

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	A1

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PLANS PREPARED BY



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION
DENVER, COLORADO



APPROVED:

CHIEF OF ENGINEERING
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

APPROVED:

SUPERINTENDENT, CAPITOL REEF NATIONAL PARK

U.S. DEPARTMENT OF THE INTERIOR NATIONAL PARK SERVICE

PLANS FOR PROPOSED

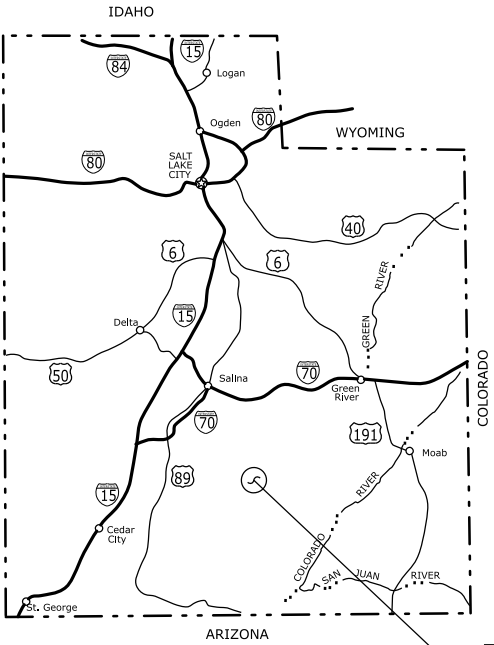
UT FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK

WAYNE COUNTY

SCHEDULE A: SCENIC DRIVE, LENGTH 6.40 MILES,
GRAND WASH/CAPITOL GORGE PARKING LOTS

OPTION X LENGTH 1.59 MILES

OPTION Y: CHIMNEY ROCK/VISITOR CENTER PARKING LOTS



Project Area

KEY MAP OF UTAH

TYPE OF CONSTRUCTION:

SCHEDULE A

Road rehabilitation: Roadway excavation, aggregate base, asphalt concrete pavement, concrete curb, culverts, ABA improvements, signage and pavement markings.

OPTION X (by others, Project: UT FTNP CEBR PRES 1(14))

Road rehabilitation: Microsurfacing, crack cleaning and sealing, flexible pavement patching, signage and pavement markings.

OPTION Y

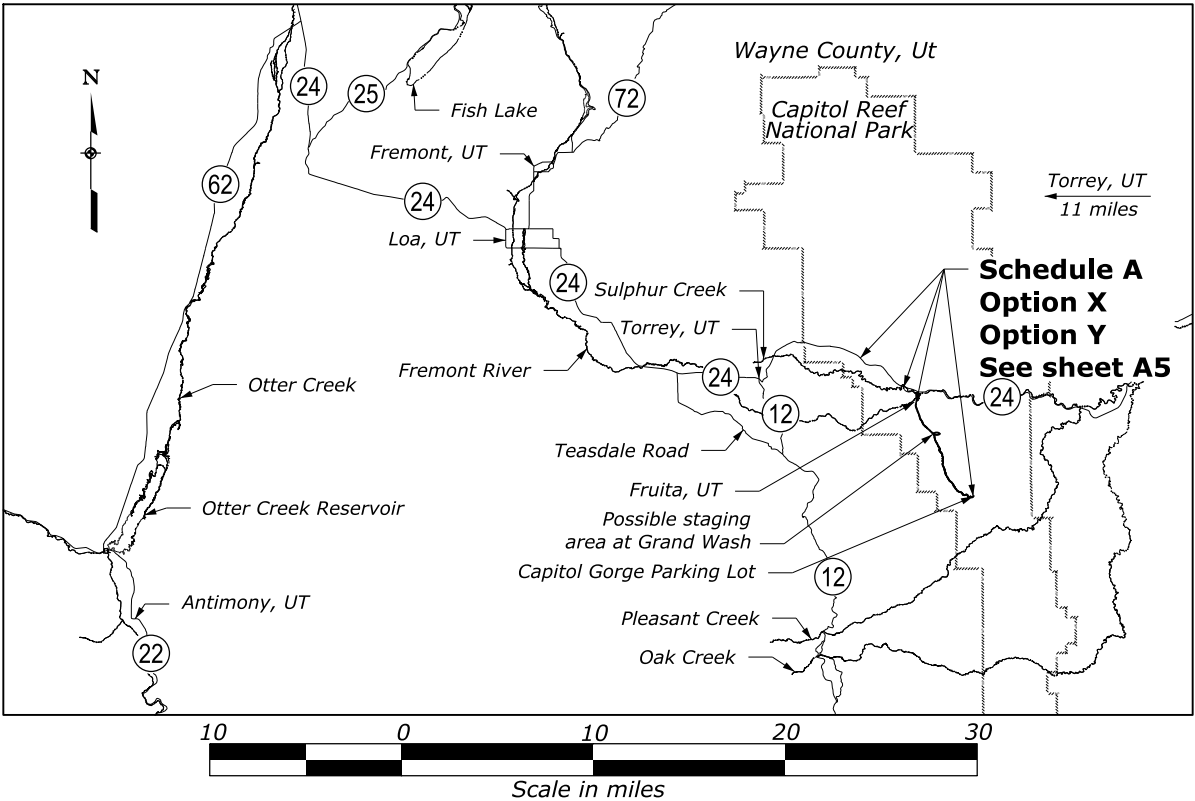
Parking area expansion: Parking lot excavation, aggregate base, asphalt concrete pavement, concrete curb, culverts, ABA improvements, signage and pavement markings.

DESIGN DESIGNATIONS:

ADT (2024) -----	292
ADT (2044) -----	527
DHV -----	53
D -----	50%
T -----	1.5%
V -----	25 MPH
e(max) -----	4%

U.S. CUSTOMARY DIMENSIONS:
Slopes are expressed as RISE:RUN

SPECIFICATIONS:
"STANDARD SPECIFICATIONS FOR CONSTRUCTION OF ROADS
AND BRIDGES ON FEDERAL HIGHWAY PROJECTS, FP-14"



PRELIMINARY 70%
4/26/2023
NOT FOR CONSTRUCTION






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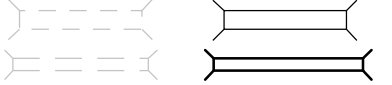




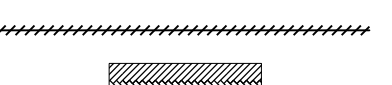
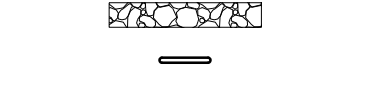













PROJECT MANAGER
JAMES KERRIGAN

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ABBREVIATIONS		
	centerline	
	curve delta	
	diameter	
A abut.	abutment	
ADT	average daily traffic	
aggr.	aggregate	
AH	ahead	
alt.	alternate	
appr.	approach	
asph.	asphalt	
B b.f.	both faces	
BCY	bank cubic yards	
beg.	beginning, begin	
BK	back	
BM	bench mark	
BP	balance point	
br.	bridge	
brg.	bearing	
C CBC	concrete box culvert	
CCY	compacted cubic yards	
c-c	center to center	
clr.	clear	
CMP	corrugated metal pipe	
Co.	county	
CO	contracting officer	
col.	column	
conc.	concrete	
constr.	construction	
constr. jt.	construction joint	
cont.	continuous	
corr.	corrugated	
cr.	creek	
CS	point of curve to spiral	
ctrs.	centers	
CTSM	contingent sum	
culv.	culvert	
D decr.	decrement	
DHV	design hour volume	
DI	drop inlet	
dia. or D	diameter	
diag.	diagonal	
diaph.	diaphragm	
dist.	distance	
Dist.	district	
DLC	donation land claim	
dwg(s).	drawing(s)	
E E	east	
e	superelevation rate	
El. 94.066	elevation with number	
elev.	elevation	
emb.	embankment	
engr(s).	Engineer(s)	
EOP	edge of pavement	
EQ or eq.	equation	
ER	edge of road	
et al	and others	
et ux	and wife	
EW	edge of water	
exc.	excavation	
exp. jt.	expansion joint	
ext.	exterior	
F f.f.	fill face	
Fed.	federal	
FES	flared end section	
fin.	finish	
ftg.	footing	
G ga.	gage (gauge)	
galv.	galvanized	
gdr.	girder	
H hdwl.	headwall	
HES	homestead entry survey	
hex.	hexagon	
horiz.	horizontal	
HW	high water	
hwy.	highway	
I ID	inside diameter	
incl.	inclusive, including	
incr.	increment	
int.	interior	
J jt.	joint	

L L	length of curve	
lam.	lamination	
lat.	latitude	
long.	longitudinal	
LPSM	lump sum	
Lt. or LT	left	
LW	low water	
M mag.	magnetic	
maint.	maintenance	
matl.	material	
max.	maximum	
min.	minimum	
mon.	monument	
mtn(s).	mountain(s)	
N N	north	
NC	normal crown	
neg.	negative	
no. or #	number	
O o.c.	on centers	
o.f.	other face	
OD	outside diameter	
P PC	point of curve	
PCC	point of compound curve	
perf.	perforate	
PI	point of intersection	
pl.	plate	
POC	point on curve	
POS	point on spiral	
POT	point on tangent	
proj.	project	
psi	pounds per square inch	
PT	point of tangent	
pvmt.	pavement	
Q quant., Qty	quantities	
R R	radius	
R.	range	
R/W	right-of-way	
rd.	road	
rdwy.	roadway	
reconst.	reconstruction	
reinf.	reinforcement	
reqd.	required	
res.	reservoir	
Res.	Reservation	
ret. wall	retaining wall	
RH	reference hub	
Rt. or RT	right	
rte.	route	
S S	south	
SADT	seasonal average daily traffic	
SC	point of spiral to curve	
sec.	section	
shldr.	shoulder	
spa.	spacing, Spaces or Spaced	
spec.	specification	
st.	street	
ST	point of spiral to tangent	
sta.	station	
std.	standard	
stiff.	stiffener	
str.	straight	
struc.	structural	
sym.	symmetrical	
T T	tangent length	
T.	township	
tan.	tangent	
TBM	temporary bench mark	
TCE	temporary construction easement	
transv.	transverse	
TS	point of tangent to spiral	
typ.	typical	
V V	design speed	
vert.	vertical	
vph	vehicles per hour	
VPI	vertical point of intersection	
W W	west	

DRAINAGE SYMBOLS	
Ditch (Existing, Proposed)	
Flow Arrow	
Drainage or Small Creek	
Lake, Pond or Reservoir	
Large Creek	
Wetland	
River	
Spring	
Bridge (Existing, Proposed)	
Box Culvert (Existing, Proposed)	
Pipe Culvert (Existing, Proposed)	
With End Sections (Existing, Proposed)	
With Headwalls (Existing, Proposed)	
With Drop Inlet (Existing, Proposed)	
Underdrain (Existing, Proposed)	
Riprap Apron (Proposed)	
EROSION & SEDIMENT CONTROL SYMBOLS	
Bonded Fiber Matrix Mulching	
Check Dam	
Diversion Berm	
Rolled Erosion Control Product	
Riprap	
Fiber Roll (Ditch and/or Cut Slope)	
Silt Fence	
Temporary Inlet Protection	
Fiber Roll (Slope Protection)	
FENCE & CATTLEGUARD SYMBOLS	
Fence (Existing, Proposed)	
Fence w/ Gate (Existing, Proposed)	
Cattleguard (Existing, Proposed)	
GEOLOGIC SYMBOLS	
Boring Location (Existing, Proposed)	
Material Source	


STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	A2

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION OFFICE OF FEDERAL LANDS HIGHWAY
CONVENTIONAL PLAN SYMBOLS AND ABBREVIATIONS Sheet 1 of 2


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LANDSCAPING & VEGETATION SYMBOLS

Tree




Treeline




MAPPING SYMBOLS


Building (Existing, Proposed)



Coordinate Grid Tick




North Arrow




Railroad


Single Track




Double Track




Spot Elevation



Trail




Survey Control Point




RIGHT-OF-WAY SYMBOLS

Boundaries


National




State




County




City




Township or Range Line




Section




1/4 Section




1/16 Section




Bureau of Indian Affairs




Bureau of Land Management




National Forest



National Park




National Wildlife Refuge




Easements


Permanent (Existing)




Permanent (Proposed)




Temporary (Proposed)




Monument (As described)




Parcel Number




Property Line




Right-of-Way Line (Existing)




Right-of-Way Line (Proposed)




Section Corner (Found, Projected)



1/4 Section Corner (Found, Projected)




1/16 Section Corner (Found)




GUARDRAIL, BARRIER & WALL SYMBOLS


Guardrail (Existing, Proposed)




Guardwall (Existing, Proposed)



Median & Side Barrier (Existing, Proposed)




Retaining Wall (Existing, Proposed)




ROADWAY SYMBOLS

Clearing/Construction Limits




Slope Stake Limits


Top of Cut



Transition




Toe of Fill




Edge of Roadway


Existing



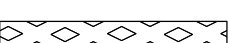
Proposed



Roadway Centerline (With Station ticks)



Roadway Obliteration



SIGN SYMBOLS

Signs

Commercial (Existing, Proposed)



Delineator (Existing, Proposed)



Portable (Proposed)




Post Mounted (Existing, Proposed)




UTILITY SYMBOLS

Irrigation Ditch


Underground (Existing, Proposed)




Surface (Existing, Proposed)




Support Pole (Existing, Proposed)




Support Pole Anchor (Existing, Proposed)




Street Light (Existing, Proposed)



Telephone Booth (Existing, Proposed)




Telephone Pedestal (Existing, Proposed)




Underground Utility (Existing, Proposed)


CATV




Fiber Optic




Gas




Oil




Power




Sanitary Sewer



Telephone




Water




Overhead Utility Line (Existing, Proposed)


CATV




Fiber Optic



Power



Telephone



STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	A3

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

CONVENTIONAL PLAN
SYMBOLS AND ABBREVIATIONS
Sheet 2 of 2

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITAL REEF NATIONAL PARK	A4

Project : Capitol Reef National Park UT FTNP CARE 10(2) & 100(1) Review FP-14, Section 152.05

Date Of Field Work : 10-12-2022 thru 10-13-2022
Date Of Final Adjustment : 10-19-2022

Project Units : US Survey Foot
Datum: NAD83 (2011)
Zone: Utah South (4303)
Geoid: Geoid 18
OPUS Epoch Date : 2010
Vertical Datum : NAVD88

Gpk File Dated :
Gpk File Name : Alignment :

POINT NUMBER	STATE PLANE COORDINATES			GEO COORDINATES			MAPPING ANGLE	COMBINED FACTOR	STATION	OFFSET	DESCRIPTION
	NORTH	EAST	ELEVATION	LATITUDE	LONGITUDE	ELLIPSOID HEIGHT					
2000	10442955.02	1696518.05	6060.10	N38°18'55.88323"	W111°18'16.09989"	5999.58	0°07'11"	0.99970739			2.5IN AC CFLHD 2000
2001	10442833.13	1696652.15	6048.07	N38°18'54.67560"	W111°18'14.42058"	5987.54	0°07'12"	0.99970791			2.5IN AC CFLHD 2001
2002	10434199.54	1708883.25	5494.03	N38°17'29.04925"	W111°15'41.23539"	5432.74	0°08'46"	0.99973067			2.5IN AC CFLHD 2002
2003	10433748.81	1708987.10	5492.48	N38°17'24.59104"	W111°15'39.94734"	5431.18	0°08'47"	0.99973055			2.5IN AC CFLHD 2003
2004	10429367.83	1712256.40	5488.77	N38°16'41.19903"	W111°14'59.08895"	5427.25	0°09'12"	0.99972891			2.5IN AC CFLHD 2004
2005	10425334.37	1713583.36	5676.17	N38°16'01.29136"	W111°14'42.58600"	5614.60	0°09'22"	0.99971830			2.5IN AC CFLHD 2005
2006	10415039.99	1719796.78	5744.00	N38°14'19.35259"	W111°13'25.05978"	5682.13	0°10'10"	0.99971104			2.5IN AC CFLHD 2006
2007	10403824.88	1727627.69	5664.77	N38°12'28.24557"	W111°11'47.36515"	5602.44	0°11'09"	0.99971072			2.5IN AC CFLHD 2007

PROJECT AVERAGES = 0.99971819

U.S. DEPARTMENT OF TRANSPORTATION
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OFFICE OF FEDERAL LANDS HIGHWAY

SURVEY CONTROL

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	A5

Option Y
UT FTNP CARE 10(2) & 100(1)
Chimney Rock Parking Lot
Route 900

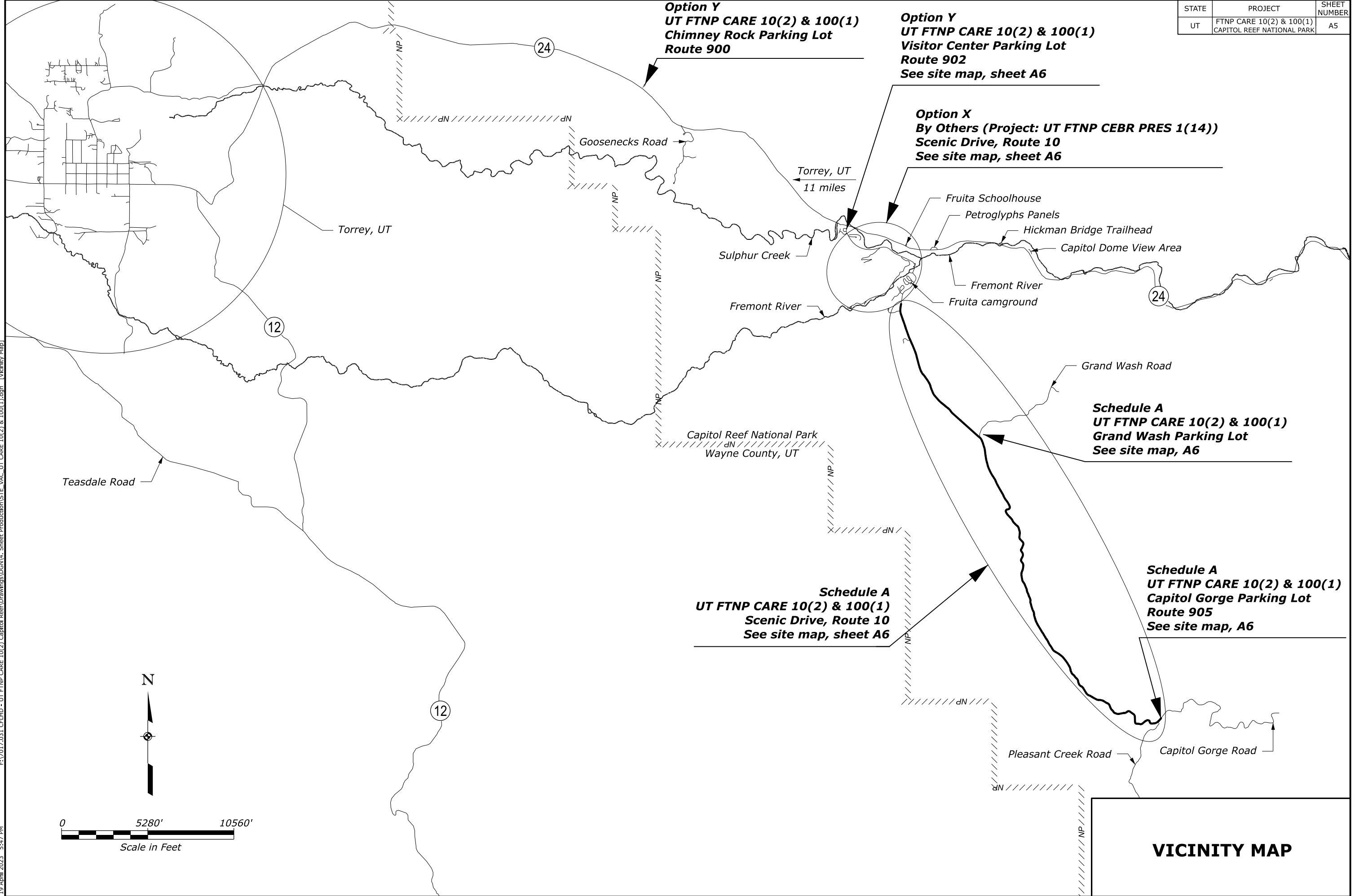
Option Y
UT FTNP CARE 10(2) & 100(1)
Visitor Center Parking Lot
Route 902
See site map, sheet A6

Option X
By Others (Project: UT FTNP CEBR PRES 1(14))
Scenic Drive, Route 10
See site map, sheet A6

Schedule A
UT FTNP CARE 10(2) & 100(1)
Grand Wash Parking Lot
See site map, A6

Schedule A
UT FTNP CARE 10(2) & 100(1)
Scenic Drive, Route 10
See site map, sheet A6

Schedule A
UT FTNP CARE 10(2) & 100(1)
Capitol Gorge Parking Lot
Route 905
See site map, A6

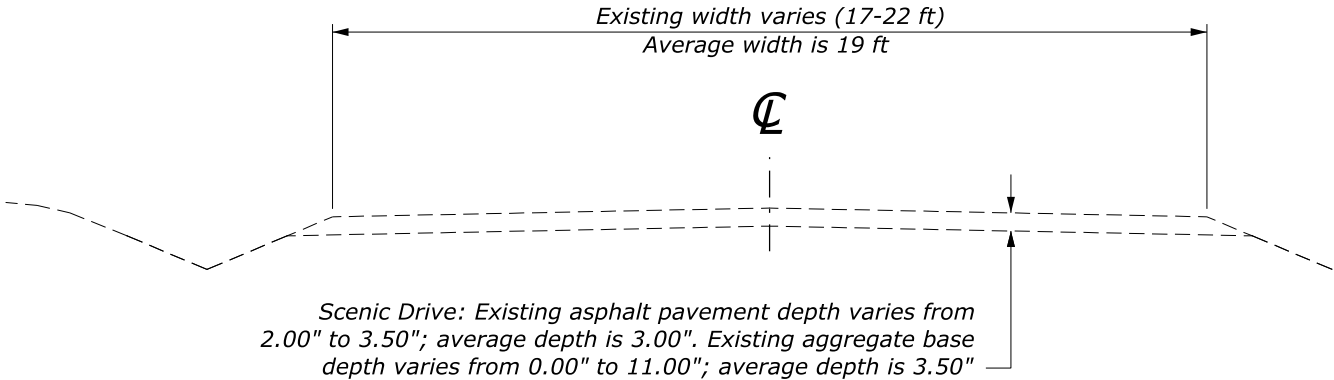


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Schedule A
UT FTNP 10(2) & 100(1)
End Scenic Drive
Route 10
Station 348+10
MP 7.99



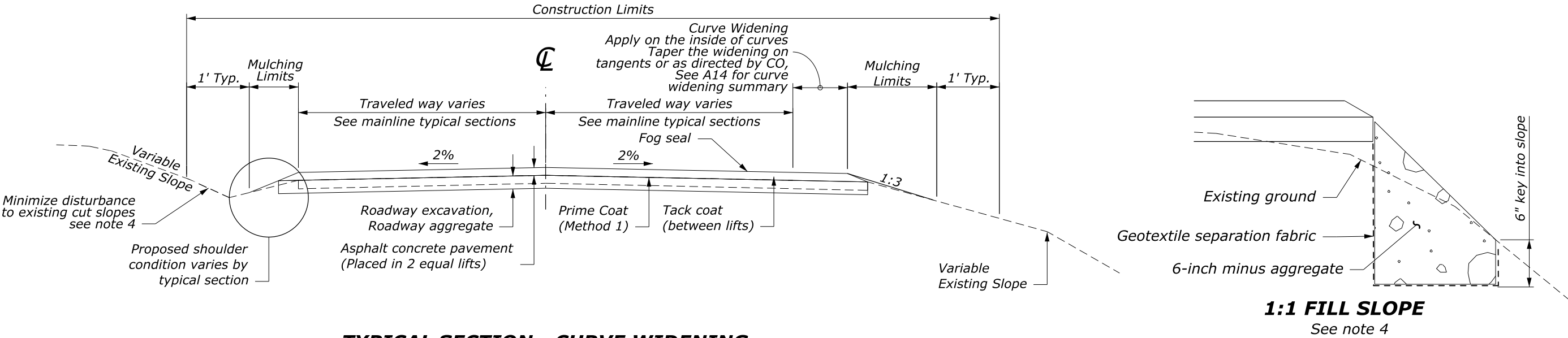
STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	A7



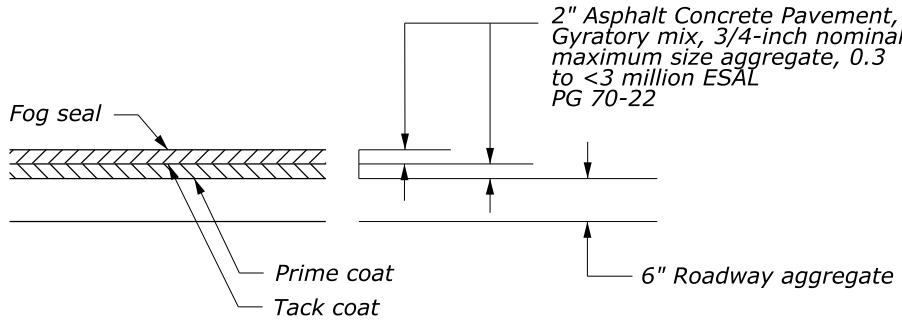
EXISTING TYPICAL SECTION
SCHEDULE A
SCENIC DRIVE
STA 10+00 to 348+10

NOTE:

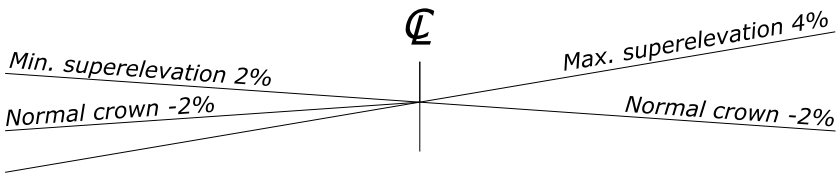
- Existing superelevated and widened sections are not shown.
- Dimensions shown are approximate and may be adjusted by the CO.
- Shoulder up with windrowed material or additional roadway aggregate. Shape and compact according to Subsection 204.1 as necessary for drainage and appearance.
- Fill slopes less than 10 feet tall should be constructed at 1:3 but may be steepened to 1:2 where deemed necessary by the CO, taller slopes should only be constructed at 1:3. Where project constraints are encountered, short slopes whose heights are 3 feet or less may be constructed at 1:1 provided the slope is constructed of clean angular 6-inch minus rock with geotextiles placed behind, on top of, and below the rock.
- The centerline alignment may be adjusted as directed by the CO. Use minimum or greater taper length (L) per the MUTCD. For speeds of 45 mph or less, use the Taper Length equation (L) in feet = WS/60. Where L = taper length in feet, W = width of offset in feet, and S = posted speed.



TYPICAL SECTION - CURVE WIDENING



PAVEMENT SECTION

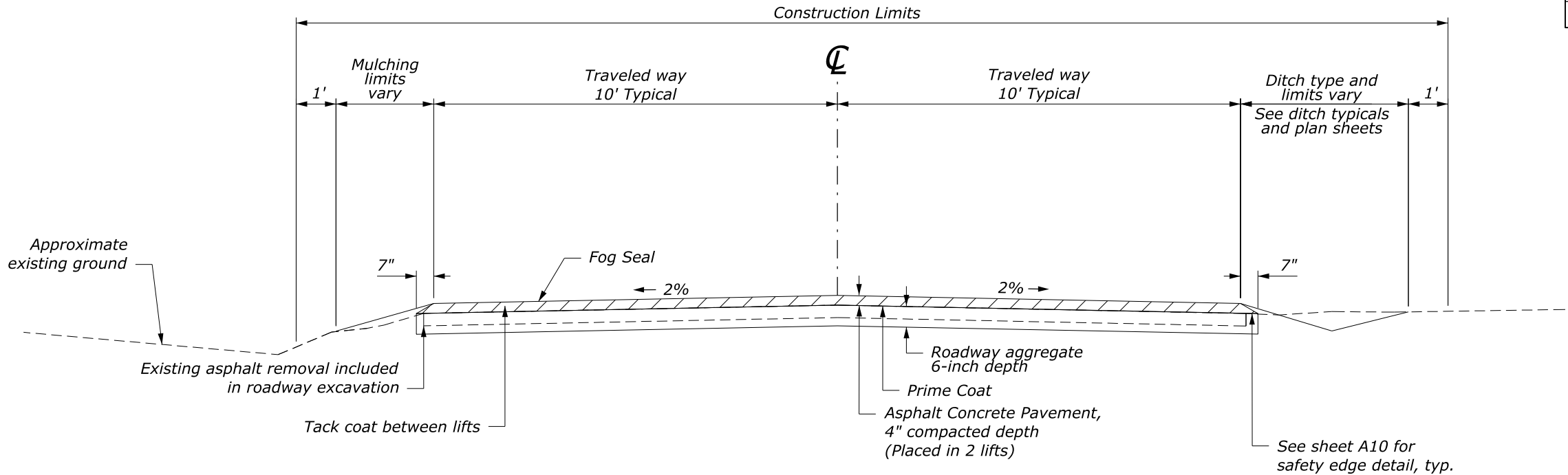


METHOD OF SUPERELEVATION ON CURVES
See plans for locations of curves and superelevations

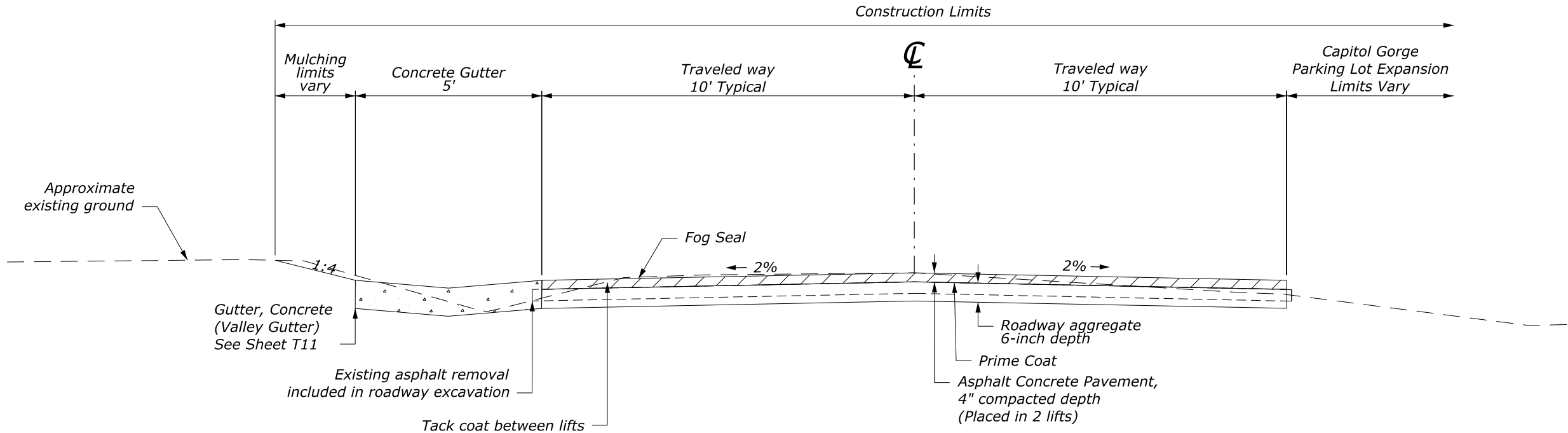
TYPICAL SECTION

NO SCALE

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	A8



MAINLINE TYPICAL SECTION 1
SCENIC DRIVE
STA 10+00 to STA 348+10
MP 1.59 to MP 7.99
40' transition to Typical Section 2

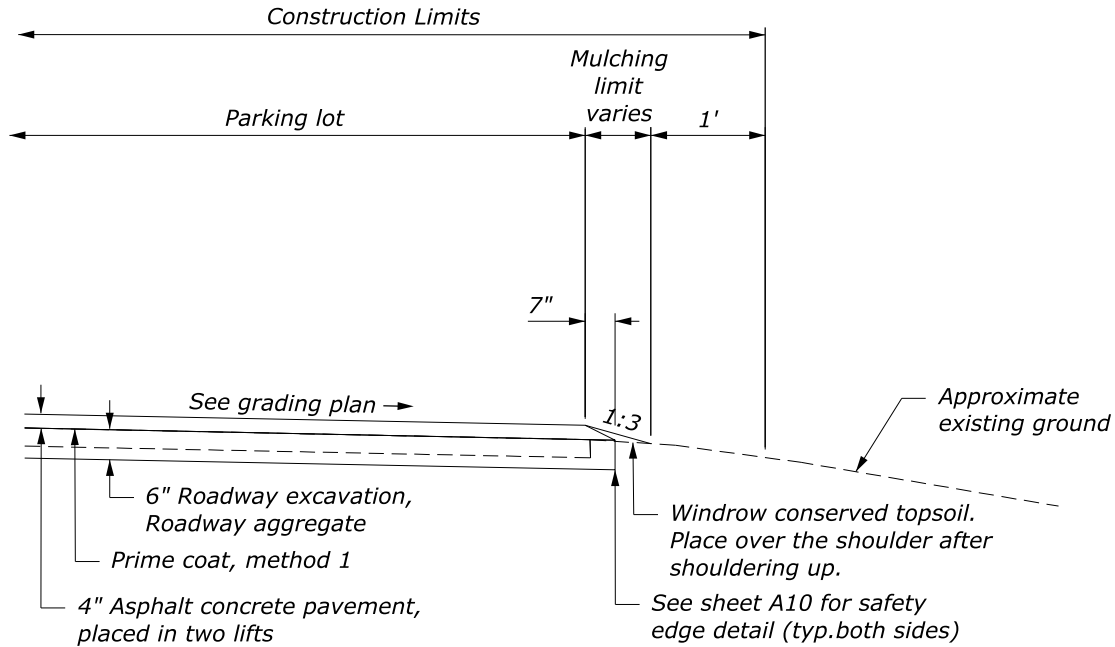


MAINLINE TYPICAL SECTION 2
SCENIC DRIVE
STA 343+54 to STA 348+10
MP 7.90 to MP 7.99

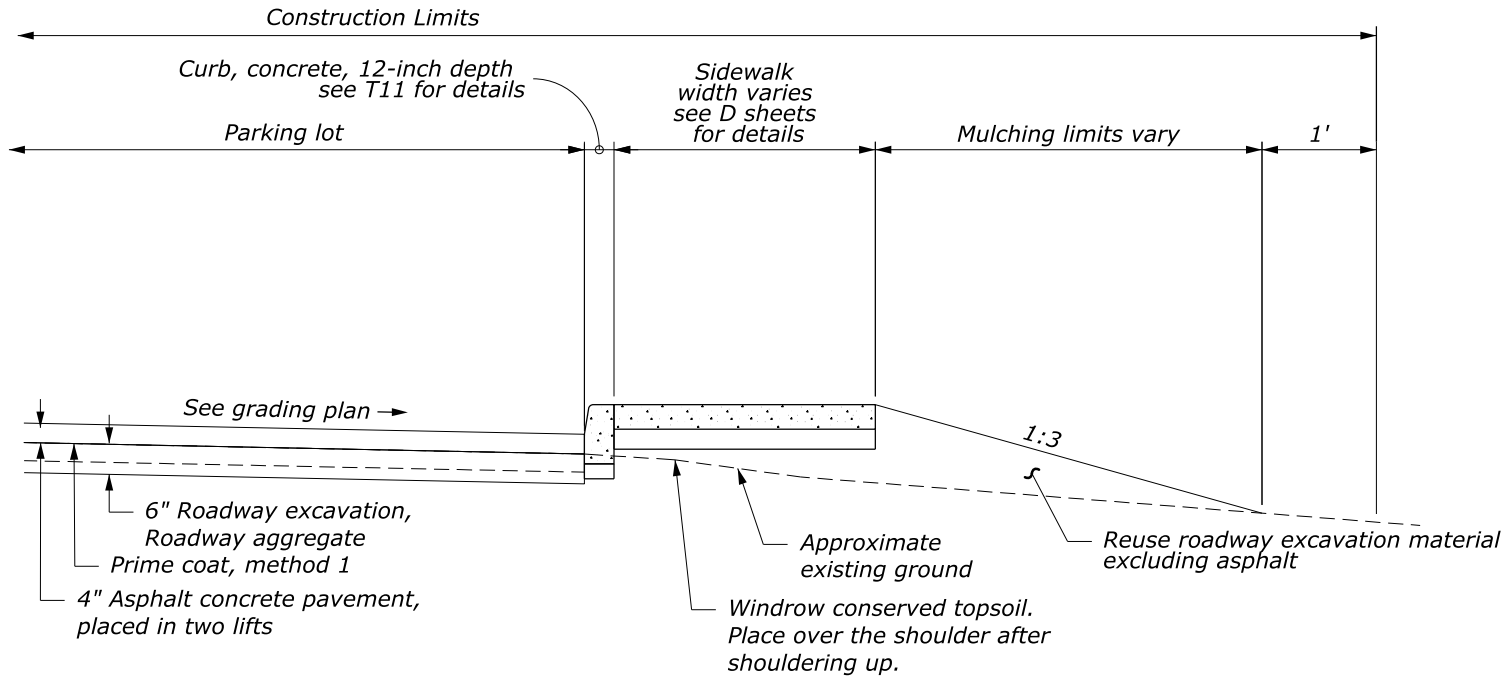
**MAINLINE
TYPICAL SECTION**

NO SCALE

STATE	PROJECT	SHEET NUMBER
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PARKING LOT SECTION
SCHEDULE A: Capitol Gorge Parking Lot
OPTION Y: Chimney Rock/Visitor Center Parking Lot

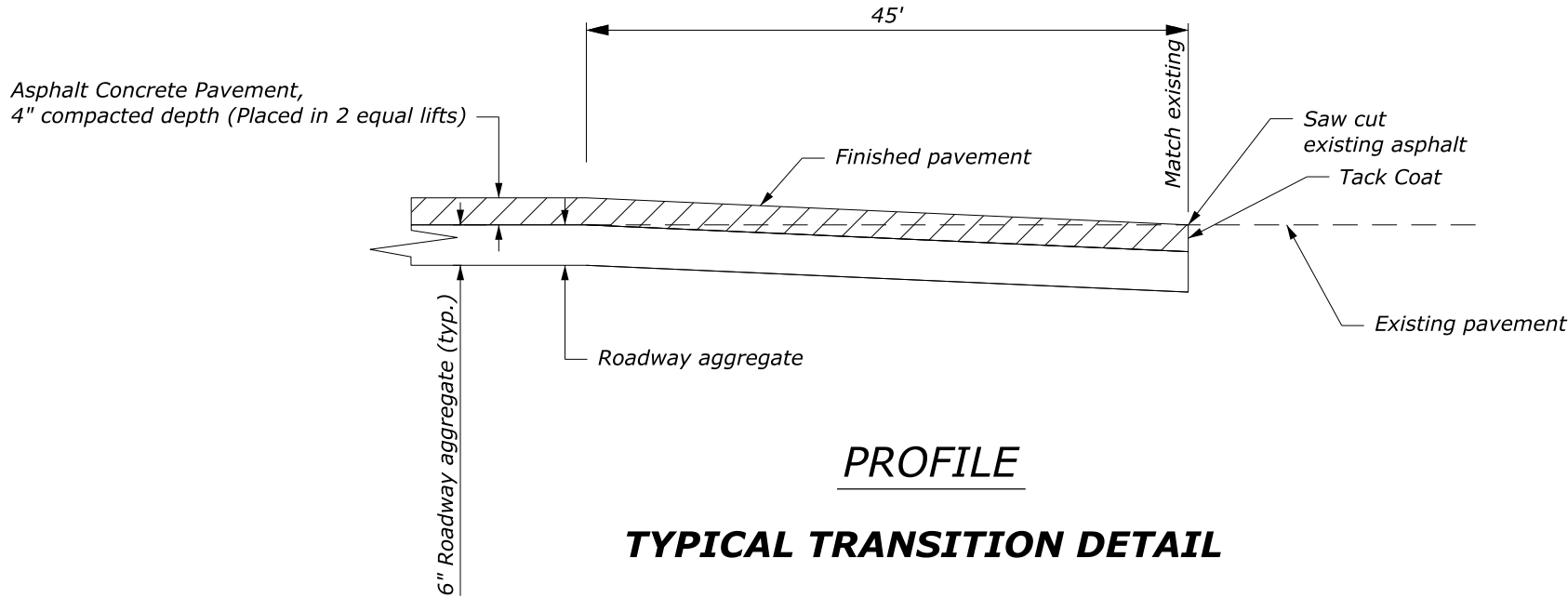


PARKING LOT SECTION
SCHEDULE A: Capitol Gorge Parking Lot
OPTION Y: Chimney Rock/Visitor Center Parking Lot

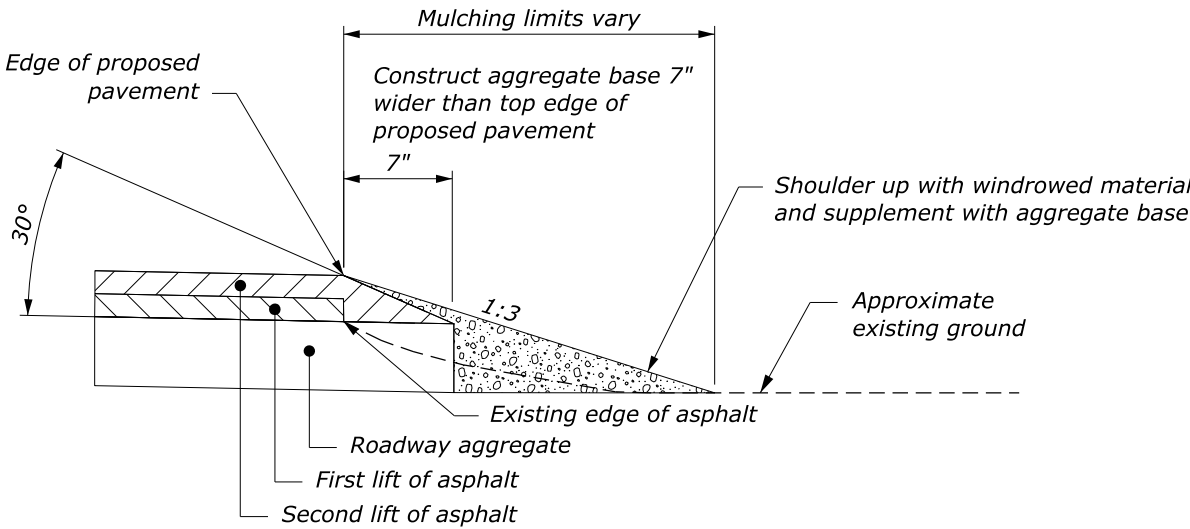
**PARKING LOT
TYPICAL SECTION**

NO SCALE

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	A10

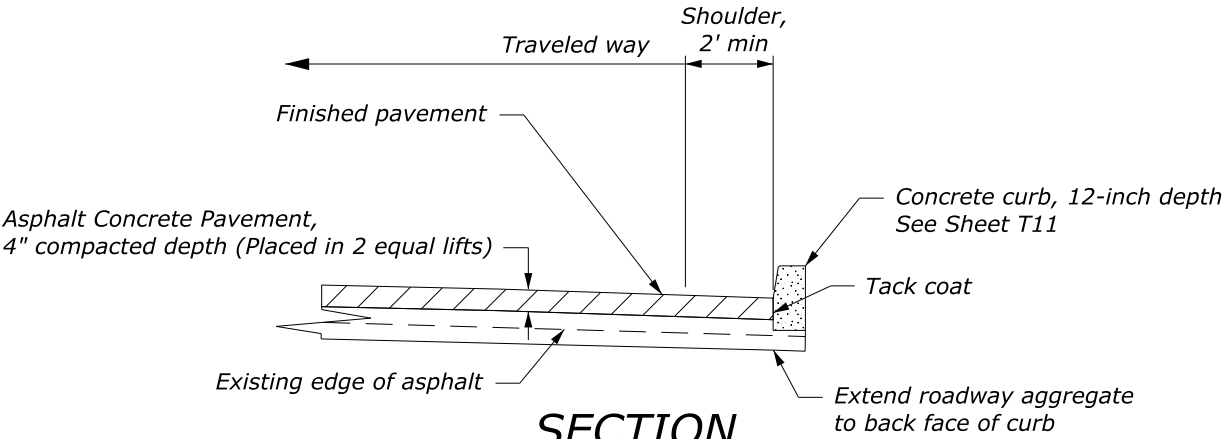


PROFILE
TYPICAL TRANSITION DETAIL



SAFETY EDGE DETAIL

NOTE:
Windrow existing shoulder material from bottom of subbase to existing edge of slope, shoulder up with windrowed shouldered material, supplement with aggregate base. Then place topsoil within mulching limits on the slope.



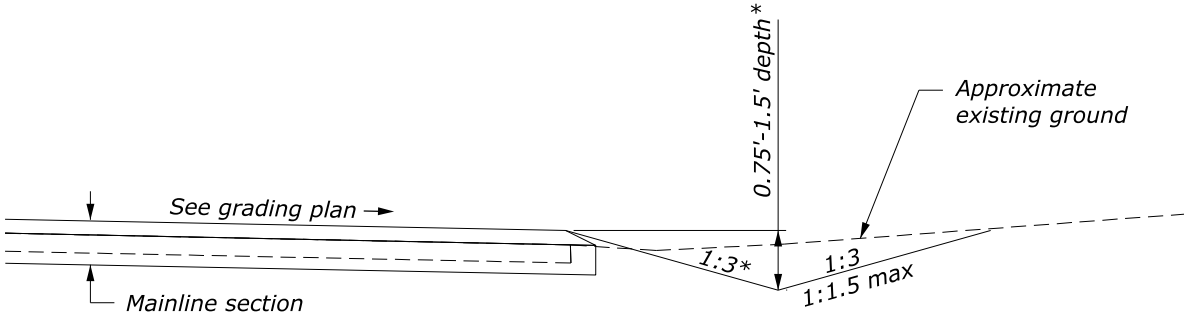
SECTION
TYPICAL CONCRETE CURB CONNECTION DETAIL

NOTE: Extend edge of asphalt 2' where possible.

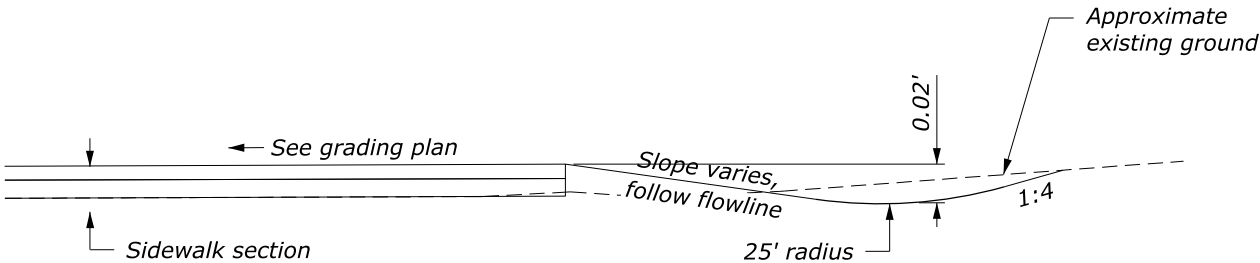
CONNECTION DETAILS

NO SCALE

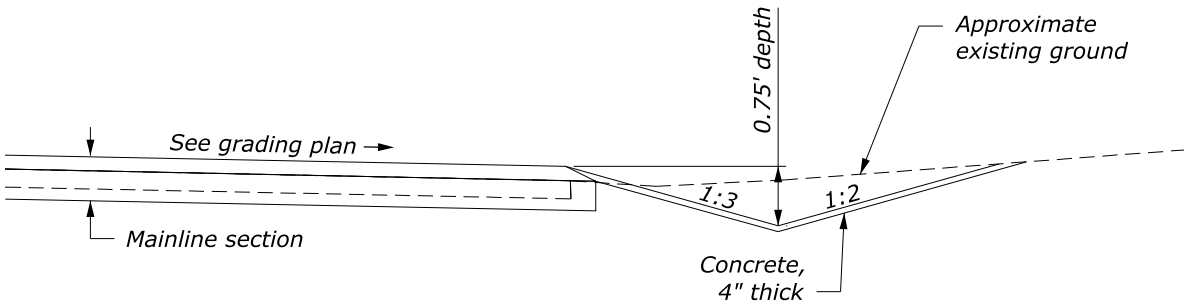
STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	A11



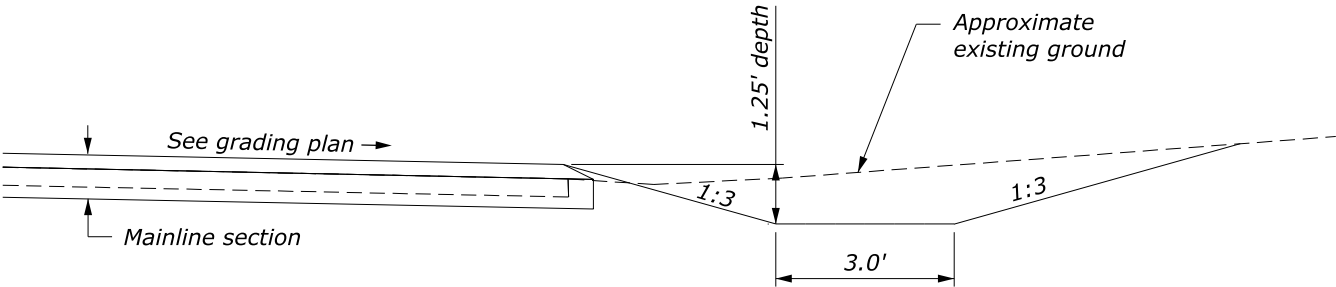
V DITCH TYPICAL SECTION¹
*May vary slightly. See Ditch Summary.



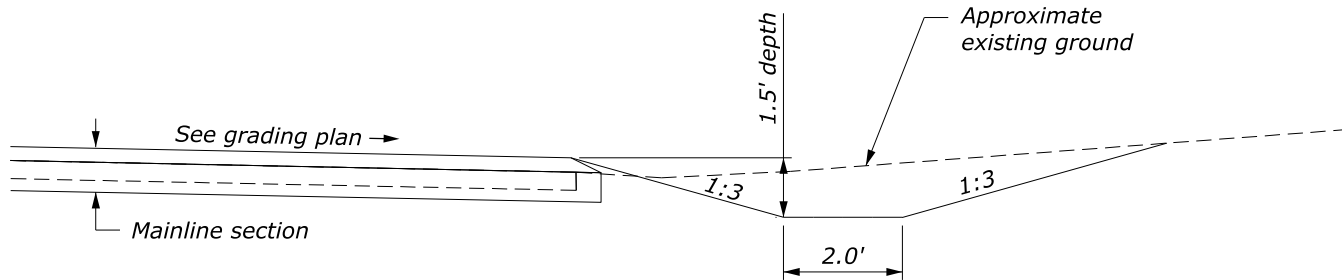
PARABOLIC DITCH TYPICAL SECTION¹



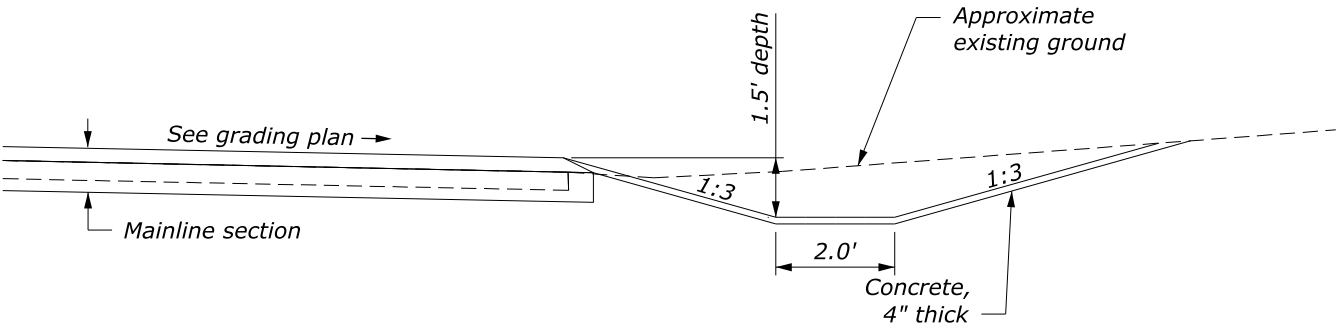
LINED V DITCH TYPICAL SECTION²



3' FLAT BOTTOM DITCH TYPICAL SECTION¹



2' FLAT BOTTOM DITCH TYPICAL SECTION¹



2' LINED FLAT BOTTOM DITCH TYPICAL SECTION²

Notes:

1. Construct ditch as shown, or as directed by the CO based on field conditions.
Paid for as DITCH EXCAVATION by LNFT.
2. Construct ditch as shown, or as directed by the CO based on field conditions.
Excavation paid for as DITCH EXCAVATION by LNFT and CONCRETE by CUYD.
3. Refer to Ditch Summary for details.
4. All concrete to be fiber-reinforced.

**DITCH
TYPICAL SECTIONS**

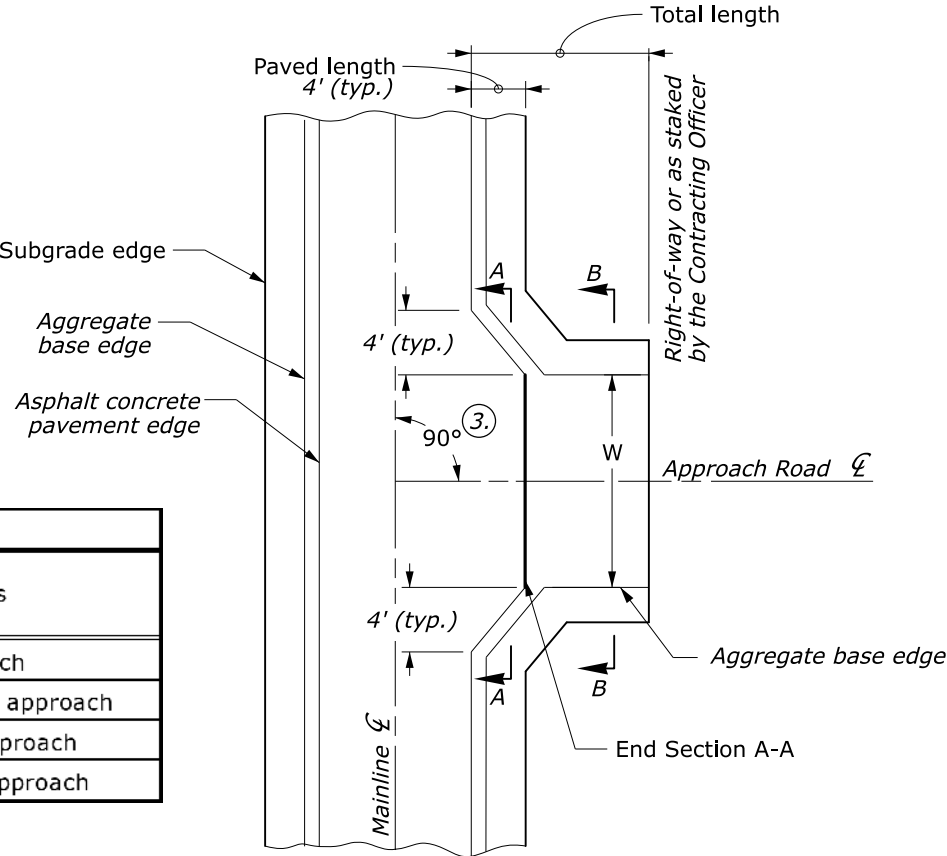
NO SCALE

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	A12

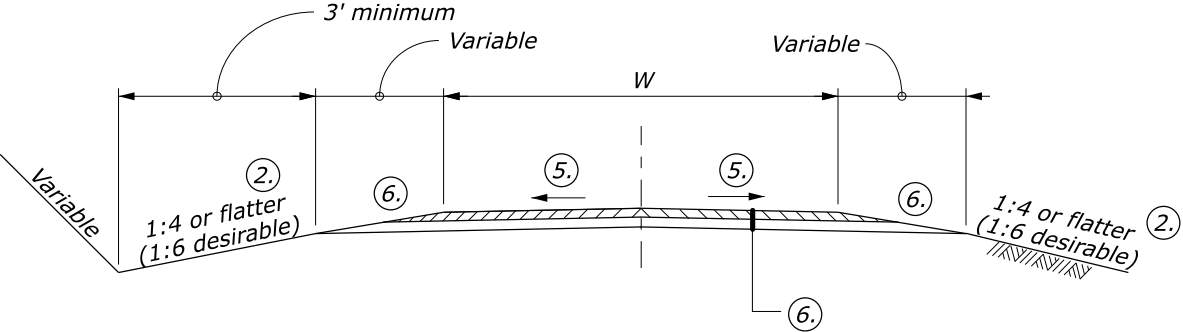
NOTE:

- Stations shown are approximate locations. Actual locations to be field verified.
- Construct cut and fill slopes for approach roads to match with mainline roadway construction.
- Under conditions approved by the CO, the approach road angle shown may be varied $\pm 20^\circ$.
- Place culverts at the end of the approach road radius to provide a flatter foreslope and increased mainline recovery area. When a culvert must be placed within the clear zone of the mainline roadway, use safety end sections (see Standard Drawing 602-9).
- Apply the normal crown to approach roads with widths greater than 15 feet.
- Refer to mainline typical sections for structural section thicknesses and foreslopes.
- Construct approach roads with landing areas having grades within $\pm 2\%$. In areas that receive snow, restrict this to a 0% to -2% grade. Under conditions approved by the CO, use 6% maximum.
- Vary radii to fit unusual field conditions. Do not reduce existing radii or widths. R_1 is on the left side of the approach road centerline.

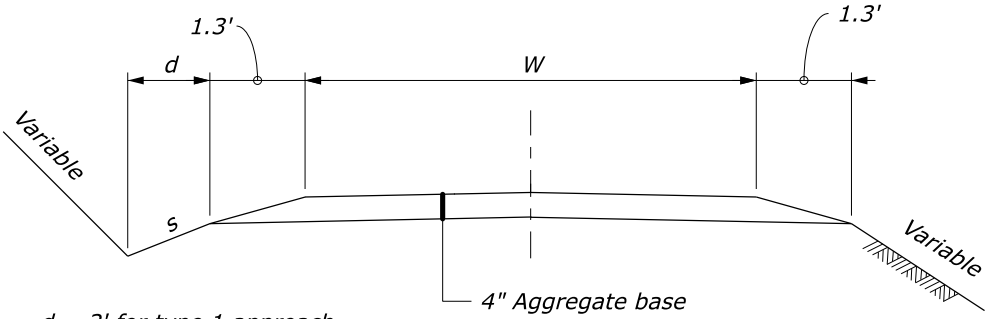
APPROACH ROAD SUMMARY									
Schedule	Station	Side	Type	Paved Length (ft.)	Total length (ft.)	W (ft.)	R1 (ft.)	R2 (ft.)	Remarks
A	14+41	Rt	3A	40	40	20	20	20	Boneyard Rd. approach
A	33+18	Rt	3A	25	25	20	20	20	Woodpile Service Rd. approach
A	108+10	Lt	3A	20	20	30	40	40	E Grand Wash Rd. approach
A	343+90	Rt	3A	55	55	14	50	2	Pleasant Creek Rd. approach



APPROACH ROAD
TYPE 3
TYPICAL PLAN

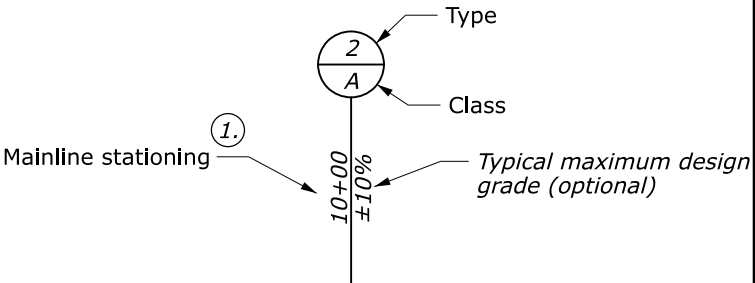


SECTION A-A



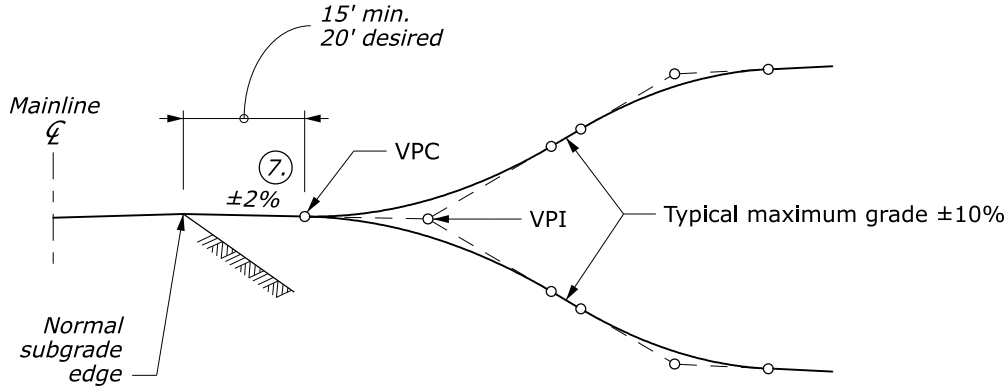
$d = 2'$ for type 1 approach
 $d = 3'$ for type 2 approach
 $s = 1:3$ for type 1 approach
 $s = 1:4$ for type 2 approach

SECTION B-B



Example of symbol showing standard approach road connection on plan and profile sheet

TYPICAL SYMBOL



TYPICAL PROFILE

TYPE	CLASS	MIN. WIDTH W (ft)	MIN. RADIUS R (ft)	SAMPLE APPLICATION
1	A	12	15	Field Access
1	B	14	25	Minimum 1-Way Use
1	C	16	25	Farm Equipment
1	D	16	40	Logging Truck Use
2	A	18	25	Minimum 2-Way Use
2	B	20	25	ADT < 25
2	C	22	40	25 ≤ ADT < 100
2	D	24	40	100 ≤ ADT < 199
2	E	28	50	ADT ≥ 200
3	A	*	N/A	Paved apron

* Match existing

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

TYPICAL SECTIONS
APPROACH ROADS

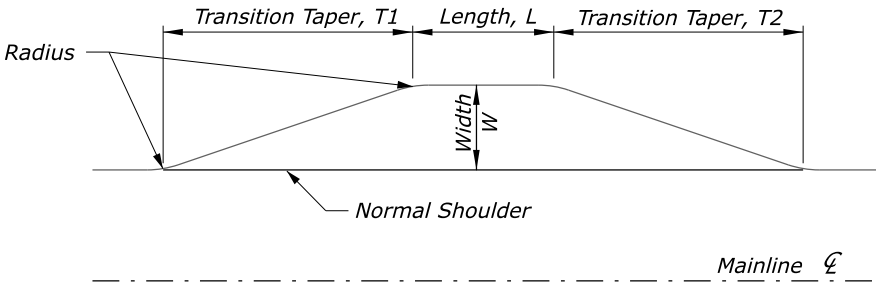
F:\Y017.031 CFLHD - UT FTNP CARE 10(2) Capitol Reef\Drawings\DGN\4. Sheet Production\TYP_PULL_UT CARE 10(2)& 100(1).dgn [U.S. Sur. rzD] 27 December 2022 9:51 AM

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	A13

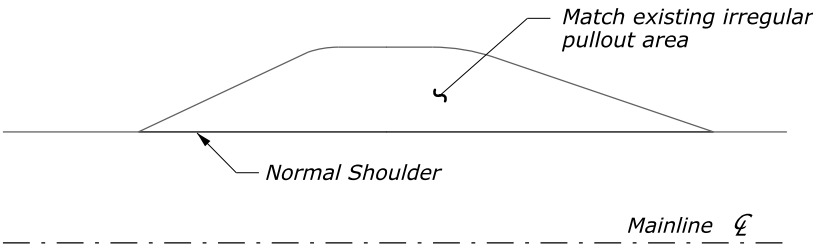
PULLOUT SUMMARY											
Schedule or Option	Station to Station			Side	Existing Type	L (ft.)	T1 (ft.)	T2 (ft.)	W (ft.)	Area (sqyd)	Remarks
A	10+49	to	12+96	Rt	Paved	60	117	70	40	621	Fee Ftation pullout
A	54+37	to	56+40	Rt	Paved	30	68	122	28	289	Danish Hill pullout
A	138+45	to	140+30	Rt	Paved	40	75	70	15	178	STA 139+40 pullout
A	180+00	to	182+10	Lt	Paved	100	55	54	12.5	216	STA 181+00 pullout
A	194+50	to	196+45	Lt	Paved	75	70	39	9	138	STA 195+50 pullout
A	236+05	to	237+60	Rt	Paved	30	68	54	44	282	Slickrock Divide pullout
A	270+70	to	272+05	Rt	Paved	50	34	55	21	110	STA 270+30 pullout
A	288+010	to	289+72	Rt	Paved	100	40	32	10	143	STA 288+80 pullout
A	299+40	to	301+21	Lt	Paved	100	43	40	12	180	STA 300+30 pullout

Notes:

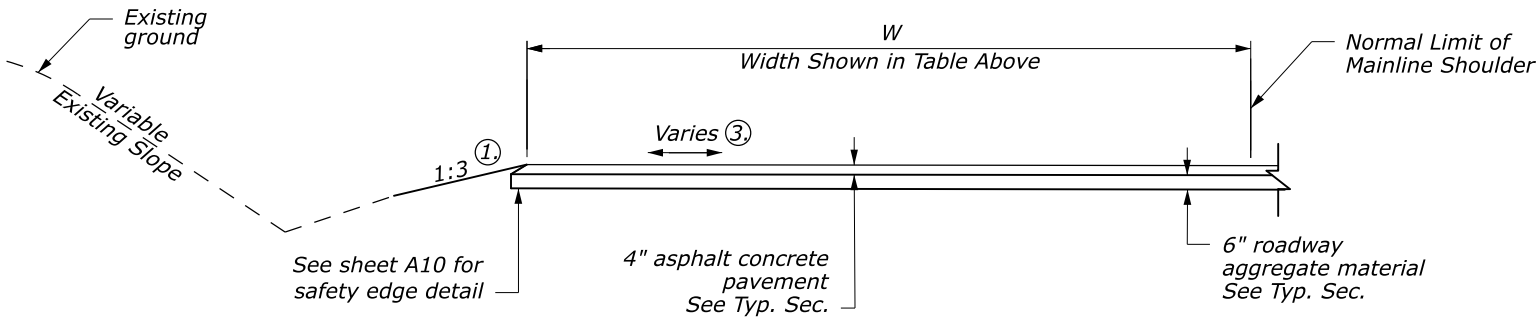
- ① Construct a 1:3 foreslope unless otherwise directed by the CO. Steepen the foreslopes as necessary, but not steeper than 1:1, to stay on the existing bench.
2. Place asphalt concrete pavement in two lifts. Apply tack coat to the first lift prior to placing the second lift.
- ③ See the mainline cross sections for cross slope.
4. Place culverts at the end of the approach road radius to provide a flatter foreslope and increased mainline recovery area. When a culvert must be placed within the clear zone of the mainline roadway, use safety end sections (see Standard Drawing 602-9).
5. Apply the normal crown to approach roads with widths greater than 15 feet.



TYPICAL PARALLEL PULLOUT PLAN



MATCH EXISTING PULLOUT PLAN



PULLOUT TYPICAL SECTION

TYPICAL SECTIONS
PULLOUTS

NO SCALE

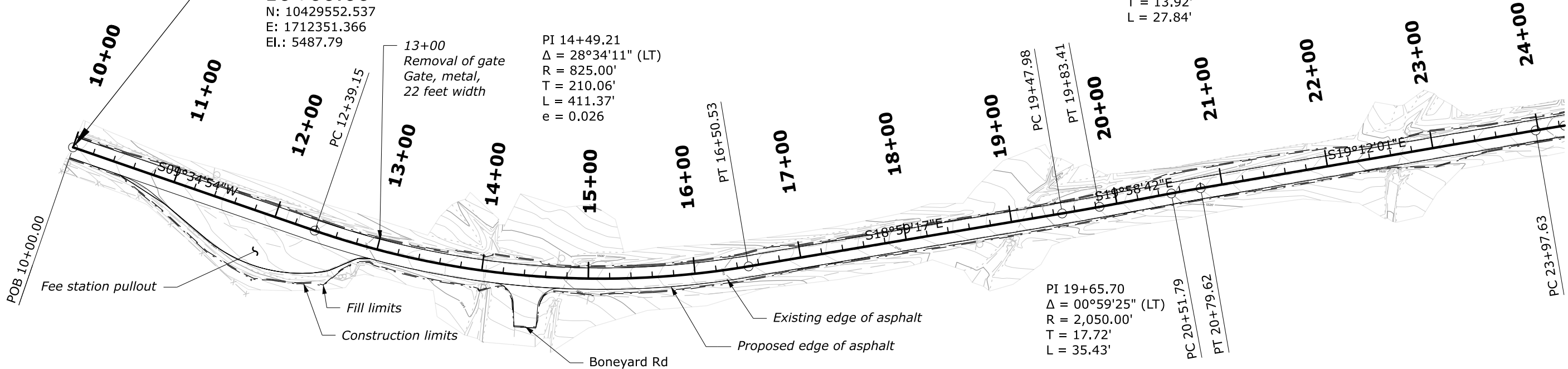
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26 April 2023 12:07 PM

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	C1



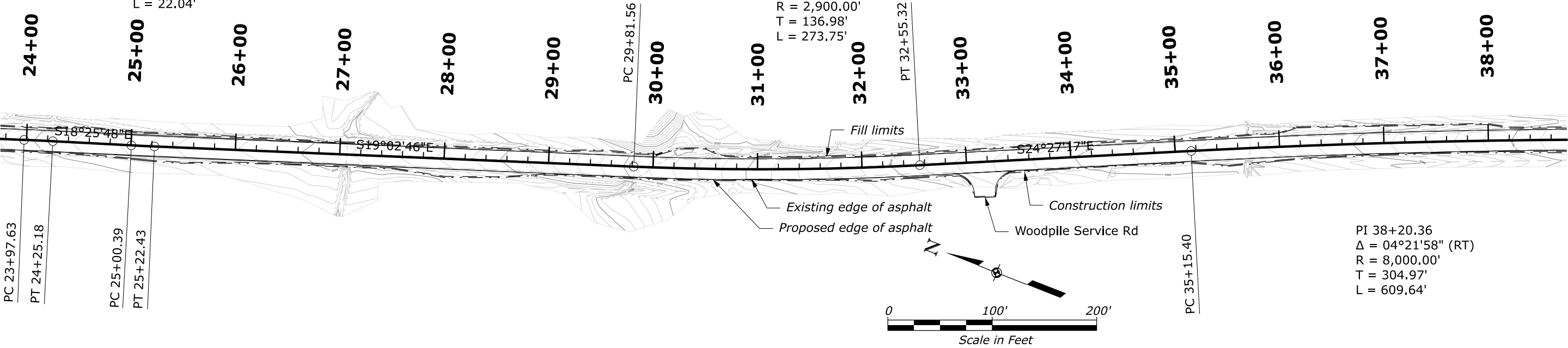
BEGIN PROJECT
BEGIN RECONSTRUCTION
UT FTNP CARE 10(2) & 100(1)
CAPITOL REEF NATIONAL PARK

10+00.00
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E: 1712351.366
El.: 5487.79



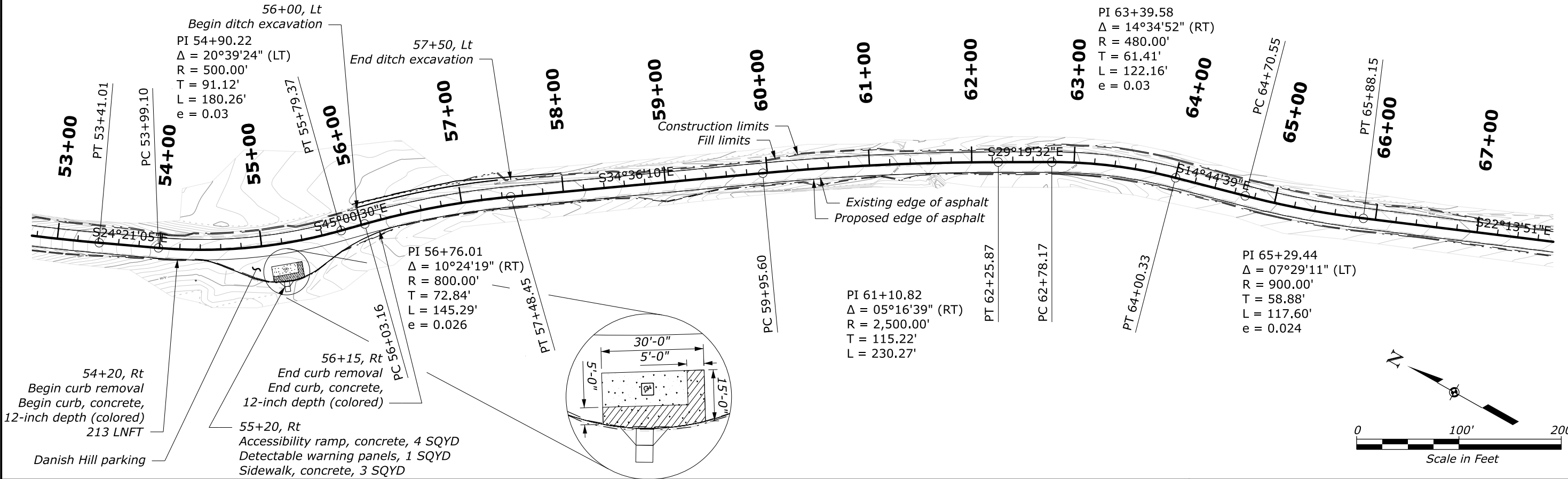
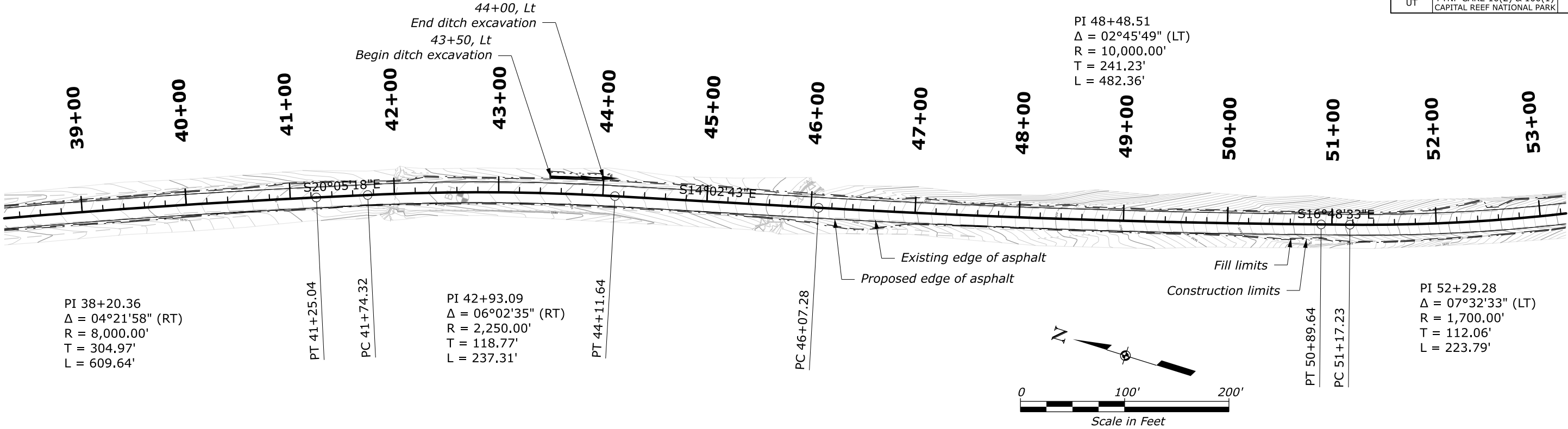
PI 24+11.41
Δ = 00°46'13" (RT)
R = 2,050.00'
T = 13.78'
L = 27.56'

PI 25+11.41
Δ = 00°36'58" (LT)
R = 2,050.00'
T = 11.02'
L = 22.04'



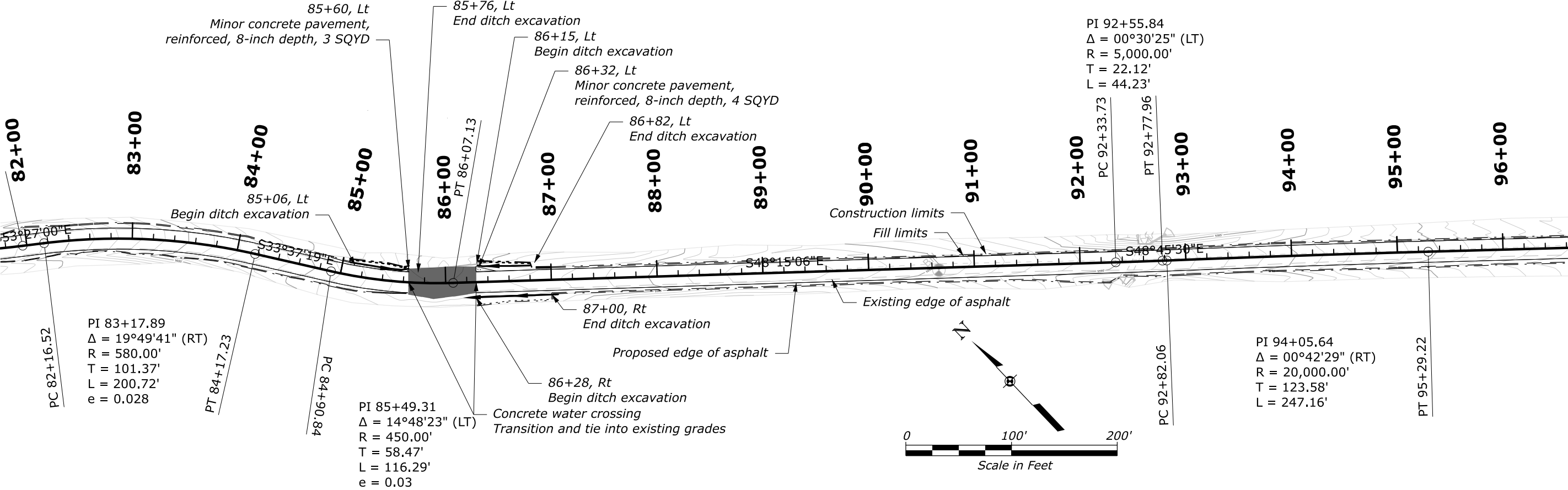
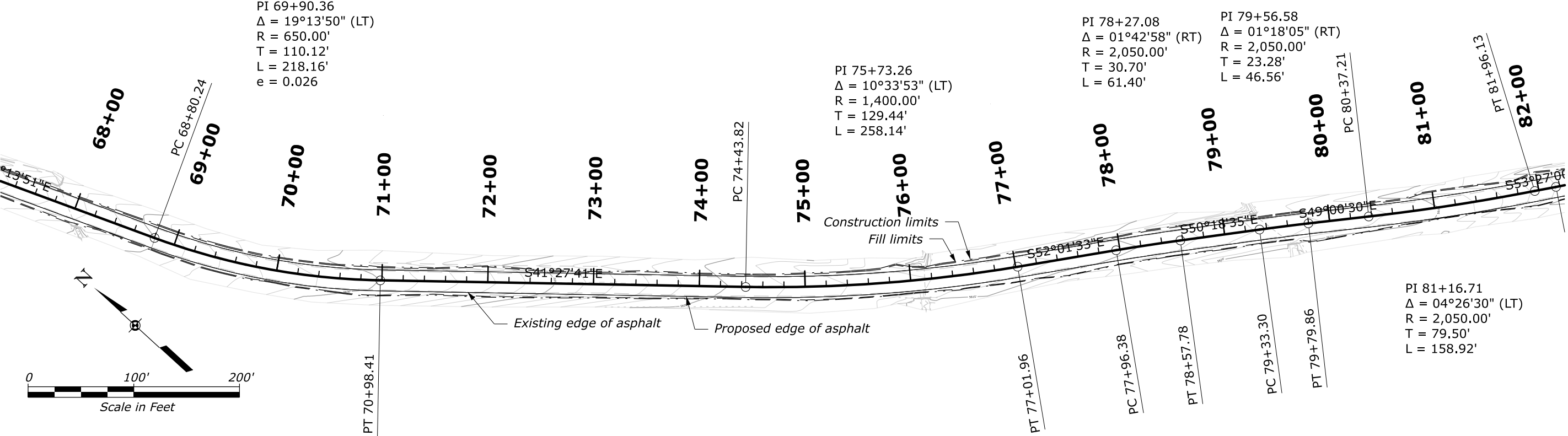
SCHEDULE A
SCENIC DRIVE
PLAN AND PLAN

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITAL REEF NATIONAL PARK	C2



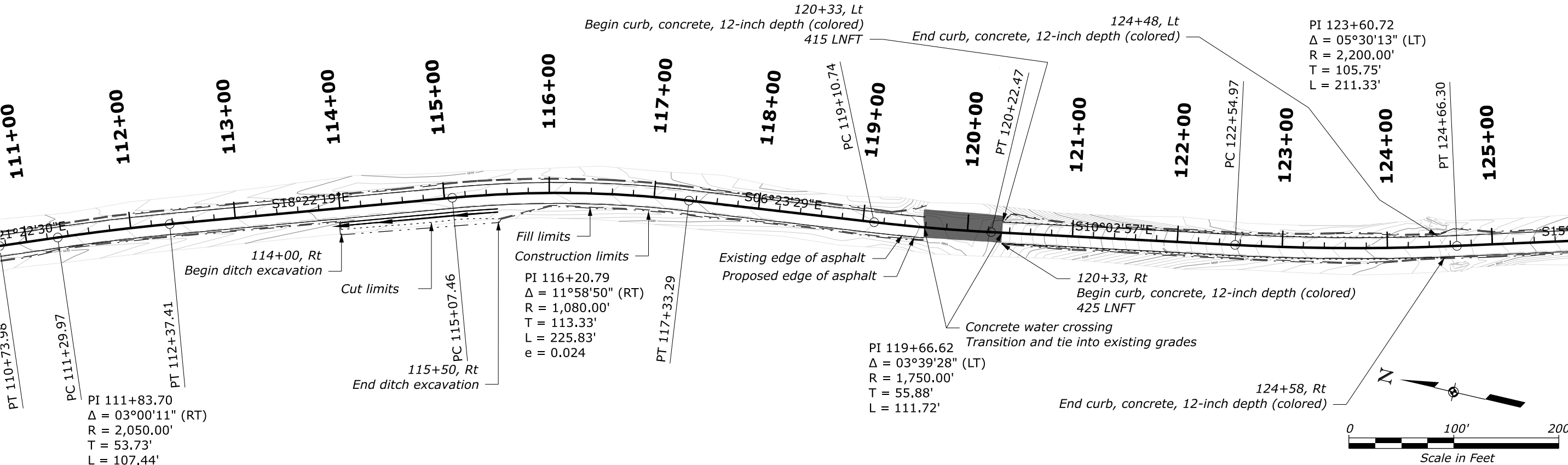
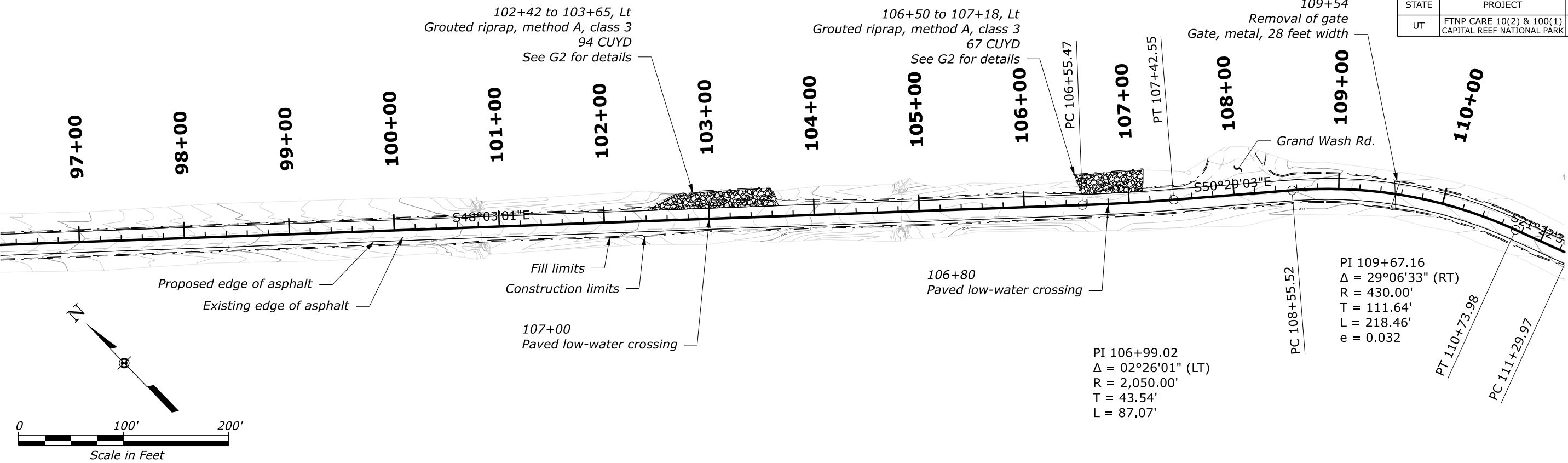
**SCHEDULE A
SCENIC DRIVE
PLAN AND PLAN**

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITAL REEF NATIONAL PARK	C3



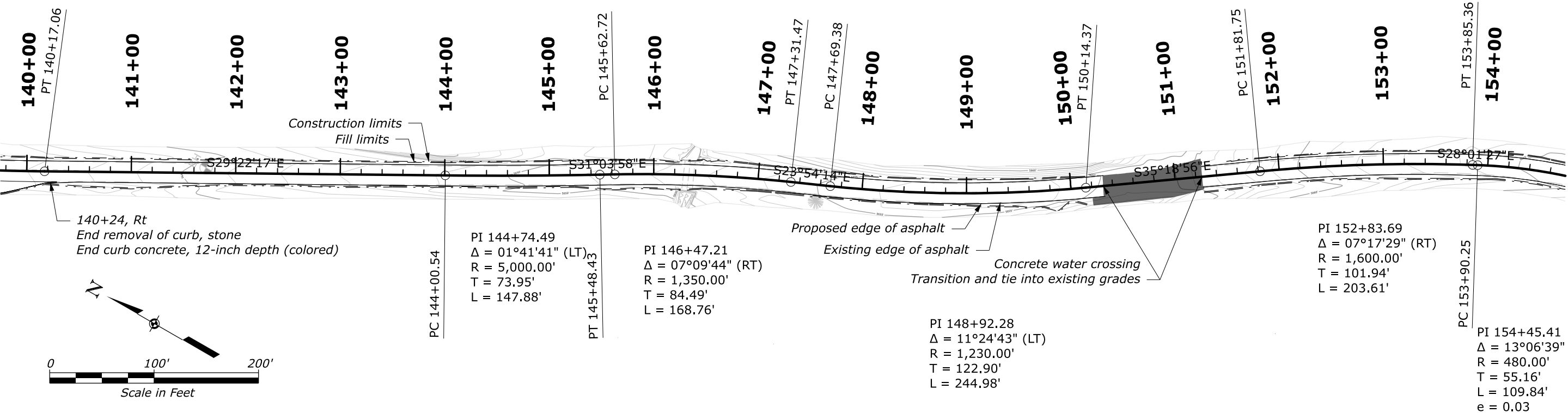
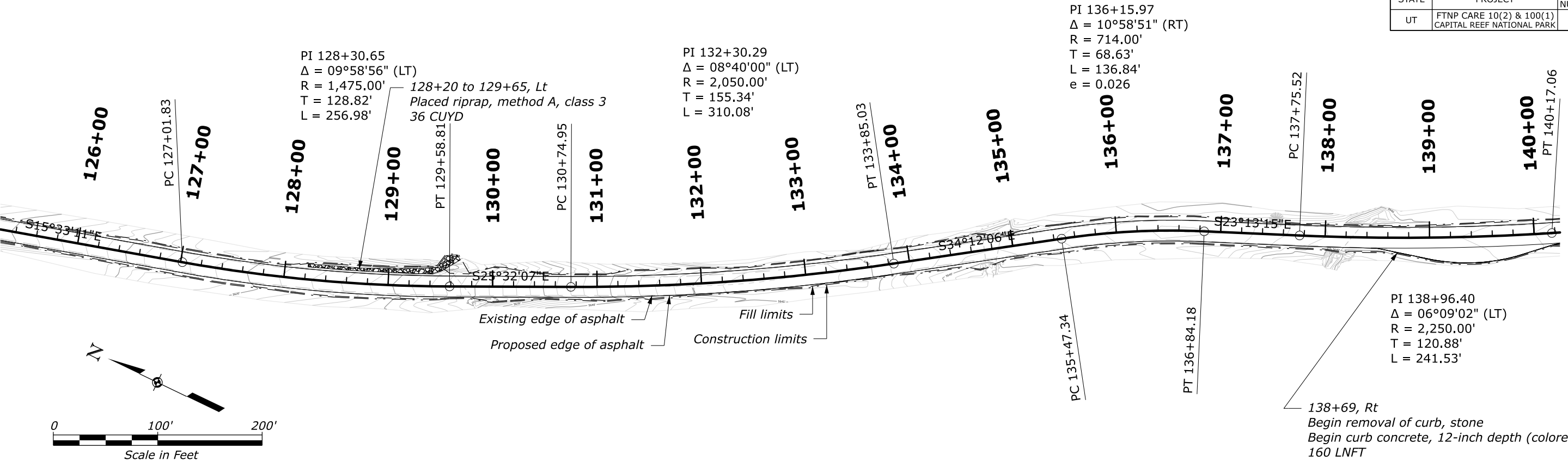
**SCHEDULE A
SCENIC DRIVE
PLAN AND PLAN**

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITAL REEF NATIONAL PARK	C4



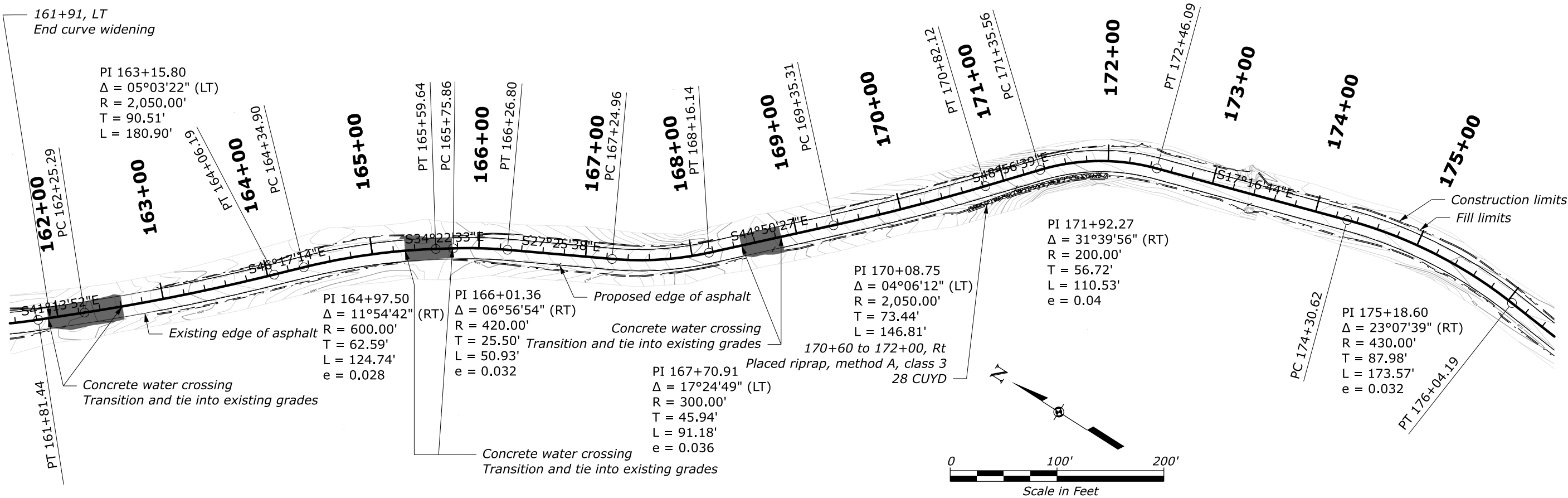
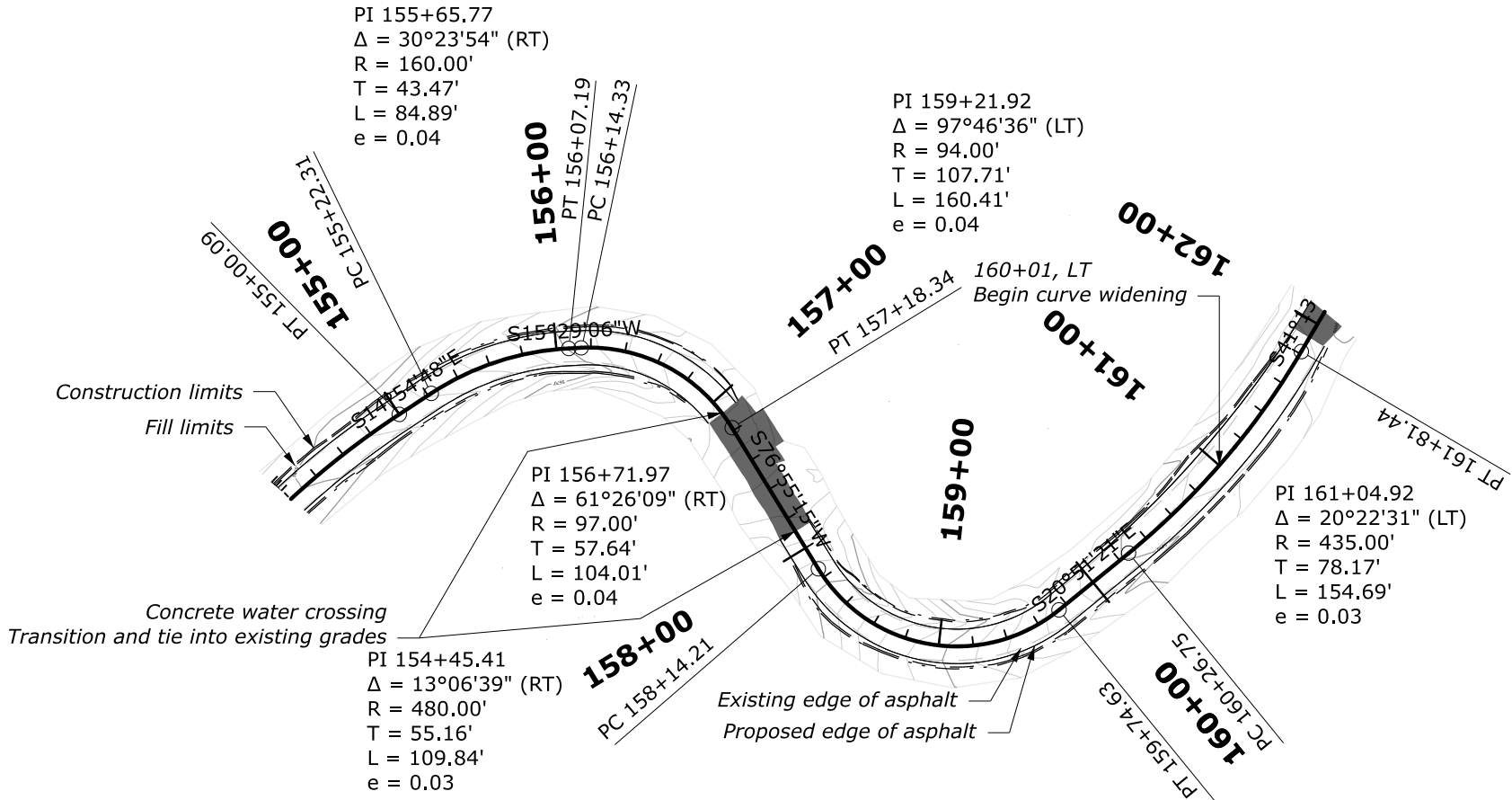
**SCHEDULE A
SCENIC DRIVE
PLAN AND PLAN**

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITAL REEF NATIONAL PARK	C5



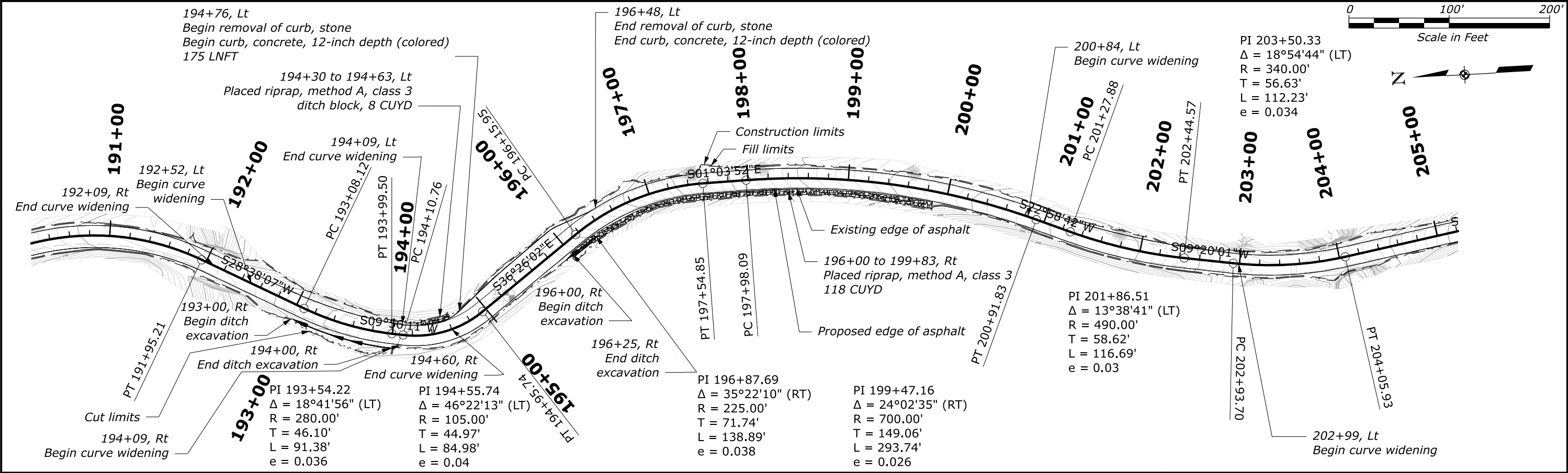
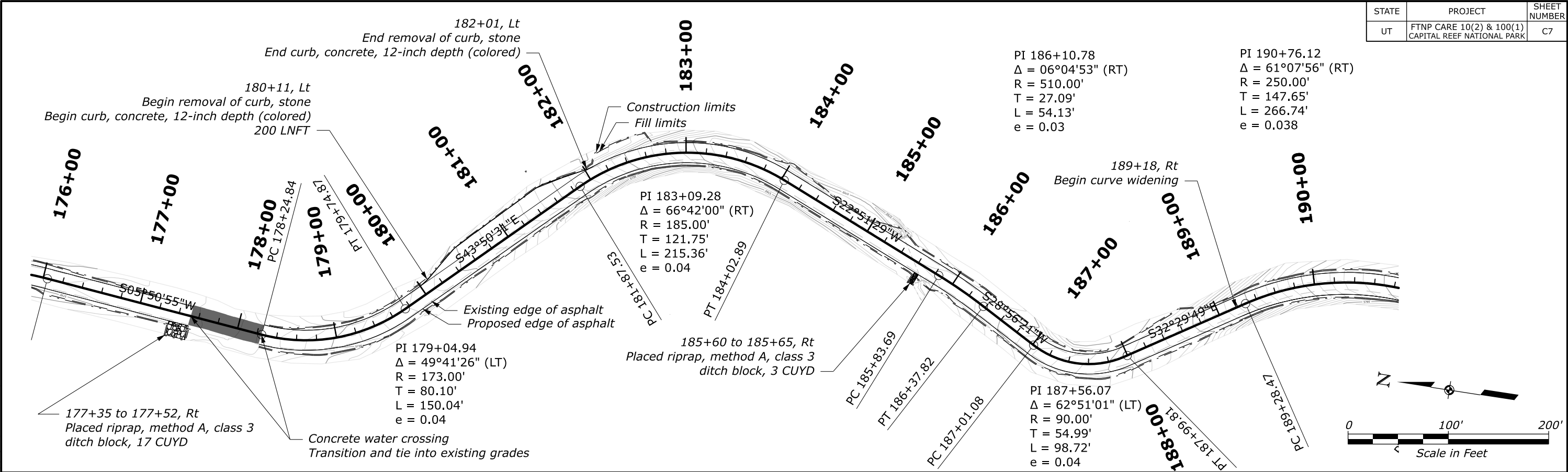
**SCHEDULE A
SCENIC DRIVE
PLAN AND PLAN**

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITAL REEF NATIONAL PARK	C6

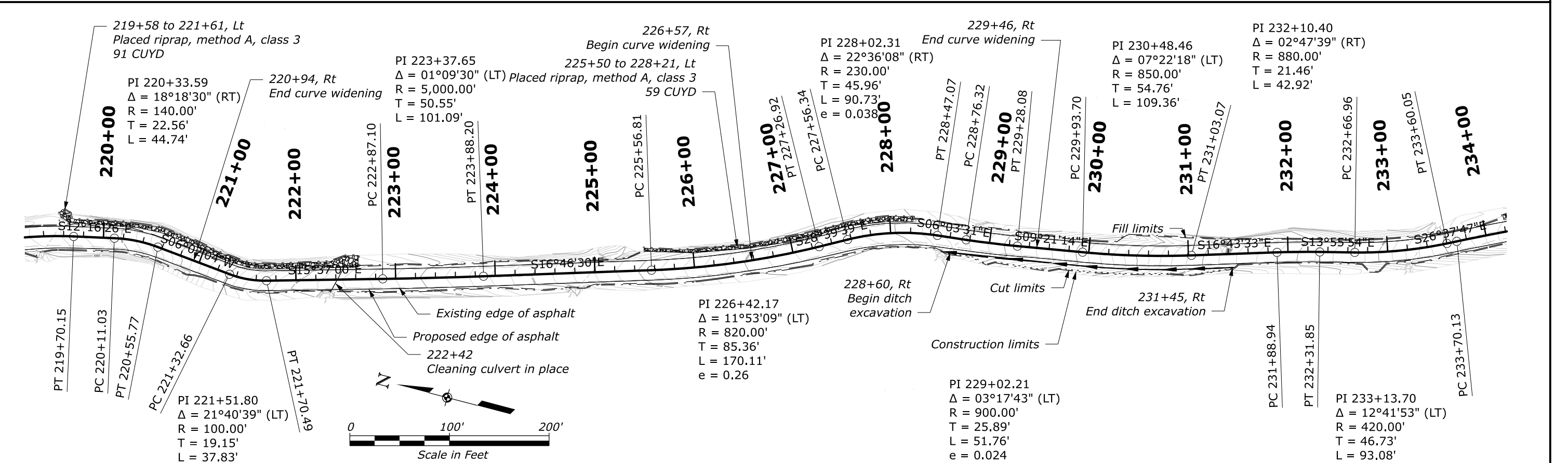


**SCHEDULE A
SCENIC DRIVE
PLAN AND PLAN**

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITAL REEF NATIONAL PARK	C7

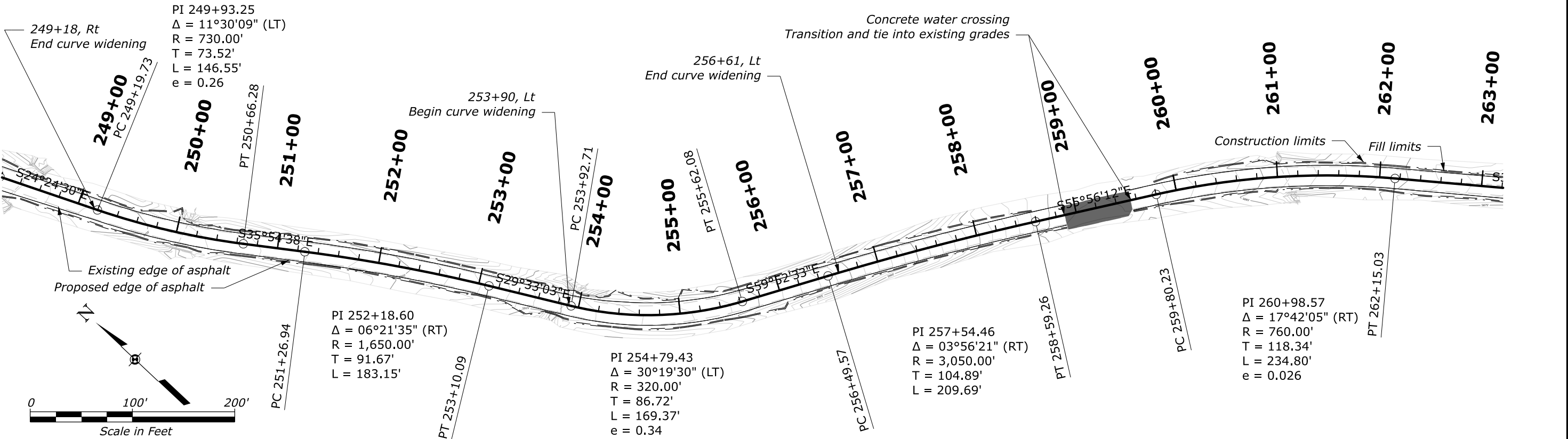
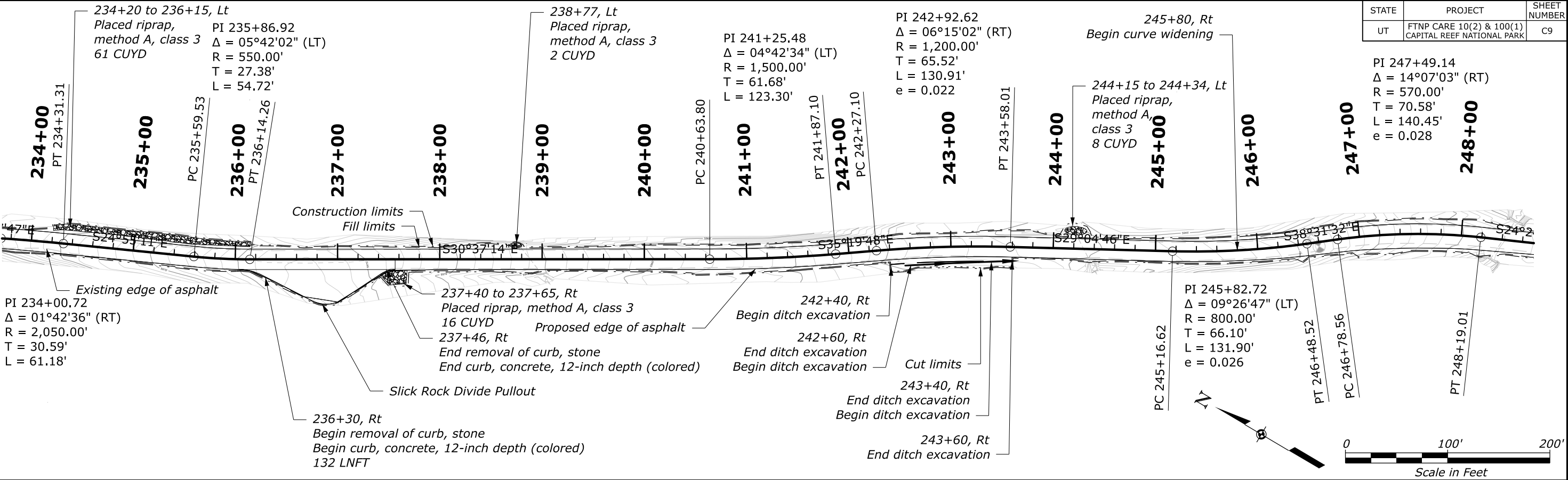


**SCHEDULE A
SCENIC DRIVE
PLAN AND PLAN**



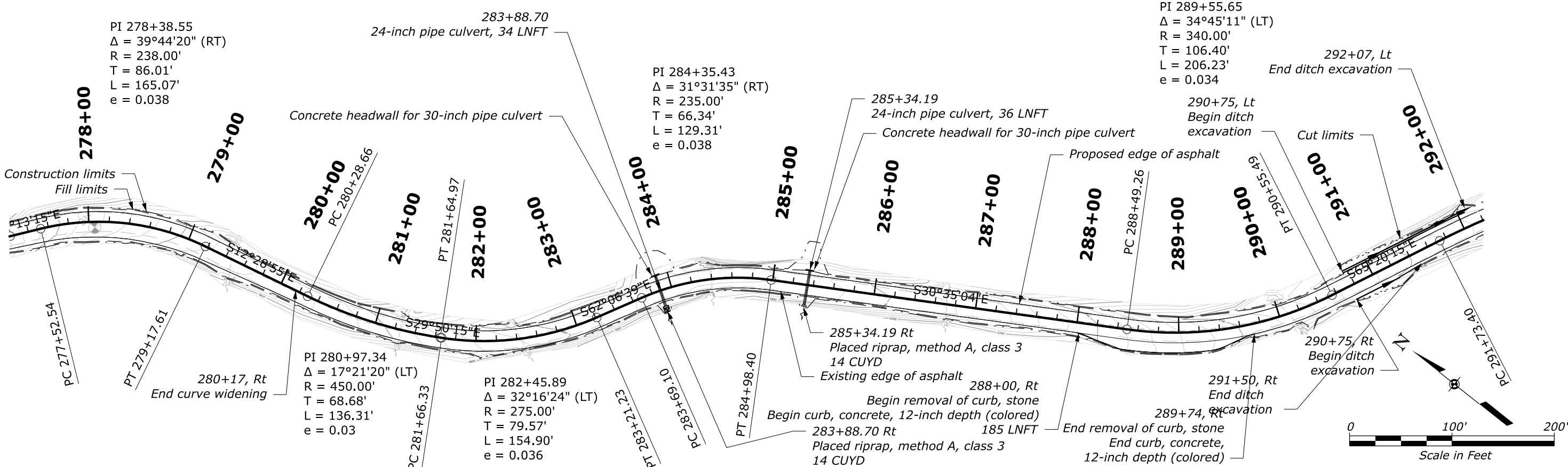
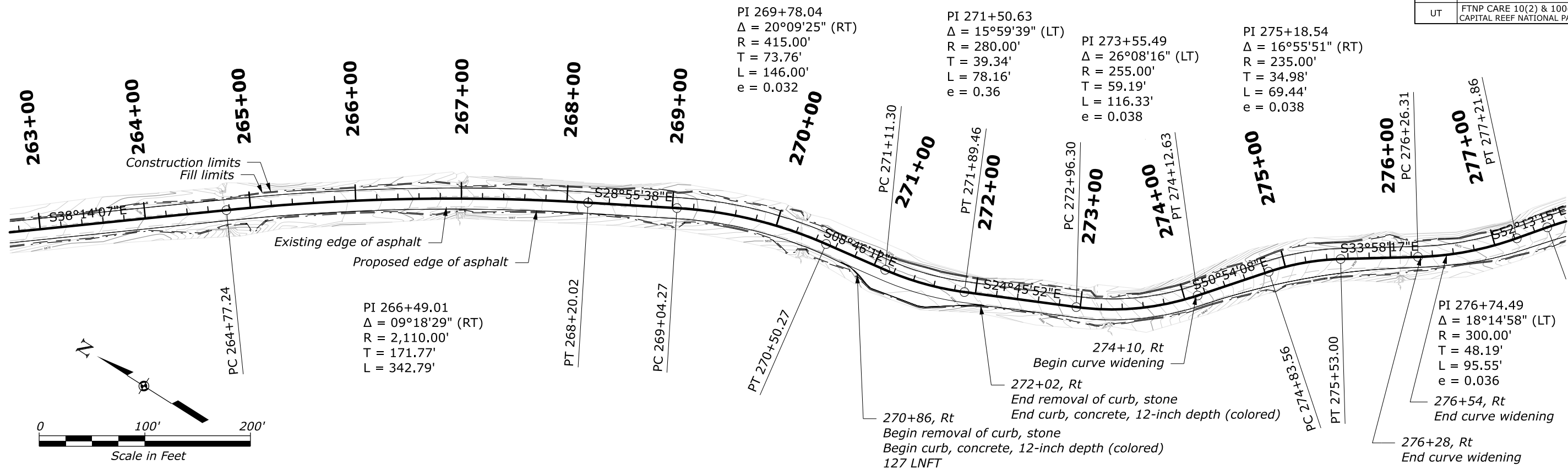
SCHEDULE A SCENIC DRIVE PLAN AND PLAN

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITAL REEF NATIONAL PARK	C9



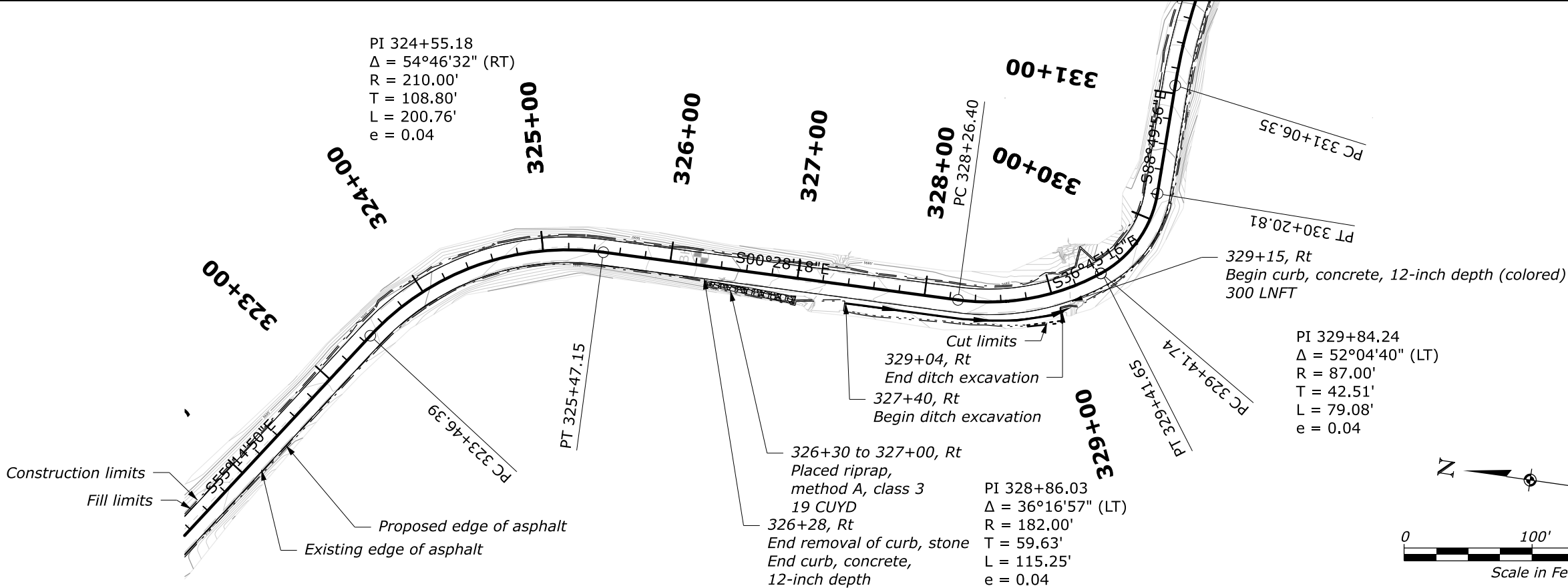
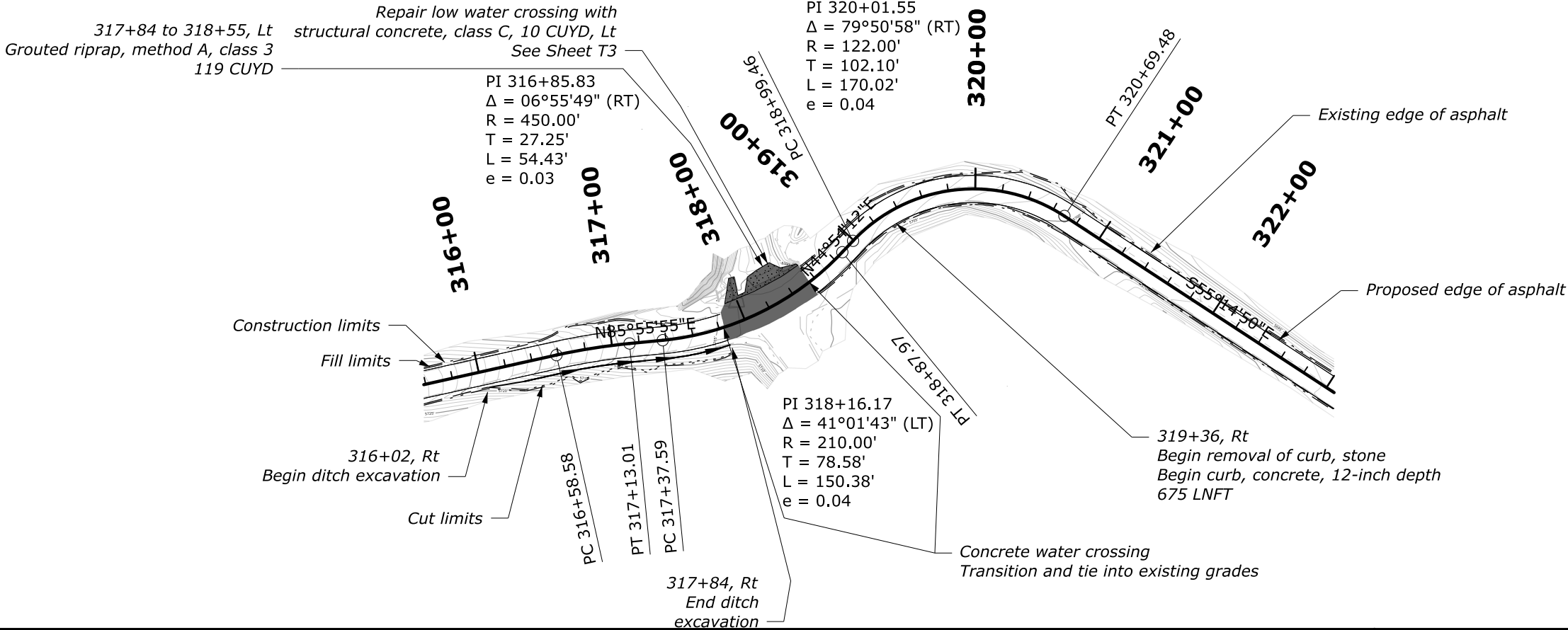
**SCHEDULE A
SCENIC DRIVE
PLAN AND PLAN**

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITAL REEF NATIONAL PARK	C10



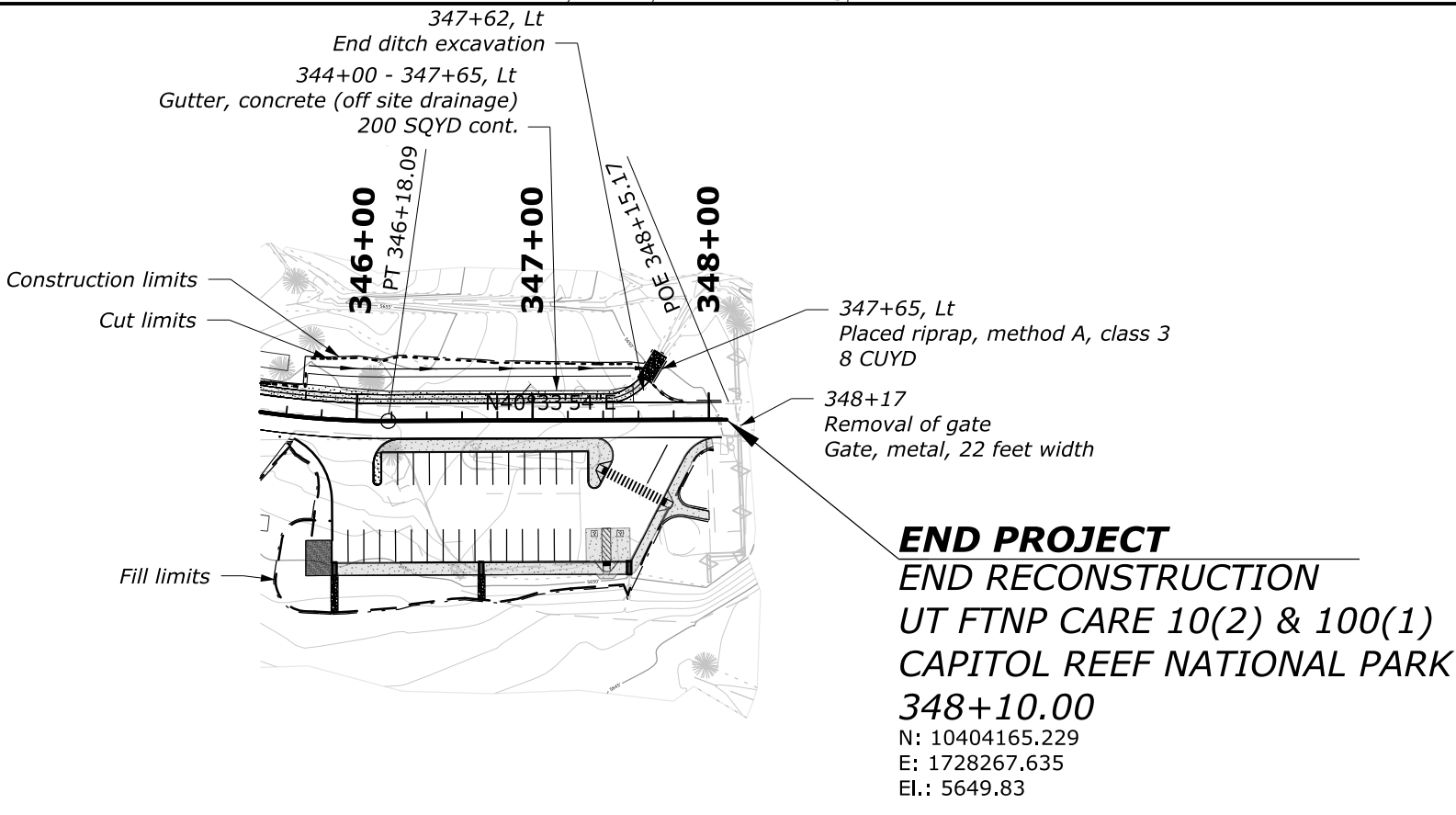
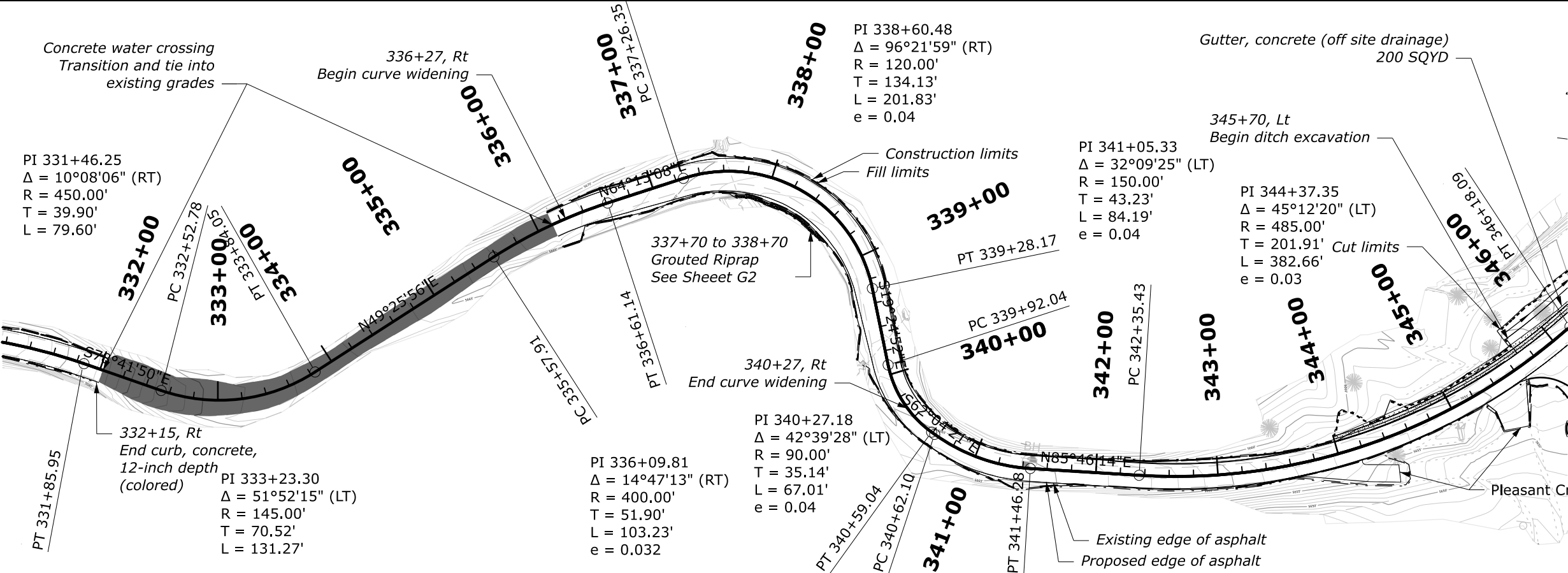
**SCHEDULE A
SCENIC DRIVE
PLAN AND PLAN**

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITAL REEF NATIONAL PARK	C12



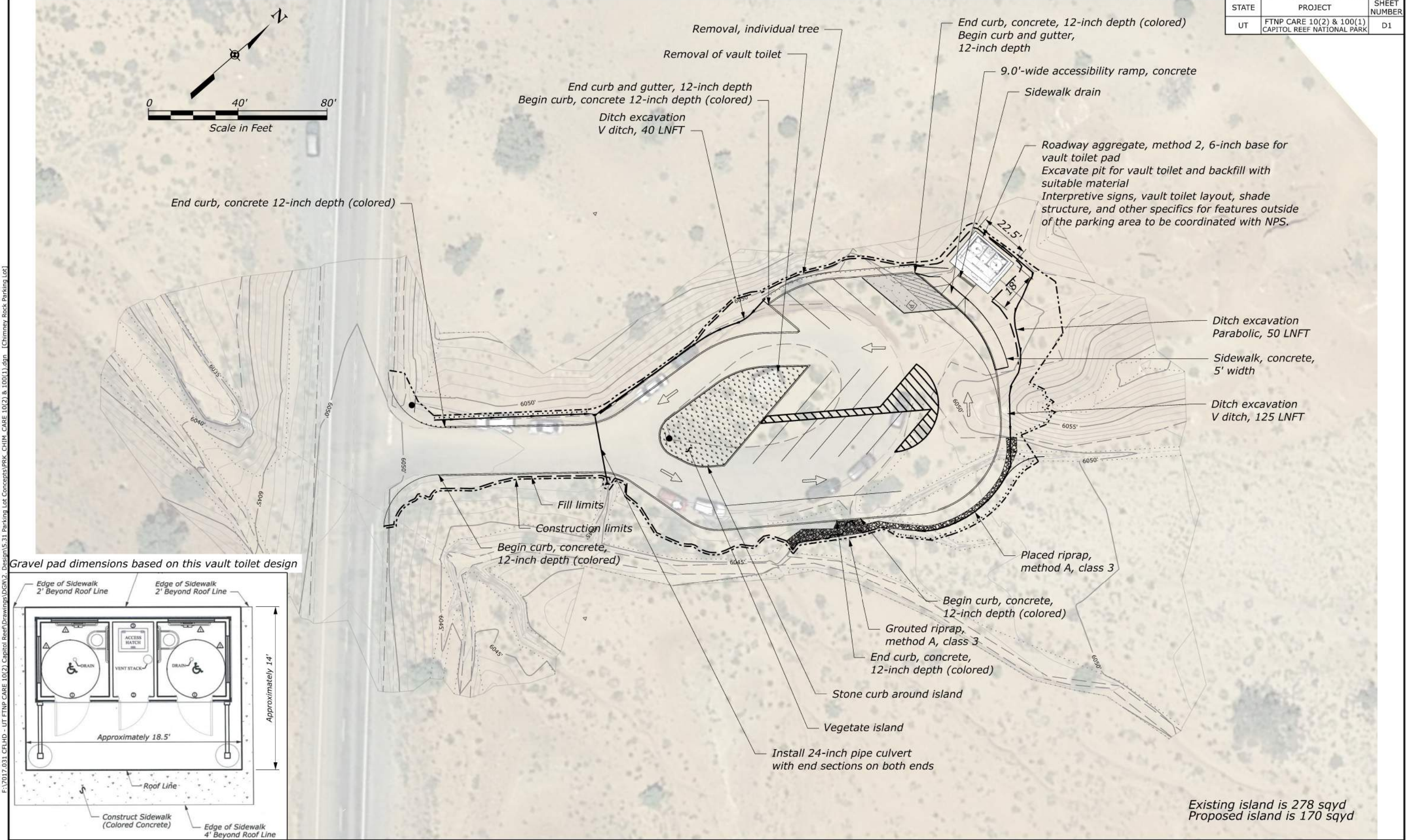
**SCHEDULE A
SCENIC DRIVE
PLAN AND PLAN**

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITAL REEF NATIONAL PARK	C13

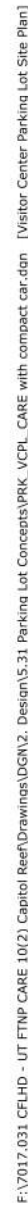


**SCHEDULE A
SCENIC DRIVE
PLAN AND PLAN**

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	D1



OPTION Z
CHIMNEY ROCK PARKING LOT
LAYOUT PLAN

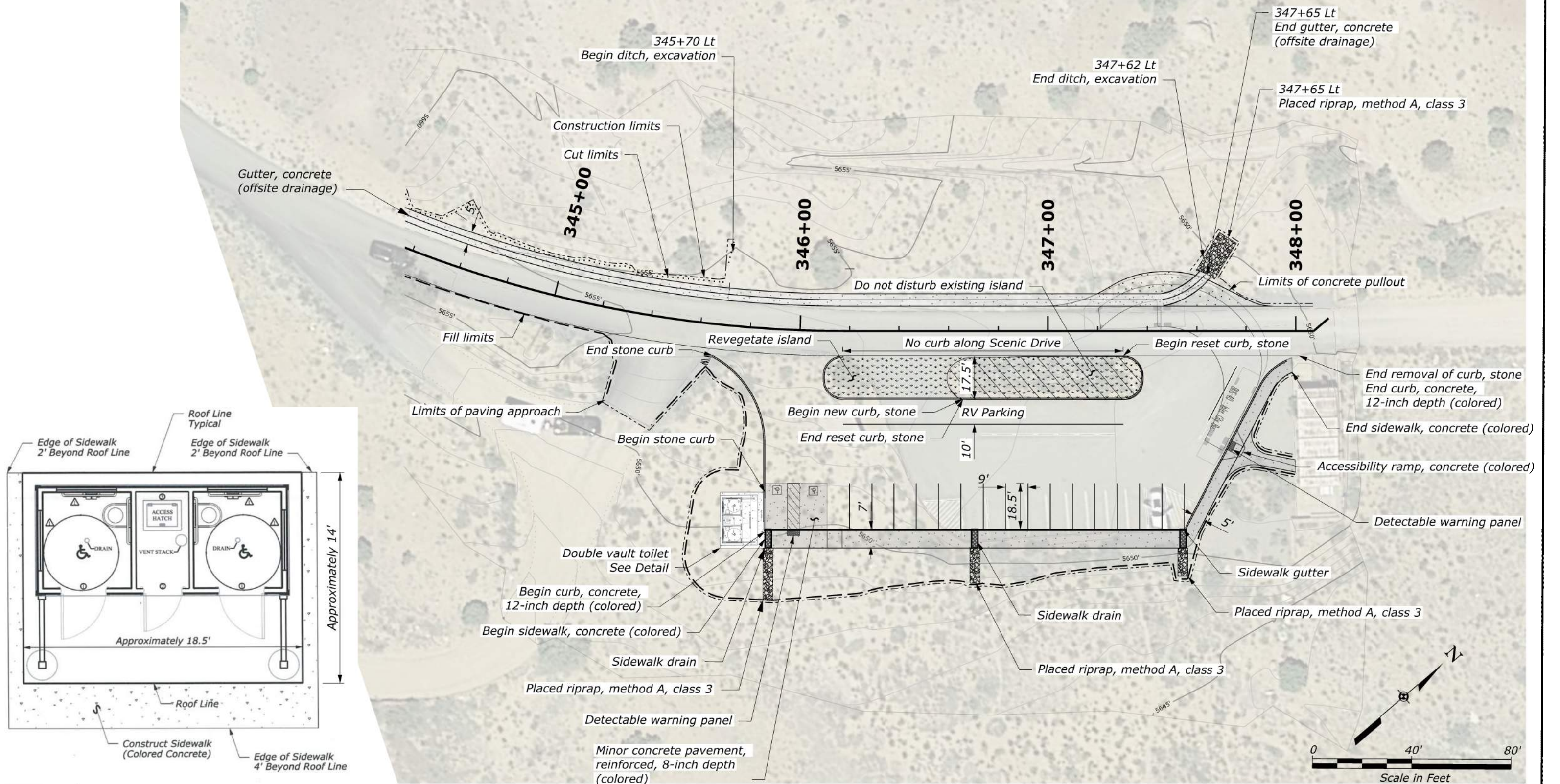


OPTION Y VISITOR CENTER PARKING LOT SITE PLAN

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	D7

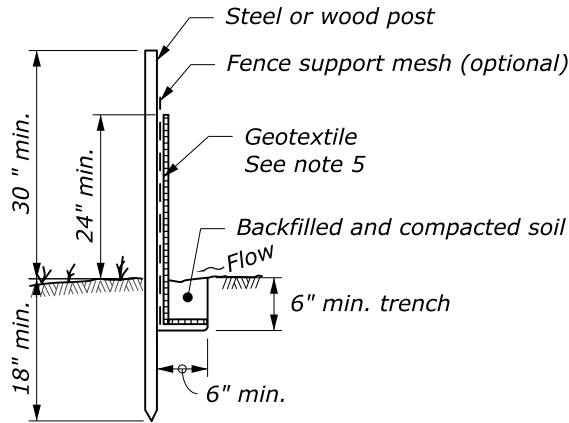
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6 June 2023 4:30 PM

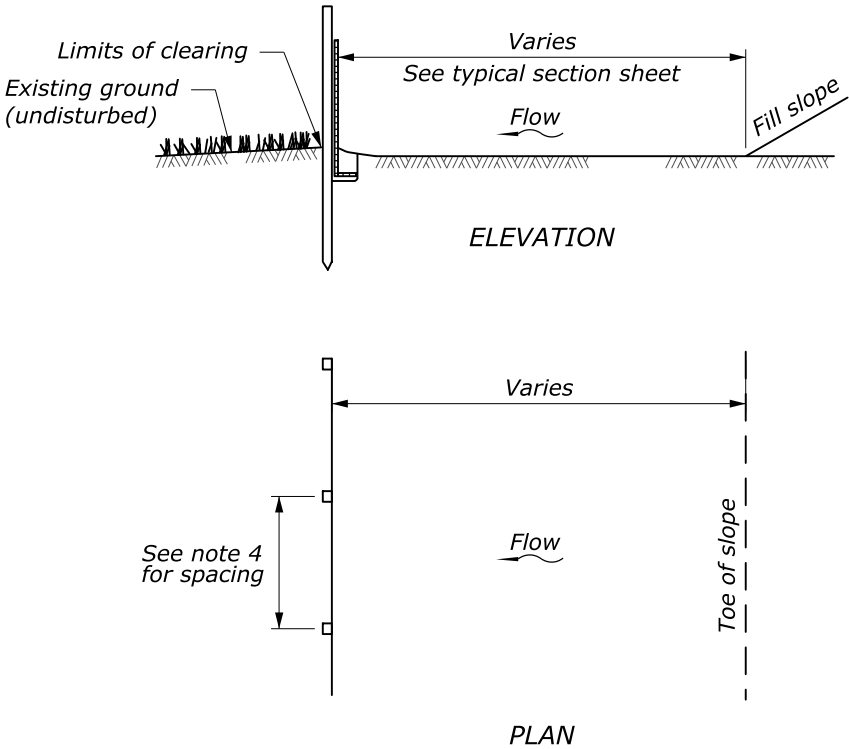


SCHEDULE A CAPITOL GORGE PARKING LOT LAYOUT PLAN

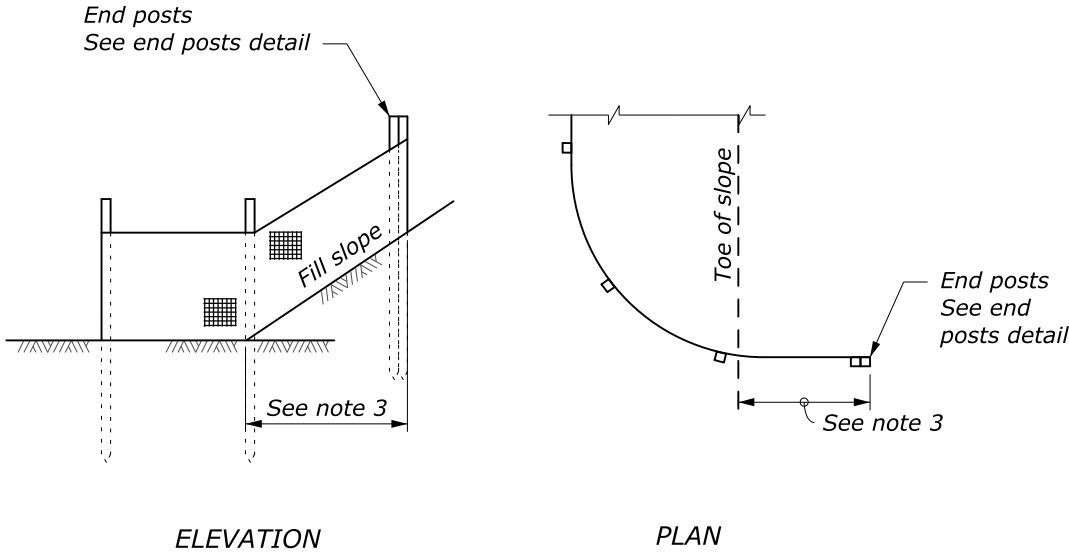
STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	E14



POST AND GEOTEXTILE INSTALLATION DETAIL

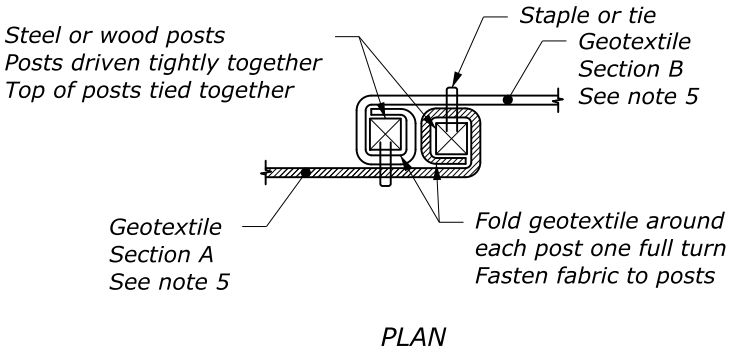
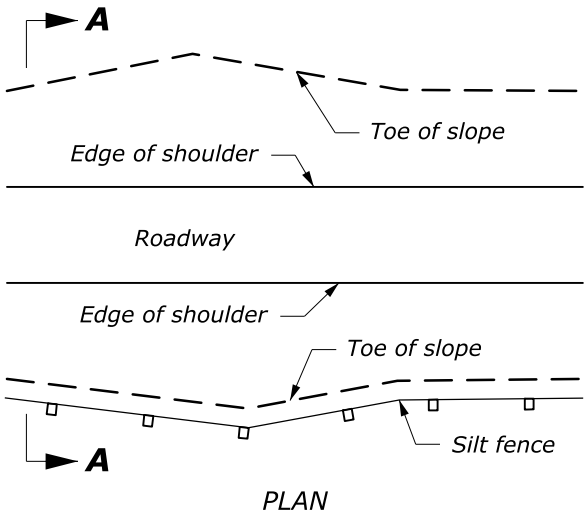


- NOTE:
1. Silt fence may be installed using machine slicing as approved by the CO. Install machine-sliced silt fence according to the manufacturer's recommendations.
 2. Install silt fence to follow the ground contours as closely as possible.
 3. As the slope is constructed, curve the silt fence up the slope to prevent water from running around the ends.
 4. Post spacing with fence support mesh = 10 ft. (max.)
Post spacing without fence support mesh = 6 ft. (max.)
 5. Furnish geotextile conforming to subsection 713.16(a).

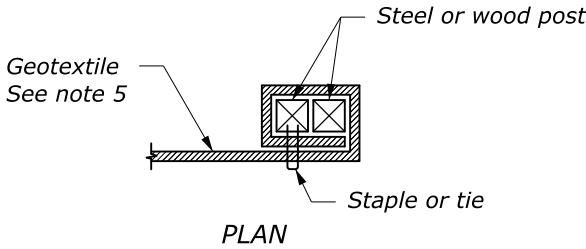


END DETAIL

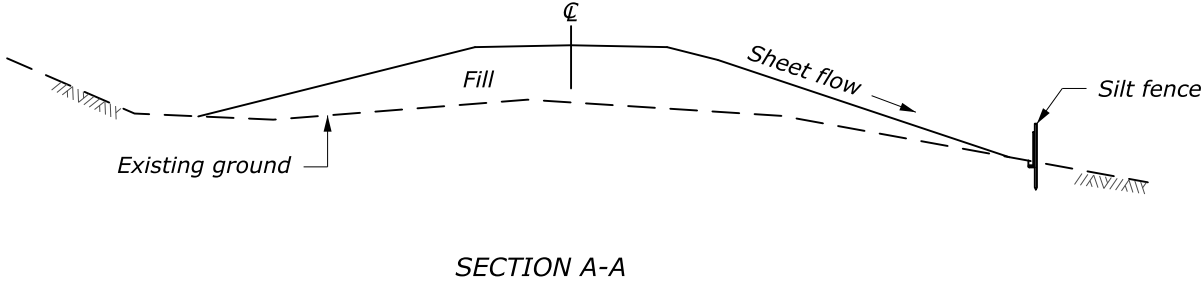
SILT FENCE INSTALLATION AT TOE OF FILL



POSTS AT JOINTS



END POSTS DETAIL



SILT FENCE AS PERIMETER CONTROL

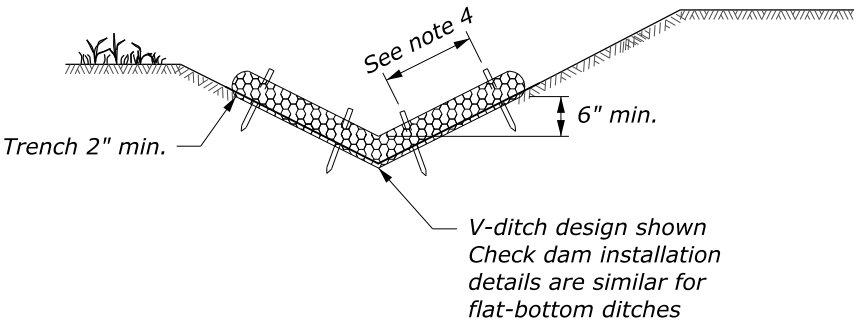
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION	
CFLHD DETAIL	
SILT FENCE	
DETAIL APPROVED FOR USE REVISED: 08/2014 07/2020	DETAIL C157-50

NO SCALE

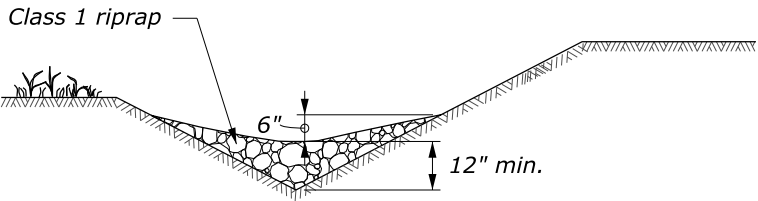
STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	E15

NOTE:

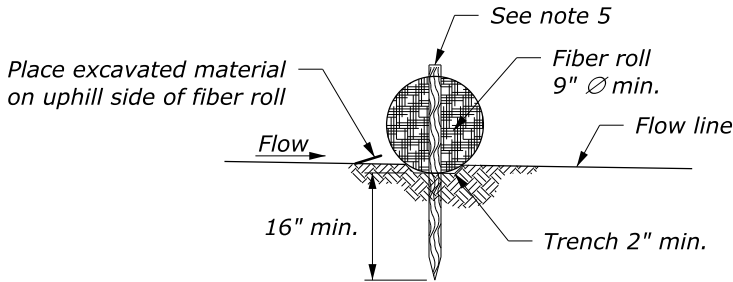
1. Check dams of fiber rolls, riprap, or gravel bags may be used as approved by the CO, to meet the functional requirements of the check dam device.
2. Repair all rills or gullies and properly compact prior to installation.
3. Install check dams in ditches perpendicular to the flowline.
4. Stake fiber rolls in place with 1 1/8" x 1 1/8" wood stakes. Drive stakes at each end of the fiber roll and at 2' (max.) spacing.
5. Drive stakes into undisturbed soil of trench bottom 16" (min.). Expose stakes 2" (min.) above top of fiber roll.
6. Provide sufficient length to prevent water from flowing around the ends of the fiber roll.
7. Adjust check dam spacing based on site-specific conditions.



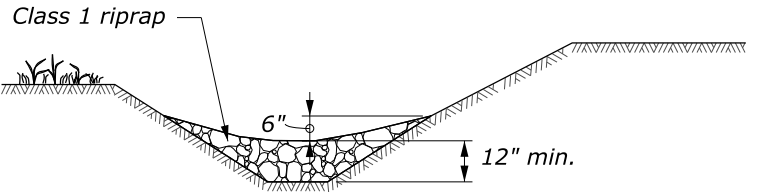
CROSS SECTION



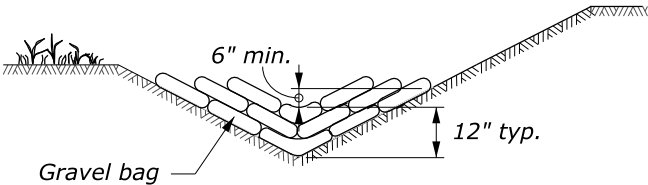
V-DITCH
CROSS SECTION



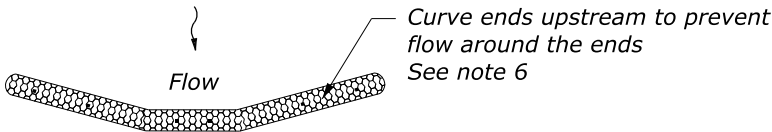
FIBER ROLL
STAKING DETAIL



FLAT-BOTTOM DITCH
CROSS SECTION



CROSS SECTION



PLAN

FIBER ROLL CHECK DAM SPACING* (See note 7)	
DITCH GRADE	CHECK DAM SPACING (max.) (ft)
2%	150
3%	100
4%	80
5%	60

*Spacing calculated based on 9" Ø min. fiber roll. Do not use fiber roll check dams on ditch grades steeper than 5%

FIBER ROLL CHECK DAM

RIPRAP CHECK DAM SPACING (See note 7)	
DITCH GRADE	CHECK DAM SPACING (max.) (ft)
2%	150
3%	100
4%	80
5%	60
6%	50

RIPRAP CHECK DAM

GRAVEL BAG CHECK DAM SPACING* (See note 7)	
DITCH GRADE	CHECK DAM SPACING (max.) (ft)
2%	150
3%	100
4%	80
5%	60
6%	50

*Do not use gravel bag check dams on ditch grades steeper than 6%

GRAVEL BAG CHECK DAM

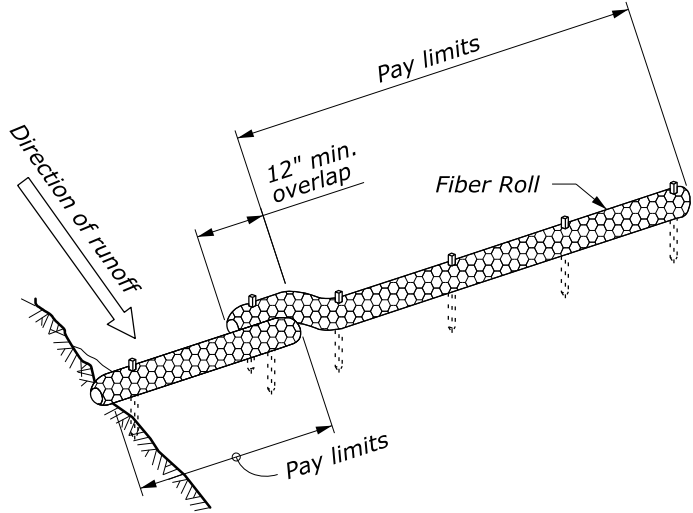
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION	
CFLHD DETAIL	
CHECK DAM	
DETAIL APPROVED FOR USE 01/2011 REVISED: 08/2014 09/2020	DETAIL C157-53

NO SCALE

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	E16

NOTE:

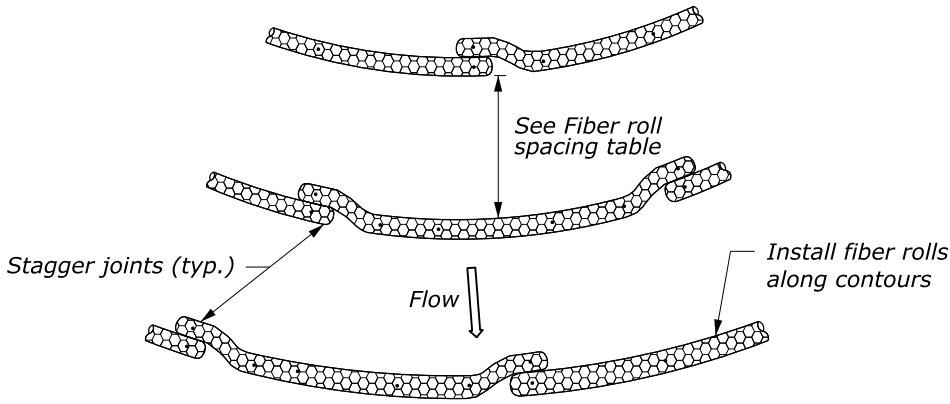
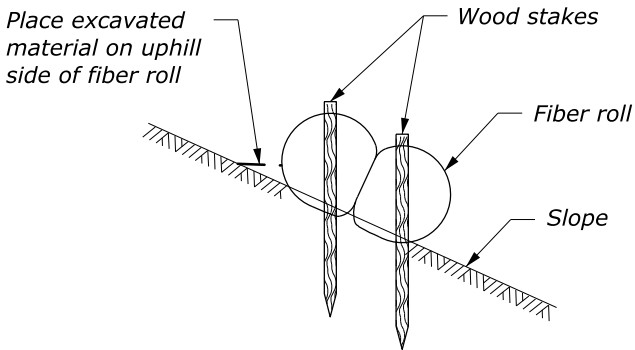
1. Repair all rills or gullies and properly compact prior to installation.
2. Install fiber rolls along slope contours. For any 20' section of fiber roll, do not allow the fiber roll to vary more than 5% from level.
3. Stake fiber rolls in place with 1 "x 1" or 1" Ø wood stakes. Space stakes 4' o.c. max. on slopes and 2' o.c. max. culverts. Stake fiber rolls 6-inches from each end.
4. Drive stakes into undisturbed soil at least 12" deep. Expose stakes 2" above top of fiber roll.
5. For fiber rolls on bare soil, construct trenches parallel to the contour. Place fiber rolls in continuous contact with trench bottom and sides. Tamp soil backfill against upstream side of fiber roll to ensure storm water is forced to flow through fiber roll rather than under it.
6. Place fiber rolls all the way around the inlet when the disturbance is on both the road and around the culvert and all water entering the culvert is crossing the disturbance.



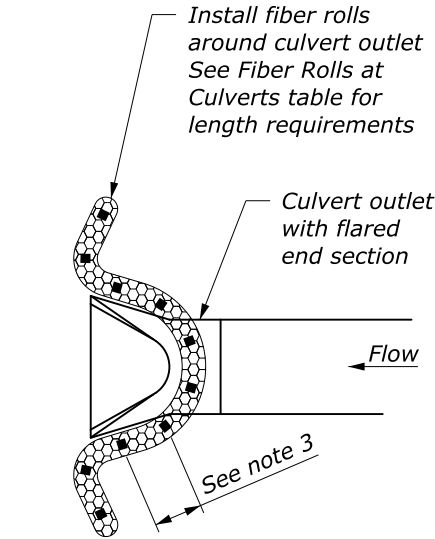
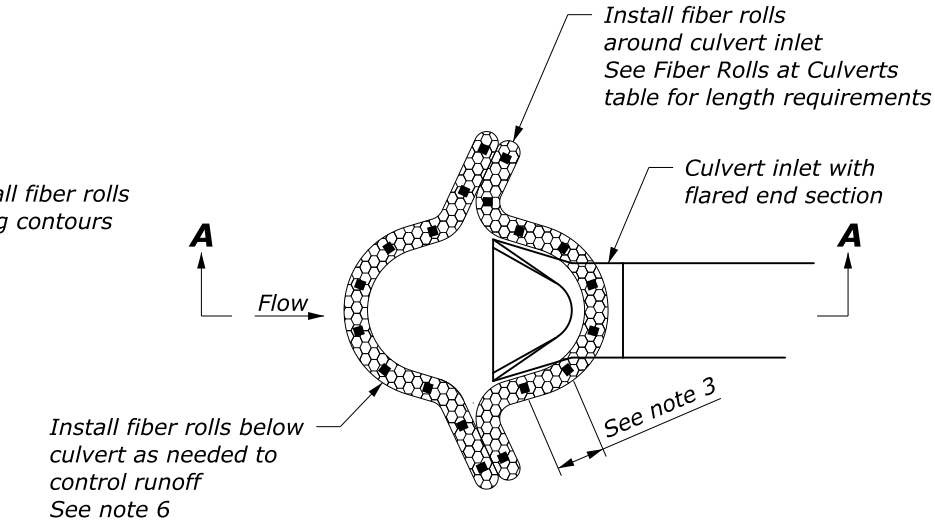
FIBER ROLL SPACING TABLE*	
Slope Gradient	9" Ø Fiber Roll Maximum spacing (ft)
1V:4H or flatter	60
Between 1V:4H and 1V:3H	45
Between 1V:3H and 1V:2H	30
1V:2H and steeper	15

*Approximate spacing shown. Adjust spacing as needed dut to project-specific conditions.

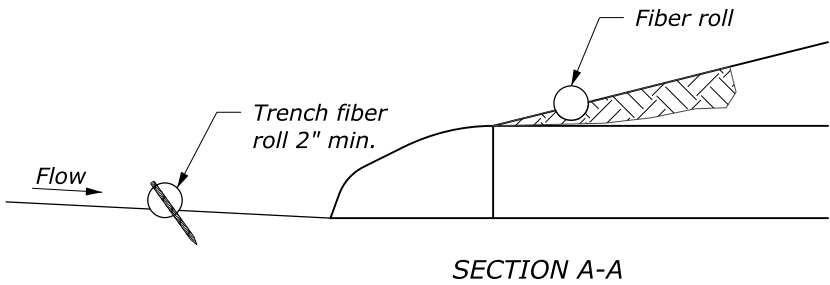
FIBER ROLL JOINT DETAIL



FIBER ROLL SLOPE LAYOUT



FIBER ROLL AT CULVERT OUTLET

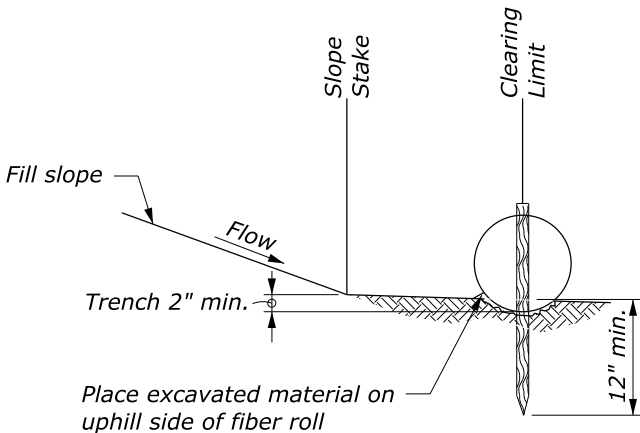


FIBER ROLL AT CULVERT INLET

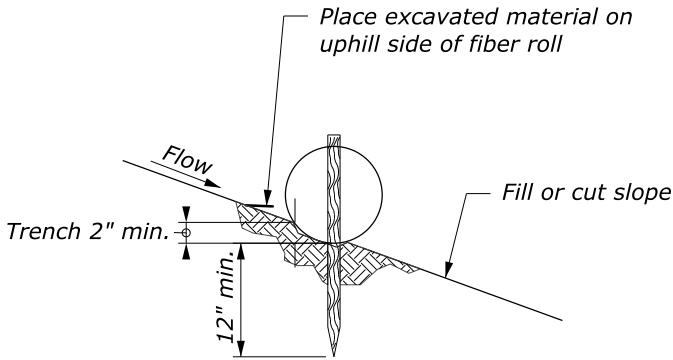
FIBER ROLL AT CULVERTS*	
Culvert Size	9" Ø Fiber Roll length (ft)
24" or smaller	10
30" to 48"	20
54" or larger	30

*Approximate length shown for rolls across the top of the culvert inlet only. Adjust length as needed due to project-specific conditions.

FIBER ROLL LAPPING DETAIL



FIBER ROLL AS PERIMETER CONTROL INSTALLATION DETAIL



STAKE DETAIL

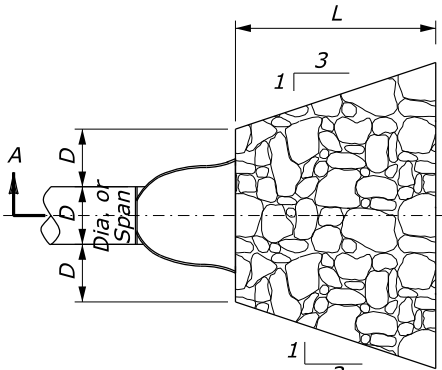
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION	
CFLHD DETAIL	
FIBER ROLL	
DETAIL APPROVED FOR USE 01/2011 REVISED: 12/2017 09/2020	DETAIL C157-55

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	G1

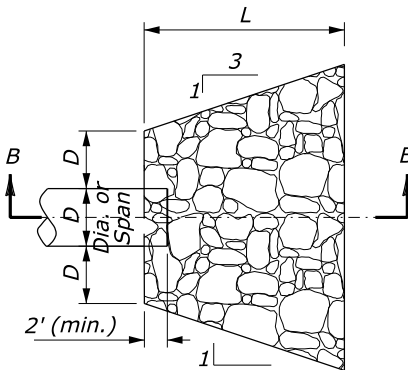
NOTE:

1. Use for aprons serving culverts with slopes of less than 10%.
2. Furnish geotextile filter conforming to subsection 714.01(a). See summary tables for class and type.
3. Excavation for placement of riprap will not be measured for payment.



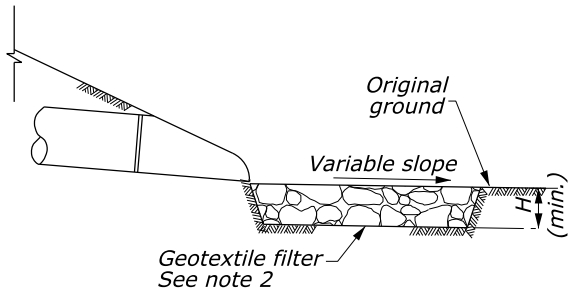
PLAN VIEW

CULVERT WITH STANDARD
END SECTION

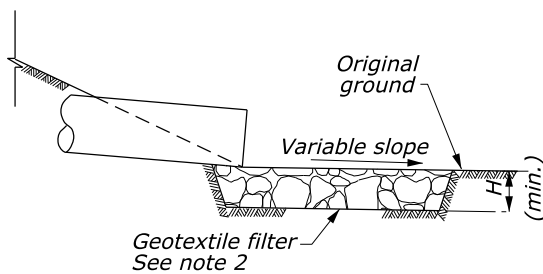


PLAN VIEW

CULVERT WITHOUT STANDARD
END SECTION

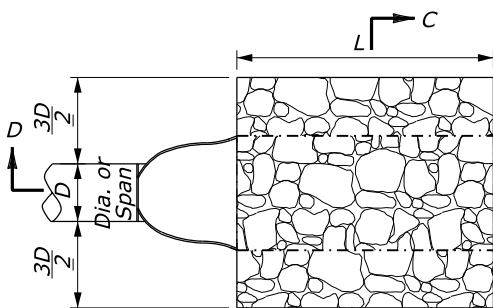


SECTION A-A



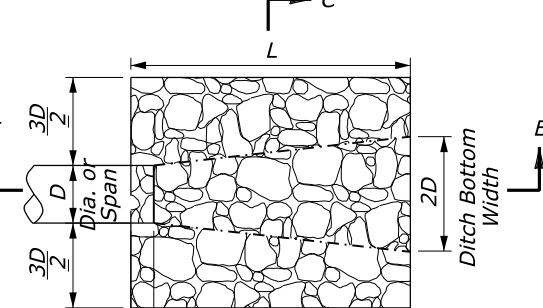
SECTION B-B

PROTECTIVE APRON AT CULVERT OUTLET
WITHOUT DITCH



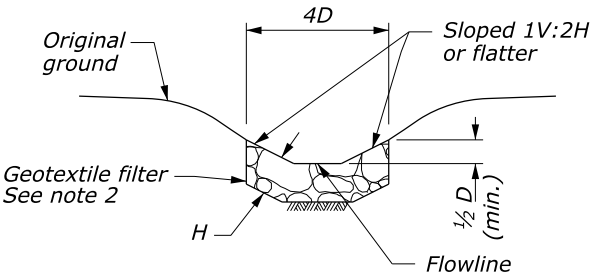
PLAN VIEW

CULVERT WITH STANDARD
END SECTION

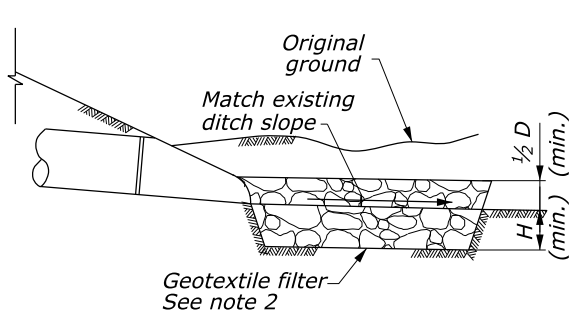


PLAN VIEW

CULVERT WITHOUT STANDARD
END SECTION

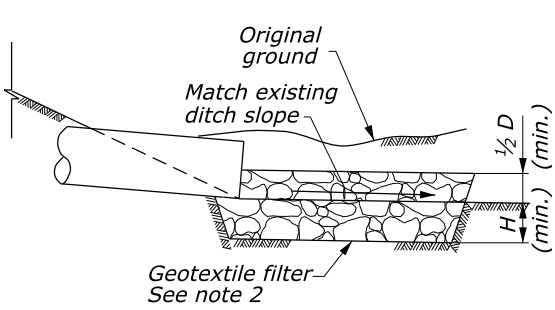


SECTION C-C



SECTION D-D

PROTECTIVE APRON AT CULVERT OUTLET
WITH DITCH



SECTION E-E

OUTLET WITHOUT DITCH
PROTECTIVE APRON DIMENSIONS AND ESTIMATED QUANTITIES

	CULVERT SIZE D (inches)	RIPRAP CLASS	LENGTH OF APRON L (feet)	DEPTH OF APRON H (feet)	ESTIMATED RIPRAP QUANTITY (CY)	ESTIMATED GEOTEXTILE QUANTITY (SY)
WITH END SECTION	12	2	4	1.5	1	5
	18	2	6	1.5	2.2	9
	24	2	8	1.5	3.9	14
	30	3	12.5	2	10.9	28
	36	3	16	2	15.6	37
	42	4	21	2.5	34.1	63
WITHOUT END SECTION	12	2	6	1.5	1.7	8
	18	2	8	1.5	3.2	12
	24	2	10	1.5	5.2	17
	30	3	14.5	2	13.3	33
	36	3	17	2	18.5	43
	42	4	23	2.5	38.7	70
	48	4	26	2.5	49.8	87

OUTLET WITH DITCH
PROTECTIVE APRON DIMENSIONS AND ESTIMATED QUANTITIES

	CULVERT SIZE D (inches)	RIPRAP CLASS	LENGTH OF APRON L (feet)	DEPTH OF APRON H (feet)	ESTIMATED RIPRAP QUANTITY (CY)	ESTIMATED GEOTEXTILE QUANTITY (SY)
WITH END SECTION	12	2	4	1.5	0.9	5
	18	2	6	1.5	2	8
	24	2	8	1.5	3.6	13
	30	3	12.5	2	9.3	24
	36	3	15	2	13.4	32
	42	4	21	2.5	27.3	53
WITHOUT END SECTION	12	2	6	1.5	1.4	6
	18	2	8	1.5	2.7	10
	24	2	10	1.5	4.5	15
	30	3	14.5	2	10.8	27
	36	3	17	2	15.2	36
	42	4	23	2.5	29.9	57
	48	4	26	2.5	38.6	70

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

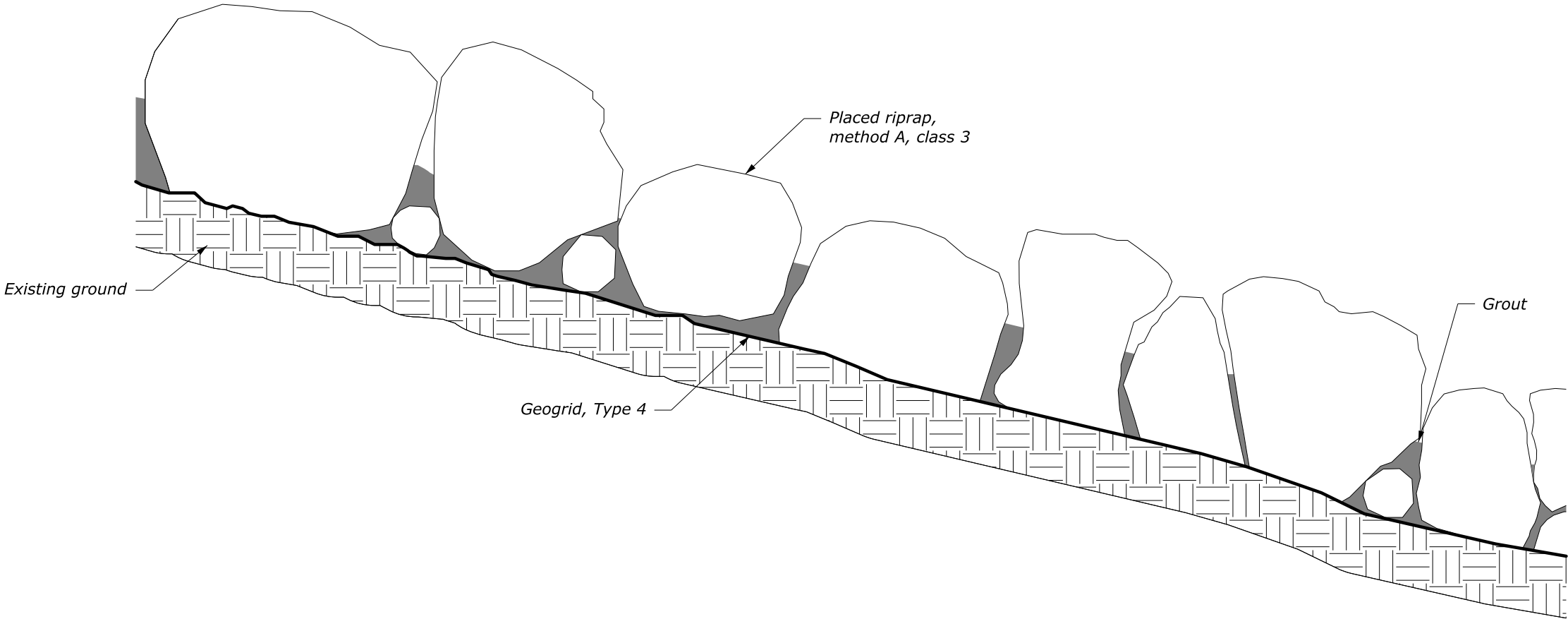
U.S. CUSTOMARY DETAIL

PLACED RIPRAP
AT CULVERT OUTLETS

DETAIL APPROVED FOR USE
REVISED: 08/2014 08/2020

DETAIL
C251-50

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	G2

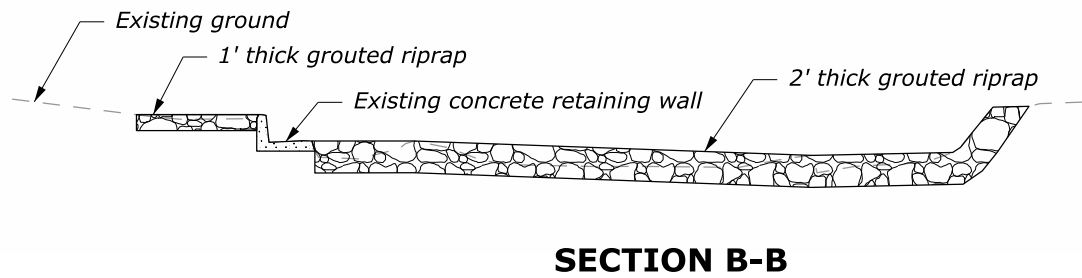
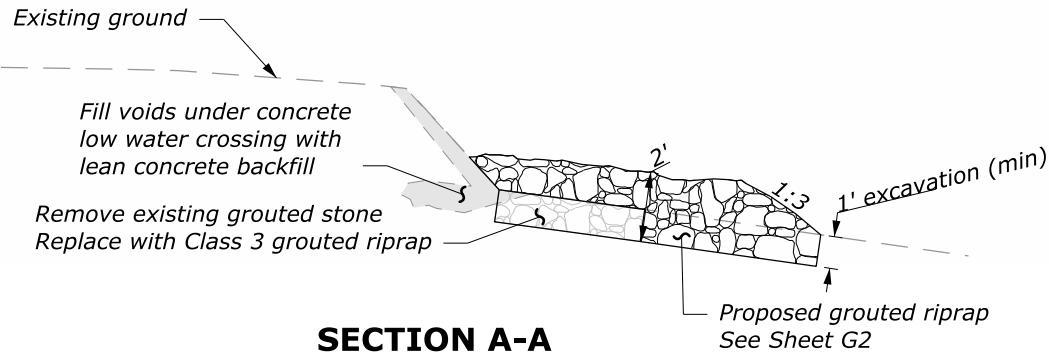
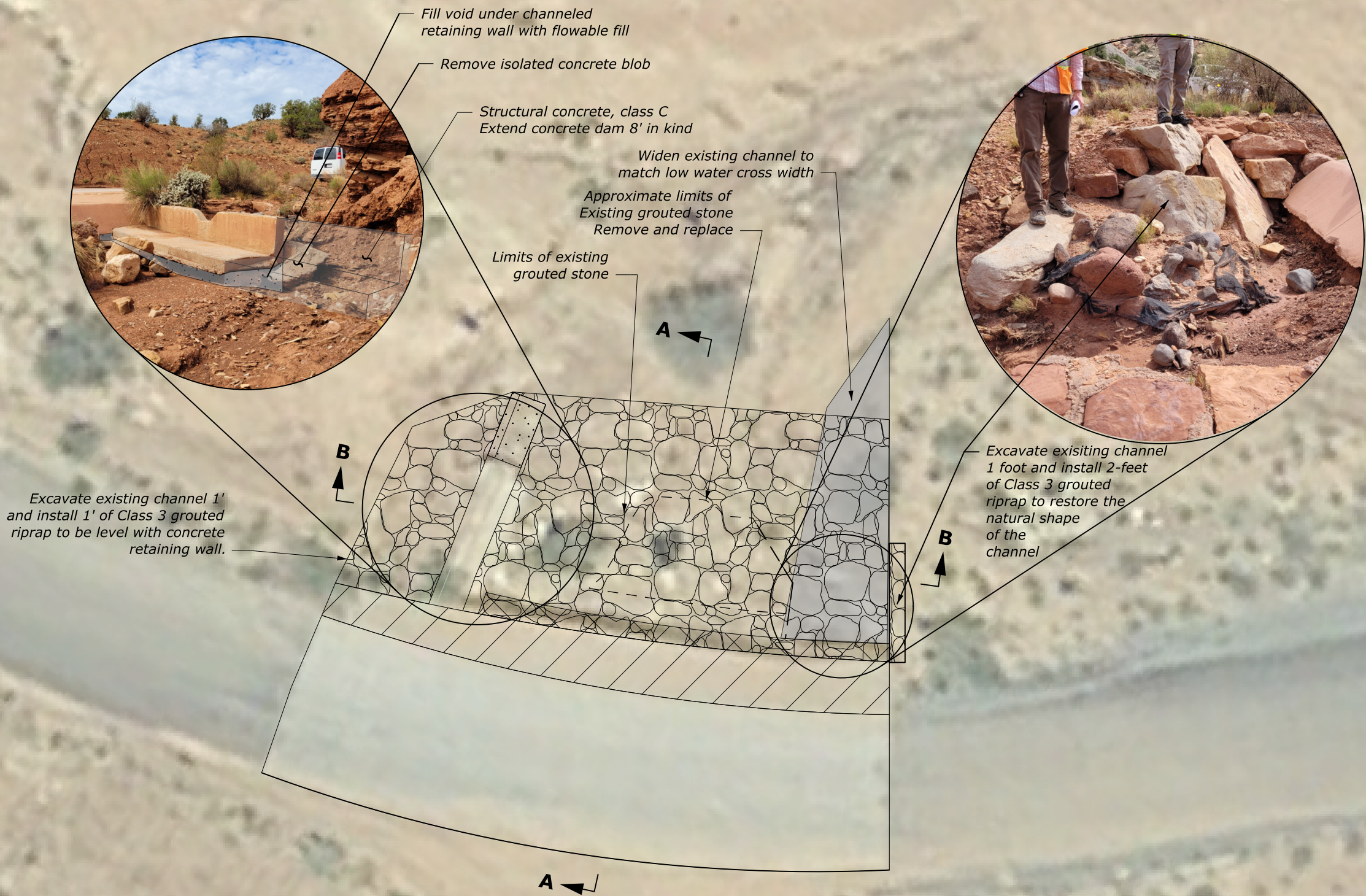


- Note:**
- 1. Grout to be installed prior to riprap. Install grout to a depth of 1/2 the D50 of riprap while grout is still workable. Install riprap so it is embedded at least one-half the D50 of the stone. Grout should not be readily visible from above.
 - 2. Riprap will not be grouted when the ambient temperature is below 35 degrees Fahrenheit or above 85 degrees Fahrenheit.
 - 3. Grout will be placed as close as possible to the final position by a method that will prevent segregation of aggregates or loss of mortar.

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION OFFICE OF FEDERAL LANDS HIGHWAY	
CFLHD SPECIAL	
GROUTED RIPRAP	
	SPECIAL C251-A

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T3

F:\7017.031 CFLHD - UT FTNP CARE 10(2) Capitol Reef\Drawings\DGN\4. Sheet Production\Standards\T Sheets\Low water crossing repair detail.dgn [Unnamed Plan-1 - Plan 1 [Sheet]] 28 April 2023 11:15 AM



NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

CFLHD SPECIAL

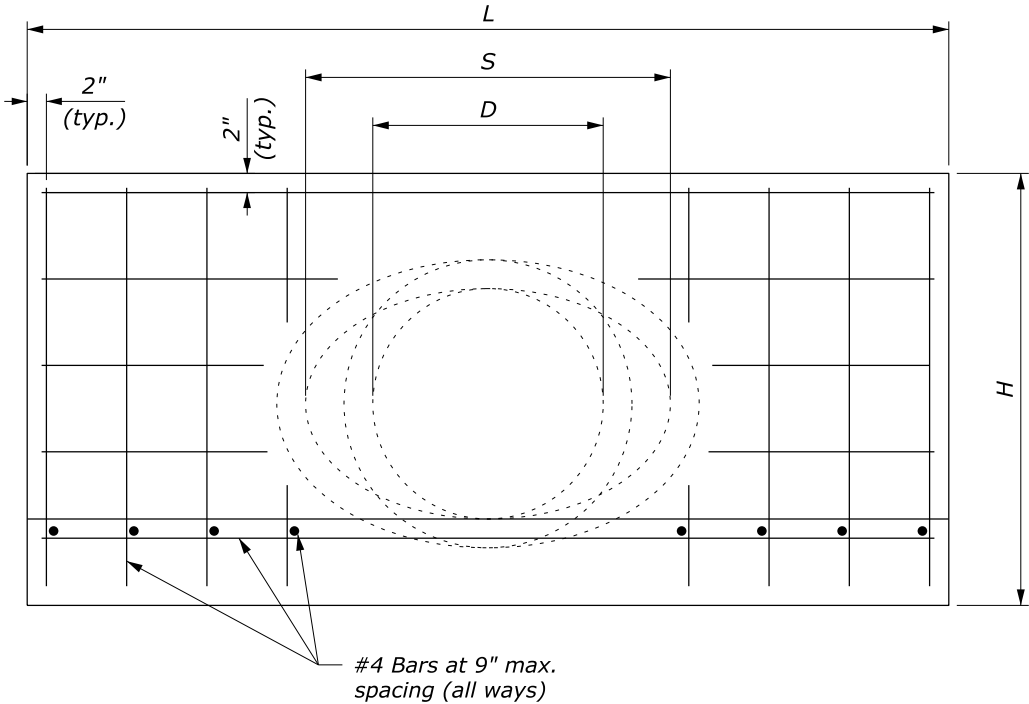
**LOW WATER CROSSING
REPAIR DETAIL**

SPECIAL
522-A

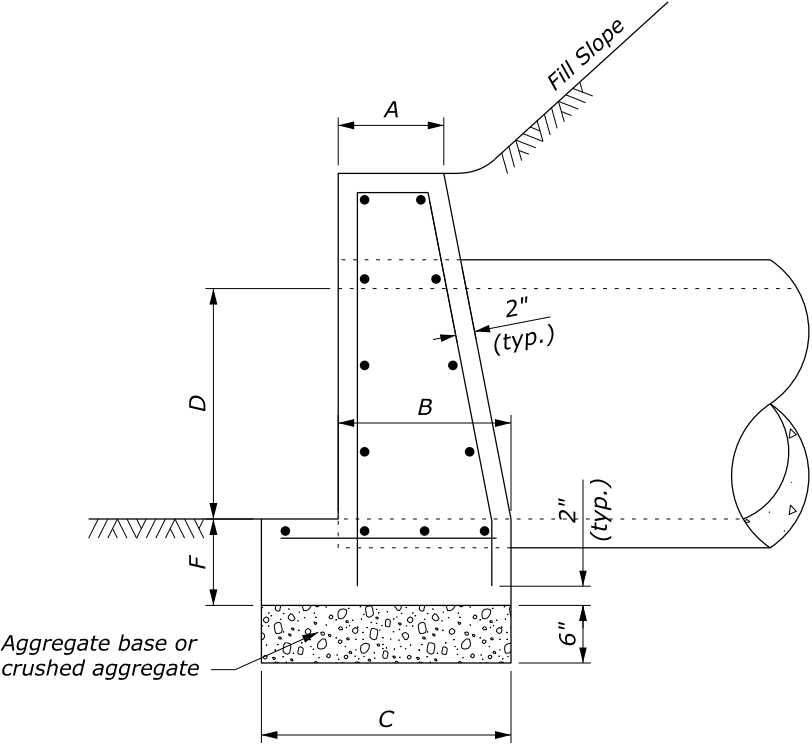
STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T4

NOTE:

1. Orient all headwalls parallel to the roadway centerline unless otherwise indicated in the plans or by the CO.
2. When pipes are on a skew, adapt and lengthen headwalls as directed.
3. Chamfer all exposed corners not rounded to 3⁄4".
4. Quantities shown are for one headwall with pipe at right angles.
5. Construct headwalls using dimensions shown under values for 1V:1.5H slope, unless otherwise designated by the CO.



FRONT ELEVATION



SIDE ELEVATION

HEADWALL FOR CIRCULAR PIPE						
DIAMETER OF PIPE CULVERT						
	6"	15"	18"	21" or 24"	27" or 30"	33" or 36"
A	0'-6"	0'-8"	0'-9"	0'-11"	1'-0"	1'-0"
B	0'-9"	1'-1"	1'-3"	1'-6"	1'-9"	2'-0"
C	1'-2"	1'-7"	1'-9"	2'-2"	2'-6"	2'-9"
D	1'-0"	1'-3"	1'-6"	2'-0"	2'-6"	3'-0"
F	0'-6"	0'-8"	0'-8"	0'-9"	0'-9"	0'-9"
H	2'-0"	2'-11"	3'-2"	3'-9"	4'-3"	4'-9"
L	3'-8"	5'-0"	6'-0"	8'-0"	10'-0"	12'-0"
CUBIC YARDS OF CONCRETE						
Conc. Pipe	0.241	0.492	0.697	1.319	2.067	2.947
C.M. Pipe	0.257	0.521	0.739	1.398	2.198	3.145

HEADWALL FOR ELLIPTICAL PIPE										
SIZE OF ELLIPTICAL PIPE CULVERT (SPAN x RISE)										
	23" x 14"	30" x 19"	34" x 22"	38" x 24"	42" x 27"	45" x 29"	49" x 32"	53" x 34"	60" x 38"	68" x 43"
A	0'-8"	0'-9"	0'-10"	0'-10"	0'-11"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
B	1'-2"	1'-5"	1'-6"	1'-8"	1'-9"	1'-10"	1'-11"	1'-11"	1'-11"	2'-0"
C	1'-8"	1'-11"	2'-1"	2'-4"	2'-5"	2'-7"	2'-8"	2'-9"	3'-3"	3'-6"
D	1'-2"	1'-7"	1'-10"	2'-0"	2'-3"	2'-5"	2'-8"	2'-10"	3'-2"	3'-7"
F	0'-8"	0'-8"	0'-9"	0'-9"	0'-9"	0'-9"	0'-9"	0'-9"	0'-9"	0'-9"
H	2'-10"	3'-3"	3'-7"	3'-9"	4'-0"	4'-2"	4'-5"	4'-7"	4'-11"	5'-4"
L	5'-5"	7'-2"	8'-6"	9'-2"	10'-2"	10'-11"	12'-1"	12'-11"	13'-0"	13'-0"
S	1'-11"	2'-6"	2'-10"	3'-2"	3'-6"	3'-9"	4'-1"	4'-5"	5'-0"	5'-8"
CUBIC YARDS OF CONCRETE										
Conc. Pipe	0.502	0.855	1.236	1.500	1.811	2.101	2.512	2.801	2.969	2.904

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

CONCRETE HEADWALL FOR
SMALL PIPE CULVERT

STANDARD APPROVED FOR USE 6/2005
REVISED:
DRAFT: 3/2016

DETAIL
601-4

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T6

COUPLING BANDS FOR METAL PIPE CULVERT ^[1]					
CORRUGATION SIZE ^[2] INCHES	ROUND PIPE DIAMETER INCHES	PIPE ARCH SPAN × RISE INCHES	MINIMUM BAND WIDTH (INCHES)		
			ANNULAR CORRUGATED BANDS ^[3]	HELICALLY CORRUGATED BANDS ^[4]	SEMI-CORRUGATED BANDS ^[5]
1½ × ¼	underdrain ^[6]	-	10.5	7	10.5
2⅔ × ½	12 to 36	17 × 13 to 42 × 29	7	12	
	42 to 72	49 × 33 to 83 × 57	10.5	12	
	78 to 84	-	10.5	12	10.5
3 × 1	36 to 72	60 × 46 to 81 × 59	12	14	10.5
	78 to 144	87 × 64 to 142 × 91	12	14	10.5
5 × 1	36 to 72	60 × 46 to 81 × 59	20	22	
	78 to 144	87 × 64 to 142 × 91	20	22	

^[1] Fabricate annular, helical and semi-corrugated type coupling bands from the same metal as the connecting pipe. Provide coupling bands not more than 3 nominal sheet thicknesses thinner than the thickness of the pipe to be connected, and no thinner than 0.052 inch for steel or 0.048 inch for aluminum. Fasten coupling bands with the following diameter of bolt: ⅜" for 18" round culvert (21" × 15" pipe arch) or less ½" for 21" round culvert (24" × 18" pipe arch) or more

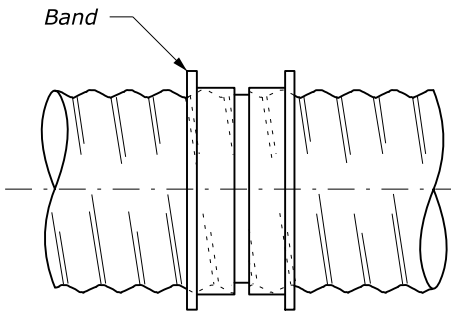
^[2] For helically corrugated pipe with rerolled ends, the nominal corrugations size refers to the dimension of the end corrugation in the pipe.

^[3] Use annular corrugated bands with pipes having annular corrugations or with helical pipe having rerolled end to form annular corrugations. A 10.5 inch band is acceptable on pipe ends rerolled with 2⅔" × ½" corrugations. A 12 inch band is acceptable on pipe ends rerolled with 3" × 1" pipe corrugations.

^[4] Use helical corrugated bands with pipes having helically corrugated ends.

^[5] The minimum band widths shown for 3" × 1" and 5" × 1" corrugated sizes apply to 2⅔" × ½" corrugations on rerolled pipe ends.

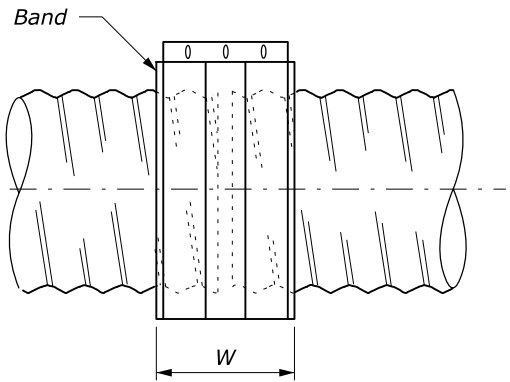
^[6] Smooth sleeve-type couplers and flat bands may be used for pipe diameters of 12" or less. Use a matching metal having a nominal thickness of not less than 0.040 inch for steel, or 0.036 inch for aluminum, or a plastic with an equivalent strength to metal.



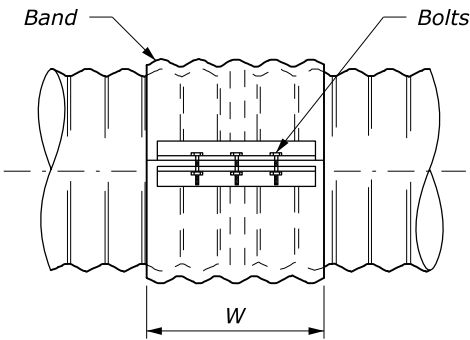
SLEEVE JOINT

Smoother sleeve with center stop.
Stab type joint

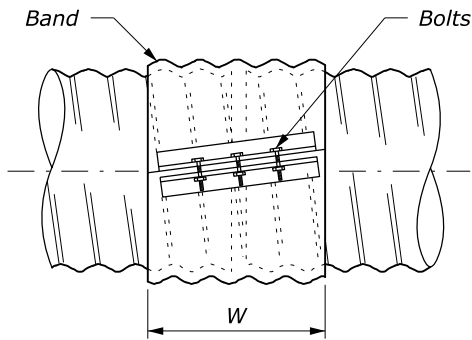
SMOOTH SLEEVE BAND



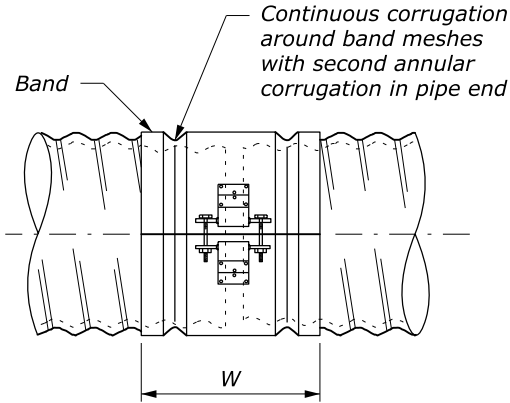
FLAT BAND



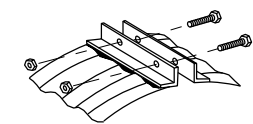
SIDE VIEW



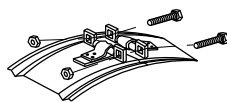
SIDE VIEW



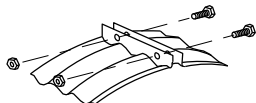
SIDE VIEW



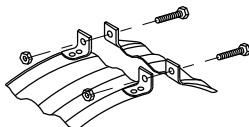
Band Angle



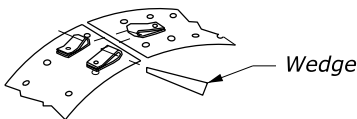
Bar & Strap



Integral Flange

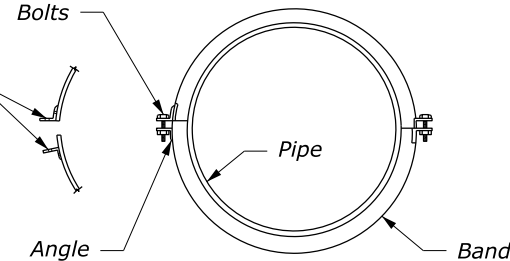


Oval Lug



Wedge and Strap

Rivet, spot weld, or fillet weld at crest of corrugation at heel and toe of angle

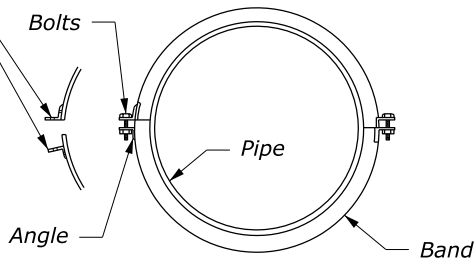


END VIEW

Second angle connection optional to 42" diameter, required above 42" diameter

ANNULAR BAND

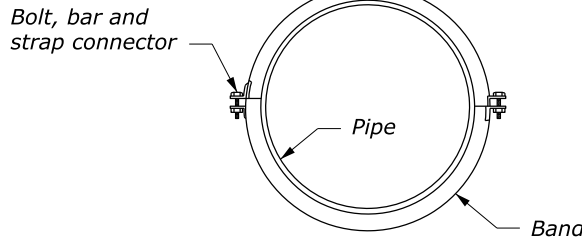
Rivet, spot weld, or fillet weld at crest of corrugation at heel and toe of angle



END VIEW

Second angle connection optional to 42" diameter, required above 42" diameter

HELICAL BAND



END VIEW

SEMI-CORRUGATED BAND

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

FLH STANDARD

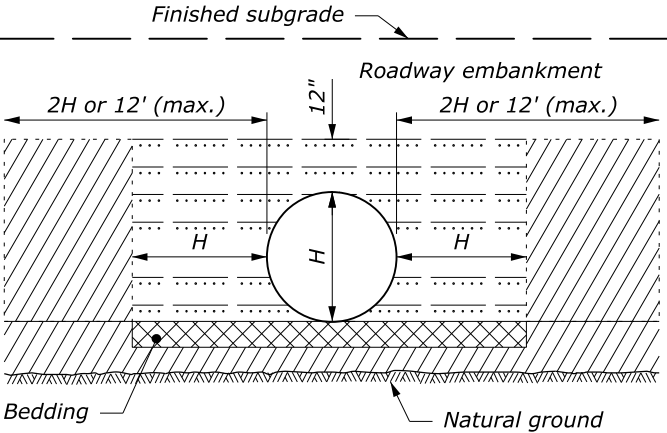
METAL PIPE CULVERT
COUPLING BAND

STANDARD APPROVED FOR USE 12/1993
REVISED: 4/1994 6/2005

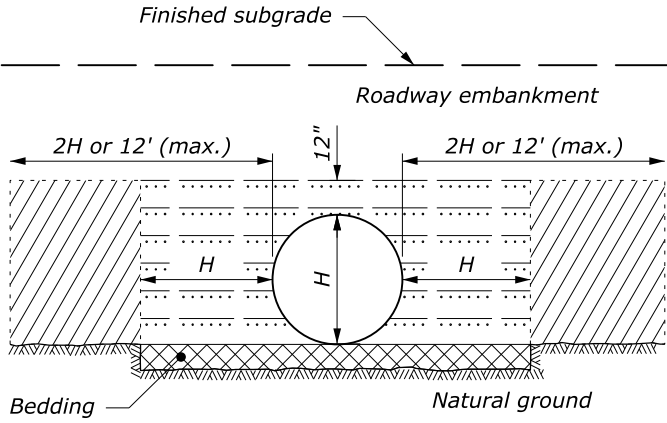
STANDARD
602-2

NO SCALE

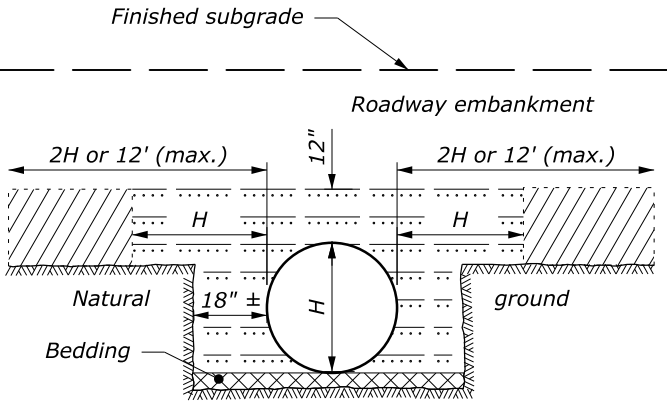
STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T7



ABOVE NATURAL GROUND



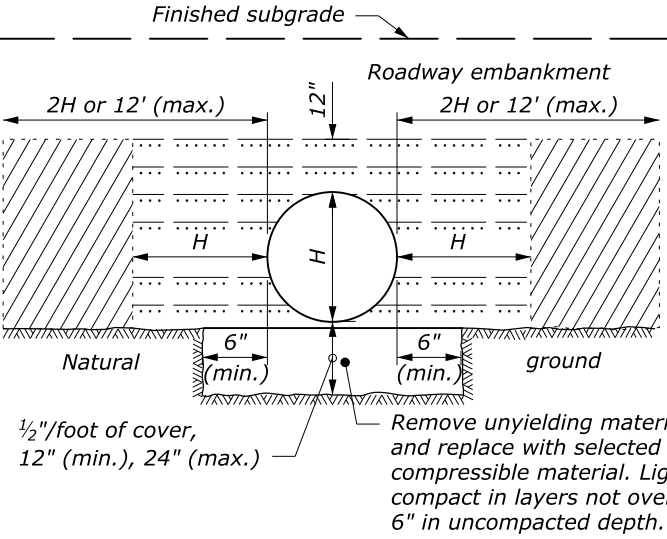
ON NATURAL GROUND



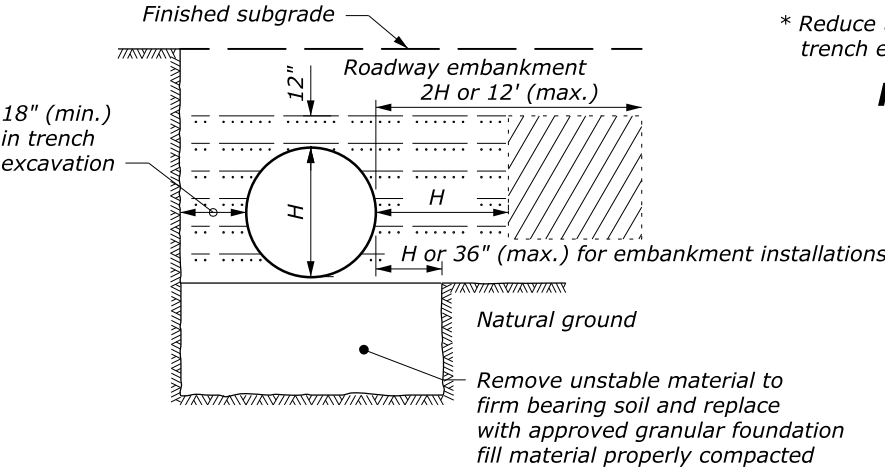
ABOVE AND BELOW NATURAL GROUND

LEGEND:

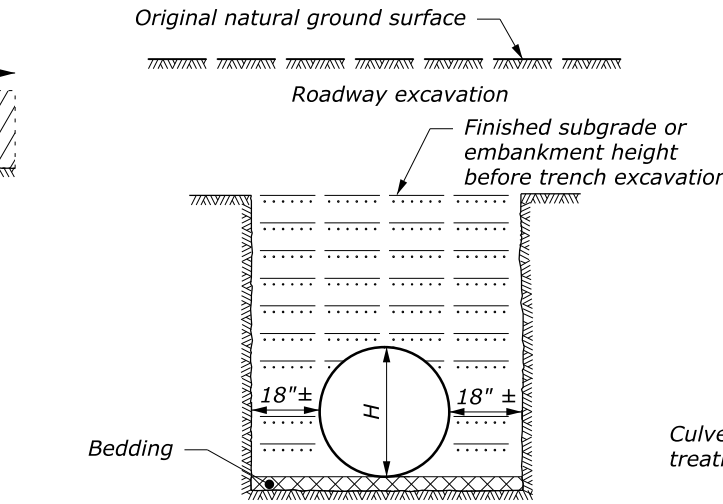
- Bedding material (uncompacted)
- Embankment material placed in layers not exceeding 6" compacted depth.
- Compacted backfill material placed in layers not exceeding 6" compacted depth; or lean concrete backfill in accordance with Section 614.
- Impermeable backfill material.



ON UNYIELDING MATERIAL

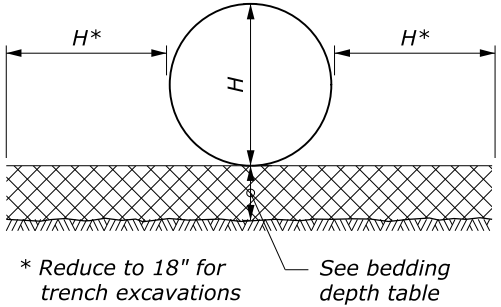


ON UNSTABLE MATERIAL



BELOW NATURAL GROUND OR TRENCH EXCAVATION IN EMBANKMENT

BEDDING DEPTH	
PIPE SIZE (H)	DEPTH
12" to 54"	4"
> 54"	6"

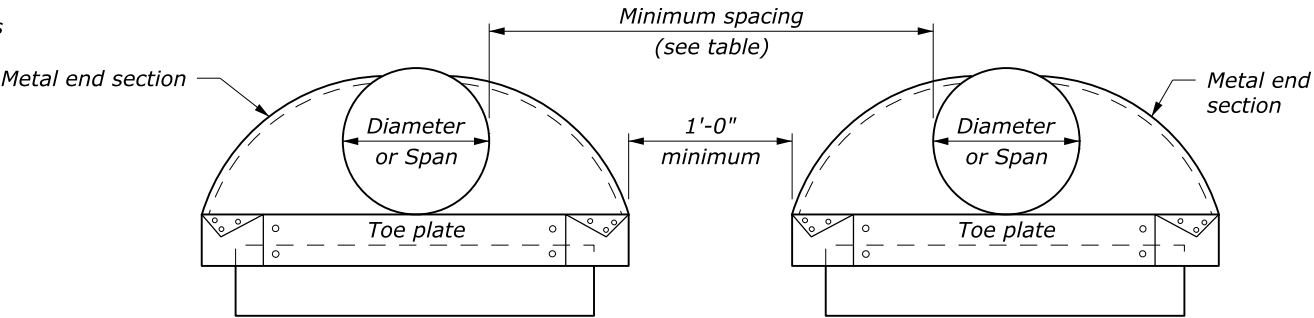


PIPE BEDDING

NOTE:

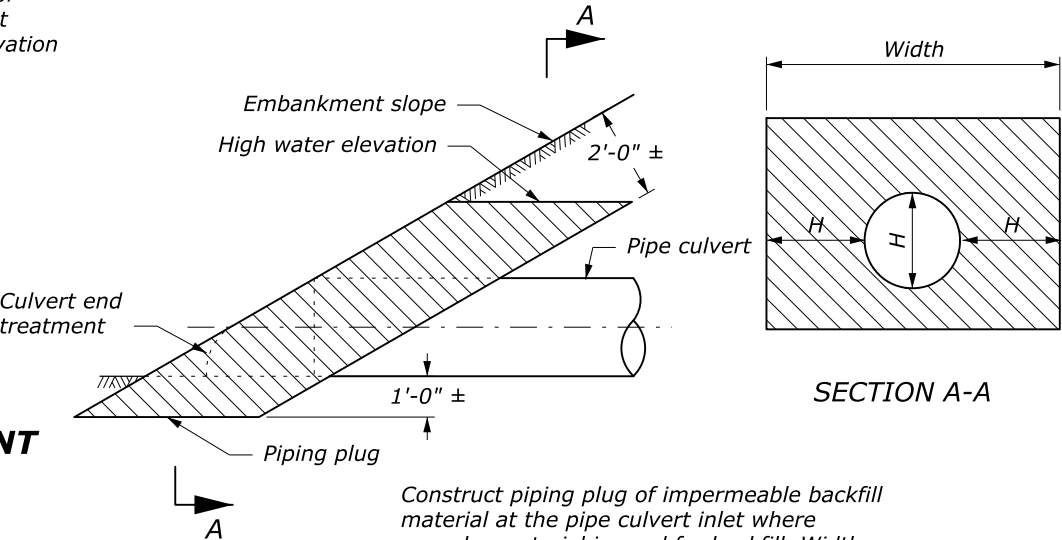
- When directed, camber pipe culverts upward from a chord through the inlet and outlet inverts an ordinate amount equal to 1% of the pipe length. Develop camber on a parabolic curve. If the midpoint elevation on the parabolic curve as designed exceeds the elevation of the inlet invert, reduce the amount of camber or increase the pipe culvert gradient.
- H equals the diameter of all round pipe culverts or the rise dimension of all pipe arch culverts.
- See Section 704 for bedding and backfill requirements.

MINIMUM SPACING	
DIAMETER or SPAN	SPACING
UP to 48"	24"
48" and UP	Half diameter or span or 36", whichever is less



ELEVATION

MULTIPLE PIPE INSTALLATION



PIPING PLUG

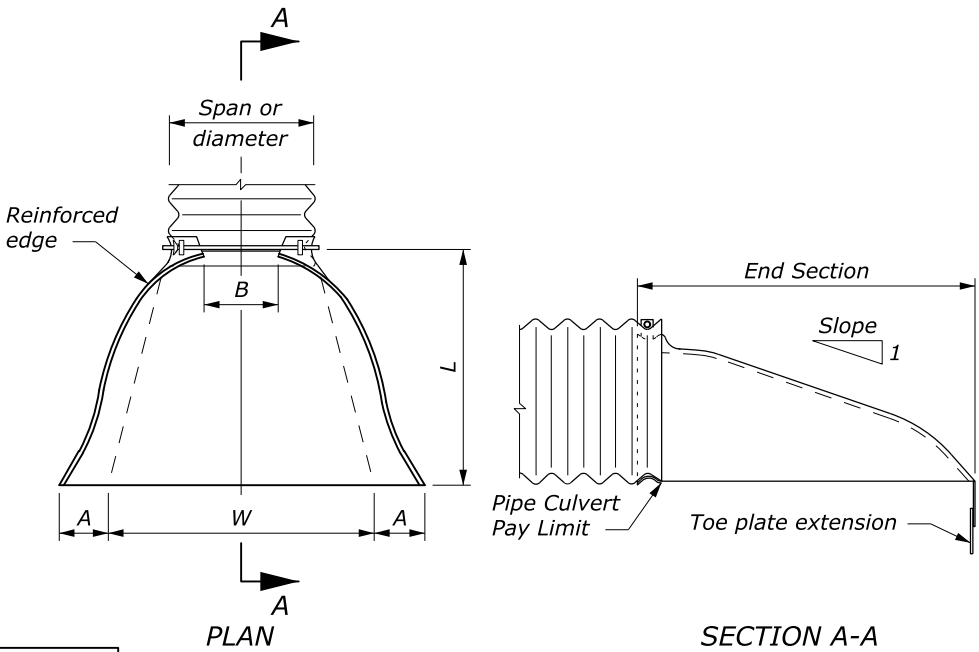
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION OFFICE OF FEDERAL LANDS HIGHWAY	
FLH STANDARD	
METAL AND PLASTIC PIPE CULVERT BEDDING	
STANDARD APPROVED FOR USE 12/1993 REVISED: 4/1994 6/2005 DRAFT: 10/2017	STANDARD 602-3

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T8

END SECTIONS FOR ROUND PIPE CULVERT

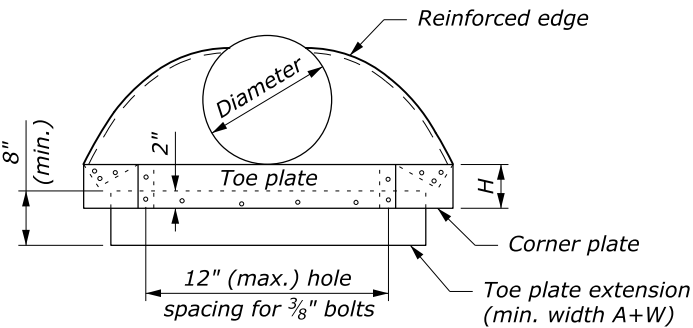
PIPE SIZE DIAMETER INCHES	METAL THICKNESS				DIMENSIONS INCHES					SLOPE Approx.
	STEEL		ALUMINUM							
	INCHES	GAGE	INCHES	GAGE	A (min)	B (max)	H (min)	L (±2")	W (max)	
12	0.064	16	0.060	16	5	7	6	21	44	2¼
15	0.064	16	0.060	16	6	8	6	26	52	2¼
18	0.064	16	0.060	16	7	10	6	31	58	2⅛
21	0.064	16	0.060	16	8	12	6	36	66	2⅛
24	0.064	16	0.060	16	9	13	6	41	72	2⅛
30	0.079	14	0.075	14	11	16	8	51	88	2⅝
36	0.079	14	0.075	14	13	19	9	60	105	2
42	0.109	12	0.105	12	15	25	10	69	122	2⅛
48	0.109	12	0.105	12	17	29	12	78	131	2
54	0.109	12	0.105	12	17	33	12	84	143	2
60	0.109	12	0.105	12	17	36	12	87	157	1⅞
66	0.109	12	0.105	12	17	39	12	87	162	1⅝
72	0.109	12	0.105	12	17	44	12	87	169	1½
78	0.109	12	0.105	12	17	48	12	87	178	1⅜
84	0.109	12	0.105	12	17	52	12	87	184	1⅓
90	0.109	12	0.105	12	17	58	12	87	188	1¼
96	0.109	12	0.105	12	17	58	12	87	197	1⅛



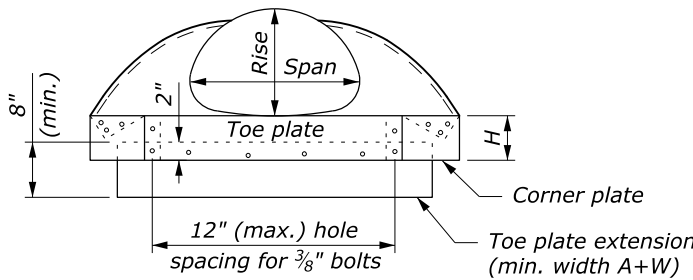
ROUND OR PIPE ARCH CULVERT

END SECTIONS FOR PIPE ARCH CULVERT

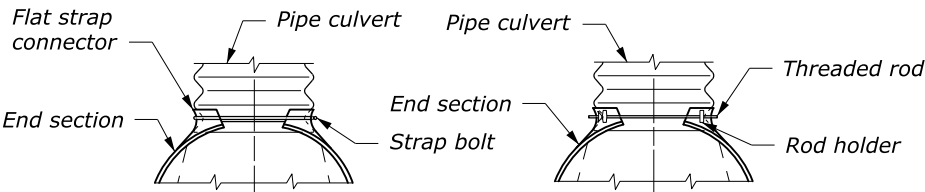
PIPE SIZE SPAN × RISE INCHES	EQUI- VALENT DIAM. (INCHES)	METAL THICKNESS				DIMENSIONS INCHES					SLOPE Approx.
		STEEL		ALUMINUM							
		INCHES	GAGE	INCHES	GAGE	A (min)	B (max)	H (min)	L (±2")	W (max)	
17 × 13	15	0.064	16	0.060	16	7	9	6	19	30	2½
21 × 15	18	0.064	16	0.060	16	7	10	6	23	36	2½
24 × 18	21	0.064	16	0.060	16	8	12	6	28	42	2½
28 × 20	24	0.064	16	0.060	16	9	14	6	32	48	2½
35 × 24	30	0.079	14	0.075	14	10	16	8	39	60	2½
42 × 29	36	0.079	14	0.075	14	12	18	9	46	75	2½
49 × 33	42	0.109	12	0.105	12	13	21	12	53	85	2½
57 × 38	48	0.109	12	0.105	12	18	26	12	63	90	2½
60 × 46	54	0.109	12	0.105	12	18	34	12	70	102	2
64 × 43	54	0.109	12	0.105	12	18	30	12	70	102	2
66 × 51	60	0.109	12	0.105	12	18	33	12	77	116	1½
71 × 47	60	0.109	12	0.105	12	18	33	12	77	114	1½
73 × 55	66	0.109	12	0.105	12	18	36	12	77	126	1½
77 × 52	66	0.109	12	0.105	12	18	36	12	77	126	1½
81 × 59	72	0.109	12	0.105	12	18	39	12	77	138	1½
83 × 57	72	0.109	12	0.105	12	18	39	12	77	138	1½
87 × 63	78	0.109	12	0.105	12	20	38	12	77	148	1½
95 × 67	84	0.109	12	0.105	12	20	34	12	87	162	1½
103 × 71	90	0.109	12	0.105	12	20	38	12	87	174	1½
112 × 75	96	0.109	12	0.105	12	20	40	12	87	174	1½



ELEVATION
ROUND PIPE CULVERT

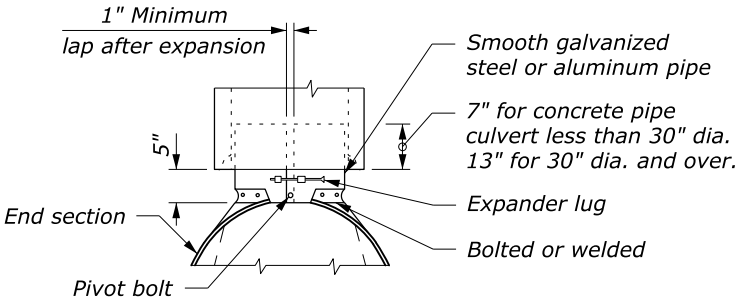


ELEVATION
PIPE ARCH CULVERT

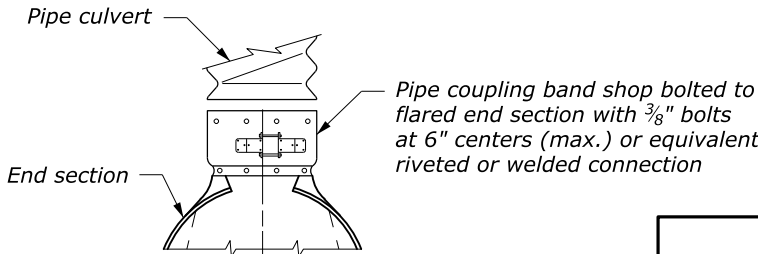


For 12" thru 24" round pipe and 17" × 13" thru 28" × 20" pipe arch For 30" thru 60" round pipe and 35" × 24" thru 66" × 51" pipe arch

DESIGN A
CONNECTION TO ANNULAR
CORRUGATED METAL PIPE



DESIGN B
CONNECTION TO CONCRETE
PIPE INLET END



For all sizes of round pipe and pipe arch
DESIGN C
CONNECTION TO METAL PIPE
OR OUTLET END OF CONCRETE PIPE

NO SCALE

NOTE:

- Variations in design and dimensions are permitted to allow for manufacturer's standards.
- Fabricate the diameter of the end section of Design B to match the inside diameter of the concrete pipe culvert.
- Design C may be used in lieu of design A for all metal pipe culvert sizes. Coupling bands may be any acceptable type for the pipe culvert specified.
- Fabricate multiple piece bodies with lap seams tightly joined by ⅜" rivets or bolts. Fabricate end section center panels for 60" and larger diameter pipe and equivalent pipe arch from 0.138 inch steel or 0.135 inch aluminum.
- On end section center panels for 66" and larger equivalent pipe arch provide 2½" × 2½" × ¼" angle reinforcement bolted or riveted under the center panel seam.
- Supplement the reinforced edges of end sections for 60" and larger diameter pipe and 66" and larger equivalent pipe arch with 2½" × 2½" × ¼" stiffener angles attached with bolts or rivets.
- Fabricate connector section, corner plate and toe plate extensions from the same metal thickness as the panel body. Use toe plate extension where shown on the plans.
- Warp embankment slopes to match the slope of the flared end sections.

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

FLH STANDARD

METAL END SECTIONS

STANDARD APPROVED FOR USE 12/1993
REVISED: 4/1994 6/2005
DRAFT: 10/2007

STANDARD
602-4

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T9

CONCRETE ROUND PIPE CULVERT

PIPE SIZE DIAMETER INCHES	FILL HEIGHT AND PIPE CLASS TABLE								
	EMBANKMENT					TRENCH			
	MINIMUM COVER INCHES	CLASS II	CLASS III	CLASS IV	CLASS V	CLASS II	CLASS III	CLASS IV	CLASS V
		MAXIMUM FILL HEIGHT ABOVE TOP OF PIPE IN FEET							
12	12	10	10	15	23	18	18	26	13
18	12	10	10	25	39	13	13	31	45
24	12	10	10	15	30	15	15	22	40
30	12	9	13	15	35	13	16	20	46
36	12	9	9	20	41	10	13	26	56
48	12	12	13	26	44	15	16	30	49
60	12	15	17	28	44	15	20	32	49
72	12	13	17	30	41	15	20	35	49
84	12	13	19	30		15	23	37	
96	12	13	20			15	24		
108	14	15	20			18	26		

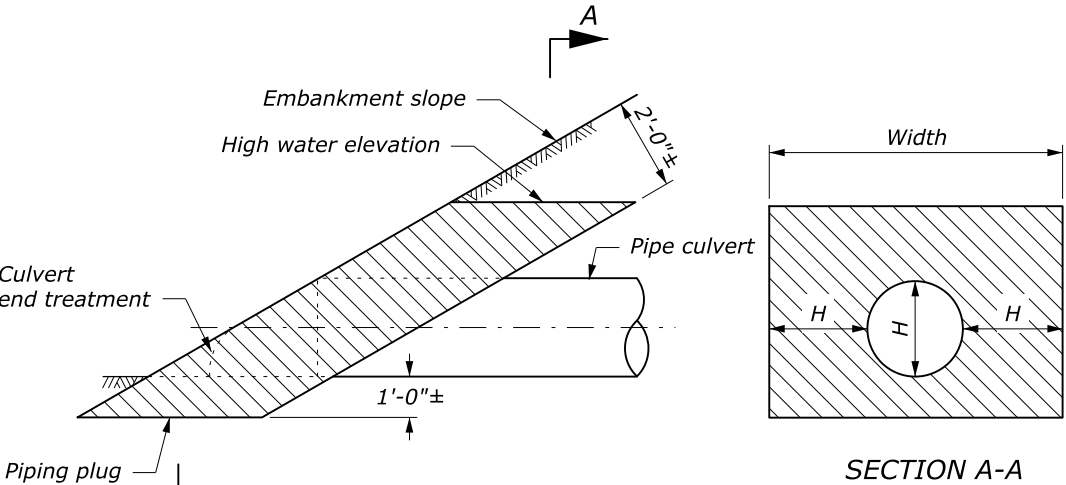
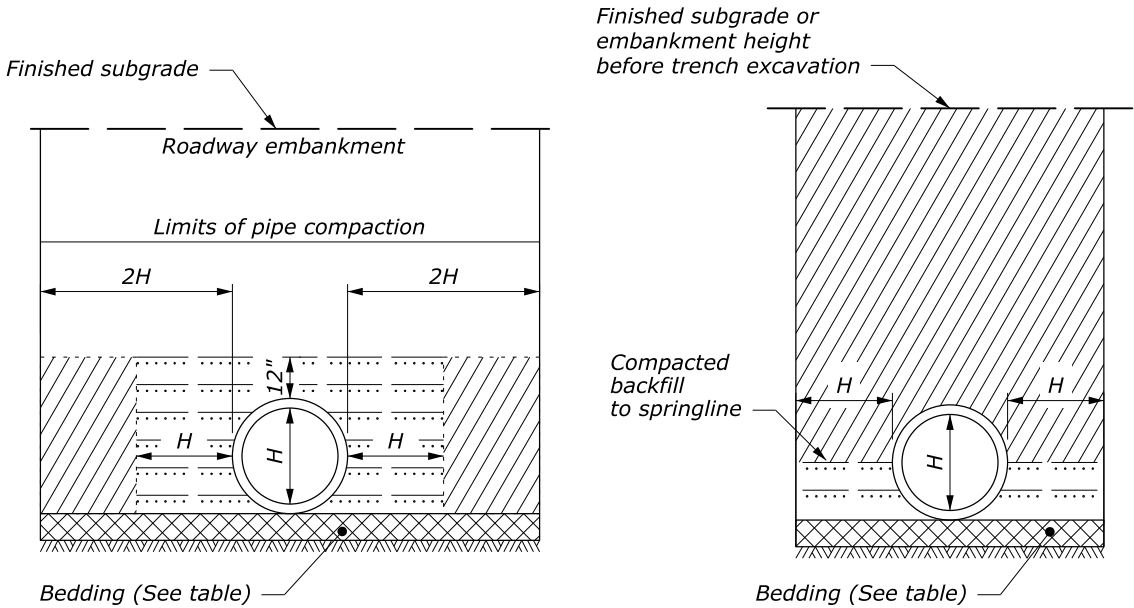
LEGEND:

-
- Bedding material (uncompacted).
-
- Embankment material placed in layers not exceeding 6" compacted depth.
-
- Compacted backfill material placed in layers not exceeding 6" compacted depth, or lean concrete backfill in accordance with Section 614
-
- Impermeable backfill material.

NOTE:

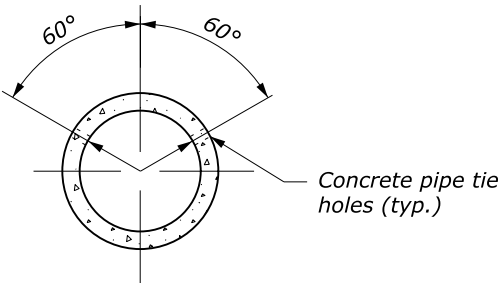
1. When directed, camber pipe culverts upwards from a chord through the inlet and outlet inverts an ordinate amount equal to 1% of the pipe length. Develop camber on a parabolic curve. If the midpoint elevation on the parabolic curve as designed exceeds the elevation of the inlet invert, reduce the amount of camber or increase the pipe culvert gradient.
2. Measure minimum cover from the top of the pipe culvert to the subgrade for flexible pavements, and to the top of the pavement for rigid pavements. Measure maximum fill height from the top of the pipe to the top of the pavement for both flexible and rigid pavements.
3. Pipe compaction limits shown are for pipe installation in an embankment. For pipe installation in a trench, the compaction limits shall be the walls of the trench.
4. Where unyielding or unstable material is encountered, install the pipe culvert according to the limits of pipe compaction shown on Standard 602-3.
5. Maximum fill heights for pipe culvert installations may be increased on approval of site-specific structural pipe designs meeting the criteria of AASHTO Standard Specifications for Highway Bridges.
6. Use Supplemental Concrete Pipe Tie when specified in the contract documents.

BEDDING DEPTH	
PIPE SIZE (H)	DEPTH
12" TO 54"	4"
> 54"	6"



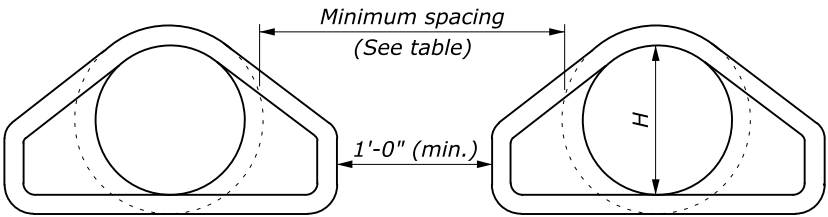
Construct a piping plug of impermeable backfill material at the pipe inlet where granular material is used for backfill. Width may be adjusted to tie into impervious material.

PIPING PLUG

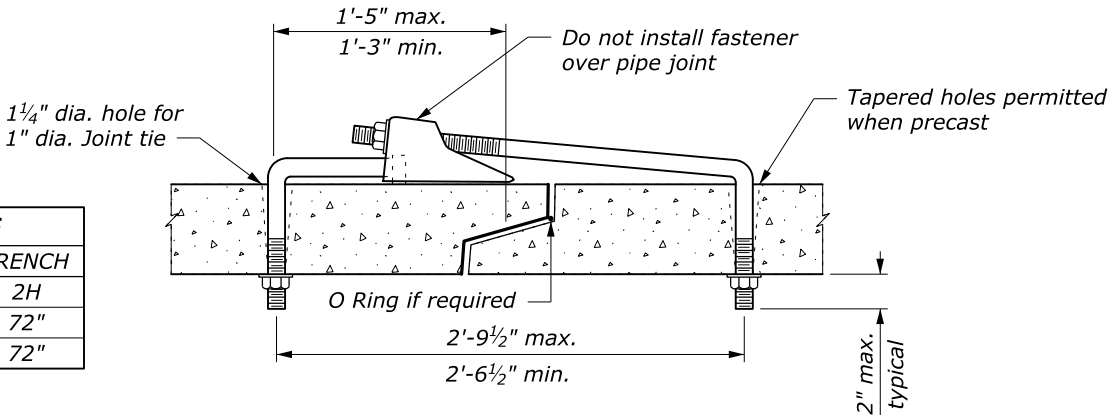


EMBANKMENT INSTALLATION

TRENCH INSTALLATION



MINIMUM SPACING		
DIAMETER	EMBANKMENT	TRENCH
12"-36"	15"	2H
36"-96"	0.5H	72"
OVER 96"	48"	72"

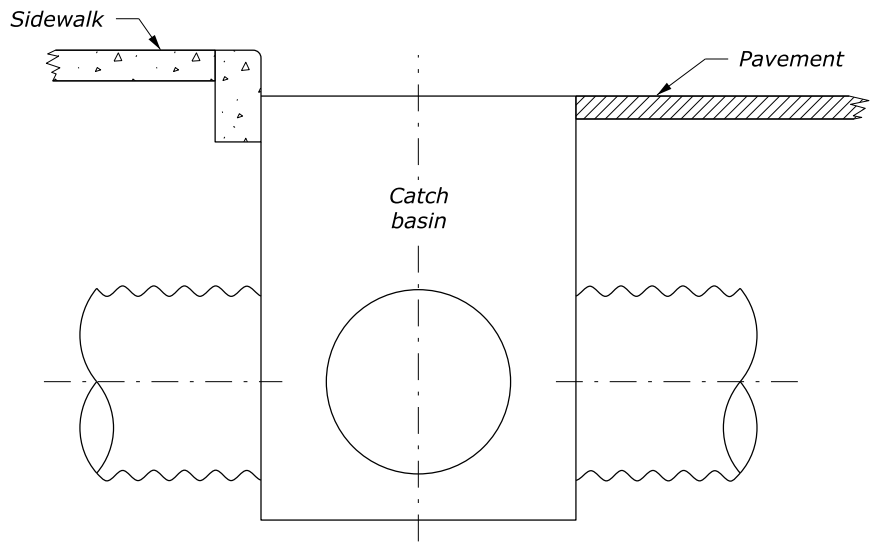


SUPPLEMENTAL CONCRETE PIPE TIE

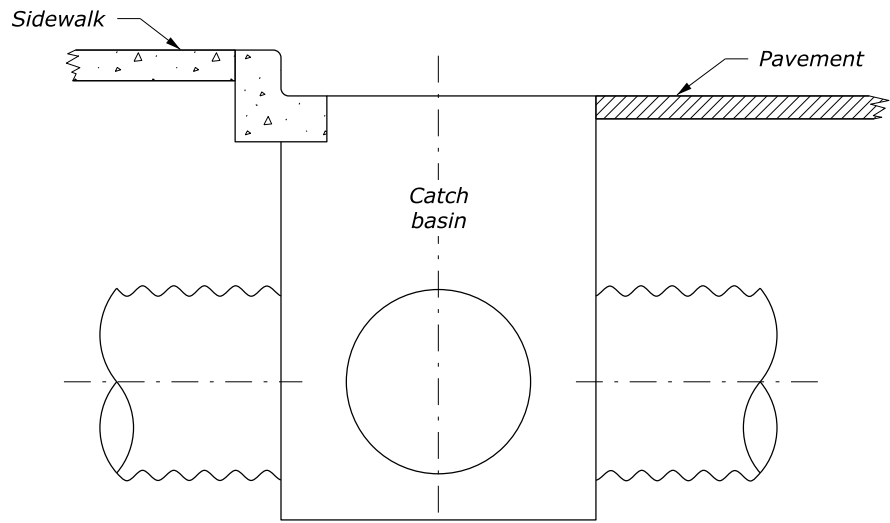
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION OFFICE OF FEDERAL LANDS HIGHWAY	
CONCRETE PIPE CULVERT INSTALLATION	
STANDARD APPROVED FOR USE 12/1993 REVISED: 4/1994 6/2005 DRAFT: 6/2008	DETAIL 602-7

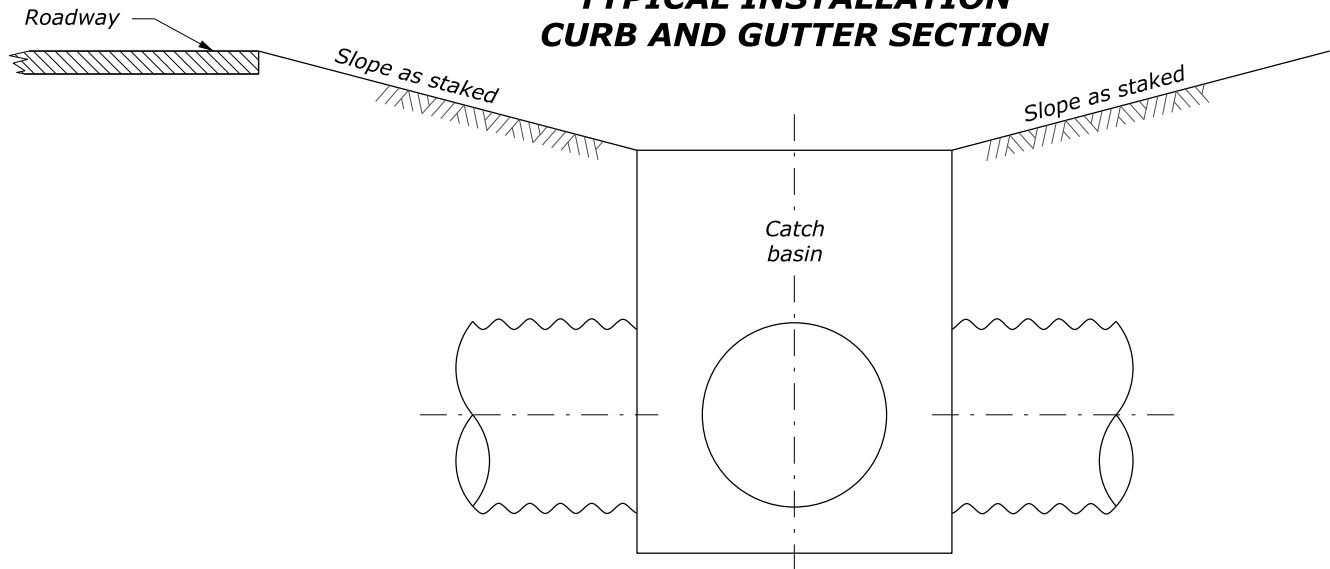
STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T10



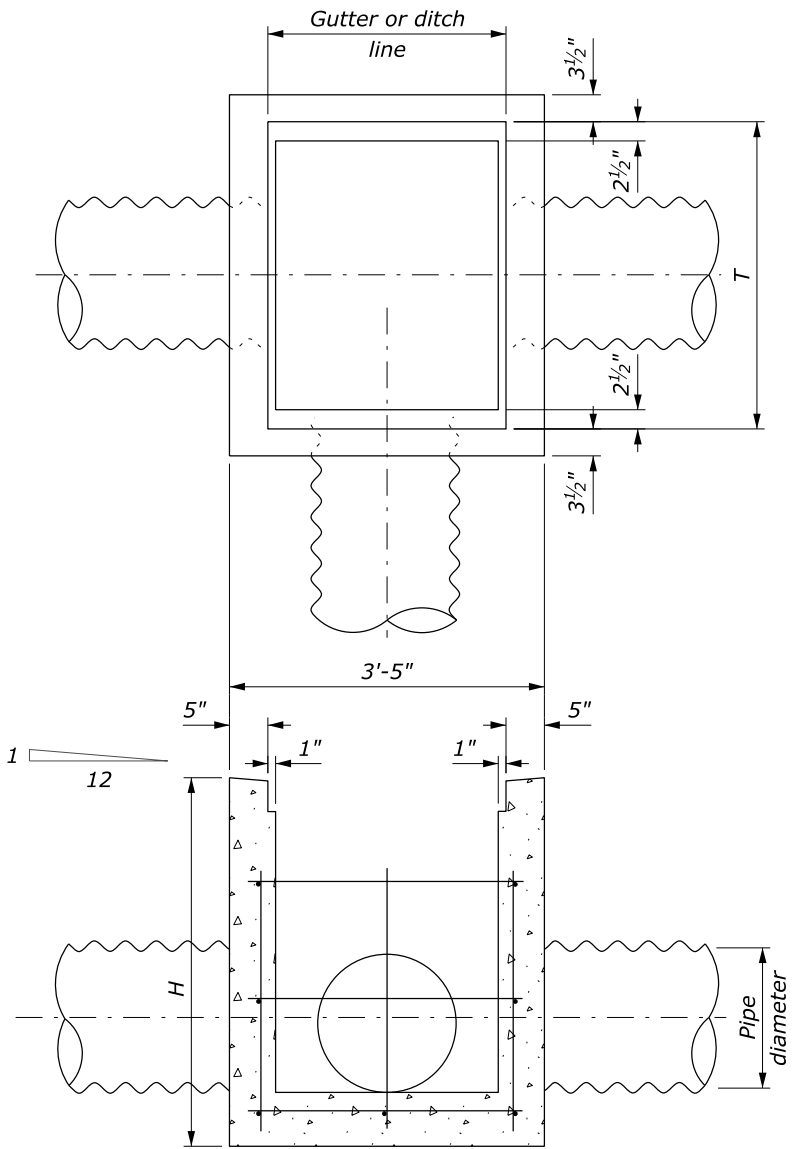
**TYPICAL INSTALLATION
CURB SECTION**



**TYPICAL INSTALLATION
CURB AND GUTTER SECTION**



**TYPICAL INSTALLATION
DITCH SECTION**



All reinforcing steel
#4 at 12"±.
Bend to clear pipe

INLET DETAIL

NOTE:

1. **CONCRETE:** Chamfer exposed edges $\frac{3}{4}$ " unless otherwise shown. Give all concrete surfaces a Class 1 finish.
2. The minimum concrete cover to the face of any bar is 2" unless otherwise shown.
3. See Standard 604-2 for Type A Frame and Grate and Standard 604-3 for Type B Frame and Grate.

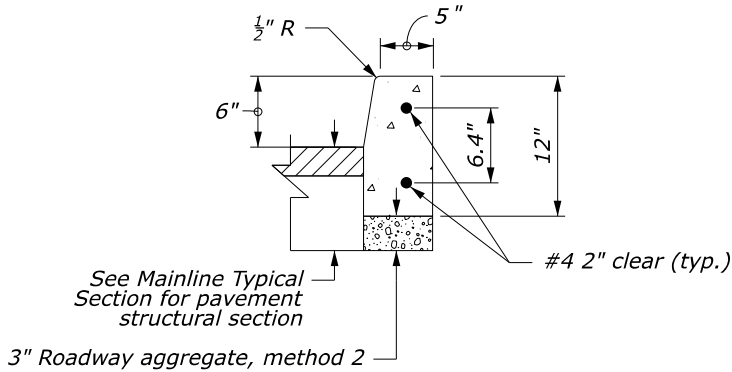
CONCRETE CATCH BASINS				
PIPE SIZE DIAMETER	DEPTH H	FRAME AND GRATE T		
		TYPE A	TYPE B	
12"	3'-0"	2'-6"	2'-6"	
18"	3'-0"	2'-6"	2'-6"	
24"	4'-0"	3'-3"	3'-4"	
30"	4'-0"	4'-0"	4'-2"	
36"	4'-6"	4'-9"	5'-0"	
42"	5'-0"	5'-6"	5'-5"	
48"	5'-6"	6'-3"	6'-3"	

CONCRETE CATCH BASINS				
PIPE SIZE DIAMETER INCHES	ESTIMATED QUANTITIES			
	CONCRETE CUYD	REINFORCING STEEL LB	FRAME AND GRATE LB	
			TYPE A	TYPE B
12	0.7	54	215	238
18	0.7	54	215	238
24	1.1	81	271	314
30	1.2	92	327	390
36	1.5	101	383	466
42	1.8	131	439	504
48	2.2	151	495	580

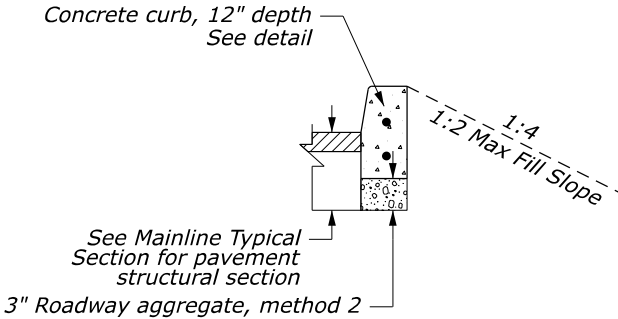
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION OFFICE OF FEDERAL LANDS HIGHWAY	
FLH STANDARD CATCH BASIN TYPE 1	
STANDARD APPROVED FOR USE 6/2005 REVISED:	STANDARD 604-1

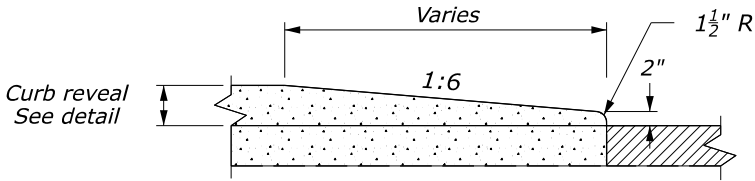
STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T11



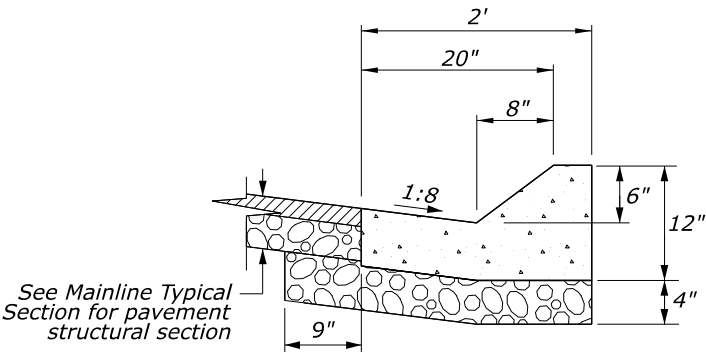
CONCRETE CURB,
12-INCH DEPTH



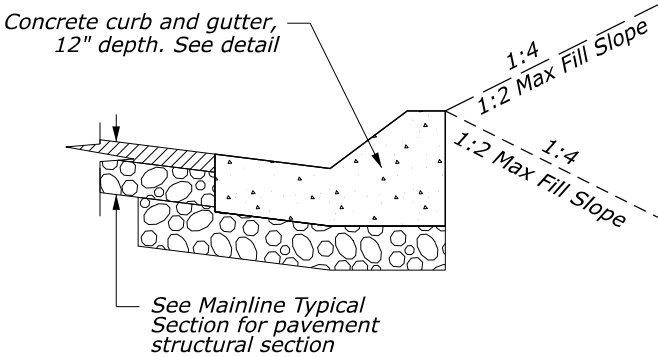
TYPICAL CONCRETE CURB SECTION



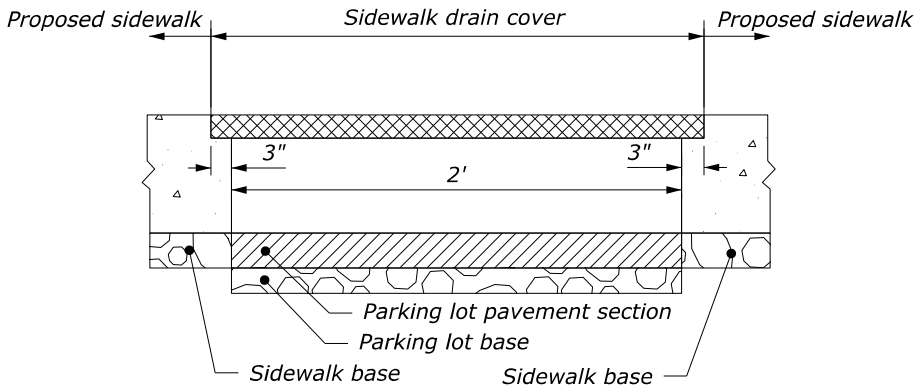
CURB TAPER



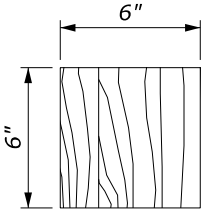
CURB AND GUTTER,
CONCRETE 12-INCH DEPTH



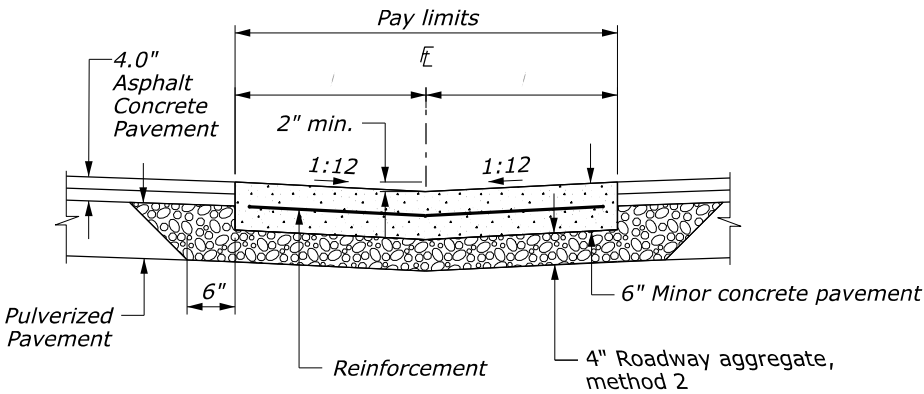
TYPICAL CURB AND GUTTER SECTION



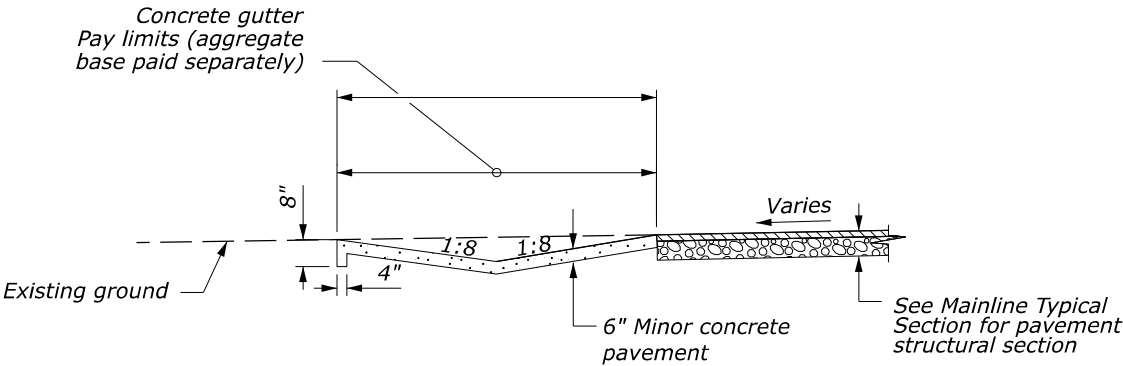
GUTTER, CONCRETE (SIDEWALK GUTTER)



CURB, TIMBER



GUTTER, CONCRETE
(valley gutter)



GUTTER, CONCRETE
(off site drainage)

- Notes:
1. Backfill all concrete curbs along paved ditches.
 2. Dimensions shown in concrete curb details are approximate.

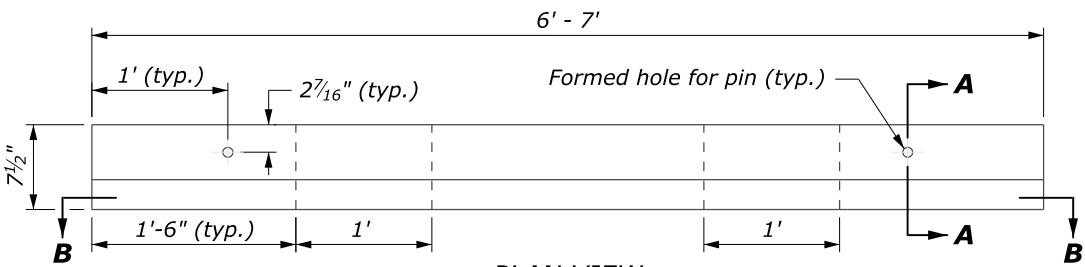
U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION OFFICE OF FEDERAL LANDS HIGHWAY	
U.S. CUSTOMARY SPECIAL	
CURB DETAILS	
SPECIAL 609-A	

No Scale

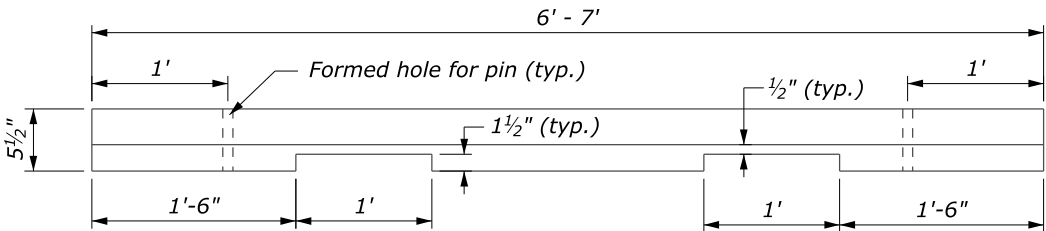
STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T12

NOTES:

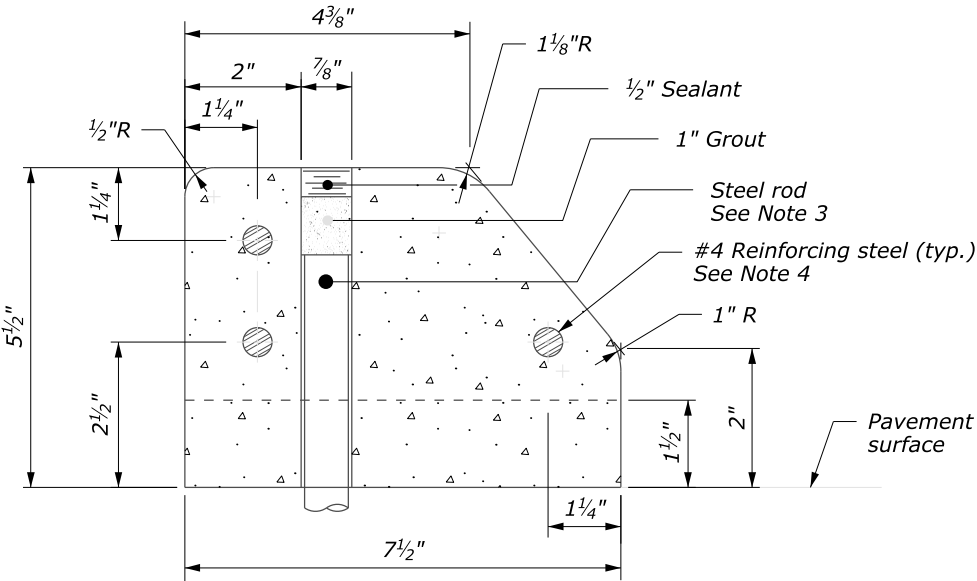
- Center wheelstops between and perpendicular to stall lines.
- Variations in wheelstops will be allowed to meet manufacturer's standards with the approval of the CO.
- Pin the wheelstops with No. 6 reinforcing steel or 3/4-inch steel rods according to Subsection 609.08.
- Extend the reinforcing steel to within 1 inch of ends of wheelstop.



PLAN VIEW

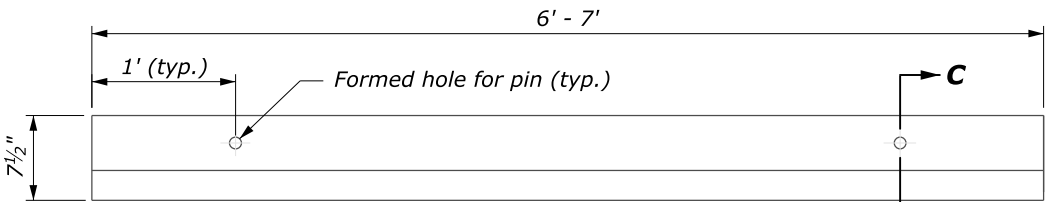


SECTION B-B

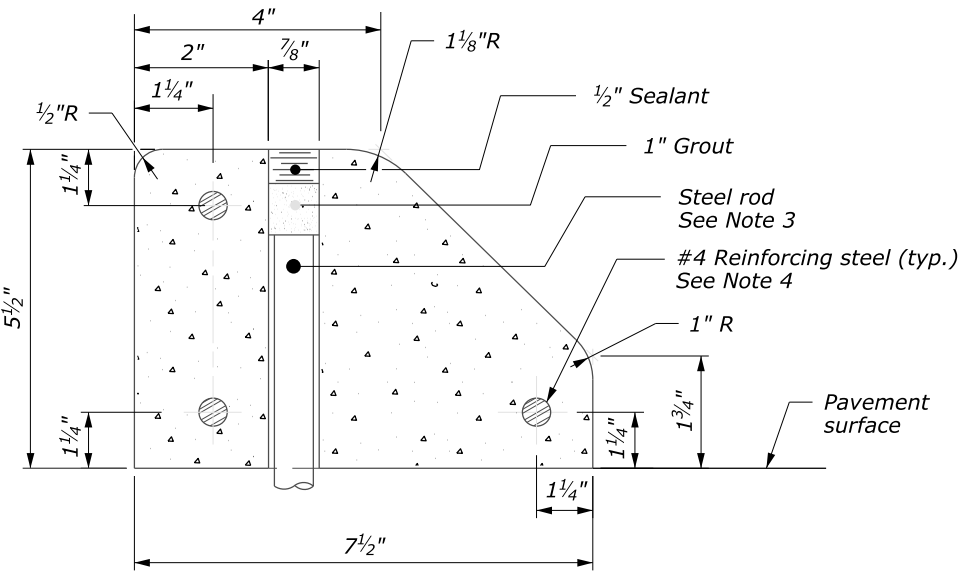


SECTION A-A

CONCRETE WHEELSTOP WITH DRAIN

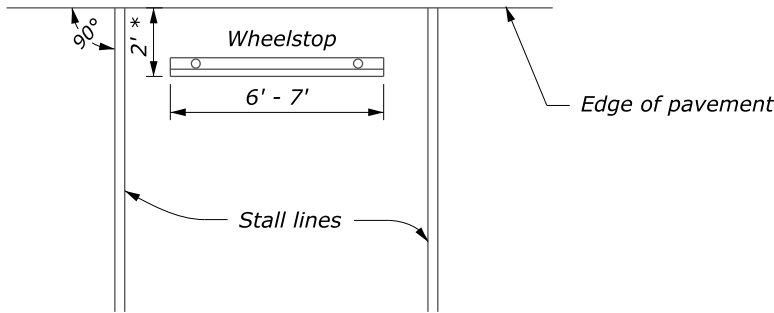


PLAN VIEW

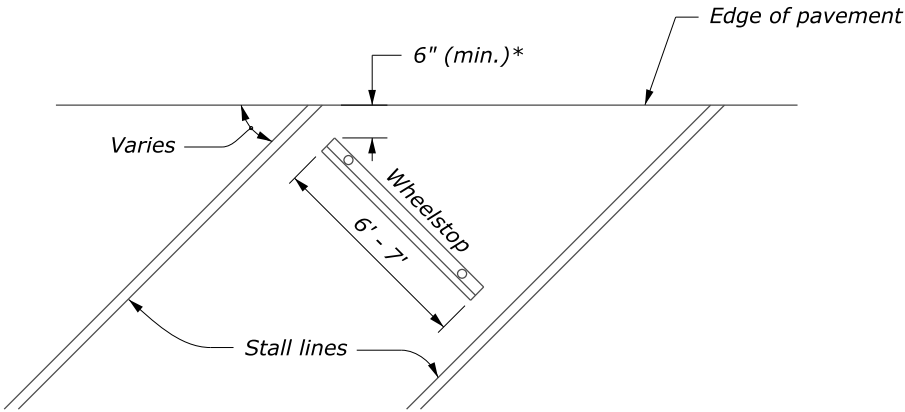


SECTION C-C

CONCRETE WHEELSTOP WITHOUT DRAIN



HEAD-ON PARKING



ANGULAR PARKING

WHEELSTOP LAYOUT

* Increase distance for wall or other obstructions as directed by the CO.

NO SCALE

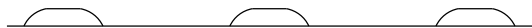
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

CONCRETE WHEELSTOP

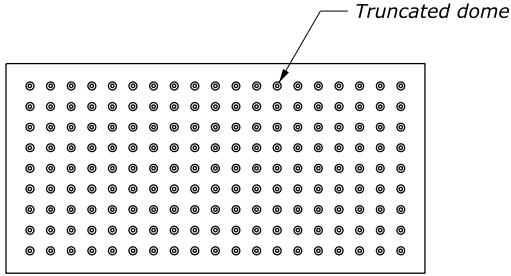
DETAIL APPROVED FOR USE
APPROVED: MAY 2011
REVISED: JANUARY 2021

SPECIAL
609-03

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T13

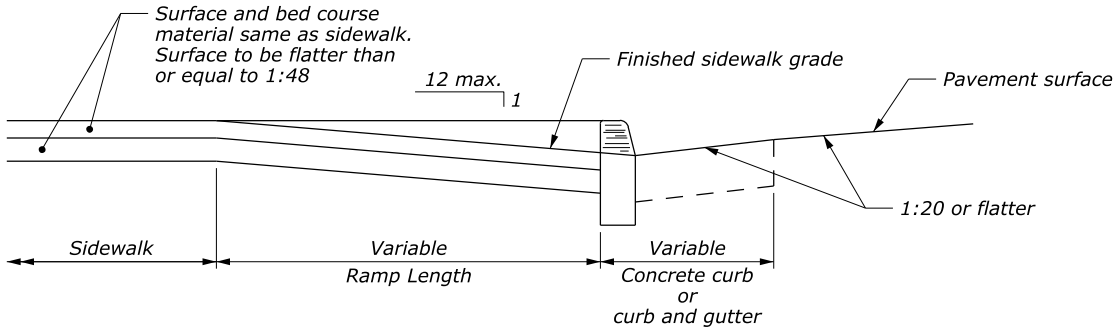


SECTION
TRUNCATED DOME

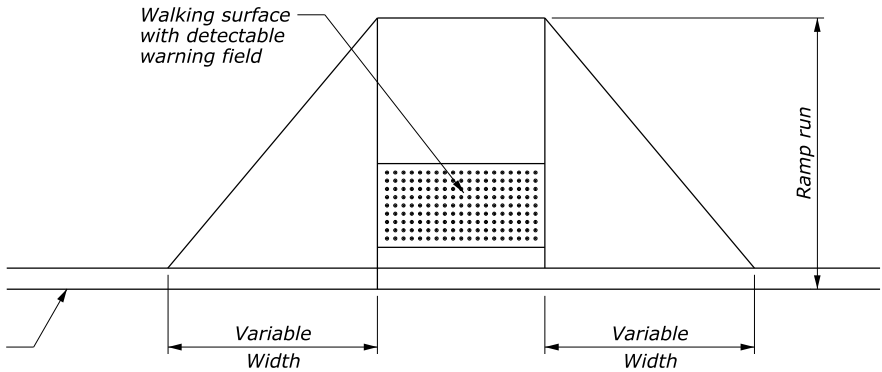


PLAN

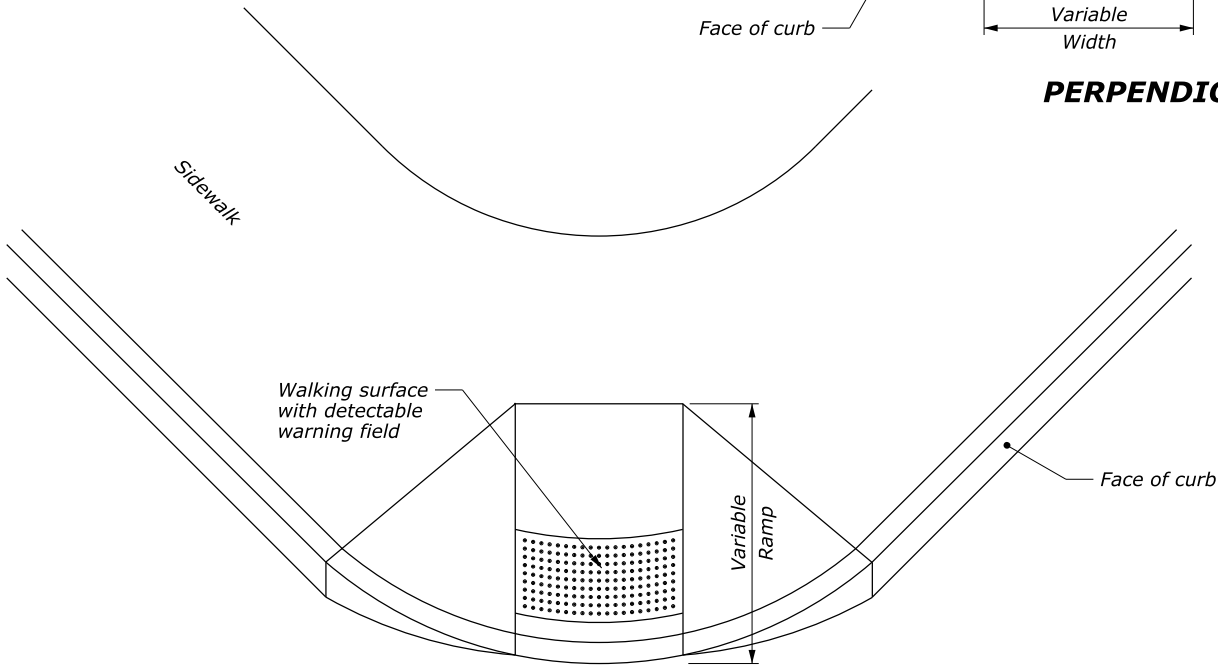
**DETECTABLE WARNING FIELD
WITH TRUNCATED DOMES**



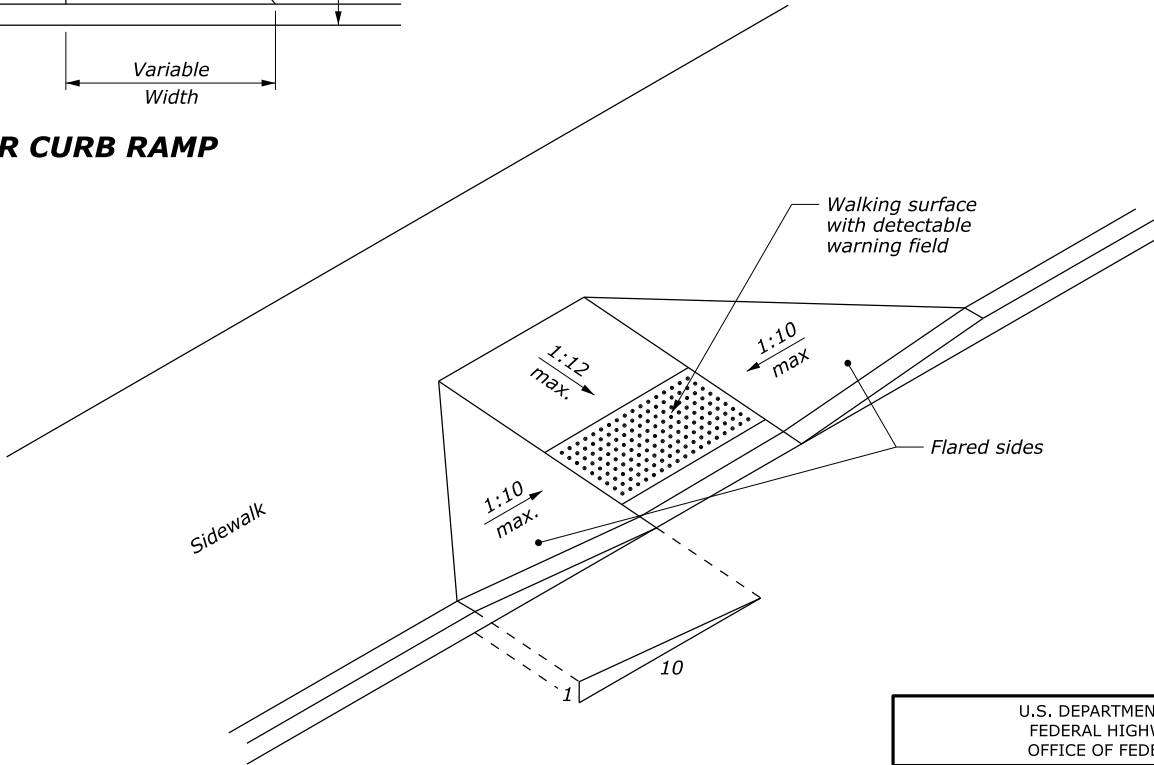
RAMP - TYPICAL SECTION



PERPENDICULAR CURB RAMP



DIAGONAL CURB RAMP



RAMP - ISOMETRIC

NOTE:

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

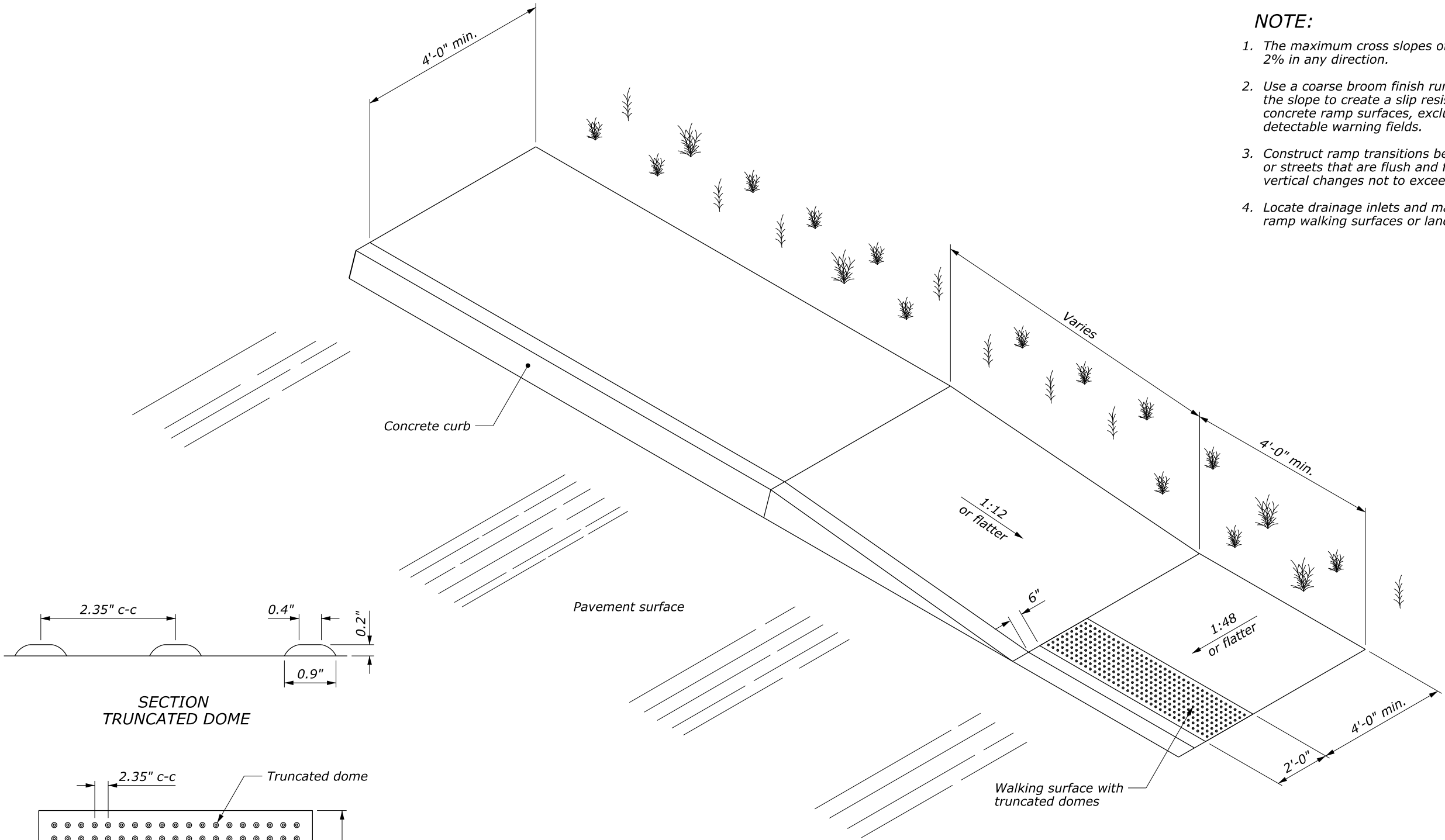
WHEELCHAIR RAMP

DETAIL
615-01

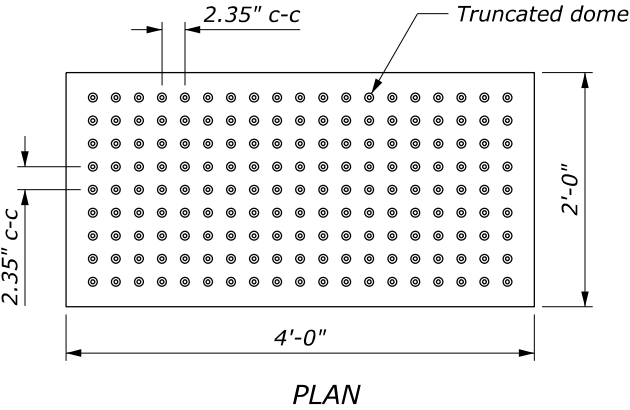
STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T14

NOTE:

1. The maximum cross slopes of ramps must not exceed 2% in any direction.
2. Use a coarse broom finish running perpendicular to the slope to create a slip resistant surface on concrete ramp surfaces, exclusive of the detectable warning fields.
3. Construct ramp transitions between walks, gutters, or streets that are flush and free of abrupt vertical changes not to exceed 2.5 inches.
4. Locate drainage inlets and manholes outside of ramp walking surfaces or landings.



PARALLEL CURB RAMP

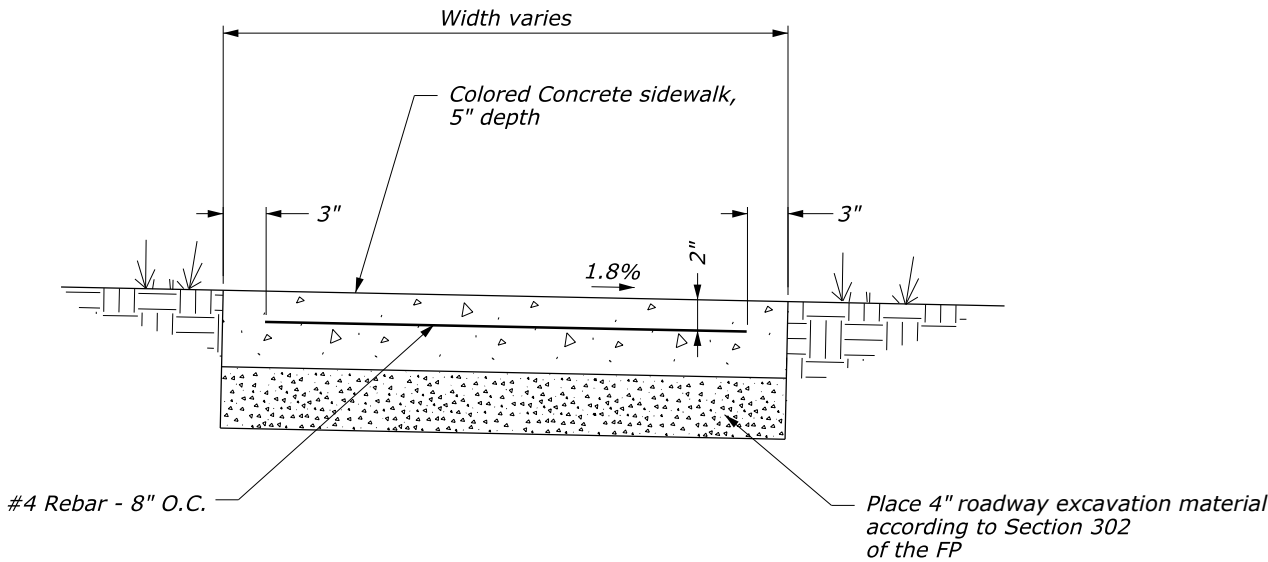


DETECTABLE WARNING FIELD
WITH TRUNCATED DOMES

NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION FEDERAL LANDS HIGHWAY	
U.S. CUSTOMARY STANDARD	
WHEELCHAIR RAMP CURB TAPER	
STANDARD APPROVED FOR USE --/----	STANDARD
REVISED: DRAFT: 1/2004	615-02

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T15



CONCRETE SIDEWALK

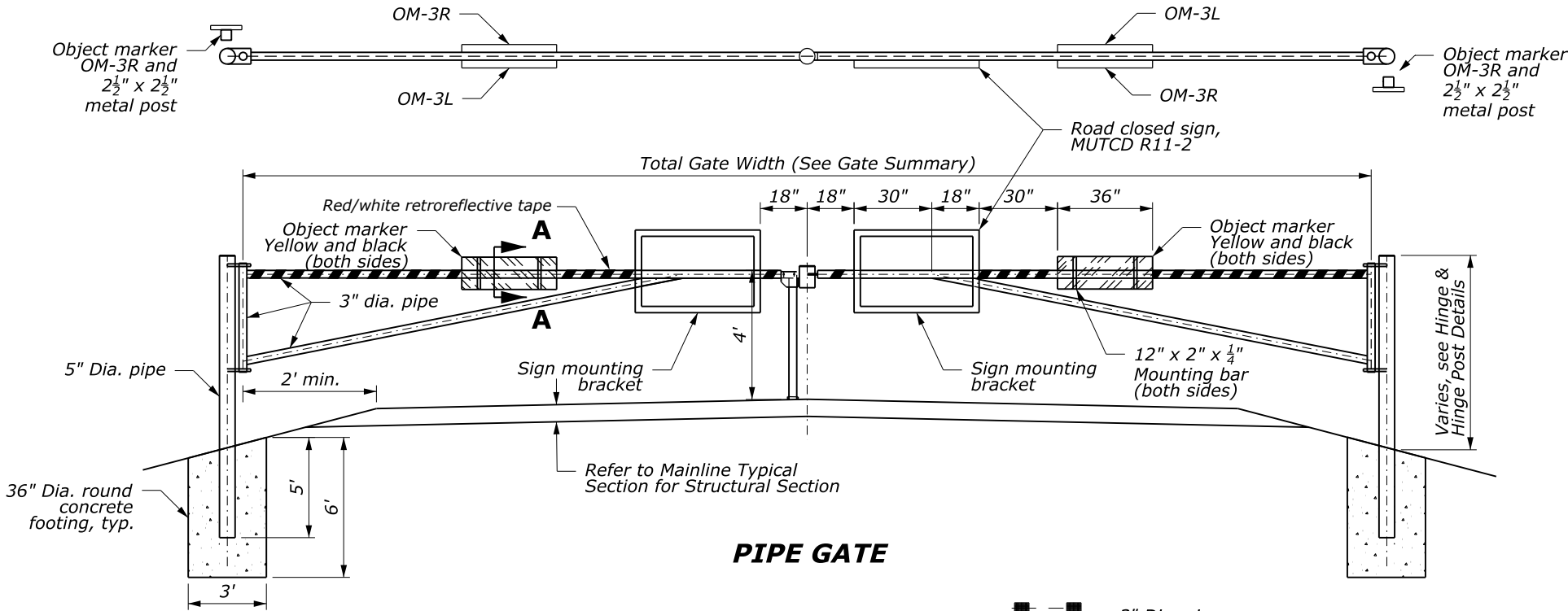
NOTE:

1. No payment will be made for aggregate base, #4 rebar, and isolation joint sealer required for construction of sidewalk.
2. See SCR's for concrete color requirements.
3. See Concrete Summary, Plan-Plan sheets and cross sections for sidewalk widths.

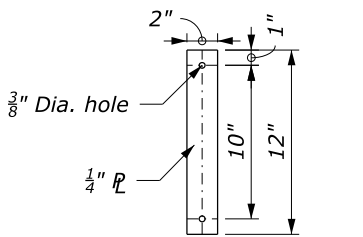
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION	
U.S. CUSTOMARY SPECIAL	
CONCRETE SIDEWALK	
	SPECIAL 615-A

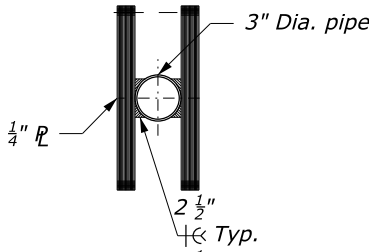
STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T16



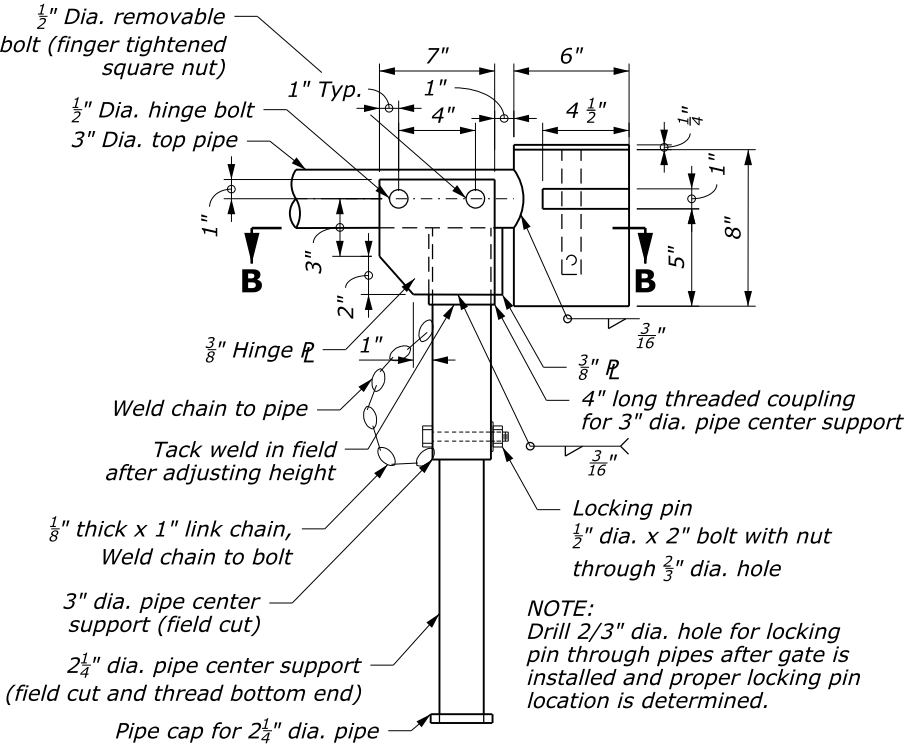
PIPE GATE



OBJECT MARKER MOUNTING BAR

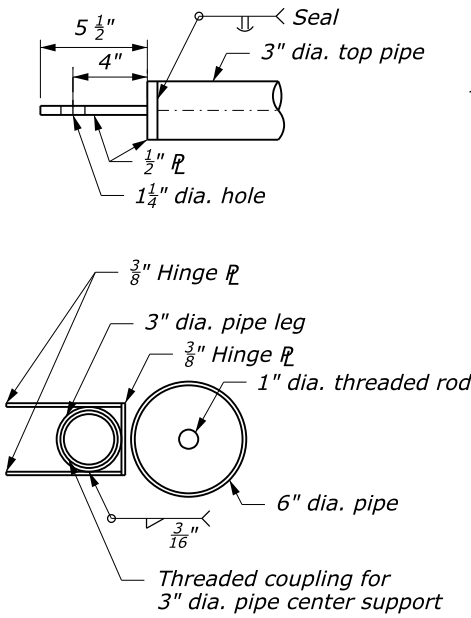


SECTION A-A
(Sign mounting bracket similar)

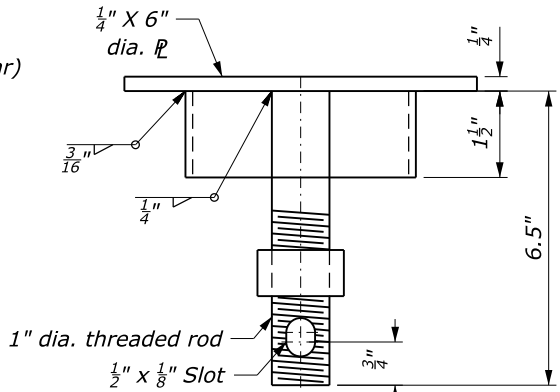


ELEVATION

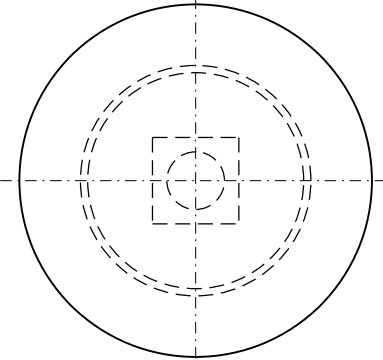
LOCK & CENTER SUPPORT DETAILS



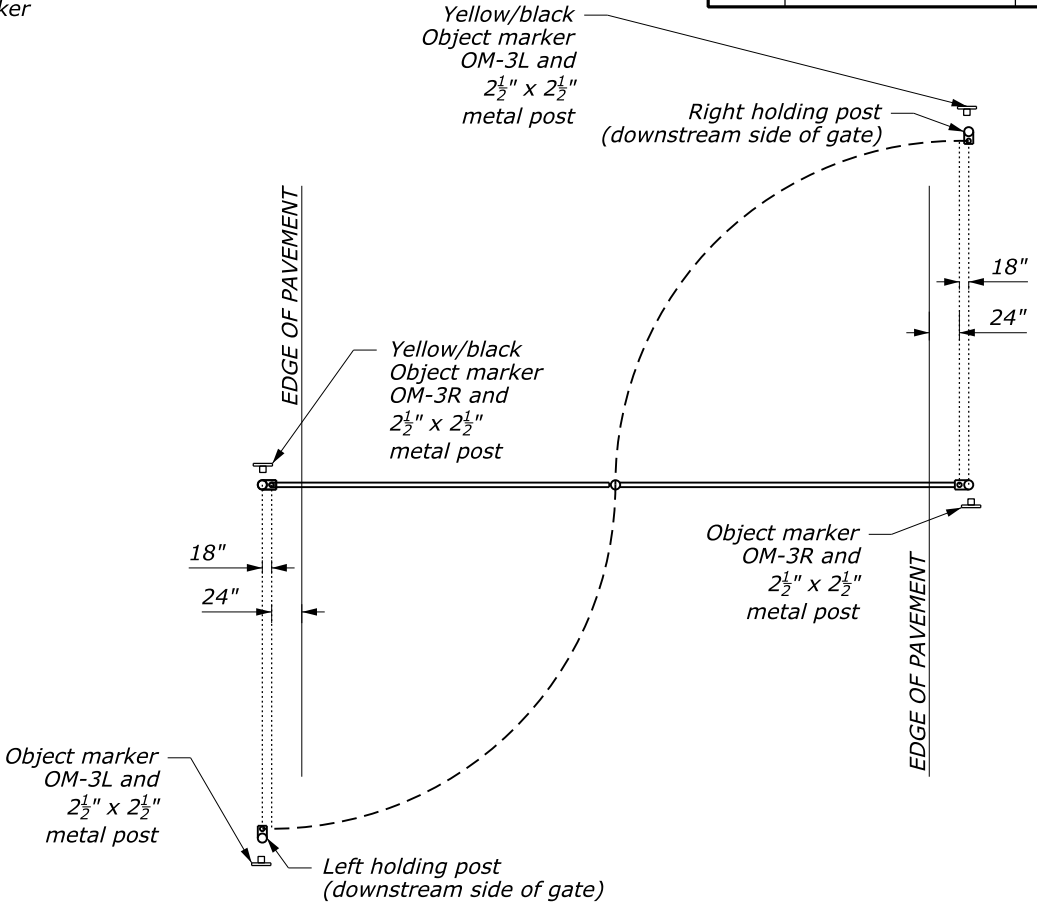
SECTION B-B



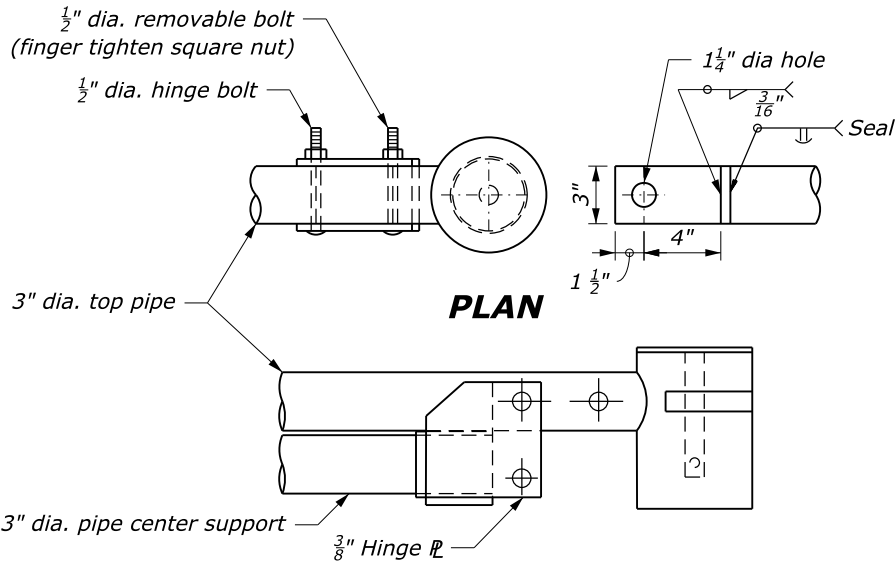
ELEVATION



PLAN
LOCK CAP DETAIL



PIPE GATE PLAN



PLAN

ELEVATION
LOCK & CENTER SUPPORT DETAILS

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

CFLHD SPECIAL
ROAD CLOSURE GATE

Sheet 1 of 2

SPECIAL
619-A

NO SCALE

User: Stacy.Dicicco

8/11/2020 8:11:39 AM C:\CO\meve100(1)\Roadway\CADD_Sheets\T-600\sp619A.dgn

8/19/2020

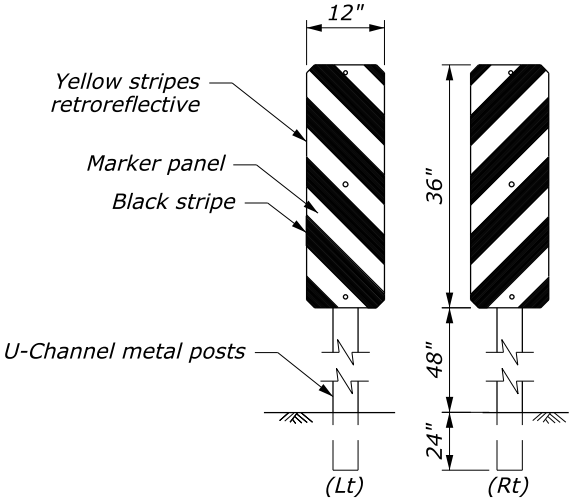
STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T17

NOTES:

1. See Subsection 710.04(c) for steel pipe requirements for fence posts.
2. Construct beveled welds with 3/16" throat, unless otherwise shown.
3. Paint gates with one coat of zinc-rich primer, organic vehicle type, and two coats of brown as approved by the CO. Prepare surface and prime as recommended by the paint manufacturer.
4. Provide concrete meeting the requirements of Section 601.
5. Provide Road Closure Sign, Object Markers on posts and gate, on both the upstream and downstream sides of the gate, meeting the requirements of the MUTCD. Signs are included in the gate pay item.
6. Provide U-Channel metal posts for object markers meeting the requirements of Subsection 718.04(d).
7. Provide #5 reinforcing bars meeting the requirements of ASTM M 31, Grade 60.
8. Install pipe gate with posts and hinges set plumb so that the locks work properly in closed position. The CO will inspect the gate and locking mechanism.
9. Approximate length and location of the gate is provided in the plans. Prior to installation of the gate, location must be field verified by the CO.
10. Provide hardware meeting the requirements of Subsection 718.06.
11. Install hitch on downstream side of gate.

SIGN QUANTITIES			
SIGN NUMBER	SIGN DESCRIPTION	SIZE	TOTAL*
R11-2	ROAD CLOSED	48" x 30"	2
OM-3L	OBJECT MARKER	36" x 12"	4
OM-3R	OBJECT MARKER	36" x 12"	4

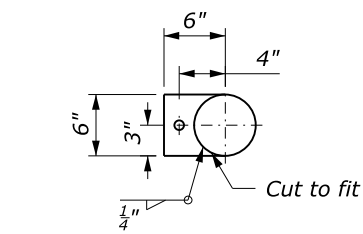
* For each gate. See note 5.



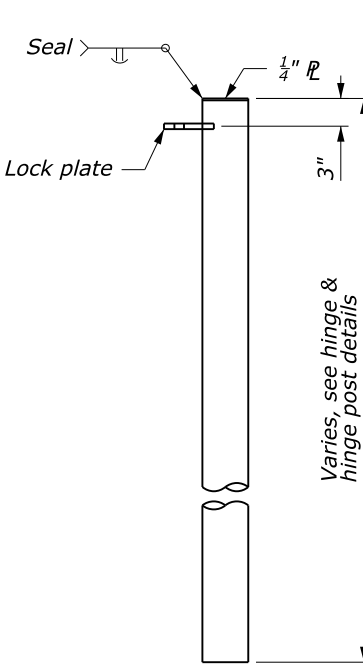
TYPE III OBJECT MARKER
See note 6.

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION	
CFLHD SPECIAL	
ROAD CLOSURE GATE	
Sheet 2 of 2	
	SPECIAL 619-A

NO SCALE

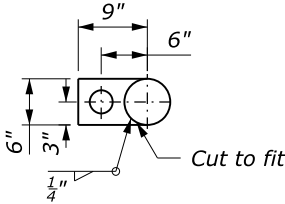


PLAN

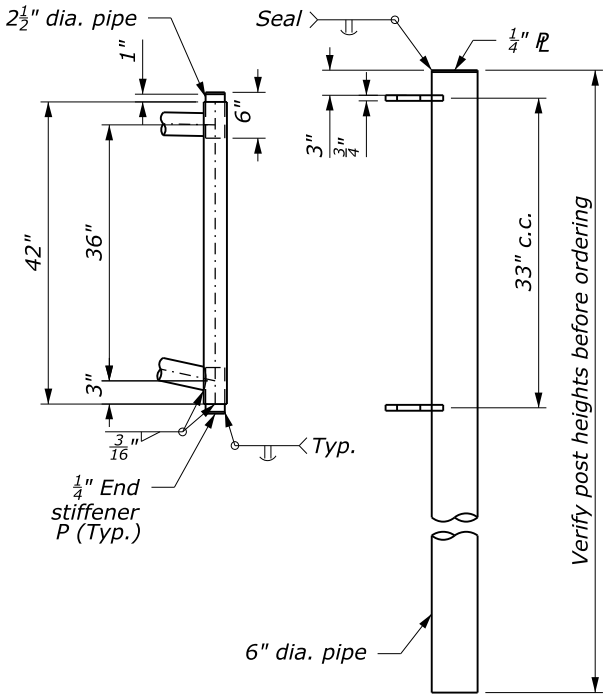


HOLDING POST

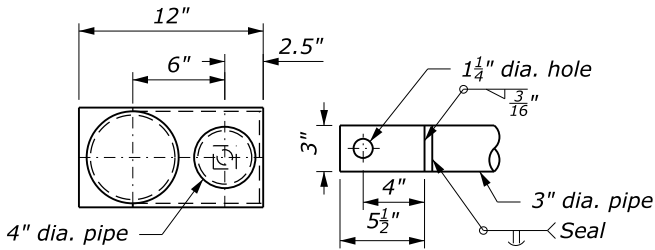
Shown with left holding post details
Note: Minimum footing depth of 3 feet



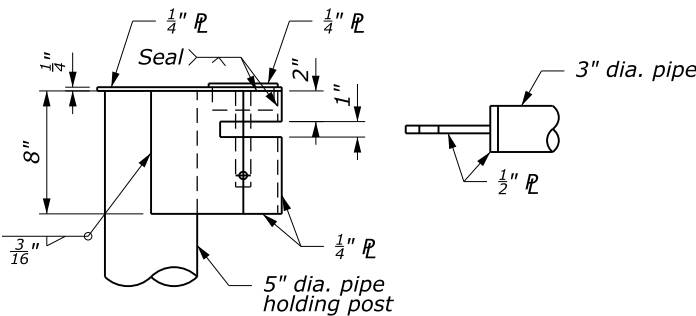
PLAN



HINGE & HINGE POST DETAILS

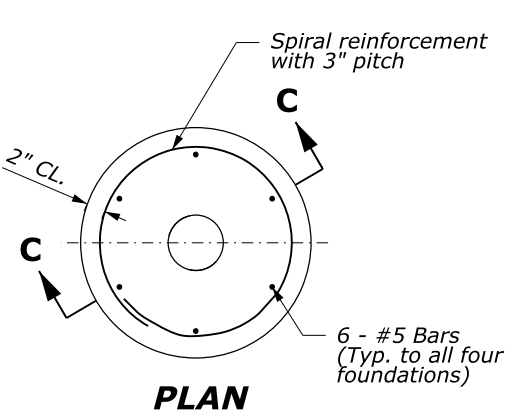


PLAN

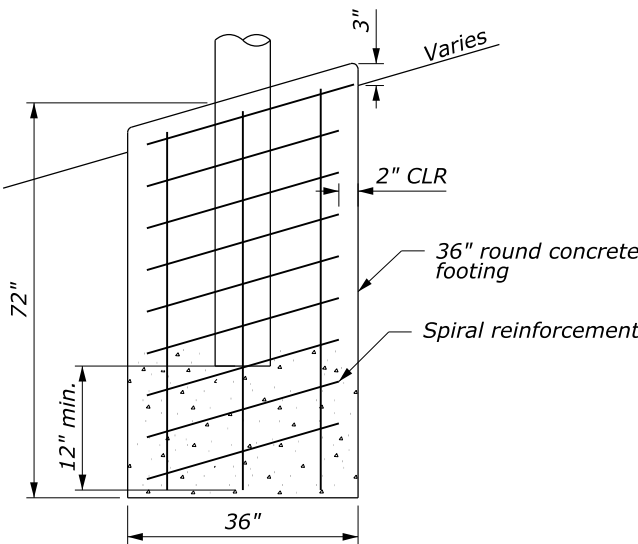


ELEVATION

RIGHT HOLDING POST DETAILS

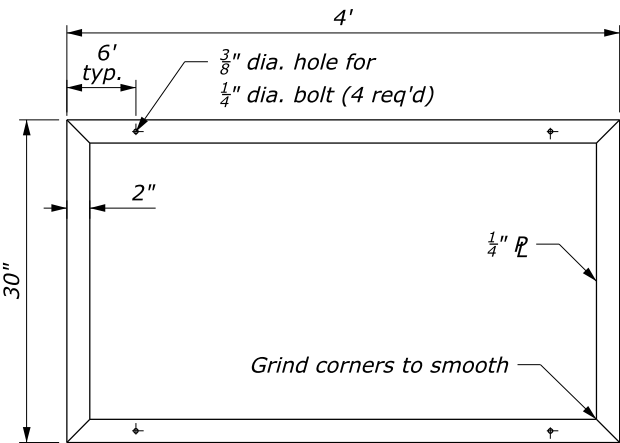


PLAN



SECTION C-C

TYPICAL POST FOUNDATION

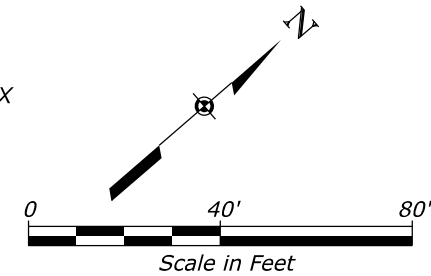


SIGN MOUNTING BRACKET

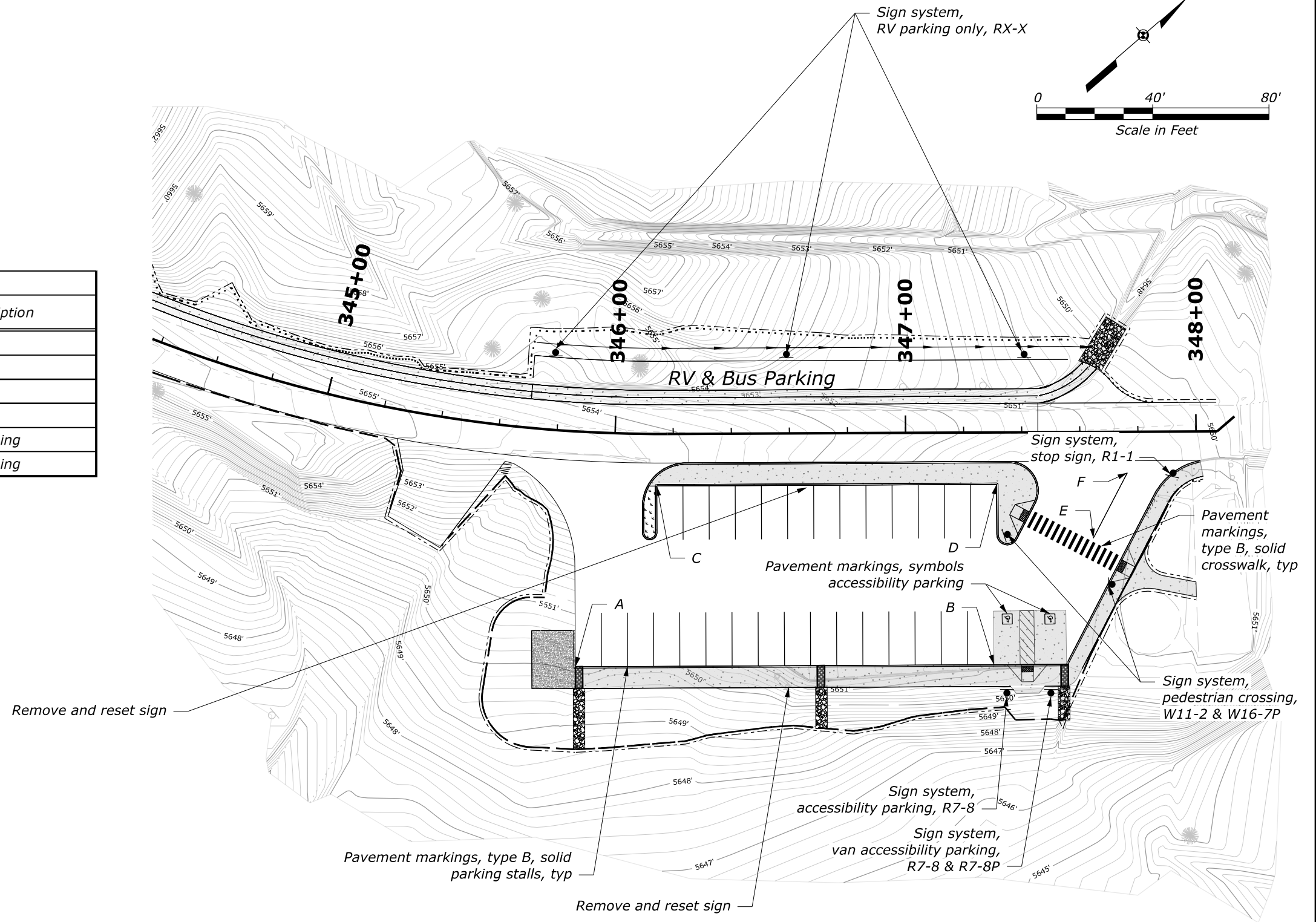
(R11-2 Sign not shown)

**TYPICAL WALL CROSS SECTION
(SINGLE FACE ADJACENT TO CUT SLOPE)**

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T32



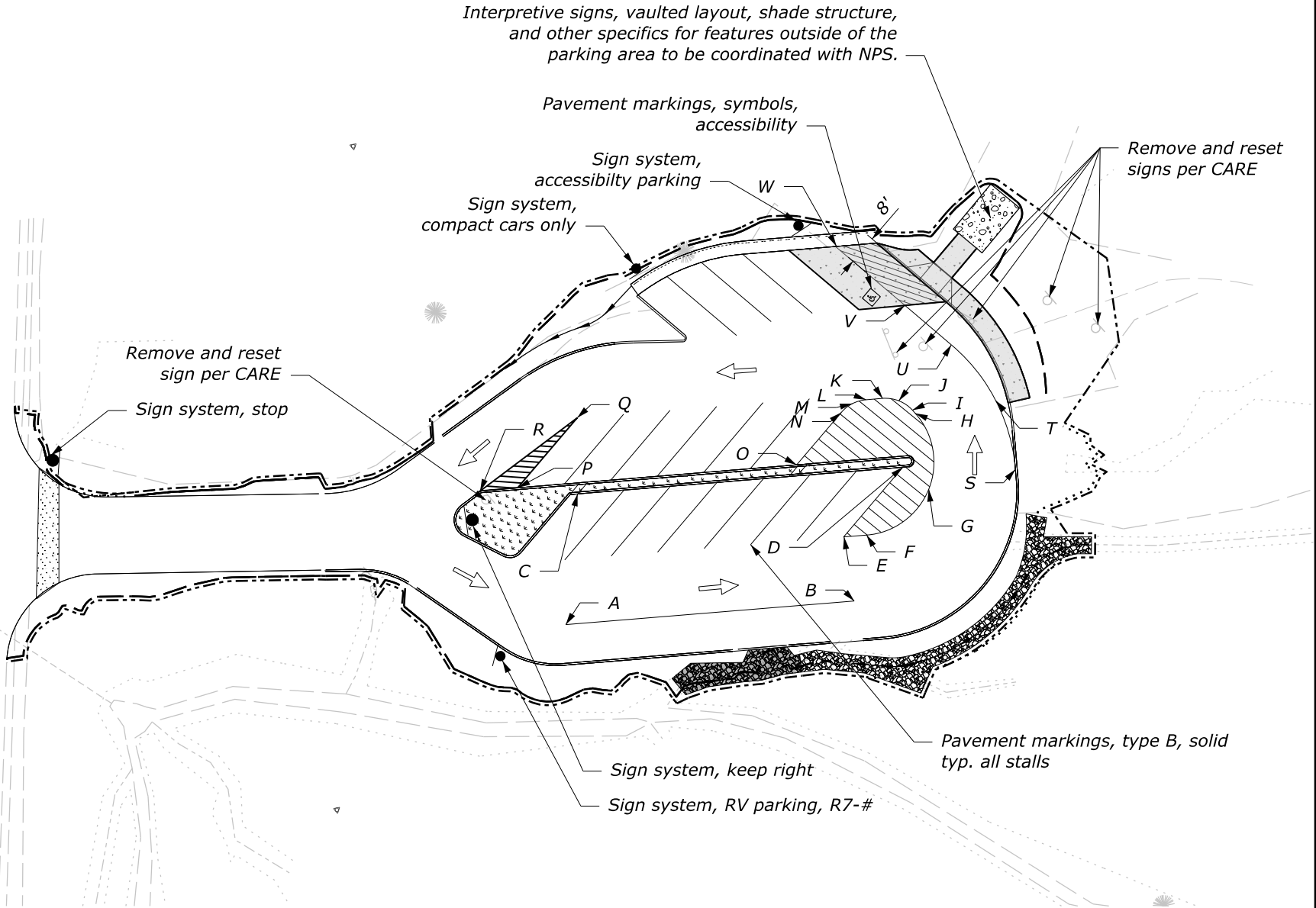
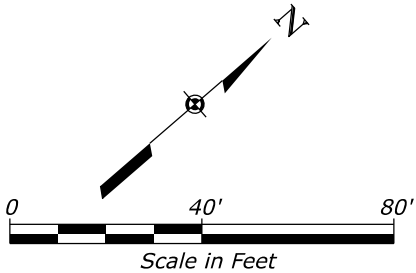
STRIPING DATA TABLE			
Point/ Radius	Northing	Easting	Description
A			End Stall
B			End Stall
C			End Stall
D			End Stall
E			Bus Lane Striping
F			Bus Lane Striping



SCHEDULE A
CAPITOL GORGE PARKING LOT
SIGNING AND STRIPING PLAN

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T33

GRADING DATA TABLE				
Point/ Radius	Radius (ft)	Northing	Easting	Description
A				RV Striping
B				RV Striping
C				End Stall
D				End Stall
E				Gore Striping
F				PC Gore Striping
G				POC Gore Striping
H				PT Gore Striping
I				PC Gore Striping
J				POC Gore Striping
K				PT Gore Striping
L				PC Gore Striping
M				POC Gore Striping
N				PT Gore Striping
O				End Stall
P				End Stall / Gore Striping
Q				Gore Striping
R				Gore Striping
S				PC Lane Striping
T				POC Lane Striping
U				PT Lane Striping
V				Stall striping
W				End Stall

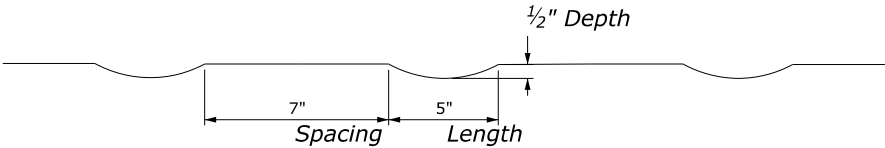


OPTION Y
CHIMNEY ROCK PARKING LOT
SIGNING AND STRIPING PLAN

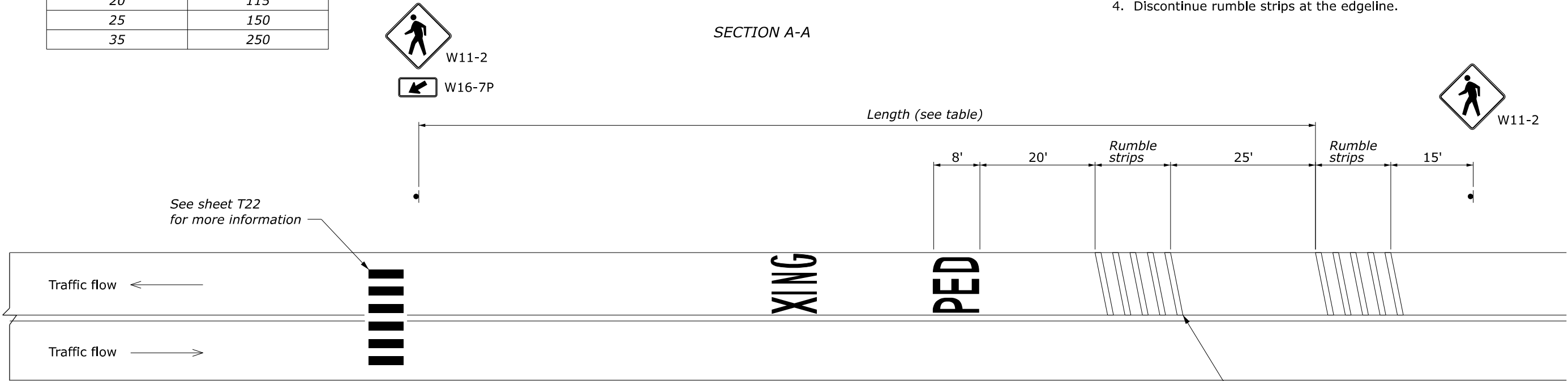
STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T34

ADVANCED PLACEMENT DISTANCE TABLE	
SPEED	LENGTH
MPH	FEET
15	80
20	115
25	150
35	250

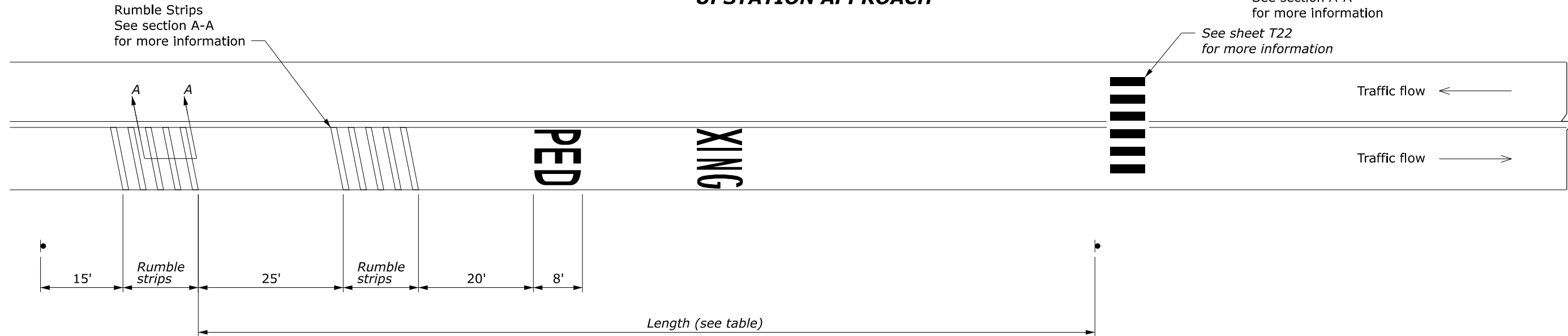
- NOTE:
1. Reference MUTCD Section 2C.50 Non-Vehicular Warning Signs.
 2. Adjust pavement marking and rumble strip locations for site specific conditions as directed by CO.
 3. Do not construct rumble strips on reinforced minor concrete pavement.
 4. Discontinue rumble strips at the edgeline.



SECTION A-A



UPSTATION APPROACH



DOWNSTATION APPROACH



U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

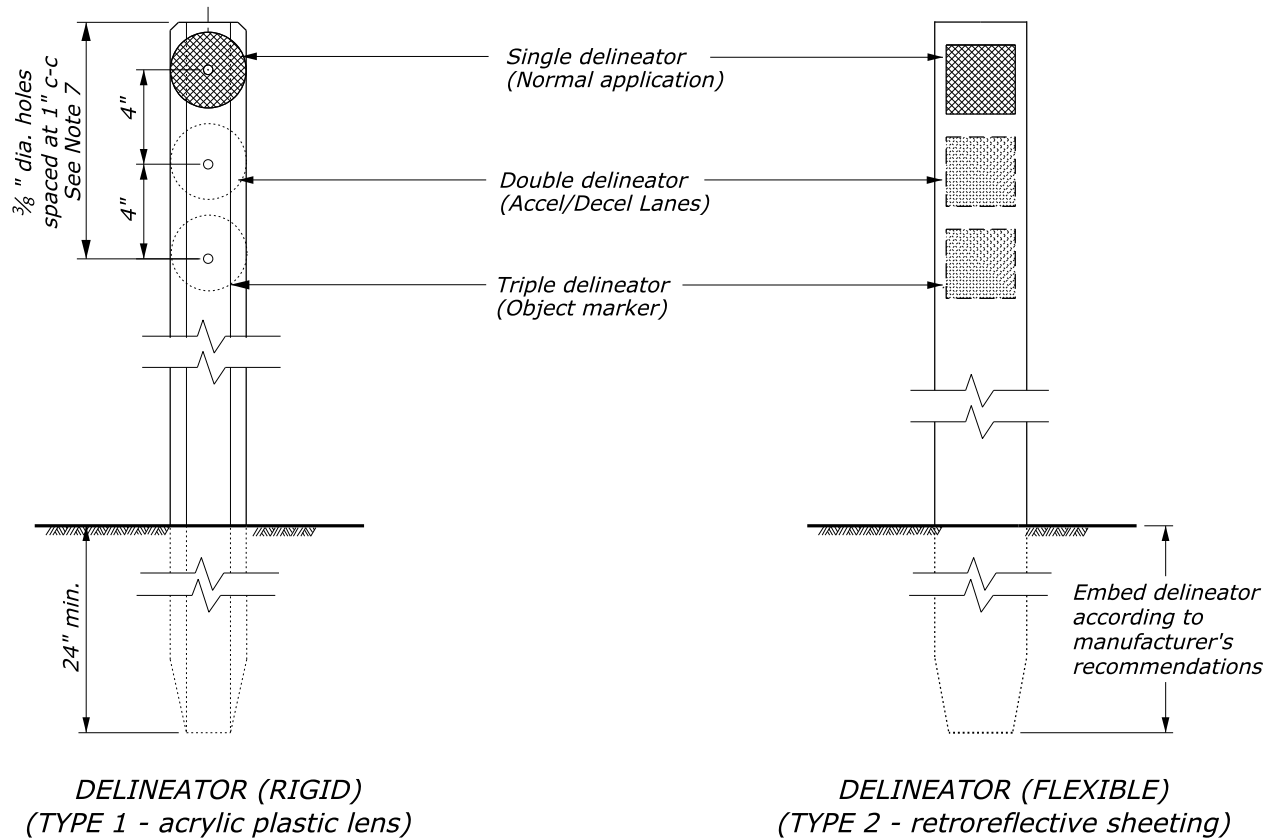
U.S. CUSTOMARY SPECIAL

PEDESTRIAN CROSSWALK
DETAIL

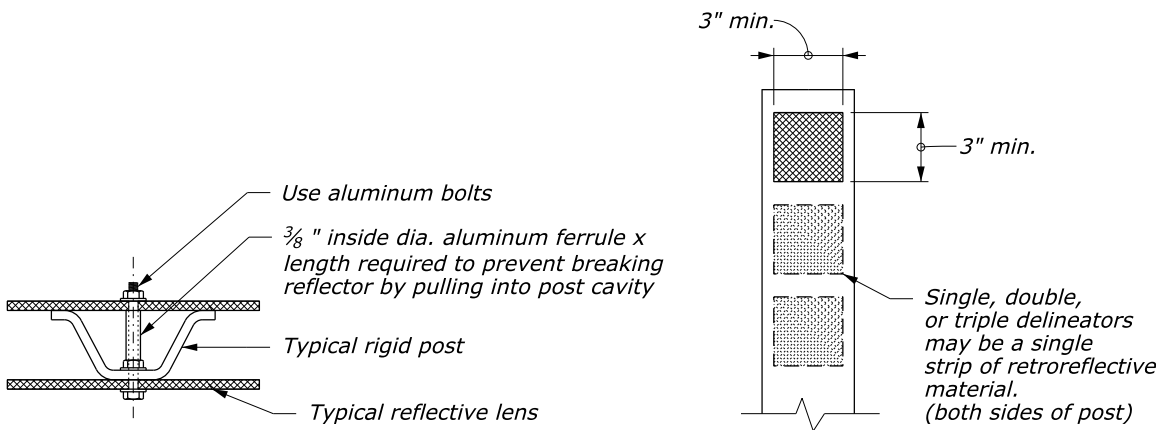
SPECIAL
633-01

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T35

_User:

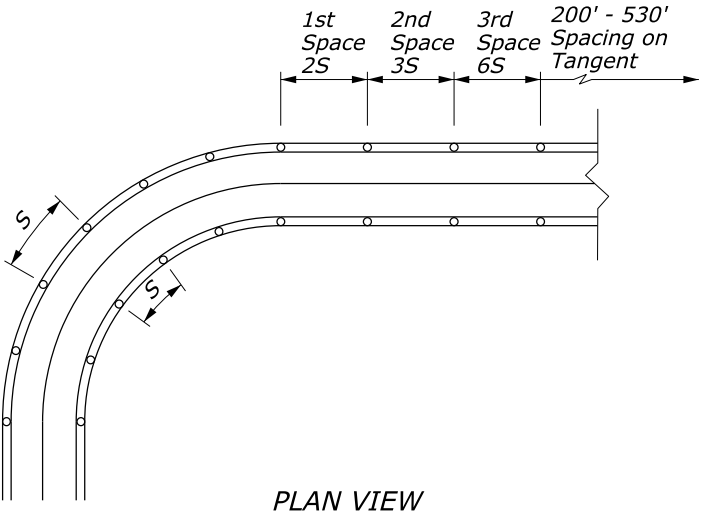
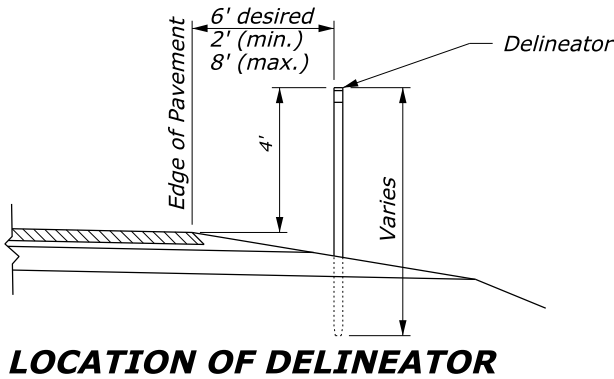


POST DETAILS



ATTACHMENT DETAIL
(for rigid metal posts)

RETROREFLECTIVE SHEETING DETAIL



DELINATOR SPACING

DELINATOR SPACING ON CURVES				
RADIUS OF CURVE (R)	SPACING ON CURVE (S)	SPACING ON TANGENTS AT CURVE ENDS		
		1st Space (2 S)	2nd Space (3 S)	3rd Space (6 S)
(feet)	(feet)	(feet)	(feet)	(feet)
50	20	40	60	120
115	25	50	75	150
180	35	70	105	210
250	40	80	120	240
300	50	100	150	300
400	55	110	165	300
500	65	130	195	300
600	70	140	210	300
700	75	150	225	300
800	80	160	240	300
900	85	170	255	300
1,000	90	180	270	300

DELINATOR SPACING NOTES

- Spacing for specific radii may be interpolated from the table.
- Values shown for S in the table are computed from the formula $S = 3\sqrt{R-50}$, where S = delineator spacing and R = horizontal curve radius. Values are rounded to the nearest 5 feet.

NOTE:

- Match the color of the reflective element with the edge line.
- Use yellow reflective elements for triple delineators installed to mark obstructions.
- Install double delineators on 100-foot spacing for acceleration and deceleration lanes or to mark changes in width.
- Install reflective elements according to the manufacturer's recommendations.
- Alternate delineator types may be used with approval of the CO. Provide delineators conforming to the MUTCD and install according to the manufacturer's recommendations.
- Place delineators at a constant distance from the edge of the pavement. Where guardrail intrudes into the space between the edge of pavement and the delineator offset, locate the delineator immediately behind the guardrail.
- A minimum of 12 holes spaced on 1" centers are required for all rigid posts. See Subsection 718.04.
- Furnish anti-theft hardware for mounting retroreflectors as required.
- See Subsection 718.05 for rigid post requirements.

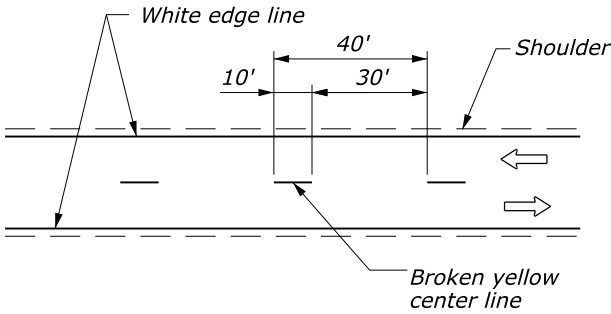
NO SCALE

U.S. DEPARTMENT OF TRANSPORTATION FEDERAL HIGHWAY ADMINISTRATION CENTRAL FEDERAL LANDS HIGHWAY DIVISION	
U.S. CUSTOMARY DETAIL	
DELINATORS	
DETAIL APPROVED FOR USE 03/2011 REVISED: 08/2014	DETAIL C633-51

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T36

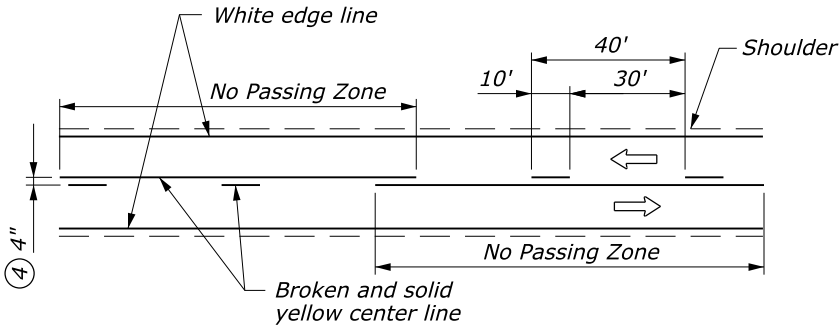
NOTE:

- See Summary for tables showing station ranges and quantities for pavement markings.
- Paint centerline striping on curves with curve widening to achieve equal lane widths within the traveled way. Shoulder widths remain constant throughout the curve widening.
- Centerline offset striping is only applicable to curve widening on simple curves.
- 4" or as required by the state.
- Paint the edgeline striping outside the travel way and curve widening, 2" (max.) from the normal edge of shoulder.



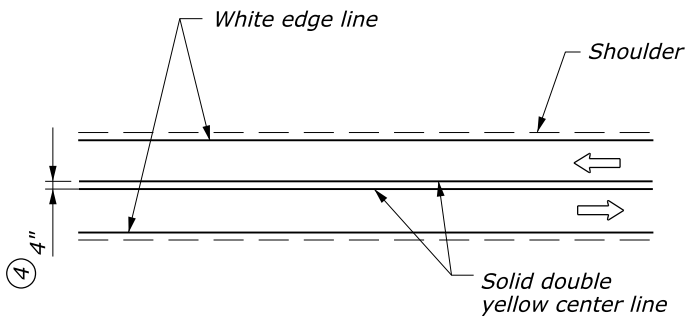
DETAIL A

Passing zone both directions
Two-way traffic



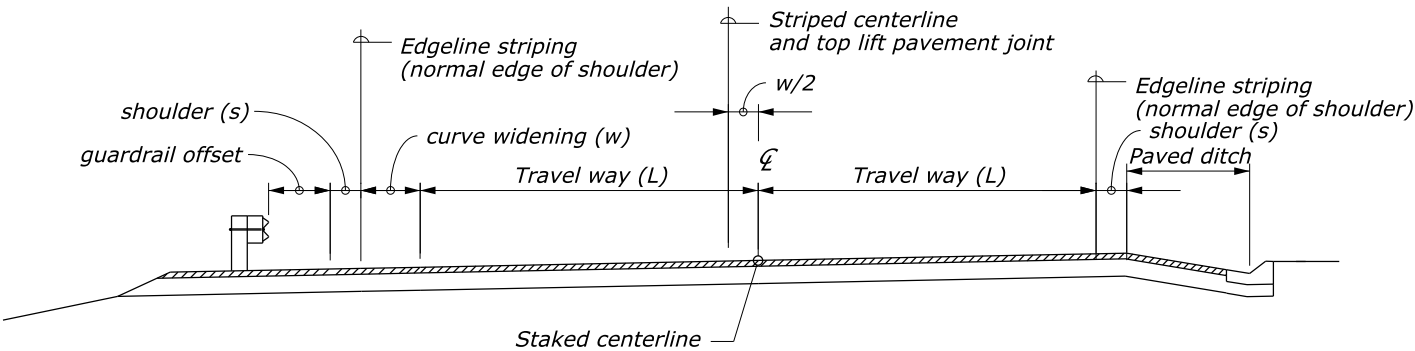
DETAIL B

No passing zone single lane direction
Two-way traffic

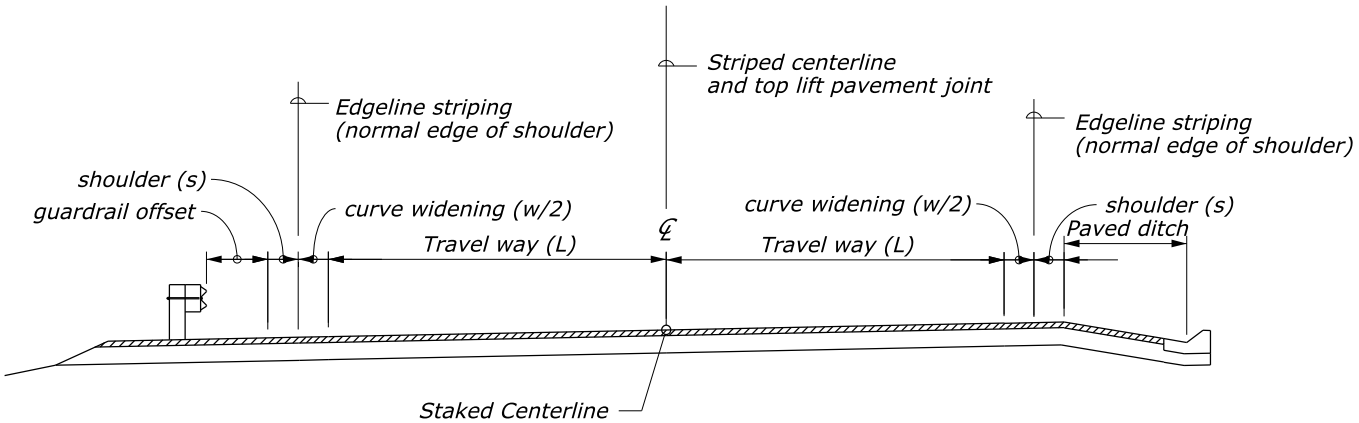


DETAIL C

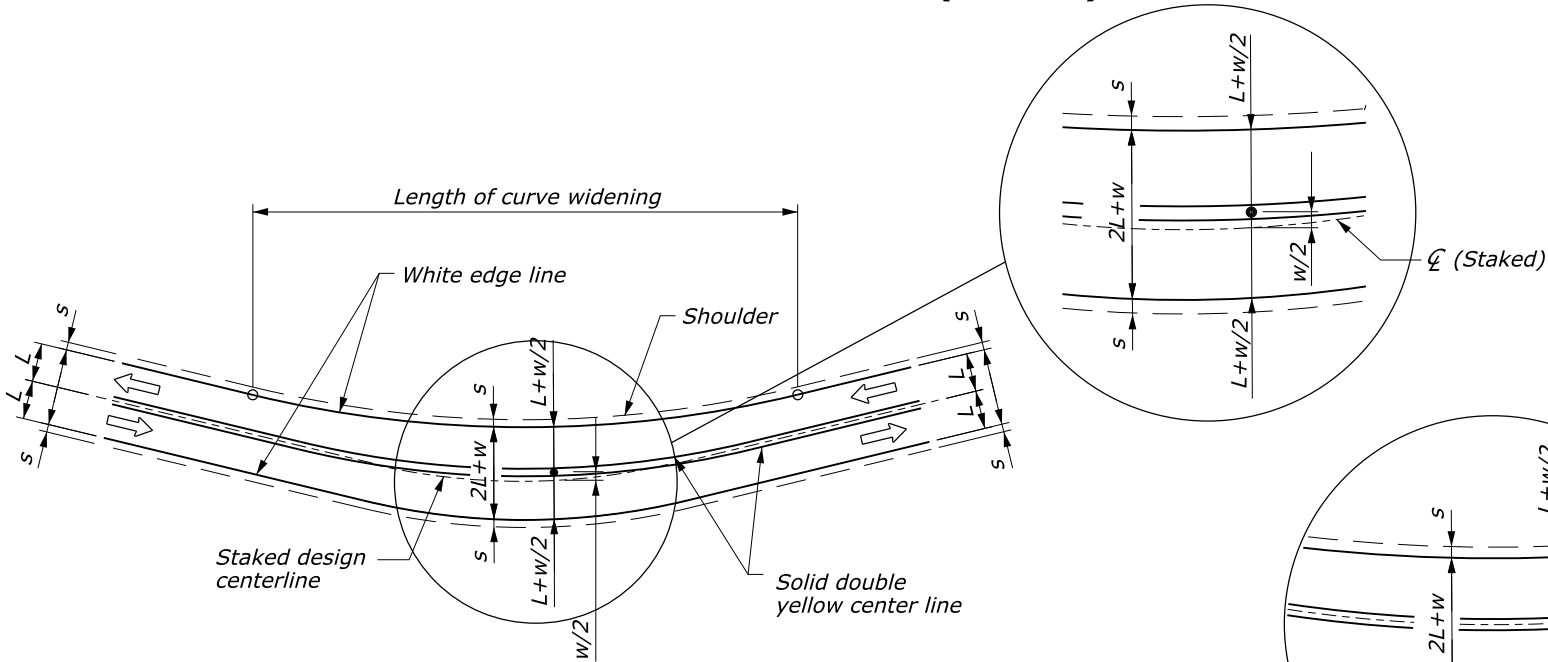
No passing zone both directions
Two-way traffic



CURVE WIDENING ON SIMPLE CURVES (INSIDE)

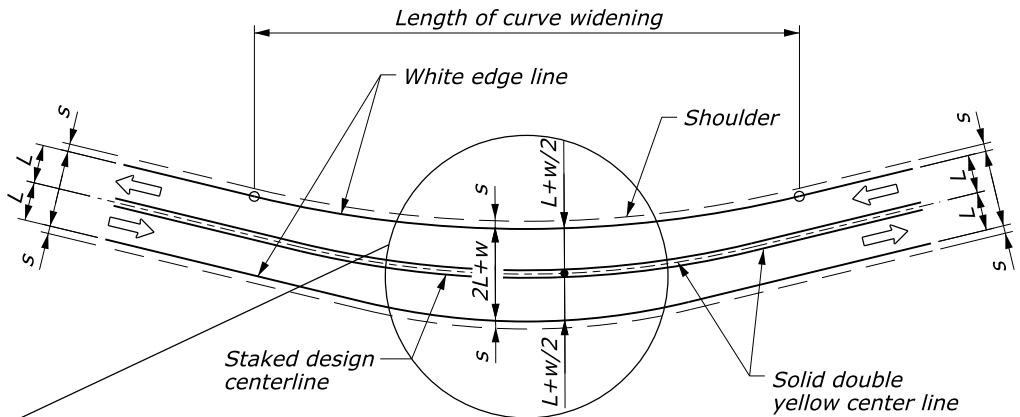


CURVE WIDENING ON SPIRAL CURVES



CURVE STRIPING DETAIL ON SIMPLE CURVES

To be used on curves where curve widening
is applied. See note 2



STRIPING DETAIL
ON SPIRAL CURVES

To be used on curves where curve widening
is applied. See note 2

U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
CENTRAL FEDERAL LANDS HIGHWAY DIVISION

U.S. CUSTOMARY DETAIL
CENTERLINE STRIPING
AND TOP LIFT
PAVEMENT JOINT

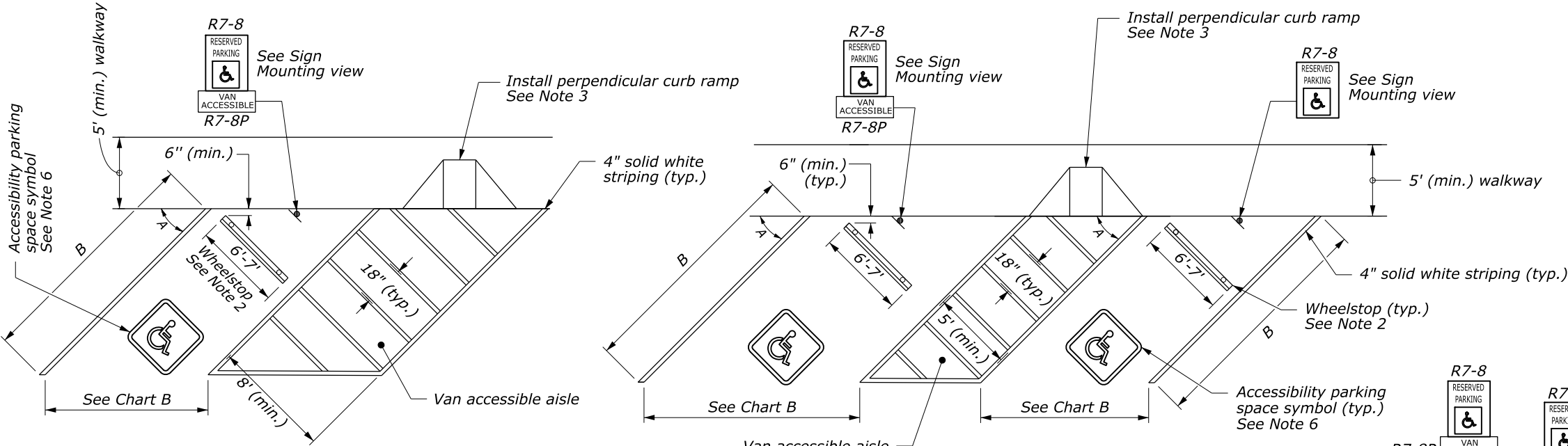
DETAIL APPROVED FOR USE 07/2004	DETAIL
REVISED: 08/2006 08/2014 01/2018	C634-50

NO SCALE

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	T38

NOTES:

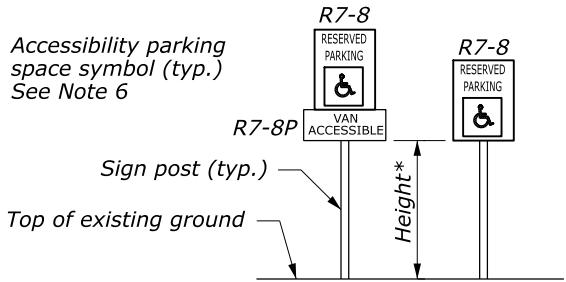
1. Install pavement striping and symbol markings in accordance with the "Manual on Uniform Traffic Control Devices" (MUTCD), latest edition.
2. Install concrete wheelstops according to Section 609 and Special 609-B. Install plastic and other types of wheelstops according to the manufacturer's recommendations.
3. Install perpendicular curb ramp when curb is located between the van accessible aisle and the walkway.
4. Refer to Section 2A.18 of the MUTCD for additional sign mounting information.
5. Refer to Special 634-A for accessibility parking space symbol details.



SINGLE PARKING SPACE

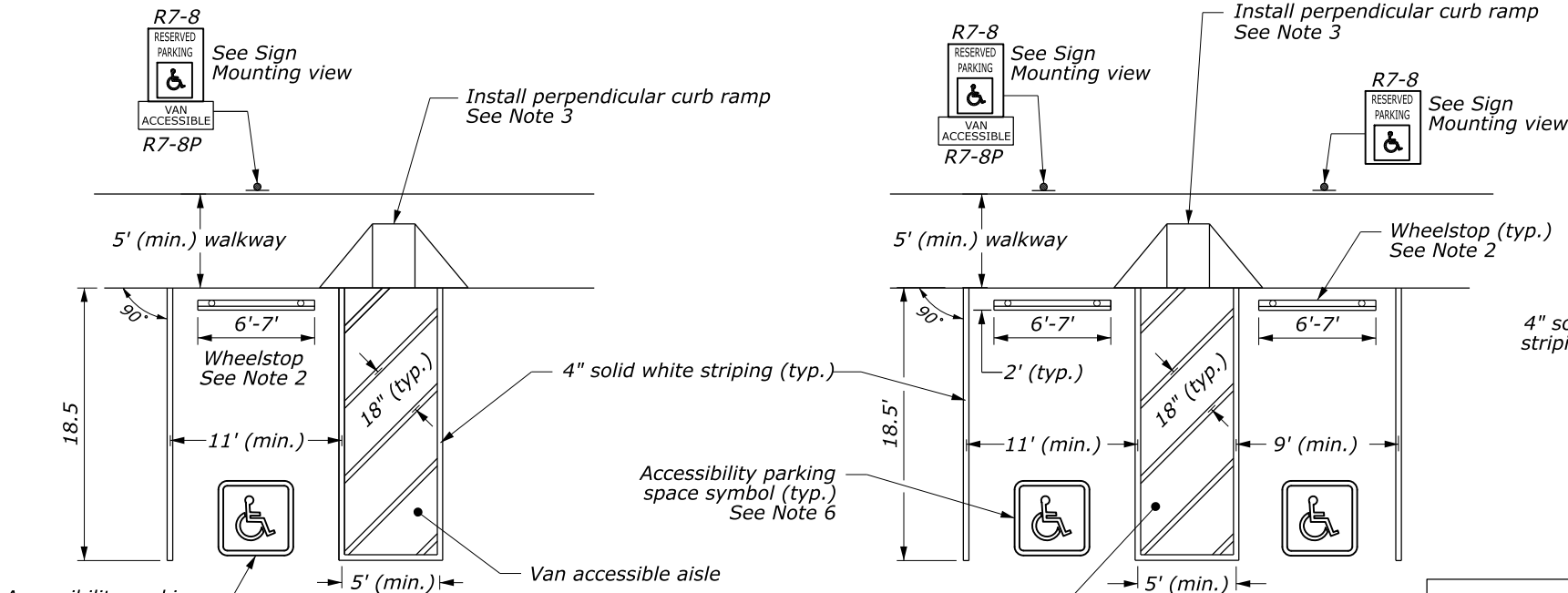
DOUBLE PARKING SPACE

ANGULAR PARKING WITH VAN ACCESSIBLE AISLE



SIGN MOUNTING

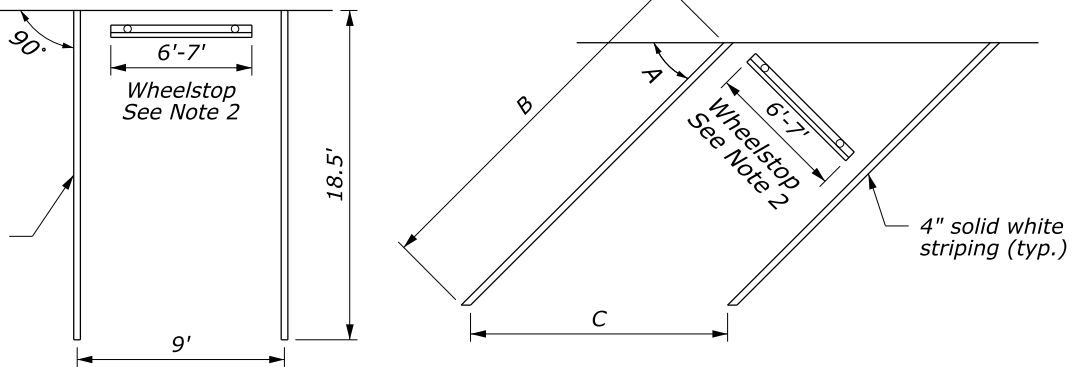
* See Notes 4 and 5



SINGLE PARKING SPACE

DOUBLE PARKING SPACE

HEAD-ON PARKING WITH VAN ACCESSIBLE AISLE



HEAD-ON PARKING

ANGULAR PARKING

CHART A

MINIMUM NUMBER OF ACCESSIBLE PARKING SPACES*		
Total Parking Spaces in Parking Facility	Minimum Number of Accessible Spaces	Minimum Number of Van-Accessible Spaces
1 to 25	1	1
26 to 50	2	1
51 to 75	3	1
76 to 100	4	1
101 to 150	5	1
151 to 200	6	1
201 to 300	7	2
301 to 400	8	2
401 to 500	9	2
501 to 1,000	2% of Total Parking Spaces	One out of every 6 Accessible Spaces
Over 1,000	20 Plus 1 for each 100 over 1,000	One out of every 6 Accessible Spaces

* Chart A based on "2010 ADA Standards for Accessible Design Standard (Table 208.02)" and "2015 ABA Standards (Table F208.2)".

CHART B

PARKING LAYOUT DIMENSIONS FOR 9-FOOT STALLS*				
Angle (A)	45 ⁰	60 ⁰	75 ⁰	90 ⁰
Minimum Length of Stall (B)	25'	22'	20'	18.5'
Stall Width (C), Parallel to Aisle	12.7'	10.4'	9.3'	9.0'

* Chart B based on dimensions recommended in "Parking Principles, Special Report 125 (Figure 6.2)".

NO SCALE

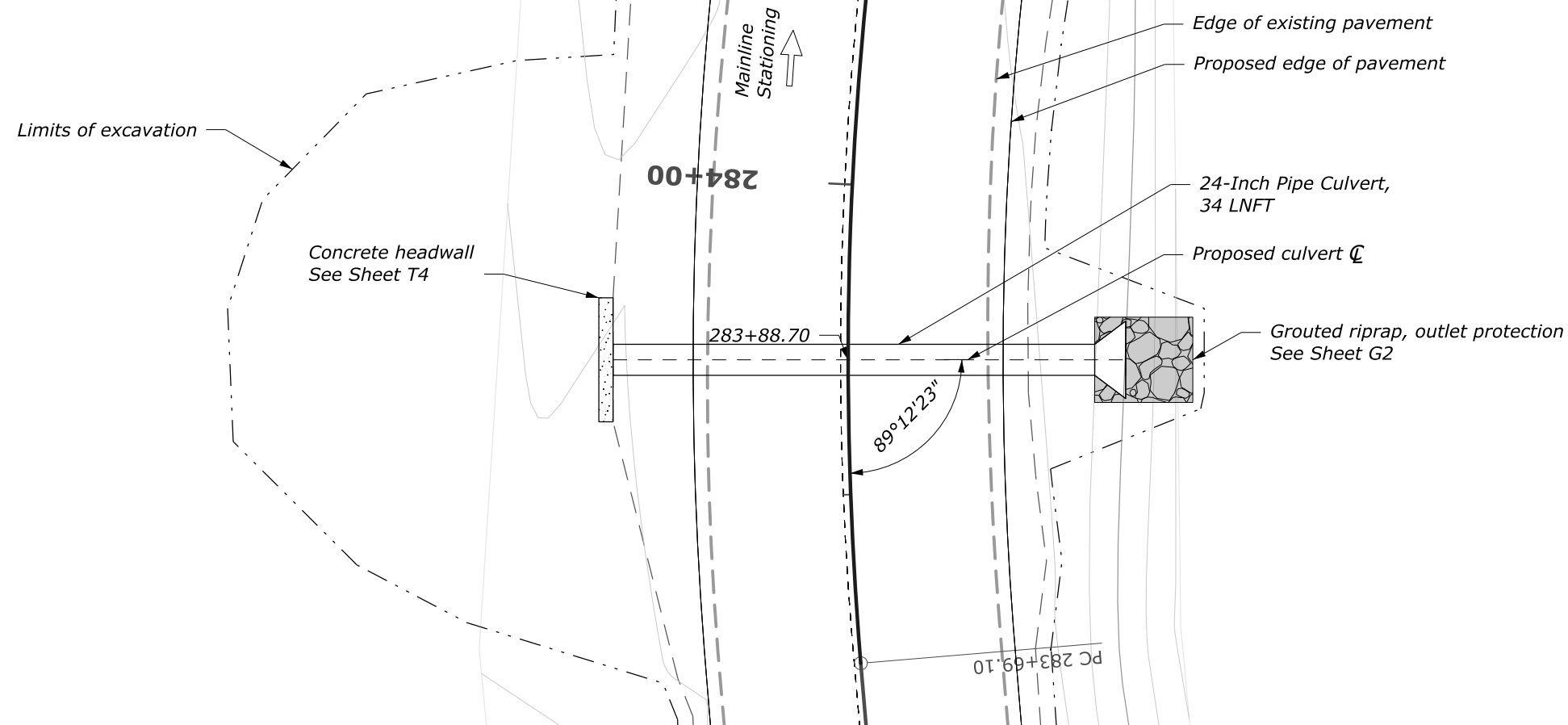
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION
OFFICE OF FEDERAL LANDS HIGHWAY

PAVEMENT MARKINGS AND
SIGNING IN PARKING AREAS

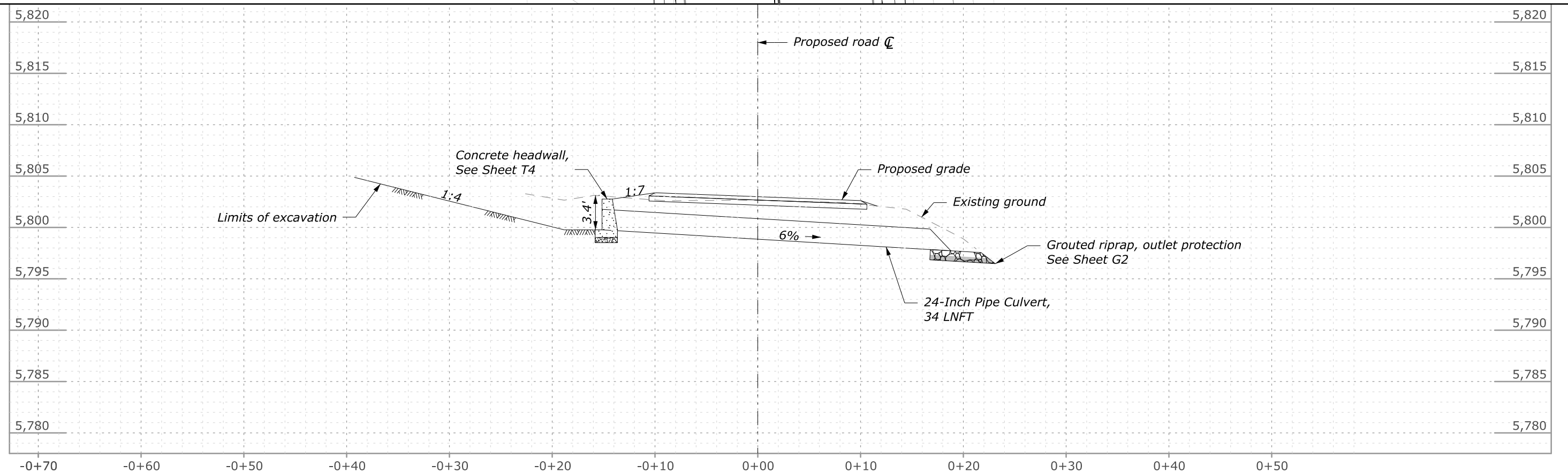
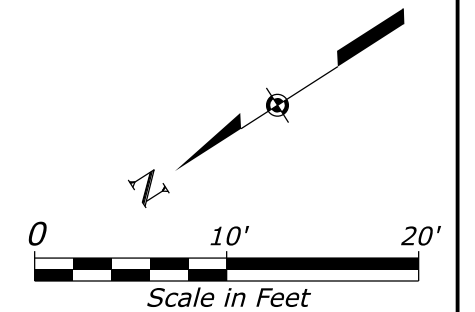
DETAIL APPROVED FOR USE
APPROVED: MAY 2011
REVISED: AUGUST 2021

SPECIAL
634-B

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	Z1

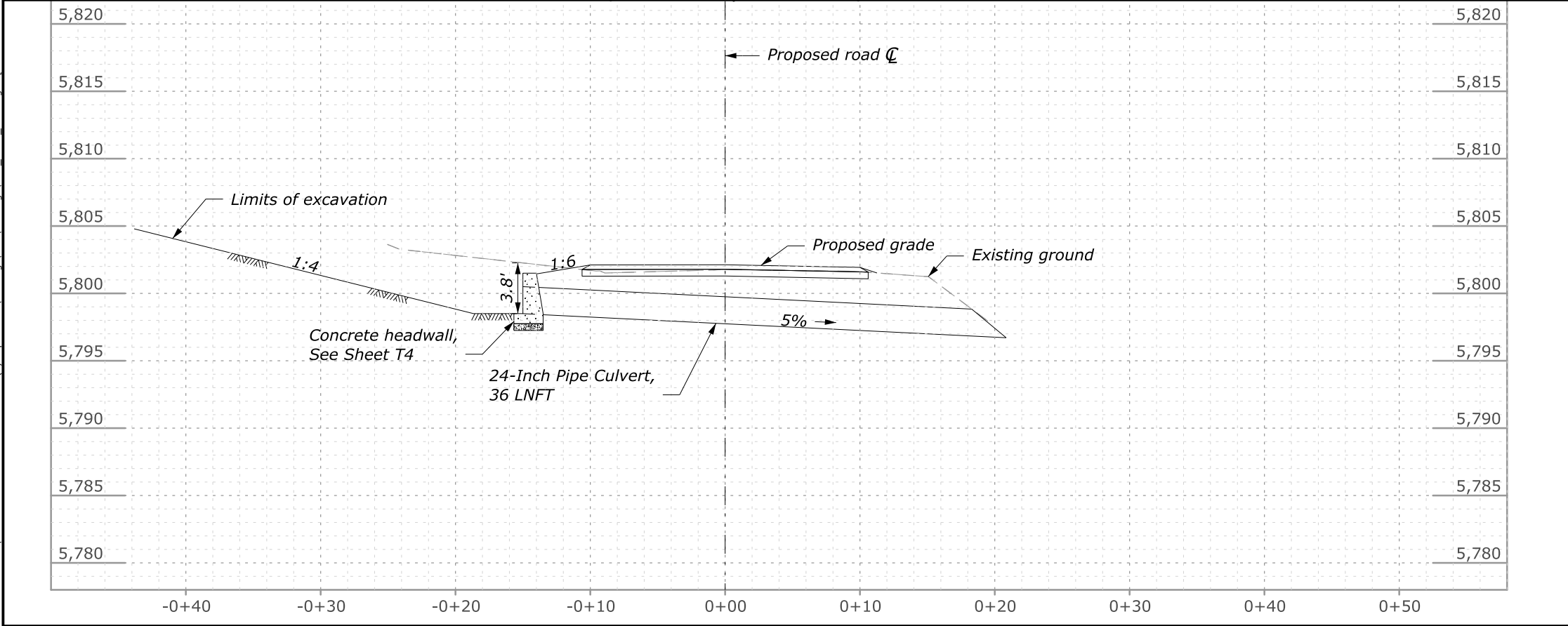
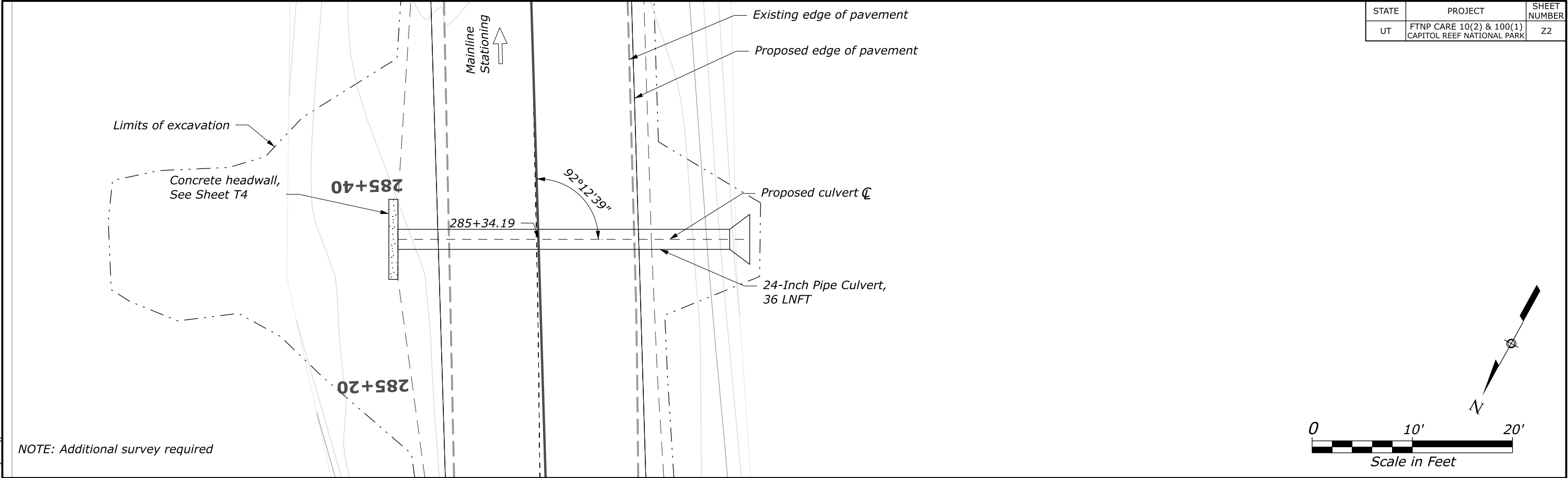


NOTE: Additional survey required



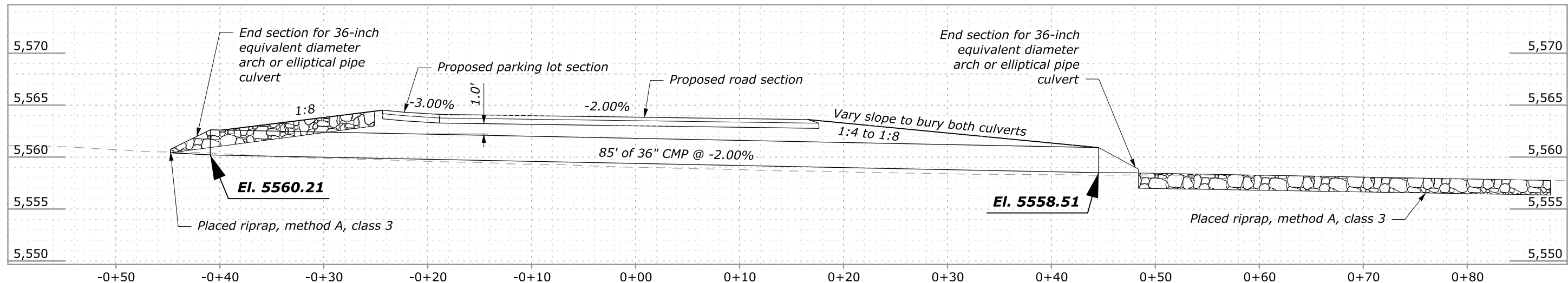
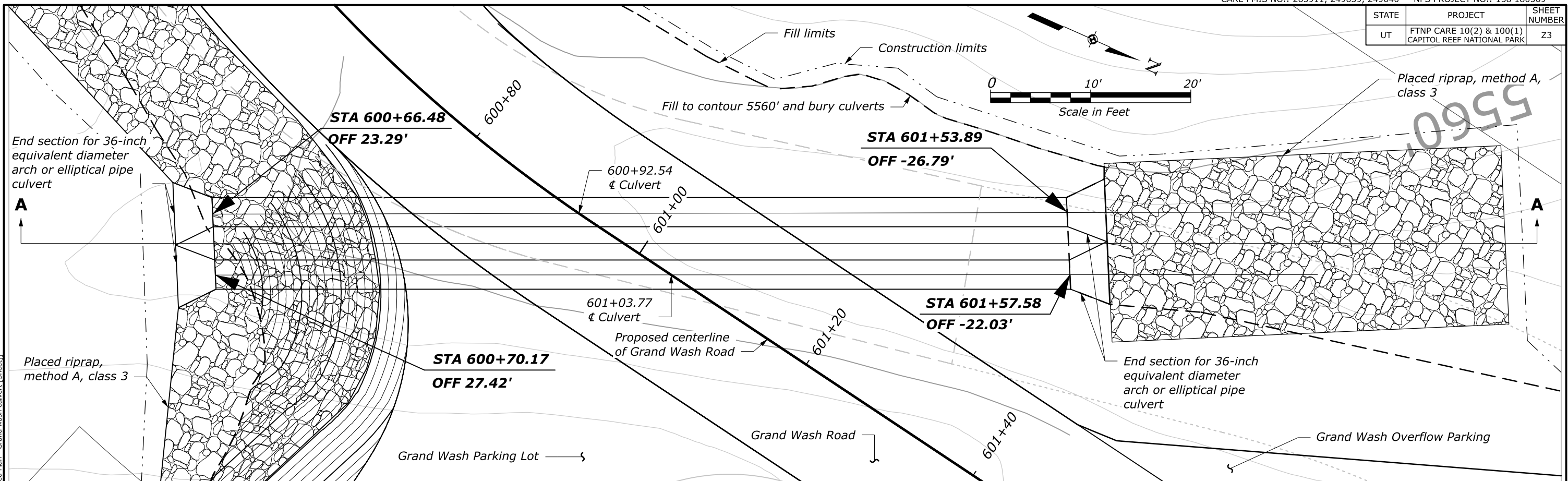
283+88.70 CULVERT PLAN AND PROFILE

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	Z2



**285+34.19 CULVERT
PLAN AND PROFILE**

STATE	PROJECT	SHEET NUMBER
UT	FTNP CARE 10(2) & 100(1) CAPITOL REEF NATIONAL PARK	Z3



SECTION A-A

**SCHEDULE A
GRAND WASH PARKING LOT
CULVERT LAYOUT**