

PLAN

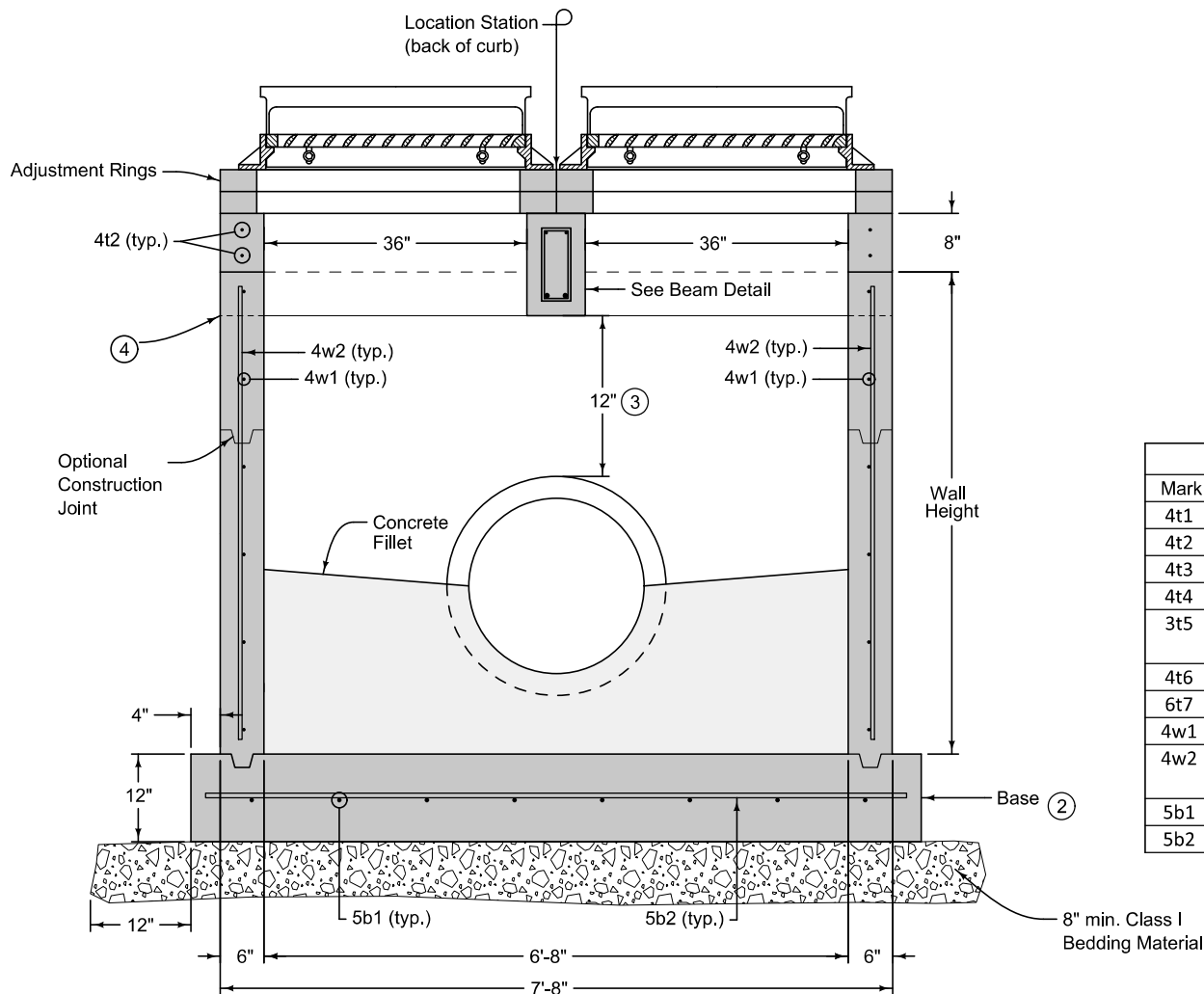
Maximum pipe diameters are set based on maximum structure depth of 6 feet-6 inches.

Refer to SW-514 for boxout details.

- ① Install four #4 diagonal bars at manhole opening and at all pipe openings.
- ② Cast-in-place base shown. If base is precast integral with walls, the footprint of the base is not required to extend beyond the outer edge of the walls.

| MAXIMUM PIPE DIAMETERS |           |
|------------------------|-----------|
| Wall                   | Max. Dia. |
| Front/Back             | 36"       |
| Sides                  | 42"       |

|   |                    |                                       |      |
|---|--------------------|---------------------------------------|------|
| SUDAS                                       | IOWADOT            | REVISION                              |      |
|   |                    | NEW                                   | 2024 |
| FIGURE 6010.516                             | STANDARD ROAD PLAN | SW-516                                |      |
|   |                    | SHEET 1 of 3                          |      |
| REVISIONS: New                              |                    |                                       |      |
| Paul D. Wigand<br>SUDAS DIRECTOR            |                    | Steve Nale<br>DESIGN METHODS ENGINEER |      |
| LARGE WELL DOUBLE GRATE INTAKE WITH MANHOLE |                    |                                       |      |



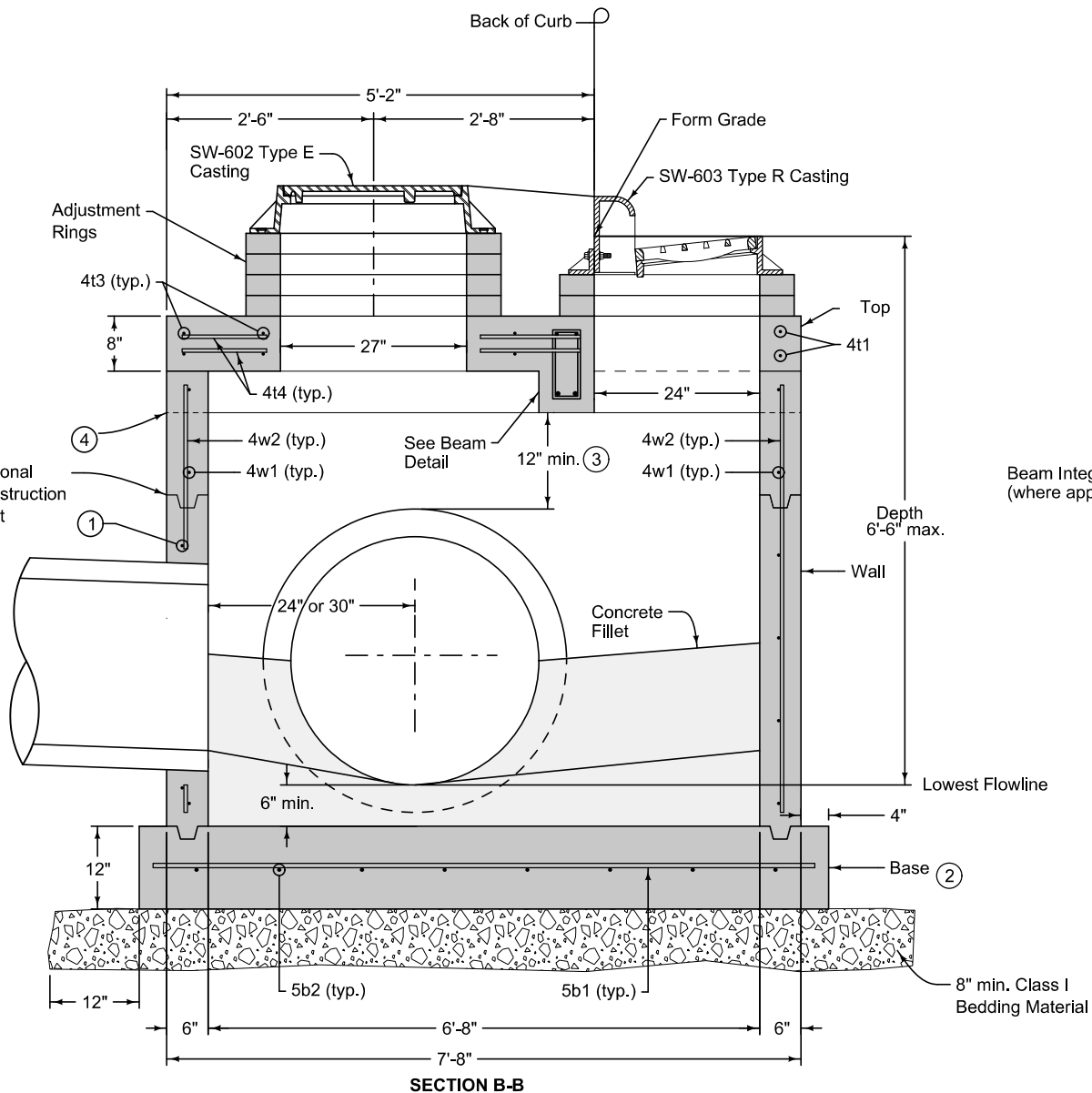
SECTION A-A

- ① Install four #4 diagonal bars at manhole opening and at all pipe openings.
- ② Cast-in-place base shown. If base is precast integral with walls, the footprint of the base is not required to extend beyond the outer edge of the walls.
- ③ 12" minimum wall height above all pipes.
- ④ Form pockets in the wall to receive integral beams in the top.

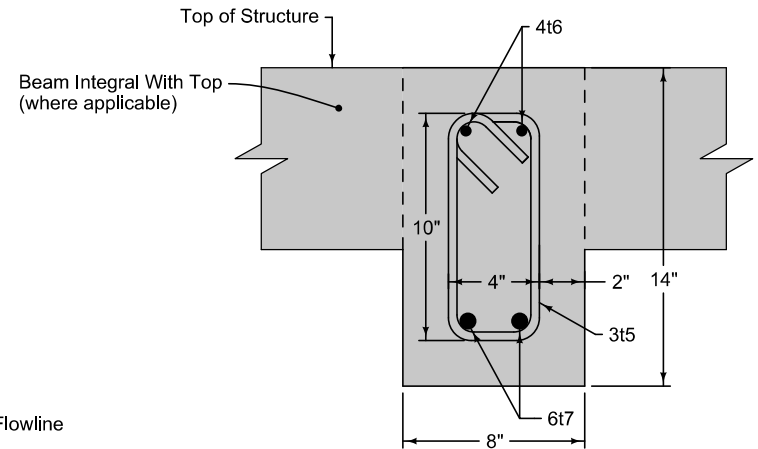
| REINFORCING BAR LIST |      |          |       |        |                      |            |
|----------------------|------|----------|-------|--------|----------------------|------------|
| Mark                 | Size | Location | Shape | Count  | Length               | Spacing    |
| 4t1                  | 4    | Top      | —     | 2      | 7'-4"                | See Detail |
| 4t2                  | 4    | Top      | —     | 4      | 7'-4"                | See Detail |
| 4t3                  | 4    | Top      | —     | 10     | 7'-4"                | 12"        |
| 4t4                  | 4    | Top      | —     | 14     | 4'-2"                | 12"        |
| 3t5                  | 3    | Top      | ⊠     | 30     | 3'-1"                | 6"         |
| 4t6                  | 4    | Top      | —     | 4      | 7'-4"                | See Detail |
| 6t7                  | 6    | Top      | —     | 4      | 7'-4"                | See Detail |
| 4w1                  | 4    | Walls    | —     | Varies | 7'-4"                | 12"        |
| 4w2                  | 4    | Walls    | —     | 32     | Wall Height minus 4" | 12"        |
| 5b1                  | 5    | Base     | —     | 9      | 7'-10"               | 12"        |
| 5b2                  | 5    | Base     | —     | 9      | 7'-10"               | 12"        |

FIGURE 6010.516 SHEET 2 OF 3

|  |                    |                             |
|--|--------------------|-----------------------------|
|  |                    | REVISION                    |
|  |                    | NEW 2024                    |
| FIGURE 6010.516  | STANDARD ROAD PLAN | <b>SW-516</b>               |
|  |                    | SHEET 2 of 3                |
| REVISIONS: New   |                    |                             |
| <br>SUDAS DIRECTOR                                     |                    | <br>DESIGN METHODS ENGINEER |
| <b>LARGE WELL DOUBLE GRATE<br/>INTAKE WITH MANHOLE</b> |                    |                             |



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BEAM DETAIL

|                 |                    |               |      |
|-----------------|--------------------|---------------|------|
| SUDAS           | IOWADOT            | REVISION      |      |
|                 |                    | NEW           | 2024 |
| FIGURE 6010.516 | STANDARD ROAD PLAN | <b>SW-516</b> |      |
|                 |                    | SHEET 3 of 3  |      |

REVISIONS: New

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**LARGE WELL DOUBLE GRATE  
INTAKE WITH MANHOLE**