

## 計畫摘要

一、計畫名稱：105 年度嘉義市加強街道揚塵洗掃街計畫

二、執行期程：自簽約日起至 105 年 12 月 15 日止

三、執行單位：欣欣環保工程股份有限公司

四、工作內容完成進度：

1. 自 105 年 5 月 1 日開始執行，統計至 105 年 12 月 15 日為止，洗街作業執行 13,370.7 公里、掃街作業執行 12,538.2 公里，洗掃執行長度為 25,908.9 公里，累計達成率為 100%。

2. 洗掃街污染削減量效益推估：

本年度累計洗掃街長度為 25,908.9 公里，依據環保署減量公式(削減量＝洗掃街長度×減量係數)推估，TSP 可削減 357.54 噸、PM<sub>10</sub> 為 67.36 噸及 PM<sub>2.5</sub> 15.73 噸。另依據 105 年嘉義市空氣污染防制計畫書，本計畫歸屬之管制類別為「逸散污染源」，採行管制策略為「加強街道揚塵洗掃作業」，削減規劃方式為「執行洗掃街作業」(含局屬清潔隊作業)，預定執行洗掃長度共 80,000 公里，預期可削減 TSP 1,104.0 噸、PM<sub>10</sub> 208.0 噸及 PM<sub>2.5</sub> 48.6 噸，本計畫執行及局屬清潔隊(統計至 12 月 15 日)，共執行洗掃長度共 82,068.9 公里，預期可削減 TSP 1,132.55 公噸、PM<sub>10</sub> 213.38 公噸及 PM<sub>2.5</sub> 49.82 公噸，已達到目標 100%。

3. 道路髒污情況普查：

為加強掌握及提升嘉義市道路髒污等級，並作為定期規劃洗掃街路線之參考依據，本計畫每月對嘉義市洗掃街道路進行全面性道路普查工作。從 3 月起開始進行道路普查工作，統計至 12 月共計進行 320 條次，普查總公里數達 735.0 公里，普查結果 A 級道路佔 89% 以上、B 級道路佔 11%。

4. 洗掃街現場作業查核：

執行每周兩次之道路查核，本年度統計至 12 月 15 日，洗掃街作業各查核進行 82 次以上，累計查核長度達 1,048.5 公里。

5. 民眾滿意度調查

民眾滿意度調查依據問卷調查結果顯示，有 90% 之調查民眾認為洗掃街作業可使空氣品質改善，95% 之調查民眾對整體洗掃街作業成效持肯定態度，高達 98% 的受訪者表示贊成洗掃街車作業，整體而言民眾對於洗掃街作業成果相當滿意。



英文摘要：

## Abstract

- I. Plan Name : Strengthen plans on the street washing and sweeping caused by wind-born dust for the Chiayi City in 2016.
- II. Plan Time : The project duration spanned since the signing date to December 15, 2016.
- III. Implement Company : Shin Shin Environmental Protection Engineering CO., LTD.
- IV. The work content completes the progress :
  - (I) The street-washing and sweeping work had executed since May 1, 2016 until December 15, 2016, executive amount of street washing vehicles are 13,370.7 kilometers ; The street sweeper duties accounts for 12,538.2 kilometers, accumulate execution length are 25,908.9 kilometers, completes the progress to reach 100% .
  - (II) Effective estimation of pollution reducing by street washing and sweeping  
This year street wash and sweep accumulated 25,908.9 kilometers length of the year is according to EPA reduction formula (reductions = length of wash and sweep × reduction coefficient), estimate the reduction of TSP are 357.54 tones, PM<sub>10</sub> are 67.36 tones ,and PM<sub>2.5</sub> are 15.73 tones. Based on the control plan of air pollution in Chiayi City, 2016, the plan vest control category of "fugitive sources of pollution", and the adoption of control strategies are "Strengthening street dust cleaning and sweeping job", cuts planning approach is "the implementation of cleaning and washing Street operations"(including the cleaning units of Chiayi City). The scheduled to perform washing and sweeping length is 80,000 km, which is expected can be reduced TSP 1,104.0 tones and PM<sub>10</sub> 208.0 tones and PM<sub>2.5</sub> 48.6 tones, while this project execution with the cleaning units of Chiayi City statistics perform washing and sweeping the length (Statistics to December 15) of a total of 82,068.9 kilometers, expected to reduce TSP 1,132.55 tones and 213.38 tones of PM<sub>10</sub> and 49.82 tones of PM<sub>2.5</sub>, The target has been reached 100%.
  - (III) Census of dirt road circumstances  
To strengthen mastered and enhance road dirt level in Chiayi City, and as the reference regularly planning wash and sweep Street route, this project monthly street washing Road, Chiayi City conducted a comprehensive road census. Road census since February to December, statistics a total of 320 times, the census total mileage of 735.0 kilometers, Result shows that A-class roads accounted for 89%; B-class roads accounted for 11%.
  - (IV)Operational audit of street-washing



Performed once two weeks. Statistics to December 15 this year , Street-washing and sweeping work to check the operation on above 82 times, the total audit length of sweepers accumulative 1,048.5km.

(V) Public satisfaction survey

Public satisfaction survey According to the result of questionnaires, the 90% of respondents agree the city air quality can be change utilizing the street sweeping plan. 95% of respondents have a positive attitude on street fugitive dust improvement plan. What is more, 98% of support this project. Overall the most people are very satisfied.



項次	工作項目	目標數	單位	進度分析	3月	4月	5月	6月	7月	8月	9月	10月	11月	12月	合計	達成率
1	洗街作業	12500	公里	預定進度	-	500	1,100	1,200	1,300	1,400	1,400	2,400	2,200	1,000	12,500	100%
				實際進度	-	0.0	1,717.3	1,484.3	1,391.8	1,725.2	1,351.1	2,299.4	2,375.4	1,026.2	13,370.7	
2	掃街作業	12500	公里	預定進度	-	400	1,100	1,200	1,400	1,600	1,600	2,400	2,000	800	12,500	100%
				實際進度	-	0.0	1,633.5	1,460.6	1,577.8	1,474.2	1,294.8	2,221.5	2,122.8	753.0	12,538.2	
3	週報	33	式	預定進度	-	-	4	4	5	4	5	4	4	3	33	100%
				實際進度	-	-	4	4	5	4	5	4	4	3	33	
4	月報	10	式	預定進度	1	1	1	1	1	1	1	1	1	1	10	100%
				實際進度	1	1	1	1	1	1	1	1	1	1	10	
5	洗掃街作業查核	66	次	預定進度	-	-	8	8	10	8	10	8	8	6	66	100%
				實際進度	-	-	8	10	8	10	8	8	8	6	66	
6	道路普查	10	次	預定進度	1	1	1	1	1	1	1	1	1	1	10	100%
				實際進度	1	1	1	1	1	1	1	1	1	1	10	
7	TSP、街塵負荷檢測	60	點次	預定進度	-	-	24	-	-	-	36	-	-	-	60	100%
				實際進度	-	-	30	-	-	-	30	-	-	-	60	
8	問卷調查	350	份	預定進度	-	-	-	150	-	-	-	200	-	-	350	100%
				實際進度	-	-	-	150	-	-	-	209	-	-	359	
9	車身彩繪	2	輛	預定進度	-	2	-	-	-	-	-	-	-	-	2	100%
				實際進度	-	2	-	-	-	-	-	-	-	-	-	
10	緊急應變措施規劃	1	式	預定進度	-	1	-	-	-	-	-	-	-	-	1	100%
				實際進度	-	1	-	-	-	-	-	-	-	-	-	
11	紅布條	2	條	預定進度	-	2	-	-	-	-	-	-	-	-	2	100%
				實際進度	-	2	-	-	-	-	-	-	-	-	-	
12	宣導品	500	份	預定進度	-	-	-	-	-	500	-	-	-	-	500	100%
				實際進度	-	-	-	-	-	500	-	-	-	-	-	
13	水質檢測	2	次	預定進度	-	1	-	-	1	-	-	-	-	-	2	100%
				實際進度	-	1	-	-	1	-	-	-	-	-	-	
14	示範推廣宣導	1	場次	預定進度	-	-	-	-	-	1	-	-	-	-	1	100%
				實際進度	-	-	-	-	-	1	-	-	-	-	-	

備註：進度統計至 105 年 12 月 15 日