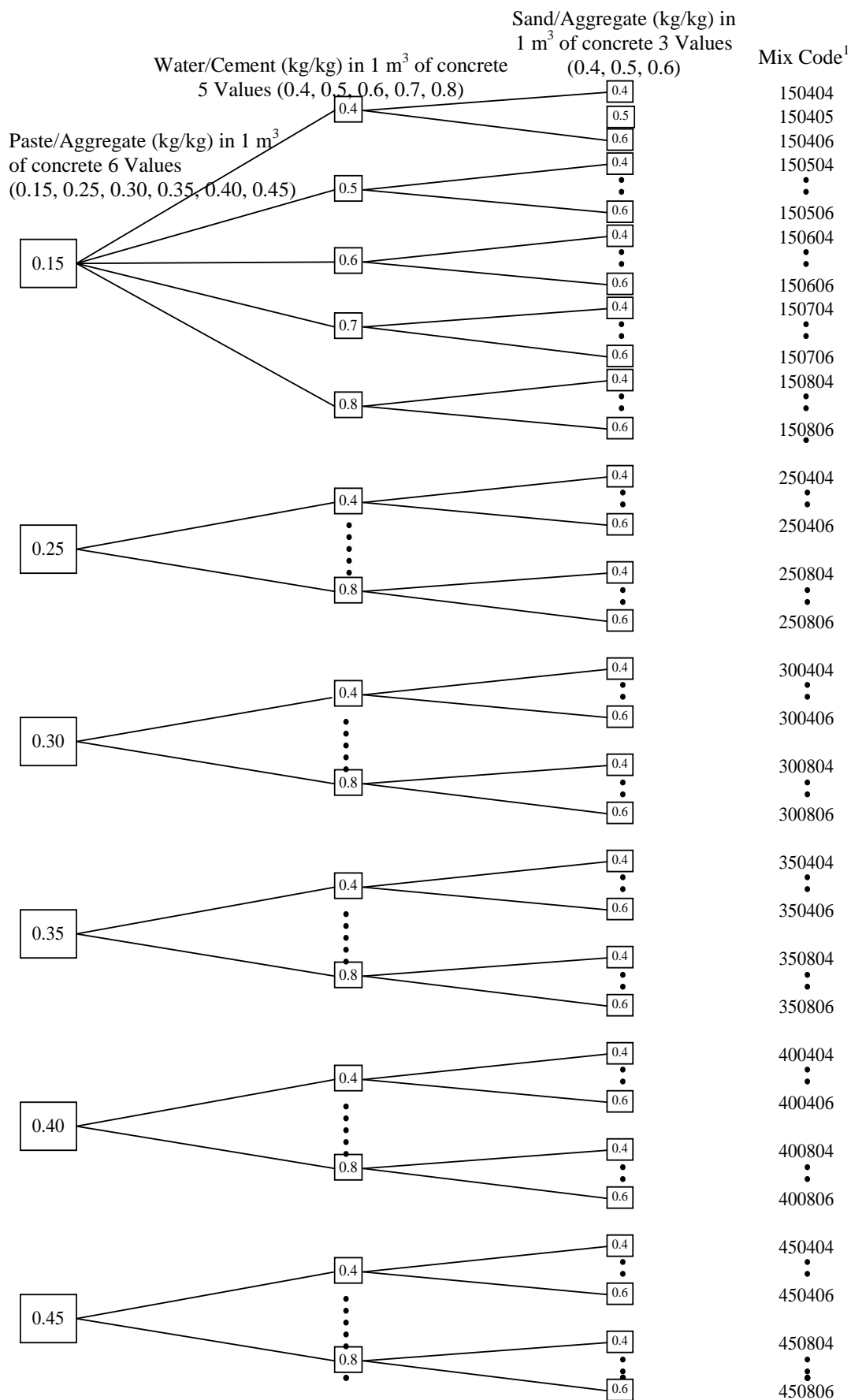


ภาคผนวก ก

ตัดส่วนผสมคอนกรีต



รูปที่ ผ.ก.1 พังแสดงการออกแบบสัดส่วนผสมคอนกรีต

ตารางที่ ผ.ก.1 สัดส่วนผสมคอนกรีตที่ทำการออกแบบ

| No. | Mix Code ¹ | Criteria of Mix Design | | | Proportion of 1 m ³ Concrete, kg | | | |
|-----|-----------------------|------------------------|-----|-----|---|--------|----------|----------|
| | | Paste/Agg | W/C | S/A | Water | Cement | Sand | Rock |
| 1 | 150404 | 0.15 | 0.4 | 0.4 | 100.98 | 252.46 | 942.52 | 1,413.78 |
| 2 | 150405 | 0.15 | 0.4 | 0.5 | 100.98 | 252.46 | 1,178.15 | 1,178.15 |
| 3 | 150406 | 0.15 | 0.4 | 0.6 | 100.98 | 252.46 | 1,413.78 | 942.52 |
| 4 | 150504 | 0.15 | 0.5 | 0.4 | 117.81 | 235.63 | 942.52 | 1,413.78 |
| 5 | 150505 | 0.15 | 0.5 | 0.5 | 117.81 | 235.63 | 1,178.15 | 1,178.15 |
| 6 | 150506 | 0.15 | 0.5 | 0.6 | 117.81 | 235.63 | 1,413.78 | 942.52 |
| 7 | 150604 | 0.15 | 0.6 | 0.4 | 132.54 | 220.90 | 942.52 | 1,413.78 |
| 8 | 150605 | 0.15 | 0.6 | 0.5 | 132.54 | 220.90 | 1,178.15 | 1,178.15 |
| 9 | 150606 | 0.15 | 0.6 | 0.6 | 132.54 | 220.90 | 1,413.78 | 942.52 |
| 10 | 150704 | 0.15 | 0.7 | 0.4 | 145.54 | 207.91 | 942.52 | 1,413.78 |
| 11 | 150705 | 0.15 | 0.7 | 0.5 | 145.54 | 207.91 | 1,178.15 | 1,178.15 |
| 12 | 150706 | 0.15 | 0.7 | 0.6 | 145.54 | 207.91 | 1,413.78 | 942.52 |
| 13 | 150804 | 0.15 | 0.8 | 0.4 | 157.09 | 196.36 | 942.52 | 1,413.78 |
| 14 | 150805 | 0.15 | 0.8 | 0.5 | 157.09 | 196.36 | 1,178.15 | 1,178.15 |
| 15 | 150806 | 0.15 | 0.8 | 0.6 | 157.09 | 196.36 | 1,413.78 | 942.52 |
| 16 | 250404 | 0.25 | 0.4 | 0.4 | 168.31 | 420.77 | 942.52 | 1,413.78 |
| 17 | 250405 | 0.25 | 0.4 | 0.5 | 168.31 | 420.77 | 1,178.15 | 1,178.15 |
| 18 | 250406 | 0.25 | 0.4 | 0.6 | 168.31 | 420.77 | 1,413.78 | 942.52 |
| 19 | 250504 | 0.25 | 0.5 | 0.4 | 196.36 | 392.72 | 942.52 | 1,413.78 |
| 20 | 250505 | 0.25 | 0.5 | 0.5 | 196.36 | 392.72 | 1,178.15 | 1,178.15 |
| 21 | 250506 | 0.25 | 0.5 | 0.6 | 196.36 | 392.72 | 1,413.78 | 942.52 |
| 22 | 250604 | 0.25 | 0.6 | 0.4 | 220.90 | 368.17 | 942.52 | 1,413.78 |
| 23 | 250605 | 0.25 | 0.6 | 0.5 | 220.90 | 368.17 | 1,178.15 | 1,178.15 |
| 24 | 250606 | 0.25 | 0.6 | 0.6 | 220.90 | 368.17 | 1,413.78 | 942.52 |
| 25 | 250704 | 0.25 | 0.7 | 0.4 | 242.56 | 346.51 | 942.52 | 1,413.78 |
| 26 | 250705 | 0.25 | 0.7 | 0.5 | 242.56 | 346.51 | 1,178.15 | 1,178.15 |
| 27 | 250706 | 0.25 | 0.7 | 0.6 | 242.56 | 346.51 | 1,413.78 | 942.52 |
| 28 | 250804 | 0.25 | 0.8 | 0.4 | 261.81 | 327.26 | 942.52 | 1,413.78 |
| 29 | 250805 | 0.25 | 0.8 | 0.5 | 261.81 | 327.26 | 1,178.15 | 1,178.15 |
| 30 | 250806 | 0.25 | 0.8 | 0.6 | 261.81 | 327.26 | 1,413.78 | 942.52 |

ตารางที่ ผ.ก.1 (ต่อ)

| No. | Mix Code ¹ | Criteria of Mix Design | | | Proportion of 1 m ³ Concrete, kg | | | |
|-----|-----------------------|------------------------|-----|-----|---|--------|----------|----------|
| | | Paste/Agg | W/C | S/A | Water | Cement | Sand | Rock |
| 31 | 300404 | 0.3 | 0.4 | 0.4 | 201.97 | 504.92 | 942.52 | 1,413.78 |
| 32 | 300405 | 0.3 | 0.4 | 0.5 | 201.97 | 504.92 | 1,178.15 | 1,178.15 |
| 33 | 300406 | 0.3 | 0.4 | 0.6 | 201.97 | 504.92 | 1,413.78 | 942.52 |
| 34 | 300504 | 0.3 | 0.5 | 0.4 | 235.63 | 471.26 | 942.52 | 1,413.78 |
| 35 | 300505 | 0.3 | 0.5 | 0.5 | 235.63 | 471.26 | 1,178.15 | 1,178.15 |
| 36 | 300506 | 0.3 | 0.5 | 0.6 | 235.63 | 471.26 | 1,413.78 | 942.52 |
| 37 | 300604 | 0.3 | 0.6 | 0.4 | 265.08 | 441.81 | 942.52 | 1,413.78 |
| 38 | 300605 | 0.3 | 0.6 | 0.5 | 265.08 | 441.81 | 1,178.15 | 1,178.15 |
| 39 | 300606 | 0.3 | 0.6 | 0.6 | 265.08 | 441.81 | 1,413.78 | 942.52 |
| 40 | 300704 | 0.3 | 0.7 | 0.4 | 291.07 | 415.82 | 942.52 | 1,413.78 |
| 41 | 300705 | 0.3 | 0.7 | 0.5 | 291.07 | 415.82 | 1,178.15 | 1,178.15 |
| 42 | 300706 | 0.3 | 0.7 | 0.6 | 291.07 | 415.82 | 1,413.78 | 942.52 |
| 43 | 300804 | 0.3 | 0.8 | 0.4 | 314.17 | 392.72 | 942.52 | 1,413.78 |
| 44 | 300805 | 0.3 | 0.8 | 0.5 | 314.17 | 392.72 | 1,178.15 | 1,178.15 |
| 45 | 300806 | 0.3 | 0.8 | 0.6 | 314.17 | 392.72 | 1,413.78 | 942.52 |
| 46 | 350404 | 0.35 | 0.4 | 0.4 | 235.63 | 589.07 | 942.52 | 1,413.78 |
| 47 | 350405 | 0.35 | 0.4 | 0.5 | 235.63 | 589.07 | 1,178.15 | 1,178.15 |
| 48 | 350406 | 0.35 | 0.4 | 0.6 | 235.63 | 589.07 | 1,413.78 | 942.52 |
| 49 | 350504 | 0.35 | 0.5 | 0.4 | 274.90 | 549.80 | 942.52 | 1,413.78 |
| 50 | 350505 | 0.35 | 0.5 | 0.5 | 274.90 | 549.80 | 1,178.15 | 1,178.15 |
| 51 | 350506 | 0.35 | 0.5 | 0.6 | 274.90 | 549.80 | 1,413.78 | 942.52 |
| 52 | 350604 | 0.35 | 0.6 | 0.4 | 309.26 | 515.44 | 942.52 | 1,413.78 |
| 53 | 350605 | 0.35 | 0.6 | 0.5 | 309.26 | 515.44 | 1,178.15 | 1,178.15 |
| 54 | 350606 | 0.35 | 0.6 | 0.6 | 309.26 | 515.44 | 1,413.78 | 942.52 |
| 55 | 350704 | 0.35 | 0.7 | 0.4 | 339.58 | 485.12 | 942.52 | 1,413.78 |
| 56 | 350705 | 0.35 | 0.7 | 0.5 | 339.58 | 485.12 | 1,178.15 | 1,178.15 |
| 57 | 350706 | 0.35 | 0.7 | 0.6 | 339.58 | 485.12 | 1,413.78 | 942.52 |
| 58 | 350804 | 0.35 | 0.8 | 0.4 | 366.54 | 458.17 | 942.52 | 1,413.78 |
| 59 | 350805 | 0.35 | 0.8 | 0.5 | 366.54 | 458.17 | 1,178.15 | 1,178.15 |
| 60 | 350806 | 0.35 | 0.8 | 0.6 | 366.54 | 458.17 | 1,413.78 | 942.52 |

ตารางที่ ผ.ก.1 (ต่อ)

| No. | Mix Code ¹ | Criteria of Mix Design | | | Proportion of 1 m ³ Concrete, kg | | | |
|-----|-----------------------|------------------------|-----|-----|---|--------|----------|----------|
| | | Paste/Agg | W/C | S/A | Water | Cement | Sand | Rock |
| 61 | 400404 | 0.4 | 0.4 | 0.4 | 269.29 | 673.23 | 942.52 | 1,413.78 |
| 62 | 400405 | 0.4 | 0.4 | 0.5 | 269.29 | 673.23 | 1,178.15 | 1,178.15 |
| 63 | 400406 | 0.4 | 0.4 | 0.6 | 269.29 | 673.23 | 1,413.78 | 942.52 |
| 64 | 400504 | 0.4 | 0.5 | 0.4 | 314.17 | 628.35 | 942.52 | 1,413.78 |
| 65 | 400505 | 0.4 | 0.5 | 0.5 | 314.17 | 628.35 | 1,178.15 | 1,178.15 |
| 66 | 400506 | 0.4 | 0.5 | 0.6 | 314.17 | 628.35 | 1,413.78 | 942.52 |
| 67 | 400604 | 0.4 | 0.6 | 0.4 | 353.44 | 589.07 | 942.52 | 1,413.78 |
| 68 | 400605 | 0.4 | 0.6 | 0.5 | 353.44 | 589.07 | 1,178.15 | 1,178.15 |
| 69 | 400606 | 0.4 | 0.6 | 0.6 | 353.44 | 589.07 | 1,413.78 | 942.52 |
| 70 | 400704 | 0.4 | 0.7 | 0.4 | 388.10 | 554.42 | 942.52 | 1,413.78 |
| 71 | 400705 | 0.4 | 0.7 | 0.5 | 388.10 | 554.42 | 1,178.15 | 1,178.15 |
| 72 | 400706 | 0.4 | 0.7 | 0.6 | 388.10 | 554.42 | 1,413.78 | 942.52 |
| 73 | 400804 | 0.4 | 0.8 | 0.4 | 418.90 | 523.62 | 942.52 | 1,413.78 |
| 74 | 400805 | 0.4 | 0.8 | 0.5 | 418.90 | 523.62 | 1,178.15 | 1,178.15 |
| 75 | 400806 | 0.4 | 0.8 | 0.6 | 418.90 | 523.62 | 1,413.78 | 942.52 |
| 76 | 450404 | 0.45 | 0.4 | 0.4 | 302.95 | 757.38 | 942.52 | 1,413.78 |
| 77 | 450405 | 0.45 | 0.4 | 0.5 | 302.95 | 757.38 | 1,178.15 | 1,178.15 |
| 78 | 450406 | 0.45 | 0.4 | 0.6 | 302.95 | 757.38 | 1,413.78 | 942.52 |
| 79 | 450504 | 0.45 | 0.5 | 0.4 | 353.44 | 706.89 | 942.52 | 1,413.78 |
| 80 | 450505 | 0.45 | 0.5 | 0.5 | 353.44 | 706.89 | 1,178.15 | 1,178.15 |
| 81 | 450506 | 0.45 | 0.5 | 0.6 | 353.44 | 706.89 | 1,413.78 | 942.52 |
| 82 | 450604 | 0.45 | 0.6 | 0.4 | 397.63 | 662.71 | 942.52 | 1,413.78 |
| 83 | 450605 | 0.45 | 0.6 | 0.5 | 397.63 | 662.71 | 1,178.15 | 1,178.15 |
| 84 | 450606 | 0.45 | 0.6 | 0.6 | 397.63 | 662.71 | 1,413.78 | 942.52 |
| 85 | 450704 | 0.45 | 0.7 | 0.4 | 436.61 | 623.73 | 942.52 | 1,413.78 |
| 86 | 450705 | 0.45 | 0.7 | 0.5 | 436.61 | 623.73 | 1,178.15 | 1,178.15 |
| 87 | 450706 | 0.45 | 0.7 | 0.6 | 436.61 | 623.73 | 1,413.78 | 942.52 |
| 88 | 450804 | 0.45 | 0.8 | 0.4 | 471.26 | 589.07 | 942.52 | 1,413.78 |
| 89 | 450805 | 0.45 | 0.8 | 0.5 | 471.26 | 589.07 | 1,178.15 | 1,178.15 |
| 90 | 450806 | 0.45 | 0.8 | 0.6 | 471.26 | 589.07 | 1,413.78 | 942.52 |

หมายเหตุ

¹ เพื่อความสะดวกในการจัดเก็บข้อมูลและการอ้างอิงจึงได้มีการกำหนดรหัสประจำสัดส่วนผสม (Mix Code) ไว้ 6 หลักคือ

1 2 3 4 5 6

โดย

ตัวเลข 2 ตัวแรก (12) หมายถึง อัตราส่วนเพสต์ต่อซีเมนต์ 100

ตัวเลข 2 ตัวถัดไป (34) หมายถึง อัตราส่วนน้ำต่อซีเมนต์ 10

ตัวเลข 2 ตัวสุดท้าย (56) หมายถึง อัตราส่วนทรายต่อมวลรวม 10

เช่น 250405 หมายถึง คอนกรีตที่มีอัตราส่วนเพสต์ต่อมวลรวม เท่ากับ 0.25, อัตราส่วนน้ำต่อซีเมนต์ เท่ากับ 0.40 และอัตราส่วนระหว่างทรายต่อมวลรวมเท่ากับ 0.5