' Lag screw | 2 |
| d- | 3/16" x 2 1/4"-13/16 Hole washer | 11 | n- | 5/8" x 20" double arming bolt | 3 |
| f- | 5/8" x 10 3/4" Crossam steel pin | 4 | bs- | 10" Single upset bolt | 1 |
| g- | 3 2/1" x 4 1/2" 8' Crossam | 2 | cm- | 1 3/4" dia. groove spool insulator | 1 |
| cu- | 28" Wood brace | 4 | bv-1 | Armor rod single support* | 1 |
| ek- | 3/8" Locknuts | 4 | bv-2 | Armor rod double support* | 2 |
| ek- | 5/8" Locknuts | 10 | tw- | Tie wire* | 40' |
| i- | 3/8" x 4 1/2" Carriage bolts | 4 | | | |

*Conductor Accessories

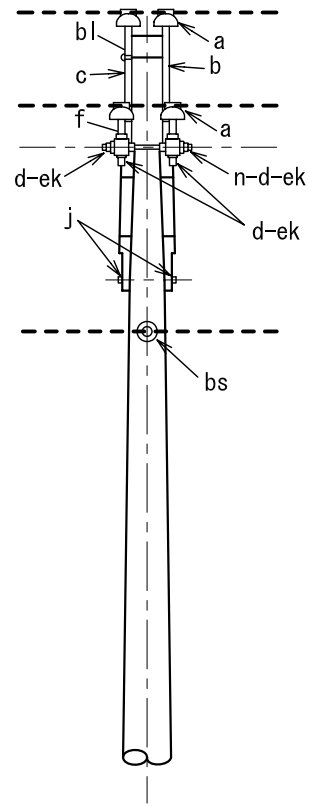
| Item | Materials | Item | Materials |
|------|-----------------------------------|------|-----------------------------------|
| d- | 3/16" x 2 1/4"-13/15" Hole washer | cm- | 1 3/4" dia groove spool insuiator |
| k- | Suspension insulator | bo- | Anchor shackle |
| o- | 5/8" x 10" Eye bolt | ek- | 5/8" Locknuts |
| m- | Suspension clamp | bv-1 | Armor rod (single support)* |
| s- | Secondary swinging clevis | tw- | Tie wire* |

*Conductor Accessories

7. 97/13.8kV. THREE PHASE, 0° TO 5° ANGLE

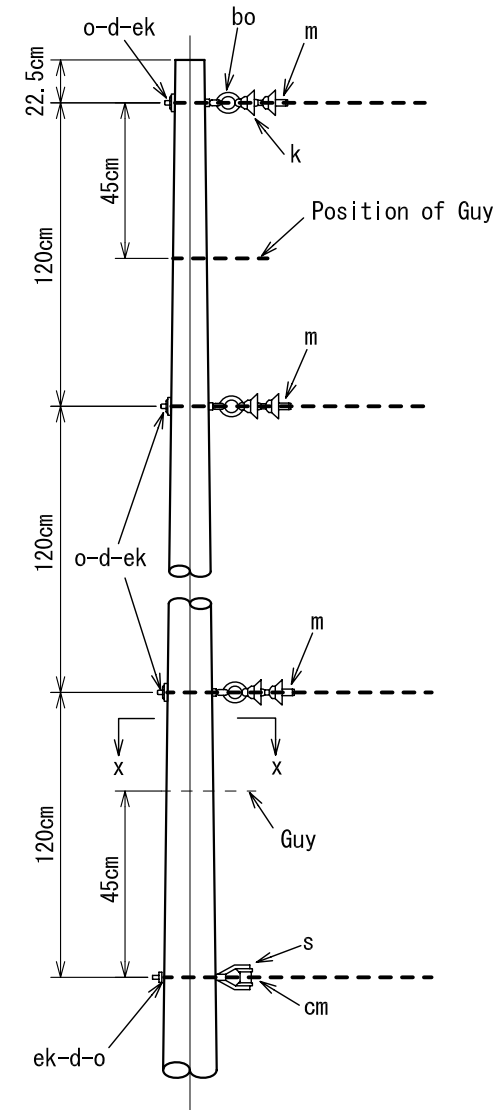


FRONT VIEW

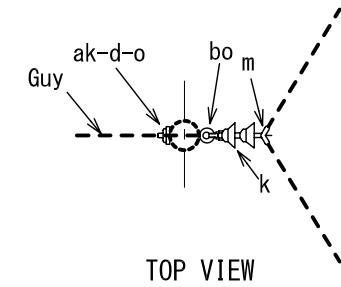


SIDE VIEW

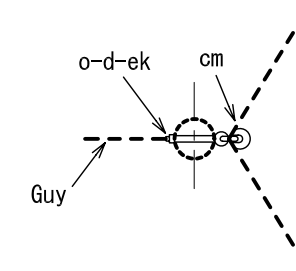
7. 97/13.8kV. THREE PHASE, 30° TO 60° ANGLE



ELEVATION



TOP VIEW



SECTION x-x

| Item | Materials | Item | Materials |
|------|-----------------------------------|------|-------------------------------|
| a- | Pin type insulator | bs- | 5/8" x 10" single upset bolt |
| b- | 20" Pole top pin | ek- | 5/8" Locknuts |
| c- | 5/8" x 12 Machine bolts | ek- | 3/8" Locknuts |
| d- | 3/16" x 2 1/4"-13/16" hole washer | cu- | 28" Wood brace |
| f- | 5/8" x 10 3/4" Crossarm steel pin | cm- | 1 3/4" spool insulator |
| g- | 3 2/1" x 4 1/2" x 8" Crossarm | dl- | 3/4" dia x 1 1/2" pipe spacer |
| i- | 3/8" x 4 1/2" Carriage bolt | bv-1 | Armor rod (single support)* |
| j- | 1/2" x 4" Lag screw | bv-2 | Armor rod (double support)* |
| n- | 5/8" x 18" double arming bolt | tw- | Tie wire* |

*Conductor Accessories

| Item | Materials | Item | Materials |
|------|-----------------------------------|------|-------------------------------|
| d- | 3/16" x 2 1/4"-13/16" hole washer | bo- | Anchor shackle |
| k- | Suspension insulator | o- | 5/8" x 12" Eye bolt |
| ek- | 5/8" Locknut | cm- | 3" dia groove spool insulator |
| m- | Suspension clamp | bv-1 | Armor rod (single support)* |
| s- | Secondary swinging clevis | tw- | Tie wire* |

*Conductor Accessories

