

## MINUTES OF THE PRE-BID MEETING

### PROCUREMENT OF HIGH EFFICIENCY IRRIGATION SYSTEM (HEIS) FOR ORCHARDS UNDER PROJECT “CLIMATE RESILIENCE THROUGH HORTICULTURAL INTERVENTIONS IN KHYBER PAKHTUNKHWA” ON 26/03/2024

The Pre-Bid Meeting for the procurement of Procurement of High Efficiency Irrigation System (HEIS) for Orchard under the project “Climate Resilience through Horticultural Interventions in Khyber Pakhtunkhwa” held on 26<sup>th</sup> March 2024 at 11:00 hours under the chair of the Project Director, Climate Resilience through Horticultural Interventions in Khyber Pakhtunkhwa in his office.

The meeting was started with the recitation of the Holy Quran.

All the terms/conditions of the tender bidding documents were discussed as per procurement procedures/protocols with the contractors. The chair along with the members and firm’s representative unanimously agreed to revise the following amendments in bid solicitation documents as per bidder question, details are as below.

Amendments in accordance with Section-I Instruction to Bidders, B. Contents of Request for Bid Document, 7. Clarification of Bidding Documents and 8. Amendment of Bidding Documents of the Request for Bidding Documents (RFB).

The original RFB documents remain in full force and effect, except as modified by Amendments/addendum, which will be made part of the RFB. The bidders shall take these amendments into consideration when preparing and submitting its Bids.

The procurement committee members agreed to notify the amendments on websites. Firms will submit their bidding documents as per the following amendments which are applicable to the part of RFB referenced above.

#### 1. Amendments

S. No.	Reference	Pre-Bid RFB	Revised/Post Pre-Bid RFB														
1	Section-VII-1&2	List of Goods and Delivery Schedule. Per Acre cost of Drip Irrigation System 1-5 acres.	<p>The firms will provide the Acres cost separately on following format as per Price Schedule</p> <table border="1"><thead><tr><th>Acres</th><th>Cost PKR Rs.</th></tr></thead><tbody><tr><td>One Acre</td><td></td></tr><tr><td>Two Acres</td><td></td></tr><tr><td>Three Acres</td><td></td></tr><tr><td>Four Acres</td><td></td></tr><tr><td>Five Acres</td><td></td></tr><tr><td><b>Total</b></td><td></td></tr></tbody></table> <p>The firm will be selected on the lowest total cost basis and fulfill the required criteria of RFB. BOQ for each category is attached as <b>Annexure-A</b></p>	Acres	Cost PKR Rs.	One Acre		Two Acres		Three Acres		Four Acres		Five Acres		<b>Total</b>	
Acres	Cost PKR Rs.																
One Acre																	
Two Acres																	
Three Acres																	
Four Acres																	
Five Acres																	
<b>Total</b>																	
2	Section-VII-3	Drawings of HEIS	Acre wise (Tentative) Layout of High Efficiency Irrigation System (HIES) is attached as <b>Annexure-B</b>														

## 2. Clarifications

S. No.	Reference	Pre-Bid RFB	Revised/Post Pre-Bid RFB
1	ITB-19.1	Clarification on Bid Security	2% bid security in the form of CDR or Bank guarantee as per quoted financial bid/amount of 01 Acre.
2	ITB-34.5 & Section – IV Price Schedule & GCC 16.1 & 17.	Clarification applicable Taxes.	All Government applicable taxes will be deducted at source at the time of billing accordingly i.e., <ul style="list-style-type: none"><li>- Income Tax,</li><li>- Sales Tax,</li><li>- Stamp Duty,</li><li>- Disability Tax,</li><li>- Service Tax,</li><li>- Any other tax if applicable.</li></ul>

### A) Question/Answers:

Keeping the questions/answers of the contractors/other participants in view, the following decisions were made.

1. No compromise will be made on the quality and quantity of HEIS.
2. The product/material will be supplied to the farmer doorstep free from any damage. Otherwise, the same will be returned to the firm owner at their own expense.
3. The bid document shall be one primary/original copy and two carbon copy.
4. Firm registration certificate, CDR/Bank Guaranty, Bank Statement/audit statement will be evaluated and traced accordingly.
5. The supply/demand of High Efficiency Irrigation System (HEIS) package (set) & its allied material etc. may be increased, decreased, or altered subject to the availability of funds or other constraints.

The meeting ended with a vote of thanks from and to the Chair.

## BoQ for Drip Irrigation system of 1 Acre

	Description	Model	Brand	Unit	Quantity	PKR Price
<b>A</b>	<b>u PVC Pipe</b>					
1	UPVC Pipe with collar (2"), 12-Bar Class D	BSS 3505	ISO Certified	Meter	70	
2	UPVC Pipe with collar (1 1/2"), 12-Bar Class D	BSS 3505 & PSI 3051	ISO Certified	Meter	80	
3	PVC Ball Valve 2"	Erra/Hydroplast	ISO Certified	Number	1.00	
4	PVC Elbow 2" (90)	Schedule-40	ISO Certified	Number	1	
5	PVC Elbow 1 1/2" (90)	Schedule-40	ISO Certified	Number	4	
6	PVC Reducing Bush 2"x1 1/2"	Schedule-40	ISO Certified	Number	1	
7	PVC Equal Tee 2"	Schedule-40	ISO Certified	Number	1	
8	PVC Equal Tee 1 1/2"	Schedule-40	ISO Certified	Number	2	
9	PVC Flush Valve 1 1/2"	Schedule-40	ISO Certified	Number	1	
<b>B</b>	<b>Emitting Assembly</b>					
1	Dripline Plain 16 mm (OD) PN-4 with 1.2 mm wall thickness' (Dual)	FTR01604N	ISO/Imported	Meter	1428	
2	GTO with Rubber 16mm	845	ISO/Imported	Number	40	
3	End Capes 16 mm	813/ Double Eye	ISO/Imported	Number	40	
4	Connectors 16mm	841	ISO/Imported	Number	60	
5	Equal Tee 16mm	829	ISO/Imported	Number	2	
6	Disc Filter 2"	YHF/THF	ISO/Imported	Number	1	
7	Hydro cyclone/Sand Media Filter 15-20 m3/hr.	ISO 9912/25 M3/Hr.	ISO/Imported	Number	1	
8	Venturi Kit for Fertigation 1"	Injector1"	ISO/Imported	Number	1	
9	Drum for Fertigation	150L/PVC UV Resistant	ISO/Imported	Number	1	
10	Air Relief Valve 1"	AR1"	ISO/Imported	Number	1	
11	Drippers 8 LPH PC- (4/Plant)	PC	ISO/Imported	Number	480	
<b>C</b>	<b>Other Charges</b>					
1	Excavation & Backfilling Charges		NA	Feet	240	
2	PVC Solution 1/2 Kg Pack	1/2KG-Royal	ISO	Number	1	
3	<b>Sub-Total (A+B+C) (Rs.)</b>					
4	Survey, Design, Installation and Transportation for Drip Irrigation System (Rs.)			25%		
<b>Cost for Drip Irrigation System (1-Acre)</b>			<b>PKR</b>			
<b>Cost for Drip Irrigation System (per acre)</b>			<b>PKR</b>			

**Note: (Applicable on 1–5-acre HEIS)**

- Total Numbers of fruit Orchards are 200 acres and the above packages (Set) of High Efficiency Irrigation System (HEIS) will be supplied, installed, and commissioned on each orchard of 1 to 5 acres preferably.
- The supply/demand of High Efficiency Irrigation System (HEIS) package (set) & its allied material etc., may be increased, decreased, or altered subject to the availability of funds or other constraints.
- The Firm will provide one year free after sale services without charging any cost.
- As primary filtration, Media Gravel filter will be used for water pond and Hydrocyclone in case of connection from Tube well.
- Provision of Energy Source (Electric/Solar or any other) will be farmer's responsibility.
- Provision of sufficient water source in shape of Pond/Tubewell/Stream and Dug well etc., will be farmer's responsibility along with Motor Pump of required head and flow rate, if required.
- The HEIS designed for average spacing of 20x20 feet row to row and plant to plant spacing.
- Project name and their logo/monogram should be labelled on all set of HEIS System/Products.
- All aforesaid package (set) of HEIS & its allied material etc. should be acceptable to the Department and the selection/choice of the department shall be final.
- Bidder should justify the specification with appropriate lab test reports/certifications from the principle manufacturer will be provided

## BoQ for Drip Irrigation system of 2 Acres

	Description	Model	Brand	Unit	Quantity	PKR Price
<b>A</b>	<b>u PVC Pipe</b>					
1	UPVC Pipe with collar (2"), 12-Bar Class D	BSS 3505	ISO Certified	Meter	90	
2	UPVC Pipe with collar (1 1/2"), 12-Bar Class D	BSS 3505 & PSI 3051	ISO Certified	Meter	110	
3	PVC Ball Valve 2"	Erra/Hydroplast	ISO Certified	Number	2.00	
4	PVC Elbow 2" (90)	Schedule-40	ISO Certified	Number	2	
5	PVC Elbow 1 1/2" (90)	Schedule-40	ISO Certified	Number	8	
6	PVC Reducing Bush 2"x1 1/2"	Schedule-40	ISO Certified	Number	2	
7	PVC Equal Tee 2"	Schedule-40	ISO Certified	Number	2	
8	PVC Equal Tee 1 1/2"	Schedule-40	ISO Certified	Number	4	
9	PVC Flush Valve 1 1/2"	Schedule-40	ISO Certified	Number	2	
<b>B</b>	<b>Emitting Assembly</b>					
1	Dripline Plain 16 mm (OD) PN-4 with 1.2 mm wall thickness (Dual)	FTR01604N	ISO/Imported	Meter	2800	
2	GTO with Rubber 16mm	845	ISO/Imported	Number	50	
3	End Capes 16 mm	813/ Double Eye	ISO/Imported	Number	50	
4	Connectors 16mm	841	ISO/Imported	Number	70	
5	Equal Tee 16mm	829	ISO/Imported	Number	4	
6	Disc Filter 2"	YHF/THF	ISO/Imported	Number	1	
7	Hydro cyclone/Sand Media Filter 15-20 m3/hr.	ISO 9912/25 M3/Hr.	ISO/Imported	Number	1	
8	Venturi Kit for Fertigation 1"	Injector1"	ISO/Imported	Number	1	
9	Drum for Fertigation	150L/PVC UV Resistant	ISO/Imported	Number	1	
10	Air Relief Valve 1"	AR1"	ISO/Imported	Number	2	
11	Drippers 8 LPH PC- (4/Plant)	PC	ISO/Imported	Number	972	
<b>C</b>	<b>Other Charges</b>					
1	Excavation & Backfilling Charges		NA	Feet	480	
2	PVC Solution 1/2 Kg Pack	1/2KG-Royal	ISO	Number	2	
3	<b>Sub-Total (A+B+C) (Rs.)</b>					
4	Survey, Design, Installation and Transportation for Drip Irrigation System (Rs.)			25%		
<b>Cost for Drip Irrigation System (2-Acre)</b>			<b>PKR</b>			
<b>Cost for Drip Irrigation System (per acre)</b>			<b>PKR</b>			

**Note: (Applicable on 1–5-acre HEIS)**

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### BoQ for Drip Irrigation system of 3 Acres

	Description	Model	Brand	Unit	Quantity	PKR Price
<b>A</b>	<b>u PVC Pipe</b>					
1	UPVC Pipe with collar (2"), 12-Bar Class D	BSS 3505	ISO Certified	Meter	120	
2	UPVC Pipe with collar (1 1/2"), 12-Bar Class D	BSS 3505 & PSI 3051	ISO Certified	Meter	160	
3	PVC Ball Valve 2"	Erra/Hydroplast	ISO Certified	Number	2.00	
4	PVC Elbow 2" (90)	Schedule-40	ISO Certified	Number	2	
5	PVC Elbow 1 1/2" (90)	Schedule-40	ISO Certified	Number	8	
6	PVC Reducing Bush 2"x1 1/2"	Schedule-40	ISO Certified	Number	2	
7	PVC Equal Tee 2"	Schedule-40	ISO Certified	Number	2	
8	PVC Equal Tee 1 1/2"	Schedule-40	ISO Certified	Number	4	
9	PVC Flush Valve 1 1/2"	Schedule-40	ISO Certified	Number	2	
<b>B</b>	<b>Emitting Assembly</b>					
1	Dripline Plain 16 mm (OD) PN-4 with 1.2 mm wall thickness' (Dual)	FTR01604N	ISO/Imported	Meter	4100	
2	GTO with Rubber 16mm	845	ISO/Imported	Number	60	
3	End Capes 16 mm	813/ Double Eye	ISO/Imported	Number	60	
4	Connectors 16mm	841	ISO/Imported	Number	80	
5	Equal Tee 16mm	829	ISO/Imported	Number	6	
6	Disc Filter 2"	YHF/THF	ISO/Imported	Number	1	
7	Hydro cyclone/Sand Media Filter 15-20 m3/hr.	ISO 9912/25 M3/Hr.	ISO/Imported	Number	1	
8	Venturi Kit for Fertigation 1"	Injector1"	ISO/Imported	Number	1	
9	Drum for Fertigation	150L/PVC UV Resistant	ISO/Imported	Number	1	
10	Air Relief Valve 1"	AR1"	ISO/Imported	Number	2	
11	Drippers 8 LPH PC- (4/Plant)	PC	ISO/Imported	Number	1400	
<b>C</b>	<b>Other Charges</b>					
1	Excavation & Backfilling Charges		NA	Feet	720	
2	PVC Solution 1/2 Kg Pack	1/2KG-Royal	ISO	Number	3	
3	<b>Sub-Total (A+B+C) (Rs.)</b>					
4	Survey, Design, Installation and Transportation for Drip Irrigation System (Rs.)			25%		
<b>Cost for Drip Irrigation System (3-Acre)</b>			<b>PKR</b>			
<b>Cost for Drip Irrigation System (per acre)</b>			<b>PKR</b>			

**Note: (Applicable on 1–5-acre HEIS)**

**(As per page 3 of 10 of this document)**

### BoQ for Drip Irrigation system of 4 Acres

	Description	Model	Brand	Unit	Quantity	PKR Price
<b>A</b>	<b>u PVC Pipe</b>					
1	UPVC Pipe with collar (2"), 12-Bar Class D	BSS 3505	ISO Certified	Meter	140	
2	UPVC Pipe with collar (1 1/2"), 12-Bar Class D	BSS 3505 & PSI 3051	ISO Certified	Meter	200	
3	PVC Ball Valve 2"	Erra/Hydroplast	ISO Certified	Number	3.00	
4	PVC Elbow 2" (90)	Schedule-40	ISO Certified	Number	3	
5	PVC Elbow 1 1/2" (90)	Schedule-40	ISO Certified	Number	12	
6	PVC Reducing Bush 2"x1 1/2"	Schedule-40	ISO Certified	Number	3	
7	PVC Equal Tee 2"	Schedule-40	ISO Certified	Number	3	
8	PVC Equal Tee 1 1/2"	Schedule-40	ISO Certified	Number	5	
9	PVC Flush Valve 1 1/2"	Schedule-40	ISO Certified	Number	3	
<b>B</b>	<b>Emitting Assembly</b>					
1	Dripline Plain 16 mm (OD) PN-4 with 1.2 mm wall thickness' (Dual)	FTR01604N	ISO/Imported	Meter	5500	
2	GTO with Rubber 16mm	845	ISO/Imported	Number	70	
3	End Capes 16 mm	813/ Double Eye	ISO/Imported	Number	70	
4	Connectors 16mm	841	ISO/Imported	Number	90	
5	Equal Tee 16mm	829	ISO/Imported	Number	8	
6	Disc Filter 2"	YHF/THF	ISO/Imported	Number	1	
7	Hydro cyclone/Sand Media Filter 15-20 m3/hr.	ISO 9912/25 M3/Hr.	ISO/Imported	Number	1	
8	Venturi Kit for Fertigation 1"	Injector1"	ISO/Imported	Number	1	
9	Drum for Fertigation	150L/PVC UV Resistant	ISO/Imported	Number	1	
10	Air Relief Valve 1"	AR1"	ISO/Imported	Number	3	
11	Drippers 8 LPH PC- (4/Plant)	PC	ISO/Imported	Number	1850	
<b>C</b>	<b>Other Charges</b>					
1	Excavation & Backfilling Charges		NA	Feet	960	
2	PVC Solution 1/2 Kg Pack	1/2KG-Royal	ISO	Number	4	
3	<b>Sub-Total (A+B+C) (Rs.)</b>					
4	Survey, Design, Installation and Transportation for Drip Irrigation System (Rs.)			25%		
<b>Cost for Drip Irrigation System (4-Acre)</b>			<b>PKR</b>			
<b>Cost for Drip Irrigation System (per acre)</b>			<b>PKR</b>			

**Note: (Applicable on 1–5-acre HEIS)**

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## BoQ for Drip Irrigation system of 5 Acres

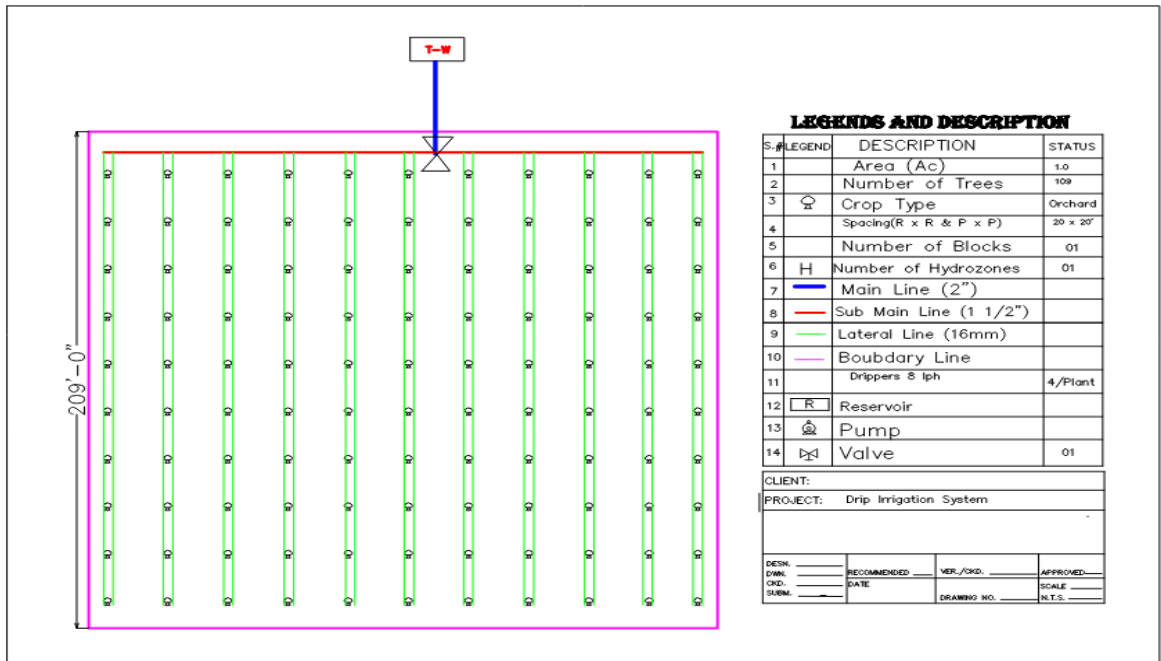
	Description	Model	Brand	Unit	Quantity	PKR Price
<b>A</b>	<b>u PVC Pipe</b>					
1	UPVC Pipe with collar (2"), 12-Bar Class D	BSS 3505	ISO Certified	Meter	140	
2	UPVC Pipe with collar (1 1/2"), 12-Bar Class D	BSS 3505 & PSI 3051	ISO Certified	Meter	250	
3	PVC Ball Valve 2"	Erra/Hydroplast	ISO Certified	Number	4.00	
4	PVC Elbow 2" (90)	Schedule-40	ISO Certified	Number	4	
5	PVC Elbow 1 1/2" (90)	Schedule-40	ISO Certified	Number	16	
6	PVC Reducing Bush 2"x1 1/2"	Schedule-40	ISO Certified	Number	4	
7	PVC Equal Tee 2"	Schedule-40	ISO Certified	Number	4	
8	PVC Equal Tee 1 1/2"	Schedule-40	ISO Certified	Number	6	
9	PVC Flush Valve 1 1/2"	Schedule-40	ISO Certified	Number	4	
<b>B</b>	<b>Emitting Assembly</b>					
1	Dripline Plain 16 mm (OD) PN-4 with 1.2 mm wall thickness' (Dual)	FTR01604N	ISO/Imported	Meter	6800	
2	GTO with Rubber 16mm	845	ISO/Imported	Number	75	
3	End Capes 16 mm	813/ Double Eye	ISO/Imported	Number	75	
4	Connectors 16mm	841	ISO/Imported	Number	95	
5	Equal Tee 16mm	829	ISO/Imported	Number	10	
6	Disc Filter 2"	YHF/THF	ISO/Imported	Number	1	
7	Hydro cyclone/Sand Media Filter 15-20 m3/hr.	ISO 9912/25 M3/Hr.	ISO/Imported	Number	1	
8	Venturi Kit for Fertigation 1"	Injector1"	ISO/Imported	Number	1	
9	Drum for Fertigation	150L/PVC UV Resistant	ISO/Imported	Number	1	
10	Air Relief Valve 1"	AR1"	ISO/Imported	Number	4	
11	Drippers 8 LPH PC- (4/Plant)	PC	ISO/Imported	Number	2300	
<b>C</b>	<b>Other Charges</b>					
1	Excavation & Backfilling Charges		NA	Feet	1200	
2	PVC Solution 1/2 Kg Pack	1/2KG-Royal	ISO	Number	5	
3	<b>Sub-Total (A+B+C) (Rs.)</b>					
4	Survey, Design, Installation and Transportation for Drip Irrigation System (Rs.)			25%		
<b>Cost for Drip Irrigation System (5-Acre)</b>			<b>PKR</b>			
<b>Cost for Drip Irrigation System (per acre)</b>			<b>PKR</b>			

**Note: (Applicable on 1–5-acre HEIS)**

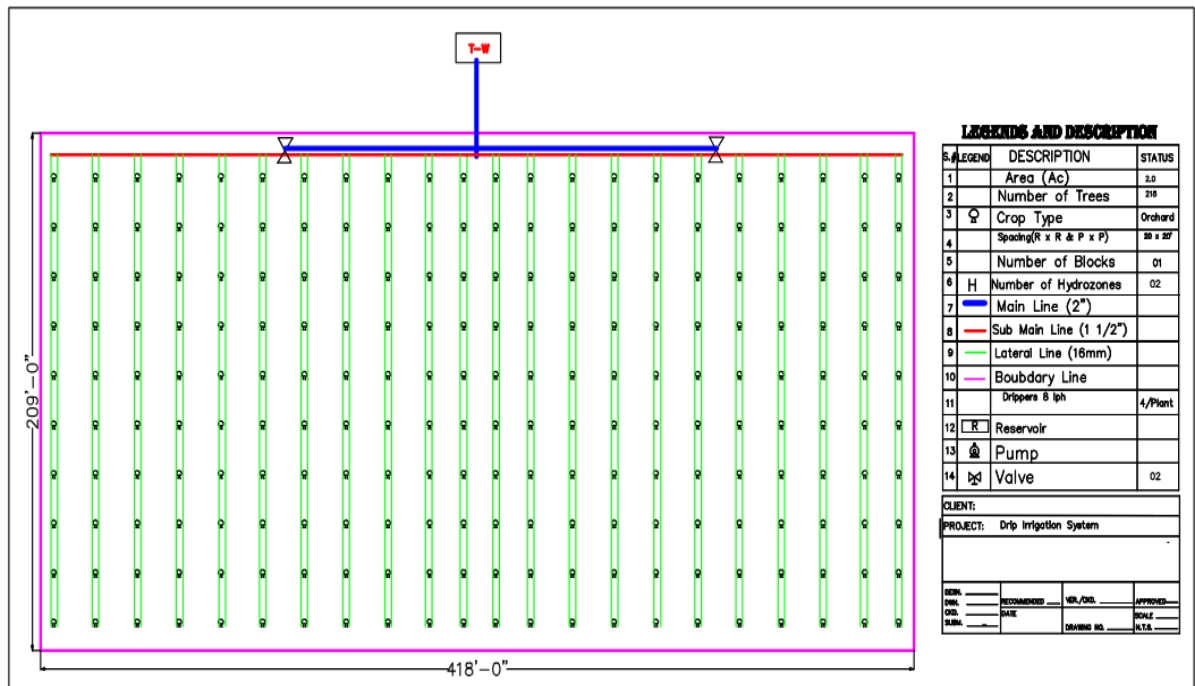
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Drawings and Designs (Tentative)

Typical Layout of Drip Irrigation on 01-acre Orchard

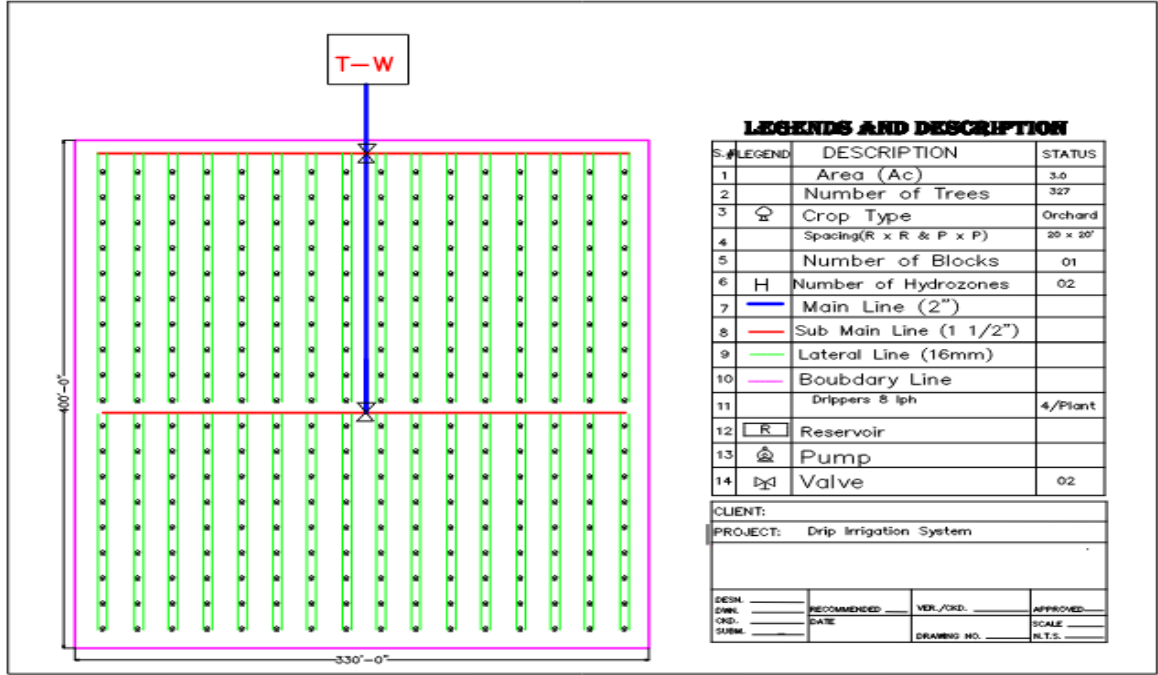


Typical Layout of Drip Irrigation on 02-acre Orchard

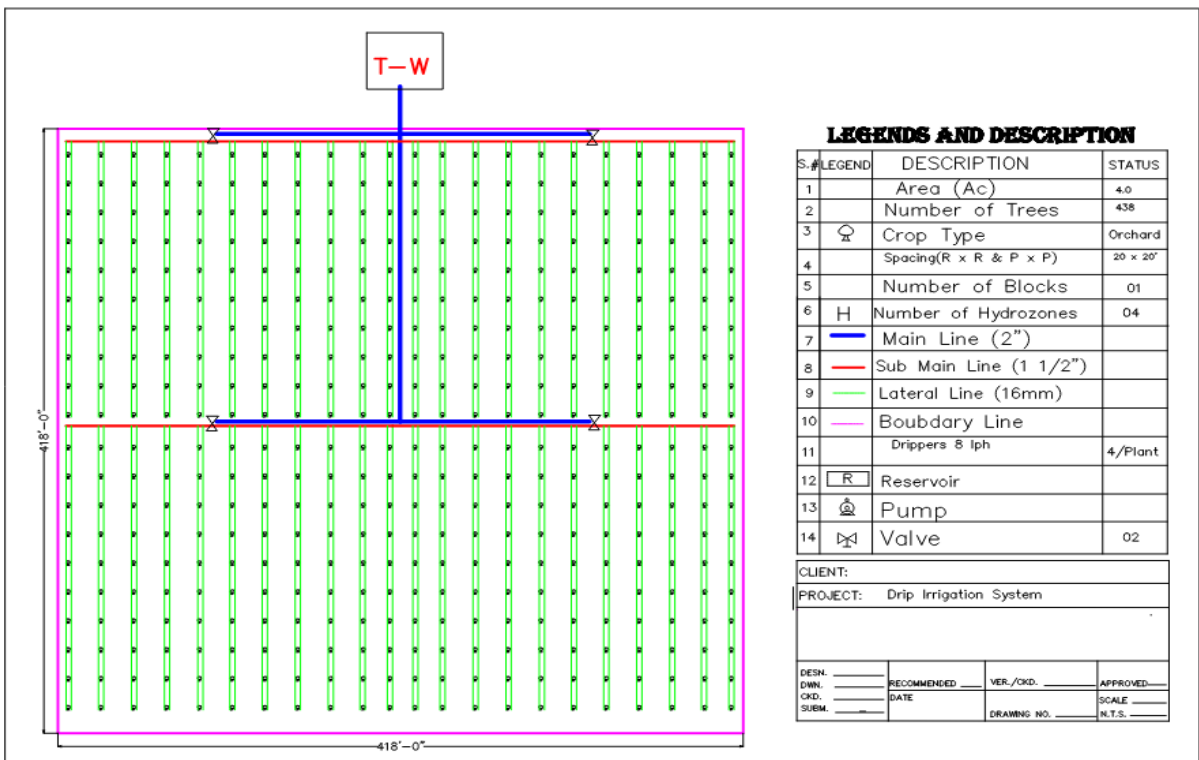




### Typical Layout of Drip Irrigation on 03-acre Orchard



### Typical Layout of Drip Irrigation on 04-acre Orchard



# Typical Layout of Drip Irrigation on 5-acre Orchard

