



भारतीय प्रौद्योगिकी संस्थान भिलाई

जिला-दुर्ग, छत्तीसगढ़-491001

Indian Institute of Technology, Bhilai

Dist.- Durg, Chhattisgarh - 491001

Website: www.iitbhilai.ac.in

GSTN: 22AABAI0415K1Z7

Date: 12-01-2024

CORRIGENDUM-1

This is in reference to the tender no. IITBh/Goods/Chem/2023-24/160, Dated: 04/12/2023 for “Supply, Installation, Testing and Validation of Experimental Laboratory Furniture at Indian Institute of Technology Bhilai”

The following addition or changes are made in technical specifications in the tender document:

Sr. No.	Pg no. and clause no.	Existing		Modification/Correction
1	(Pg. No. 1 of 41)	Tender Fee & EMD		EMD should be submitted through SBI collect
2	Clause No 2, Section I, Pg No 5 of 41)	All the items covered in the Schedule of Requirements at Section – V must be supplied within 8 weeks from the date of final GA drawing and colour shade approval. Suppliers should submit the GA drawing within one week from the date of PO issued. Suppliers should complete the installation within 02 weeks from the date of delivery of the equipment.		All the items covered in the Schedule of Requirements at Section – V must be supplied within 8-10 weeks from the date of final GA drawing and colour shade approval. Suppliers should submit the GA drawing within one week from the date of PO issued. Suppliers should complete the installation within 02 weeks from the date of delivery of the equipment.
3	14 of 41, clause no. 1.5	Overhead Cabinet L750	05 Nos	Overhead Cabinet L1000 x D350 x H600 mm



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		x D400 x H600 mm		
4	14 of 41, clause no. 1.6	Yellow Safety Cabinet for Flammables 1651 x 1092 x 457 mm	01 Nos	02 Nos
5	14 of 41, clause no. 1.8	Solvent Storage Cabinet (External Size: L 1092 x W 457 x H 1651 mm)	01 No.	This point has to be removed from tender
6	17 of 41, clause no. 1- B-14	Fume Hood plumbing service line	<ul style="list-style-type: none"> ● Fume hood superstructure to have 1 no. fixed storage racks in Granite construction on back baffle wall. Depth of the rack should be 100 mm. height of the storage rack will be finalized during GA drawing approval For Air & Nitrogen Service: 4 mm bore Polyurethane tube ● For Vacuum Service: SS braided Teflon Hose ● For Water Service: Nylon braided PVC Hose. The service should be water saver with renewable unit. ● Nitrogen Gas distribution system for each fume hood should be arranged by the vendor from the cylinder location of the same lab. 4 mm bore Polyurethane tube or copper tubings, regulators, drying agent towers and necessary items required should be provided for the gas 	<ul style="list-style-type: none"> ● Fume hood superstructure to have 1 no. fixed storage racks in Granite construction on back baffle wall. Depth of the rack should be 100 mm. height of the storage rack will be finalized during GA drawing approval For Air & Nitrogen Service: 4 mm bore Polyurethane tube ● For Vacuum Service: SS braided Teflon Hose ● For Water Service: Nylon braided PVC Hose. ● Nitrogen Gas distribution system for each fume hood should be arranged by the vendor from the cylinder location of the same lab. SS 304 construction tubing of suitable diameter, regulators, drying agent



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			<p>distribution system. • The amount of gas distribution work and the required materials shall be as per actual measurement after development at site as per certified measurements by site engineer/end user.</p>	<p>towers and necessary items required should be provided for the gas distribution system. • The amount of gas distribution work and the required materials shall be as per actual measurement after development at site as per certified measurements by site engineer/end user</p>
7	19 of 41, clause no. 1-D-1	Construction, Design and MOC detail	<ul style="list-style-type: none"> • SISW Direct Driven design, Centrifugal Corrosion Resistant fan completes with backward curved design, Imported Impeller. • Casing in Galvanized Iron (GI) construction or equivalent duly powder coated. • 2 HP motor (1 nos), 3 HP motor (3 nos), 5 HP motor (2 nos) 4 Pole, 3 phase, 415V, 50 HZ, TEFC Class B insulation motors for cluster of fume hoods I 800mm wide (as per the requirement of the cluster) • Motor shall be of Siemens, Crompton, Hindustan, ABB • Blower shall be of COLASIT / PLASTIFER or equivalent • IP 55, Class F, continuous rating. As per IS 325. • VFD control units should be there to control the motor. 	<ul style="list-style-type: none"> • SISW Direct Driven design, Centrifugal Corrosion Resistant fan completes with backward curved design, Imported Impeller. • Casing in Galvanized Iron (GI) construction or equivalent duly powder coated. • 4 Pole, 3 phase, 415V, 50 HZ, TEFC Class B insulation motors for cluster of fume hoods I 800mm wide (as per the requirement of the cluster) • Motor shall be of Siemens, Crompton, Hindustan, ABB • Blower shall be of COLASIT / PLASTIFER or equivalent • IP 55, Class F, continuous rating. As per IS 325. • VFD control units should be there to control the motor.



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11	20 of 41, clause no. 2-1	Under Bench Module (Plinth type)	<ul style="list-style-type: none"> ● Completely made of 1 mm(+/-0.1mm) GI sheets as per IS 277 standard. The sound deadening bumpers to be used while closing the door. The entire module should be made up of GI panels and are bolted/riveted for achieving maximum strength with high corrosion resistance. Welding of modules is not acceptable. The shutters should be mounted to the <p>Supply, Installation, Testing and Validation of experimental Laboratory Furniture at Indian Institute of Technology Bhilai, Page 21 of 41</p> <p>modules by hinges which are openable to 95 degree & self closing on return. Lockable roller bearings must be used so that the drawer will not fall. The telescopic drawer slides which should be very sturdy & able to take a load of 35(+/-5) kg. All modules must have a lock and dual key. The lock ring should be plastic.</p> <ul style="list-style-type: none"> ● Quantity and dimension as per layout. ● Necessary leg space should be provided between the modules as per layout. ● SEFA-8 standards heavy duty under module, comprising of one drawer - one shutter or one 	<ul style="list-style-type: none"> ● Completely made of 1 mm(+/-0.1mm) GI sheets as per IS 277 standard. The sound deadening bumpers to be used while closing the door. The entire module should be made up of GI panels and are bolted/riveted for achieving maximum strength with high corrosion resistance. Welding of modules is not acceptable. The shutters should be mounted to the <p>Supply, Installation, Testing and Validation of experimental Laboratory Furniture at Indian Institute of Technology Bhilai, Page 21 of 41</p> <p>modules by hinges which are openable to 95 degree & self closing on return. Lockable roller bearings must be used so that the drawer will not fall. The telescopic drawer slides which should be very sturdy & able to take a load of 35(+/-5) kg. All modules must have a lock and dual key. The lock ring should be plastic.</p> <ul style="list-style-type: none"> ● Quantity and dimension as per layout. ● Necessary leg space should be provided between the modules as
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			drawer – two shutters as per the layout.	per layout. ● Hinges of Island benches should be Knuckle Berrel type
12	21 of 41, clause no. 2-6	Sink	<ul style="list-style-type: none"> ● Three-way water tap: Gooseneck type (Tof/Broen/Far) ● pp sink (L610XW460XD305) ● Every sink should have one Eye shower ● Quantity as per layout. 	<ul style="list-style-type: none"> ● Three-way water tap: Gooseneck type (Tof/Broen/Far) ● pp sink (L610XW460XD305) ● Every sink should have one no of two-way Eye shower ● Quantity as per layout.
13	21 of 41, clause no. 2-7	Reagent Rack	<ul style="list-style-type: none"> ● Double sided double tier reagent rack with electrical raceway 300 mm width Overall Height: 600 mm. ● Material of construction: Completely made of 1 mm(+/- 0.1mm) GI sheets as per IS 277 standard. ● The raceway should have provision for vacuum and nitrogen gas service lines. Total of 25 lines for nitrogen and 25 lines for vacuum is required and should be distributed as per the requirement of IIT Bhilai. ● The Nitrogen Gas distribution system and vacuum line for the island bench should be arranged by the vendor from the cylinder/pump location of the same lab. The necessary tubings, regulators, drying agent towers and necessary items 	<ul style="list-style-type: none"> ● Double sided double tier reagent rack with electrical raceway 300 mm width Overall Height: 600 mm. ● Material of construction: Completely made of 1 mm(+/- 0.1mm) GI sheets as per IS 277 standard. ● The raceway should have provision for vacuum and nitrogen gas service lines. Total lines for nitrogen and for vacuum should be distributed as per the requirement of IIT Bhilai (provided in the layout attached). ● The Nitrogen Gas distribution system and vacuum line for the island bench should be arranged by the vendor from the cylinder/pump location of



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			required should be provided. The amount of gas distribution work and the required materials shall be as per actual measurement after development at site as per certified measurements by site engineer/end user. The bidder can provide unit rate in the BOQ.	the same lab. The necessary tubings, regulators, drying agent towers and necessary items required should be provided. The amount of gas distribution work and the required materials shall be as per actual measurement after development at site as per certified measurements by site engineer/end user.
14	24 of 41, Clause no. 4	Chemical Storage Cabinet L900 X D450 X H1830: Quantity: 02 Nos		Chemical Storage Cabinet L1000 X D450 X H1830: Quantity: 02 Nos
15	25 of 41, clause no. 5-A-3	Construction Detail:	<ul style="list-style-type: none"> ● End Panel, Top Panel & Bottom Panel: 1.2 mm thick Galvanized Iron Sheet ● Rear Panel: 1.2 mm Galvanized Iron Sheets ● Front door: 5 mm thick glass with metallic frame in GI construction ● 4 adjustable shelf and 1 fixed shelf with pp covering sheet ● Shelf: 1.2 mm thick GI sheet. ● Door Supporting frames: 1.6 mm thick GI Sheet. ● Door Hinges: Knuckle and Barrel type SS hinges. ● Door handles: SS 304 const. ● Lock: - With two keys for doors. 	<ul style="list-style-type: none"> ● End Panel, Top Panel & Bottom Panel: 1.2 mm thick Galvanized Iron Sheet ● Rear Panel: 1.2 mm Galvanized Iron Sheets ● Front door: 5 mm thick glass with metallic frame in GI construction ● 1 fixed shelf with pp covering sheet ● Shelf: 1.2 mm thick GI sheet. ● Door Supporting frames: 1.6 mm thick GI Sheet. ● Door Hinges: Knuckle and Barrel type SS hinges. ● Door handles: SS 304 const.



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			<ul style="list-style-type: none"> Approved Makes – Hettich/ Hafele/ Ebco/ Godrej 	<ul style="list-style-type: none"> Lock: - With two keys for doors. Approved Makes – Hettich/ Hafele/ Ebco/ Godrej
17	25 of 41, clause no. 6-A	Yellow Safety Cabinet for Flammables: Quantity 01 Nos		Yellow Safety Cabinet for Flammables: Quantity 02 Nos
18	26 of 41, clause no. 6-A-8	FM Approval	<ul style="list-style-type: none"> Yes 	This point has to be removed from tender
19	27 of 41, clause no. 8	Solvent Storage Cabinet (External Size: L 1092 x W 457 x H 1651 mm)		This point has to be removed from tender
	27 of 41, clause no. 8-1	General	<ul style="list-style-type: none"> Number of Doors and Style : 2 door, manual Capacity (Gallons) : 45 Capacity (Liters) : 170 Adjustable Shelves : 2 Net Wt. (Kg) : 120-150 	
	27 of 41, clause no. 8-2	Dimensions:	Dimensions: L 1003 x W 370 x H 1537 mm	
	29 of 41, clause no. 10	The quantity of yellow safety cabinet, chemical storage cabinet and solvent storage cabinet may increase or decrease based on the financial evaluation/at the time of release of the PO or payment will be made on actual supplied/used quantity of final work.		The quantity of any items such as yellow safety cabinet and chemical storage cabinet etc. may increase or decrease based on the financial evaluation/at the time of release of the PO or payment will be made on actual supplied/used



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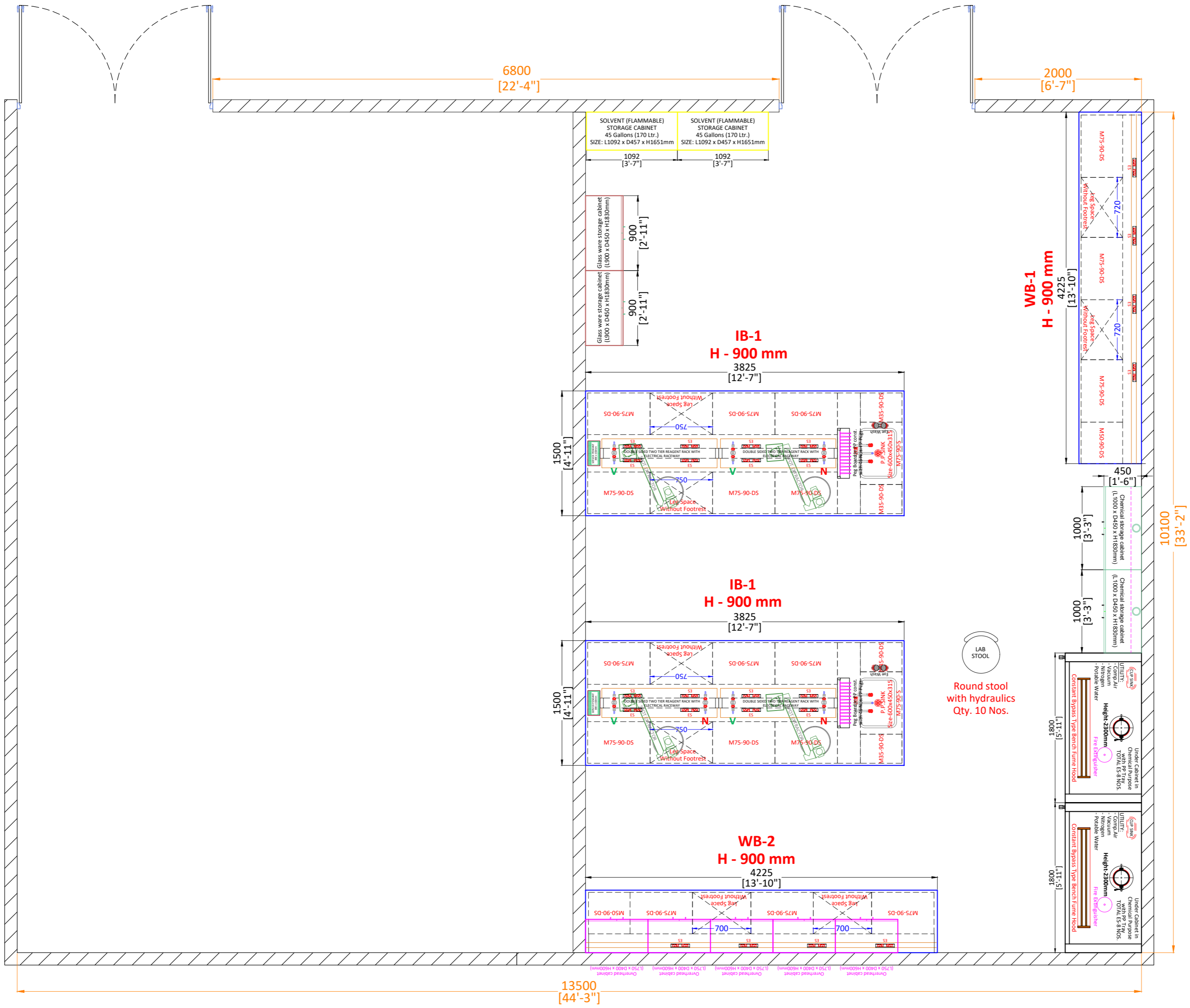
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		quantity of final work.
20	Vender should supply PP Sink, Eye Shower, Spot Extractor and Fume Hood utility valves of high grade make, certified with OSHA and ANSI.	
21	The Vendor must quote all the plumbing, drainage, electrical, ducting, gas distribution and other work required for lab setup (in a lot). As per the actual measurement provided with the layout attached.	
22	The vendor must provide a bifurcated price for gas distribution system separately in the bifurcation related document (in pdf), and gas distribution work will be taken as optional. It will not be considered in financial evaluation/in deciding the L1 price.	
23	The installation of gas distribution system will be finalized based on the financial evaluation/at the time of release of the PO or payment will be made on actual final work.	

All other terms and conditions of the tender document will remain the same.

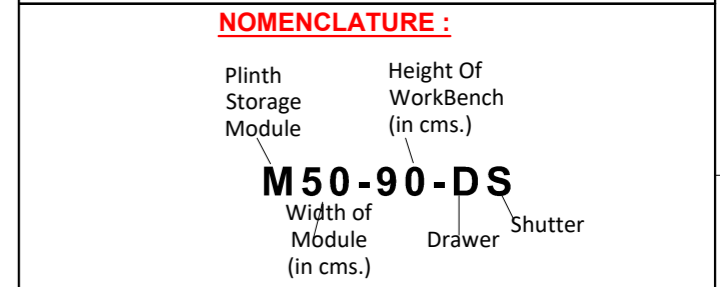

Registrar

विंग कमाण्डर डॉ. जयेश चन्द्र एस.पै(सेवानिवृत्त)
Wing Cdr. Dr. Jayesh Chandra S. Pai (Retd.)
कुलसचिव / Registrar
भारतीय प्रौद्योगिकी संस्थान भिलाई
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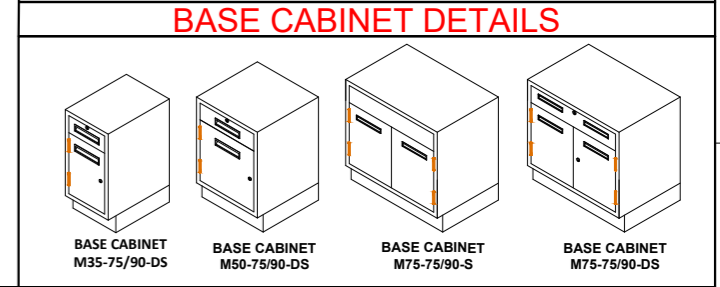


LEGEND:

WB	: Wall Bench
IB	: Island Bench
ES	: Electrical Socket
ER	: Electrical Raceway
DS	: Data Socket
BFH	: Bench Type Fume Hood
GSC	: Glassware Storage Cabinet
CSC	: Chemical Storage Cabinet
WSC	: Wall Mounted Storage Cabinet
M75-90-S	: 750mm Module With Two Shutters
M50-90-DS	: 500mm Module With One Drawer & One Shutter
M35-90-DS	: 350mm Module With One Drawer & One Shutter
M75-90-DS	: 750mm Module With One Drawers & Two Shutters
DSDR	: Double Sided Double Tier Reagent Rack with Electrical Raceway
LS	: Leg Space without footrest



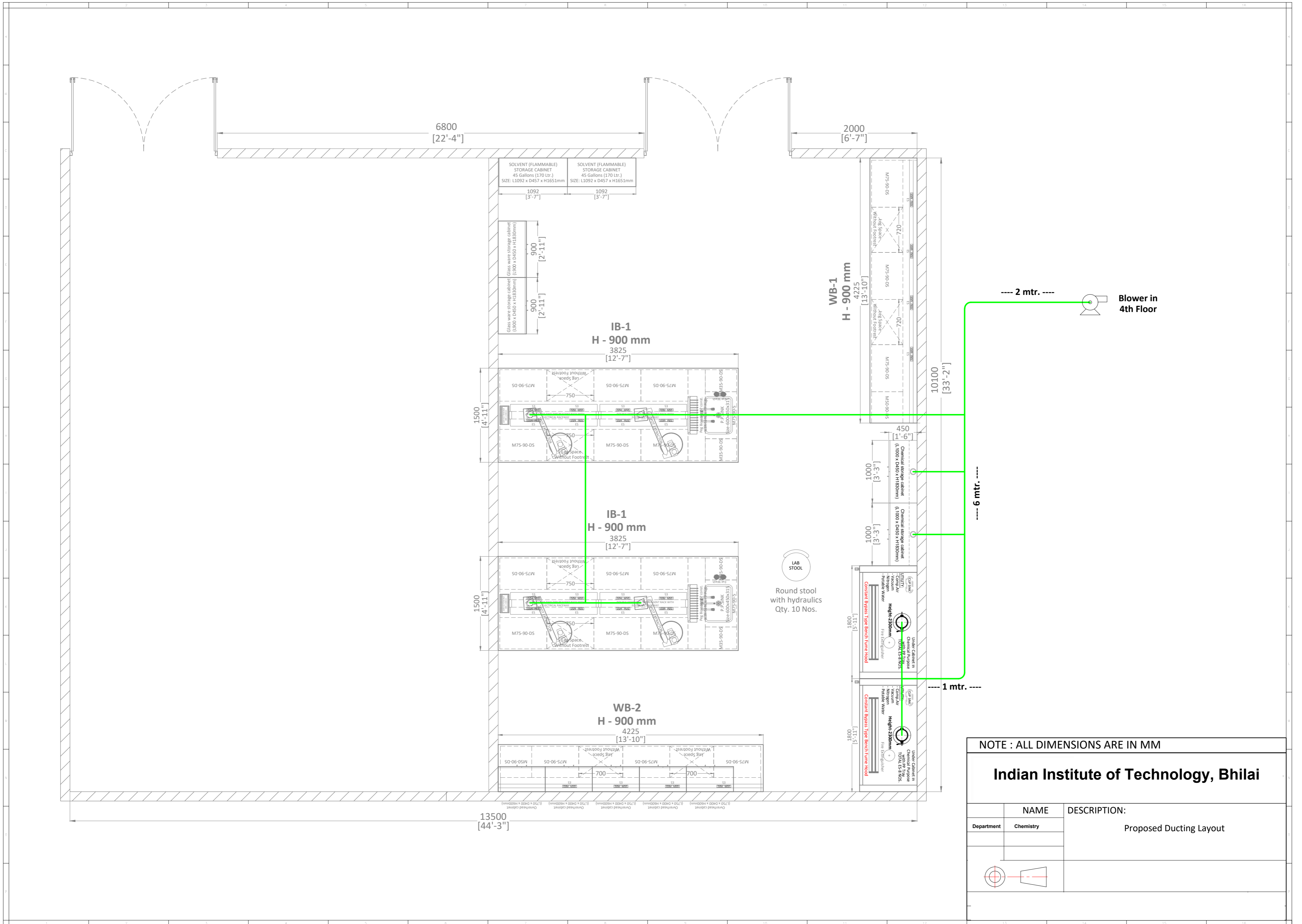
- Note :-**
- All Dimensions are in "mm"
 - Plinth Mounted System
 - Flush Type Handle
 - Single piece molded Big PP sink (SIZE: L600mmxW450mmxD315mm)
 - Worktop in 18 ± 1 mm thick Black Granite Construction
 - Kindly note that all the 3D views shown here are for your reference only.



NOTE : ALL DIMENSIONS ARE IN MM

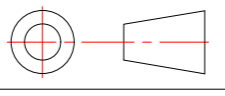
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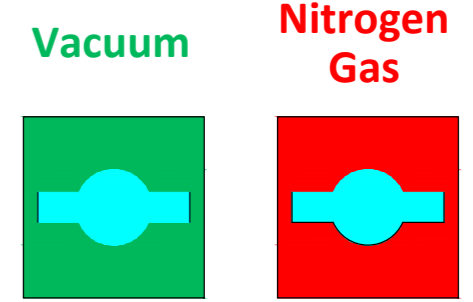
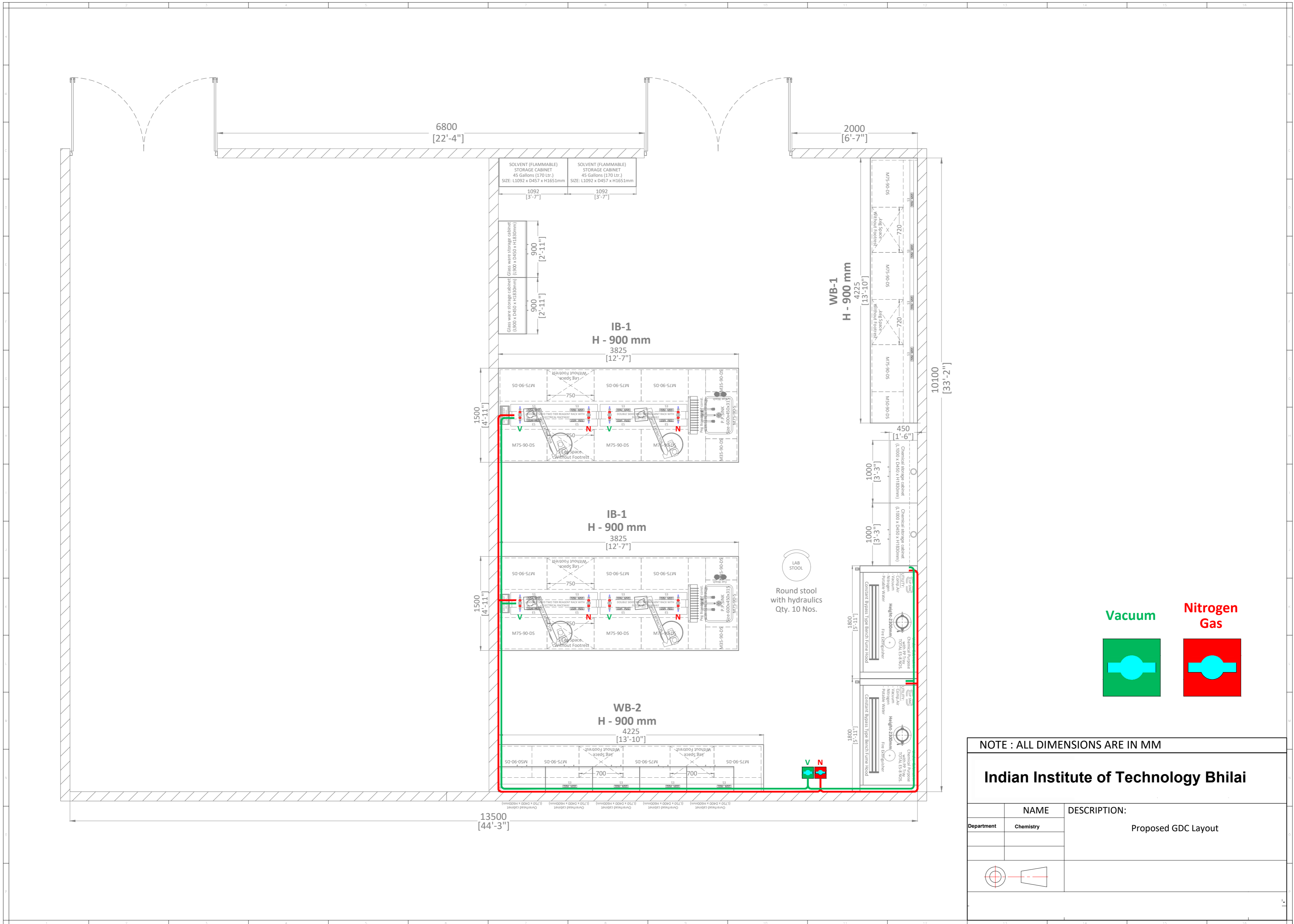
NAME		DESCRIPTION:
Department	Chemistry	
		Layout of Laboratory Workstations in Plinth Mounted Design and Fume Hoods



NOTE : ALL DIMENSIONS ARE IN MM

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NAME		DESCRIPTION:
Department	Chemistry	
		



NOTE : ALL DIMENSIONS ARE IN MM

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NAME	DESCRIPTION:
Department: Chemistry	Proposed GDC Layout