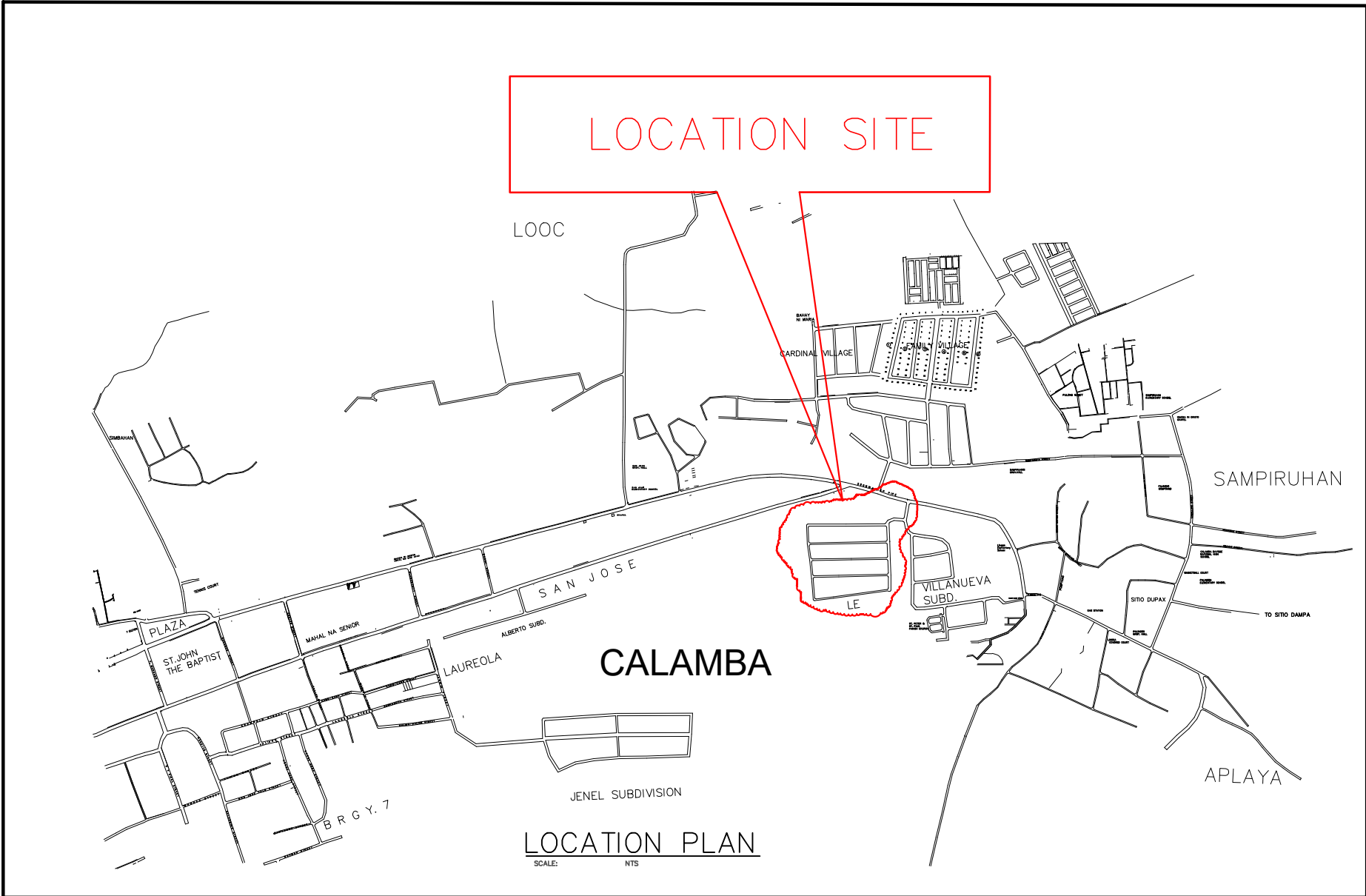

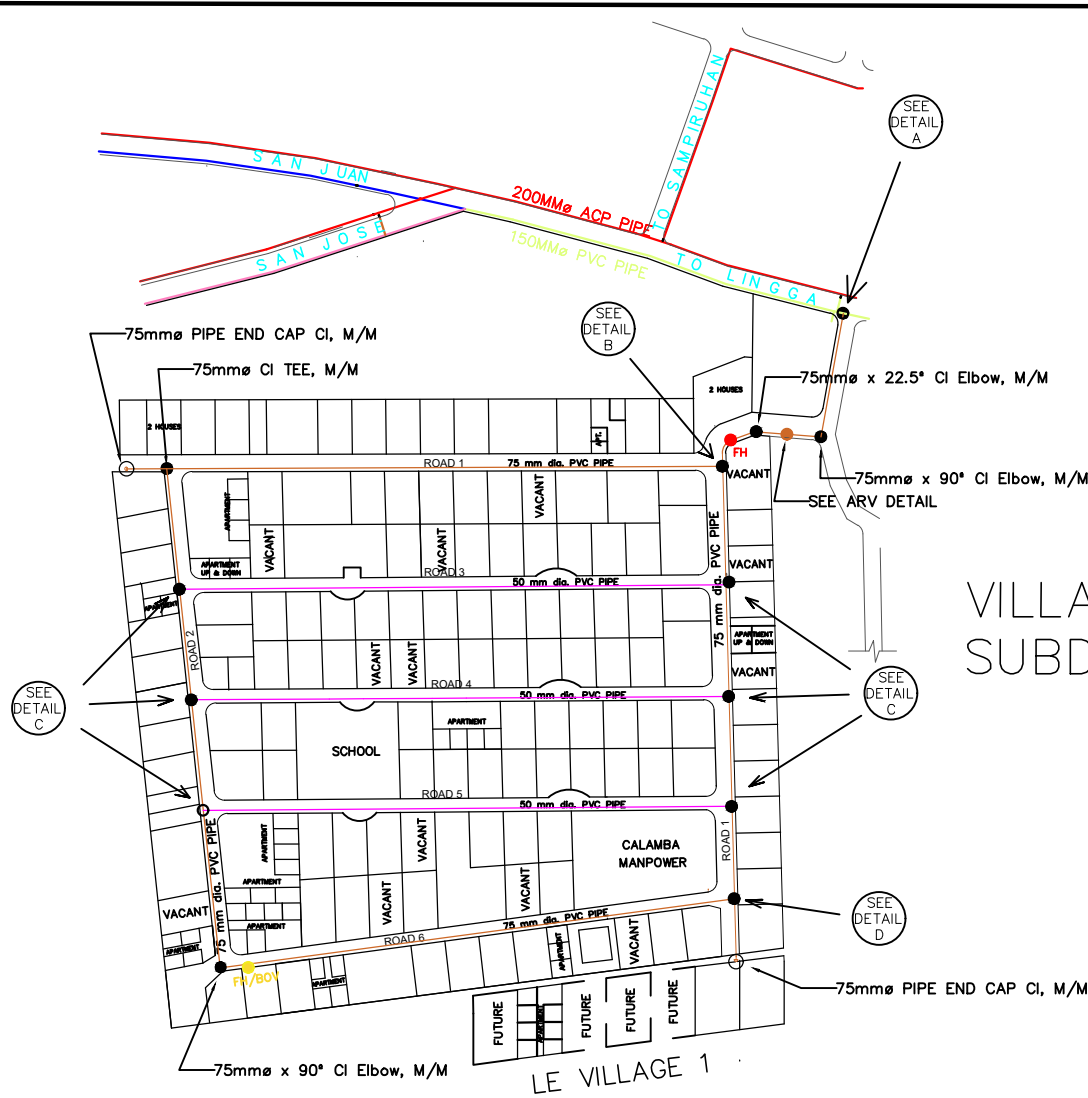


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 CALAMBA WATER DISTRICT ENGINEERING DEPARTMENT PLANNING AND DESIGN DIVISION 24/7 Public Service LAKEVIEW SUBD., HALANG, CALAMBA CITY	PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
	EXPANSION OF WATERLINES	DESIGNED BY: MR. FERNANDO H. ARELLANO JR.	AS INDICATED ABOVE	2-6-2020
	LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO		SHEET NO.
	LE Village 1, Brgy. Lingga, Calamba City	RECOMMENDED BY: ENGR. RANELY S. CARTAGO		W1
		APPROVED BY: MR. EXEQUIEL AGUILAR JR.		

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VILLANUEVA SUBD.

LEGEND:


- 75mmø PVC Pipe(proposed)fixed seal (656.1 LINEAR METER)
- 50mmø PVC Pipe(proposed)fixed seal (475.1 LINEAR METER)
- Details
- FIRE HYDRANT
- FIRE HYDRANT/BLOW-OFF VALVE
- AIR RELEASE VALVE

NOTES:

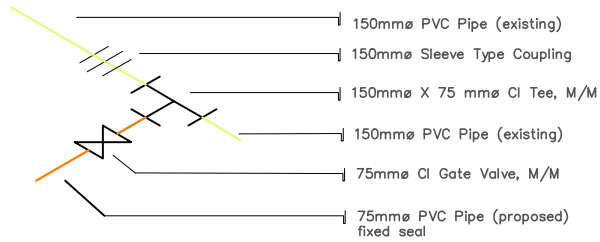
1. ALL SIZES AND LOCATION SUBJECT TO CHANGE TO SUIT FIELD CONDITIONS.
2. THE DESIGNER SHALL NOT BE LIABLE FOR ANY ALTERATION/REVISION ON THE PLANS/DRAWINGS AND SPECIFICATIONS IMPROVED BY THE AUTHORIZED SUPERVISING ENGINEER DONE WITHOUT THEIR KNOWLEDGE THAT MAY IMPAIR STRENGTH OF THE PROJECT.

DISTRIBUTION LINE PLAN

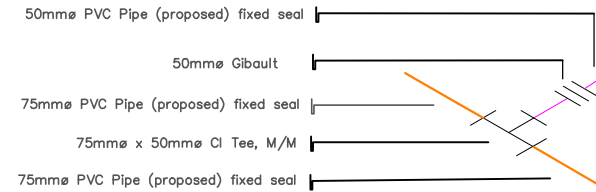
SCALE: NTS

 <p>CALAMBA WATER DISTRICT ENGINEERING DEPARTMENT PLANNING AND DESIGN DIVISION 24/7 Public Service</p>	PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
	EXPANSION OF WATERLINES	DESIGNED BY: MR. FERNANDO H. ARELLANO JR.	AS INDICATED ABOVE	2-6-2020
	LOCATION:	CHECKED BY: ENGR. RANELYN S. CARTAGO		SHEET NO.
	LE Village 1, Brgy. Lingga, Calamba City	RECOMMENDED BY: ENGR. RANELYN S. CARTAGO		W2
	APPROVED BY: MR. EXEQUIEL AGUILAR JR.			

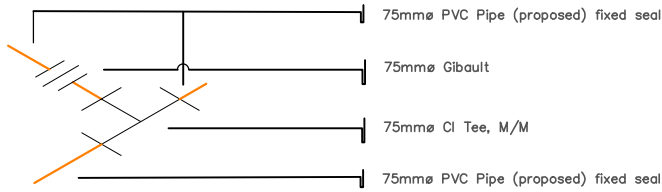
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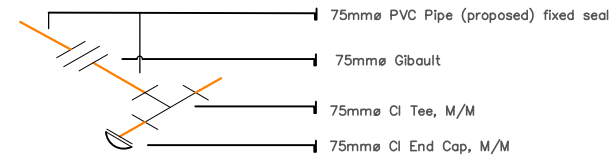
DETAIL A



DETAIL C



DETAIL B



DETAIL D

DETAIL PLAN

SCALE: NTS

NOTES:

1. ALL SIZES AND LOCATION SUBJECT TO CHANGE TO SUIT FIELD CONDITIONS.
2. THE DESIGNER SHALL NOT BE LIABLE FOR ANY ALTERATION/REVISION ON THE PLANS/DRAWINGS AND SPECIFICATIONS IMPROVED BY THE AUTHORIZED SUPERVISING ENGINEER DONE WITHOUT THEIR KNOWLEDGE THAT MAY IMPAIR STRENGTH OF THE PROJECT.



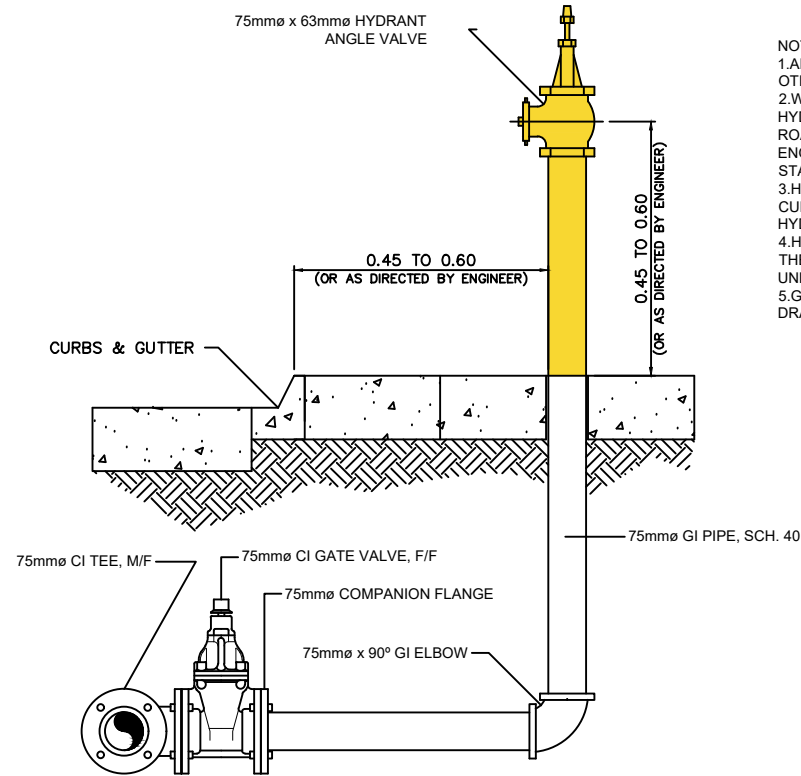
CALAMBA WATER DISTRICT
ENGINEERING DEPARTMENT
PLANNING AND DESIGN DIVISION

24/7 Public Service

LAKEVIEW SUBD., HALANG, CALAMBA CITY

PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
EXPANSION OF WATERLINES	DESIGNED BY: MR. FERNANDO H. ARELLANO JR.	AS INDICATED ABOVE	2-6-2020
LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO		SHEET NO.
LE Village 1, Brgy. Lingga, Calamba City	RECOMMENDED BY: ENGR. RANELY S. CARTAGO		W3
	APPROVED BY: MR. EXEQUIEL AGUILAR JR.		


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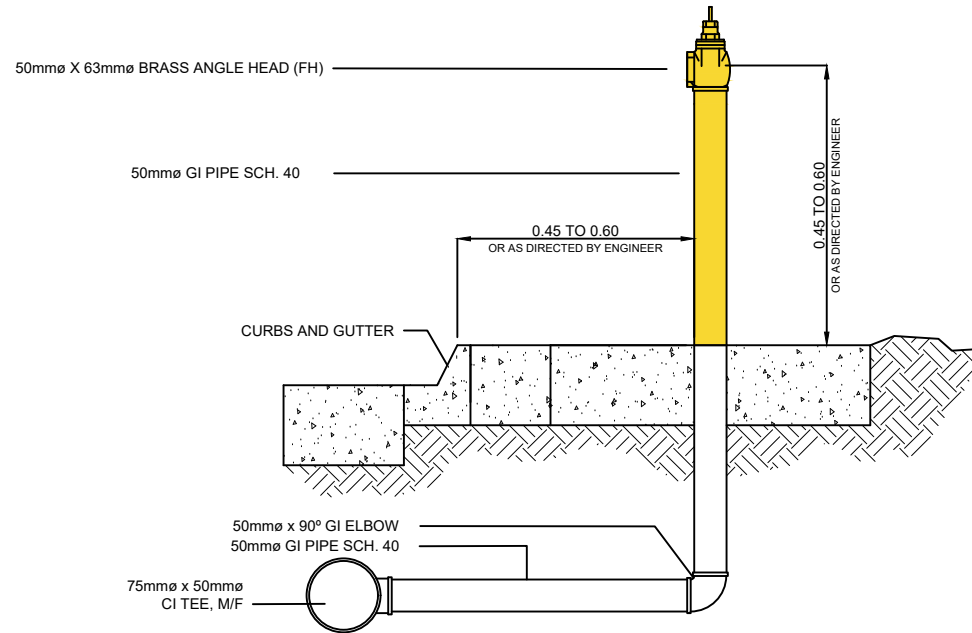
- NOTES:
1. ALL DIMENSIONS ARE IN METERS EXCEPT WHERE OTHERWISE SHOWN.
 2. WHERE NO CURBS OR GUTTERS EXIST, THE HYDRANTS SHALL BE LOCATED WITHIN 1.50m OF THE ROAD RIGHT-OF-WAY OR AS DIRECTED BY THE ENGINEER & BARRICADES SHALL BE INSTALLED AS PER STANDARD DRAWING W-9.
 3. HYDRANTS AT INTERSECTIONS SHALL BE AT THE CURB RETURN. OTHER THAN STREET INTERSECTIONS, HYDRANTS SHALL BE INSTALLED ON LOT LINES.
 4. HYDRANTS SHALL BE PAINTED IN ACCORDANCE WITH THE SPECIFICATIONS. COLOR SHALL BE YELLOW UNLESS OTHERWISE DIRECTED BY THE OWNER.
 5. GATE VALVE SHALL BE INSTALLED AS PER STANDARD DRAWING W-10.

FIRE HYDRANT ASSEMBLY
SCALE: NTS

- NOTES:
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 2. THE DESIGNER SHALL NOT BE LIABLE FOR ANY ALTERATION/REVISION ON THE PLANS/DRAWINGS AND SPECIFICATIONS IMPROVED BY THE AUTHORIZED SUPERVISING ENGINEER DONE WITHOUT THEIR KNOWLEDGE THAT MAY IMPAIR STRENGTH OF THE PROJECT.

 CALAMBA WATER DISTRICT ENGINEERING DEPARTMENT PLANNING AND DESIGN DIVISION 24/7 Public Service	PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
	EXPANSION OF WATERLINES	DESIGNED BY: MR. FERNANDO H. ARELLANO JR.	AS INDICATED ABOVE	2-6-2020
	LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO		SHEET NO.
	LAKEVIEW SUBD., HALANG, CALAMBA CITY	RECOMMENDED BY: ENGR. RANELY S. CARTAGO		W4
	LE Village 1, Brgy. Lingga, Calamba City	APPROVED BY: MR. EXEQUIEL AGUILAR JR.		

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FH/BLOW-OFF VALVE

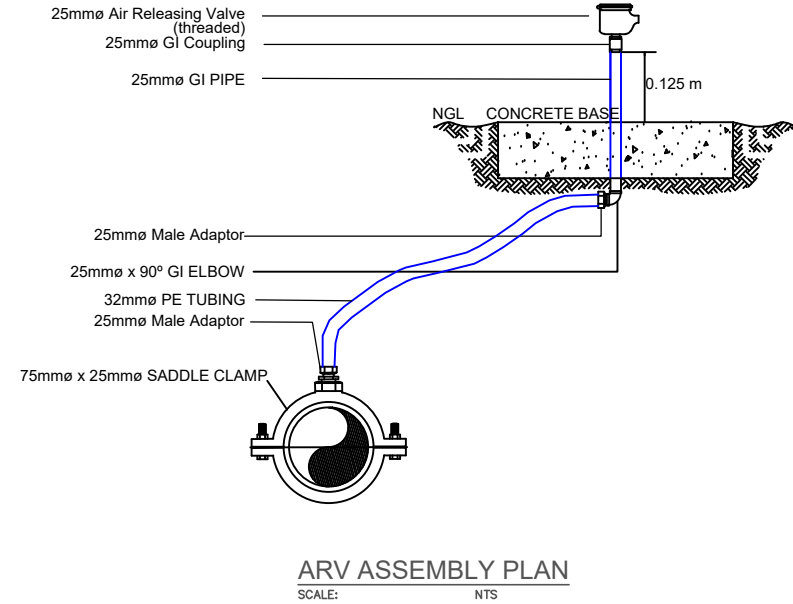
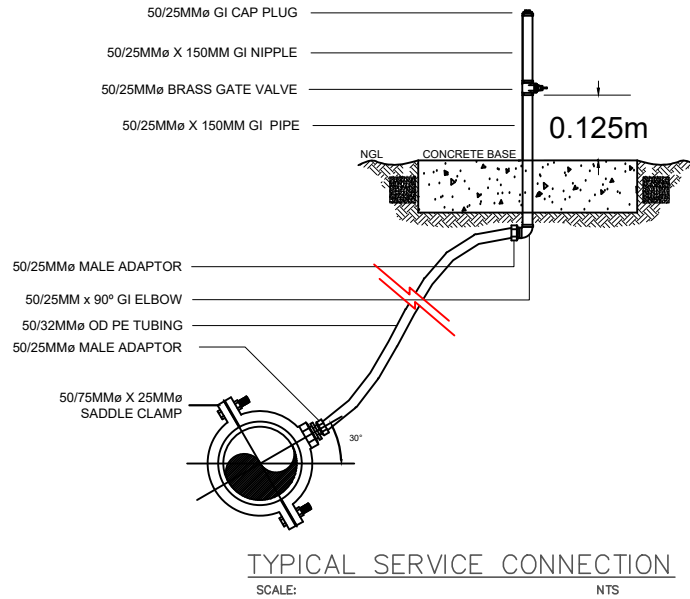
SCALE: NTS

NOTES:

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 CALAMBA WATER DISTRICT ENGINEERING DEPARTMENT PLANNING AND DESIGN DIVISION <small>24/7 Public Service</small>	PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
	EXPANSION OF WATERLINES	DESIGNED BY: MR. FERNANDO H. ARELLANO JR.	AS INDICATED ABOVE	2-6-2020
	LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO		SHEET NO.
	LAKEVIEW SUBD., HALANG, CALAMBA CITY	RECOMMENDED BY: ENGR. RANELY S. CARTAGO		W5
	LE Village 1, Brgy. Lingga, Calamba City	APPROVED BY: MR. EXEQUIEL AGUILAR JR.		

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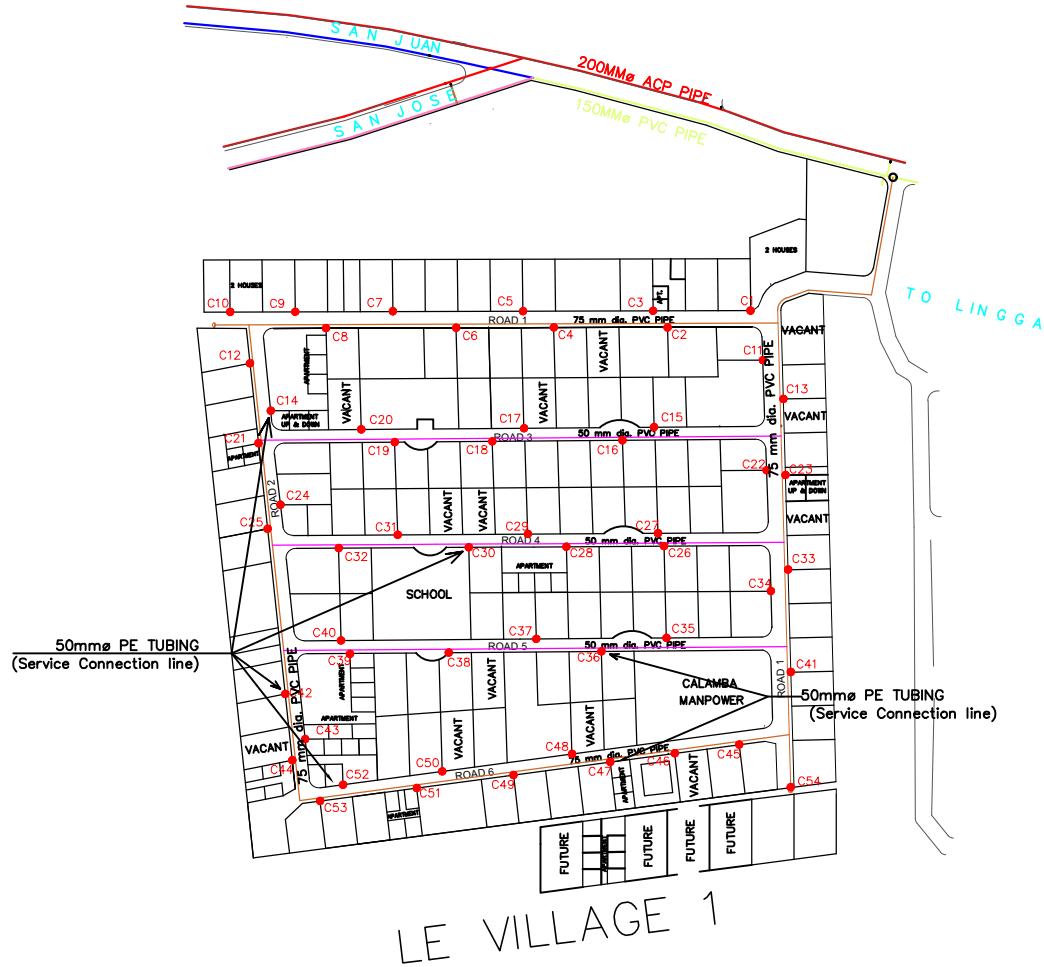


NOTES:

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2. THE DESIGNER SHALL NOT BE LIABLE FOR ANY ALTERATION/REVISION ON THE PLANS/DRAWINGS AND SPECIFICATIONS IMPROVED BY THE AUTHORIZED SUPERVISING ENGINEER DONE WITHOUT THEIR KNOWLEDGE THAT MAY IMPAIR STRENGTH OF THE PROJECT.
3. EMBEDDED PIPE ACROSS THE ROADWAY SHOULD BE WITH GI CONDUIT CASING AND INSTALL TO THE DEPTH THAT WOULD NOT AFFECTED BY FUTURE ROADWORKS.
4. FOR 50mm SERVICE CONNECTION LINE, 75 mm dia x 50 mm dia CI TEE M/F TO BE USED IN LIEU OF SADDLE CLAMP

 CALAMBA WATER DISTRICT ENGINEERING DEPARTMENT PLANNING AND DESIGN DIVISION <small>24/7 Public Service</small> LAKEVIEW SUBD., HALANG, CALAMBA CITY	PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:
	EXPANSION OF WATERLINES	DESIGNED BY: MR. FERNANDO H. ARELLANO JR.	AS INDICATED ABOVE
	LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO	
	LE Village 1, Brgy. Lingga, Calamba City	RECOMMENDED BY: ENGR. RANELY S. CARTAGO	SHEET NO. W6
	APPROVED BY: MR. EXEQUIEL AGUILAR JR.		

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- NOTES:
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 2. THE DESIGNER SHALL NOT BE LIABLE FOR ANY ALTERATION/REVISION ON THE PLANS/DRAWINGS AND SPECIFICATIONS IMPROVED BY THE AUTHORIZED SUPERVISING ENGINEER DONE WITHOUT THEIR KNOWLEDGE THAT MAY IMPAIR STRENGTH OF THE PROJECT.

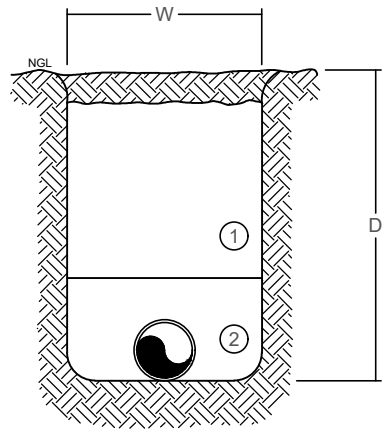
CLUSTER LOCATION PLAN

SCALE:

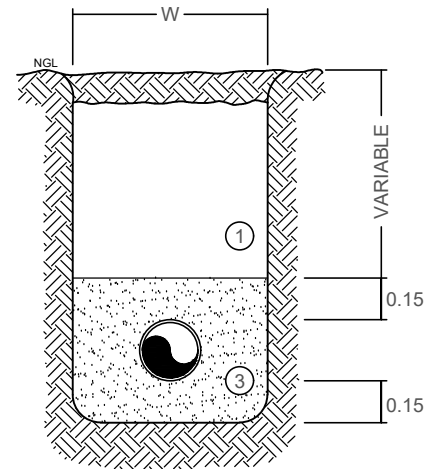
NTS

 CALAMBA WATER DISTRICT ENGINEERING DEPARTMENT PLANNING AND DESIGN DIVISION 24/7 Public Service	PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
	EXPANSION OF WATERLINES	DESIGNED BY: MR. FERNANDO H. ARELLANO JR.	AS INDICATED ABOVE	2-6-2020
	LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO		SHEET NO.
	LE Village 1, Brgy. Lingga, Calamba City	RECOMMENDED BY: ENGR. RANELY S. CARTAGO		W7
	APPROVED BY: MR. EXEQUIEL AGUILAR JR.			

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NORMAL INSTALLATION
WHERE SAND BEDDING
BACKFILL NOT REQUIRED




IN ROCK OR WHEN
ORDERED BY ENGINEER

TABLE OF TRENCH DIMENSIONS (IN METERS)			
Pipe Diameter (mm)	Minimum Width (W)	Maximum Width (W)	Depth (D)
50mmø	0.20	0.30	0.60
75mmø	0.20	0.30	0.90
100mmø	0.40	0.70	0.95
150mmø	0.45	0.75	1.00
200mmø	0.50	0.80	1.05
250mmø	0.55	0.85	1.10
300mmø	0.60	0.90	1.15
350mmø	0.65	0.95	1.20
400mmø	0.70	1.00	1.25
450mmø	0.75	1.05	1.30
500mmø	0.80	1.10	1.35
600mmø	0.90	1.20	1.45

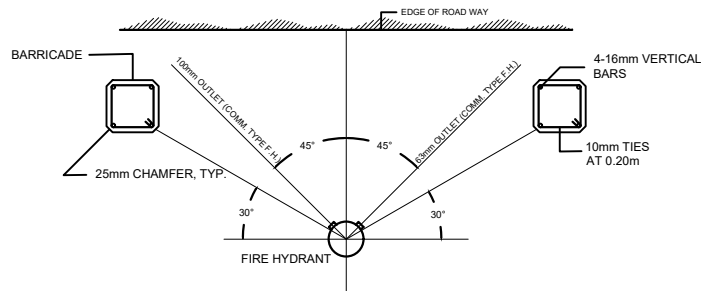
LEGEND:
 1. COMPACTED SELECTED NATIVE MATERIAL BACKFILL (SEE SPEC.)
 2. COMPACTED SELECTED NATIVE MATERIAL IN 0.15 LAYERS (SEE SPEC.)
 3. APPROVED SAND BEDDING & BACKFILL HAND PLACED AND COMPACTED.
 4. PAYMENT FOR ANY RESURFACING WILL BE BASED ON MAXIMUM TRENCH WIDTHS PER SIZE PIPE SHOWN.

NOTE:
ALL DIMENSIONS IN METERS EXCEPT WHERE OTHERWISE SHOWN.

TYPICAL TRENCH DETAILS
SCALE: NTS

 CALAMBA WATER DISTRICT ENGINEERING DEPARTMENT PLANNING AND DESIGN DIVISION 24/7 Public Service LAKEVIEW SUBD., HALANG, CALAMBA CITY	PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
	EXPANSION OF WATERLINES	DESIGNED BY: MR. FERNANDO H. ARELLANO JR.	AS INDICATED ABOVE	2-6-2020
	LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO		SHEET NO.
	LE Village 1, Brgy. Lingga, Calamba City	RECOMMENDED BY: ENGR. RANELY S. CARTAGO		W8
	APPROVED BY: MR. EXEQUIEL AGUILAR JR.			

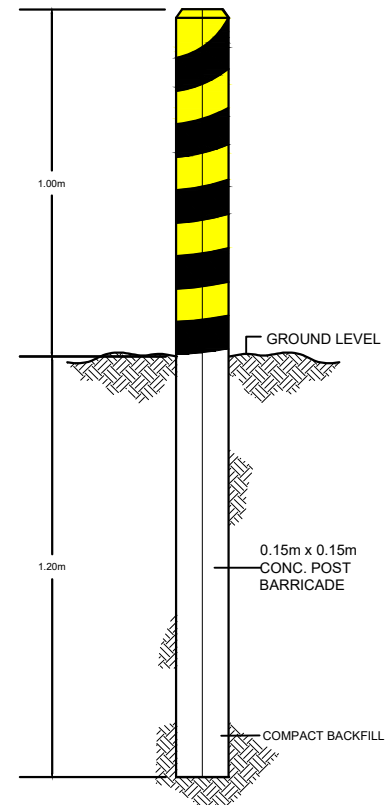
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PLAN FOR SETTING BARRICADE

NOTES:

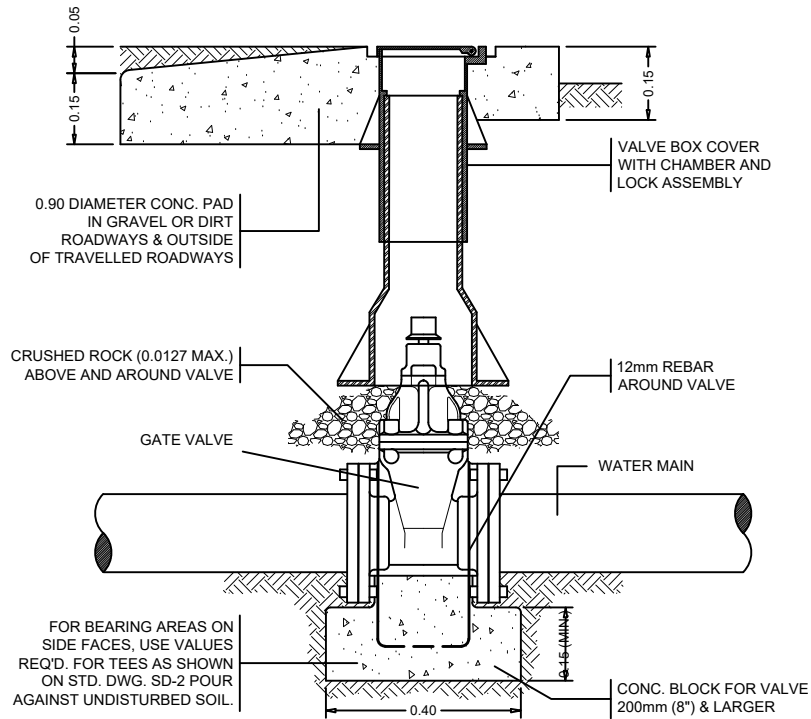
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ELEV. OF CONC. BARRICADE

<p>CALAMBA WATER DISTRICT ENGINEERING DEPARTMENT PLANNING AND DESIGN DIVISION LAKEVIEW SUBD., HALANG, CALAMBA CITY</p>	PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
	EXPANSION OF WATERLINES	DESIGNED BY: MR. FERNANDO H. ARELLANO JR.	AS INDICATED ABOVE	2-6-2020
	LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO		SHEET NO.
	LE Village 1, Brgy. Lingga, Calamba City	RECOMMENDED BY: ENGR. RANELY S. CARTAGO		W9
	APPROVED BY: MR. EXEQUIEL AGUILAR JR.			

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NOTES:

1. ALL DIMENSIONS IN METERS UNLESS OTHERWISE SHOWN. VALVES SHALL HAVE A MINIMUM COVER OF 0.30 m. MEASURED TO THE TOP OF THE OPERATING NUT.
2. VALVES SHALL BE INSTALLED ON EXTENSIONS OF PROPERTY LINES EXCEPT WHERE OTHERWISE SHOWN OR SPECIFIED.
3. USE FLANGED END GATE VALVES ON STEEL AND PVC PIPE LINE INSTALLATION.
4. CAST IRON OR STEEL COVER SHALL BE ADEQUATELY DESIGNED TO CARRY TRAFFIC LOADS.
5. CONCRETE BLOCK MAY BE OMITTED ON WELDED STEEL PIPE LINES AT OPTION OF CONTRACTOR.

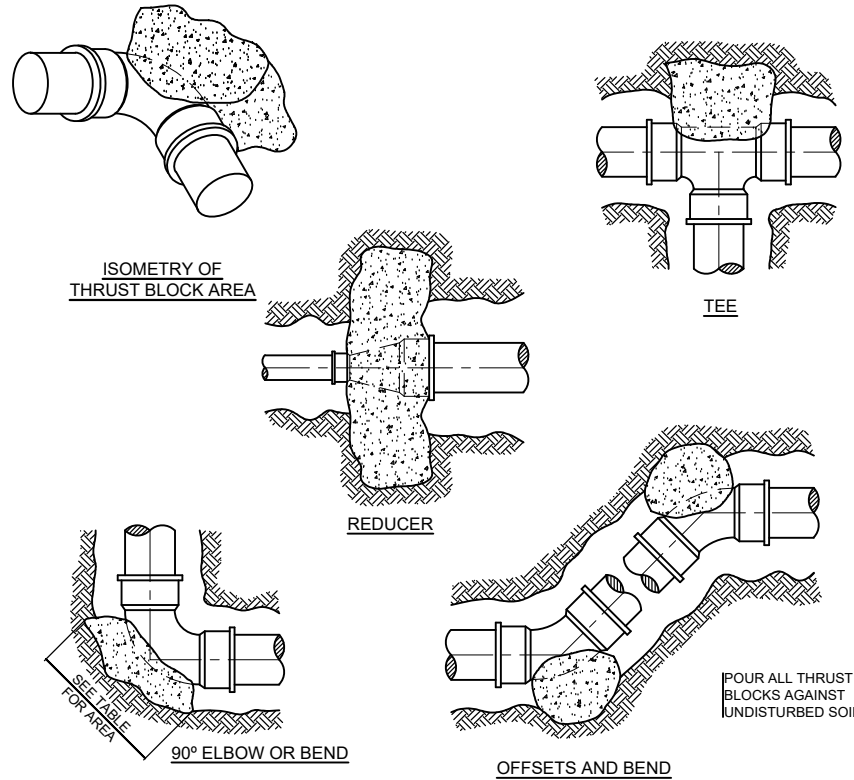
INSTALLATION OF BURIED GATE VALVE

SCALE:

NTS

 <p>CALAMBA WATER DISTRICT ENGINEERING DEPARTMENT PLANNING AND DESIGN DIVISION</p> <p>24/7 Public Service</p> <p>LAKEVIEW SUBD., HALANG, CALAMBA CITY</p>	PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
	EXPANSION OF WATERLINES	DESIGNED BY: MR. FERNANDO H. ARELLANO JR.	AS INDICATED ABOVE	2-6-2020
	LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO		SHEET NO.
	LE Village 1, Brgy. Lingga, Calamba City	RECOMMENDED BY: ENGR. RANELY S. CARTAGO		W10
	APPROVED BY: MR. EXEQUIEL AGUILAR JR.			

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PIPE SIZE (mm)	TEE & DEAD END	90° BEND	45° BEND	22½° BEND
75	0.05	0.07	0.04	0.02
100	0.09	0.12	0.07	0.04
150	0.20	0.28	0.15	0.08
200	0.35	0.50	0.27	0.14

- NOTES:
1. ABOVE AREAS BASED ON AN ASSUMED SOIL BEARING PRESSURE OF 96 kPa (2000 psf).
 2. REDUCE OR INCREASE AREAS PROPORTIONATELY TO SUIT ACTUAL FIELD CONDITIONS UPON APPROVAL OF ENGINEER. CONCRETE FOR THRUST BLOCK SHALL BE 13.8 MPa (2000 psi).
 3. ALL CONCRETE SHALL BE POURED TO AVOID INTERFERENCE WITH JOINTS.
 4. THRUST BLOCKS NOT REQUIRED ON STEEL PIPELINE WITH WELDED OR FLANGE JOINTS OR ON SOLVENT WELDED PVC PIPE.
 5. WHERE PIPE CONNECTS TO A FITTING IN A STEEL PIPELINE SHALL BE BLOCKED AS SHOWN HEREON.
 6. BEARING AREAS BASED ON INTERNAL PRESSURE OF 106m (150psi).

HORIZONTAL CONCRETE THRUST BLOCK DETAILS

SCALE: NTS



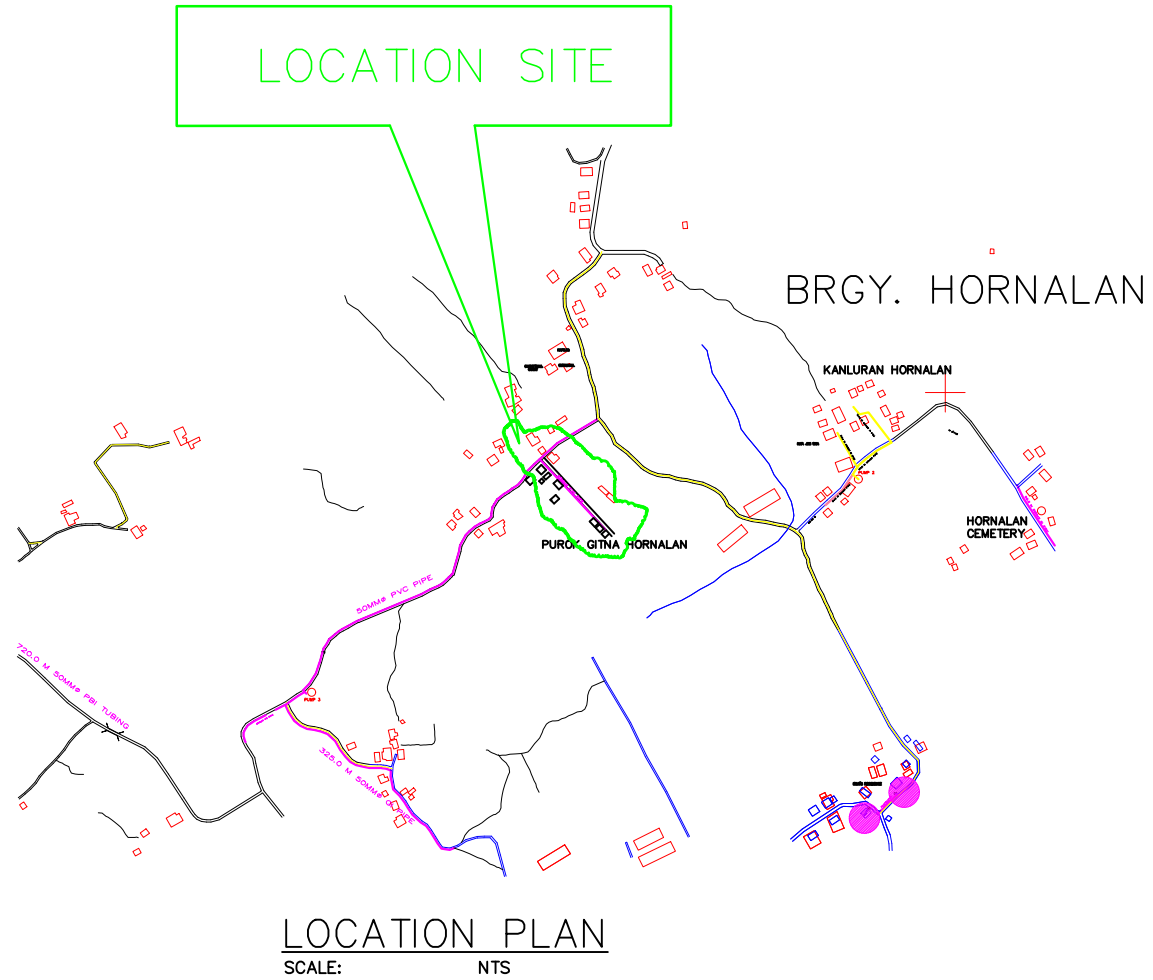
CALAMBA WATER DISTRICT
ENGINEERING DEPARTMENT
PLANNING AND DESIGN DIVISION

24/7 Public Service

LAKEVIEW SUBD., HALANG, CALAMBA CITY

PROJECT TITLE:	AUTOCAD BY:	MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
EXPANSION OF WATERLINES	DESIGNED BY:	MR. FERNANDO H. ARELLANO JR.	AS INDICATED ABOVE	2-6-2020
LOCATION:	CHECKED BY:	ENGR. RANELY S. CARTAGO		SHEET NO.
LE Village 1, Brgy. Lingga, Calamba City	RECOMMENDED BY:	ENGR. RANELY S. CARTAGO		W11
	APPROVED BY:	MR. EXEQUIEL AGUILAR JR.		

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LOCATION PLAN
SCALE: NTS



CALAMBA WATER DISTRICT
ENGINEERING DEPARTMENT
PLANNING AND DESIGN DIVISION

2477 Public Service

LAKEVIEW SUBD., HALANG, CALAMBA CITY

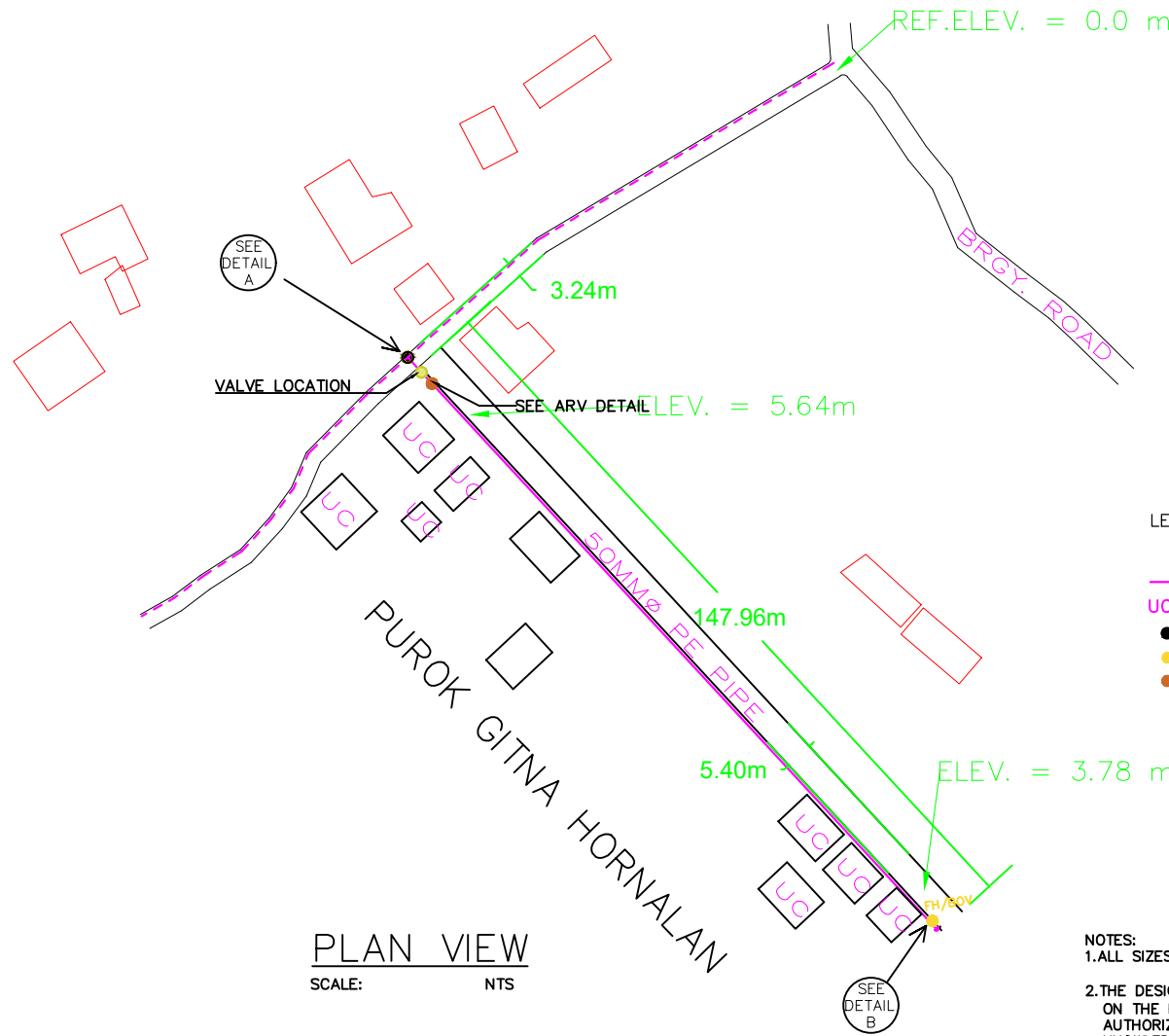
PROJECT TITLE:	RELOCATION OF WATERLINES
LOCATION:	Purok Gitna, Brgy. Hornalan, Calamba City

AUTOCAD BY:	MR. FERNANDO H. ARELLANO JR.
DESIGNED BY:	MR. FERNANDO H. ARELLANO JR.
CHECKED BY:	ENGR. RANELY S. CARTAGO
RECOMMENDED BY:	ENGR. RANELY S. CARTAGO
APPROVED BY:	MR. EXEQUIEL AGUILAR JR.

SHEET CONTENTS:	AS INDICATED ABOVE
-----------------	--------------------

DATE:	3-5-2020
SHEET NO.	W1


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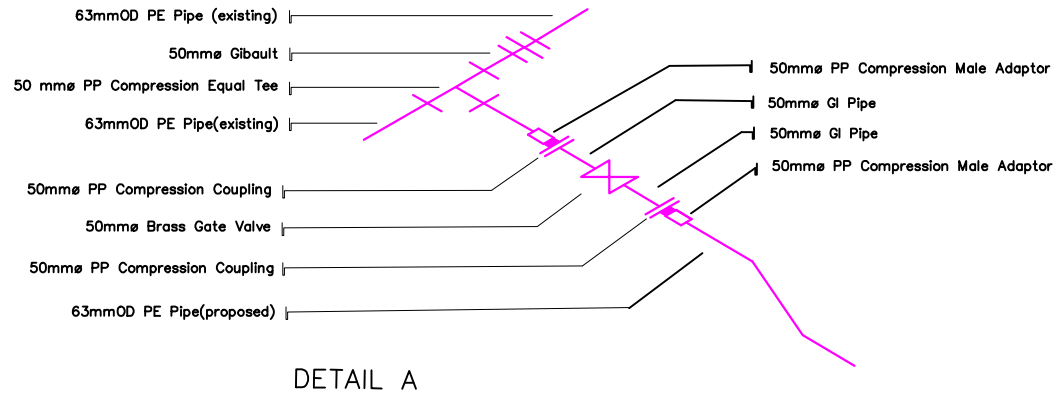
PLAN VIEW
SCALE: NTS

- LEGEND:**
- New 50mmø PE Pipe (Est. Length = 140 LM)
 - UC Under construction
 - Details
 - FIRE HYDRANT/BLOW-OFF VALVE
 - AIR RELEASE VALVE

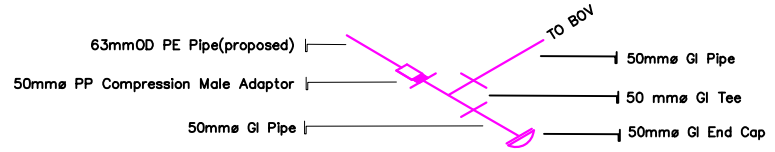
- NOTES:**
1. ALL SIZES AND LOCATION SUBJECT TO CHANGE TO SUIT FIELD CONDITIONS.
 2. THE DESIGNER SHALL NOT BE LIABLE FOR ANY ALTERATION/REVISION ON THE PLANS/DRAWINGS AND SPECIFICATIONS IMPROVED BY THE AUTHORIZED SUPERVISING ENGINEER DONE WITHOUT THEIR KNOWLEDGE THAT MAY IMPAIR STRENGTH OF THE PROJECT.

 CALAMBA WATER DISTRICT ENGINEERING DEPARTMENT PLANNING AND DESIGN DIVISION <small>24/7 Public Service</small>	PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
	RELOCATION OF WATERLINES	DESIGNED BY: MR. FERNANDO H. ARELLANO JR.	AS INDICATED ABOVE	3-5-2020
	LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO		SHEET NO.
	Purok Gitna, Brgy. Hornalan, Calamba City	RECOMMENDED BY: ENGR. RANELY S. CARTAGO		W2
	LAKEVIEW SUBD., HALANG, CALAMBA CITY	APPROVED BY: MR. EXEQUIEL AGUILAR JR.		

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DETAIL A




DETAIL B

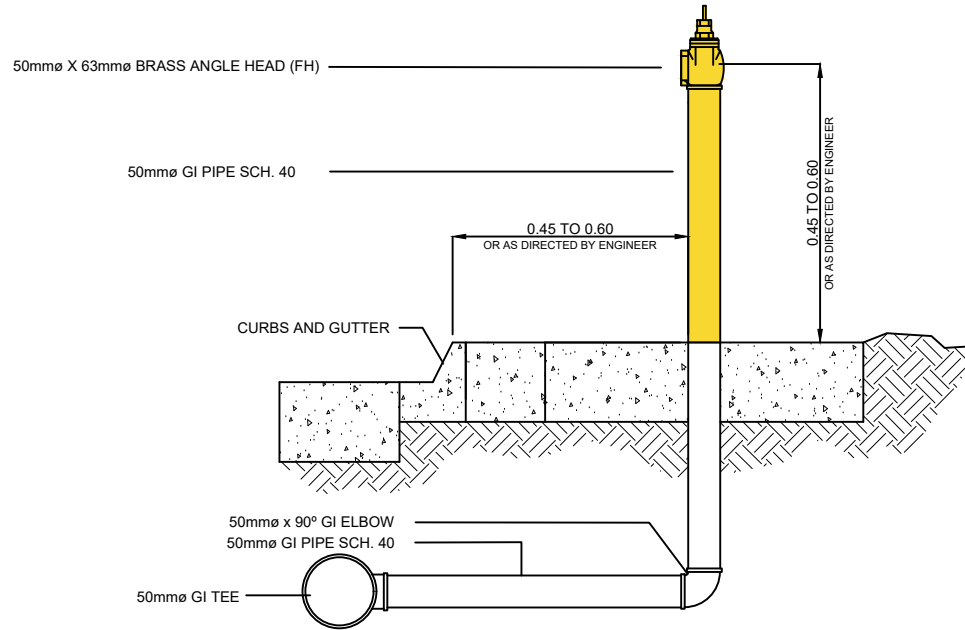
DETAIL PLAN

SCALE: NTS

- NOTES:**
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 CALAMBA WATER DISTRICT ENGINEERING DEPARTMENT PLANNING AND DESIGN DIVISION <small>24/7 Public Service</small>	PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
	RELOCATION OF WATERLINES	DESIGNED BY: MR. FERNANDO H. ARELLANO JR.	AS INDICATED ABOVE	3-5-2020
	LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO		SHEET NO.
	Purok Gitna, Brgy. Hornalan, Calamba City	RECOMMENDED BY: ENGR. RANELY S. CARTAGO		W3
LAKEVIEW SUBD., HALANG, CALAMBA CITY	APPROVED BY: MR. EXEQUIEL AGUILAR JR.			

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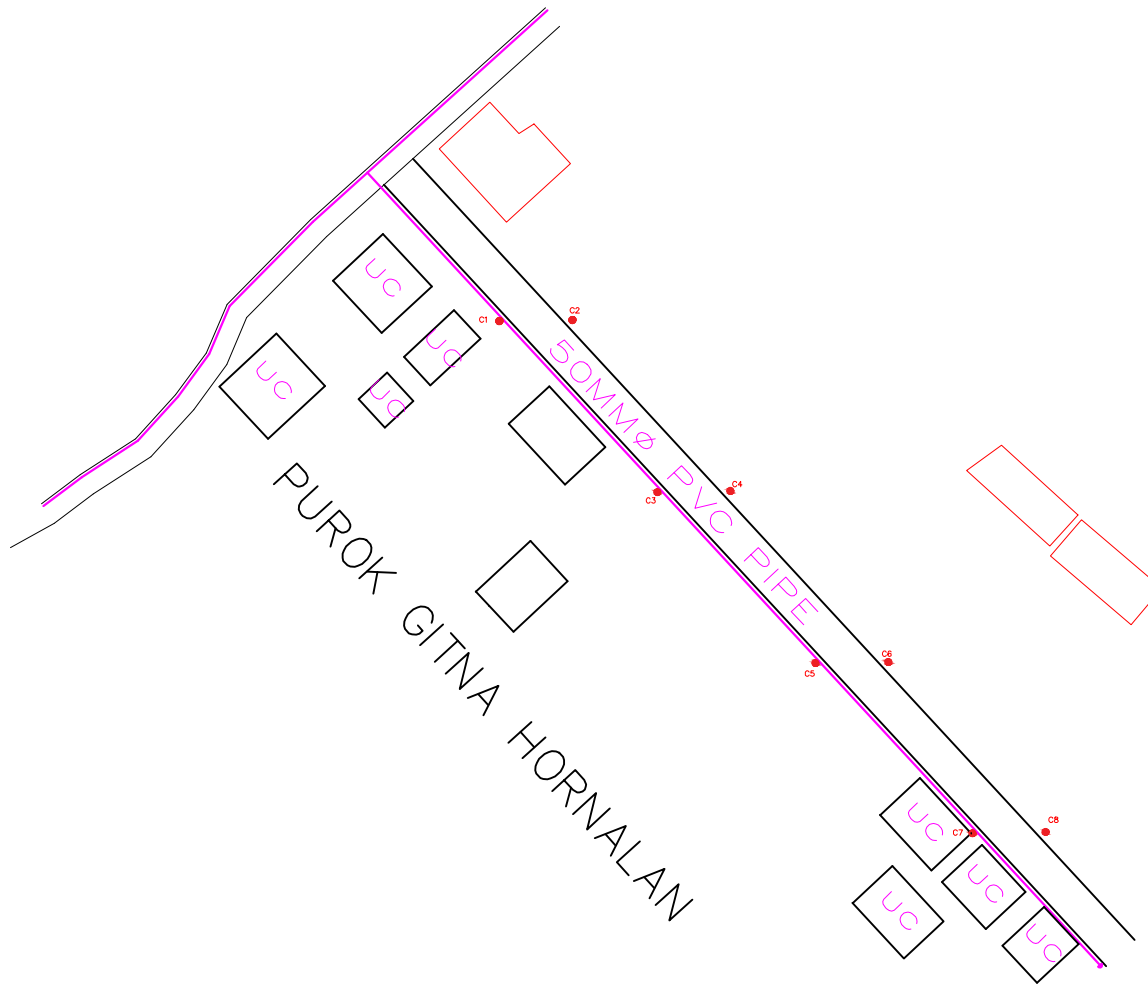


FH/BLOW-OFF VALVE
SCALE: NTS

- NOTES:**
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 2. THE DESIGNER SHALL NOT BE LIABLE FOR ANY ALTERATION/REVISION ON THE PLANS/DRAWINGS AND SPECIFICATIONS IMPROVED BY THE AUTHORIZED SUPERVISING ENGINEER DONE WITHOUT THEIR KNOWLEDGE THAT MAY IMPAIR STRENGTH OF THE PROJECT.

 CALAMBA WATER DISTRICT ENGINEERING DEPARTMENT PLANNING AND DESIGN DIVISION <small>24/7 Public Service</small>	PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
	RELOCATION OF WATERLINES	DESIGNED BY: MR. FERNANDO H. ARELLANO JR.	AS INDICATED ABOVE	3-6-2020
	LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO		SHEET NO.
	Purok Gitna, Brgy. Hornalan, Calamba City	RECOMMENDED BY: ENGR. RANELY S. CARTAGO		W4
LAKEVIEW SUBD., HALANG, CALAMBA CITY	APPROVED BY: MR. EXEQUIEL AGUILAR JR.			

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CLUSTER PLAN

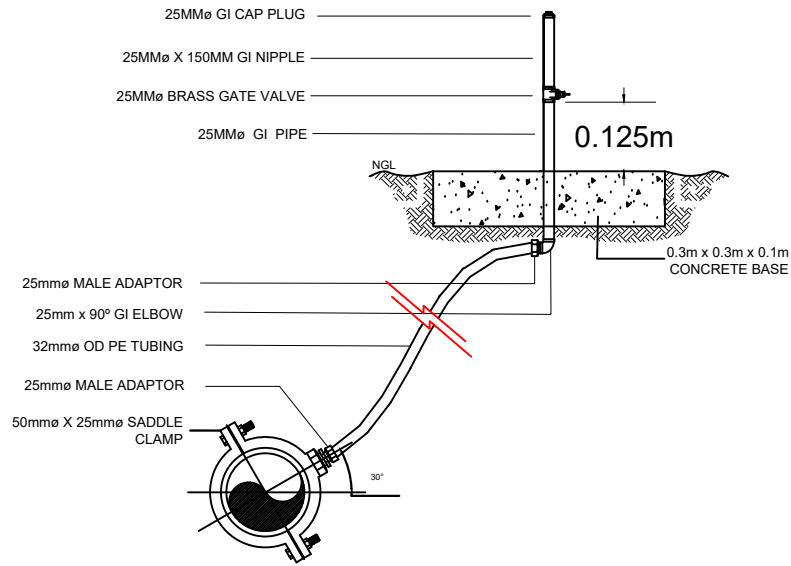
SCALE: NTS

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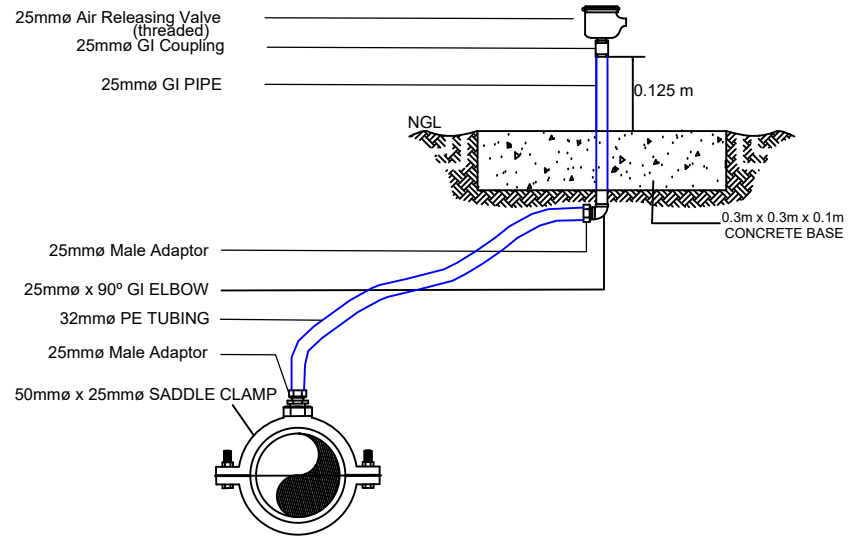
 CALAMBA WATER DISTRICT ENGINEERING DEPARTMENT PLANNING AND DESIGN DIVISION <small>24/7 Public Service</small>	PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
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	LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO		SHEET NO.
	Purok Gitna, Brgy. Hornalan, Calamba City	RECOMMENDED BY: ENGR. RANELY S. CARTAGO		W5
LAKEVIEW SUBD., HALANG, CALAMBA CITY	APPROVED BY: MR. EXEQUIEL AGUILAR JR.			

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TYPICAL SERVICE CONNECTION

SCALE: NTS



ARV ASSEMBLY PLAN

SCALE: NTS

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3. SERVICE CONNECTION ACROSS THE ROADWAY SHOULD BE WITH GI CONDUIT CASING



CALAMBA WATER DISTRICT
ENGINEERING DEPARTMENT
PLANNING AND DESIGN DIVISION

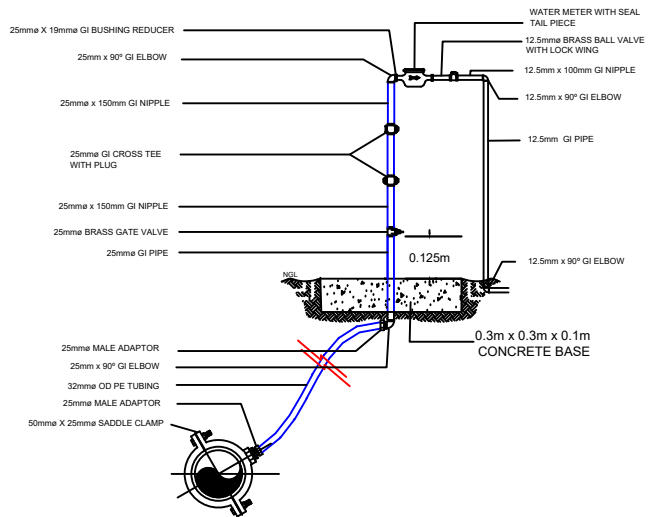
24/7 Public Service

LAKEVIEW SUBD., HALANG, CALAMBA CITY

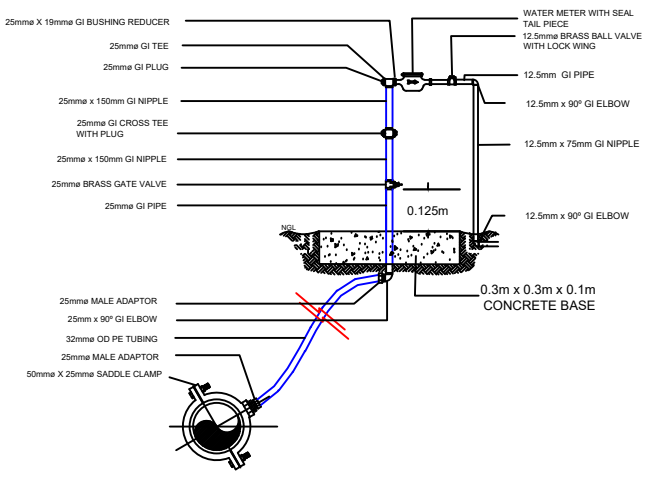
PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.
RELOCATION OF WATERLINES	DESIGNED BY: MR. FERNANDO H. ARELLANO JR.
LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO
Purok Gitna, Brgy. Hornalan, Calamba City	RECOMMENDED BY: ENGR. RANELY S. CARTAGO
	APPROVED BY: MR. EXEQUIEL AGUILAR JR.

SHEET CONTENTS:	DATE:
AS INDICATED ABOVE	3-5-2020
	SHEET NO.
	W6

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CLUSTER 1




CLUSTER 3

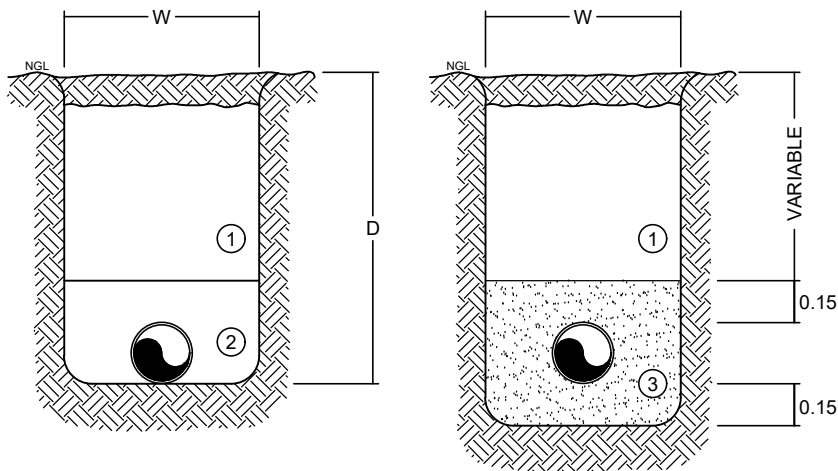
CLUSTER DETAIL

SCALE: NTS

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 3. EXISTING WATER METER AND BRASS BALL VALVE TO BE TRANSFERRED FROM PRESENT LOCATION TO RELOCATION SITE.

 CALAMBA WATER DISTRICT ENGINEERING DEPARTMENT PLANNING AND DESIGN DIVISION <small>24/7 Public Service</small>	PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
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	LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO		SHEET NO.
	Purok Gitna, Brgy. Hornalan, Calamba City	RECOMMENDED BY: ENGR. RANELY S. CARTAGO		W7
		APPROVED BY: MR. EXEQUIEL AGUILAR JR.		

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**NORMAL INSTALLATION
WHERE SAND BEDDING
BACKFILL NOT REQUIRED**

**IN ROCK OR WHEN
ORDERED BY ENGINEER**


TABLE OF TRENCH DIMENSIONS (IN METERS)			
Pipe Diameter (mm)	Minimum Width (W)	Maximum Width (W)	Depth (D)
50mmø	0.20	0.30	0.60
75mmø	0.20	0.30	0.90
100mmø	0.40	0.70	0.95
150mmø	0.45	0.75	1.00
200mmø	0.50	0.80	1.05

- LEGEND:**
1. COMPACTED SELECTED NATIVE MATERIAL BACKFILL (SEE SPEC.)
 2. COMPACTED SELECTED NATIVE MATERIAL IN 0.15 LAYERS (SEE SPEC.)
 3. APPROVED SAND BEDDING & BACKFILL HAND PLACED AND COMPACTED.
 4. PAYMENT FOR ANY RESURFACING WILL BE BASED ON MAXIMUM TRENCH WIDTHS PER SIZE PIPE SHOWN.

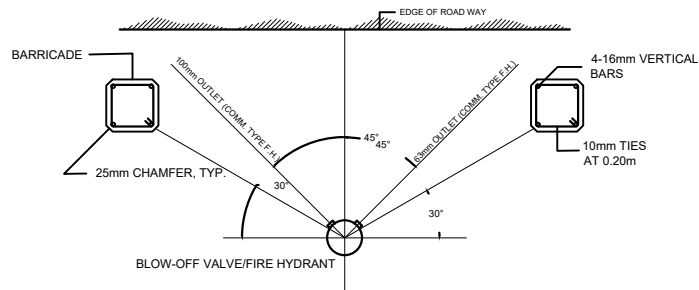
NOTE:
ALL DIMENSIONS IN METERS EXCEPT WHERE OTHERWISE SHOWN.

TYPICAL TRENCH DETAILS

SCALE: NTS

 CALAMBA WATER DISTRICT ENGINEERING DEPARTMENT PLANNING AND DESIGN DIVISION <small>24/7 Public Service</small>	PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
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	LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO		SHEET NO.
	Purok Gitna, Brgy. Hornalan, Calamba City	RECOMMENDED BY: ENGR. RANELY S. CARTAGO		W8
LAKEVIEW SUBD., HALANG, CALAMBA CITY	APPROVED BY: MR. EXEQUIEL AGUILAR JR.			

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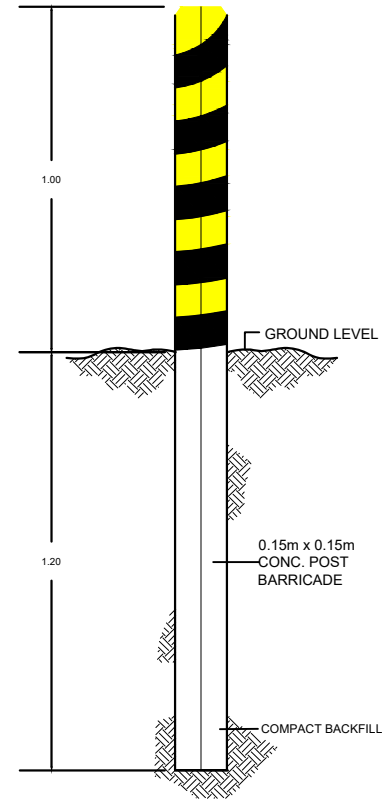


PLAN FOR SETTING BARRICADE

SCALE: NTS


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ELEV. OF CONC. BARRICADE

SCALE: NTS

 CALAMBA WATER DISTRICT ENGINEERING DEPARTMENT PLANNING AND DESIGN DIVISION <small>24/7 Public Service</small>	PROJECT TITLE:	AUTOCAD BY: MR. FERNANDO H. ARELLANO JR.	SHEET CONTENTS:	DATE:
	RELOCATION OF WATERLINES	DESIGNED BY: MR. FERNANDO H. ARELLANO JR.	AS INDICATED ABOVE	3-6-2020
	LOCATION:	CHECKED BY: ENGR. RANELY S. CARTAGO		SHEET NO.
	Purok Gitna, Brgy. Hornalan, Calamba City	RECOMMENDED BY: ENGR. RANELY S. CARTAGO		W9
		APPROVED BY: MR. EXEQUIEL AGUILAR JR.		

LOCATION SITE



NOTES:
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LOCATION MAP
 SCALE: _____ NTS

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CALAMBA WATER DISTRICT
 ENGINEERING DEPARTMENT
 PLANNING AND DESIGN DIVISION

LAKEVIEW SUBD., HALANG, CALAMBA CITY

PROJECT TITLE:
 SUPPLY OF LABOR OF PARALLEL PIPING
 AND LOOPING OF WATER LINE AND
 DISTRIBUTION LINE

LOCATION:
 Sitio Ungguyan, Brgy. San Juan Calamba City, Laguna

AUTOCAD BY: ENGR. V. C. DAVID
 DESIGNED BY: ENGR. V. C. DAVID
 CHECKED BY: ENGR. F. H. ARELLANO
 RECOMMENDED BY: ENGR. R. S. CARTAGO
 APPROVED BY: MR. E. A. AGUILAR

SHEET CONTENTS:
 LOCATION MAP

DATE:
 SHEET NO.
 W1

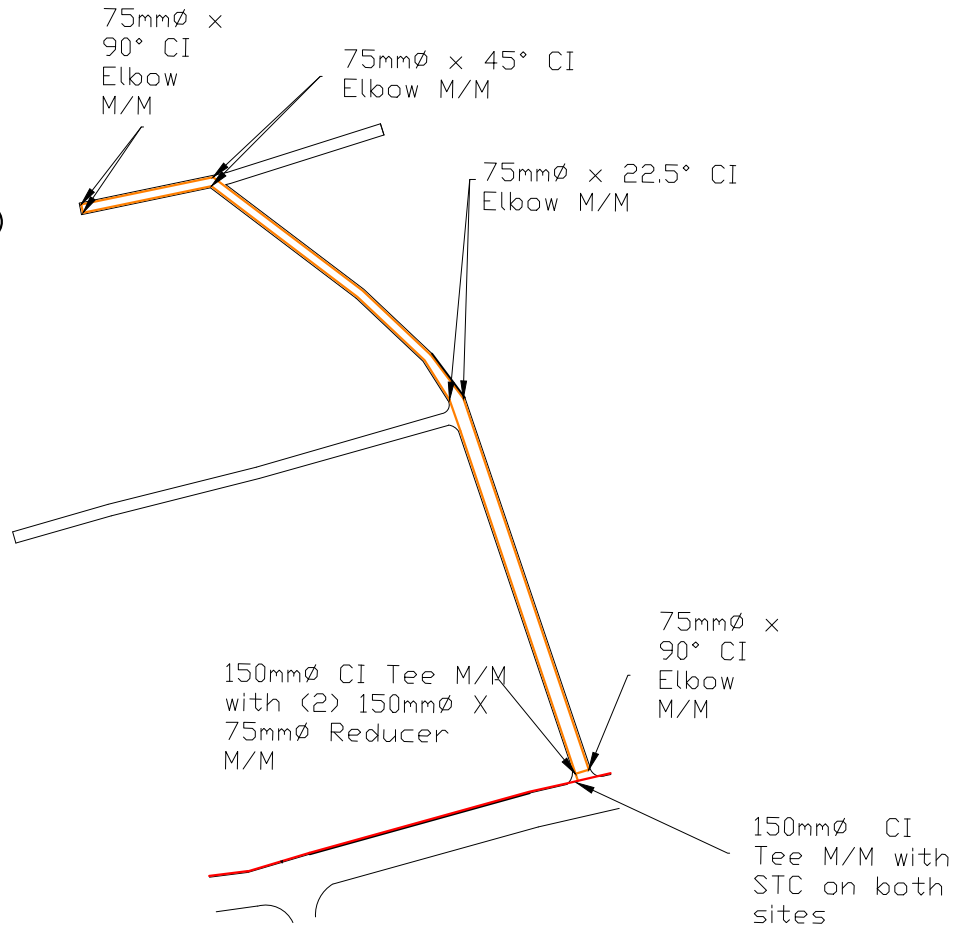
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LEGEND:

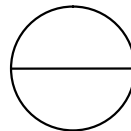
- 150mm ϕ CCI pipe (existing)
- 75mm ϕ PVC pipe (proposed)

MEASUREMENT:

- 255.4 Linear Meter



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DISTRIBUTION LINE LAYOUT PLAN

SCALE:

NTS



CALAMBA WATER DISTRICT
ENGINEERING DEPARTMENT
PLANNING AND DESIGN DIVISION

24/7 Public Service

LAKEVIEW SUBD., HALANG, CALAMBA CITY

PROJECT TITLE:

SUPPLY OF LABOR OF PARALLEL PIPING AND LOOPING OF WATER LINE AND DISTRIBUTION LINE

LOCATION:

Sitio Ungguyan, Brgy. San Juan Calamba City, Laguna

AUTOCAD BY: ENGR. V. C. DAVID

DESIGNED BY: ENGR. V. C. DAVID

CHECKED BY: ENGR. F. H. ARELLANO

RECOMMENDED BY: ENGR. R. S. CARTAGO

APPROVED BY: MR. E. A. AGUILAR

SHEET CONTENTS:

DISTRIBUTION
LINE LAYOUT
PLAN

DATE:

SHEET NO.

W2

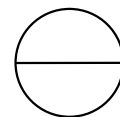
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LEGEND:

- 150mmØ CCI pipe (existing)
- 75mmØ PVC pipe (proposed)
- 50mmØ PVC pipe (proposed)
- Cluster



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CLUSTER LAYOUT PLAN

SCALE:

NTS



CALAMBA WATER DISTRICT
 ENGINEERING DEPARTMENT
 PLANNING AND DESIGN DIVISION

24/7 Public Service

LAKEVIEW SUBD., HALANG, CALAMBA CITY

PROJECT TITLE:
 SUPPLY OF LABOR OF PARALLEL PIPING AND LOOPING OF WATER LINE AND DISTRIBUTION LINE
 LOCATION:
 Sitio Ungguyan, Brgy. San Juan Calamba City, Laguna

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 DESIGNED BY: ENGR. V. C. DAVID
 CHECKED BY: ENGR. F. H. ARELLANO
 RECOMMENDED BY: ENGR. R. S. CARTAGO
 APPROVED BY: MR. E. A. AGUILAR

SHEET CONTENTS:
 CLUSTER LAYOUT

DATE:

SHEET NO.

W3