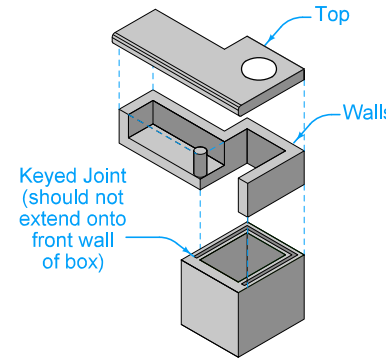


Extension unit may be used on either or both sides of intake. Details are similar when extension unit is on the opposite side. For joint details, refer to PV-101.

- ① Match gutter slope. Drain to well.
- ② Other lengths of opening may be constructed by varying the length of the extension and the rebar.
- ③ Includes 2 inches for 'E'D' Joints.
- ④ 12 inch minimum wall height above all pipes.



ISOMETRIC INTAKE WELL, WALLS AND TOP

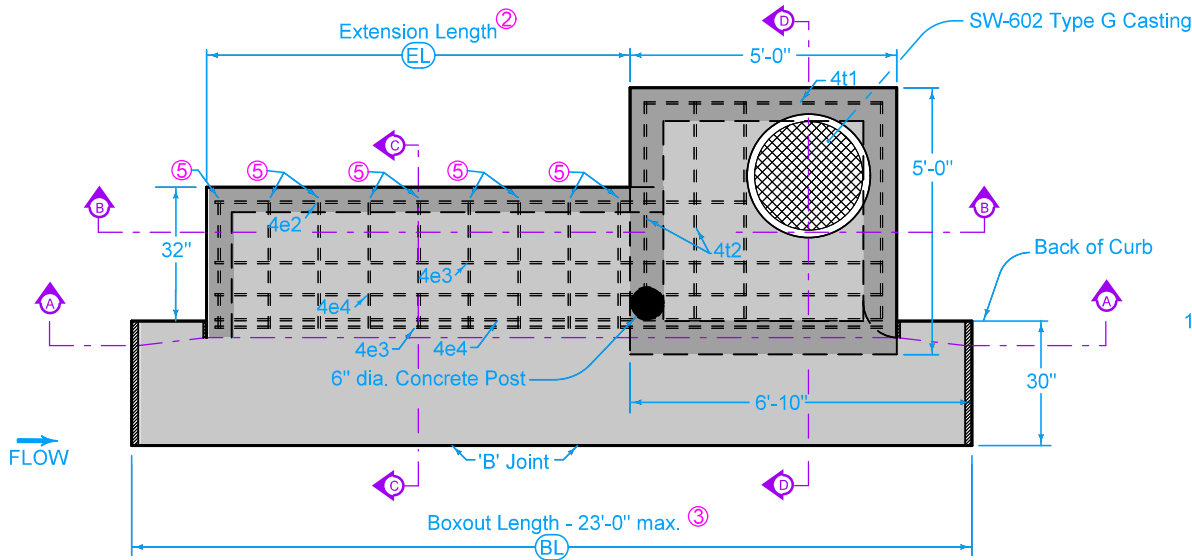
SUDAS | **IOWADOT**

FIGURE 6010.545 | **STANDARD ROAD PLAN** | **SW-545**
SHEET 1 of 4

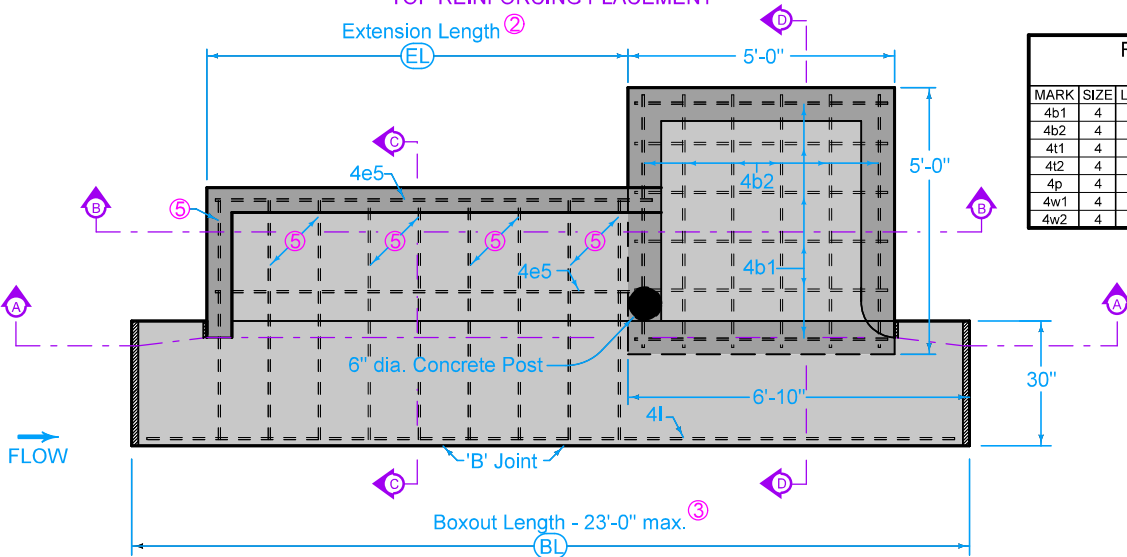
REVISIONS: Changed well walls to 6 inch reinforced. Modified 4b1 and 4b2 bar spacing. Modified bars 4e1 and 4e6. Modified SECTION C-C on Sheets 3 and 4.

Paul D. Wigand | *Steve Miller*
SUDAS DIRECTOR | DESIGN METHODS ENGINEER

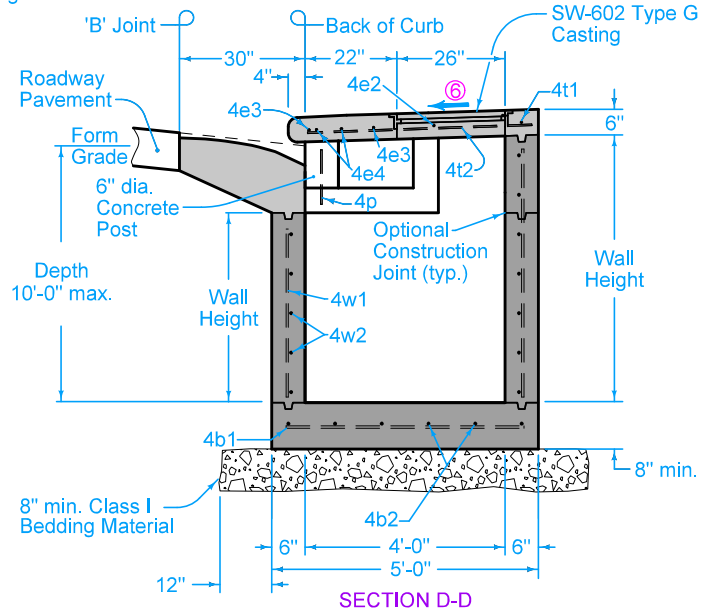
SINGLE OPEN-THROAT CURB INTAKE WITH EXTENDED OPENING



PLAN
TOP REINFORCING PLACEMENT



PLAN
BOTTOM REINFORCING PLACEMENT



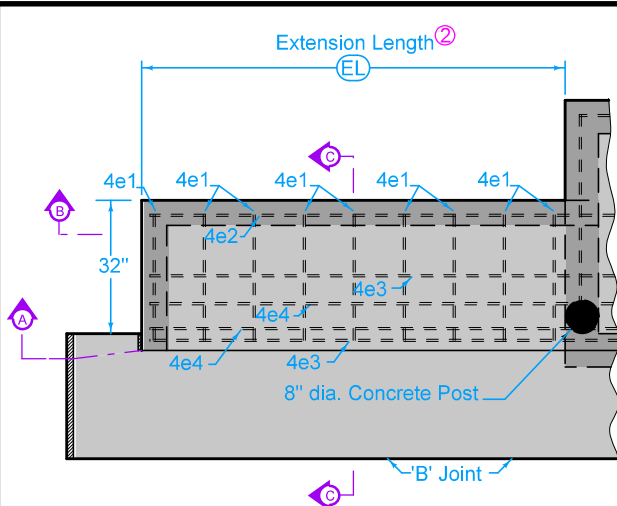
SECTION D-D

| REINFORCING BAR LIST Intake Well | | | | | |
|-------------------------------------|------|----------|--------|----------------------|------------|
| MARK | SIZE | LOCATION | NO. | LENGTH | SPACING |
| 4b1 | 4 | Base | 6 | 4'-6" | 11" |
| 4b2 | 4 | Base | 6 | 4'-6" | 11" |
| 4t1 | 4 | Top | 1 | 4'-8" | 12" |
| 4t2 | 4 | Top | 4 | 4'-3" | See Detail |
| 4p | 4 | Post | 1 | 13" | |
| 4w1 | 4 | Walls | 16 | Wall Height minus 4" | 14" |
| 4w2 | 4 | Walls | Varies | 4'-8" | 12" |

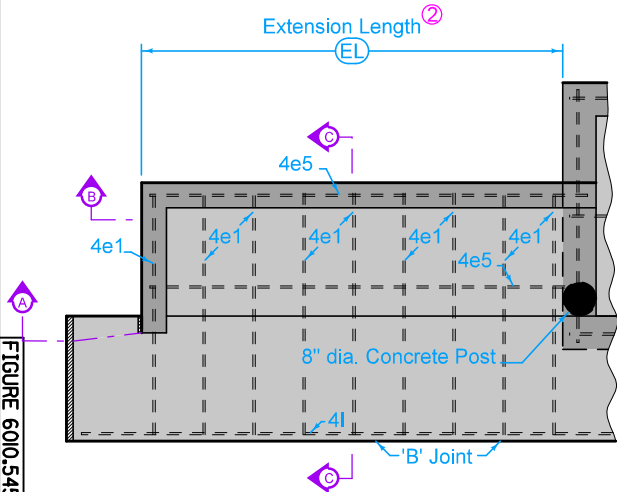
- ② Other lengths of opening may be constructed by varying the length of the extension and the rebar.
- ③ Includes 2 inches for 'ED' Joints.
- ⑤ 4e1 or 4e6. See Sheets 3 and 4.
- ⑥ Slope of 1.5% or as specified in the contract documents.

FIGURE 6010.545 SHEET 2 OF 4

| | | |
|---|--------------------|--|
| | | REVISION |
| | | 5 04-21-20 |
| FIGURE 6010.545 | STANDARD ROAD PLAN | SW-545 |
| | | SHEET 2 of 4 |
| <small>REVISIONS: Changed well walls to 6 inch reinforced. Modified 4b1 and 4b2 bar spacing. Modified bars 4e1 and 4e6. Modified SECTION C-C on Sheets 3 and 4.</small> | | |
| <i>Paul D. Weigand</i> SUDAS DIRECTOR | | <i>Steve Miller</i> DESIGN METHODS ENGINEER |
| SINGLE OPEN-THROAT CURB INTAKE WITH EXTENDED OPENING | | |

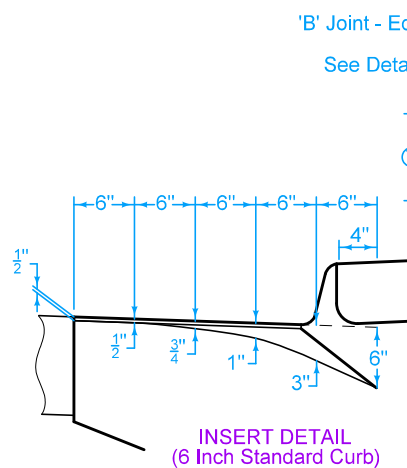


PLAN
TOP OF EXTENSION REINFORCING PLACEMENT

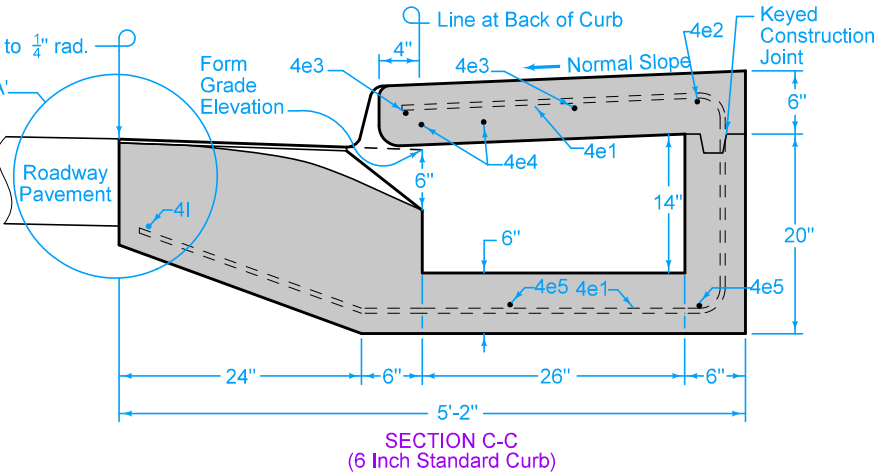


PLAN
BOTTOM OF EXTENSION REINFORCING PLACEMENT

FIGURE 6010.545 SHEET 3 OF 4



INSERT DETAIL
(6 Inch Standard Curb)

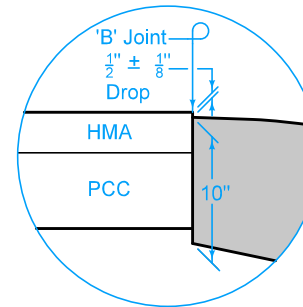


SECTION C-C
(6 Inch Standard Curb)

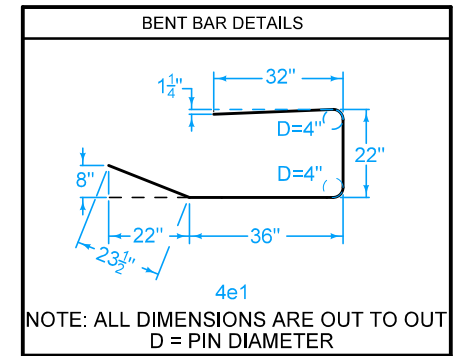
| REINFORCING BAR LIST (L) = 12'-0" | | | | | | |
|-----------------------------------|------|----------|-----|-----------|------------|---------|
| MARK | SIZE | LOCATION | NO. | LENGTH | WEIGHT | SPACING |
| 4e1 | 4 | Top/Base | 9 | 9'-5 1/2" | 56.9 | 12" |
| 4e2 | 4 | Top | 1 | 10'-0" | 6.7 | |
| 4e3 | 4 | Top | 2 | 12'-9" | 17.0 | 15 1/2" |
| 4e4 | 4 | Top | 2 | 12'-9" | 17.0 | 6" |
| 4e5 | 4 | Base | 2 | 8'-2" | 10.9 | 22" |
| 4I* | 4 | Insert | 1 | 15'-10" | 10.6 | |
| * With 16'-6" Boxout. | | | | Total | 119.1 lbs. | |

| REINFORCING BAR LIST (L) = 14'-0" | | | | | | |
|-----------------------------------|------|----------|-----|-----------|------------|---------|
| MARK | SIZE | LOCATION | NO. | LENGTH | WEIGHT | SPACING |
| 4e1 | 4 | Top/Base | 11 | 9'-5 1/2" | 69.5 | 12" |
| 4e2 | 4 | Top | 1 | 12'-0" | 8.0 | |
| 4e3 | 4 | Top | 2 | 14'-9" | 19.7 | 15 1/2" |
| 4e4 | 4 | Top | 2 | 14'-9" | 19.7 | 6" |
| 4e5 | 4 | Base | 2 | 10'-2" | 13.6 | 22" |
| 4I* | 4 | Insert | 1 | 17'-10" | 11.9 | |
| * With 18'-6" Boxout. | | | | Total | 142.4 lbs. | |

| REINFORCING BAR LIST (L) = 16'-0" | | | | | | |
|-----------------------------------|------|----------|-----|-----------|------------|---------|
| MARK | SIZE | LOCATION | NO. | LENGTH | WEIGHT | SPACING |
| 4e1 | 4 | Top/Base | 13 | 9'-5 1/2" | 82.1 | 12" |
| 4e2 | 4 | Top | 1 | 14'-0" | 9.3 | |
| 4e3 | 4 | Top | 2 | 16'-9" | 22.4 | 15 1/2" |
| 4e4 | 4 | Top | 2 | 16'-9" | 22.4 | 6" |
| 4e5 | 4 | Base | 2 | 12'-2" | 16.2 | 22" |
| 4I* | 4 | Insert | 1 | 19'-10" | 13.2 | |
| * With 20'-6" Boxout. | | | | Total | 165.6 lbs. | |



DETAIL 'A'
Use when adjacent pavement
is HMA or composite.



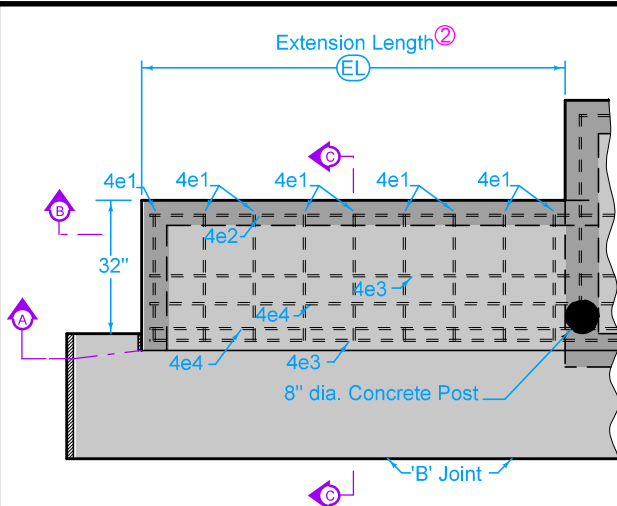
NOTE: ALL DIMENSIONS ARE OUT TO OUT
D = PIN DIAMETER

② Other lengths of opening may be constructed by varying the length of the extension and the rebar.

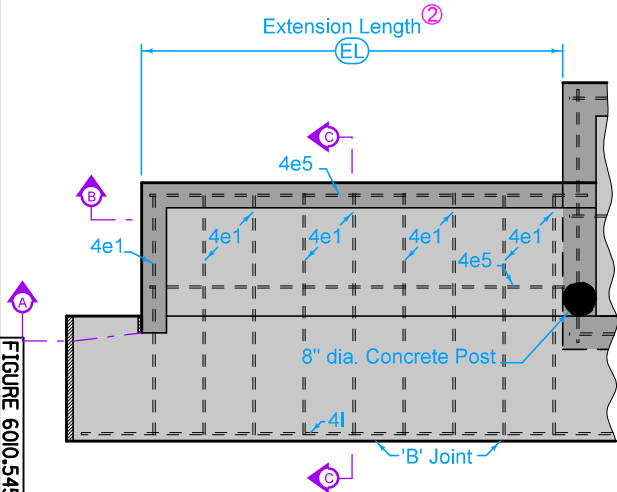
| REINFORCING BAR LIST (L) = 18'-0" | | | | | | |
|-----------------------------------|------|----------|-----|-----------|------------|---------|
| MARK | SIZE | LOCATION | NO. | LENGTH | WEIGHT | SPACING |
| 4e1 | 4 | Top/Base | 15 | 9'-5 1/2" | 94.8 | 12" |
| 4e2 | 4 | Top | 1 | 16'-0" | 10.7 | |
| 4e3 | 4 | Top | 2 | 18'-9" | 25 | 15 1/2" |
| 4e4 | 4 | Top | 2 | 18'-9" | 25 | 6" |
| 4e5 | 4 | Base | 2 | 14'-2" | 18.9 | 22" |
| 4I* | 4 | Insert | 1 | 21'-10" | 14.6 | |
| * With 22'-6" Boxout. | | | | Total | 189.0 lbs. | |

| | | |
|--|--------------------|-------------------------|
| | | REVISION |
| | | 5 04-21-20 |
| FIGURE 6010.545 | STANDARD ROAD PLAN | SW-545 |
| | | SHEET 3 of 4 |
| REVISIONS: Changed well walls to 6 inch reinforced. Modified 4b1 and 4b2 bar spacing. Modified bars 4e1 and 4e6. Modified SECTION C-C on Sheets 3 and 4. | | |
| | | |
| SUDAS DIRECTOR | | DESIGN METHODS ENGINEER |
| SINGLE OPEN-THROAT CURB INTAKE WITH EXTENDED OPENING | | |

6 INCH STANDARD CURB

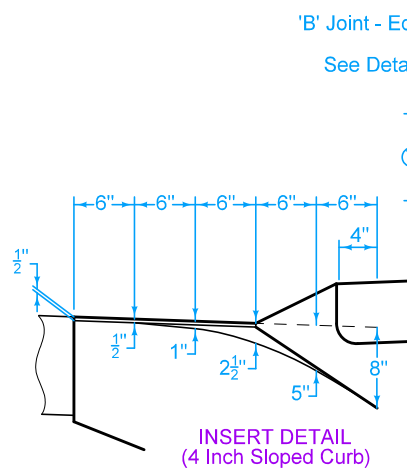


PLAN
TOP OF EXTENSION REINFORCING PLACEMENT

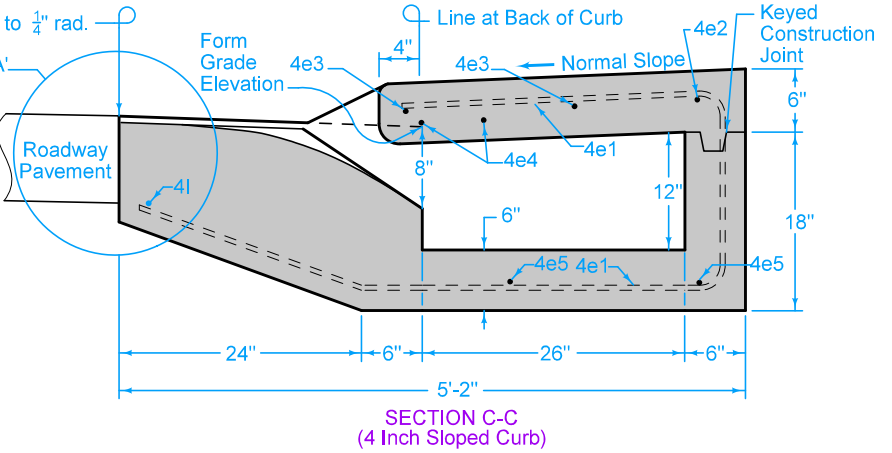


PLAN
BOTTOM OF EXTENSION REINFORCING PLACEMENT

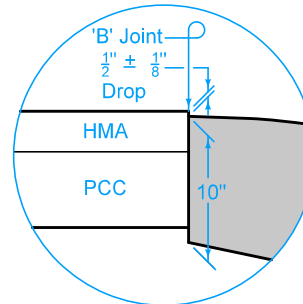
FIGURE 6010.545 SHEET 4 OF 4



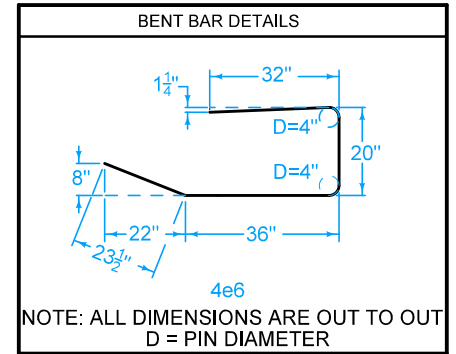
INSERT DETAIL
(4 Inch Sloped Curb)



SECTION C-C
(4 Inch Sloped Curb)



DETAIL 'A'
Use when adjacent pavement
is HMA or composite.



NOTE: ALL DIMENSIONS ARE OUT TO OUT
D = PIN DIAMETER

| REINFORCING BAR LIST (O) = 12'-0" | | | | | | |
|-----------------------------------|------|----------|-----|-----------------------|--------|------------|
| MARK | SIZE | LOCATION | NO. | LENGTH | WEIGHT | SPACING |
| 4e2 | 4 | Top | 1 | 10'-0" | 6.7 | |
| 4e3 | 4 | Top | 2 | 12'-9" | 17.0 | 15 1/2" |
| 4e4 | 4 | Top | 2 | 12'-9" | 17.0 | 6" |
| 4e5 | 4 | Base | 2 | 8'-2" | 10.9 | 22" |
| 4e6 | 4 | Top/Base | 9 | 9'-3 3/4" | 56.9 | 12" |
| 4i* | 4 | Insert | 1 | 15'-10" | 10.6 | |
| | | | | * With 16'-6" Boxout. | Total | 119.0 lbs. |

| REINFORCING BAR LIST (O) = 14'-0" | | | | | | |
|-----------------------------------|------|----------|-----|-----------------------|--------|------------|
| MARK | SIZE | LOCATION | NO. | LENGTH | WEIGHT | SPACING |
| 4e2 | 4 | Top | 1 | 12'-0" | 8.0 | |
| 4e3 | 4 | Top | 2 | 14'-9" | 19.7 | 15 1/2" |
| 4e4 | 4 | Top | 2 | 14'-9" | 19.7 | 6" |
| 4e5 | 4 | Base | 2 | 10'-2" | 13.6 | 22" |
| 4e6 | 4 | Top/Base | 11 | 9'-3 3/4" | 69.5 | 12" |
| 4i* | 4 | Insert | 1 | 17'-10" | 11.9 | |
| | | | | * With 18'-6" Boxout. | Total | 142.3 lbs. |

| REINFORCING BAR LIST (O) = 16'-0" | | | | | | |
|-----------------------------------|------|----------|-----|-----------------------|--------|------------|
| MARK | SIZE | LOCATION | NO. | LENGTH | WEIGHT | SPACING |
| 4e2 | 4 | Top | 1 | 14'-0" | 9.3 | |
| 4e3 | 4 | Top | 2 | 16'-9" | 22.4 | 15 1/2" |
| 4e4 | 4 | Top | 2 | 16'-9" | 22.4 | 6" |
| 4e5 | 4 | Base | 2 | 12'-2" | 16.2 | 22" |
| 4e6 | 4 | Top/Base | 13 | 9'-3 3/4" | 82.1 | 12" |
| 4i* | 4 | Insert | 1 | 19'-10" | 13.2 | |
| | | | | * With 20'-6" Boxout. | Total | 165.5 lbs. |

| REINFORCING BAR LIST (O) = 18'-0" | | | | | | |
|-----------------------------------|------|----------|-----|-----------------------|--------|------------|
| MARK | SIZE | LOCATION | NO. | LENGTH | WEIGHT | SPACING |
| 4e2 | 4 | Top | 1 | 16'-0" | 10.7 | |
| 4e3 | 4 | Top | 2 | 18'-9" | 25 | 15 1/2" |
| 4e4 | 4 | Top | 2 | 18'-9" | 25 | 6" |
| 4e5 | 4 | Base | 2 | 14'-2" | 18.9 | 22" |
| 4e6 | 4 | Top/Base | 15 | 9'-3 3/4" | 94.8 | 12" |
| 4i* | 4 | Insert | 1 | 21'-10" | 14.6 | |
| | | | | * With 22'-6" Boxout. | Total | 188.9 lbs. |

② Other lengths of opening may be constructed by varying the length of the extension and the rebar.

| | | |
|--|---------------------------------------|-------------------------------|
| SUDAS IOWADOT | FIGURE 6010.545 STANDARD ROAD PLAN | REVISION 5 04-21-20 |
| | | SW-545 SHEET 4 of 4 |
| REVISIONS: Changed well walls to 6 inch reinforced. Modified 4b1 and 4b2 bar spacing. Modified bars 4e1 and 4e6. Modified SECTION C-C on Sheets 3 and 4. | | |
| Paul D. Wiegand SUDAS DIRECTOR | | |
| Stewart Miller DESIGN METHODS ENGINEER | | |
| SINGLE OPEN-THROAT CURB INTAKE WITH EXTENDED OPENING | | |

4 INCH SLOPED CURB