RENOVATION OF MUSHOLLA AL IKHLAS AT JL. RAWASARI TIMUR NO.18, RT.18/RW.2, CEMPAKA PUTIH TIMUR, JAKARTA PUSAT

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ABSTRACT

The current condition of Mushollah Al Ikhlas needs to be developed because the congregation of Mushollah Al Ikhlas is increasing and increasingly unable to be accommodated. In addition to the height of the bathroom floor which is not comfortable to use, the number of toilets is only one, there is only one ablution area, there is no division of ablution areas for men and women. When Friday prayers are often not accommodated, the congregation is often not accommodated, especially when the month of Ramadan arrives, the congregation is not accommodated so that they are forced to worship in the road area around the Al Ikhlas Mosque. To overcome this problem, the manager of the Al Ikhlas Mushollah wants to increase the Mushollah room to 2 floors. Based on these conditions, it is necessary to develop and add facilities for the Mushollah Al Ikhlas, thus it is necessary to design the renovation of the Mushollah Al Ikhlas as a first step before the construction of the renovation of the Mushollah Al Ikhlas. The method of implementing the activities uses the Architectural Design Process. Where the design of the renovation of the Mushollah Al Ikhlas is adjusted to the input from the manager of the Mushollah, while the working drawings of the design of the renovation of the Mushollah are adjusted to architectural standards. The purpose of the Mushollah renovation design is so that the Mushollah is able to accommodate worshipers when performing Friday prayers and tarawih activities during the month of Ramadan in accordance with architectural standards and in accordance with the concept of the Cempaka Putih Mushollah, so that provide comfort for the congregation of Mushollah. The stages of implementing the activity begin with licensing the implementation of activities, site surveys or location observations, coordination with the mosque management, measuring and drawing the mosque to be renovated, making working drawings, Budget Plans, and 3D drawings of buildings, drawing consultations, construction of mosque renovations, monitoring development progress. The result of this activity is the application of architectural design in the construction of the renovation of the Al Ikhlas mosque in Cempaka Putih, Central Jakarta.

Keywords: renovation, Mushollah Al Ikhlas, architectural design, Cempaka Putih

1. BACKGROUND

Mushollah is a place for the establishment of the five daily prayers continuously, whose land position is waqf. Mushollah in Arabic is a small place or house resembling a mosque which is used as a place for reading and praying for Muslims. Mushollah is also often referred to as a surau or langgar. One of the mosques in Cempaka Putih Village is Al Ikhlas Mosque which is located on Jalan Rawasari Timur, RT.18/RW.02, Cempaka Putih Timur Village, Cempaka Putih District, Central Jakarta. Al Ikhlas Mushollah is one of several Mushollahs located in RW 02. Al Ikhlas Mushollah was built independently by the local community in 2002. The Mushollah land is waqf land from one of the residents on Jalan Rawasari. Until now, Mushollah Al Ikhlas continues to develop due to the increasing number of worshipers and the increasing number of activities accommodated by the mosque. Currently, Al Ikhlas Mosque has a land area of \pm 1,287m2 and a building area of \pm 1,106m2. This mosque was built in 2002, and until now it has never done any renovations. The mosque, which is estimated to accommodate approximately 550 worshipers, is deemed necessary to develop, considering that during Friday prayers and the month of Ramadan, pilgrims who come to the mosque are not accommodated. With land that is no longer possible to develop horizontally, the manager of Al Ikhlas Mushollah wants to renovate the Mushollah into 2 floors. Thus, it is necessary to develop and add facilities from the Al Ikhlas Mosque, so the idea was born to carry out the "Renovation of Al Ikhlas Mushollah in Cempaka Putih, Central Jakarta".

The problem of Mushollah Al Ikhlas is the area of land that does not support it to be developed horizontally, even though the congregation of Mushollah is quite large and continues to grow from time to time. In addition, there were also several things that were stated by the Mushollah Management regarding the physical buildings that had not fully met the needs as a means of worship for Muslims. The problems that exist in Mushollah Al Ikhlas in more detail include:

- 1. Increasing the main area of the Mushollah vertically upwards by increasing the Mushollah building to 2 floors.
- There is no division of ablution areas for men and women. Currently there is only 1 ablution area, namely on the left side of the Mushollah.
- 3. There is only 1 toilet and there is no division of toilets for men and women.
- 4. In the facade of the Mushollah building, adjustments need to be made, the opening area in the form of bouvenlight is not suitable, because the opening is in the form of an arch, while the bouvenlight used is rectangular.
- 5. There is no space for storage or warehouse. Currently the storage room is one with the Mushollah secretariat room.
- 6. The addition of a minaret to place a sound system that can be accessed and maintained easily.
- 7. With these conditions, it is necessary to design the renovation of the Al Ikhlas Mosque, in order to be able to accommodate the number of worshipers and in accordance with architectural comfort standards.

As a solution to the problem with the Al Ikhlas Mushollah in Cempaka Putih, Central Jakarta, the resulting output targets are a working drawing of the renovation of the Al Ikhlas Mushollah, a renovated 3-dimensional image and also the application of architectural design in the construction of the renovation of the Al Ikhlas mosque in Cempaka Putih, Central Jakarta.

2. METHODS

The method of solving Mushollah Al Ikhlas problems is to renovate the Mushollah Al Ikhlas building which was originally 1 floor to 2 floors and some changes to the existing building to provide comfort for its users. Renovation of the Mushollah Al Ikhlas building using the Architectural Design Process Method.

- 1. At the initial stage, the problems that exist in the Al Ikhlas Mosque in the Cempaka Putih Timur Village, Cempaka Putih District, Central Jakarta are studied. The problem with Mushollah Al Ikhlas is that the building is no longer able to accommodate the increasing number of worshipers.
- At the implementation stage, a study was conducted on the renovation of the Mushollah building from 1 floor to 2 floors both in terms of structure, architecture and electrical mechanics.
- 3. At the final stage, the renovation drawings of the Mushollah AL sincere building were made including site plans, floor plans, views, cuts, plans and details as well as exterior and interior 3D drawings. In addition, working drawings are equipped with a Budget Plan.

The stages of implementing the Mushollah Al Ikhlas Renovation Design in the Cempaka Putih Timur Village, Cempaka Putih District, Central Jakarta in accordance with the architectural design process:

- 1. Make a permit for the implementation of Community Service
- 2. Conducting a survey in the field
- 3. Create a design concept
- 4. Making designs
- 5. Making working drawings
- 6. Dissemination of the design to the mosque management
- 7. Make a final report

3. RESULTS AND DISCUSSION

Regional Profile of Mushollah Al Ikhlas

Mushollah Al Ikhlas is located in Cempaka Putih Village, which is located on Jalan Rawasari Timur, RT.18/RW.02, Cempaka Putih Timur Village, Cempaka Putih District, Central Jakarta.

North: bordered by SMPN 47 Central Jakarta.

South: bordered by Jl. Rawasari Timur 1, Central Jakarta
East: bordered by Jl. Inner East Rawasari, Central Jakarta
West: bordered by Jl. Rawasari Barat VIII, Central Jakarta.



Picture 1. Location of Al Ikhlas Mus Mosque Source: https://www.google.co.id/maps/place/Mushollah+Al+Ikhlas

The Existing Condition of Mushollah Al Ikhlas

The current condition of the Mushollah is a one-story building with an area of 1,106 m2. The facade of Mushollah Al Ikhlas is finished with plain white ceramic measuring 10cmx20cm which is arranged upright. The openings are made of aluminum and some of the openings still use wood. For other facade areas, Mushollah Al Ikhlas uses bright blue paint and some of the walls are not massive but combined with a roaster to provide ventilation but the privacy of Mushollah users is maintained. This area is expected by the Mushollah management to be used as an area for the establishment of the Minaret.



Picture 2. East side facade / front view of Mushollah Al Ikhlas



Picture 3. West side facade of Mushollah Al Ikhlas

The outside of the ablution area and toilet, the walls are covered with ceramics. The opening uses a roaster that is painted in blue. The height of the walls surrounding this area is not the same. There is a low part and a high

part. But both are open as full walls up to the roof. In the toilet area which is on the left side of the Mushollah, the walls are plastered with bright blue paint. Opening using Aluminum door. Window openings use bouvenlight with the same material. The roof uses a concrete deck with lisplank painted in bright blue. Around the mosque, there is an additional roof using asbestos. This is done to accommodate the congregation which often overflows to the outside of the Mushollah area. Some parts of the roof that surrounds the Mushollah are combined with a plain white translucent roof, so that the area covered by the roof still gets light during the day.

The walls of the Mushollah are also not completely massive, some glass blocks are placed 80 cm apart to give the impression of being open without compromising the privacy of the Mushollah users. Galssblock is installed diagonally as high as 90 cm (As) from the floor surface. In the right corner of the Mushollah which is used for the notice board, it is planned to be used as a staircase area to the 2nd floor of the Mushollah building. So access to the 2nd floor is not from the inside of the Mushollah but can be easily reached from the main door of the Mushollah. In this area, apart from a notice board, there is also an opening in the form of a window towards the front facade of the Mushollah along with its bouvenlight.

The room in the Mushollah on the floor uses white ceramics and the top is a prayer rug shaft for worshipers which is green and has an Islamic pattern. In the boovenlight, it has an opening in the form of a curve, but the shape of the bouven used remains rectangular. Maybe at first it was an open air hole, then as the needs of the Mushollah congregation continued to grow and so that the room was still comfortable, air conditioning was added. So that the previously open vent is closed and bouvenlight is added.

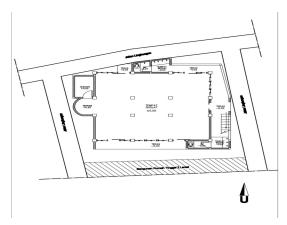
The Mihrab area on the walls is finished with white ceramics measuring 10cmx20cm arranged upright. The walls in this area also have decorative elements in the form of calligraphy which have a golden color and a black base. Some form like a ribbon that surrounds it to form a border. Some are horizontal like a long painting, and some are circular. The ceiling height is 3.00 m from the floor surface, and uses a ceiling that is finished with white paint. The shape of the ceiling in the main area of the Mushollah follows the slope of the roof.

There is also a pause area on the right side of the Mushollah which is the residence of the Mushollah Management. This area has a width of about 2m and the length follows the size of the Mushollah. From the front shaft to the front porch of the Mushollah. The floor is ceramic and the walls are 150 cm low. This area is also often used for pilgrims who overflow and are not accommodated in the main room of the Mushollah.

Renovation Design of Mushollah Al Ikhlas

The concept of Renovation of Mushollah Al Ikhlas was made based on the results of interviews and

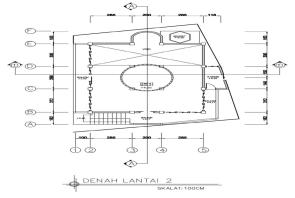
observations and based on architectural quality standards. In the site plan image, it can be seen that the Mushollah Al Ikhlas building with environmental roads on all four sides (Picture 10). On the west side of the Mushollah building there is an environmental road where on that side is maintained the position of the tower that will soar upwards to exceed the height. On the north side there is an access door to Mushollah Al Ikhlas which will be maintained as access from the north side. In addition, on the north side, there will be improvements to the Wudhu Room and Toilet area intended for male worshipers. Then for the East side is the area of the main door of Mushollah Al Ikhlas which will later be placed on the stairs on the left side. On the south side of the Mushollah it is adjacent to the House of Mr. Haji Hasanat who is the owner and manager of the Al Ikhlas Mushollah.



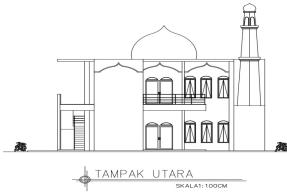
Picture 10. Siteplan of Mushollah Al Ikhlas

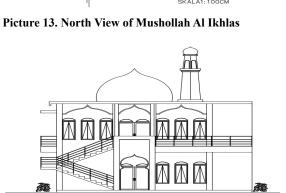


Picture 11. 1st Floor Plan of Mushollah Al Ikhlas

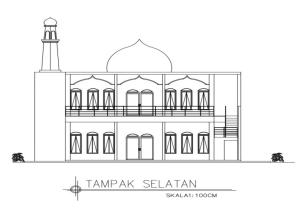


Picture 12. 2nd Floor Plan of Mushollah Al Ikhlas

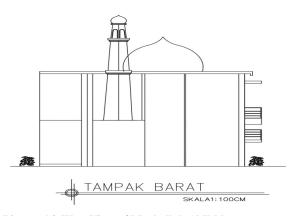




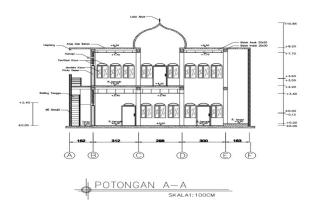
Picture 14. East View of Mushollah Al Ikhlas



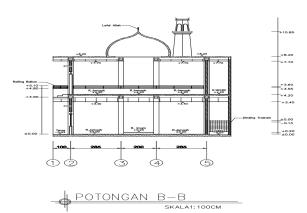
Picture 15. South View of Mushollah Al Ikhlas



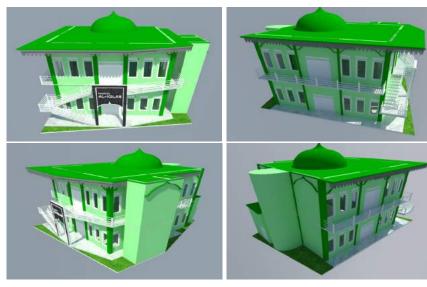
Picture 16. West View of Mushollah Al Ikhlas



Picture 17. Section A-A' of Mushollah Al Ikhlas



Picture 18. Section B-B' of Mushollah Al Ikhlas



Picture 19. 3D Image of Mushollah Al Ikhlas

3D images provide a visual display from a bird's eye perspective covering various angles of the Mushollah Al Ikhlas Pictures 19.

Budget Plan Renovation of Al Ikhlas Mushollah

The Budget Plan for the Renovation of Mushollah Al Ikhlas is prepared based on the stages of work in the field. Each of them is organized into 1 sub-sequential work and is differentiated based on preparatory work, structural work, architectural work, and mechanical and electrical work. The previous preparatory work began with demolition work considering the scope of the work was

Table 1. Budget Plan Renovation of Al Ikhlas Mushollah

renovation work. Structural work includes foundation and concrete work, as well as roof work. Architectural work includes wall work, door and window work, ceiling work, and painting work. while the electrical mechanical work includes; electrical installation work, water installation work, and sanitary work.

The Renovation Progress of Al Ikhlas Mushollah

Starting from mid-April 2020 the renovation of Mushollah Al Ikhlas began to be carried out, the following photos document the progress that has been achieved.

	RENCANA ANGGAR			T		7.		
NO	D URAIAN PEKERJAAN		VOLUME		HARGA SATUAN		JUMEA	
ı Pi	PEKERJAAN BONGKARAN	1 1		-				
1		3,20	m²	Rp	34.500,00	Rp	110.400,0	
2		149,60	m ²	Rp	55.000,00	Rp	8.228.000,	
3		6,40	m ^a	Rp	305.000,00	Rp	1.952.000,	
4		51,20	m'	Rp	34.500,00	Rp	1.766.400,	
5	Bongkar bukaan jendela	98,40	m'	Rp	34.500,00	Rp	3.394.800,	
-				+	Sub jumlah	Rp	15.451.600,	
PI	PEKERJAAN PERSIAPAN							
1	Pembersihan lokasi	130	m²	Rp	9.000,00	Rp	1.170.000	
2		16,00	m'	Rp	95.480,00	Rp	1.527.680	
3		12,80	m,	Rp	5.800,00	Rp	74.240	
5		4,27 3,20	m³	Rp	209.200,00	Rp Rp	82.411 669.440	
6		13,00	m³	Rp	209.200,00	Rp	2.719.600	
			2755.0-1.		Sub jumlah		6.243.371	
	PEKERJAAN PONDASI DAN BETON							
2		3,32 4,35	m ^a	Rp	667.700,00 1.875.300.00	Rp	2.216.764 8.157.555	
3		1,46	ma	Rp	4.718.600,00	Rp	6.889,156	
4		7,27	m ^a	Rp	6.241.525,00	Rp	45.375.886	
5	kolom beton bertulang suntik 15x20cm (200kg besi + bekisting)	2,27	ma	Rp	6.471.525,00	Rp	14.690.361	
6	Balok beton bertulang 20x30cm (225kg besi + bekisting)	3,28	m³	Rp	5.932.050,00	Rp	19.457.124	
7		0,20	mª	Rp	6.192.750,00	Rp	1.238.550	
8		2,46	m³	Rp	4.112.500,00	Rp	10.116.750	
9		0,31	m*	Rp	4.112.500,00 5.729.500,00	Rp	1.274.875	
1:	10 Plat beton bertulang tebal 12cm (115kg besi + bekisting) 11 Tangga beton bertulang (200kg besi + bekisting)	8,6 1,16	m ₃	Rp	5.587.000,00	Rp	6.480.920	
	12 Beton lantai kerja dibawah lantai, 1 PC : 3 split : 5 pasir	4,95	ma	Rp	883.550,00	Rp	4.373.572	
		4,55	(ZAR)	*****	Sub jumlah		169.373.330	
PI	PEKERJAAN PASANGAN DAN PLESTERAN	42277		-				
2	Dinding bata merah 1 PC : 3 pasir (KM/WC lantai 1 dan 2)	102,12	m² m²	Rp	122.250,00	Rp	12.484.170	
3		161,13	m _s	Rp	49.350,00	Rp	10.079.244	
4		322,25	m²	Rp	46.350,00	Rp	14.936.287	
5		322,25	m²	Rp	31.800,00	Rp	10.247.550	
		1	1000	1	Sub jumlah	Rp	66.888.901	
-	PEKERJAAN KERAMIK LANTAI DAN DINDING			-				
2		96,26	m²	Rp	114.780,00 114.780,00	Rp	11.048.722 7.988.688	
3		69,60	m²	Rp	116.590,00	Rp Rp	86.276	
4		8,31	m²	Rp	114.780,00	Rp	953.247	
5		21,48	m²	Rp	136.390,00	Rp	2.929.657	
6		41,86	m'	Rp	34.700,00	Rp	1.452.542	
ı Pi	PEKERJAAN ATAP	1 1000	77394	-	Sub jumlah	Rp	24.459.134,	
1 1		1,00	Is	Rp	28.000.000,00	Rp	28.000.000	
2		16,00	pcs	Rp	850.000,00	Rp	13.600.000	
3	Plat beton bertulang tebal 12cm (115kg besi + bekisting)	12,61	mª	Rp	5.729.500,00	Rp	72.248.995	
n D	PEKERJAAN PLAFOND			+	Sub jumlah	Rp	41.600.000	
1	1704 174 174 174 174 174 174 174 174 174 17	160,73	m²	Rp	40.000,00	Rp	6.429.200	
2	Plafond Gypsum tebal 9mm (lantal 1 dan 2)	160,73	m²	Rp	60,000,00	Rp	9.643.800	
3		83,72	m'	Rp	150.000,00	Rp	12.558.000	
II PI	PEKERJAAN KUSEN, PINTU DAN JENDELA	_		+	Sub jumlah	Rp	28.631.000	
1	Kusen kayu kamper samarinda 6/15 (lantai 1 dan 2)	1,89	m ^a	Rp	8.730.000,00	Rp	16,499,700	
2		8,00	m²	Rp	473.450,00	Rp	3.787.600	
3		2,00	bh	Rp	662.600,00	Rp	1.325.200	
4		35,00	m²	Rp	738.000,00	Rp	25.830.000	
5	8 Bouvenlight	45,00	m²	Rp	452.000,00 Sub jumlah	Rp	20.340.000 67.782.500	
(P	PEKERJAAN AKSESORIS PINTU DAN JENDELA L Kunci pintu 2 slaag (lantai 1 dan 2)	2,00	bh	Rp	293.400,00	Rp	586.800	
2	Kunci pintu KM/WC tipe Alpha bulat (lantai 1 dan 2)	2,00	bh	Rp	114.900,00	Rp	229.800	
3		30,00 70,00	bh bh	Rp	47.300,00 27.900,00	Rp	1.419.000	
5	Grendel pintu double	2,00	bh	Rp	95.500,00	Rp	191.000	
6	Grendel jendela (lantai 1 dan 2)	35,00	bh	Rp	83.500,00	Rp	2.922.500	
8	3 Tarikan jendela (lantai 1 dan 2)	70,00 35,00	bh bh	Rp	32.200,00 85.100,00	Rp	2.254.000	
9	Kaca polos 3mm (lantai 1 dan 2)	30,45	m²	Rp	109.300,00	Rp	3.328.185 631.800	
	10 Kaca polos 5mm (lantai 1 dan 2)	5,40	m²	Rp	117.000,00 Sub jumlah	Rp Rp	631.800 16.494.585	
P	PEKERJAAN SANITAIR 1 Kloset jongkok (lantai 1)	2,00	bh	Rp	450.000,00	Rp	900.000	
2	Kran air KM/WC (lantai 1 dan 2)	9,00	bh	Rp	48.600,00	Rp	437.400	
3	B Floordrain KM/WC (lantai 1 dan 2)	4,00	bh	Rp	130.900,00 Sub jumlah	Rp Rp	523.600 1.861.00 0	
	PEKERJAAN INSTALASI AIR							
1 2		32,00 96.00	m'	Rp	19.380,00	Rp	620.160 3.590.400	
3	Pipa PVC 4 inchi (lantai 1)	26,00	m'	Rp	69.500,00	Rp	1.807.000	
4	Aksesoris lain (lem pipa, ampelas, sambungan dll 10 %)	1,00	Is	Rp	429.760,00 Sub jumlah	Rp Rp	429.760 6.447.320	
	PEKERJAAN INSTALASI LISTRIK							
2	Intalasi titik nyala lampu kabel NYM 2X2.5mm (lantai 1 dan 2) Instalasi titik daya stop kontak lampu kabel NYM 3X2.5mm (lantai 1 dan 2)	33,00	titik titik	Rp	202.000,00	Rp	6.666.000 1.410.000	
3	3 Lampu SL 18 watt	17,00	bh	Rp	47.350,00	Rp	804.950	
5		14,00	bh bh	Rp Rp	69.950,00 2.140.000,00	Rp Rp	979.300 2.140.000	
		1,00	J.,	1	Sub jumlah	Rp	12.000.250	
II PI	PEKERJAAN PENGECATAN L Dinding cat tembok kualitas baik (lantai 1 dan 2)	322,25	m²	Rp	74.040,00	Rp	23.859.390	
2	Plafond cat tembok kualitas sedang (lantai 1 dan 2)	160,73	m²	Rp	54.540,00	Rp	8.766.214	
5	Listplafond cat waterbased (lantai 1 dan 2)	5,86 50,50	m² m²	Rp	73.850,00 73.850,00	Rp Rp	432.790 3.729.129	
10	7 Bouvenlight cat minyak (lantai 2)	9,72	m²	Rp	73.850,00	Rp	717.822	
7		28,80	m²	Rp	73.850,00	Rp	2.126.880 5.086.788	
8		'						
9		68,88 105,10	m² m²	Rp Rp	73.850,00 131.525,00 Sub jumlah	Rp Rp	13.823.27	



Picture 20. Before renovation of the northwest corner of Mushollah Al Ikhlas (left) and after renovation (right)



Picture 21. Before renovation of the east side of Mushollah Al Ikhlas (left) and after renovation of window openings (right))



Picture 22. Before renovation as a notice board display area (left) and after renovation as a staircase area (right)



Picture 23. Prayer Room Area on the 1st floor before renovation



Picture 24. Prayer Room Area on the 1st floor after renovation



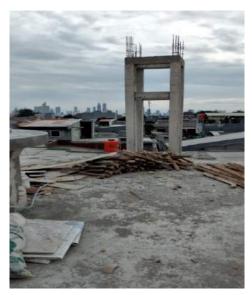
Picture 25. Prayer Room Area on the 2nd floor.



Picture 26. Dome support structure



Picture 27. The 2nd floor pavilion which is on the south side



Picture 28. Reinforced concrete structure Tower of flat roof floor.

A series of Community Service activities carried out from the initial introduction, submission of proposals for Community Service. Followed by an interview with the Chairman of the Prosperity Council Mushollah Al Ikhlas. All information was extracted to assist in drafting the concept and presenting architectural drawings carried out by the Community Service Team, lecturers and students of the Architecture Study Program, Faculty of Engineering, Budi Luhur University. And don't forget to monitor the implementation of the renovation of Mushollah Al Ikhlas.



Picture 29. Community Service Team of Musholla Al Ikhlas took a group photo in the Prayer Room on the 1st floor before renovation (left) and after renovation (right).

CONCLUSION

Implementation of Community Service at Mushollah Al Ikhlas includes drafting concepts, presenting preliminary drawings of 2D and 3D designs as well as preparing a Budget Plan and monitoring. The renovation of the Al Ikhlas Mosque is the answer to the need for the expansion of the Mushollah building because the number of worshipers continues to grow. Because the land is not possible to be expanded horizontally, the expansion is carried out vertically by adding the floor of the Mushollah Al Ikhlas building which was originally only one floor to 2 floors.

The activity of renovating the Al Ikhlas Mosque as Community Service which was carried out was a long process with several improvements to the image as a form of adjustment to the implementation in the field. Therefore, it is very important to carry out the process of monitoring and adapting to technical changes in the field so that the construction of the Al Ikhlas Mushollah Renovation continues to completion. This is really a real test for lecturers and students in applying knowledge in the field of architecture to the real form of implementing building construction.

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