

CONSTRUCTION DRAWINGS
FOR
B AND SIDEWALK REPLACEMENT PROJECT
CONTRACT 2
BOROUGH OF EBENSBURG
CAMBRIA COUNTY, PENNSYLVANIA
PREPARED FOR THE
THE BOROUGH OF EBENSBURG
CAMBRIA COUNTY, PENNSYLVANIA



PORTION OF USGS MAP 7.5 MINUTE EBENSBERG QUAD

PROJECT VICINITY MAP

1"=2000'

PREPARED BY:
CDI CORP/L.R. KIMBALL
EBENSBURG, PA - JANUARY 2020

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RC-67	CURB RAMPS AND SIDEWALKS (14 SHEETS)
	PENNDOT ROADWAY CONSTRUCTION STANDARDS



615 West Highland Ave.
Ebensburg, Pa. 15931

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fax (814) 472-7712
web site www.lrkimball.com


CONSULTANTS:

PROJECT NAME:
**BOROUGH
OF EBENSBURG
CURB AND SIDEWALK
REPLACEMENT**

BOROUGH OF EBENSBURG
CAMBRIA COUNTY, STATE
OWNER:

BOROUGH OF
EBENSBURG

300 WEST HIGH STREET
EBENSBURG, PA 15931

[illegible]

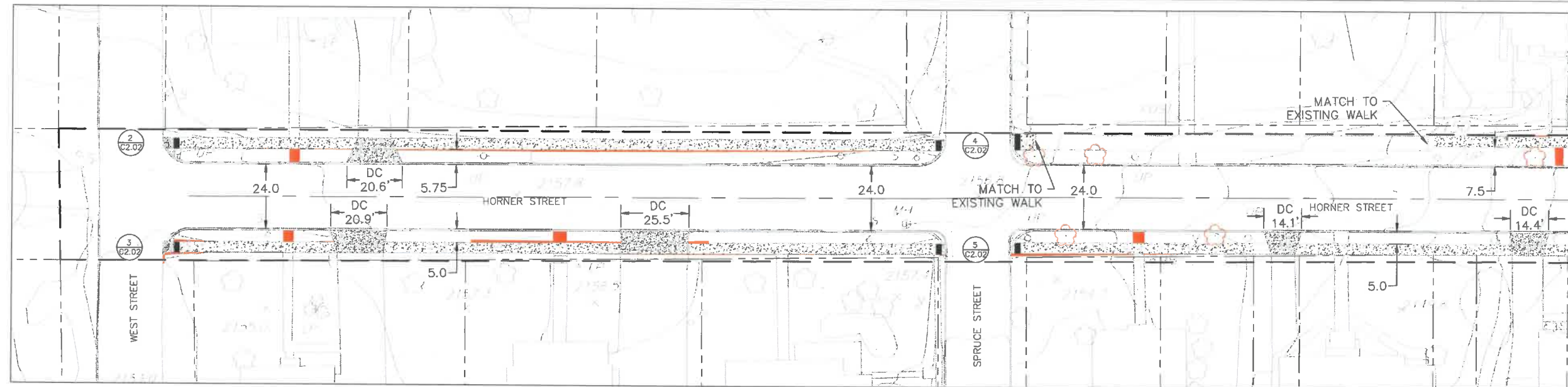
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ISSUE:	1/16/20	
PROJECT NO:	EBG.E000140.EB21	
SCALE:	AS SHOWN	
DRAWN BY:	TAG	
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SHEET TITLE

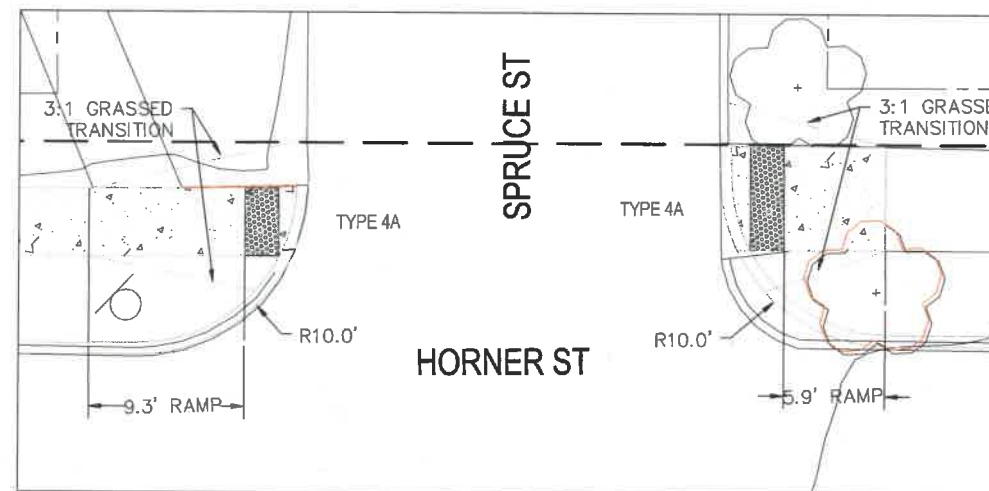
COVER AND SITE
LOCATION MAP

C2.00

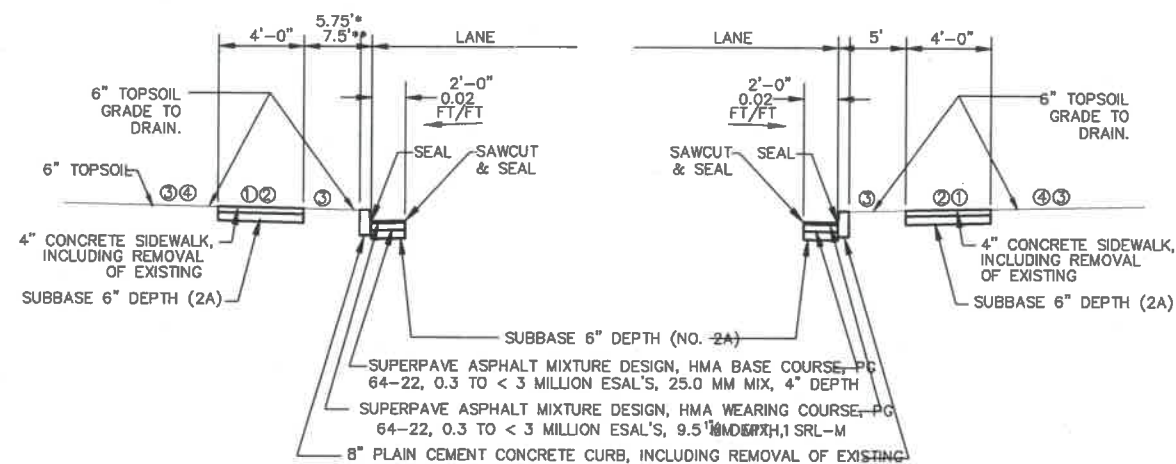


MATCH SHEET C2.03

1 **HORNER ST**
SCALE: 1" = 20'

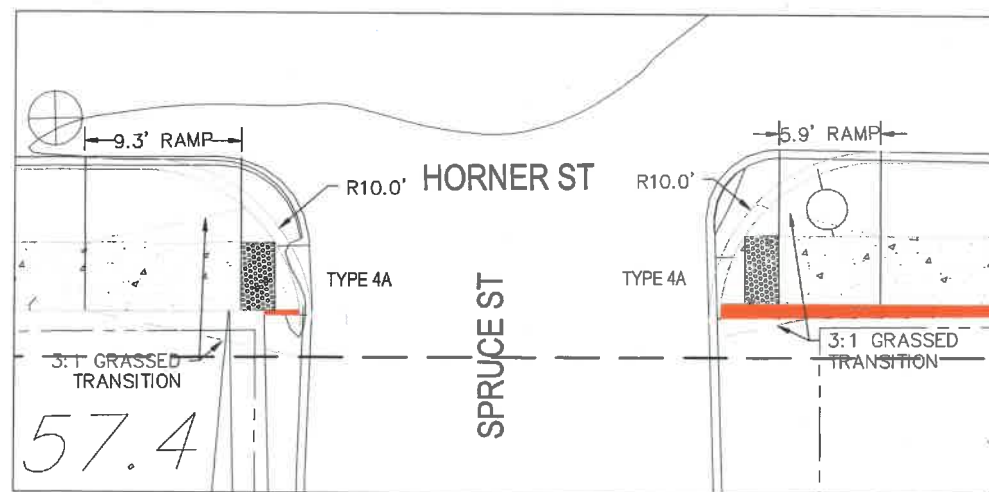


4 **RAMP DETAIL - HORNER/SPRUCE N**
SCALE: 1" = 5'

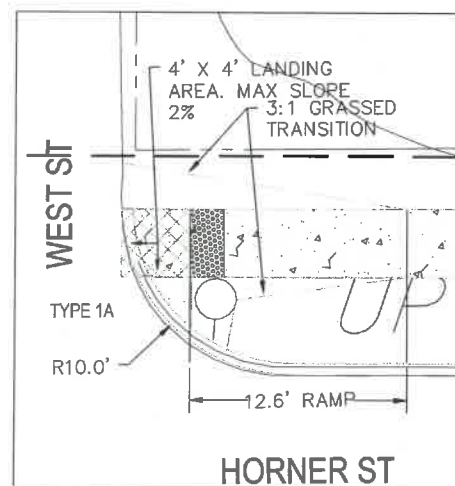


TYPICAL SIDEWALK SECTION, WEST SIDE
NTS
WEST TO SPRUCE *
SPRUCE TO MARION **

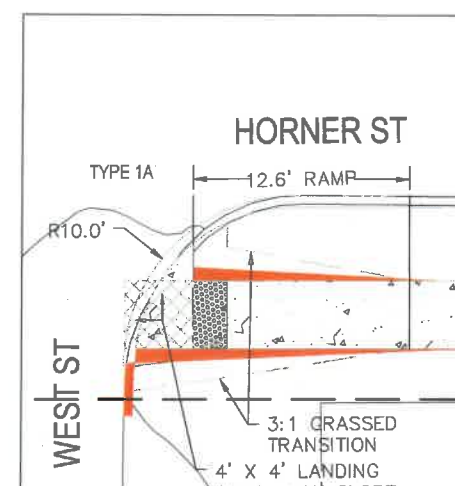
TYPICAL SIDEWALK SECTION, EAST SIDE
NTS



5 **RAMP DETAIL - HORNER/SPRUCE S**
SCALE: 1" = 5'



2 **RAMP DETAIL - HORNER/WEST NE**
SCALE: 1" = 5'



3 **RAMP DETAIL - HORNER/WEST SE**
SCALE: 1" = 5'

NOTES

1. CONSTRUCT SIDEWALK WITH A 2% CROSS SLOPE. SLOPE DIRECTION SUBJECT TO SITE TOPOGRAPHY.
2. USE 6" THICKNESS WITHIN LIMITS OF DRIVEWAYS AND THEIR ASSOCIATED APRONS AND TRANSITIONS.
3. GRADE TO DRAIN. CONSTRUCT WITH A 2% CROSS SLOPE, TYPICAL. SLOPE DIRECTION SUBJECT TO SITE TOPOGRAPHY. STEEPER SLOPE PERMISSIBLE WHERE TOPOGRAPHY WARRANTS WITH A 3:1 MAXIMUM OR 2:1 MAXIMUM WHERE APPROVED BY THE BOROUGH.
4. CONTRACTOR RESPONSIBLE TO SAWCUTTING, REMOVAL, AND CONSTRUCTION OF REPLACEMENT TRANSITIONS FOR EXISTING ENTRANCE WALKS.
5. CONTRACTOR RESPONSIBLE FOR SAWCUTTING, EXCAVATION, AND REMOVAL OF ALL EXISTING CURBING, SIDEWALK, PAVEMENT, STUMPS, EXCAVATED MATERIAL AND OTHER OBSTRUCTIONS NECESSARY FOR CONSTRUCTION.
6. CONTRACTOR RESPONSIBLE FOR FURNISHING ADDITIONAL EARTHWORK AND TOPSOIL AS NECESSARY FOR THE GRADING OPERATION.

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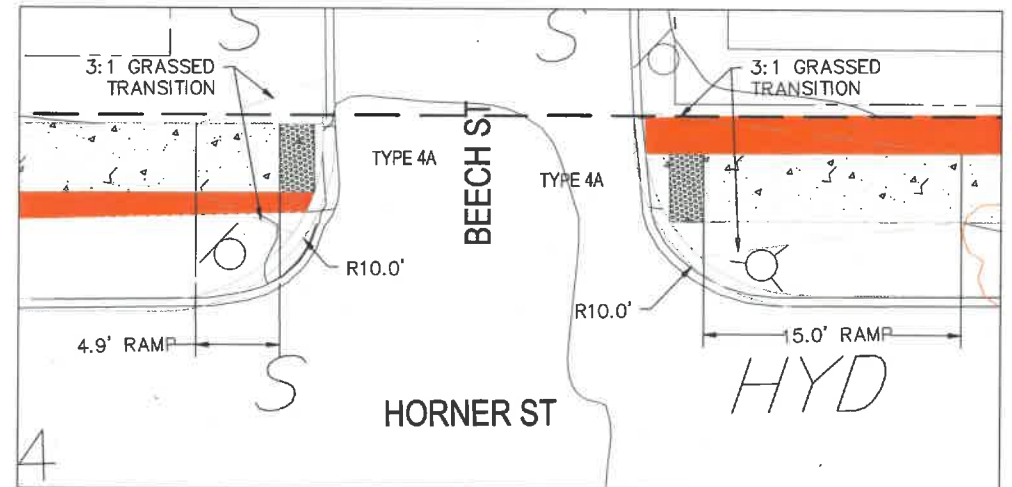
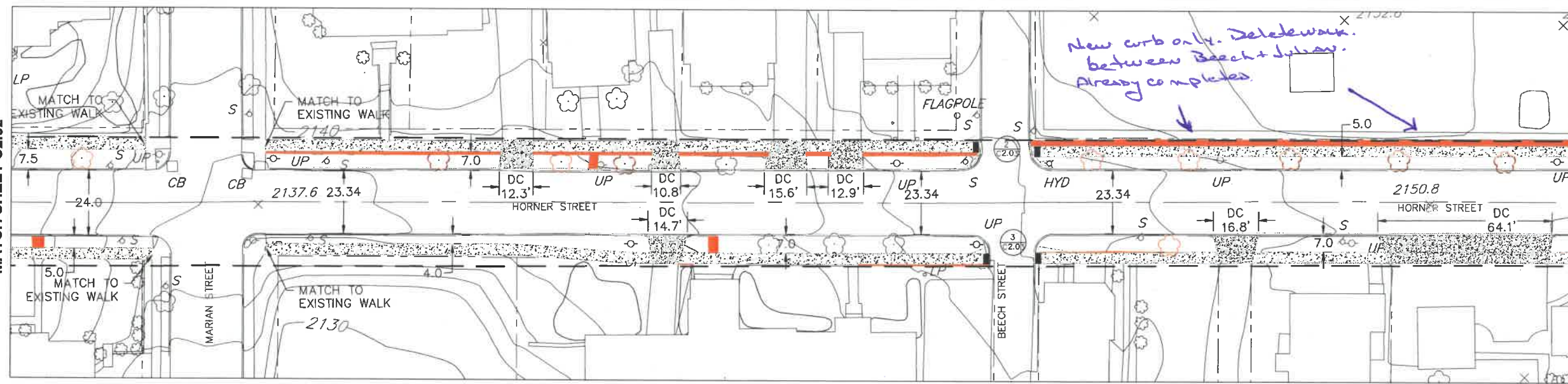
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**CONTRACT 2
HORNER STREET**

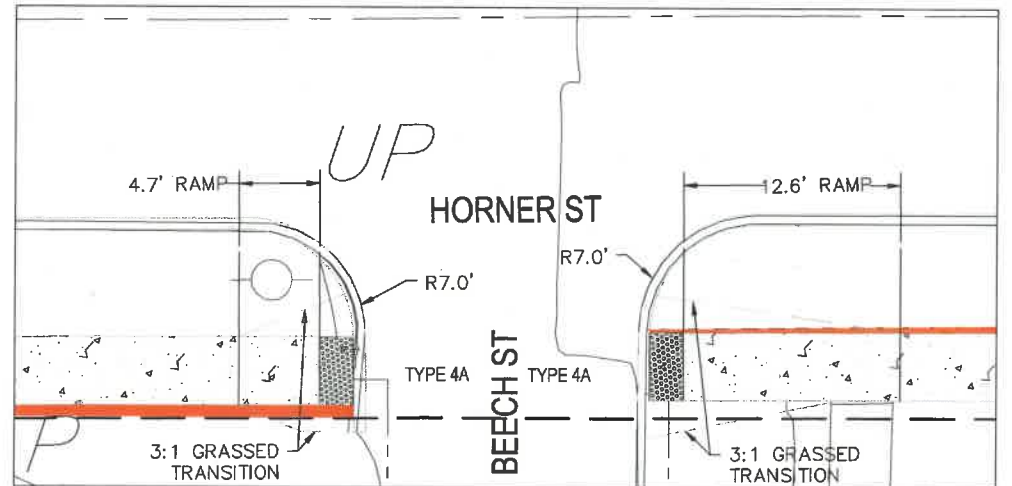
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MATCH SHEET C2.02

MATCH SHEET C2.04

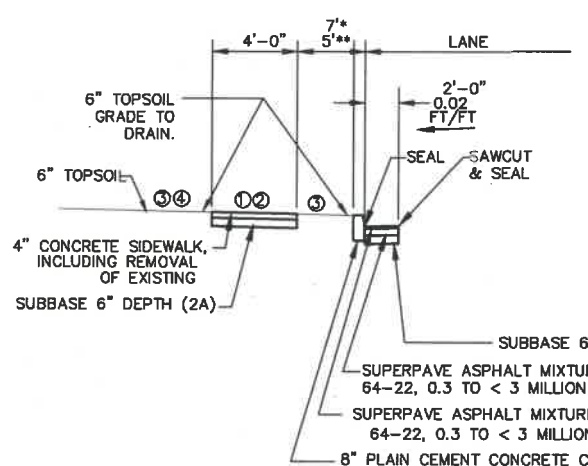


2 RAMP DETAIL - HORNER/BEECH N
SCALE: 1"=5'

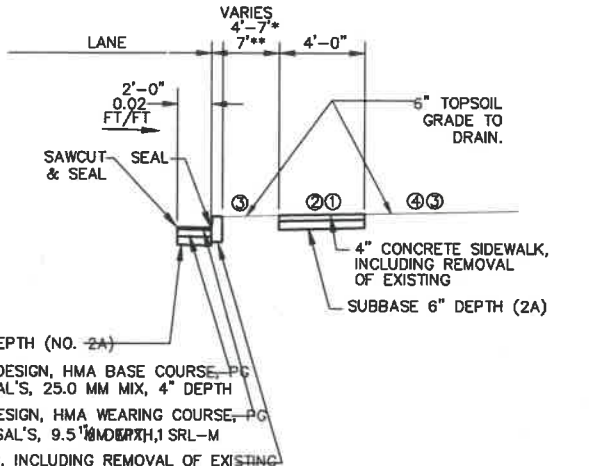


3 RAMP DETAIL - HORNER/BEECH S
SCALE: 1"=5'

1 HORNER ST
SCALE: 1"=20'



TYPICAL SIDEWALK SECTION, WEST SIDE
NTS
MARION TO BEECH *
BEECH TO JULIAN **



TYPICAL SIDEWALK SECTION, EAST SIDE
NTS
MARION TO BEECH *
BEECH TO JULIAN **

- NOTES
1. CONSTRUCT SIDEWALK WITH A 2% CROSS SLOPE. SLOPE DIRECTION SUBJECT TO SITE TOPOGRAPHY.
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**CONTRACT 2
HORNER STREET**

C2.03

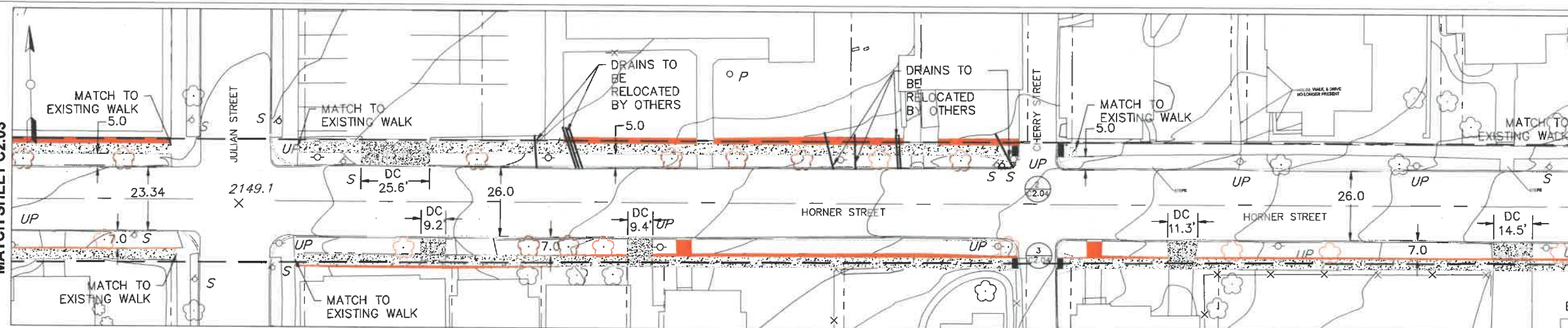
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**BOROUGH
OF EBENSBURG
CURB AND SIDEWALK
REPLACEMENT**

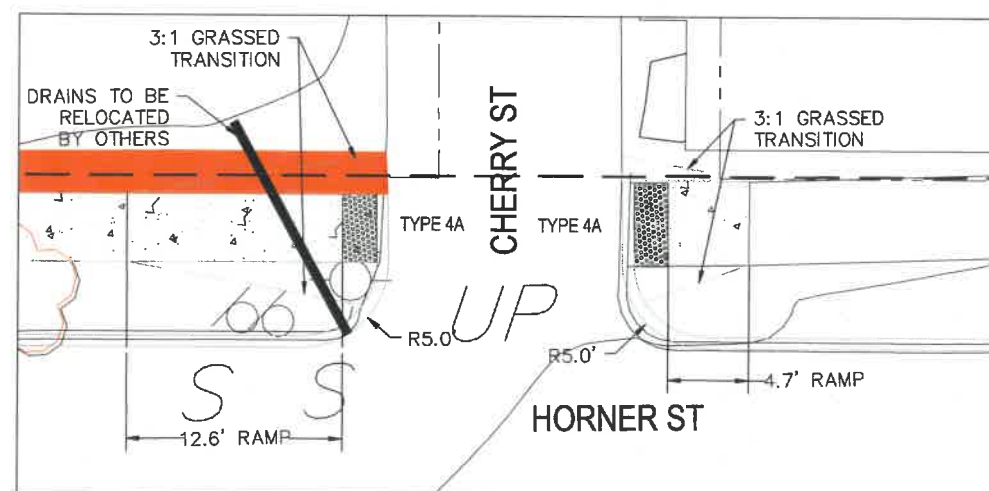
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CAMBRIA COUNTY, STATE
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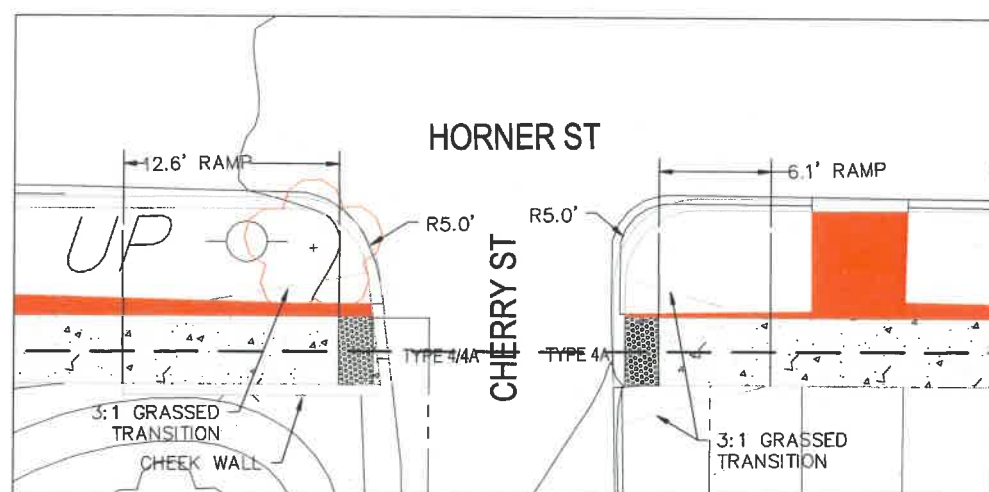
MATCH SHEET C2.03



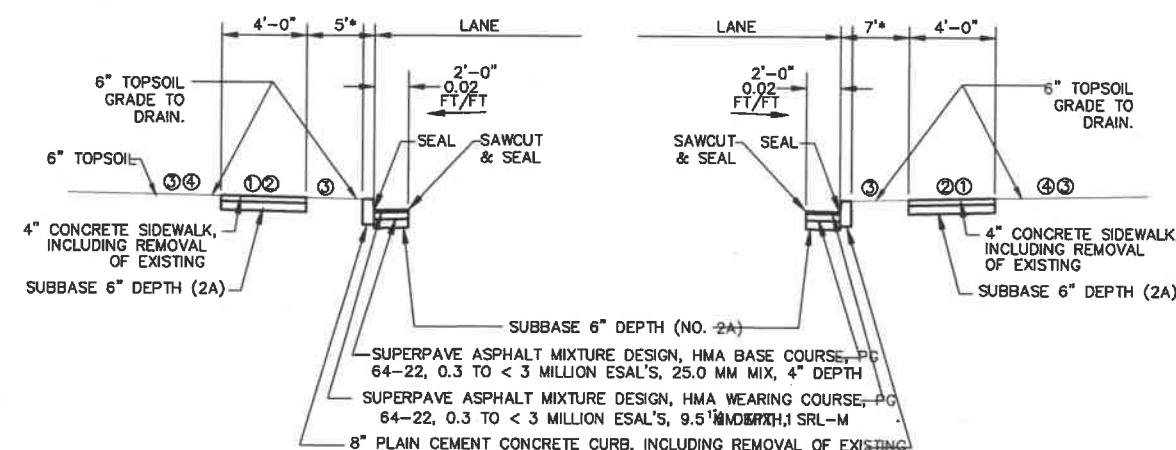
MATCH BELOW



2 RAMP DETAIL - HORNER/CHERRY N
SCALE: 1" = 20'



3 RAMP DETAIL - HORNER/CHERRY S
SCALE: 1" = 20'

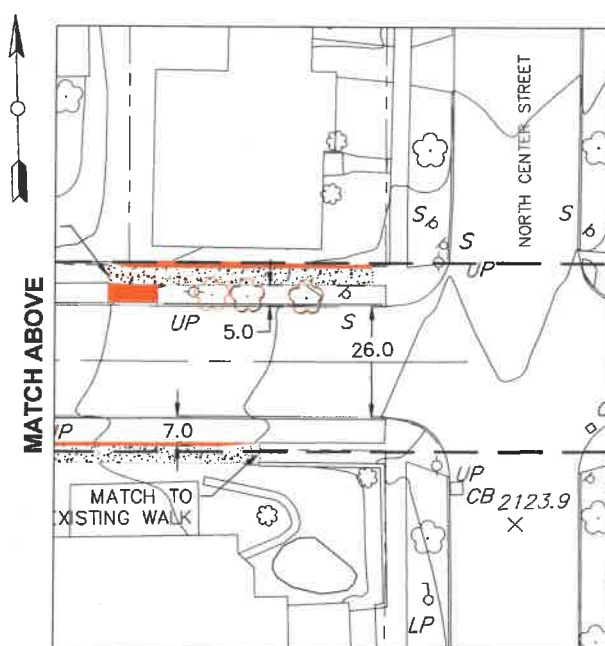


TYPICAL SIDEWALK SECTION, WEST SIDE

JULIAN TO CHERRY *
CHERRY TO HIGH **

TYPICAL SIDEWALK SECTION, EAST SIDE

JULIAN TO CHERRY *
CHERRY TO HIGH **



2 HORNER ST
SCALE: 1" = 20'

NOTES

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SHEET TITLE

**CONTRACT 2
HORNER STREET**

C2.04



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CONSULTANTS:

PROJECT NAME:

**BOROUGH
OF EBENSBURG
CURB AND SIDEWALK
REPLACEMENT**

BOROUGH OF EBENSBURG
CAMBRIA COUNTY, STATE

OWNER:

BOROUGH OF
EBENSBURG
300 WEST HIGH STREET
EBENSBURG, PA 15931

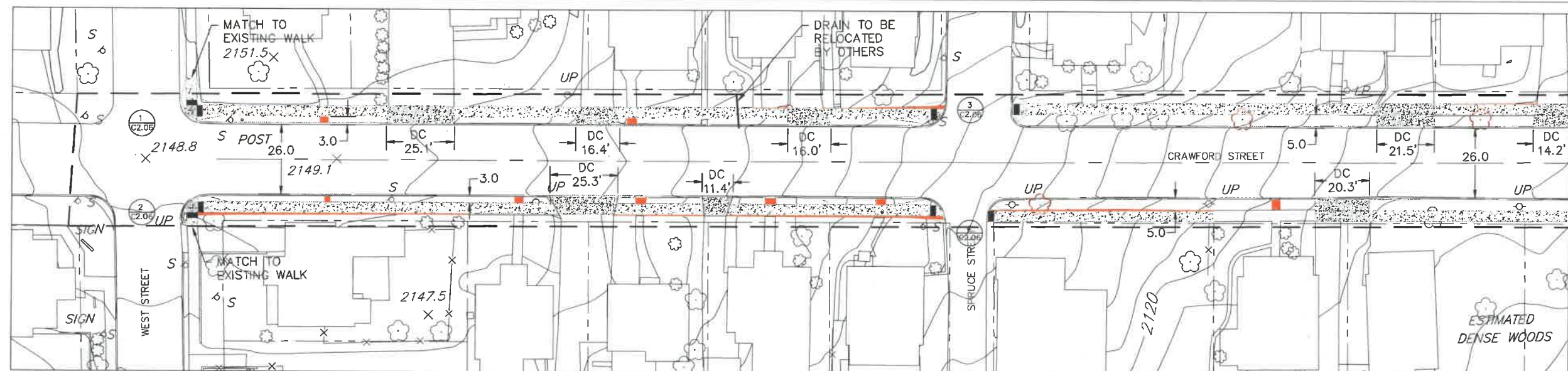
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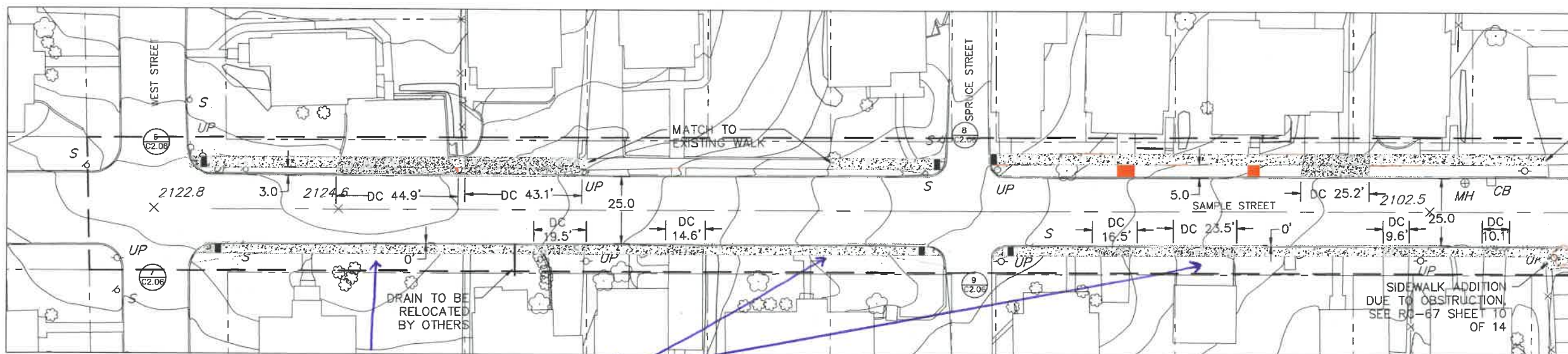
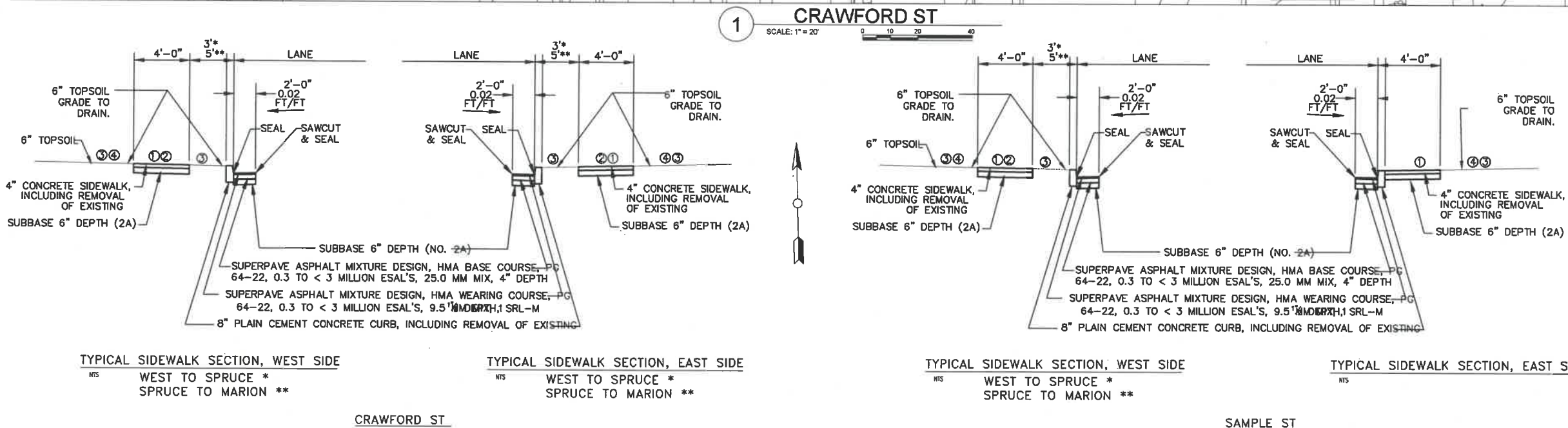
SHEET TITLE

**CONTACT 2
CRAWFORD STREET
AND
SAMPLE STREET**

C2.05



MATCH SHEET C2.07



MATCH SHEET C2.07

New curb only. Delete walk between west + marion st. on south side.

2 SCALE: 1" = 20'

CONSULTANTS:

PROJECT NAME:

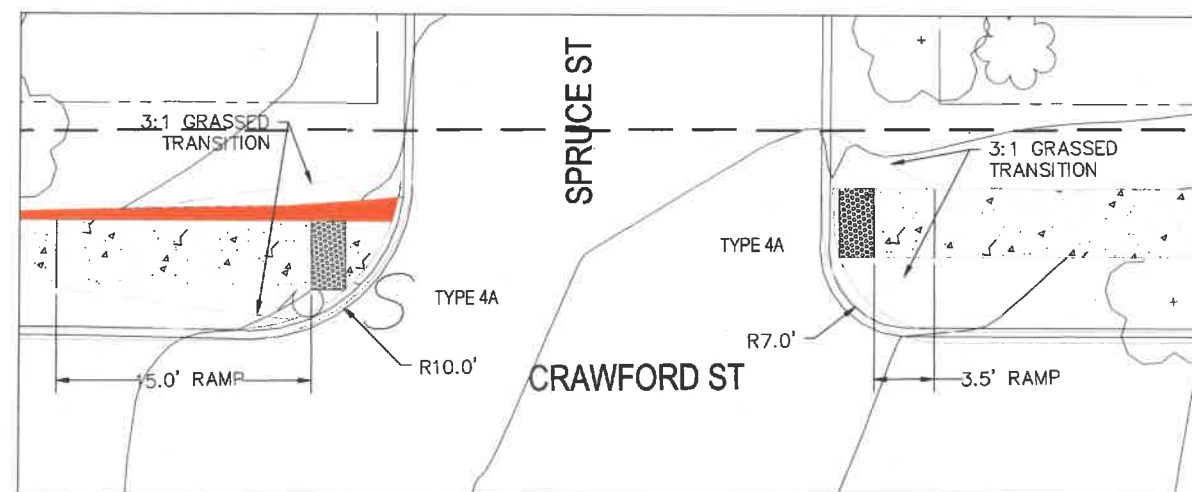
**BOROUGH
OF EBENSBURG
CURB AND SIDEWALK
REPLACEMENT**

BOROUGH OF EBENSBURG
CAMBRIA COUNTY, STATE
OWNER:

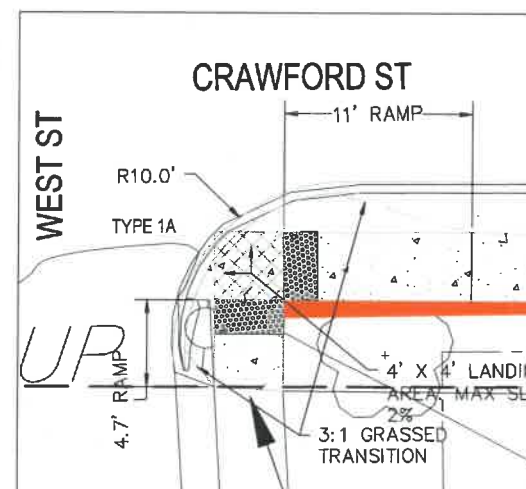
BOROUGH OF
EBENSBURG
300 WEST HIGH STREET
EBENSBURG, PA 15931



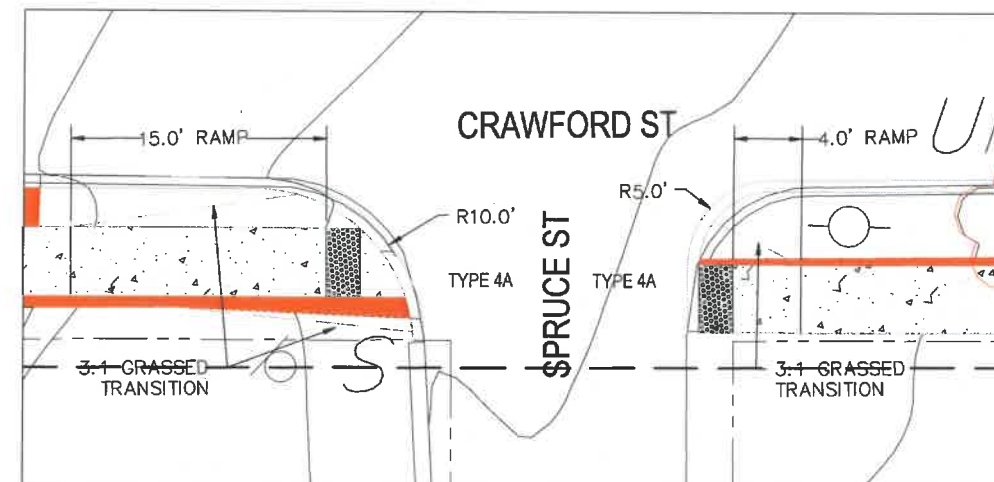
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SCALE: 1"=5'



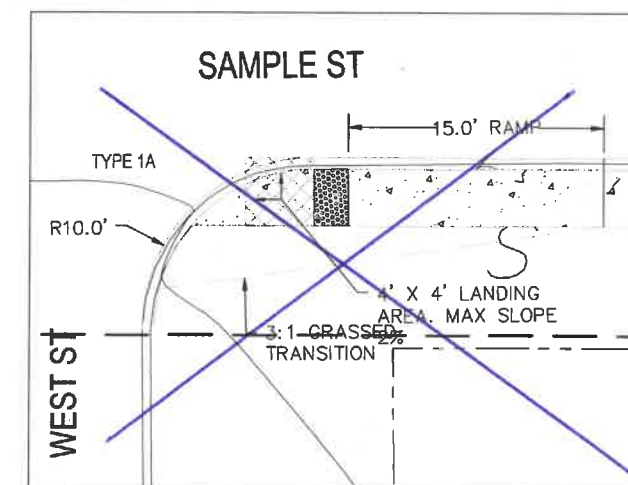
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SCALE: 1"=5'



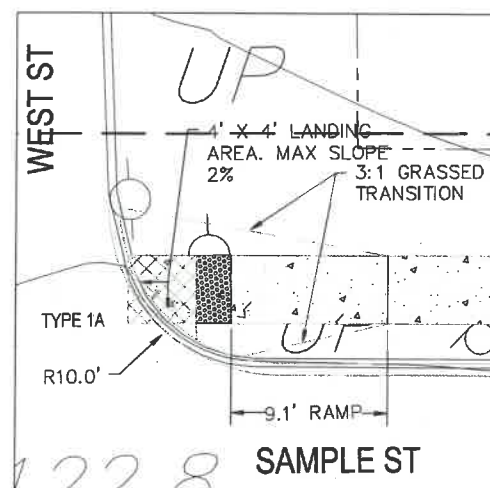
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SCALE: 1"=5'



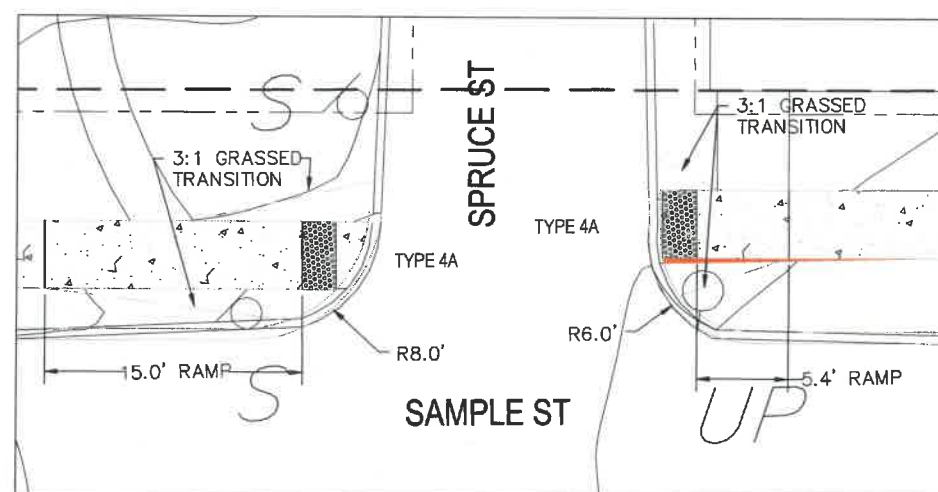
4 RAMP DETAIL - CRAWFORD/SPRUCE S
SCALE: 1"=5'



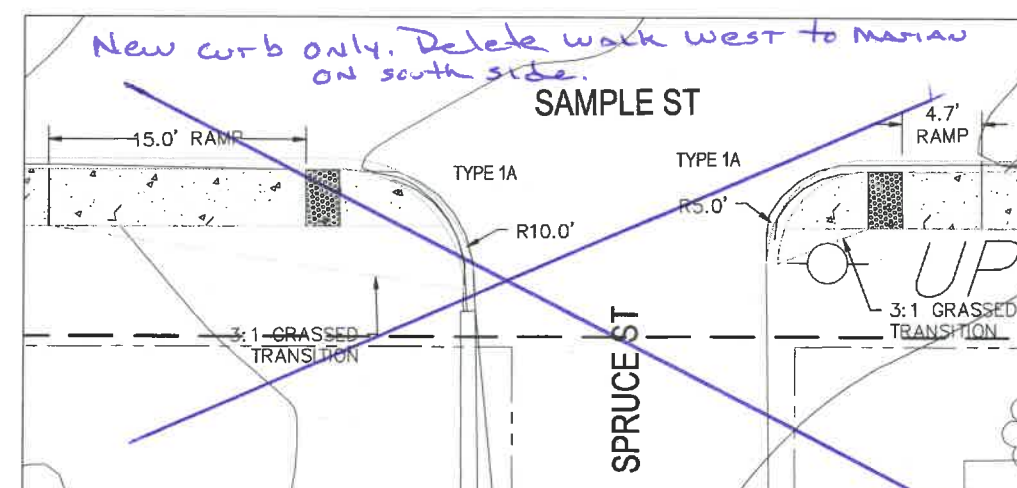
6 RAMP DETAIL - SAMPLE/WEST SE
SCALE: 1"=5'



5 RAMP DETAIL - SAMPLE/WEST NE
SCALE: 1"=5'



7 RAMP DETAIL - SAMPLE/SPRUCE N
SCALE: 1"=5'



8 RAMP DETAIL - SAMPLE/SPRUCE S
SCALE: 1"=5'

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SHEET TITLE

**CONTRACT 2
CRAWFORD AND SAMPLE
DETAILS**

C2.06



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web site www.lrkimball.com

CONSULTANTS:

PROJECT NAME:

BOROUGH OF EBENBURG CURB AND SIDEWALK REPLACEMENT

BOROUGH OF EBENBURG
CAMBRIA COUNTY, STATE
OWNER:

BOROUGH OF
EBENBURG

300 WEST HIGH STREET
EBENBURG, PA 15931

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SHEET TITLE

CONTRACT 2
CRAWFORD STREET
AND
SAMPLE STREET

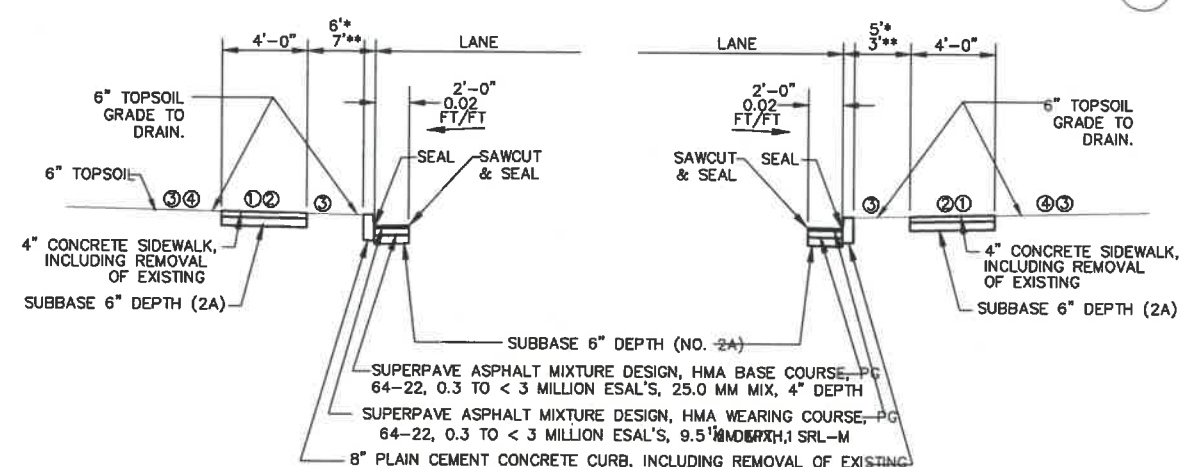
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MATCH SHEET C2.06



MATCH SHEET C2.08

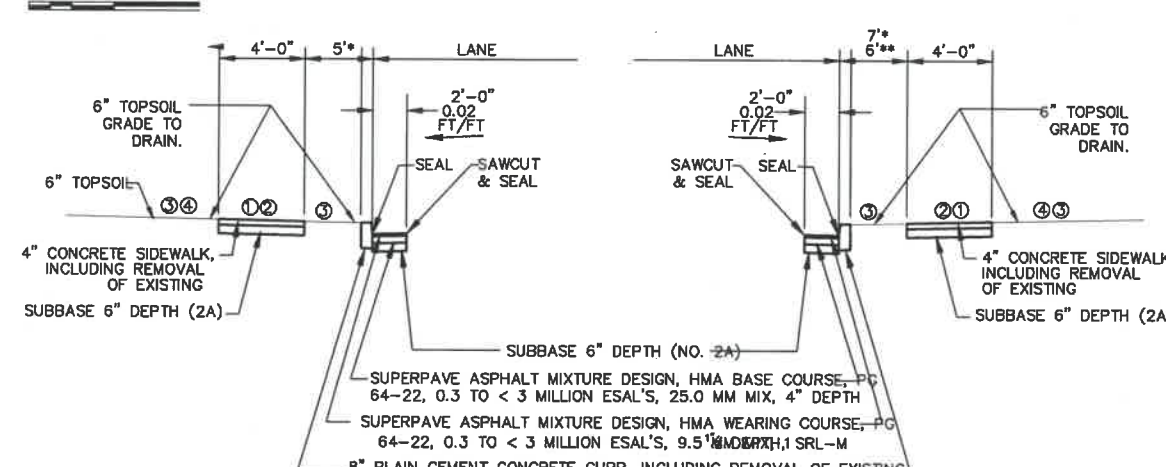
1 CRAWFORD ST
SCALE: 1" = 20'



TYPICAL SIDEWALK SECTION, WEST SIDE
NTS
MARIAN TO BEECH *
BEECH TO JULIAN **

TYPICAL SIDEWALK SECTION, EAST SIDE
NTS
MARIAN TO BEECH *
BEECH TO JULIAN **

CRAWFORD ST

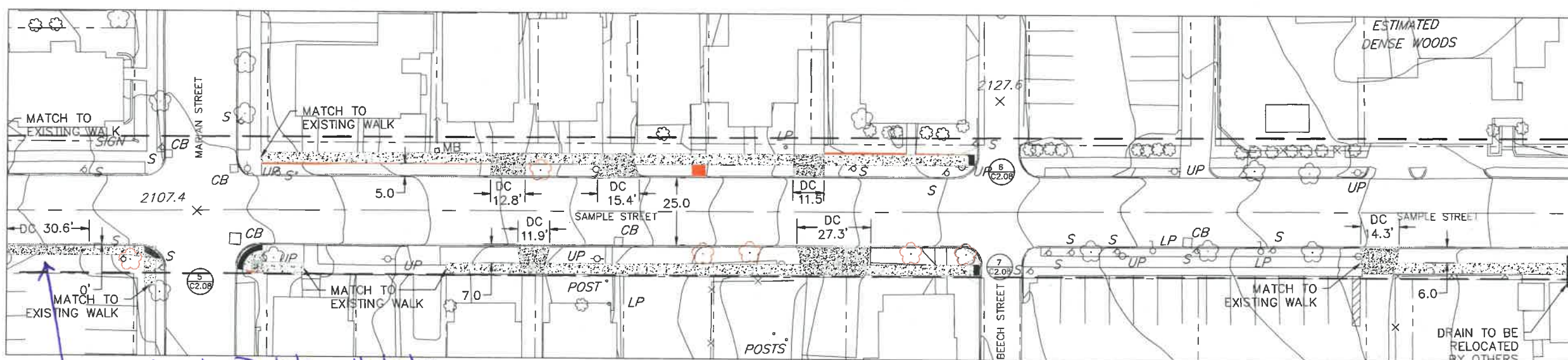


TYPICAL SIDEWALK SECTION, WEST SIDE
NTS
MARIAN TO BEECH *
BEECH TO JULIAN **

TYPICAL SIDEWALK SECTION, EAST SIDE
NTS
MARIAN TO BEECH *

SAMPLE ST

MATCH SHEET C2.06

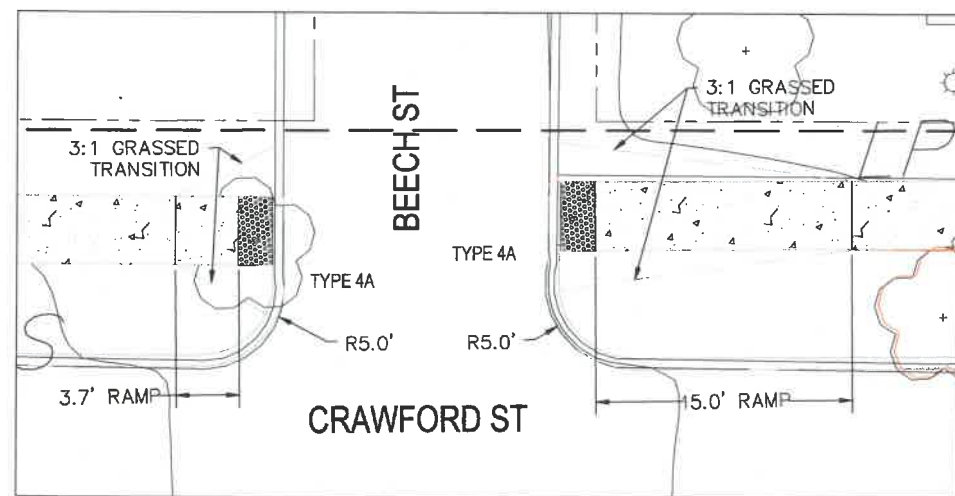


MATCH SHEET C2.08

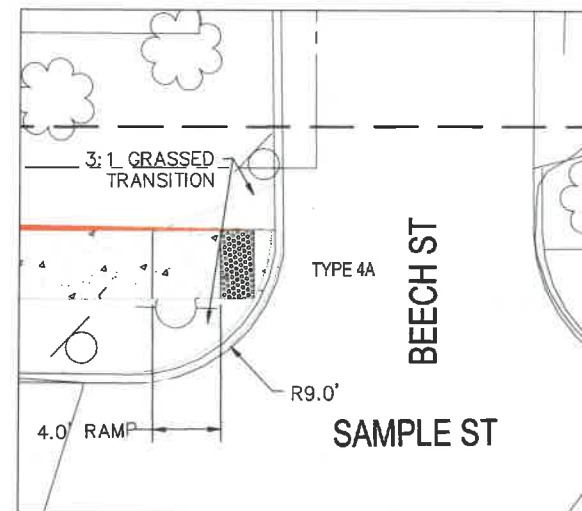
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SCALE: 1" = 20'

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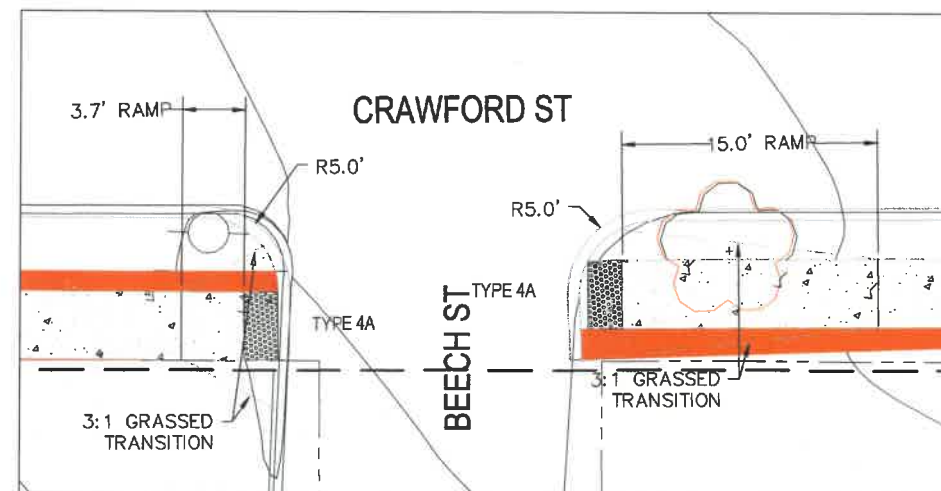
new curb only. Delete walk between
west + marian. south side.



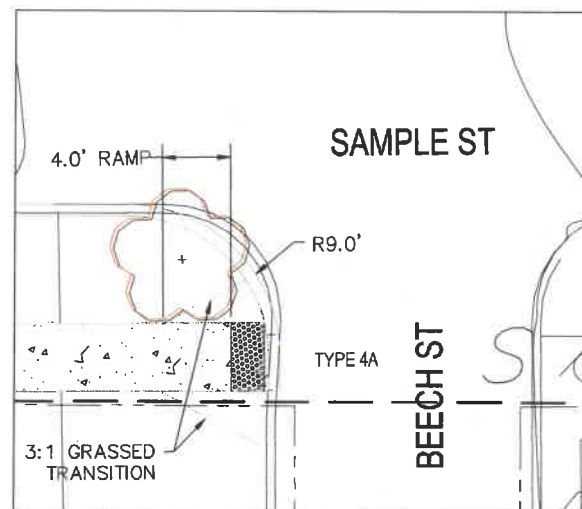
3 RAMP DETAIL - CRAWFORD/BEECH N
2.0 SCALE: 1"=5'



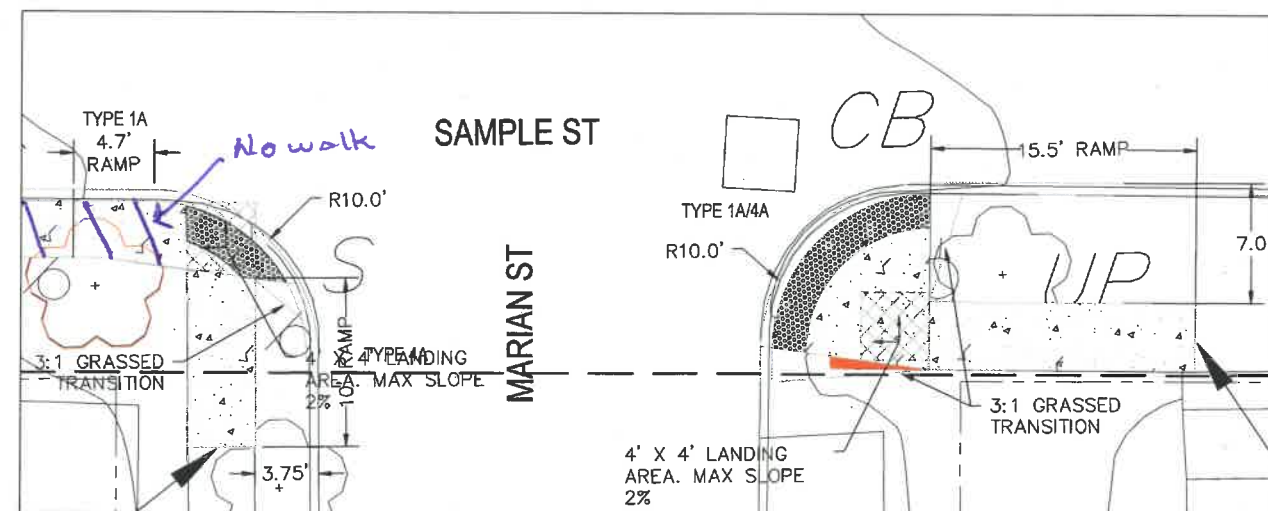
6 RAMP DETAIL - SAMPLE/BEECH N
C2.0 SCALE: 1"=5'



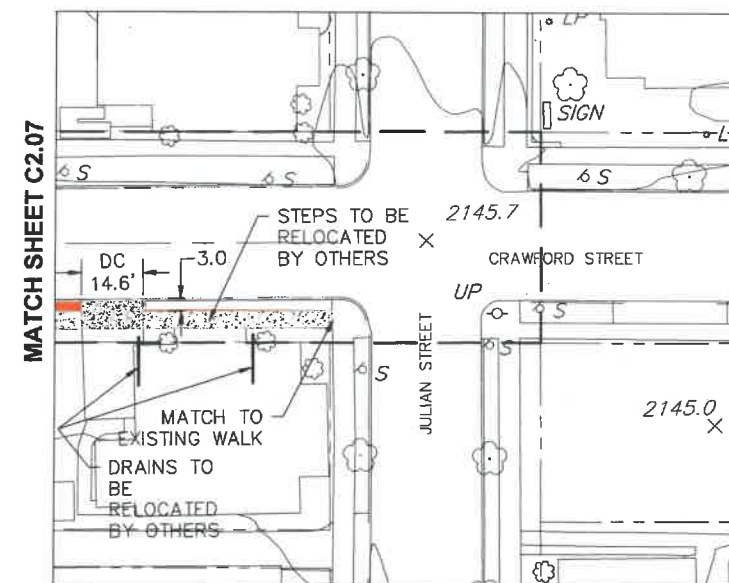
4 RAMP DETAIL - CRAWFORD/BEECH S
2.0 SCALE: 1"=5'



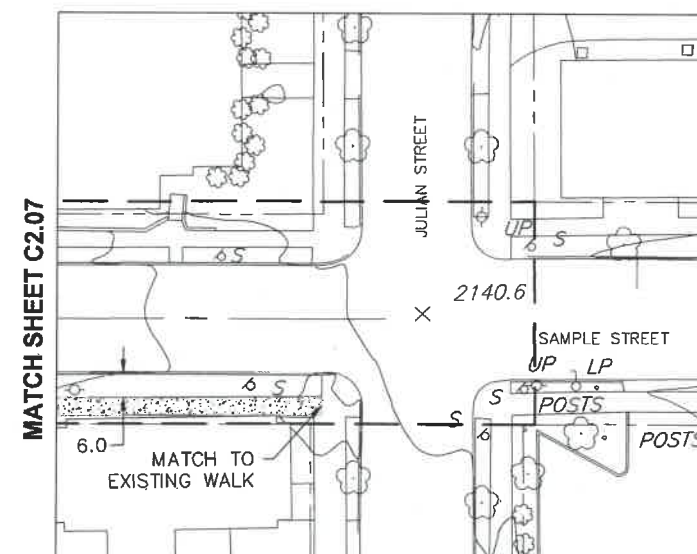
7 RAMP DETAIL - SAMPLE/BEECH S
2.0 SCALE: 1"=5'



5
2.0 RAMP DETAIL - SAMPLE/MARION S
SCALE: 1"=5'



1 CRAWFORD ST
SCALE: 1" = 20'



2 SAMPLE ST



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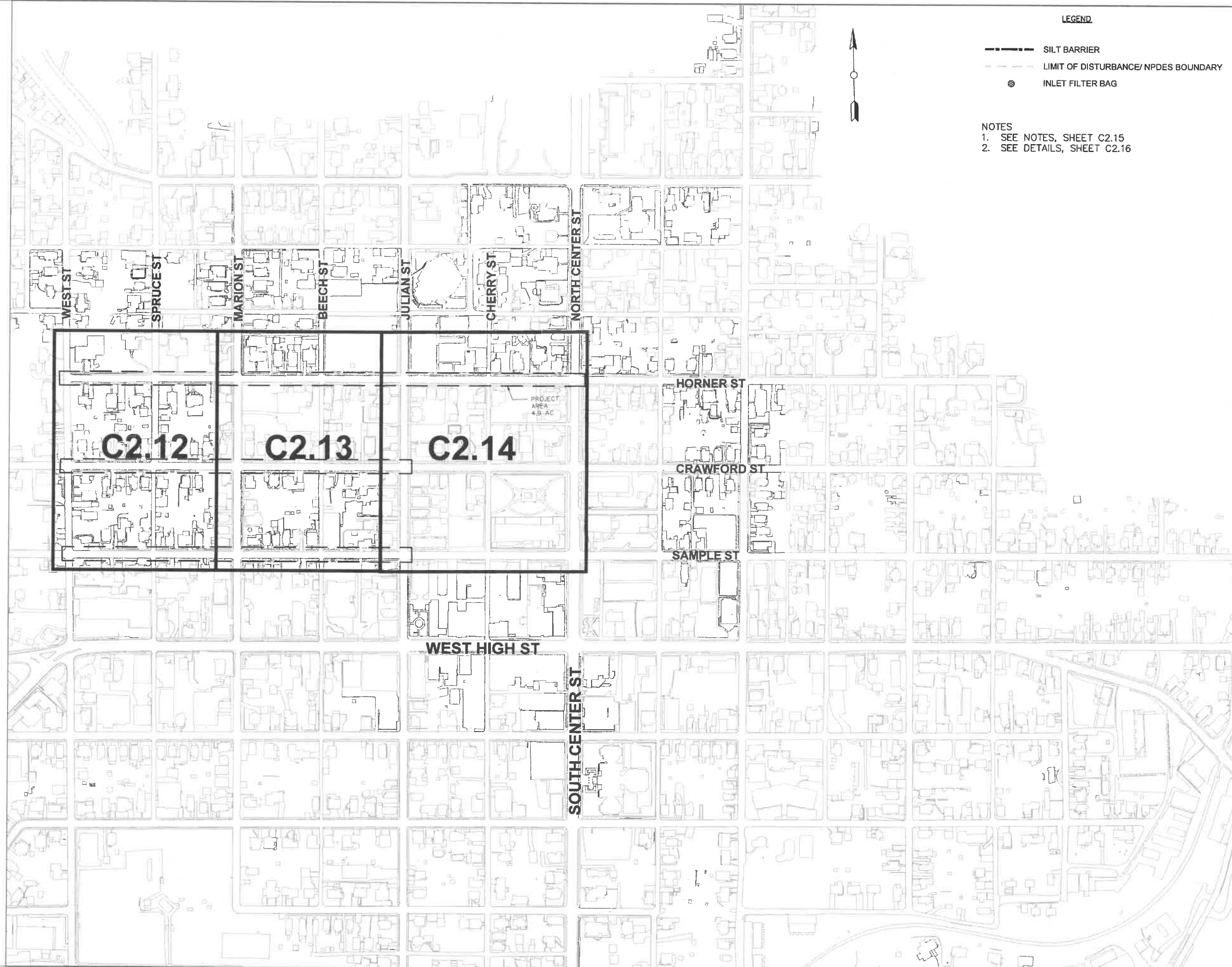
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SHEET TITLE

CONTRACT 2
CRAWFORD STREET
AND
SAMPLE STREET

C2.08

K:\ERP_PROJ\EB20001\CE\CAU\Bom\C215.dwg
Jan 16, 2020 - 9:05am



LEGEND

- SILT BARRIER
- - - LIMIT OF DISTURBANCE/ NPDES BOUNDARY
- INLET FILTER BAG

NOTES

1. SEE NOTES, SHEET C2.15
2. SEE DETAILS, SHEET C2.16



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**CONTRACT 2
INDEX SHEET
E & S CONTROL PLAN**

C2.11



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300 WEST HIGH STREET
EBENBURG, PA 15931

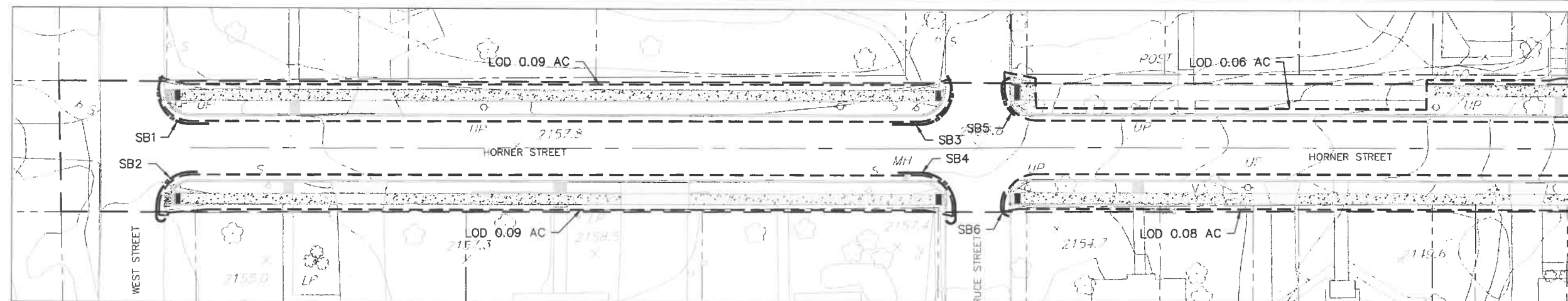
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ISSUE:	1/16/20	
PROJECT NO:	EBG.E000140.EB21	
SCALE:	AS SHOWN	
DRAWN BY:	TAG	
CHECKED BY:	GLH	

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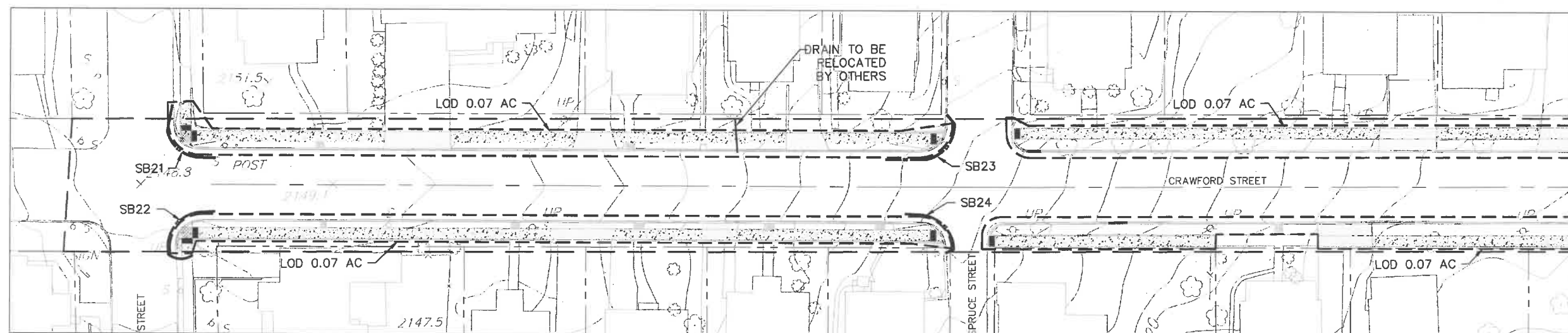
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**CONTRACT 2
WEST TO MARIAN
E & S CONTROL PLAN**

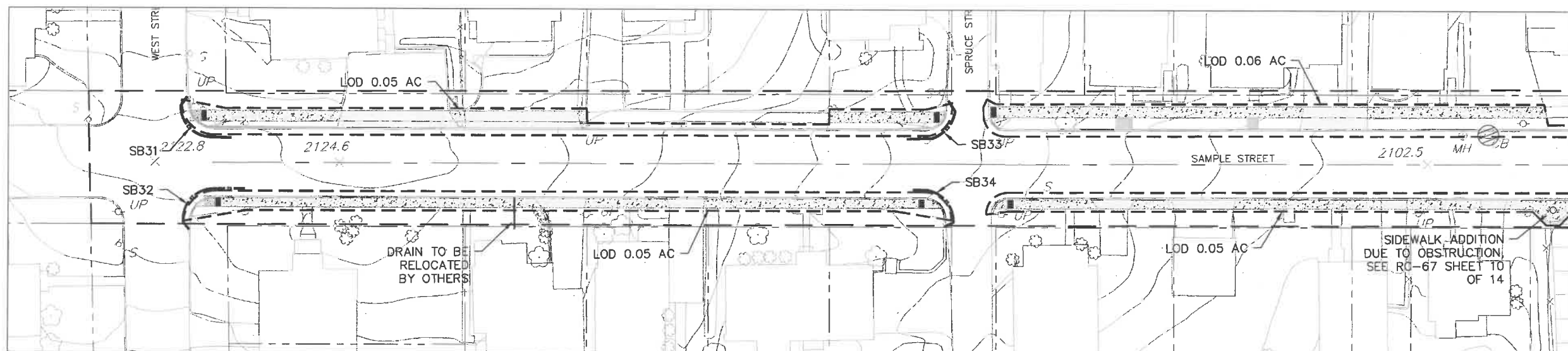
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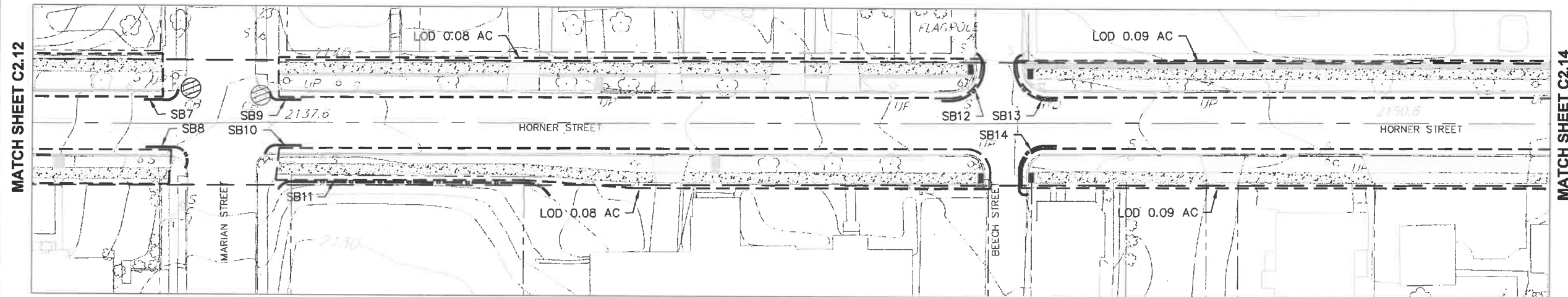
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SCALE: 1" = 20'



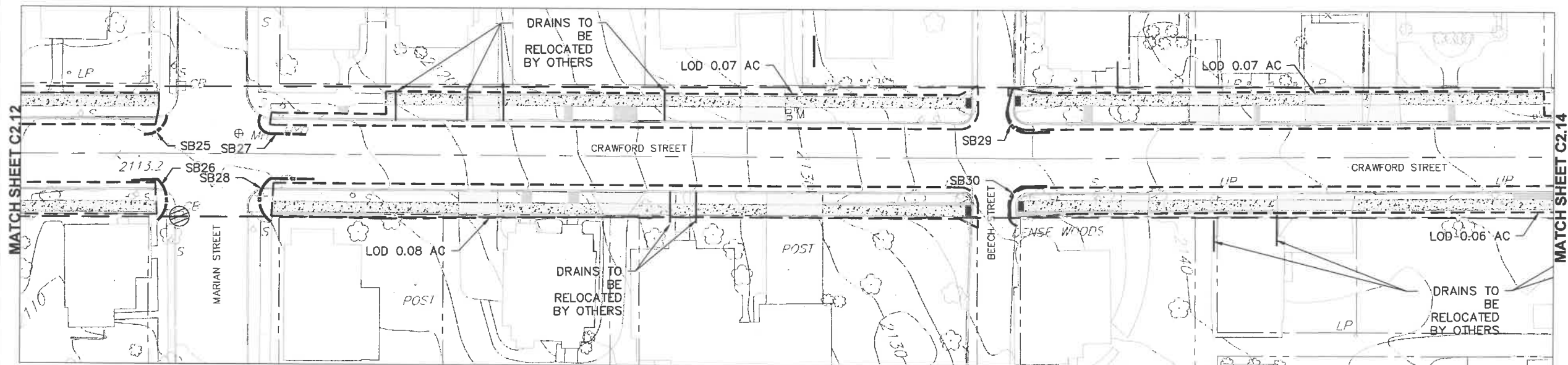
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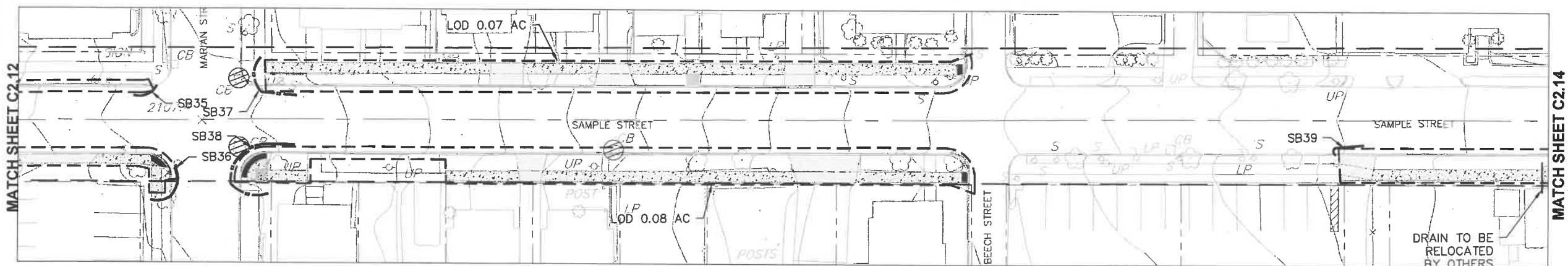
3 SAMPLE ST
SCALE: 1" = 20'



1 HORNER ST
SCALE: 1" = 20'



1 CRAWFORD ST
SCALE: 1" = 20'



2 SAMPLE ST
SCALE: 1" = 20'



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CONSULTANTS:

PROJECT NAME:

**BOROUGH
OF EBENSBURG
CURB AND SIDEWALK
REPLACEMENT**

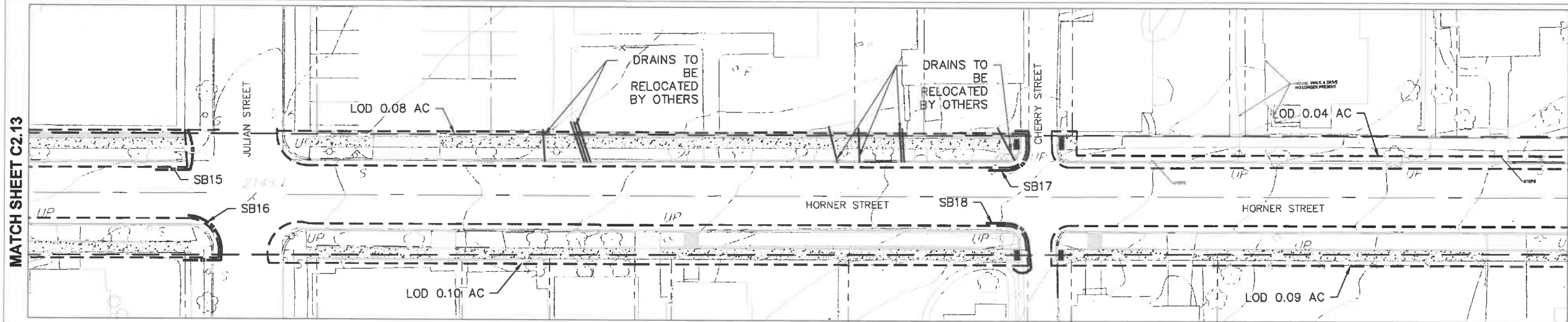
BOROUGH OF EBENSBURG
CAMBRIA COUNTY, STATE
OWNER:

BOROUGH OF
EBENSBURG
300 WEST HIGH STREET
EBENSBURG, PA 15931

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SHEET TITLE		

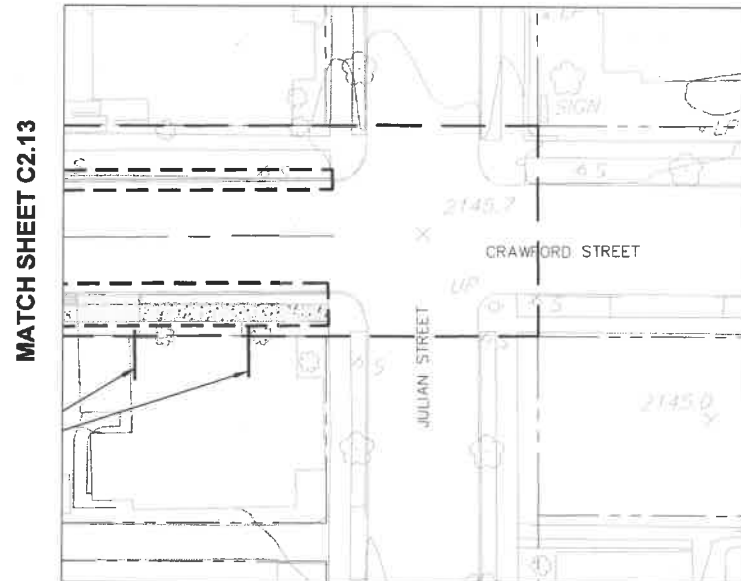
**CONTRACT 2
MARIAN TO JULIAN
E & S CONTROL PLAN**

C2.13

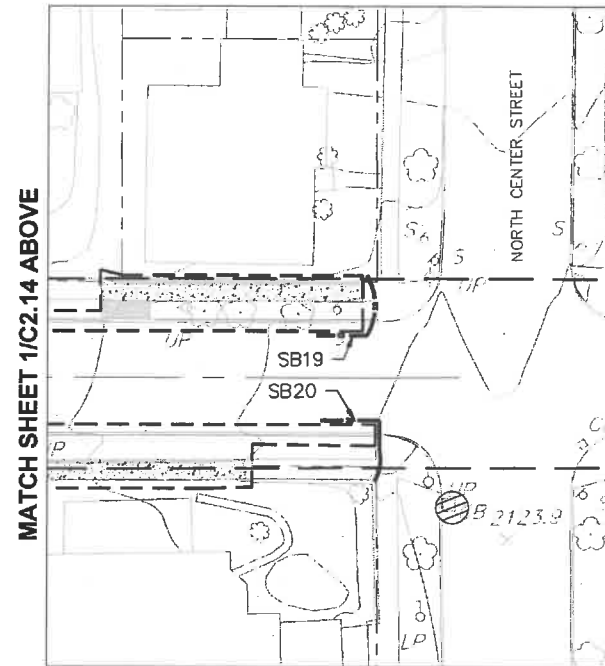


MATCH SHEET C2.13

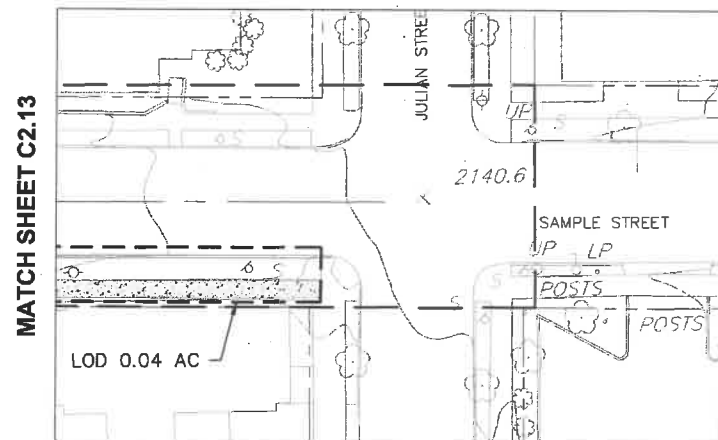
MATCH SHEET 4/C2.14 BELOW



MATCH SHEET C2.13



MATCH SHEET 1/C2.14 ABOVE



MATCH SHEET C2.13



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CONSULTANTS:

PROJECT NAME:
**BOROUGH
OF EBENSBURG
CURB AND SIDEWALK
REPLACEMENT**
BOROUGH OF EBENSBURG
CAMBRIA COUNTY, STATE
OWNER:

BOROUGH OF
EBENSBURG
300 WEST HIGH STREET
EBENSBURG, PA 15931

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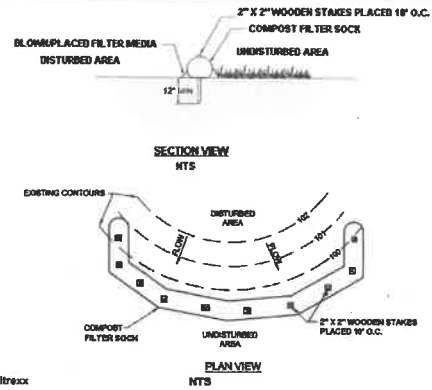
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**CONTRACT 2
JULIAN TO CENTER
E & S CONTROL PLAN**

C2.14

C2.15

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Jan 16, 2020 - 8:58am



Sock fabric shall meet standards of Table 4.1. Compost shall meet the standards of Table 4.2.

Compost filter sock shall be placed at existing level grade. Both ends of the sock shall be extended at least 8 feet up slope at 45 degrees to the main sock alignment (Figure 4.1). Maximum slope length above any sock shall not exceed that shown on Figure 4.2. Stakes may be installed immediately downslope of the sock if so specified by the manufacturer.

Traffic shall not be permitted to cross filter socks.

Accumulated sediment shall be removed when it reaches half the aboveground height of the sock and disposed in the manner described elsewhere in the plan.

Socks shall be inspected weekly and after each runoff event. Damaged socks shall be repaired according to manufacturer's specifications or replaced within 24 hours of inspection.

Biodegradable filter socks shall be replaced after 6 months; photodegradable socks after 1 year. Polypropylene socks shall be replaced according to manufacturer's recommendations.

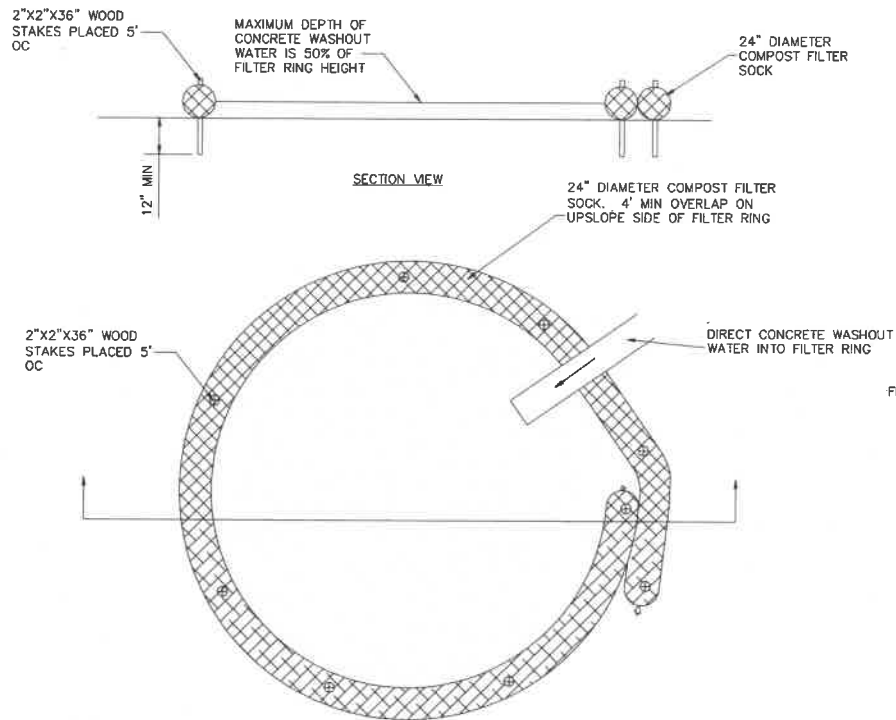
Upon stabilization of the area tributary to the sock, stakes shall be removed. The sock may be left in place and vegetated or removed. In the latter case, the mesh shall be cut open and the mulch spread as a soil supplement.

BARRIER NO.	LOCATION	SOCK SIZE (IN)	SLOPE (%)	SLOPE LENGTH ABOVE BARRIER (FT)
SB1	HORNER AT WEST	12	1	125
SB2	HORNER AT WEST	12	1	125
SB3	HORNER AT SPRUCE	12	1	150
SB4	HORNER AT SPRUCE	12	1	150
SB5	HORNER AT SPRUCE	12	1	200
SB6	HORNER AT SPRUCE	12	1	30
SB7	HORNER AT MARIAN	12	4	260
SB8	HORNER AT MARIAN	12	4	260
SB9	HORNER AT MARIAN	12	2	260
SB10	HORNER AT MARIAN	12	2	260
SB11	HORNER AT MARIAN	12	1	20
SB12	HORNER AT BEECH	12	1	200
SB13	HORNER AT BEECH	12	2	160
SB14	HORNER AT BEECH	12	2	160
SB15	HORNER AT JULIAN	12	1	125
SB16	HORNER AT JULIAN	12	1	125
SB17	HORNER AT CHERRY	12	2	280
SB18	HORNER AT CHERRY	12	2	280
SB19	HORNER AT CENTER	12	3	270
SB20	HORNER AT CENTER	12	3	270
SB21	CRAWFORD AT WEST	12	2	60
SB22	CRAWFORD AT WEST	12	2	60
SB23	CRAWFORD AT SPRUCE	12	4	225
SB24	CRAWFORD AT SPRUCE	12	4	225
SB25	CRAWFORD AT MARIAN	12	4	280
SB26	CRAWFORD AT MARIAN	12	4	280
SB27	CRAWFORD AT MARIAN	12	4	280
SB28	CRAWFORD AT MARIAN	12	4	280
SB29	CRAWFORD AT BEECH	12	2	270
SB30	CRAWFORD AT BEECH	12	2	270
SB31	SAMPLE AT WEST	12	2	60
SB32	SAMPLE AT WEST	12	2	60
SB33	SAMPLE AT SPRUCE	12	3	220
SB34	SAMPLE AT SPRUCE	12	3	220
SB35	SAMPLE AT MARIAN	12	2.5	280
SB36	SAMPLE AT MARIAN	12	2.5	280
SB37	SAMPLE AT MARIAN	12	4	270
SB38	SAMPLE AT MARIAN	12	4	270
SB39	SAMPLE ABOVE BEECH	12	2	150

COMPOST FILTER SOCK DETAIL
SCALE: NTS

SEEDING TABLE

SEED TYPE	DESCRIPTION, FORMULA, SPECIES	% BY WEIGHT	MINIMUM %		MAX % WEED SEED	SEEDING RATE:	FERTILIZER RATE: 1,000 LBS./ACREF.		LIME RATE: TONS/AC	MULCH RATE:
			PURITY	GERMINATION			BASIC	STARTER		
TYPE 1 LAWN AREAS (PER PENNDOT SPECS)	PENNDOT FORMULA B *PERENNIAL RYEGRASS MIXTURE	20	98	90	0.15	0.44	10-20-20	40	6	3 TON/ACRE
	*CREEPING RED FESCUE	30	98	85	0.15	0.67				
	*KENTUCKY BLUEGRASS MIXTURE	50	98	80	0.20	1.2				
						2.3 LBS./1000 S.F.				
TYPE 3 TEMPORARY SEEDING	ANNUAL RYEGRASS	100	98	90	0.15	TOTAL = 1.1 LBS./1000 S.F.	10-20-20		6	3 TON/ACRE



NOTES:

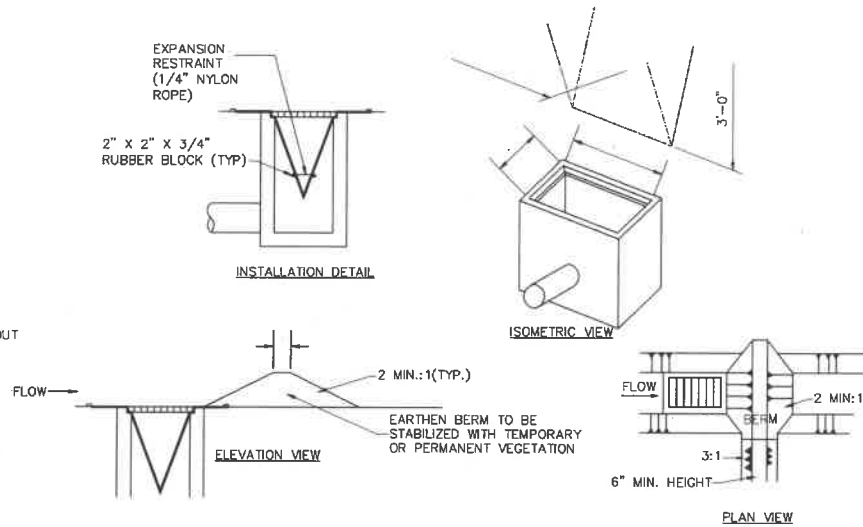
SURPLUS CONCRETE SHALL BE RETURNED TO SUPPLIERS SITE OR CONTRACTOR SHALL MAINTAIN CONCRETE WASHOUT FACILITIES AT THEIR LAYDOWN YARD.

INSTALL ON FLAT GRADE FOR OPTIMUM PERFORMANCE.

18" DIAMETER FILTER SOCK MAY BE STACKED ONTO 24" DIAMETER SOCKS IN PYRAMIDAL CONFIGURATION FOR ADDED HEIGHT.

A SUITABLE IMPERVIOUS GEOMEMBRANE SHALL BE PLACED AT THE LOCATION OF THE WASHOUT PRIOR TO INSTALLING THE SOCKS.

CONCRETE WASHOUT DETAIL
N.T.S.



MAXIMUM DRAINAGE AREA = 1/2 ACRE.

INLET PROTECTION IS NOT REQUIRED FOR INLET TRIBUTARY TO SEDIMENT BASIN OR TRAP. BERMS SHALL BE REQUIRED FOR ALL INSTALLATIONS.

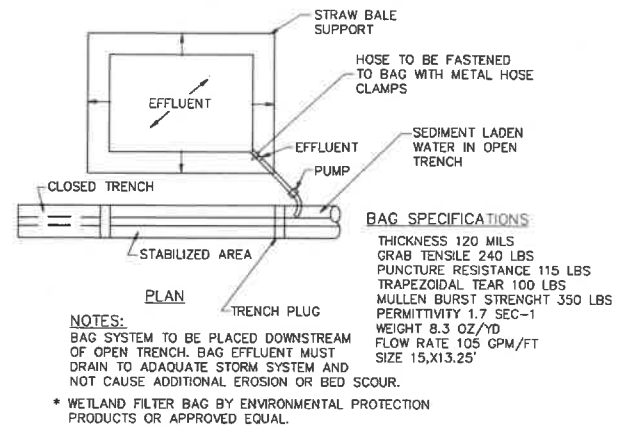
ROLLED EARTHEN BERM SHALL BE MAINTAINED UNTIL ROADWAY IS STONED. ROAD SUBBASE BERM SHALL BE MAINTAINED UNTIL ROADWAY IS PAVED. SIX INCH MINIMUM HEIGHT ASPHALT BERM SHALL BE MAINTAINED UNTIL ROADWAY SURFACE RECEIVES FINAL COAT.

AT A MINIMUM, THE FABRIC SHALL HAVE A MINIMUM GRAB TENSILE STRENGTH OF 120 LBS, A MINIMUM BURST STRENGTH OF 200 PSI, AND A MINIMUM TRAPEZOIDAL TEAR TENSILE STRENGTH OF 50 LBS. FILTER BAGS SHALL BE CAPABLE OF TRAPPING ALL PARTICLES NOT PASSING A NO. 40 SIEVE.

INLET FILTER BAGS SHALL BE INSPECTED ON A WEEKLY BASIS AND AFTER EACH RUNOFF EVENT. BAGS SHALL BE EMPTIED AND RINSED OR REPLACED WHEN HALF FULL OR WHEN FLOW CAPACITY HAS BEEN REDUCED SO AS TO CAUSE FLOODING OR BYPASSING OF THE INLET. DAMAGED OR CLOGGED BAGS SHALL BE REPLACED. A SUPPLY SHALL BE MAINTAINED ON SITE FOR REPLACEMENT OF BAGS. ALL NEEDED REPAIRS SHALL BE INITIATED IMMEDIATELY AFTER THE INSPECTION. DISPOSE OF ACCUMULATED SEDIMENT AS WELL AS ALL USED BAGS ACCORDING TO THE PLAN NOTES.

DO NOT USE ON MAJOR PAVED ROADWAYS WHERE PONDING MAY CAUSE TRAFFIC HAZARDS

FILTER BAG INLET PROTECTION
CHANNEL OR ROADSIDE SWALE DETAIL
SCALE: NTS

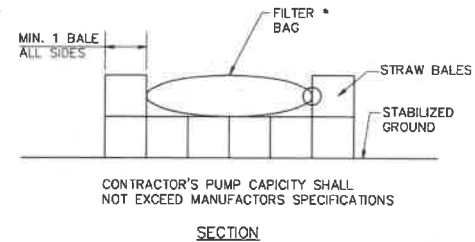


NOTES:

BAG SYSTEM TO BE PLACED DOWNSTREAM OF OPEN TRENCH. BAG EFFLUENT MUST DRAIN TO ADEQUATE STORM SYSTEM AND NOT CAUSE ADDITIONAL EROSION OR BED SCOUR.

* WETLAND FILTER BAG BY ENVIRONMENTAL PROTECTION PRODUCTS OR APPROVED EQUAL.

FILTER BAG FACILITY DETAIL
N.T.S.



FILTER BAG FACILITY DETAIL
N.T.S.



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CURB AND SIDEWALK
REPLACEMENT

BOROUGH OF EBENSBURG
CAMBRIA COUNTY, STATE
OWNER:

BOROUGH OF
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300 WEST HIGH STREET
EBENSBURG, PA 15931

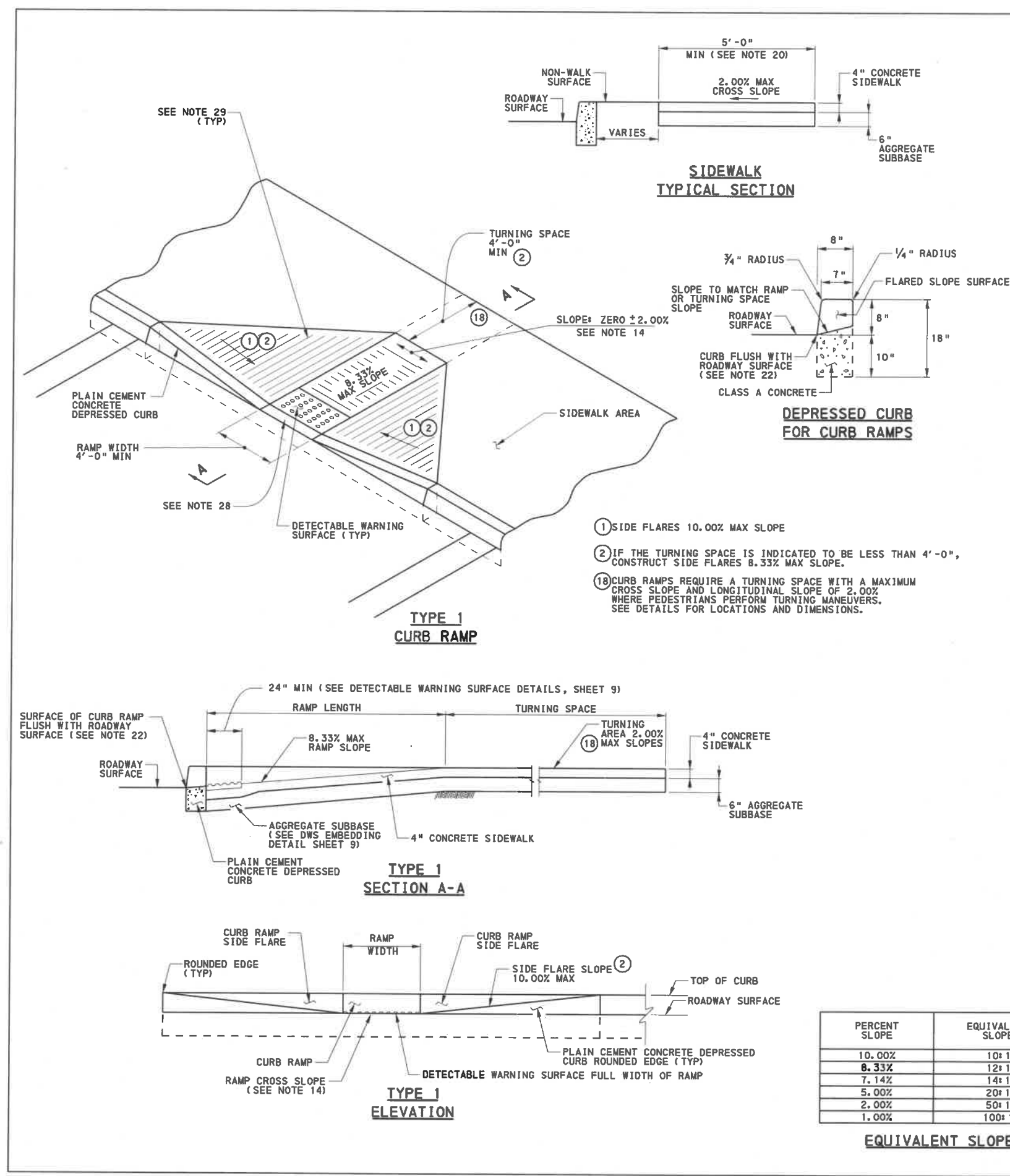
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PROJECT NO:	EBG.E000140.EB21	
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SHEET TITLE

CONTRACT 2
DETAILS
E & S CONTROL PLAN

C2.16



- ### NOTES
1. PROVIDE MATERIALS AND CONSTRUCTION MEETING THE REQUIREMENTS OF PUBLICATION 408, SECTIONS 350, 409, 630, 676, 694, AND 695.
 2. PROVIDE EXPANSION JOINT MATERIAL 1/2" THICK WHERE CURB RAMP ADJOINS ANY RIGID PAVEMENT, SIDEWALK OR STRUCTURE WITH THE TOP OF JOINT FILLER FLUSH WITH ADJACENT CONCRETE SURFACE.
 3. CONSTRUCT CURB RAMPS WITH A MINIMUM 4'-0" X 4'-0" CLEAR SPACE BEYOND THE CURB FACE, WITHIN THE WIDTH OF THE CROSSWALK AND WHOLLY OUTSIDE THE PARALLEL VEHICLE TRAVEL LANE. SEE SHEET 7 FOR CROSSWALK DETAILS.
 4. SEAL JOINTS WITH AN APPROVED SEALING MATERIAL.
 5. PROVIDE SLIP RESISTANT TEXTURE ON CURB RAMP BY COARSE BROOMING TRANSVERSE TO THE SLOPE OF THE RAMP. EXTEND TEXTURE THE FULL WIDTH AND LENGTH OF THE CURB RAMP INCLUDING SIDE FLARES.
 6. MODIFY CONSTRUCTION DETAILS TO ADAPT DIMENSIONS TO EXISTING CURB HEIGHTS WHERE THE CURB IS LESS THAN THE STANDARD 8" HEIGHT.
 7. CURB RAMP AND SIDE FLARE LENGTHS ARE VARIABLE AND BASED ON CURB HEIGHT AND THE SIDEWALK SLOPE.
 8. TO AVOID CHASING GRADE INDEFINITELY WHEN TRAVERSING THE HEIGHT OF CURB, RAMP LENGTH NOT TO EXCEED 15'-0". ADJUST RAMP SLOPE AS NEEDED TO PROVIDE ACCESS TO THE MAXIMUM EXTENT FEASIBLE.
 9. NON-WALK AREA IS AN OBSTRUCTED OR GRASS/NON-PAVED AREA ADJACENT TO THE PEDESTRIAN ACCESS ROUTE THAT IS NOT USED BY THE PEDESTRIAN FOR ACCESS.
 10. THE DETAILS DEPICT PEDESTRIAN PUSHBUTTON POLES TO ILLUSTRATE THE RECOMMENDED PLACEMENT OF PEDESTRIAN PUSHBUTTONS. FOR ALTERATION PROJECTS, PROVIDE ACCESS TO EXISTING PEDESTRIAN PUSHBUTTONS TO THE MAXIMUM EXTENT FEASIBLE. INSTALL PEDESTRIAN PUSHBUTTON STUB POLES, WHERE APPLICABLE, SO AS NOT TO CREATE PEDESTRIAN OBSTRUCTIONS.
 11. SEE TC-8803 FOR ADDITIONAL PEDESTRIAN PUSHBUTTON DETAILS NOT SHOWN.
 12. ALIGN DETECTABLE WARNING SURFACE TRUNCATED DOMES ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF THE RAMP AND PERPENDICULAR TO CURB. SEE SHEET 9 FOR INSTALLATIONS ALONG CURVED SURFACES.
 13. PROVIDE DETECTABLE WARNING SURFACES (DWS) 24" MINIMUM (IN THE DIRECTION OF PEDESTRIAN TRAVEL) ACROSS FULL WIDTH OF RAMP AT THE GRADE BREAK NEAR STREET EDGE. PROVIDE DWS THAT CONTRAST VISUALLY WITH ADJACENT WALKWAY SURFACES, EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT FOR THE FULL WIDTH OF RAMP.
 14. FOR NEW CONSTRUCTION, DO NOT EXCEED 2.00% CROSS SLOPE ON THE CURB RAMP OR PEDESTRIAN ACCESS ROUTE.
 15. FOR NEW CONSTRUCTION AND ALTERATIONS, CONSTRUCT CURB RAMP AND FLARE SLOPES WITH THE FLATTEST SLOPE POSSIBLE. THE SLOPES INDICATED IN THE DETAILS SHOW THE MAX SLOPE ALLOWABLE. SLOPES THAT EXCEED THOSE INDICATED IN THE DETAILS, OR CONTRACT DOCUMENTS AS APPLICABLE, WILL NOT BE ACCEPTED AND WILL BE RECONSTRUCTED.
 16. CONSTRUCT SIDEWALKS AT A LONGITUDINAL SLOPE NOT TO EXCEED 5.00%. FOR ROADWAY PROFILE SLOPES THAT EXCEED 5.00%, CONSTRUCT PARALLEL SIDEWALKS ADJACENT TO ROADWAY AT A LONGITUDINAL SLOPE NOT TO EXCEED ROADWAY PROFILE SLOPE.
 17. THE CHANGE IN GRADE AT THE BOTTOM OF THE CURB RAMP AND ADJOINING ROAD SURFACE IS NOT TO EXCEED AN ALGEBRAIC DIFFERENCE OF 13.33%. THE COUNTER SLOPE OF THE GUTTER OR ROAD AT THE FOOT OF A CURB RAMP, TURNING SPACE OR BLENDED TRANSITION IS NOT TO EXCEED 5.00%. SEE SHEET 8 FOR DETAILS.
 18. THE CONSTRUCTION STANDARDS DEPICTED ARE MOST APPROPRIATE FOR NEW CONSTRUCTION. ALL CONSTRUCTION MUST MEET THE STANDARDS CONTAINED HEREIN UNLESS OTHERWISE NOTED OR DIRECTED.
 19. ALL SLOPES ARE MEASURED WITH RESPECT TO A LEVEL PLANE. THEREFORE, THE LENGTH OF RAMP IS NOT SOLELY DEPENDANT ON THE HEIGHT OF CURB. (FOR EXAMPLE, A 6" CURB DOES NOT NECESSARILY MEAN A RAMP LENGTH OF 6'-0" FOR A 12:1 SLOPE.)
 20. SIDEWALK WIDTH MAY BE REDUCED TO 4'-0", WHEN PASSING AREAS 5'-0" X 5'-0" ARE PROVIDED EVERY 200'.
 21. THE TRAVEL LANE IS DEFINED BY THE OUTSIDE EDGE OF THE WHITE PAVEMENT MARKING LINE. IF A WHITE PAVEMENT MARKING LINE DOES NOT EXIST, THE TRAVEL LANE IS DEFINED BY THE CONTRACT DOCUMENTS.
 22. CONSTRUCT DEPRESSED CURB FOR CURB RAMPS FLUSH TO ADJACENT ROADWAY. GRADE EDGE OF ROAD ELEVATIONS AT THE FLOW LINE TO ENSURE POSITIVE DRAINAGE AND PREVENT PONDING. FOR LEVEL TURNING SPACES BEHIND DEPRESSED CURB, ADJUST SLOPES TO PROVIDE POSITIVE DRAINAGE. AT THE JOINT BETWEEN DEPRESSED CURB AND ROADWAYS, REMOVE EXCESS JOINT SEALER AND COVER THE SEALED AREA WITH A LIGHT APPLICATION OF DRY SAND.
 23. CHEEK WALLS ARE PERMITTED WHEN ADJACENT TO NON-WALK AREAS OR ELEVATION DIFFERENCES CANNOT BE ACCOMMODATED BY FLARES OR GRADING. GRADE GRASS AREAS OR OTHER NON-WALK AREAS AT 3:1 OR FLATTER. DO NOT INSTALL CHEEK WALLS THAT INTERSECT THE PEDESTRIAN PATH.
 24. CONSTRUCT TOP OF PLAIN CEMENT CONCRETE DEPRESSED CURB TO BE FLUSH WITH ADJACENT SURFACES (RAMPS, SIDEWALKS, FLARES).
 25. FOR CURB RAMPS THAT LEAD TO A SINGLE CROSSWALK, THE RAMP (EXCLUDING FLARES) TO BE FULLY INSIDE OF MARKED CROSSWALK LINES. SEE SHEET 7 FOR DETAILS.
 26. A 4'-0" MAXIMUM DIGITAL DISPLAY LEVEL WILL BE USED TO VERIFY THE SLOPES OF CURB RAMPS AND SIDEWALKS.
 27. INSTALL DUMMY JOINTS WHERE RAMPS, TURNING SPACES, FLARES, AND SIDEWALKS ABUT.
 28. CONSTRUCT DEPRESSED CURB SLOPE TO MATCH ROADWAY PROFILE AND HAVE A FLUSH CONNECTION. TRANSITION CURB RAMP CROSS SLOPE TO MATCH ROADWAY PROFILE AS GRADUALLY AS POSSIBLE. DO NOT EXCEED 3.00% PER 1'-0" CROSS SLOPE RATE OF CHANGE WHEN TRANSITIONING TO ROADWAY PROFILE.
 29. DO NOT SCORE OR MAKE GROOVES ON SLOPED SURFACES. LINES SHOWN ON DETAILS ARE FOR ILLUSTRATION ONLY. SEE NOTE 5.

PERCENT SLOPE	EQUIVALENT SLOPE
10.00%	10:1
8.33%	12:1
7.14%	14:1
5.00%	20:1
2.00%	50:1
1.00%	100:1

EQUIVALENT SLOPES

COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS
NEW CONSTRUCTION OR
ALTERATION DETAILS
TYPE 1 CURB RAMPS AND
TYPICAL SECTIONS

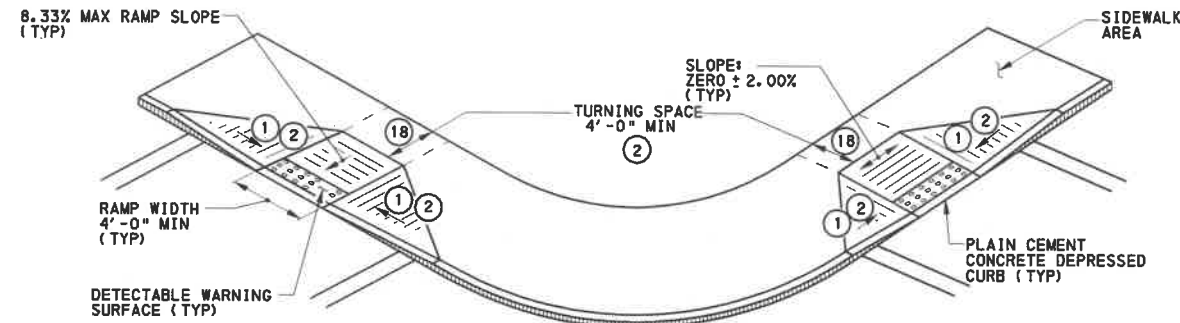
RECOMMENDED JUN. 10, 2013

CHIEF, HRY. DELIVERY DIVISION

RECOMMENDED JUN. 10, 2013

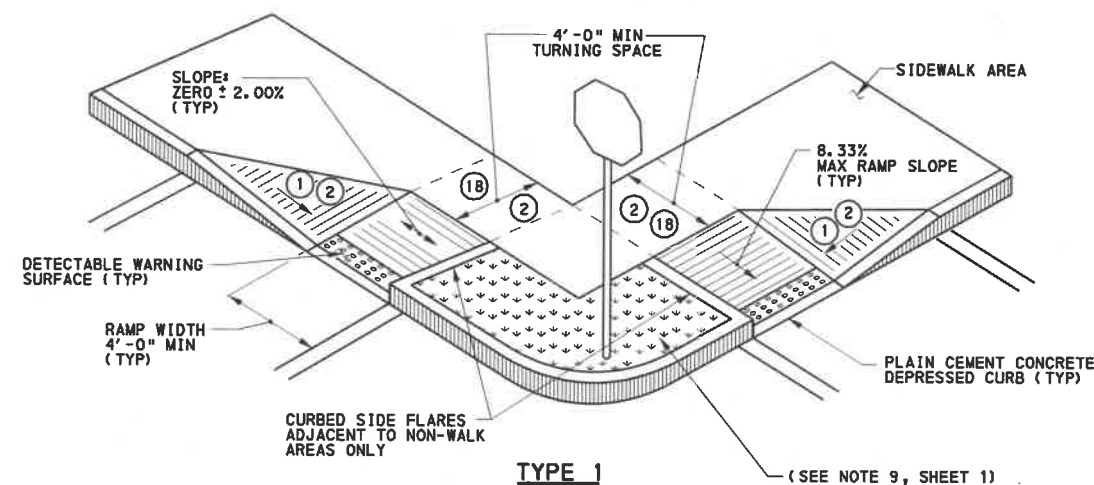
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SHT 1 OF 14
RC-67M

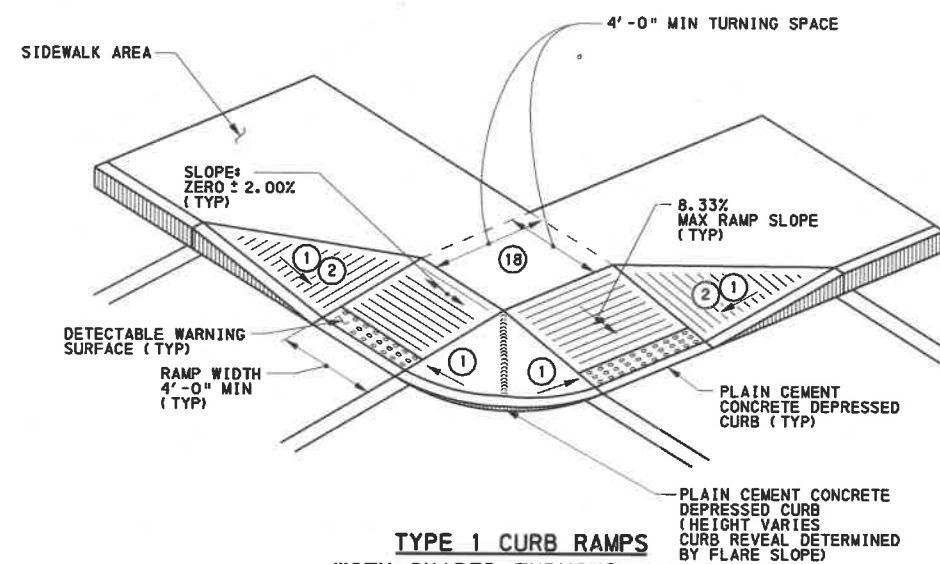


NOTE: IF SPACE IS LIMITED, IT MAY BE NECESSARY TO CURB THE SIDE FLARES OF THE TYPE 1 CURB RAMPS (SEE ALTERNATE INSTALLATION DETAIL BELOW). PEDESTRIAN TRAFFIC SHOULD NOT BE DIRECTED TO CROSS THE VERTICAL DROP.

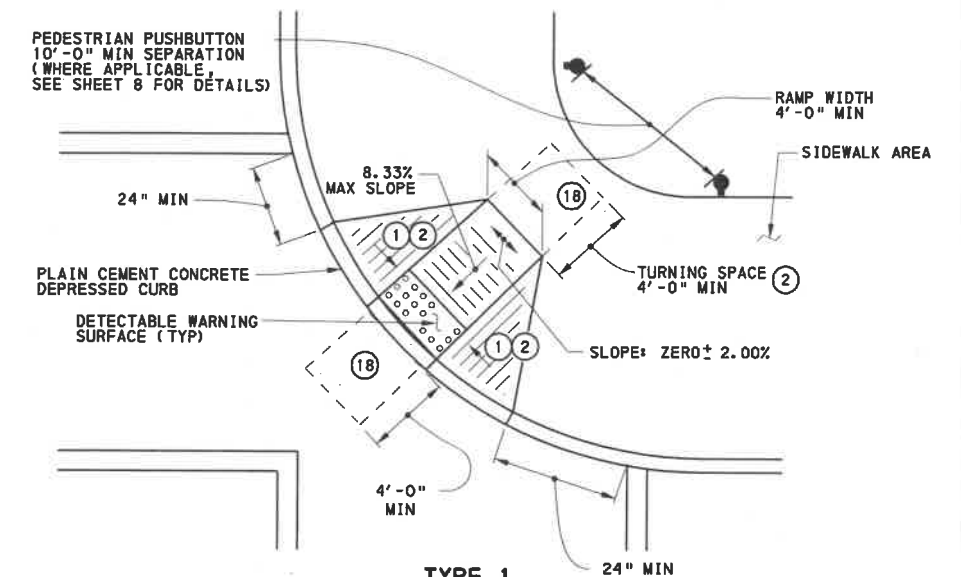
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DOUBLE CURB RAMPS
(PREFERRED INSTALLATION)**



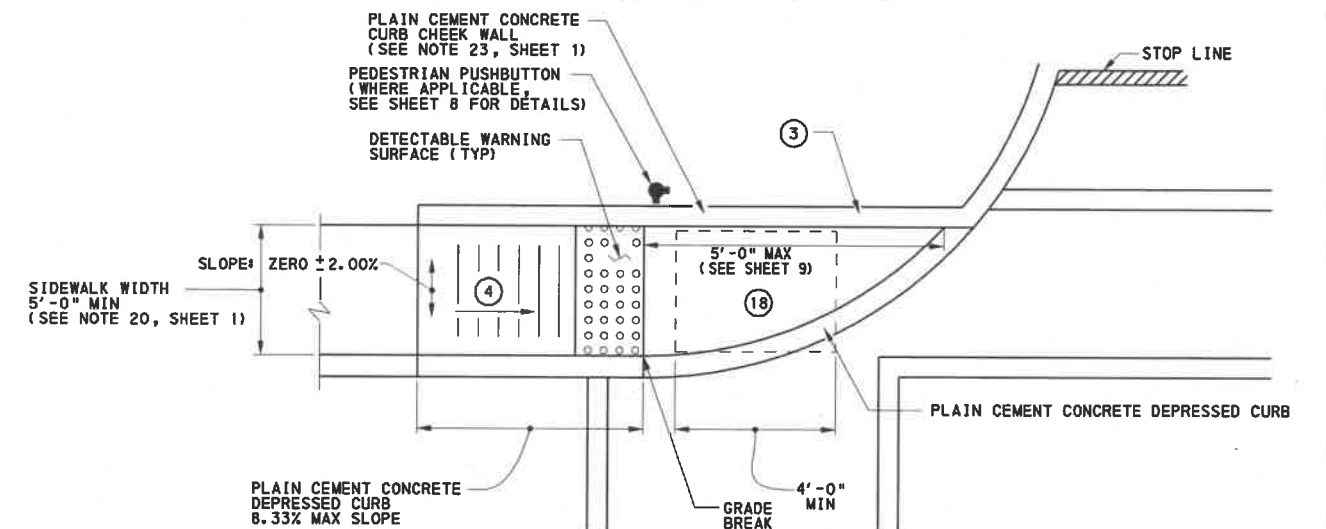
**TYPE 1
DOUBLE CURB RAMPS
(ALTERNATE INSTALLATION)**



**TYPE 1 CURB RAMPS
WITH SHARED TURNING SPACE**



**TYPE 1
CURB RAMP
(DIAGONAL - REQUIRES ASSISTANT
DISTRICT EXECUTIVE APPROVAL)**



**TYPE 1A
CURB RAMP
ASSISTANT DISTRICT EXECUTIVE APPROVAL
REQUIRED IF TURNING SPACE
IS NOT ENTIRELY ON SIDEWALK**

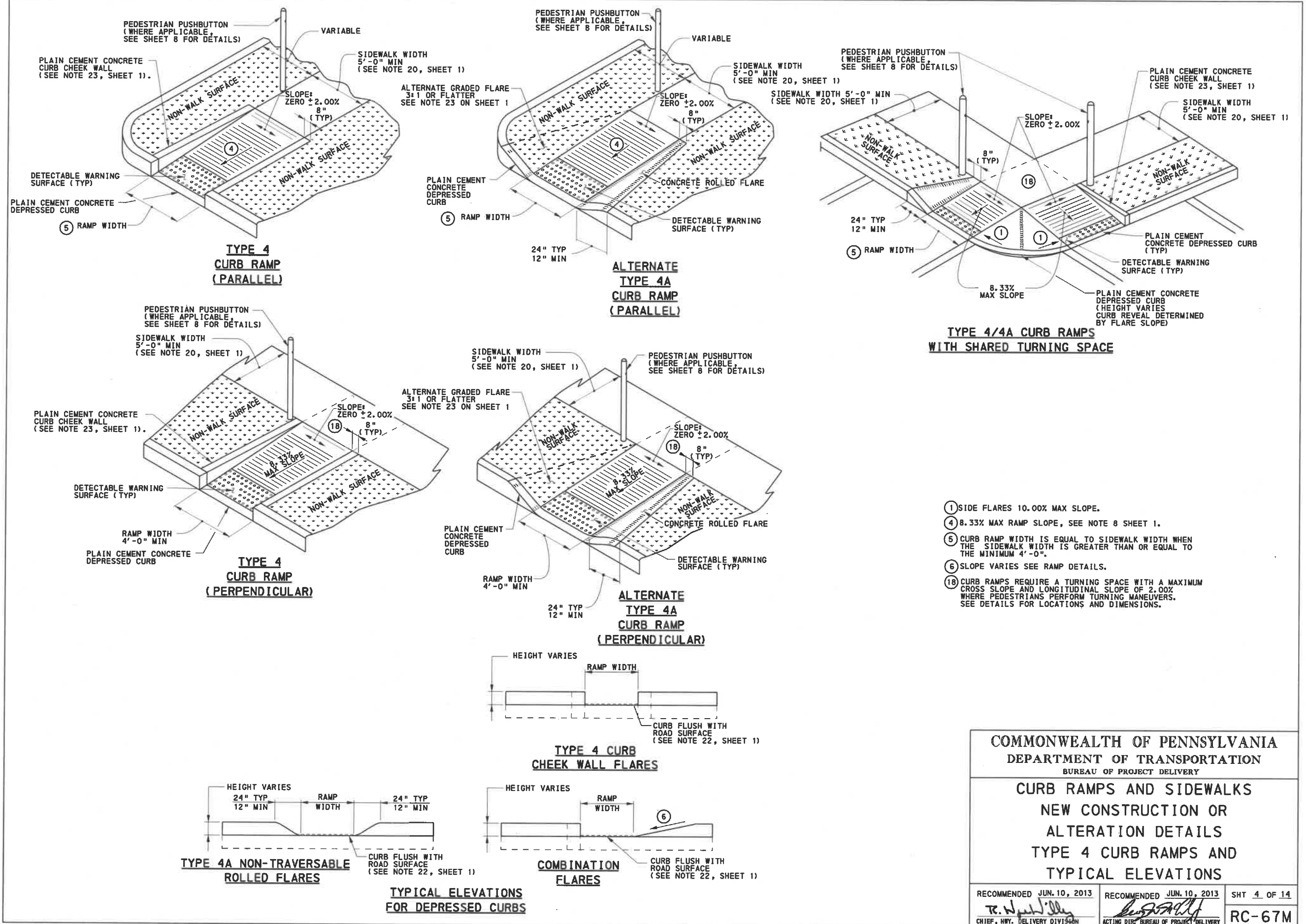
- ① SIDE FLARES 10.00% MAX SLOPE.
- ② IF THE TURNING SPACE IS INDICATED TO BE LESS THAN 4'-0", CONSTRUCT SIDE FLARES 8.33% MAX SLOPE.
- ③ OPTIONAL ROLLED CONCRETE SURFACE OR REGRADE SLOPE CAN BE USED TO MEET THE ADJACENT SURFACES IN LIEU OF A RETURN CURB CHEEK WALL.
- ④ 8.33% MAX RAMP SLOPE, SEE NOTE 8 SHEET 1.
- ⑧ CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

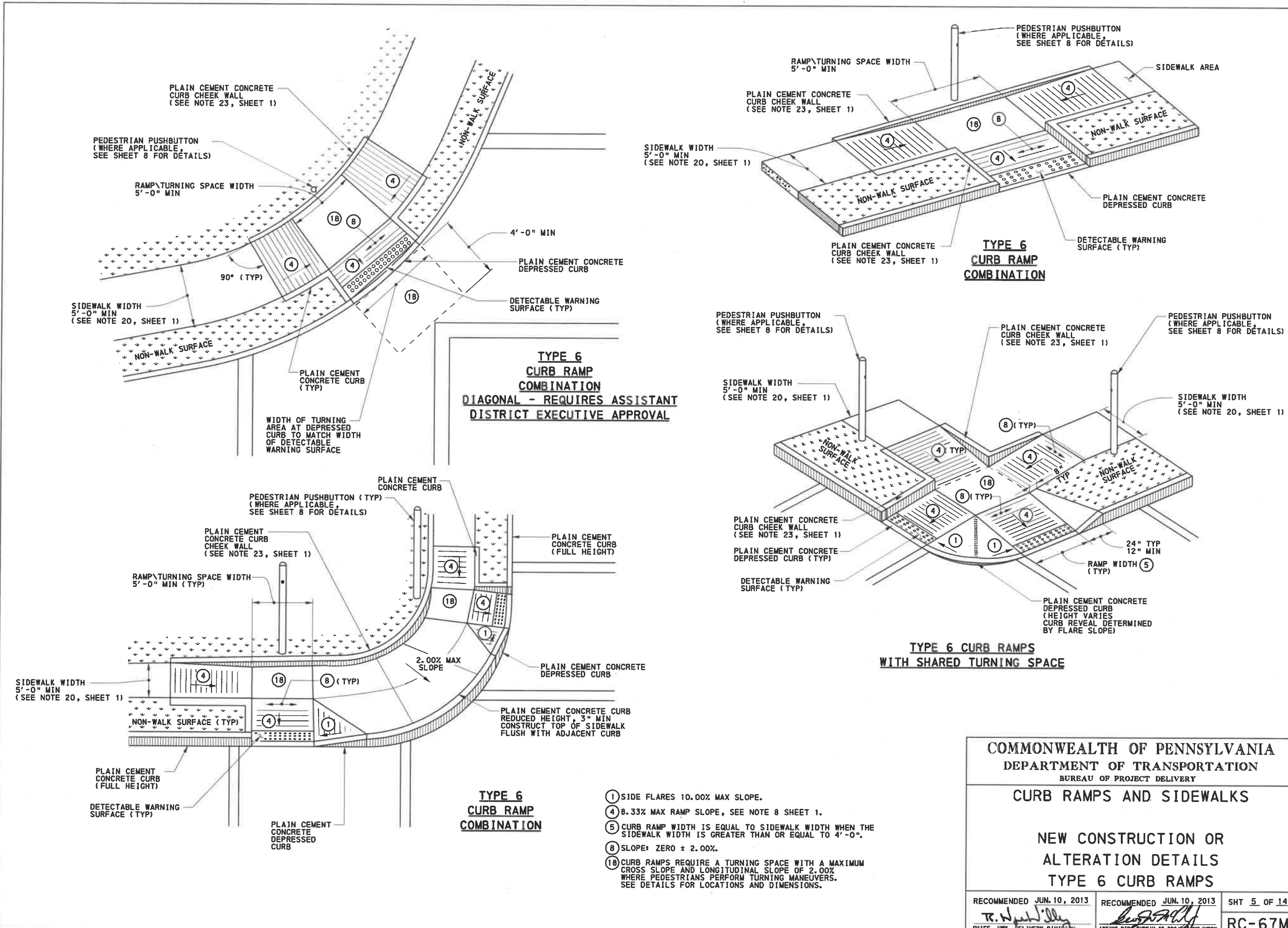
COMMONWEALTH OF PENNSYLVANIA
DEPARTMENT OF TRANSPORTATION
BUREAU OF PROJECT DELIVERY

CURB RAMPS AND SIDEWALKS

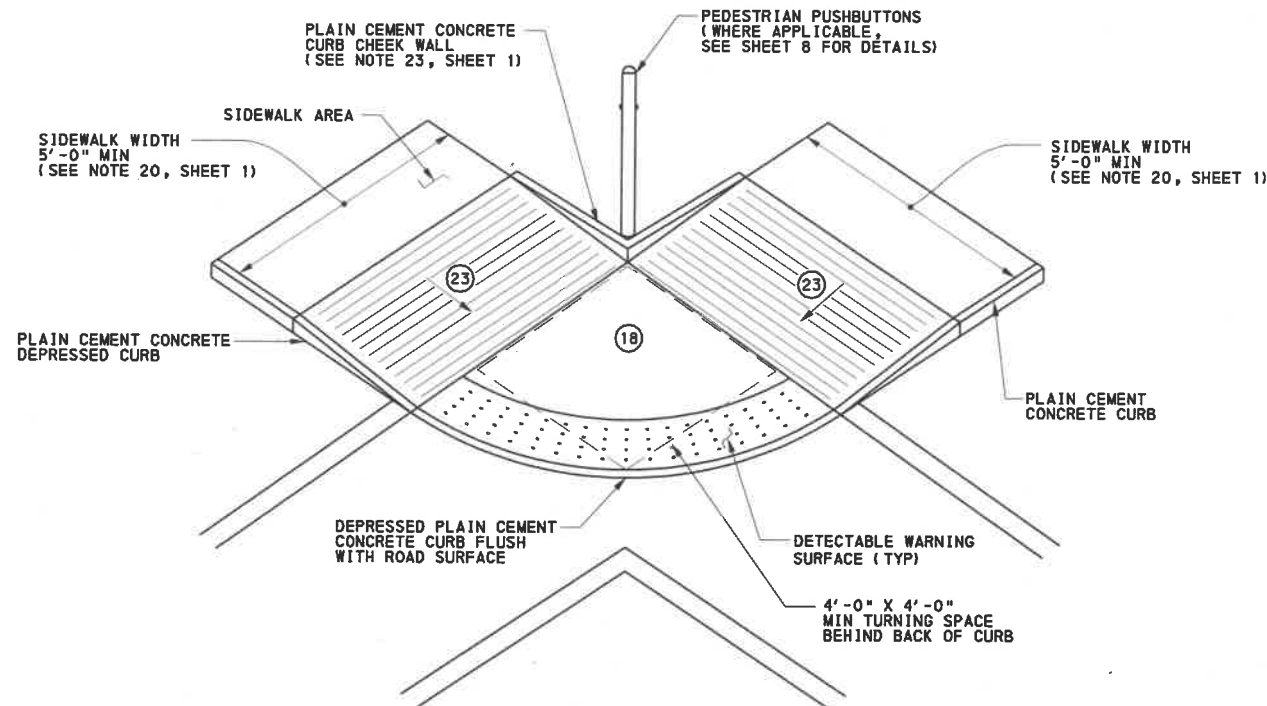
NEW CONSTRUCTION OR
ALTERATION DETAILS
TYPE 1 AND TYPE 1A CURB RAMPS

RECOMMENDED JUN. 10, 2013 R. W. [Signature] CHIEF, HWY. DELIVERY DIVISION	RECOMMENDED JUN. 10, 2013 [Signature] ACTING DIR. BUREAU OF PROJECT DELIVERY	SHT 2 OF 14 RC-67M
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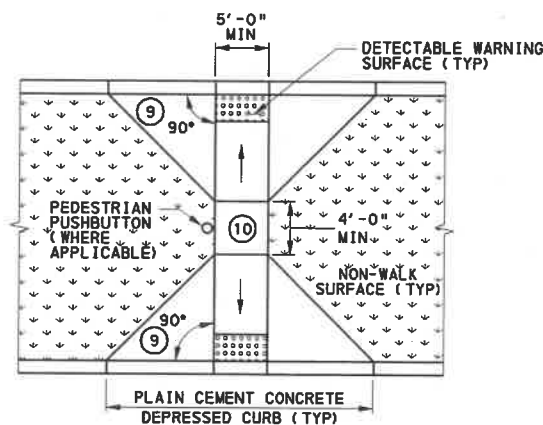


- ① SIDE FLARES 10.00% MAX SLOPE.
- ④ 8.33% MAX RAMP SLOPE, SEE NOTE 8 SHEET 1.
- ⑤ CURB RAMP WIDTH IS EQUAL TO SIDEWALK WIDTH WHEN THE SIDEWALK WIDTH IS GREATER THAN OR EQUAL TO 4'-0".
- ⑧ SLOPE: ZERO ± 2.00%.
- ⑱ CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

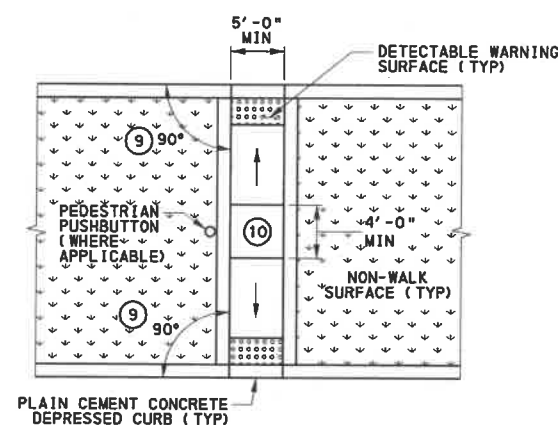


NOTE: DO NOT INSTALL GRATINGS, ACCESS COVERS AND OTHER APPURTENANCES ON THE BLENDED TRANSITION SURFACE WITHIN THE PEDESTRIAN ACCESS ROUTE. EXISTING UTILITY COVERS IN THE PATH OF TRAVEL ARE ACCEPTABLE IF THE TOP SURFACE IS FLUSH (LESS THAN 1/4" IN ELEVATION DIFFERENCE), FIRM, STABLE AND SLIP RESISTANT. INLET GRATES MUST HAVE OPENINGS NO GREATER THAN 1/2" IN DIRECTION OF TRAVEL.

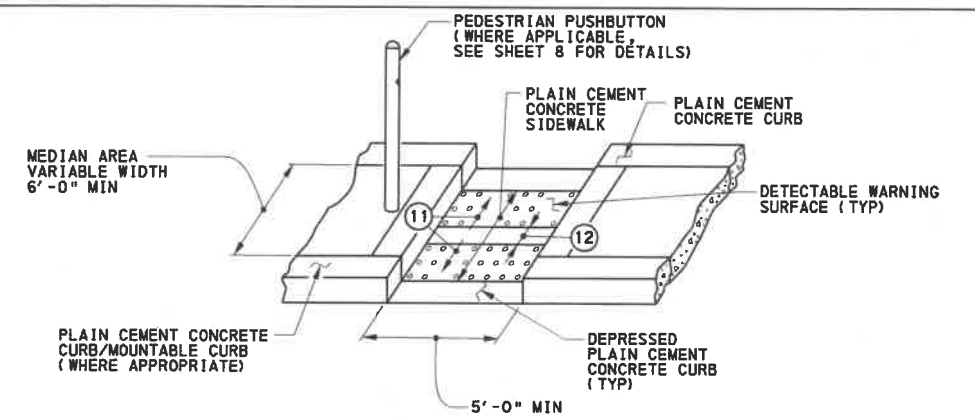
BLENDING TRANSITION



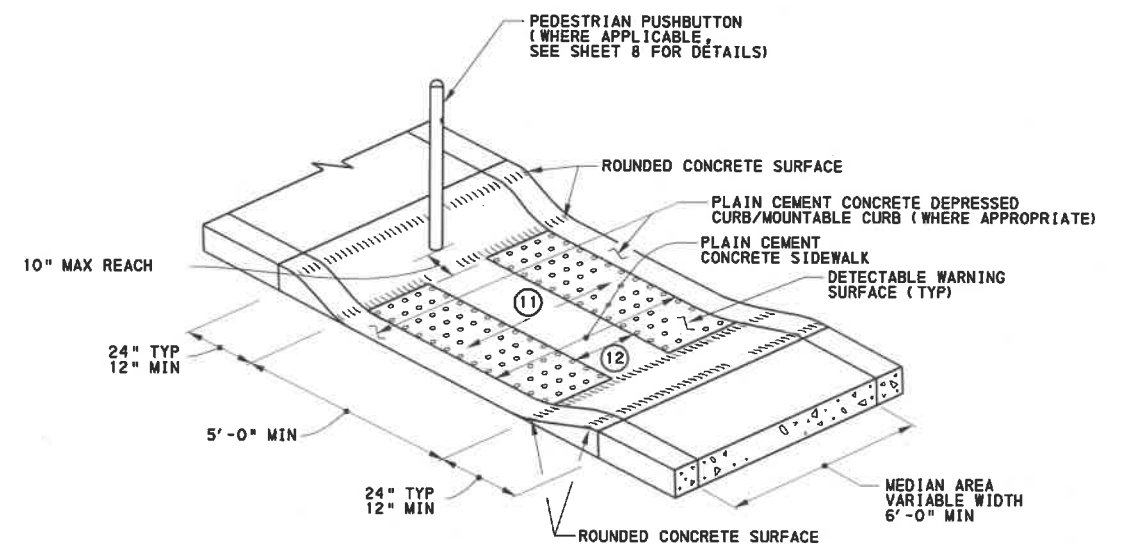
**RAMPED MEDIAN OR ISLAND
ACCESS OPENING
(TYPE 1 DOUBLE CURB RAMPS)**



**RAMPED MEDIAN OR ISLAND
ACCESS OPENING
(TYPE A DOUBLE CURB RAMPS)**



**TYPE A
TYPICAL MEDIAN OR ISLAND
ACCESS OPENING
WITH CURB SIDES
(NARROW MEDIANS)**



**TYPE B
TYPICAL MEDIAN OR ISLAND
ACCESS OPENING
WITH FLARED SIDES
(NARROW MEDIANS)**

- ⑨ 90° DESIRABLE.
- ⑩ TURNING SPACES ARE NOT REQUIRED FOR LONGITUDINAL SLOPES 5.00% OR LESS.
- ⑪ PROVIDE ADEQUATE SLOPE FOR DRAINAGE (5.00% MAX).
- ⑫ 2'-0" MIN SEPARATION. DO NOT INSTALL DETECTABLE WARNING SURFACES IF SEPARATION IS LESS THAN 2'-0". REFER TO DM-2 CHAPTER 6 FOR ADDITIONAL DETAILS.
- ⑬ CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.
- ⑭ 5.00% MAX RUNNING SLOPE FOR BLENDED TRANSITION. FOR SLOPES GREATER THAN 5.00% SEE TYPE 2 CURB RAMPS ON SHEET 3 FOR ADDITIONAL DETAILS.

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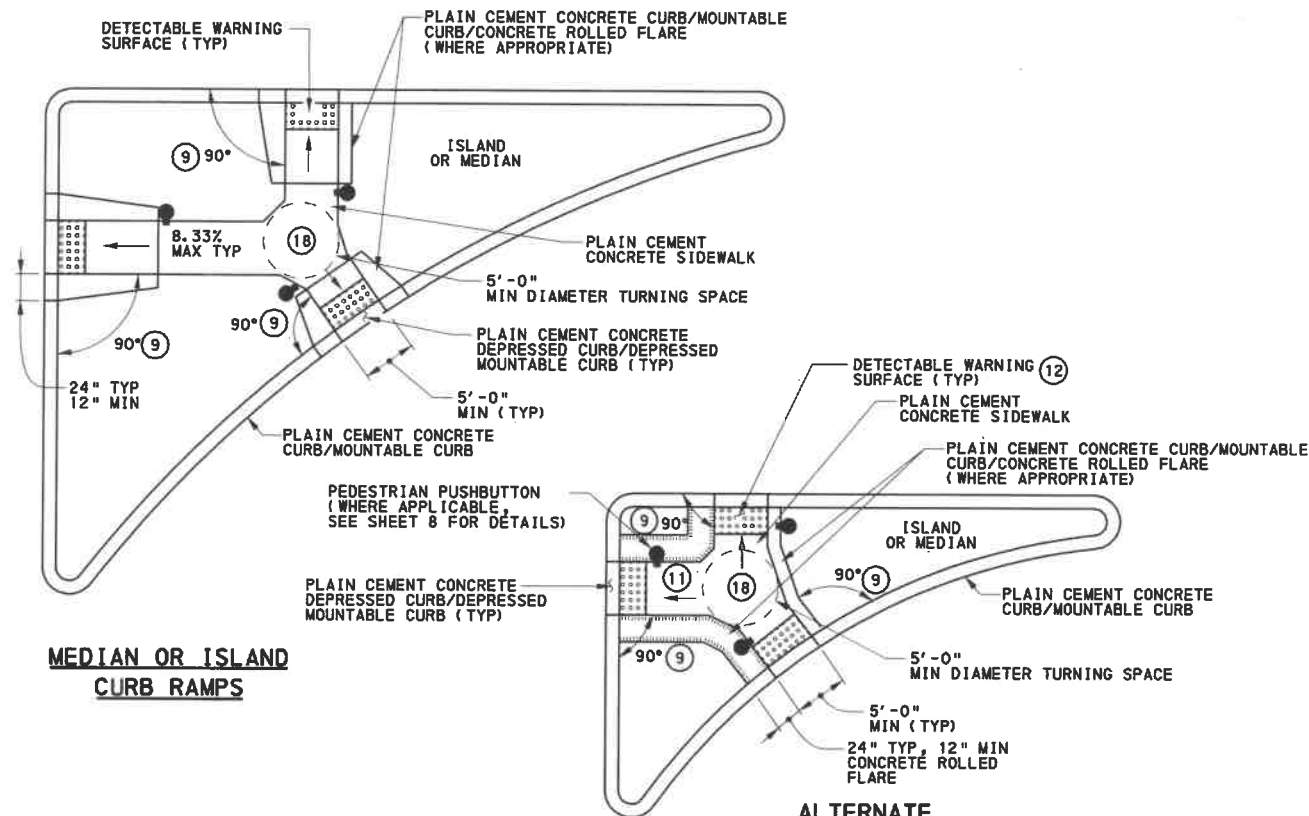
CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR
ALTERATION DETAILS
BLENDING TRANSITION / MEDIANS

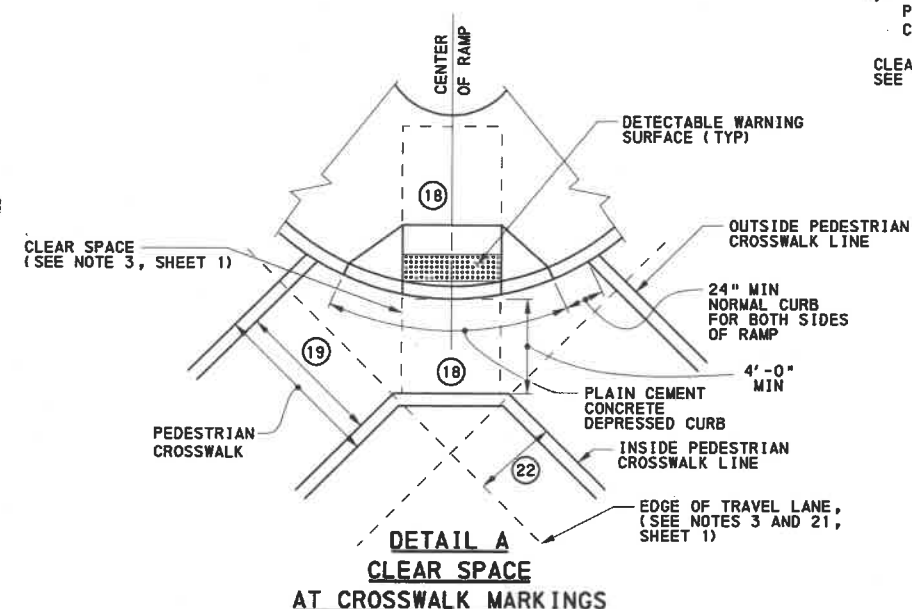
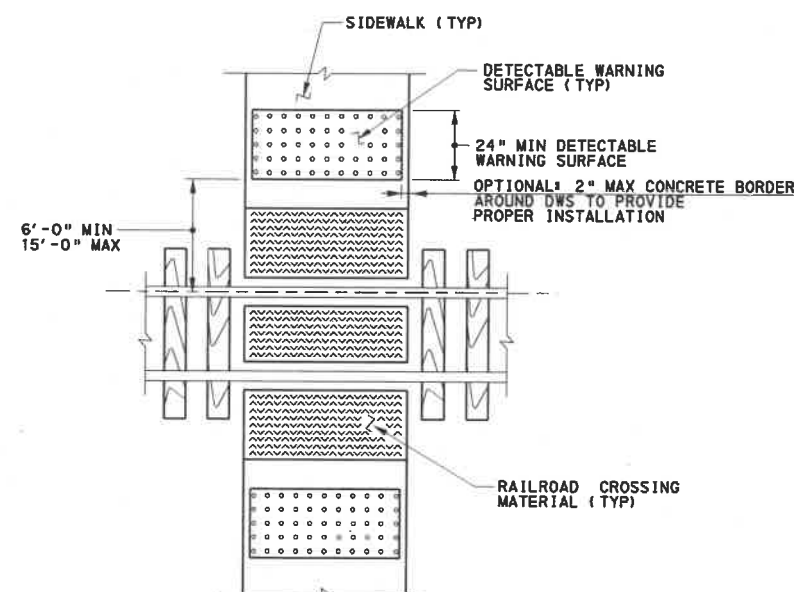
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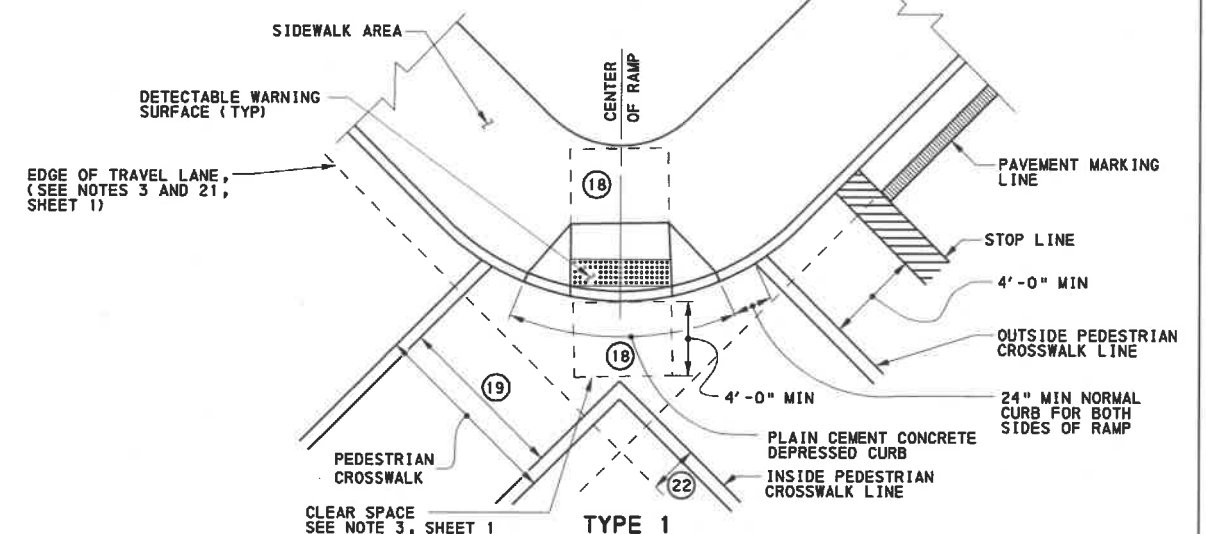
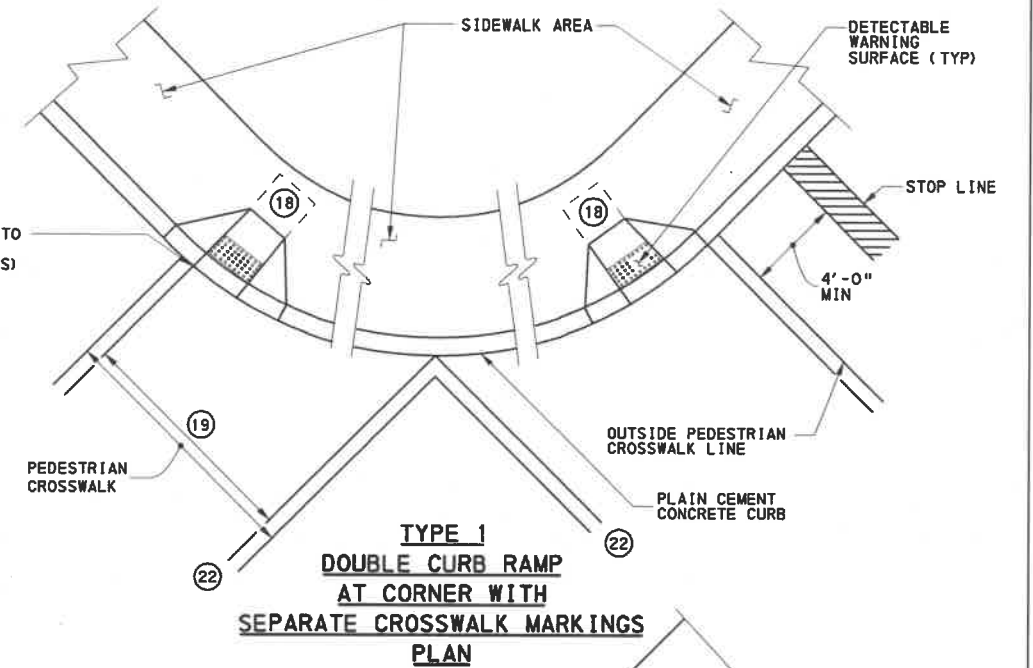
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- ⑨ 90° DESIRABLE.
- ⑪ PROVIDE ADEQUATE SLOPE FOR DRAINAGE (5.00% MAX).
- ⑫ 2'-0" MIN SEPARATION. DO NOT INSTALL DETECTABLE WARNING SURFACES IF SEPARATION IS LESS THAN 2'-0".
- ⑮ CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.
- ⑲ 6'-0" MIN MEASURED FROM INSIDE OF PAINTED EDGE TO INSIDE OF PAINTED EDGE.
- ⑳ THE INSIDE PEDESTRIAN CROSSWALK LINES MUST BE OUTSIDE OF THE PARALLEL VEHICLE TRAVEL LANE.



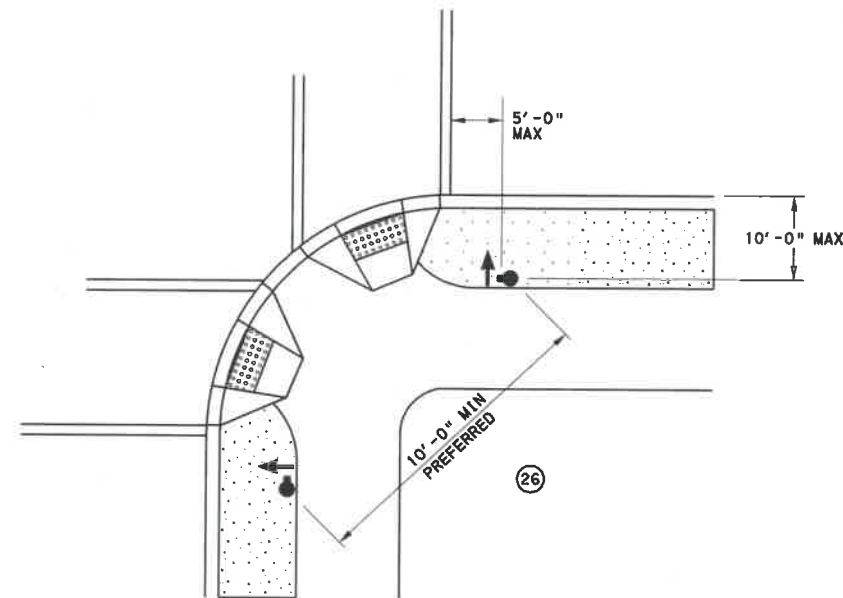
FOR CURB RAMPS THAT LEAD TO A SINGLE CROSSWALK, THE RAMP (EXCLUDING FLARES) TO BE FULLY INSIDE OF MARKED CROSSWALK LINES



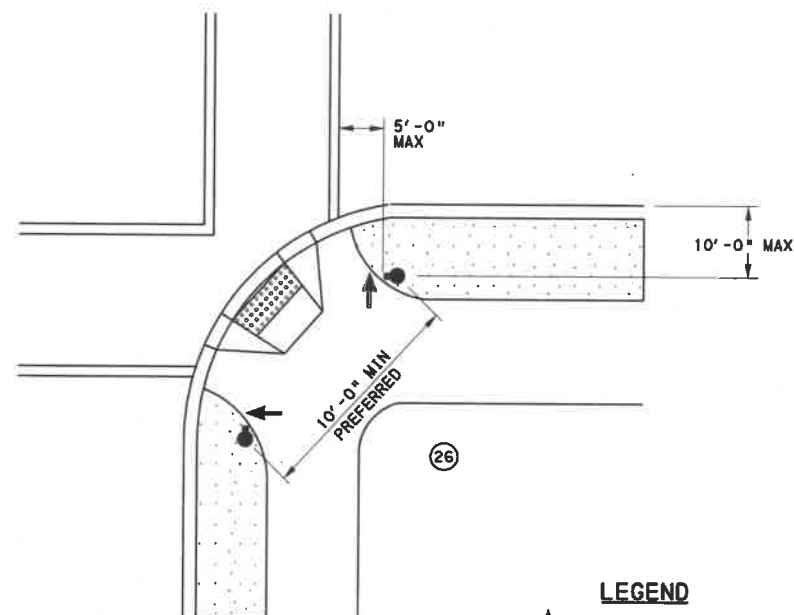
TYPE 1 SINGLE CURB RAMP AT CORNER WITH CROSSWALK MARKINGS PLAN (DIAGONAL - REQUIRES ASSISTANT DISTRICT EXECUTIVE APPROVAL)

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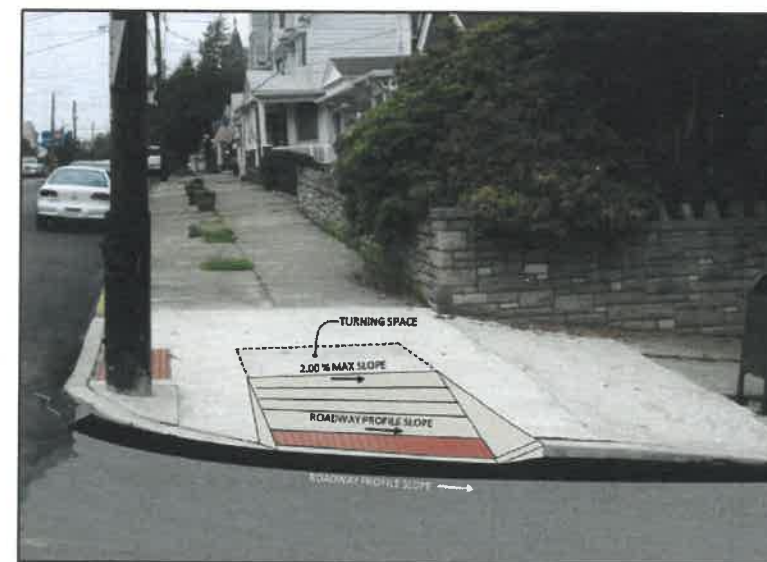
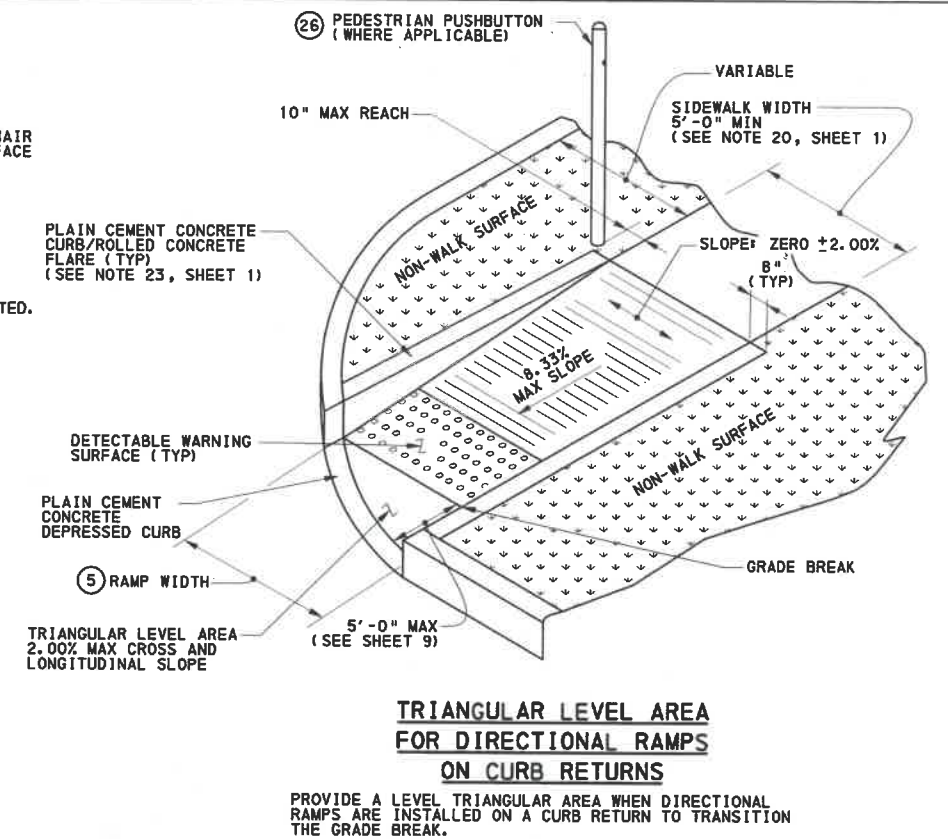
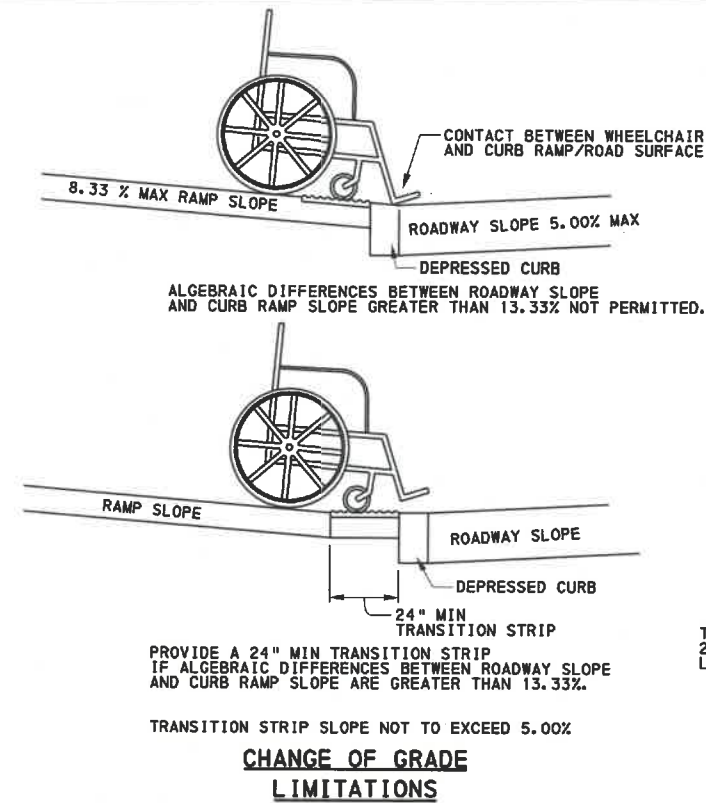
**CURB RAMPS AND SIDEWALKS
NEW CONSTRUCTION OR ALTERATION DETAILS
CROSSWALKS, MEDIANS,
RAILROAD CROSSING
DETECTABLE WARNING SURFACE**



RECOMMENDED PUSHBUTTON LOCATIONS



RECOMMENDED PUSHBUTTON LOCATIONS



RAMP CROSS SLOPE TRANSITION TO MATCH ROADWAY PROFILE SLOPE
* SLOPES SHOWN ARE FOR ILLUSTRATION ONLY.

TRANSITION CURB RAMP CROSS SLOPE TO MATCH ROADWAY PROFILE AS GRADUALLY AS POSSIBLE. DO NOT EXCEED 3.00% PER 1'-0" CROSS SLOPE RATE OF CHANGE WHEN TRANSITIONING TO ROADWAY PROFILE.

COMPLETE TRANSITION TO ROADWAY PROFILE BEHIND DETECTABLE WARNING SURFACE OR USE 1'-0" DETECTABLE WARNING SURFACE TILES.

CONSTRUCT DEPRESSED CURB SLOPE TO MATCH ROADWAY PROFILE.

- 5 CURB RAMP WIDTH IS EQUAL TO SIDEWALK WIDTH WHEN THE SIDEWALK WIDTH IS GREATER THAN OR EQUAL TO 4'-0".
- 26 NEW CONSTRUCTION MUST COMPLY WITH RECOMMENDED LOCATIONS. FOR ALTERATION PROJECTS LOCATE PEDESTRIAN PUSHBUTTONS TO THE MAXIMUM EXTENT FEASIBLE, AS FOLLOWS:
 - ADJACENT TO A LEVEL NON-SLIP SURFACE TO PROVIDE ACCESS FROM A WHEELCHAIR, AND WHERE THERE IS A NON-SLIP WHEELCHAIR ACCESSIBLE ROUTE TO THE RAMP.
 - WITHIN 5'-0" OF THE CROSSWALK EXTENDED.
 - BETWEEN 1'-6" AND 10'-0" OF THE EDGE OF CURB, SHOULDER OR PAVEMENT.
 - PARALLEL TO THE CROSSWALK TO BE USED.

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**CURB RAMPS AND SIDEWALKS
NEW CONSTRUCTION OR
ALTERATION DETAILS
PUSHBUTTONS, TRIANGULAR LEVEL
AREA, CHANGE OF GRADE AND CROSS
SLOPE TRANSITIONS**

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MANUFACTURED SURFACE JOINTS (TYP)

MANUFACTURED SURFACE JOINTS (TYP)

PODESTALIAN TRAVEL

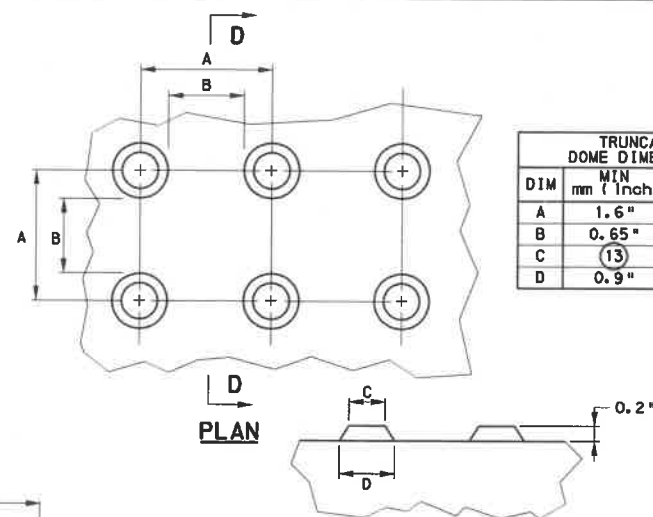
3' MIN

3' MIN

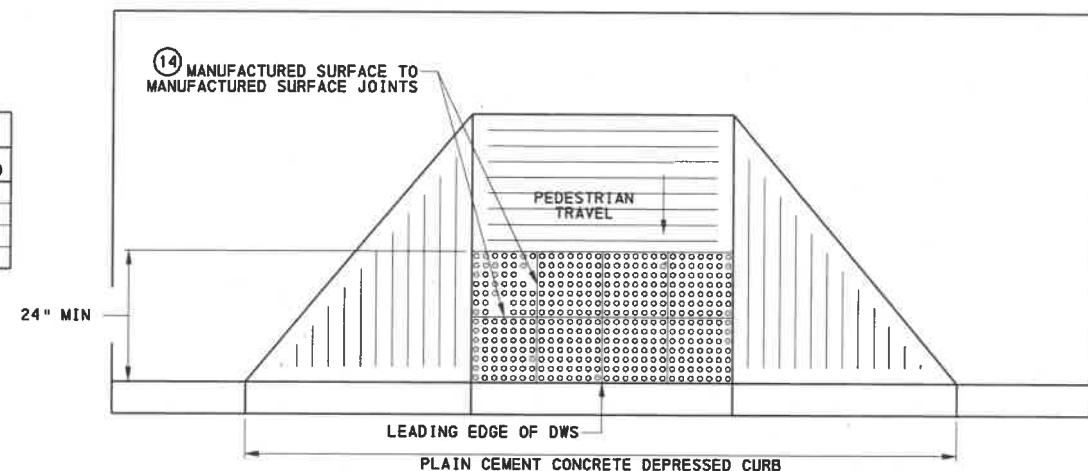
LEADING EDGE OF DWS

PLAIN CEMENT CONCRETE DEPRESSED CURB (TYP)

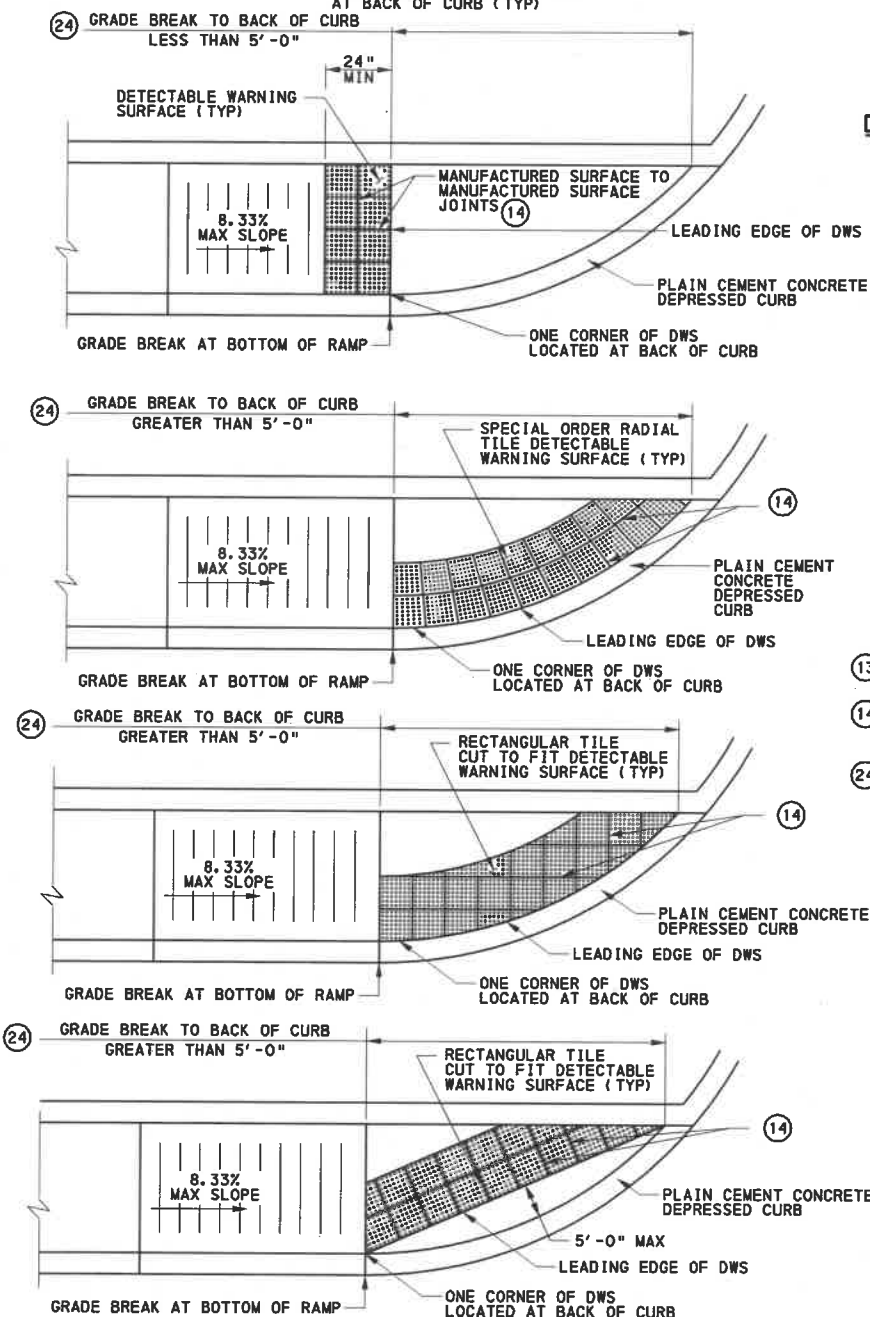
TO 14)



SECTION D-D
DETECTABLE WARNING SURFACE (DWS)
TRUNCATED DOME DETAILS

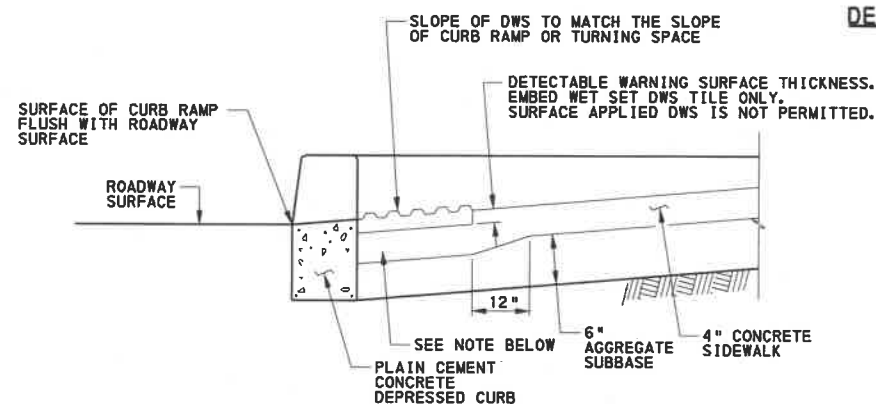


DETECTABLE WARNING SURFACE (DWS)
ON TYPE 1 CURB RAMP



DETECTABLE WARNING SURFACE (DWS) ON CURVED SURFACES

- ⑬ THE C DIMENSION IS 50% TO 65% OF THE D DIMENSION.
- ⑭ PLACE ADJACENT DWS TILES WITH MANUFACTURED SURFACE TO MANUFACTURED SURFACE. CUT TILES ALONG THE PERIMETER ONLY.
- ⑮ LOCATE ONE CORNER OF THE DWS AT THE BACK OF CURB. NO OTHER POINT ON THE LEADING EDGE OF THE DWS MAY BE MORE THAN 5'-0" AWAY FROM THE BACK OF CURB.



NOTES:
CONSTRUCT NOTCH AS SHOWN TO PROVIDE FULL THICKNESS SIDEWALK
UNDER DETECTABLE WARNING SURFACE.

OPTIONAL: CONSTRUCT 2" MAX CONCRETE BORDER AROUND DWS TO
PROVIDE PROPER INSTALLATION. SEE PEDESTRIAN PUSHBUTTON ACCESS
AREAS DETAIL ON SHEET 14, FOR PLAN VIEW DETAILS.


**DETECTABLE WARNING SURFACE
EMBEDDING DETAIL**

DETECTABLE WARNING SURFACE (DWS)
ON TYPE 2 CURB RAMP

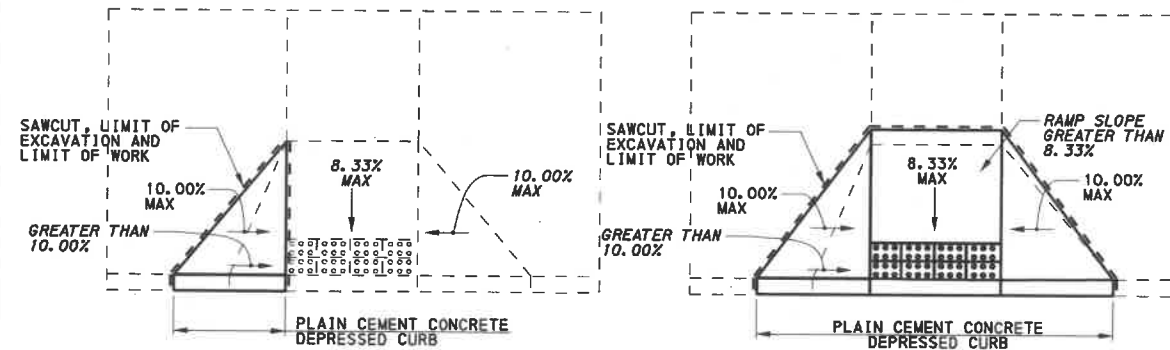
COMMONWEALTH OF PENNSYLVANIA
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BUREAU OF PROJECT DELIVERY
CURB RAMPS AND SIDEWALKS

NEW CONSTRUCTION OR
ALTERATION DETAILS
DETECTABLE WARNING SURFACE

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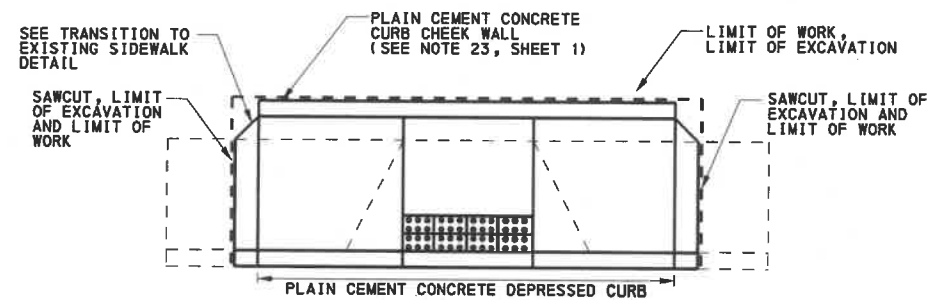
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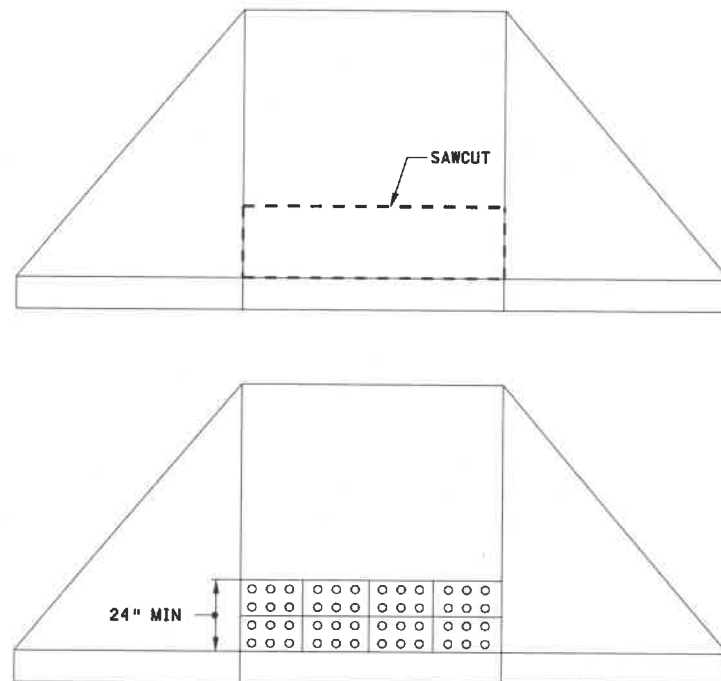
DETAIL ILLUSTRATES FLARE REMOVAL AND REPLACEMENT. DETAIL ILLUSTRATES CURB RAMP (INCLUDING FLARES) REPLACEMENT.

SIDE FLARE RECONSTRUCTION

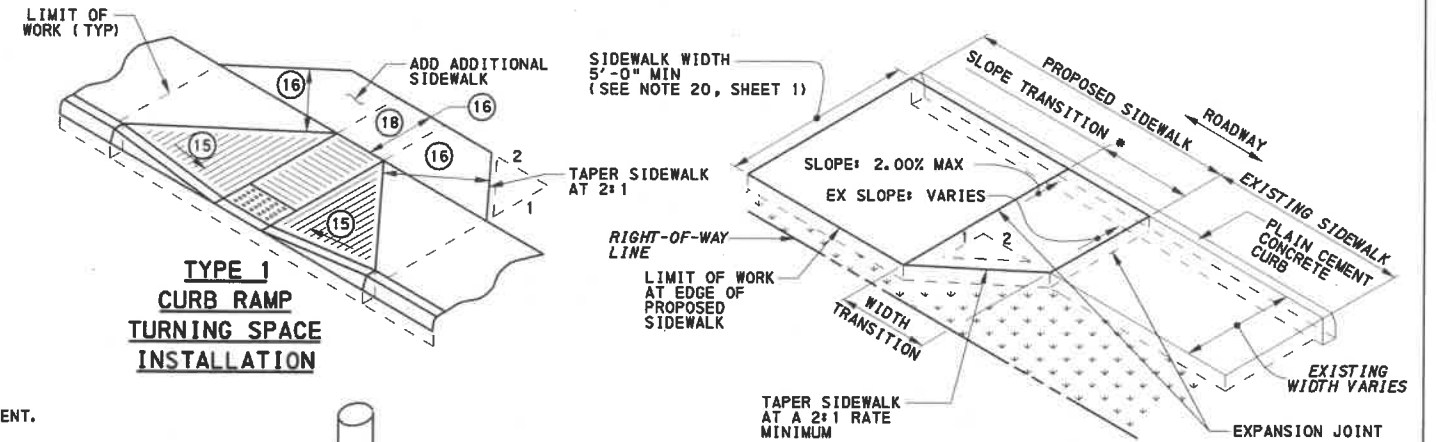


DETAIL ILLUSTRATES A TYPE 1 EXISTING RAMP REPLACED WITH A TYPE 2 RAMP. USE THIS DETAIL AS AN EXAMPLE TO REPLACE ANY RAMP WITH A DIFFERENT CURB RAMP TYPE.

TOTAL RAMP RECONSTRUCTION (RAMP TYPE CHANGE)



DETECTABLE WARNING SURFACE (DWS) INSTALLATION DETAIL



TYPE 1 CURB RAMP TURNING SPACE INSTALLATION

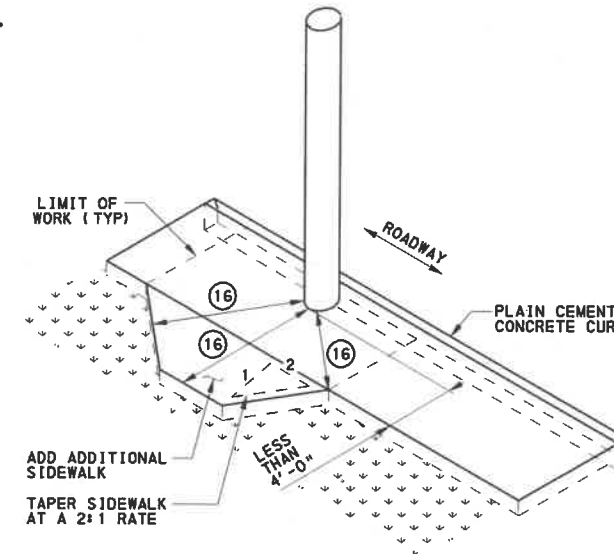
TRANSITION TO EXISTING SIDEWALK DETAIL

* MINIMUM SLOPE TRANSITION LENGTH BASED ON THE DIFFERENCE OF PROPOSED SIDEWALK CROSS SLOPE AND EXISTING SIDEWALK CROSS SLOPE AT THE LOCATION OF TIE IN. THIS MINIMUM LENGTH TO BE DETERMINED BY THE FOLLOWING FORMULA:
 $\Delta S \times SLOPE \times 0.5'$

THE MINIMUM WIDTH TRANSITION SHALL BE CALCULATED USING THE FOLLOWING FORMULA:
 $\Delta W \times 2$

DEPENDING ON WHICH IS LONGEST, EITHER THE SLOPE TRANSITION OR WIDTH TRANSITION WILL CONTROL THE LENGTH OF SIDEWALK TRANSITION.

TRANSITION AREAS SERVE AS TEMPORARY CONNECTIONS OF THE PEDESTRIAN ACCESS ROUTE. FUTURE IMPROVEMENTS TO THE REMAINING PORTION OF EXISTING SIDEWALK SHALL INCLUDE REMOVING THE TRANSITION AREA AND CONSTRUCTING A FULLY COMPLIANT SIDEWALK.



SIDEWALK ADDITION DUE TO OBSTRUCTIONS

DETECTABLE WARNING SURFACE (DWS) INSTALLATION INSTRUCTIONS

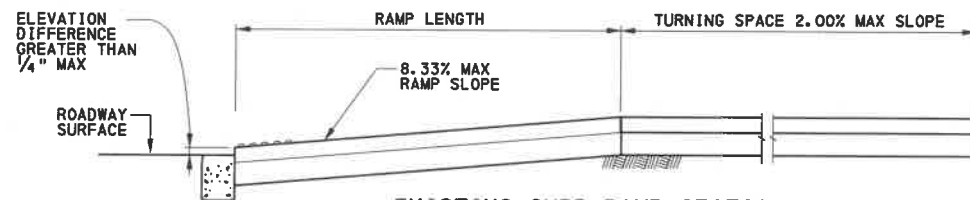
1. SAW CUT EXISTING CURB RAMP SURFACE WHERE THE DWS WILL BE PLACED.
2. REMOVE EXISTING CONCRETE FROM THIS AREA.
3. REPLACE AND COMPACT ANY DISTURBED AGGREGATE SUBBASE.
4. PLACE NEW CEMENT CONCRETE AND LEVEL TO A 4 INCH DEPTH SO THAT THE TOP OF THE CONCRETE IS LOWER THAN THE ADJOINING SIDEWALK, EQUIVALENT TO THE EMBEDDING DEPTH OF THE DWS MATERIAL.
5. LAY OUT AND PROPERLY FIT EACH UNIT PRIOR TO SETTING IN WET CONCRETE.
6. CUT UNITS AS NECESSARY ALONG PERIMETER OF DETECTABLE WARNING SURFACE.
7. PLACE UNITS ACROSS THE ENTIRE WIDTH OF THE CURB RAMP SURFACE AND/OR WHERE THE CURB IS FLUSH.
8. PRESS UNITS INTO FULL CONTACT WITH THE FRESH CONCRETE.
9. ADJUST HEIGHT OF EACH UNIT EDGE TO BE LEVEL WITH ADJACENT RAMP SURFACES.
10. ONLY TRUNCATED DOMES SHOULD BE ABOVE THE ADJACENT FINISHED CONCRETE.
11. FILL ANY SAW CUT GAPS WITH APPROVED JOINT SEALANT MATERIAL.

(15) SIDE FLARES 10.00% MAX FOR RAMPS WITH TURNING SPACES 4'-0" OR GREATER.
 SIDE FLARES 8.33% MAX FOR RAMPS WITH TURNING SPACES LESS THAN 4'-0".

(16) 4'-0" MIN PEDESTRIAN ACCESS ROUTE.

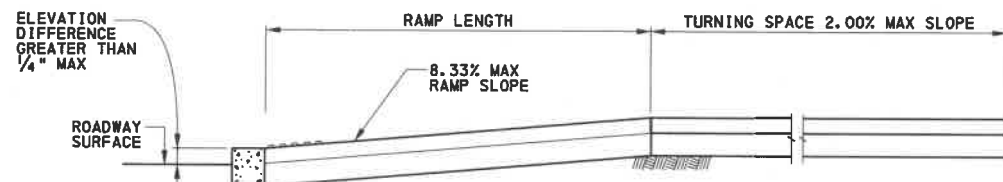
(18) CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF 2.00% WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.

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 CURB RAMPS AND SIDEWALKS
 ALTERATION DETAILS



**EXISTING CURB RAMP SECTION
(VERTICAL DROP AT RAMP)**

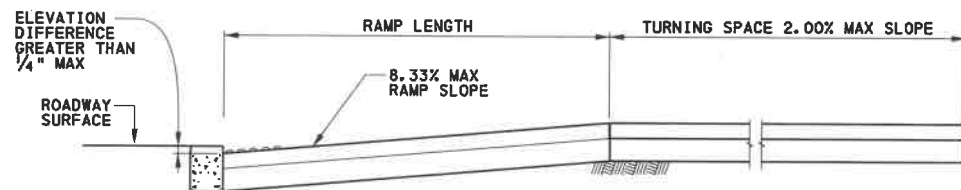
RECOMMENDED CORRECTION:
RECONSTRUCT THE ENTIRE (OR PORTIONS OF) RAMP, TURNING SPACES AND FLARES WHERE APPLICABLE
(SEE RAMP RECONSTRUCTION DETAIL ON SHEET 10).



**EXISTING CURB RAMP SECTION
(VERTICAL DROP AT ROAD SURFACE)**

RECOMMENDED CORRECTION:
RECONSTRUCT THE ENTIRE (OR PORTIONS OF) RAMP, TURNING SPACES AND FLARES WHERE APPLICABLE
(SEE RAMP RECONSTRUCTION DETAIL ON SHEET 10).

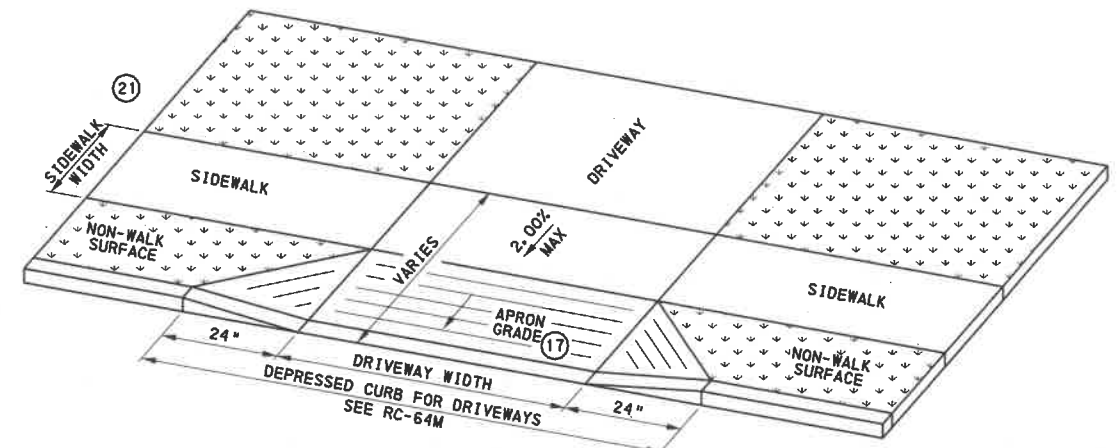
ALTERNATE CORRECTION:
GRIND CURB TO PROVIDE A MAX SLOPE OF 8.33%, FINISHED SURFACE MUST NOT HAVE ELEVATION DIFFERENCES GREATER THAN 1/4\".



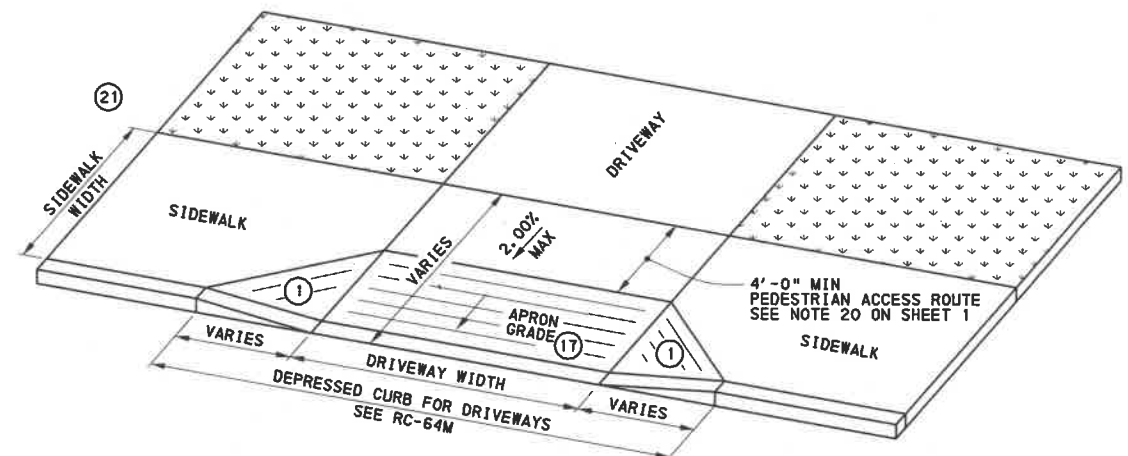
**EXISTING CURB RAMP SECTION
(RAMP SETTLEMENT)**

RECOMMENDED CORRECTION:
RECONSTRUCT THE ENTIRE (OR PORTIONS OF) RAMP, TURNING SPACES AND FLARES WHERE APPLICABLE
(SEE RAMP RECONSTRUCTION DETAIL ON SHEET 10).

ALTERATION DETAILS



**TYPE 1
DRIVEWAY APRON**

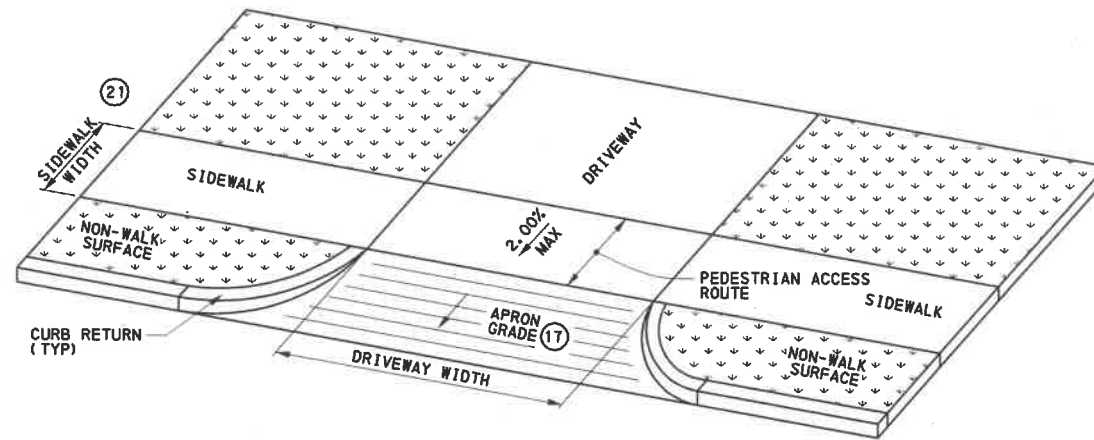


**TYPE 1A
DRIVEWAY APRON**

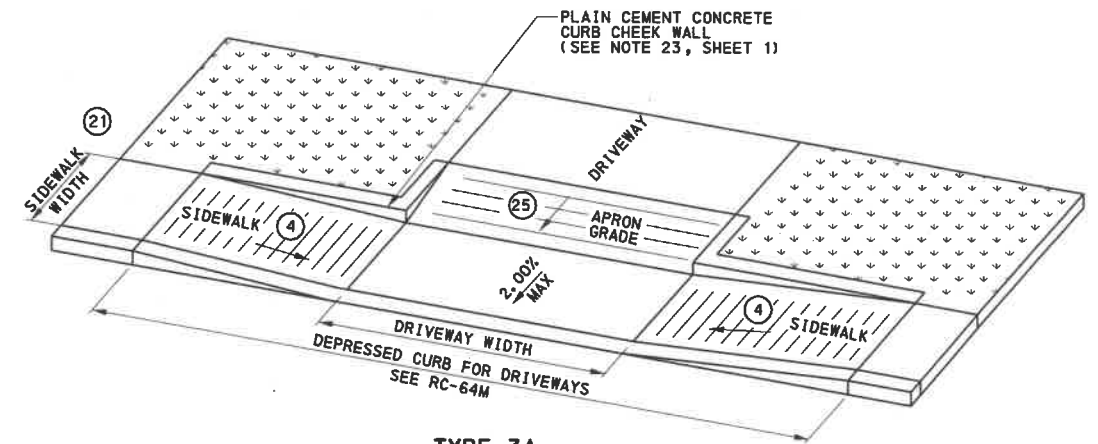
- ① SIDE FLARES 10.00% MAX SLOPE.
- ⑱ 8.00% MAX CHANGE IN GRADE BETWEEN ROAD SURFACE AND DRIVEWAY.
- ⑳ MINIMUM SIDEWALK WIDTH 5'-0" (SEE NOTE 20, SHEET 1).

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CURB RAMPS AND SIDEWALKS**

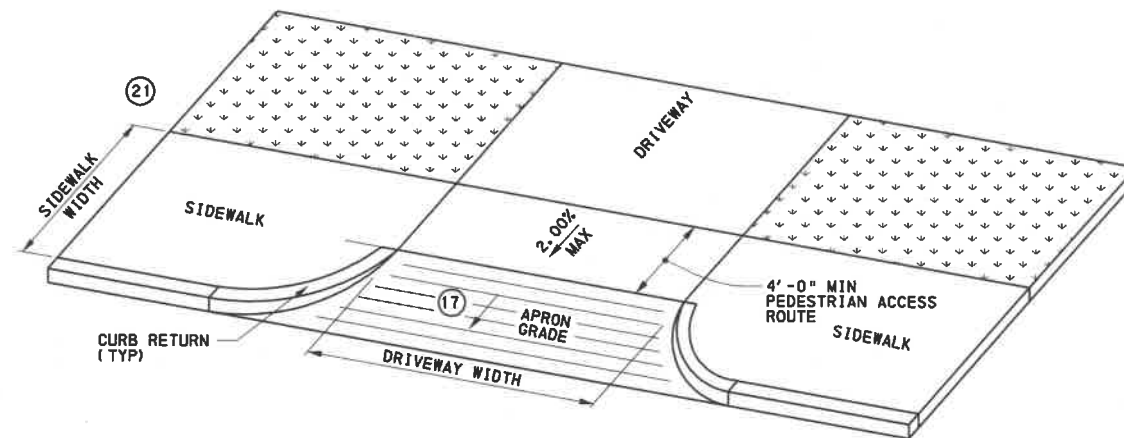
**ALTERATION DETAILS
AND DRIVEWAY APRONS**



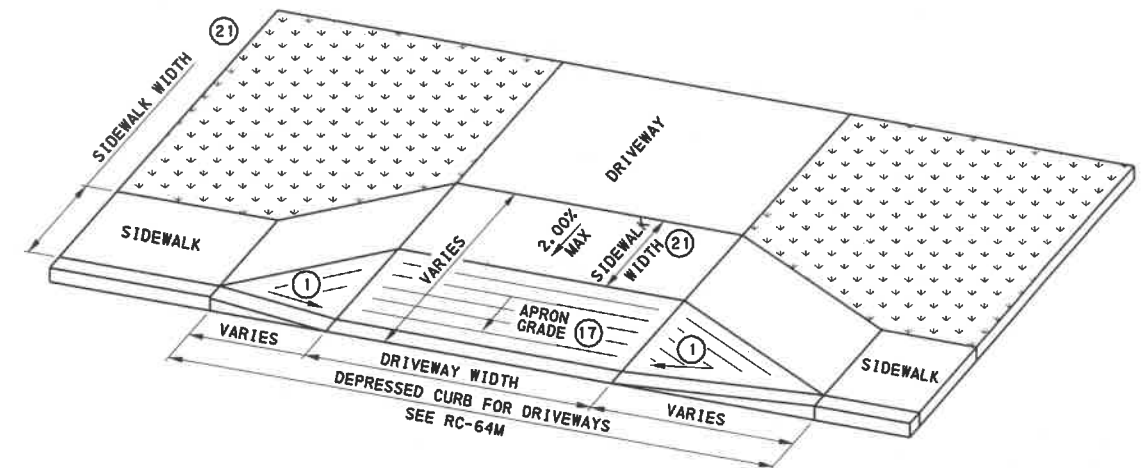
**TYPE 2
DRIVEWAY APRON**



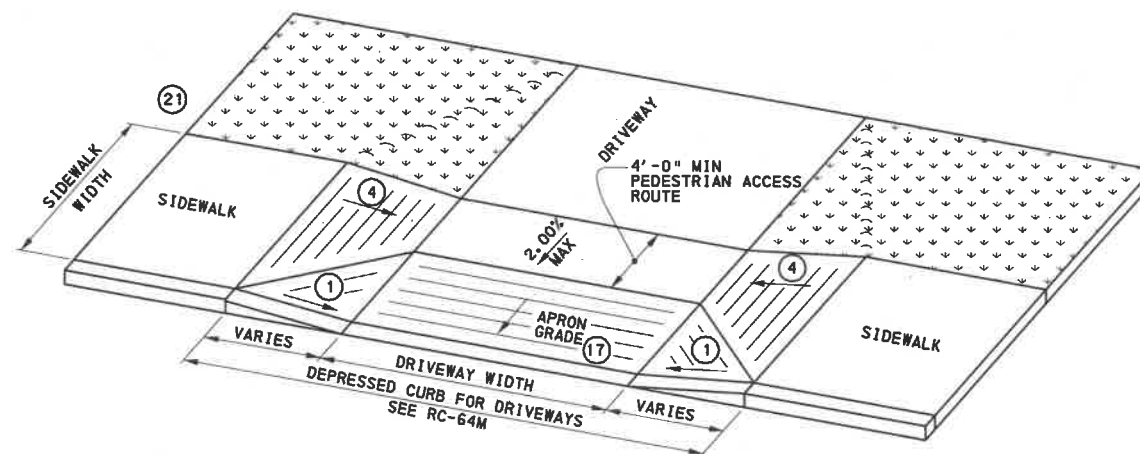
**TYPE 3A
DRIVEWAY APRON**



**TYPE 2A
DRIVEWAY APRON**



**TYPE 4
DRIVEWAY APRON**



**TYPE 3
DRIVEWAY APRON**

- ① SIDE FLARES 10.00% MAX SLOPE.
- ④ 8.33% MAX RAMP SLOPE, SEE NOTE 8 SHEET 1.
- ①⑦ 8.00% MAX CHANGE IN GRADE BETWEEN ROAD SURFACE AND DRIVEWAY.
- ②① MINIMUM SIDEWALK WIDTH 5'-0" (SEE NOTE 20, SHEET 1)
- ②⑤ 8.00% MAX CHANGE IN GRADE BETWEEN DRIVEWAY SURFACE AND SIDEWALK.

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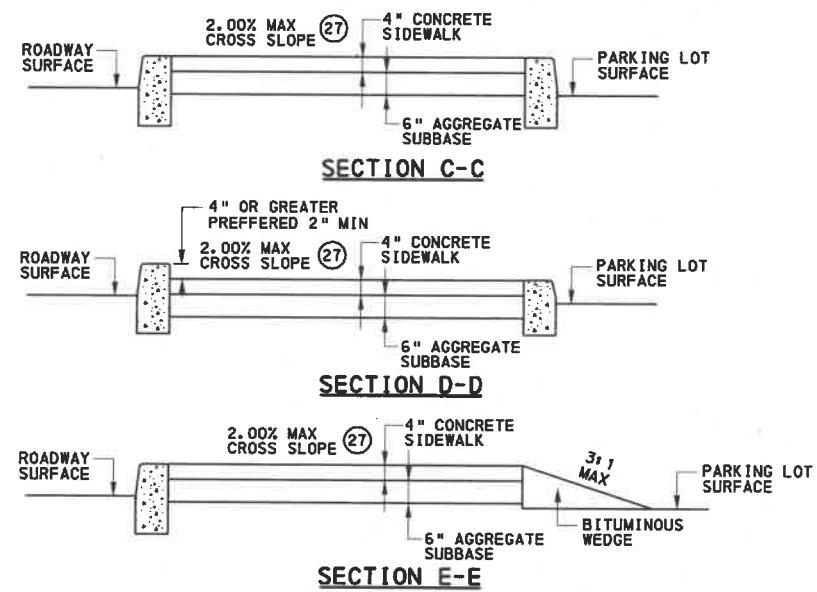
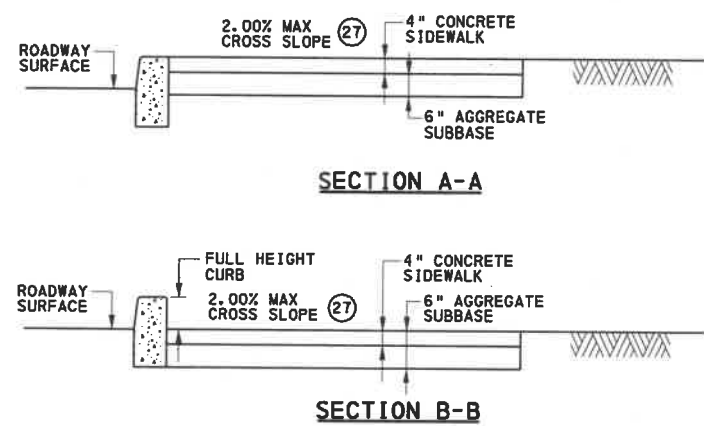
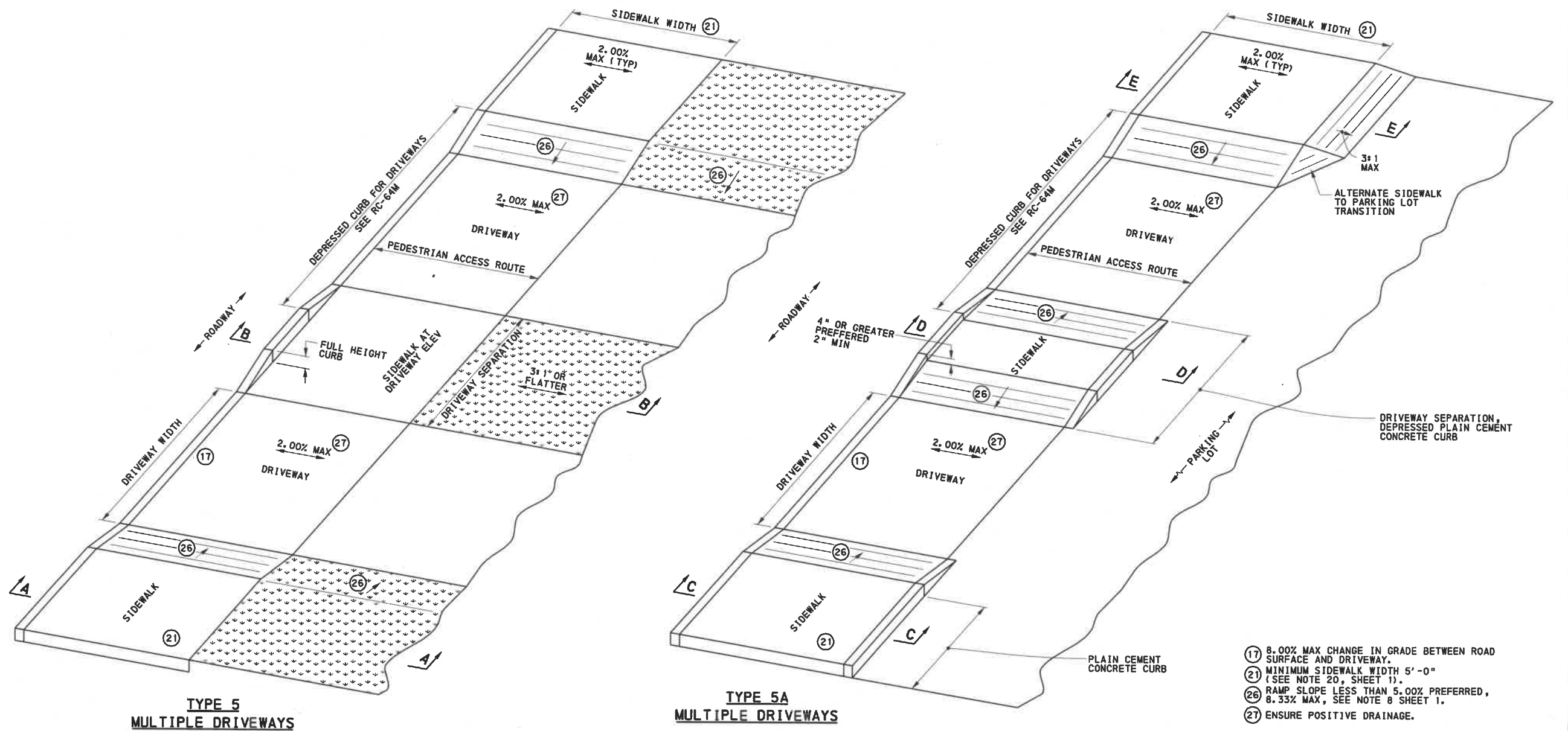
CURB RAMPS AND SIDEWALKS

DRIVEWAY APRONS

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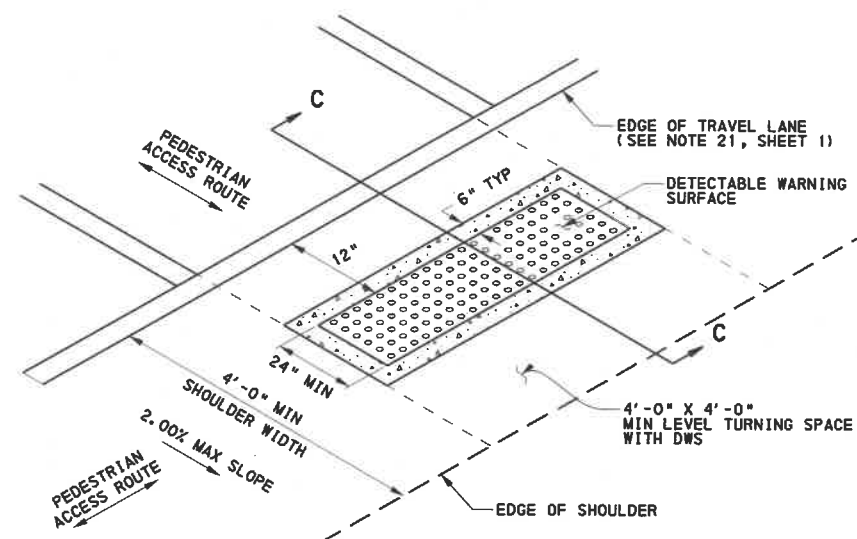
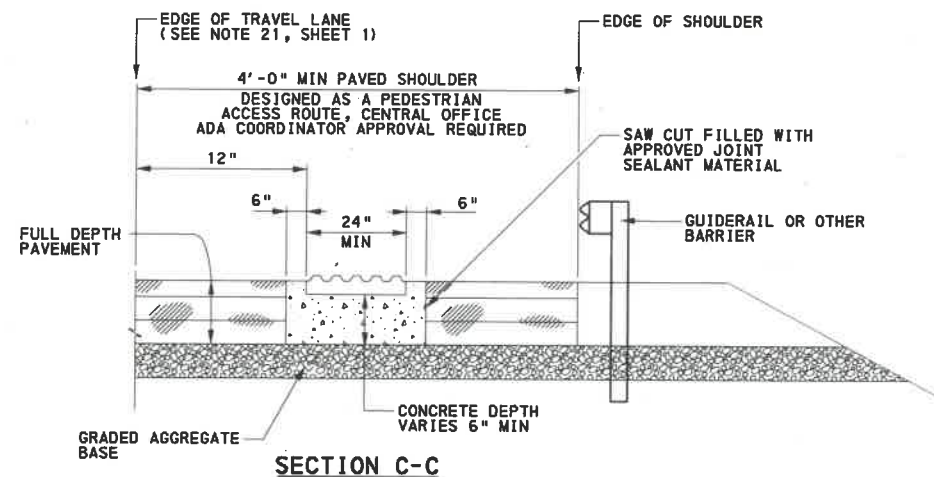
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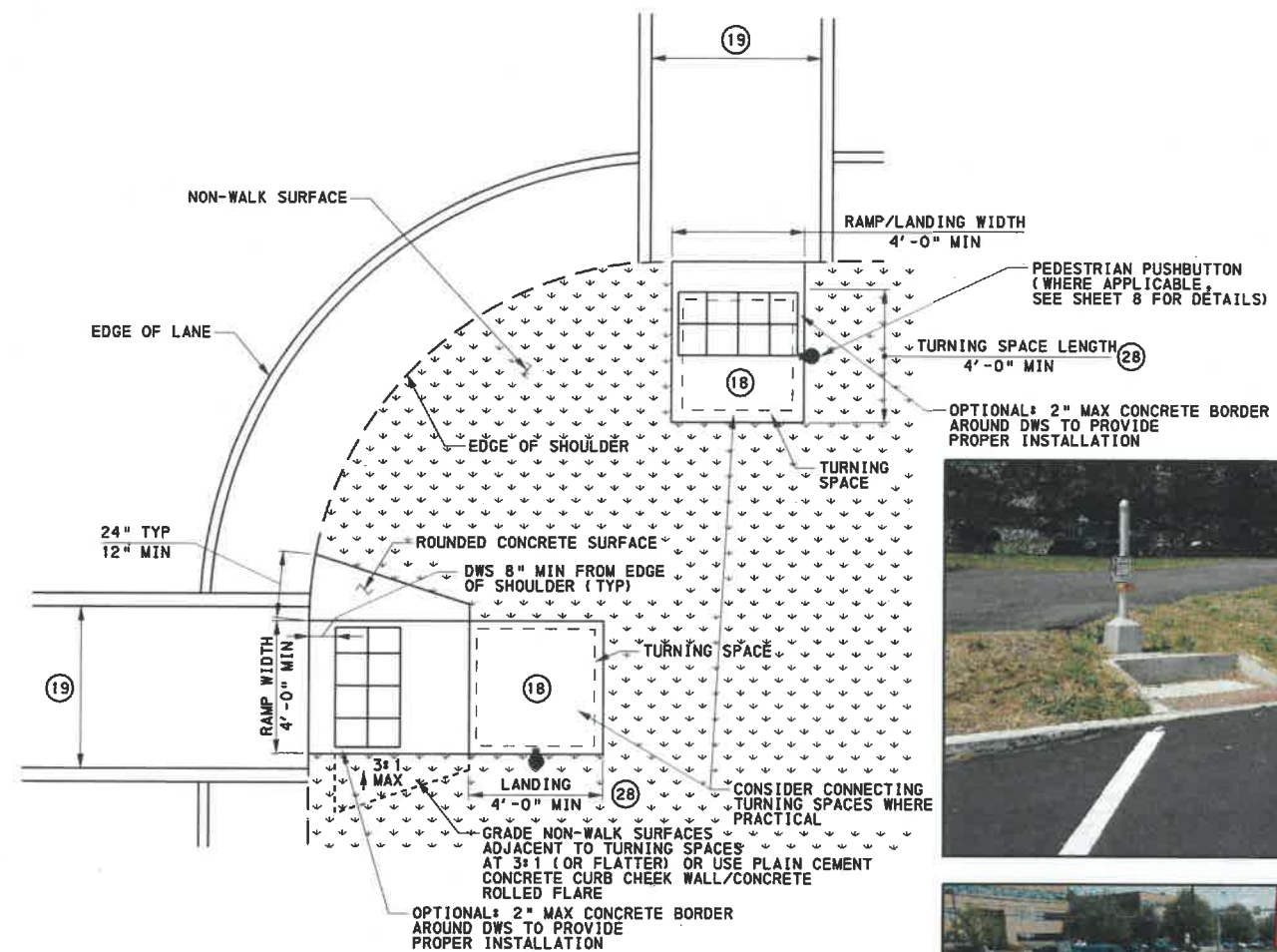
CURB RAMPS AND SIDEWALKS

DRIVEWAY APRONS

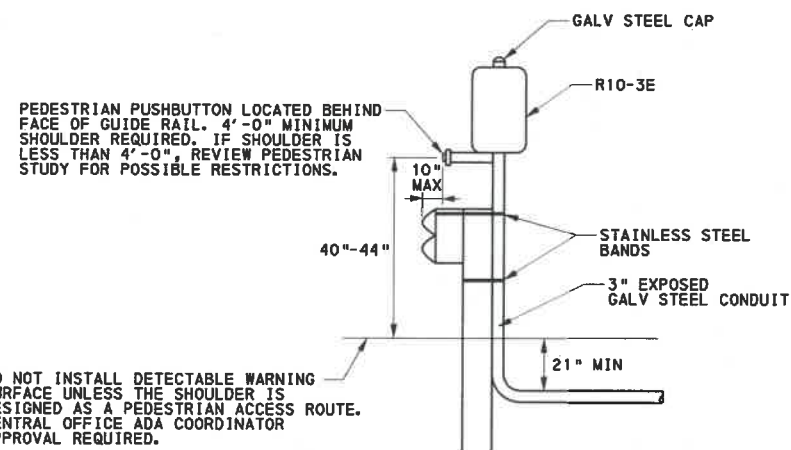


DWS PLACEMENT ON
PAVED SHOULDERS
DESIGNED AS A
PEDESTRIAN ACCESS
ROUTE (PAR)

CENTRAL OFFICE ADA COORDINATOR
APPROVAL REQUIRED



- (18) CURB RAMPS REQUIRE A TURNING SPACE WITH A MAXIMUM CROSS SLOPE AND LONGITUDINAL SLOPE OF .007. WHERE PEDESTRIANS PERFORM TURNING MANEUVERS. SEE DETAILS FOR LOCATIONS AND DIMENSIONS.
- (19) 6'-0" MIN MEASURED FROM INSIDE OF PAINTED EDGE TO INSIDE OF PAINTED EDGE.
- (20) TURNING SPACES SHOWN ARE TO PROVIDE ACCESS TO PEDESTRIAN PUSHBUTTON. TURNING SPACE MUST BE 5'-0" X 5'-0" WHEN CONFINED ON TWO OR MORE SIDES.




DO NOT INSTALL DETECTABLE WARNING SURFACE UNLESS THE SHOULDER IS DESIGNED AS A PEDESTRIAN ACCESS ROUTE. CENTRAL OFFICE ADA COORDINATOR APPROVAL REQUIRED.



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CURB RAMPS AND SIDEWALKS
DWS PLACEMENT ON
PAVED SHOULDERS AND AT
PEDESTRIAN PUSHBUTTONS

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