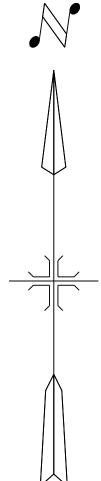


	INDEX TO SHEETS											
SHEET	No. DESCRIPTION											
1	TITLE											
2	ESTIMATED QUANTITIES & TURNOUT DETAILS											
3	N19 CENTERLINE ALIGNMENT											
4	STANDARD FENCING DETAIL											
5	CATTLEGUARD WING BRACE DETAIL											
6	PRECAST CONCRETE CATTLEGUARD DETAILS											
7-8	TEMPORARY TRAFFIC CONTROL DETAILS											
9	RIGHT-OF-WAY MONUMENT											



SHIPROCK AGENCY

RECOMMENDED:

PRINCIPAL ENGINEER NAVAJO DIVISION OF TRANSPORTATION

APPROVED:

DIRECTOR NAVAJO DIVISION OF TRANSPORTATION

DATE:

DATE:

		N19(1-1)2 E	STIMATED	QUANTITIES						
				Segment 1	Segment 2	Segment 3	Segment 4			
	ITEM	DESCRIPTION	UNIT	Base Bid	Add. Alt. 1	Add. Alt. 2	Add. Alt. 3	TOTAL	AS-BUILTS	
	10901-0000	Extra & Miscellaneous Work Authorized under Section 109.02(m)	LPSM	1	1	1	1	1		
	15101-0000	Mobilization	LPSM	1	1	1	1	1		ITEM No. 61902-1300
с	15201-0000	Construction survey and staking	LPSM	1	1	1	1	1		GATE, METAL, 4200 mm WIDTH (TYPE 1)
7.dç	15301-0020	Contractor Quality Control	LPSM	1	1	1	1	1		STATION LOC. REMARKS
91	20304-1000	Removal of Structures and Obstructions	LPSM	1	1	1	1	1		SEGMENT 3 10+770.00 Left Existing T/O
41	61901-1000	Fence, Barbed Wire, 5 Strand	m	12750	3310	3280	9900	29240		SEGMENT 1 13+912.40 Left Existing T/O
ng	61902-1300	Gate, Metal, 4200 mm Width	Each	7	0	1	0	8		SEGMENT 1 15+485.70 Left 4.5 m T/O, To Residence
enc	61902-2600	Gate, Barbed Wire, 5 Strand	Each	6	1	3	6	16		SEGMENT 1 16+975.00 Left Existing T/O
, f∈	61903-0310	Cattleguard, 4800 mm (2 Unit), With Type II Gate	Each	3	1	0	3	7		SEGMENT 1 18+256.50 Right Existing T/O
tity		Cattleguard, 4800 mm (2 Unit), Without Gate	Each	3	0	1	0	4		SEGMENT 1 19+050.00 Left Type - 1 Gate Only. Cemetary Entrance.
nar		Cattleguard, 7200 mm (3-Unit) Without Gate	Each	1	0	2	1	4		SEGMENT 1 19+345.00 Left Type - 1 Gate Only. BIA Auditorium Building.
д Т		Temporary Traffic Control	LPSM	- 1	1	1	1	1		SEGMENT 1 19+345.00 Left Type - 1 Gate Only. BIA Auditorium Building.
atec					_		_			

ITEM No. 61901-1000' FENCE BARBED WIRE 5 STRAND

ITEM No. 61901-1000; FENCE, BARBED WIRE, 5 STRAND												
Station	То	Station	Offset (m)	Length (m)	Remark	Subtotal (m)	Project Use (m)					
05+097.816		09+925.848	15.24-RT	4801.492		9602.98	9900					
05+097.816		09+925.848	15.24-LT	4801.492		5002.58	5500					
09+925.848		11+535.192	15.24-RT	1587.68		319/19	3280					
09+925.848		11+535.192	15.24-LT	1596.49		5104.10	5280					
11+535.192		13+144.536	15.24-RT	1604.46		3207.86	3310					
11+535.192		13+144.536	15.24-LT	1603.39		5207.80	5510					
13+144.536		15+940.000	15.24-RT	2785.70								
15+940.000		15+940.000	15.24-RT to 12.19-RT	3.05	Jog for Site NM-H-47-119							
15+940.000		16+240.000	12.19-RT	300.00	Jog for Site NM-H-47-119							
16+240.000		16+240.000	12.19-RT to 15.24-RT	3.05	Jog for Site NM-H-47-119							
16+240.000		19+581.912	15.24-RT	3314.53								
13+144.536		18+540.000	15.24-LT	5360.99								
18+540.000		18+540.000	15.24-LT to 6.10-LT	9.14	Jog for Site NM-H-49-111							
18+540.000		18+620.000	6.10-LT	80.00	Jog for Site NM-H-49-111							
18+620.000		18+620.000	6.10-LT to 15.24-LT	9.14	Jog for Site NM-H-49-111	1227/ 92	12750					
18+620.000		19+050.000	15.24-LT	425.73		12374.02	12750					
19+050.000		19+050.000	15.24-LT to 12.19-LT	3.05	Jog for Site NM-H-49-113							
19+050.000		19+100.000	12.19-LT	50.00	Jog for Site NM-H-49-113							
19+100.000		19+100.000	12.19-LT to 15.24-LT	3.05	Jog for Site NM-H-49-113							
19+100.000		19+104.100	15.24-LT	4.10								
		10,591 012			Existing fence from STA 19+104.100 to							
19+104.100		19+301.912			STA 19+581.912 to remain							
10,591,010			15 24 PT to 15 24 IT	12 10	Tie fence perpendicular to roadway at							
19+581.912			15.24-N1 to 15.24-L1	25.28	cattleguard							
	Station 05+097.816 05+097.816 09+925.848 09+925.848 11+535.192 11+535.192 13+144.536 15+940.000 16+240.000 13+144.536 13+144.536 18+540.000 18+540.000 18+620.000 19+050.000 19+050.000	Station To 05+097.816 4 05+097.816 4 09+925.848 4 09+925.848 4 11+535.192 4 13+144.536 4 15+940.000 4 16+240.000 4 13+144.536 4 16+240.000 4 18+540.000 4 18+540.000 4 18+540.000 4 18+540.000 4 19+050.000 4 19+050.000 4 19+100.000 4 19+100.000 4	StationToStation05+097.816I09+925.84809+925.848I11+535.19209+925.848I11+535.19209+925.848I11+535.19211+535.192I13+144.53611+535.192I13+144.53613+144.536I15+940.00015+940.000I16+240.00015+940.000I16+240.00016+240.000I16+240.00016+240.000I19+581.91213+144.536I18+540.00018+540.000I18+620.00018+620.000I19+050.00019+050.000I19+050.00019+100.000I19+100.00019+100.000I19+104.10019+104.100I19+581.912	StationToStationOffset (m)05+097.81609+925.84815.24-RT05+097.81609+925.84815.24-LT09+925.84811+535.19215.24-RT09+925.84811+535.19215.24-LT11+535.19213+144.53615.24-LT11+535.19213+144.53615.24-LT11+535.19213+144.53615.24-LT13+144.53615+940.00015.24-RT15+940.00016+240.00015.24-RT15+940.00016+240.00012.19-RT16+240.00016+240.00012.19-RT16+240.00019+581.91215.24-LT18+540.00018+540.00015.24-LT18+540.00018+620.0006.10-LT18+620.00019+050.00015.24-LT19+050.00019+050.00015.24-LT19+050.00019+100.00012.19-LT19+100.00019+100.00012.19-LT19+104.10019+104.10015.24-LT	Station To Station Offset (m) Length (m) 05+097.816 09+925.848 15.24-RT 4801.492 05+097.816 09+925.848 15.24-LT 4801.492 09+925.848 11+535.192 15.24-RT 1587.68 09+925.848 11+535.192 15.24-LT 1596.49 11+535.192 13+144.536 15.24-LT 1603.39 13+144.536 15.24-LT 1603.39 13+144.536 15.24-RT 2785.70 15+940.000 15.24-RT 3.05 15+940.000 15.24-RT 3.05 15+940.000 15.24-RT 3.05 15+940.000 16+240.000 12.19-RT 3.05 16+240.000 16+240.000 12.19-RT 3.05 16+240.000 15.24-RT 3.14.53 13+144.536 18+540.000 15.24-LT 9.14 18+540.000 18+620.000 6.10-LT 9.14 18+540.000 18+620.000 6.10-LT 9.14 18+620.000 18+620.000 <t< td=""><td>Station To Station Offset (m) Length (m) Remark 05+097.816 09+925.848 15.24-RT 4801.492 05+097.816 09+925.848 15.24-LT 4801.492 09+925.848 11+535.192 15.24-RT 1587.68 09+925.848 11+535.192 15.24-LT 1596.49 11+535.192 13+144.536 15.24-RT 1603.39 13+144.536 15.24-RT 1603.39 13+144.536 15+940.000 15.24-RT 3.05 Jog for Site NM-H-47-119 15+940.000 15.24-RT to 12.19-RT 3.05 Jog for Site NM-H-47-119 16+240.000 12.19-RT to 15.24-RT 3.05 Jog for Site NM-H-47-119 16+240.000 15.24-LT 5360.99 18+540.000 18+540.000 15.24-LT 5360.99 18+540.000 18+620.000 6.10-LT to 15.24-LT 9.14 <t< td=""><td>Station To Station Offset (m) Length (m) Remark Subtotal (m) 05+097.816 09+925.848 15.24-RT 4801.492 9602.98 05+097.816 09+925.848 11+535.192 15.24-RT 1587.68 3184.18 09+925.848 11+535.192 15.24-RT 1596.49 3207.86 3184.18 01+925.848 11+535.192 13+144.536 15.24-RT 1604.46 3207.86 11+535.192 13+144.536 15.24-RT 1604.46 3207.86 3207.86 13+144.536 15.24-RT 1604.46 3207.86 3207.86 3207.86 13+144.536 15.24-RT 2785.70 50g for Site NM-H-47-119 540.000 16+240.000 12.19-RT 300.00 Jog for Site NM-H-47-119 544.000 16+240.000 15.24-RT 314.53 314.45.36 18+540.000 15.24-RT 314.53 314.53 314.53 314.53 314.53 314.53 314.54 314.53 314.54 314.53 314.54 314.53 314.54 3184.18 31</td></t<></td></t<>	Station To Station Offset (m) Length (m) Remark 05+097.816 09+925.848 15.24-RT 4801.492 05+097.816 09+925.848 15.24-LT 4801.492 09+925.848 11+535.192 15.24-RT 1587.68 09+925.848 11+535.192 15.24-LT 1596.49 11+535.192 13+144.536 15.24-RT 1603.39 13+144.536 15.24-RT 1603.39 13+144.536 15+940.000 15.24-RT 3.05 Jog for Site NM-H-47-119 15+940.000 15.24-RT to 12.19-RT 3.05 Jog for Site NM-H-47-119 16+240.000 12.19-RT to 15.24-RT 3.05 Jog for Site NM-H-47-119 16+240.000 15.24-LT 5360.99 18+540.000 18+540.000 15.24-LT 5360.99 18+540.000 18+620.000 6.10-LT to 15.24-LT 9.14 <t< td=""><td>Station To Station Offset (m) Length (m) Remark Subtotal (m) 05+097.816 09+925.848 15.24-RT 4801.492 9602.98 05+097.816 09+925.848 11+535.192 15.24-RT 1587.68 3184.18 09+925.848 11+535.192 15.24-RT 1596.49 3207.86 3184.18 01+925.848 11+535.192 13+144.536 15.24-RT 1604.46 3207.86 11+535.192 13+144.536 15.24-RT 1604.46 3207.86 3207.86 13+144.536 15.24-RT 1604.46 3207.86 3207.86 3207.86 13+144.536 15.24-RT 2785.70 50g for Site NM-H-47-119 540.000 16+240.000 12.19-RT 300.00 Jog for Site NM-H-47-119 544.000 16+240.000 15.24-RT 314.53 314.45.36 18+540.000 15.24-RT 314.53 314.53 314.53 314.53 314.53 314.53 314.54 314.53 314.54 314.53 314.54 314.53 314.54 3184.18 31</td></t<>	Station To Station Offset (m) Length (m) Remark Subtotal (m) 05+097.816 09+925.848 15.24-RT 4801.492 9602.98 05+097.816 09+925.848 11+535.192 15.24-RT 1587.68 3184.18 09+925.848 11+535.192 15.24-RT 1596.49 3207.86 3184.18 01+925.848 11+535.192 13+144.536 15.24-RT 1604.46 3207.86 11+535.192 13+144.536 15.24-RT 1604.46 3207.86 3207.86 13+144.536 15.24-RT 1604.46 3207.86 3207.86 3207.86 13+144.536 15.24-RT 2785.70 50g for Site NM-H-47-119 540.000 16+240.000 12.19-RT 300.00 Jog for Site NM-H-47-119 544.000 16+240.000 15.24-RT 314.53 314.45.36 18+540.000 15.24-RT 314.53 314.53 314.53 314.53 314.53 314.53 314.54 314.53 314.54 314.53 314.54 314.53 314.54 3184.18 31					

Note: 3% added to total to account for terrain slope and staggered fencing

ENVIRONMENTAL MITIGATION REQUIREMENTS

Site Number:	Station #:	NDOT Recommendations for Fence Ins
NM-H-47-101	5+800 to 5+900	No further work required.
NM-H-47-105	5+800 to 5+900	No further work required.
NM-H-47-106	6+500 to 6+600	No further work required.
NM-H-47-107	7+300 to 7+400	No further work required.
NM-H-47-108	8+100 to 8+300	Flag and monitor, no heavy machinery, hand installation of fencing
NM-H-47-109	8+500 to 8+800	Flag and monitor, no heavy machinery, hand installation of fencing
NM-H-47-110	8+800 to 9+300	No further work required.
NM-H-47-111	9+160 to 9+420	Flag and monitor, no heavy machinery, hand installation of fencing
		by a qualified archaeologist near Burial 1 – 100 feet)
NM-H-47-112	9+400 to 9+600	No further work required.
NM-H-47-113	9+500 to 9+700	No further work required.
NM-H-47-114	10+600 to 10+700	No further work required.
NM-H-47-115	13+000 to 13+300	No further work required.
NM-H-47-116	14+700 to 14+900	Flag and monitor, no heavy machinery, hand installation of fencing
NM-H-47-117	15+500 to 15+700	No further work required.
NM-H-47-118	16+070 to 16+300	Flag and monitor, no heavy machinery, hand installation of fencing
NM-H-47-119	16+630 to 16+910	No further work required.
NM-H-49-110	18+300 to 18+500	No further work required.
NM-H-49-111	18+500 to 18+600	Flag and monitor, no heavy machinery, hand installation of fencing fencing should be done by hand at 15-20 feet right (south) of center
NM-H-49-112	18+800 to 19+000	No further work required.
NM-H-49-113	19+000 to 19+100	Flag and monitor, no heavy machinery, hand installation of fencing
		fencing should be done by hand at 35-40 feet right (south) of center

								07.175						0.15570
						F	REGION	STATE	RESERVATION	ROUTE	PROJECT NC			SHEETS
						ľ	NAVAJO	ARIZONA	NAVAJO	N19	N19(1-1)2	2		9
	ITEN	1 No. 619	02-1300)					Genero	ıl Not	es:			
		E, METAL ATION	_, 4200 r LOC.		TH (TYPE 1) //ARKS	┐ 1.		ORKMANSHIP	AND MATERIA					
SEGMENT		+770.00	LOC.		iting T/O				CONSTRUCTION (FP-14), AND TH					
SEGMENT		912.40	Left		ting T/O		PROJEC							
SEGMENT SEGMENT		+485.70 +975.00	Left Left		m T/O, To Residence ting T/O	2.	THE CO DISPOSA		SHALL ASSUME H AND/OR CON			AND EXPEN ACCORDANC		
SEGMENT		+256.50	Right		iting T/O	_	SECTION	IS 107 AND	203 OF FP-1 5 WORK SHAL	4 AS W	ELL AS ANY	AND ALL		
SEGMENT		+050.00	Left		e - 1 Gate Only. Cemetary Entrance.		CONTRA		S WORK SHAL			IUATIONS (
SEGMENT SEGMENT		+345.00 +345.00	Left Left		e - 1 Gate Only. BIA Auditorium Building. e - 1 Gate Only. BIA Auditorium Building.	3.			READ AND MAI					
SEGMENT	<u> </u>	545.00	Leit	iyp	e - i Gate Only. Dia Additoriani Daliang.		THE SIT	E OF THE PR	NTITIES, MATER OPOSED CONSTR	UCTION TO) become famil	_IAR WITH T	'HE SITE	
							WILL BE	E RESPONSIBL	ITATIONS BEFOR E FOR ANY AND	ALL ERR	ORS RESULTING	FROM THE	FAILURE	
	ITEN	1 No. 619	02-2600)					EXAMINATION. A NS. OR THE ENGI					
					ND (TYPE 2)				ROM FULFILLING					
SEGMENT		ATION 147.00	LOC. Left		1ARKS e - 2 Gate Only. Livestock Crossing.	4.			WN ARE FOR ES [.] ACTUAL PAY QU					
SEGMENT		147.00	Right	<u> </u>	e - 2 Gate Only. Livestock Crossing.		FOR AU	JTHORIZED CI	HANGES THAT	AFFECT 1	THE QUANTITIE	S.THE CONT	RACTOR	
SEGMENT		100.00	Right		e - 2 Gate Only. Livestock Crossing.				′THE CATTLEGU NRE INSTALLATIO		J GATE LULATI	UNS WITH	IHE	
SEGMENT SEGMENT		816.00 300.00	Left Left		e - 2 Gate Only. Livestock Crossing. e - 2 Gate Only. Livestock Crossing.	5.			ATTACHMENT O					
SEGMENT		300.00	Right	<u> </u>	e - 2 Gate Only. Livestock Crossing.				DRAINAGE STRUC 100L COMPOUND					
SEGMENT		240.00	Right		e - 2 Gate Only. Lagoon Entrance.		BID	ITEMS RELA		HE WO	RK REQUIRIN	IG SAID	FENCE	
SEGMENT SEGMENT		-500.00 -500.00	Left Right		e - 2 Gate Only. Livestock Crossing. e - 2 Gate Only. Livestock Crossing.		REMOVA	AL AND RE-A	TTACHMENT OF F	ENCING, S	SHALL BE COMP	LETED IN TH	he same	
SEGMENT		·700.00	Right		e - 2 Gate Only. Livestock Crossing.				NOT TO ALLOW THE EXISTING F					
SEGMENT		875.00	Left		e - 2 Gate Only. Livestock Crossing.		THE FEI	NCE AS DIREC	TED BY THE CM.					
SEGMENT SEGMENT		-875.00 -485.70	Right Right		e - 2 Gate Only. Livestock Crossing. e - 2 Gate Only. Livestock Crossing.	6.			STRUCTURES G ALL EITHER TIE				•	
SEGMENT		707.40	Right		ting T/O		ACCORD	ANCE WITH T	HE DETAILS ON CLEAR RECOVER	SHEET 4	OF 9 OR INSTA	LL FENCE OV	/ER THE	
SEGMENT		240.00	Left		e - 2 Gate Only. Livestock Crossing.		CORNER	FENCE POST	/BRACE/STRAIN	EXISTS A	T TIE-IN TO RIO	iHT-OF-WAΥ	′FENCE,	
SEGMENT	1 18+	240.00	Right	Тур	e - 2 Gate Only. Livestock Crossing.				HALL INSTALL EXISTING CATTLE					
TEM No. 2030	4-1000;	REMOV	AL OF S	TRUCTU	RES AND OBSTRUCTIONS			TO BE INCIDEN BE MADE.	ITAL TO BID ITE	4 61901-0	000 AND NO AI	DITIONAL P	AYMENT	
Station	То	Station	· (Offset	REMARKS	7.	ATAN	NUMBER OF TI	HE TURNOUT LO	CATIONS,	EXISTING CATT	LE GUARDS,	GATES,	
05+097.816	c	9+925.84	48	R&L	Remove trees, brush, sbrubs as needed to place		SCHOOL	SEWER LA	GOONS AND/OR R RE-ATTACHEL	WING B	RACES ASSEM		TO BE	
					new ROW fencing and appurtances. Remove trees, brush, sbrubs as needed to place		CONTRA	CTOR IS ADV	ISED TO FIELD R	eview ea	CH TURNOUT PI	RIOR TO SUE	BMITTING	
09+925.848	1	1+535.19	92	R&L I	new ROW fencing and appurtances.		CATTLE	GUARDS, GA	ASSOCIATED WI ATES, AND/OR W	/ING BRA	CES, SHALL MA	ATCH AS CL	OSE AS	
11+535.192	1	3+144.5	36	R & L	Remove trees, brush, sbrubs as needed to place				ING LOCATIONS THIS WORK S					
					new ROW fencing and appurtances. Remove trees, brush, sbrubs as needed to place		SECTION	1 203 AND 6	519 BID ITEMS. H BID ITEM 6190	THE WING	G BRACES ASS			
13+144.536	1	19+104.1	00		new ROW fencing and appurtances. Remove	8.			HALL SAW CUT			ΜΕΝΤ ΔΝΠ	REMOVE	
					existing pavement to install cattleguards.	0.	THE S		ND SUBGRADE	AS NEED		THE NEW		
19+104.100	1	L9+581.9	12	R&LI	Remove existing fence to install 1 cattleguard and 2 gates.		DISPOS	ED OF OFF	THE PROJECT	IN ACCOR	RDANCE WITH	SECTION 20	03. THE	
					and z gates.		CATTLE	GUARD FLUSH		POF THE	PAVEMENT IN	ACCORDAN	CE WITH	
		o. 61903						A 404. THIS ATION OF TH	5 WORK SHAL E 3 UNIT CATTLE				TO THE	
	CATTLE STATI		4800 m LOC.	m (2-Ur REMA	hit) WITH TYPE 2 GATE	9.			HALL EXCAVATE					
SEGMENT 4	7+813		Right		T/O, To residence				INSTALLATION					
SEGMENT 4	9+060).00 I	Left		T/O, To residence		SO THA	T THE TOP (DF THE GRATES T. THIS WORK	FIT FLUS	H WITH THE TU	JRNOUT GRA	ADES OR	
SEGMENT 4 SEGMENT 2	9+060 12+71		Right Left		T/O, To residence T/O, To residence				UARD BID ITEMS					
SEGMENT 1	16+37		Left		ng T/O	10.			PERFORM HAND IN					
SEGMENT 1	16+98		Right		ng T/O				MITIGATION REQUIN ONMENTAL MITIGAT					
SEGMENT 1	17+71	5.40	Left	Existir	ng T/O				IG IS REQUIRED PEF ELOGIST SHALL BE F				ΉE	
-	TEN 4	C4005	0200					NS SPECIFIED.		DC				
). 61903-0 GUARD, 4		n (2-Uni	it) WITHOUT GATE									
	STATIC		OC.	REMA	,					<u> ▶ </u>				
EGMENT 3	10+193		eft		T/O, To residence						ED_STA		-	
EGMENT 1 EGMENT 1	18+535 19+279		ight ight	Existin	g T/O hurch Entrance.)EPARTN					
EGMENT 1	19+279		eft	T/O, N					BUREAL	J OF	INDIA	n aff	- AIR	S
								N/	AVAJO REGIONA	L OFFIC	E * DIVISIO	N OF TRA	NSPORT	ATION
-	000 55								۲¢	ΤΙΝΆΛΤ	ED QUA			
ITEM No. 61 CATTLEGUA			-Unit) V		T GATE									
STATION	LO		REMA		I SAIL]			8		RNOUT D	PEIAILS)	
6+080.00	Le	ft		IA Route	e N191			DRA	WN BY: NRDOT		DATE: 4/19/2	017	RARTMENT OF	THE
11+226.00	—				Citizen Center	-		DES	IGNED BY: NRE)OT	DATE: 4/19/2	017		
11+455.50 19+581.91			-		d into paved road N5000 rpendicular to roadway (End of ROW Fencing)			REVI	SED: 10/2/20	17 B	Y: Harold.Riley			
10, 501, 51	Cente		the ren	ong pe					Sht_2-Esima			\	CAL OF INDIAN	WAET -
											i i i i i i i i i i i i i i i i i i i			

	1								STATE				CULLT		CULLE
								REGION	STATE	RESERVATION		PROJECT NO.			SHEETS
AS-BUILTS							١	NAVAJO	ARIZONA	NAVAJO	N19	N19(1-1)2	2		9
		ITEM No. 6	51902-130	0						Gonor	al Not				
				o mm WIDTH	I (TYPE 1)		1	A I I							
		STATION		REMA			1.	SPECIF	ICATIONS FOR	CONSTRUCTIO	N OF RO.	L CONFORM TO ADS AND BRIDG	ES ON F	EDERAL	
	SEGMENT 3 SEGMENT 1	10+770.0 13+912.4			ng T/O ng T/O			PRO JE		(FP-14), ANU 1	HE SUPPL	EMENTAL SPECIFIC	ATIONS FU	IK IHIZ	
	SEGMENT 1	15+485.7			T/O, To Residence		2.					SPONSIBILITY AN			
	SEGMENT 1	16+975.0 18+256.5			ng T/O ng T/O			SECTIO	DNS 107 AND	203 OF FP-	14 AS W	N DEBRIS IN A ELL AS ANY A	ND ALL	PERMIT	
	SEGMENT 1	19+050.0			- 1 Gate Only. Ceme	etary Entrance.			REMENTS. THIS ACTOR.	5 WORK SHAI	LL BE IN	ICIDENTAL OBLIG	ATIONS O	F IHE	
	SEGMENT 1 SEGMENT 1	19+345.0 19+345.0			•	uditorium Building.	3.					UL EXAMINATION			
		19+545.0		туре-	- I Gale Offy. DIA A	uditorium Building.		THE S	ITE OF THE PR	OPOSED CONSTI	RUCTION TO	VEYING REQUIREM D BECOME FAMILIA	AR WITH T	HE SITE	
												A PROPOSAL. ORS RESULTING F			
		ITEM No. 6	51902-260	0								MATION DERIVED			
		GATE, BAR		, 5 STRAND	. ,			FROM	ANY RISK OR F	RÓM FULFILLINC	5 THE TERN	1S OF THE CONTR	ACT.		
	SEGMENT 4				· 2 Gate Only. Livest	ock Crossing.	4.					PURPOSES ONLY, WILL BE DETERMI			
	SEGMENT 4	5+147.00			2 Gate Only. Livest							THE QUANTITIES.) GATE LOCATION			
	SEGMENT 4	6+100.00 7+816.00			2 Gate Only. Livest 2 Gate Only. Livest				R AND CM BEFO						
	SEGMENT 4	9+300.00			2 Gate Only. Livest	v	5.					FENCING REQUIRE ATTLE GUARDS, C			
	SEGMENT 4 SEGMENT 3	9+300.00 10+240.00			• <mark>2 Gate Only. Livest</mark> • 2 Gate Only. Lagoc			GUAR	DRAIL AND SCH	OOL COMPOUNE) SHALL B	E CONSIDERED IN	CIDENŤAL	TO THE	
	SEGMENT 3	11+500.00			2 Gate Only. Livest			REMON		IMENT. FENCIN	G REPAIR	S, TEMPORARY	FENCING	FENCE AND/OR	
	SEGMENT 3	11+500.00			2 Gate Only. Livest	<u>v</u>		WORK	DAY SO AS	NOT TO ALLO	W LIVESTO	SHALL BE COMPLE DCK ONTO THE F	PROJECT. I	F WIRE	
	SEGMENT 2 SEGMENT 1	12+700.00			 2 Gate Only. Livest 2 Gate Only. Livest 	_			ON IS LOST IN ENCE AS DIRECT			E CONTRACTOR S	HALL RE-1	IGHTEN	
	SEGMENT 1	14+875.0			2 Gate Only. Livest		6.					AND LIVESTOCK	PASS LOC	ATIONS,	
	SEGMENT 1 SEGMENT 1	15+485.7 17+707.4		Type - Existin	2 Gate Only. Livest	ock Crossing.						IG FENCES TO TH OF 9 OR INSTALL			
	SEGMENT 1	18+240.00			· 2 Gate Only. Livest	ock Crossing.						AS NOTED ON T T TIE-IN TO RIGH			
	SEGMENT 1	18+240.00	0 Right	Туре -	2 Gate Only. Livest	ock Crossing.		THE (CONTRACTOR SI	HALL INSTALL	A STRAIN	I POST ASSEMBL OSURES ARE TO I	Y AS PEF	R PLAN	
	ITEM No. 20304	-1000 [.] RFM(OVAL OF S	TRUCTURE	ES AND OBSTRUCT	IONS		WORK				000 AND NO ADD			
		To Stati		Offset		REMARKS	7.			HE TURNOUT I	ης <u>α τι</u> ονς	EXISTING CATTLE	GUARDS	GATES	
SEGMENT 4	05+097.816	09+925	5.848	R&L		n, sbrubs as needed to pla		SCHOO		JOONS AND/OF	R WING B	RACES ASSEMBL		TO BE	
				Re	ew ROW fencing ar emove trees, brush	nd appurtances. n, sbrubs as needed to pla	ace	CONTR	RACTOR IS ADVI	SED TO FIELD F	review ea	CH TURNOUT PRIC	DR TO SUB	MITTING	
SEGMENT 3	09+925.848	11+535	5.192	K&L	ew ROW fencing an			CATTL	.E GUARDS, GA	TES, AND/OR	WING BRA	TTING OR REATI CES, SHALL MAT	CH AS CLU	DSE AS	
SEGMENT 2	11+535.192	13+144	4.536	R&L	· · · ·	n, sbrubs as needed to pla		NEW	CONSTRUCTION.	THIS WORK	SHALL BE	JIREMENTS FOR S CONSIDERED INC	IDENTAL	ΓΟ ΤΗΕ	
					<mark>ew ROW fencing ar</mark> emove trees, brusł	n, sbrubs as needed to pla	ace		ON 203 AND 6 DED UNDER EAC			G BRACES ASSEN ATTLEGUARDS.	1BLIES SHA	ALL BE	
SEGMENT 1	13+144.536	19+104	4.100			nd appurtances. Remove						TING N19 PAVEM			
				Re	•••	o install cattleguards. ce to install 1 cattleguard		CATTL		_ACE AT 19+5	81.91. THE	E REMOVED MAT	ERIAL SHA	ALL BE	
SEGMENT 1	19+104.100	19+581	1.912	R&L	nd 2 gates.			CONTR	ACTOR SHALL		IOR HOT	ASPHALT CONCRE		ND THE	
		EM No. 619	02 0210.						.EGUARD FLUSH)N 404. THIS			PAVEMENT IN A ONSIDERED INCID		E WITH O THE	
) WITH TYPE 2 GAT	E	0					T THIS LOCATION.			
		STATION	LOC.	REMARK			9.	MATEF	RIAL FOR THE	INSTALLATION	OF CATT	MOVE ANY NECES LEGUARD UNITS	AND REU	SE THE	
		7+813.00 9+060.00	Right Left		/O, To residence /O, To residence							1PACT AROUND T H WITH THE TUR			
		9+060.00	Right		/O, To residence				WAY PAVEMEN R THE CATTLEGU			BE CONSIDERED I	NCIDENTAL	WORK	
		12+719.20	Left	•	/O, To residence		10.	THE CO	NTRACTOR SHALL	PERFORM HAND I	NSTALLATIO	N OF FENCE AT ALL L	OCATIONS SI	PECIFIED	
_		16+377.80 16+982.10	Left Right	Existing Existing								CHEDULE FOR CULT REMENTS" SCHEDULE			
	SEGMENT 1	17+716.40	Left	Existing	Т/О			ARCHAE	ELOGY MONITORIN	G IS REQUIRED PE	ER THE SCHE	DULE, A NAVAJO DIV	SON OF		
									ONS SPECIFIED.	LUGIST SHALL BE	PRESENT DU	JRING FENCE INSTAL	LATION AT T	1E	
		EM No. 6190		m (2-Unit)	WITHOUT GATE										
		STATION	LOC.	REMARK											
		0+193.00	Left	-	O, To residence							ED_STAT			
		8+535.80 9+279.00	Right Right	Existing T	T/O Irch Entrance.					EPART	MENT	OF TH	E INT	ERI	OR
		9+497.00	Left	T/O, N19						BUREA	U OF	INDIAN	AFF	AIR	S
							_		NA	VAJO REGION	AL OFFIC	E * DIVISION	OF TRAN	NSPORT/	ATION
	ITEM No. 619	03-0700.								FS	TIMAT	ED QUAN	TITIFS))	
	CATTLEGUAR		(3-Unit) \		GATE							RNOUT DE			
	STATION	LOC.	REMA		1104							DATE: 4/19/201		UENT OF	
SEGMENT 4 SEGMENT 3		Left Right		I <mark>A Route N</mark> o Senior C	N191 Citizen Center					WN BY: NRDO				APT 1824	
SEGMENT 3		Right			nto paved road N5	5000				GNED BY: NR		DATE: 4/19/201			IOR I
SEGMENT 1	19+581.91	Centerline	Tie fer	ncing perp	endicular to road	way (End of ROW Fencing	g)			SED: 10/2/20		Y: Harold.Riley			
									N19	Sht_2-Esimo	ated Quar	ntity fencing 41	917.dgn	INDIAN	~

e Installation:
encing.
encing.
encing. (All work should be monitored
encing.
encing.
encing (Installation of the T-post
centerline and width of 70 feet wide).
proing (Installation of the T-post

encing (Installation of the T-post f centerline and width of 90 feet wide).

										1		1		1	
							REG	ION	STATE	RESERVATION	ROUTE	PROJECT NO). SHEET	TOTAL	SHEETS
TO							NAV	′AJO	ARIZONA	NAVAJO	N19	N19(1-1)2	2		9
TS															
		ITI	EM No. 619	02-1300	0					Genero	ıl Not	es:			
				-		OTH (TYPE 1)	⊣ 1	ALL WC	RKMANSHIP	AND MATERIA			O THE ST	ANDARD	
	SEGMENT		STATION .0+770.00	LOC. Left		MARKS sting T/O		SPECIFICA	ATIONS FOR	CONSTRUCTION	OF RO.	ADS AND BR	DGES ON F	EDERAL	
	SEGMENT		3+912.40	Left		sting T/O		PROJECT.		(FP-14), AND TH	TE SUPPLI	EMENTAL SPEC	IFILATIONS F		
	SEGMENT		5+485.70	Left		m T/O, To Residence	2.	THE COM		HALL ASSUME					
	SEGMENT		6+975.00	Left		sting T/O		DISPOSAL		H AND/OR CON 203 OF FP-1		N DEBRIS IN ELL AS ANY			
	SEGMENT SEGMENT		.8+256.50 .9+050.00	Right Left		sting T/O oe - 1 Gate Only. Cemetary Entrance.	_	REQUIREN	MENTS. THIS			ICIDENTAL OB			
	SEGMENT		.9+345.00	Left		be - 1 Gate Only. BIA Auditorium Building.									
	SEGMENT	1 1	9+345.00	Left		pe - 1 Gate Only. BIA Auditorium Building.	3.	SPECIFICA	ATIONS, QUA	READ AND MAI NTITIES, MATER	IAL, SURV	VEYING REQUIF	EMENTS, AN	D VISIT	
										OPOSED CONSTR TATIONS BEFOR					
								WILL BE	RESPONSIBLE	FOR ANY AND	ALL ERR	ORS RESULTING	FROM THE	FAILURE	
			EM No. 619					PLANS, S	SPECIFICATION	XAMINATION. A IS, OR THE ENGI	NEER, SHA	ALL NOT RELIE	/E THE CONT		
			TE, BARBE	D WIRE, LOC.		ND (TYPE 2) MARKS				ROM FULFILLING					
	SEGMENT		5+147.00	Loc.		e - 2 Gate Only. Livestock Crossing.	4.			WN ARE FOR ES CTUAL PAY QU					
	SEGMENT	4 5	5+147.00	Right	Тур	e - 2 Gate Only. Livestock Crossing.		FOR AU	THORIZED CH	IANGES THAT	AFFECT 1	THE QUANTITIE	S. THE CONT	RACTOR	
	SEGMENT		5+100.00	Right		e - 2 Gate Only. Livestock Crossing.				THE CATTLEGU RE INSTALLATIO		J GAIE LULAI	IUNS WITH	IHE	
	SEGMENT		7+816.00	Left		e - 2 Gate Only. Livestock Crossing.	5.			ATTACHMENT O		FENCING REQU	IRFD TO CO	MPI F T F	
	SEGMENT 4		9+300.00 9+300.00	Left Right		e - 2 Gate Only. Livestock Crossing. e - 2 Gate Only. Livestock Crossing.	5.	SPECIFIE) WORK AT [)RAINAGE STRU(TURES, C.	ATTLE GUARDS	, GATES, TUI	RNOUTS,	
	SEGMENT		0+240.00	Right		e - 2 Gate Only. Lagoon Entrance.			ail and Slh 'EMS RELA	OOL COMPOUND TED TO T		E LUNSIDERED IRK REQUIRI		FENCE	
	SEGMENT		1+500.00	Left		e - 2 Gate Only. Livestock Crossing.		REMOVAL	/RE-ATTACH	IMENT. FENCING	REPAIRS	S, TEMPORAR	r fencing	AND/OR	
	SEGMENT		1+500.00	Right		e - 2 Gate Only. Livestock Crossing.				TACHMENT OF F NOT TO ALLOV					
	SEGMENT		2+700.00	Right		e - 2 Gate Only. Livestock Crossing.				THE EXISTING F ED BY THE CM.	ENCE, TH	E CONTRACTOR	SHALL RE-	TIGHTEN	
	SEGMENT :		4+875.00 4+875.00	Left Right		e - 2 Gate Only. Livestock Crossing. e - 2 Gate Only. Livestock Crossing.	,								
	SEGMENT		5+485.70	Right		e - 2 Gate Only. Livestock Crossing.	6.			STRUCTURES G				•	
	SEGMENT	1 1	7+707.40	Right	Exis	sting T/O				HE DETAILS ON CLEAR RECOVEI					
	SEGMENT		8+240.00	Left		e - 2 Gate Only. Livestock Crossing.		CORNER	FENCE POST/	BRACE/STRAIN	EXISTS A	T TIE-IN TO RI	GHT-OF-WAY	FENCE,	
	SEGMENT	1 1	8+240.00	Right	Тур	e - 2 Gate Only. Livestock Crossing.				HALL INSTALL XISTING CATTLE					
	EM No. 2020	1.100			тристи	JRES AND OBSTRUCTIONS		WORK TO	D BE INCIDEN	TAL TO BID ITE					
	Station	To	Station		Offset	REMARKS]	SHALL B							
						Remove trees, brush, sbrubs as needed to place	7.			HE TURNOUT LO GOONS AND/OR					
4	05+097.816		09+925.8	48	R & L	new ROW fencing and appurtances.		REPLACE	D, RESET OF	R RE-ATTACHE	D (SEE	TABLES ON	THIS SHEE	T). THE	
3	09+925.848		11+535.1	92	R & L	Remove trees, brush, sbrubs as needed to place				SED TO FIELD R ASSOCIATED W					
-						new ROW fencing and appurtances.				TES, AND/OR V NG LOCATIONS					
2	11+535.192		13+144.5	36	R & L	Remove trees, brush, sbrubs as needed to place new ROW fencing and appurtances.		NEW CO	NSTRUCTION.	THIS WORK S	HALL BE	CONSIDERED	NCIDENTAL	TO THE	
						Remove trees, brush, sbrubs as needed to place				19 BID ITEMS. H BID ITEM 6190			SEMBLIES SH	ALL BE	
1	13+144.536		19+104.1	00	R & L	new ROW fencing and appurtances. Remove	8.			IALL SAW CUT			ΕΜΕΝΤ ΔΝΠ	REMOVE	
						existing pavement to install cattleguards.	0.	THE SU	RFACING AN	D SUBGRADE	AS NEED	ED TO SET	THE NEW	3 UNIT	
1	19+104.100		19+581.9	12	R & L	Remove existing fence to install 1 cattleguard		DISPOSE	D OF OFF		IN ACCO	RDANCE WITH	SECTION 20		
						and 2 gates.				COMPACT MINO WITH THE TO					
		ITEM	No. 61903	8-0310:				SECTION	404. THIS		L BE C	ONSIDERED IN	CIDENTAL T	O THE	
	r	CATT	LEGUARD,	4800 m	nm (2-Ur	nit) WITH TYPE 2 GATE	0			ALL EXCAVATE				BUDVDE	
				LOC.	REMA		9.			INSTALLATION					
	SEGMENT 4			Right		T/O, To residence				L TO BACKFILL F THE GRATES					
	SEGMENT 4			Left Right		n T/O, To residence n T/O, To residence		ROADWA	Y PAVEMEN	T. THIS WORK	SHALL E				
	EGMENT 2			Left		T/O, To residence				JARD BID ITEMS				_	
S	EGMENT 1	16+3	377.80	Left		ng T/O				PERFORM HAND IN MITIGATION REQUI					
	EGMENT 1			Right		ng T/O				ONMENTAL MITIGAT					
S	EGMENT 1	17+7	716.40	Left	Existi	ng T/O	1			G IS REQUIRED PEI LOGIST SHALL BE F				HF	
									S SPECIFIED.	LUGIST STALL DE P		DRING I ENCE INS	ALLATION AT T	· · L	
			No. 61903-												
	0				•	it) WITHOUT GATE	l								
C	GMENT 3	STA1		OC. .eft	REMA	RKS T/O, To residence						ED STA	V T F C		
				ight	4.5 m Existin									וחחד	
				ight		church Entrance.				EPARTN					
				.eft	T/O, N					BUREAL	JUF	INDIA	N AH	- AIR	2
									NA	VAJO REGIONA	AL OFFIC	e * divisi	ON OF TRAI	NSPORT	ATION
										ГС	 ΤΙΝΑΑΤ		NITITICO		
	ITEM No. 61											ED QUA			
						JT GATE	7			8	c TUF	RNOUT [)etails)	
Т4	STATION 6+080.00		LOC. Left	REMA	RKS BIA Rout	e N191				NN BY: NRDOT		DATE: 4/19/2	2017	THENT OF	
T 3	11+226.00	_	Right			r Citizen Center								6 AK 1824	
Т З	11+455.50		Right			d into paved road N5000	1			GNED BY: NRE		DATE: 4/19/2			NOR
T 1	19+581.91		iterline			erpendicular to roadway (End of ROW Fencing)			REVIS	SED: 10/2/20	17 B	Y: Harold.Rile	y le		
							-		N19	Sht_2-Esima	ted Quar	ntity fencing	41917.dgn	OF INDIAT	
									I			-			

												1		1	
							REGION	N	STATE	RESERVATION	ROUTE	PROJECT NC	. SHEET	TOTAL	SHEETS
TS							NAVAJ	0	ARIZONA	NAVAJO	N19	N19(1-1)2	2		9
13															
			EM No. 61							Gener	al Not	es:			
			ATE, META STATION	L, 4200		TH (TYPE 1) ЛАRKS						L CONFORM T			
	SEGMENT		10+770.00			sting T/O						ADS AND BRI EMENTAL SPECI			
	SEGMENT	1	13+912.40	Left		sting T/O		ROJECT.							
	SEGMENT		15+485.70	Left		m T/O, To Residence									
	SEGMENT SEGMENT		16+975.00 18+256.50	-		sting T/O sting T/O	SE	CTIONS	107 AND	H AND/OR COI 203 OF FP-1	4 AS W	ELL AS ANY		PERMIT	
	SEGMENT		19+050.00			e - 1 Gate Only. Cemetary Entrance.		EQUIREME INTRACT	ENTS. THIS OR.	WORK SHAL	L BE IN	ICIDENTAL OBL	IGATIONS (OF THE	
	SEGMENT	1	19+345.00	Left	Тур	e - 1 Gate Only. BIA Auditorium Building.				RFAD AND MA	KF (ARFF)N OF THE	PI ANS	
	SEGMENT	1	19+345.00	Left	Тур	e - 1 Gate Only. BIA Auditorium Building.	SP	PECIFICA	FIONS, QUA	NTITIES, MATEF	RIAL, SURY	VEYING REQUIR D BECOME FAMI	EMENTS, AN	D VISIT	
							CO	DNDITION	S AND LIMI	TATIONS BEFOR	E MAKING	A PROPOSAL.	THE CONT	RACTOR	
				002.200	0							ORS RESULTING RMATION DERIVE			
			EM No. 61 ATE. BARBE			ND (TYPE 2)	PL	ANS, SF	PECIFICATION	IS, OR THE ENG	INEER, SHA	ALL NOT RELIEV 15 OF THE CON	E THE CONT		
			STATION	LOC.		1ARKS						PURPOSES ONL'		ΩMPARF	
	SEGMENT		5+147.00			e - 2 Gate Only. Livestock Crossing.	AN	ND CANV	'AS BIDS. A	CTUAL PAY QU	JANTITIES	WILL BE DETER	MINED IN TH	IE FIELD	
	SEGMENT SEGMENT		5+147.00 6+100.00	Right Right		e - 2 Gate Only. Livestock Crossing. e - 2 Gate Only. Livestock Crossing.						THE QUANTITIE:) GATE LOCATI			
	SEGMENT		7+816.00	Left		e - 2 Gate Only. Livestock Crossing.	0۷	WNER AN	ID CM BEFOI	RE INSTALLATIO	N BEGINS.				
	SEGMENT		9+300.00	Left		e - 2 Gate Only. Livestock Crossing.						FENCING REQUI ATTLE GUARDS			
	SEGMENT		9+300.00	Right		e - 2 Gate Only. Livestock Crossing.	նե	JARDRAI	L AND SCH	OOL COMPOUND	SHALL B	E CONSIDERED	INCIDENTAL	TO THE	
	SEGMENT SEGMENT		10+240.00 11+500.00	Right Left		e - 2 Gate Only. Lagoon Entrance. e - 2 Gate Only. Livestock Crossing.	BII RE					IRK REQUIRIN S, TEMPORARY		FENCE AND/OR	
	SEGMENT		11+500.00	Right		e - 2 Gate Only. Livestock Crossing.	RE	EMOVAL	AND RE-AT	TACHMENT OF	FENCING, S	SHALL BE COMP DCK ONTO THE	LETED IN TH		
	SEGMENT		12+700.00	Right		e - 2 Gate Only. Livestock Crossing.	TE	ENSION I	S LOST IN	THE EXISTING I	ENCE, TH	E CONTRACTOR			
	SEGMENT		14+875.00	Left		e - 2 Gate Only. Livestock Crossing.				ED BY THE CM					
	SEGMENT SEGMENT		14+875.00 15+485.70	Right Right		e - 2 Gate Only. Livestock Crossing. e - 2 Gate Only. Livestock Crossing.						AND LIVESTOC			
	SEGMENT		17+707.40	Right		ting T/O						OF 9 OR INSTA AS NOTED ON			
	SEGMENT		18+240.00	Left		e - 2 Gate Only. Livestock Crossing.	CO)RNER FI	ENCE POST/	BRACE/STRAIN	EXISTS A	T TIE-IN TO RIO	iHT-OF-WAΥ	′FENCE,	
	SEGMENT	1 .	18+240.00	Right	Тур	e - 2 Gate Only. Livestock Crossing.						I POST ASSEM OSURES ARE TO			
17	TEM No. 2030	04-10	00; REMO\	AL OF S	STRUCTU	RES AND OBSTRUCTIONS		ORK TO HALL BE		TAL TO BID ITE	M 61901-0	000 AND NO AI	DITIONAL P	AYMENT	
	Station	То	Statio	n	Offset	REMARKS				IF TURNOUT I C	CATIONS	EXISTING CATT	IF GUARDS	GATES	
4	05+097.816		09+925.8	848	R & L	Remove trees, brush, sbrubs as needed to place	SC	HOOL S	SEWER LAC	OONS AND/OR	WING B	RACES ASSEM	BLIES ARE	TO BÉ	
						new ROW fencing and appurtances. Remove trees, brush, sbrubs as needed to place	CO	ONTRACT	OR IS ADVI	SED TO FIELD F	EVIEW EA	TABLES ON CH TURNOUT PI	RIOR TO SUE	SMITTING	
3	09+925.848		11+535.1	192	R & L	new ROW fencing and appurtances.						TTING OR REA CES, SHALL MA			
- 2	11+535.192		13+144.5	226	R & L	Remove trees, brush, sbrubs as needed to place	PC	DSSIBLE	THE EXISTI	NG LOCATIONS	AND REQU	JIREMENTS FOR CONSIDERED I	SIMILAR TY	'PES OF	
2	11+353.192		15+144	550	NQL	new ROW fencing and appurtances.	SE	ECTION 2	203 AND 6	19 BID ITEMS.	THE WING	G BRACES ASS			
- 1	12,144 526		19+104.1	100	D Q I	Remove trees, brush, sbrubs as needed to place				H BID ITEM 6190					
	13+144.536		19+104	100	R & L	new ROW fencing and appurtances. Remove existing pavement to install cattleguards.						TING N19 PAVE IED TO SET		REMOVE 3 UNIT	
1	19+104.100		19+581.9	012	R & L	Remove existing fence to install 1 cattleguard		ATTLEGU I SPOSED				E REMOVED MA RDANCE WITH		ALL BE)3. THE	
1	19+104.100		19+301.:	912	NQL	and 2 gates.	Ē	DNTRACT	OR SHALL	COMPACT MIN	OR HOT A	ASPHALT CONC	RETE AROU	ND THE	
		ITEN	1 No. 6190	2 0210.					ARD FLUSH 404. THIS			PAVEMENT IN ONSIDERED IN(<u>e</u> with 'O The	
						nit) WITH TYPE 2 GATE						T THIS LOCATIC			
				LOC.	REMA	-						MOVE ANY NEU LEGUARD UNIT			
	SEGMENT 4			Right		T/O, To residence	E×	KCAVATE	D MATERIA	L TO BACKFILL	AND COM	1PACT AROUND	THE CATTL	EGUARD	
	EGMENT 4			Left		T/O, To residence	RC	DADWAY	PAVEMEN	T. THIS WORK	SHALL E	H WITH THE TU BE CONSIDERED			
	SEGMENT 4		060.00 719.20	Right Left		T/O, To residence T/O, To residence	UN	NDER TH	E CATTLEGU	JARD BID ITEMS	SHOWN.				
	EGMENT 1		377.80	Left		ng T/O						N OF FENCE AT ALI SCHEDULE FOR CU			
	EGMENT 1			Right		ng T/O	AR	EAS. REFI	ER TO "ENVIRO	ONMENTAL MITIGA	TION REQUIE	REMENTS" SCHEDU	JLE, THIS SHEE		
5	SEGMENT 1	17+	716.40	Left	Existi	ng T/O						DULE, A NAVAJO D JRING FENCE INST		ΉE	
									SPECIFIED.						
			No. 61903		m / ว										
	([4800 m _OC.	REMA	it) WITHOUT GATE									
SE	GMENT 3			Left		T/O, To residence					UNIT	ED STA	TES		
	GMENT 1			Right	Existin							OF TH		TERI	OR
	GMENT 1			Right		hurch Entrance.						- INDIA			
SE	GMENT 1	19+4	197.00	Left	T/O, N	19.				VAJO REGION			N OF TRA		
														_	
	ITEM No. 61	1903-	0700:							ES	TIMAT	ED QUA	NTITIES	$\tilde{\mathbf{O}}$	
	CATTLEGUA			3-Unit)	WITHOU	T GATE	-					RNOUT D			
	STATION		LOC.	REMA			-							,	
T 4	6+080.00		Left		BIA Rout				DRAV	VN BY: NRDO		DATE: 4/19/2		PARTMENT OF 1824	
Т З Т З	11+226.00 11+455.50	_	Right Right			r Citizen Center d into paved road N5000	-		DESI	GNED BY: NR	ТОС	DATE: 4/19/2	017		FRIOR
T 1	19+581.91		nterline			rpendicular to roadway (End of ROW Fencing)			REVIS	SED: 10/2/20	 17 В	Y: Harold.Riley			
									N19	Sht 2-Fsime	ited Quar	ntity fencing	41917.dan	PU OF INDIAN	

							EGION	STATE	RESERVATION	ROUTE	PROJECT NO.	SHEET		SHEETS
AS-BUILTS						N	AVAJO	ARIZONA	NAVAJO	N19	N19(1-1)2	2		9
		IT	E <mark>M N</mark> o. 619	02-1200					Genera					
					mm WIDTH (TYPE 1)	 1	٨١١				L CONFORM TO	тыс ст		
			STATION 0+770.00	LOC.	REMARKS	1.	SPECI	FICATIONS FOR	CONSTRUCTION	I OF RO	ADS AND BRID	GES ON F	EDERAL	
	SEGMENT 3 SEGMENT 1		3+912.40	Left Left	Existing T/O Existing T/O		PROJE		(FP-14), ANU 11	HE SUPPL	EMENTAL SPECIF	LATIONS F	OK IHIZ	
	SEGMENT 1		5+485.70	Left	4.5 m T/O, To Residence	2.					SPONSIBILITY A			
	SEGMENT 1 SEGMENT 1		6+975.00 8+256.50	Left Right	Existing T/O Existing T/O		SECTIO	ONS 107 AND	203 OF FP-1	4 AS W		AND ALL	PERMIT	
	SEGMENT 1		9+050.00	Left	Type - 1 Gate Only. Cemetary Entrance.			REMENTS. THIS RACTOR.	WURK SHAL	L BE IN	NCIDENTAL OBLI	JATIUNS (UF IHE	
	SEGMENT 1 SEGMENT 1		9+345.00 9+345.00	Left Left	Type - 1 Gate Only. BIA Auditorium Building.Type - 1 Gate Only. BIA Auditorium Building.	- 3.								
	SECIVILIATI		9-343.00	Leit	Type - I Gate Only. BIA Additorium Building.		THE S	SITE OF THE PRO	OPOSED CONSTR	UCTION TO	VEYING REQUIRE O BECOME FAMILI	AR WITH T	THE SITE	
							WILL	BE RESPONSIBLE	FOR ANY AND	ALL ERR	A PROPOSAL. ORS RESULTING	FROM THE	FAILURE	
			EM No. 619				PLANS	S, SPECIFICATION	IS, OR THE ENG	NEER, SH	RMATION DERIVED ALL NOT RELIEVE	THE CONT		
			TE, BARBEI	D WIRE, LOC.	5 STRAND (TYPE 2) REMARKS]					MS OF THE CONTI			
	SEGMENT 4	_	5+147.00	Left	Type - 2 Gate Only. Livestock Crossing.	4.	AND (CANVAS BIDS. A	CTUAL PAY QU	ANTITIES	PURPOSES ONLY, WILL BE DETERM	1INED IN TH	HE FIELD	
	SEGMENT 4 SEGMENT 4		5+147.00 5+100.00	Right Bight	Type - 2 Gate Only. Livestock Crossing.						THE QUANTITIES. D GATE LOCATIO			
	SEGMENT 4	_	7+816.00	Right Left	Type - 2 Gate Only. Livestock Crossing.Type - 2 Gate Only. Livestock Crossing.			R AND CM BEFO						
	SEGMENT 4	_	9+300.00	Left	Type - 2 Gate Only. Livestock Crossing.	5.					FENCING REQUIR ATTLE GUARDS,			
	SEGMENT 4 SEGMENT 3	_	9+300.00 0+240.00	Right Right	Type - 2 Gate Only. Livestock Crossing.Type - 2 Gate Only. Lagoon Entrance.		GUARI	DRAIL AND SCH	OOL COMPOUND	SHALL B	BE CONSIDERED IN	NCIDENTAL	TO THE	
	SEGMENT 3	_	1+500.00	Left	Type - 2 Gate Only. Livestock Crossing.		REMO	VAL/RE-ATTACH	IMENT. FENCINO	i REPAIR)RK REQUIRING S, TEMPORARY	FENCING	FENCE AND/OR	
	SEGMENT 3		1+500.00	Right	Type - 2 Gate Only. Livestock Crossing.						SHALL BE COMPL OCK ONTO THE			
	SEGMENT 2 SEGMENT 1	_	2+700.00 4+875.00	Right Left	Type - 2 Gate Only. Livestock Crossing.Type - 2 Gate Only. Livestock Crossing.			ON IS LOST IN ENCE AS DIRECT			E CONTRACTOR	SHALL RE-	TIGHTEN	
	SEGMENT 1	_	4+875.00	Right	Type - 2 Gate Only. Livestock Crossing.	6.					. AND LIVESTOCK	PASS LO	ATIONS,	
	SEGMENT 1	_	5+485.70	Right	Type - 2 Gate Only. Livestock Crossing.						NG FENCES TO TI OF 9 OR INSTAL			
	SEGMENT 1 SEGMENT 1	_	7+707.40 8+240.00	Right Left	Existing T/O Type - 2 Gate Only. Livestock Crossing.		STRU	CTURE AT THE	CLEAR RECOVE	RY ZONE	AS NOTED ON T TIE-IN TO RIGH	THE PLANS	S. IF NO	
	SEGMENT 1	1	8+240.00	Right	Type - 2 Gate Only. Livestock Crossing.		THE (CONTRACTOR SH	HALL INSTALL	A STRAIN	N POST ASSEMB	ly as pe	R PLAN	
г	TEM No. 20204	1_100			TRUCTURES AND OBSTRUCTIONS		WORK	TO BE INCIDEN			1000 AND NO ADI			
		To	Station		Offset REMARKS	_		L BE MADE.					GATES	
SEGMENT 4	05+097.816		09+925.84	48	R & L Remove trees, brush, sbrubs as needed to place	7.	SCHOO	OL SEWER LAC	JOONS AND/OR	WING	EXISTING CATTL BRACES ASSEMB	LIES ARE	TO BE	
					new ROW fencing and appurtances.Remove trees, brush, sbrubs as needed to place	-	CONTF		SED TO FIELD R	EVIEW EA	CH TURNOUT PRI	OR TO SUE		
SEGMENT 3	09+925.848		11+535.1	92	R & L new ROW fencing and appurtances.						TTING OR REAT CES, SHALL MA ⁻			
SEGMENT 2	11+535,192		13+144.5	36	R & L Remove trees, brush, sbrubs as needed to place		POSSI	BLE THE EXISTI	NG LOCATIONS	AND REQU	UIREMENTS FOR CONSIDERED IN	SIMILAR TI	YPES OF	
					new ROW fencing and appurtances.Remove trees, brush, sbrubs as needed to place		SECTI		19 BID ITEMS.	THE WIN	G BRACES ASSE			
SEGMENT 1	13+144.536		19+104.1	00	R & L new ROW fencing and appurtances. Remove	8.					TING N19 PAVEN	1ΓΝΤ ΔΝΠ	REMOVE	
					existing pavement to install cattleguards.		THE	SURFACING AN	D SUBGRADE	AS NEED	DED TO SET T E REMOVED MA	HE NEW	3 UNIT	
SEGMENT 1	19+104.100		19+581.9	12	R & L Remove existing fence to install 1 cattleguard and 2 gates.		DISPO	DSED OF OFF	THE PROJECT	IN ACCO	RDANCE WITH S ASPHALT CONCR	SECTION 2	03. THE	
					una 2 500001		CATTL	LEGUARD FLUSH	WITH THE TO	P OF THE	PAVEMENT IN	ACCORDAN	CE WITH	
			No. 61903					ON 404. THIS ILLATION OF THE			ONSIDERED INCI		IU IHE	
				-0C.	m (2-Unit) WITH TYPE 2 GATE REMARKS	9.					MOVE ANY NECE			
	SEGMENT 4			Right	4.5 m T/O, To residence	-	EXCA	VATED MATERIA	L TO BACKFILL	AND COM	MPACT AROUND	THE CATTL	EGUARD	
	SEGMENT 4			Left Right	4.5 m T/O, To residence 4.5 m T/O, To residence		ROAD	WAY PAVEMEN	T. THIS WORK	SHALL [SH WITH THE TUI BE CONSIDERED			
				Left	4.5 m T/O, To residence			R THE CATTLEGU						
				Left	Existing T/O	10.					N OF FENCE AT ALL SCHEDULE FOR CUL ⁻			
				Right Left	Existing T/O Existing T/O	-	AREAS.	. REFER TO "ENVIRO	ONMENTAL MITIGA	FION REQUI	REMENTS" SCHEDUL EDULE, A NAVAJO DIV	E, THIS SHEE		
		17.7	10.10				TRANPO	ORTATION ARCHAE			URING FENCE INSTA		ΉE	
	IT	EMN	No. 61903-	0300:			LOCATI	IONS SPECIFIED.						
					n (2-Unit) WITHOUT GATE	1								
SI				OC. eft	REMARKS 4.5 m T/O, To residence	-					ED STA	TFS		
				ght	Existing T/O						OF TH		TERI	
	EGMENT 1 1	19+27	79.00 Ri	ght	T/O, Church Entrance.						- INDIAN			
SI	EGMENT 1 1	19+49	97.00 L	eft	T/O, N19.]								
									VAJO REGION					
	ITEM No. 619	03-0	700:						ES	TIMAT	ED QUAN	ITITIES	Š	
					VITHOUT GATE				8	k TUF	RNOUT DI	ETAILS))	
SEGMENT 4	STATION 6+080.00		.OC. Left	T/O.B	RKS IA Route N191			DRAV	VN BY: NRDOT		DATE: 4/19/20		THENT OF	
SEGMENT 3	11+226.00		Right		o Senior Citizen Center				GNED BY: NRI		DATE: 4/19/20	//	(2011) 1824	
SEGMENT 3	11+455.50	R	Right	T/O. e	mbeded into paved road N5000				SED: 10/2/20		· · ·	()>		OR S
SEGMENT 1	19+581.91	Cen	terline	Tie fen	ncing perpendicular to roadway (End of ROW Fencing)						BY: Harold.Riley	\		
								N19	Snt_2–Esimo	ted Quai	ntity fencing 4	1911.dgn		-

	N19(1-1 POINT	STATION (m)	L ALIGNMENT TABLE	DIRECTION	NORTHING (m)	EASTING
	POR	0+000.000	Linear= 19.854 (m)	\$ 74°05'02" W	591,999.365	\$51,060,8
	PI PI	0+019.854 0+193.021	CURVE DATA	++++	3 91,994 120 591,946.6 3 3	751,041.7 750,875.2
			$Delta = 43^{\circ}14'00'' Lt$ $Deg = 3'59'47''$	$\langle / / / / \rangle$, , , , , , , , , , , , , , , , , , , ,
	$\square \land \land \land$	$\langle / / /$	R = 437.000 (m)	////		
	$\land \land \land$	$\langle / / / \rangle$	L = 329,744 (m) T = 173.188 (m)	+ + + + +		$\land \land \land$
		0+349.598	e = 33060 (m)		591,797.968	750,786.4
	PC	0+855.016	Linear = 500,018 (m)	6 30°51'02" W	591,303.548	750,526.9
	P	1+053.197	CURVE DATA Delta = 31°39'12" Rt.	++++	591,193.923	\$50,425,6
	\frown	$\langle \rangle \rangle \rangle \rangle \rangle$	Deg. = 230'20'	/ / / / /	////	$\langle / / \rangle$
		$\land \land \land \land$	R = 697.000 (m) $R = 385.060 (m)$	$\land \land \land \land \land$	$\langle / / / \rangle$	
	$\left \right\rangle $		T = 197.581 (m) e = $27.463 (m)$	+ + + + +	$ \land \land \land \land \land \land$	$\setminus \setminus \setminus$
	PT	1+240.676	Linear = 2851.867 (m)	S 62 30'14" W	591,102.703	750,250.3
	PC	4+092.543 4+229.203	CURVE DATA		589,786.029 589,722.935	747,720.6 747,599.4
	$\vdash \searrow$	4++29.200	Delta = 24*17'28" Lt.	+ + + + +	369,722,933	47,399.4
	$\land \land \land$	$ \land \land \land \land$	Deg. = $2^{45'0}$ " R = 635.000 (m)	+ + + + +	$ \land \land \land \land \land \land$	$\land \land \land$
	\frown		L = 269.214 (m) T = 136.660 (m)	++++	$\langle / / / /$	
	PT	4+361.757	e = 14.539 (m)	X////		7476140
	$\land \land \land$		Lineor= 183.117 (m)	S 38:12'46" W	589,615.558	747,514.8
	PC PI	4+544,874 4+673.288	CURVE DATA	\land	589,471.680 589,370,782	747,401.6 747,322.1
	\square		Delto = 2151'33" Rt. Deg. = 2*37'34"	$\left\{ \right\} \left\{ \left\{ \right\} \left\{ \left\{ \right\} \right\} \left\{ \left\{ \right\} \right\} \left\{ \left\{ \right\} \right\} \left\{ \left\{ \right\} \left\{ \left\{ \right\} \right\} \left\{ \left\{ \right\} \right\} \left\{ \left\{ \right\} \left\{ \left\{ \right\} \right\} \left\{ \left\{ \right\} \right\} \left\{ \left\{ \right\} \left\{ \left\{ \right\} \right\} \left\{ \left\{ \right\} \right\} \left\{ \left\{ \left\{ \right\} \right\} \left\{ \left\{ \right\} \right\} \left\{ \left\{ \left\{ \left\{ \right\} \right\} \left\{ \left\{ \left\{ \right\} \right\} \left\{ \left\{ \left\{ \left\{ \right\} \right\} \left\{ \left\{ \left\{ \right\} \right\} \left\{ \left\{ \left\{ \left\{ \left\{ \right\} \right\} \left\{ \left\{ \left\{ \left\{ \left\{ \left\{ \right\} \right\} \left\{ $		
	$\langle / / \rangle$	$\langle / / / \rangle$	$R = 665.000 (n_{e})$	++++	////,	///
	$ \land \land \land$	$\land \land \land \land$	L = 253.706 (m) $I = 128.414 (m)$	$ \land \land$	$\langle / / / \rangle$	
	PT	4+798,580	e = 12.285 (m)	+ + + + +	589,306.713	747,210.9
	PC	8+317.585	Linear= 3519.005 (m)	S 80°04'19" W	587,551.034	744,161.1
	PI	8+433.293	CURVE DATA Delta = 7°40'30" Lt.		587,493.306	744,060.8
			Deg. = 1°00'45"			
SEGMENT 4			R = 1725.000 (m) L = 231.070 (m)			
			T = 115.708 (m) e = 3.876 (m)			
	PT	8+548.655	Linear= 1306.843 (m)	S 52°23'49" W	587,422.702	743,969.1
	PC PI	9+855.498 9+985.291	CURVE DATA		586,625.281 586,546.083	742,933.8 742,831.0
		57303.281	Delta = 8°43'19" Rt.			742,031.0
			Deg. = $1^{\circ}01'34''$ R = $1702.000 (m)$			
SEGMENT 3			L = 259.086 (m) T = 129.794 (m)			
	PT	10+114.583	e = 4.942 (m)		586,483.393	742,717.3
	PC		Linear= 8402.562 (m)	S 61°07'07" W		
	PC.	18+517.146	CURVE DATA		582,424.979 582,362.287	735,359.8 735,246.2
	PI	18+646.943				
		18+646.943	Delta = 36°48'59" Lt. Deg. = 4°28'40"			
		18+646.943	Deg. = 4°28'40" R = 390.000 (m)			
		18+646.943	Deg. = $4^{\circ}28'40''$ R = 390.000 (m) L = 250.601 (m) T = 129.798 (m)			
		18+646.943	Deg. = $4^{\circ}28'40''$ R = 390.000 (m) L = 250.601 (m) T = 129.798 (m) e = 21.032 (m)		582,243.991	735,192.8
	PI		Deg. = $4^{\circ}28'40''$ R = 390.000 (m) L = 250.601 (m) T = 129.798 (m)	S 24°18'08" W	582,243.991 582,076.080	
	PI	18+767.747	Deg. = 4°28'40" R = 390.000 (m) L = 250.601 (m) T = 129.798 (m) e = 21.032 (m) Linear= 184.238 (m) CURVE DATA	S 24°18'08" W		735,117.0
	PI	18+767.747 18+951.984	Deg. = 4°28'40" R = 390.000 (m) L = 250.601 (m) T = 129.798 (m) e = 21.032 (m) Linear= 184.238 (m) CURVE DATA Delta = 30°16'25" Rt. Deg. = 5°17'31"	S 24°18'08" W	582,076.080	735,192.8 735,117.0 735,080.2
	PI	18+767.747 18+951.984	Deg. = $4^{\circ}28'40''$ R = 390.000 (m) L = 250.601 (m) T = 129.798 (m) e = 21.032 (m) Linear= 184.238 (m) CURVE DATA Delta = $30^{\circ}16'25''$ Rt. Deg. = $5^{\circ}17'31''$ R = 330.000 (m) L = 174.364 (m)	S 24°18'08" W	582,076.080	735,117.0
	PI	18+767.747 18+951.984	Deg. = $4^{\circ}28'40''$ R = 390.000 (m) L = 250.601 (m) T = 129.798 (m) e = 21.032 (m) Linear= 184.238 (m) CURVE DATA Delta = $30^{\circ}16'25''$ Rt. Deg. = $5^{\circ}17'31''$ R = 330.000 (m)	S 24°18'08" W	582,076.080	735,117.0
	PI	18+767.747 18+951.984	Deg. = $4^{\circ}28'40''$ R = 390.000 (m) L = 250.601 (m) T = 129.798 (m) e = 21.032 (m) Linear= 184.238 (m) CURVE DATA Delta = $30^{\circ}16'25''$ Rt. Deg. = $5^{\circ}17'31''$ R = 330.000 (m) L = 174.364 (m) T = 89.268 (m) e = 11.861 (m)		582,076.080	735,117.0 735,080.2
SEGMENT 1	PI PI PT PC PI PI PC PT PT PT PC	18+767.747 18+951.984 19+041.253 19+126.348 19+298.408	Deg. = 4°28'40" R = 390.000 (m) L = 250.601 (m) T = 129.798 (m) e = 21.032 (m) Linear= 184.238 (m) CURVE DATA Delta = 30°16'25" Rt. Deg. = 5°17'31" R = 330.000 (m) L = 174.364 (m) T = 89.268 (m) e = 11.861 (m) Linear= 172.060 (m)	S 24°18'08" W	582,076.080 581,994.722 581,942.980 581,942.980 581,843.249	735,117.0 735,080.2 735,007.5 735,007.5 734,867.3
SEGMENT 1	PI	18+767.747 18+951.984 19+041.253 19+126.348	Deg. = 4°28'40" R = 390.000 (m) L = 250.601 (m) T = 129.798 (m) e = 21.032 (m) Linear= 184.238 (m) CURVE DATA Delta = 30°16'25" Rt. Deg. = 5°17'31" R = 330.000 (m) L = 174.364 (m) T = 89.268 (m) e = 11.861 (m) CURVE DATA Delta = 24°47'19" Lt.		582,076.080 581,994.722 581,994.722 581,942.980	735,117.0 735,080.2 735,007.5 735,007.5 734,867.3
SEGMENT 1	PI PI PT PC PI PI PC PT PT PT PC	18+767.747 18+951.984 19+041.253 19+126.348 19+298.408	Deg. = 4°28'40" R = 390.000 (m) L = 250.601 (m) T = 129.798 (m) e = 21.032 (m) Linear= 184.238 (m) CURVE DATA Delta = 30°16'25" Rt. Deg. = 5°17'31" R = 330.000 (m) L = 174.364 (m) T = 89.268 (m) e = 11.861 (m) CURVE DATA		582,076.080 581,994.722 581,942.980 581,942.980 581,843.249	735,117.0
SEGMENT 1	PI PI PT PC PI PI PC PT PT PT PC	18+767.747 18+951.984 19+041.253 19+126.348 19+298.408	Deg. = $4^{\circ}28'40''$ R = 390.000 (m) L = 250.601 (m) T = 129.798 (m) e = 21.032 (m) Linear= 184.238 (m) CURVE DATA Delta = $30^{\circ}16'25''$ Rt. Deg. = $5^{\circ}17'31''$ R = 330.000 (m) L = 174.364 (m) T = 89.268 (m) e = 11.861 (m) CURVE DATA Delta = $24^{\circ}47'19''$ Lt. Deg. = $5^{\circ}05'29''$ R = 343.000 (m) L = 148.397 (m)		582,076.080 581,994.722 581,942.980 581,942.980 581,843.249	735,117.0 735,080.2 735,007.5 735,007.5 734,867.3
SEGMENT 1	PI	18+767.747 18+951.984 19+041.253 19+041.253 19+126.348 19+298.408 19+373.786	Deg. = $4^{\circ}28'40''$ R = 390.000 (m) L = 250.601 (m) T = 129.798 (m) e = 21.032 (m) Linear= 184.238 (m) CURVE DATA Delta = $30^{\circ}16'25''$ Rt. Deg. = $5^{\circ}17'31''$ R = 330.000 (m) L = 174.364 (m) T = 89.268 (m) e = 11.861 (m) CURVE DATA Delta = $24^{\circ}47'19''$ Lt. Deg. = $5^{\circ}05'29''$ R = 343.000 (m)		582,076.080 581,994.722 581,942.980 581,843.249 581,799.559	735,117.0 735,080.2 735,007.5 734,867.3 734,805.8
SEGMENT 1	PI	18+767.747 18+951.984 19+041.253 19+126.348 19+298.408 19+373.786 19+373.786	Deg. = $4^{\circ}28^{\circ}40^{\circ}$ R = 390.000 (m) L = 250.601 (m) T = 129.798 (m) e = 21.032 (m) Linear= 184.238 (m) CURVE DATA Delta = 30°16'25" Rt. Deg. = 5°17'31" R = 330.000 (m) L = 174.364 (m) T = 89.268 (m) e = 11.861 (m) CURVE DATA Delta = 24°47'19" Lt. Deg. = 5°05'29" R = 343.000 (m) L = 148.397 (m) T = 75.378 (m)		582,076.080 581,994.722 581,942.980 581,843.249 581,799.559 581,799.559 581,734.140	735,117.0 735,080.2 735,007.5 734,867.3 734,805.8 734,805.8
SEGMENT 1	PI	18+767.747 18+951.984 19+041.253 19+041.253 19+126.348 19+298.408 19+373.786	Deg. = $4^{\circ}28'40''$ R = 390.000 (m) L = 250.601 (m) T = 129.798 (m) e = 21.032 (m) Linear= 184.238 (m) CURVE DATA Delta = $30^{\circ}16'25''$ Rt. Deg. = $5^{\circ}17'31''$ R = 330.000 (m) L = 174.364 (m) T = 89.268 (m) e = 11.861 (m) CURVE DATA Delta = $24^{\circ}47'19''$ Lt. Deg. = $5^{\circ}05'29''$ R = 343.000 (m) L = 148.397 (m) T = 75.378 (m) e = 8.185 (m)	S 54°34'33" W	582,076.080 581,994.722 581,942.980 581,843.249 581,799.559	735,117.0 735,080.2 735,007.5 734,867.3 734,805.8 734,805.8 734,768.4 734,768.4
SEGMENT 1	PI PI PT PC PI PI PC PI PT PC PI PT PC PI PT PC PI	18+767.747 18+951.984 19+041.253 19+041.253 19+126.348 19+298.408 19+373.786 19+373.786 19+373.786	Deg. = 4*28'40" R = 390.000 (m) L = 250.601 (m) T = 129.798 (m) e = 21.032 (m) Linear= 184.238 (m) CURVE DATA Delta = 30°16'25" Rt. Deg. = 5°17'31" R = 330.000 (m) L = 174.364 (m) T = 89.268 (m) e = 11.861 (m) CURVE DATA Delta = 24*47'19" Lt. Deg. = 5°05'29" R = 343.000 (m) L = 148.397 (m) T = 75.378 (m) e = 8.185 (m) CURVE DATA Delta = 64.828 (m) CURVE DATA Delta = 61*00'40" Lt.	S 54°34'33" W	582,076.080 581,994.722 581,942.980 581,843.249 581,799.559 581,799.559 581,734.140 581,677.878	735,117.0 735,080.2 735,007.5 734,867.3 734,805.8 734,805.8 734,768.4 734,768.4
SEGMENT 1	PI PI PT PC PI PI PC PI PT PC PI PT PC PI PT PC PI	18+767.747 18+951.984 19+041.253 19+041.253 19+126.348 19+298.408 19+373.786 19+373.786 19+373.786	Deg. = 4*28'40" R = 390.000 (m) L = 250.601 (m) T = 129.798 (m) e = 21.032 (m) Linear= 184.238 (m) CURVE DATA Delta = 30°16'25" Rt. Deg. = 5*17'31" R = 330.000 (m) L = 174.364 (m) T = 89.268 (m) e = 11.861 (m) CURVE DATA Delta = 24*47'19" Lt. Deg. = 5*05'29" R = 343.000 (m) L = 148.397 (m) T = 75.378 (m) e = 8.185 (m) CURVE DATA Delta = 64.828 (m) CURVE DATA Delta = 61*00'40" Lt. Deg. = 26°27'37" R = 66.000 (m)	S 54°34'33" W	582,076.080 581,994.722 581,942.980 581,843.249 581,799.559 581,799.559 581,734.140 581,677.878	735,117.0 735,080.2 735,007.5 734,867.3 734,805.8 734,805.8 734,768.4 734,768.4
SEGMENT 1	PI PI PT PC PI PI PC PI PT PC PI PT PC PI PT PC PI	18+767.747 18+951.984 19+041.253 19+041.253 19+126.348 19+298.408 19+373.786 19+373.786 19+373.786	Deg. = 4*28'40" R = 390.000 (m) L = 250.601 (m) T = 129.798 (m) e = 21.032 (m) Linear= 184.238 (m) CURVE DATA Delta = 30*16'25" Rt. Deg. = 5*17'31" R = 330.000 (m) L = 174.364 (m) T = 89.268 (m) e = 11.861 (m) CURVE DATA Delta = 24*47'19" Lt. Deg. = 5*05'29" R = 343.000 (m) L = 148.397 (m) T = 75.378 (m) e = 8.185 (m) CURVE DATA Delta = 64.828 (m) CURVE DATA Delta = 61*00'40" Lt. Deg. = 26*27'37"	S 54°34'33" W	582,076.080 581,994.722 581,942.980 581,843.249 581,799.559 581,799.559 581,734.140 581,677.878	735,117.0 735,080.2 735,007.5 735,007.5 734,867.3

N19(1---1) GRID CONTROL POINTS ---- NAD83 NMSPC WEST ZONE Point ID Point Name Northing Fasting File VATION CODE

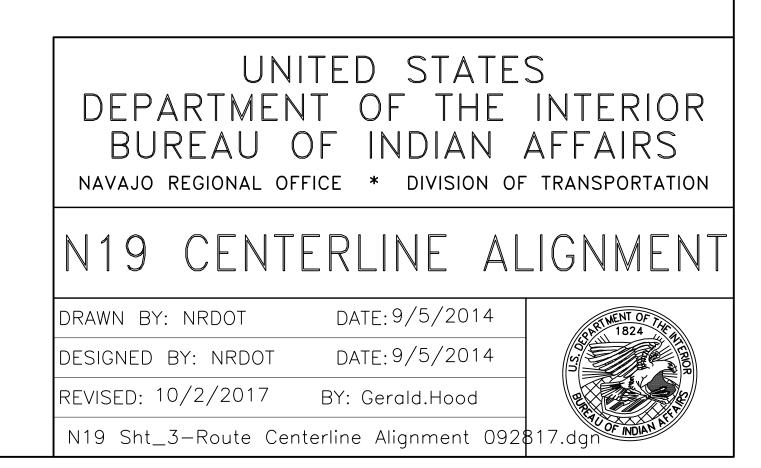
Point ID	Point Name	Northing	Lasting	ELEVATION	CODE
NM491ROWM?1	100	593,125.708	750,855.574	1,706.796	ROWM
NM491ROWM?1	101	591,972.285	751,065.726	1,706.998	ROWM
AP?34	103	581,238.502	734,744.992	2,062.970	NWPT
GREY	104	585,000.697	741,595.006	1,834.174	NWPT
ROC	106	582,490.989	735,571.802	1,998.831	NWPT
YCNM4962	108	589,374.747	747,532.422	1,757.621	NWPT
PCP?12	120	581,768.129	734,754.720	2,055.222	NWPT

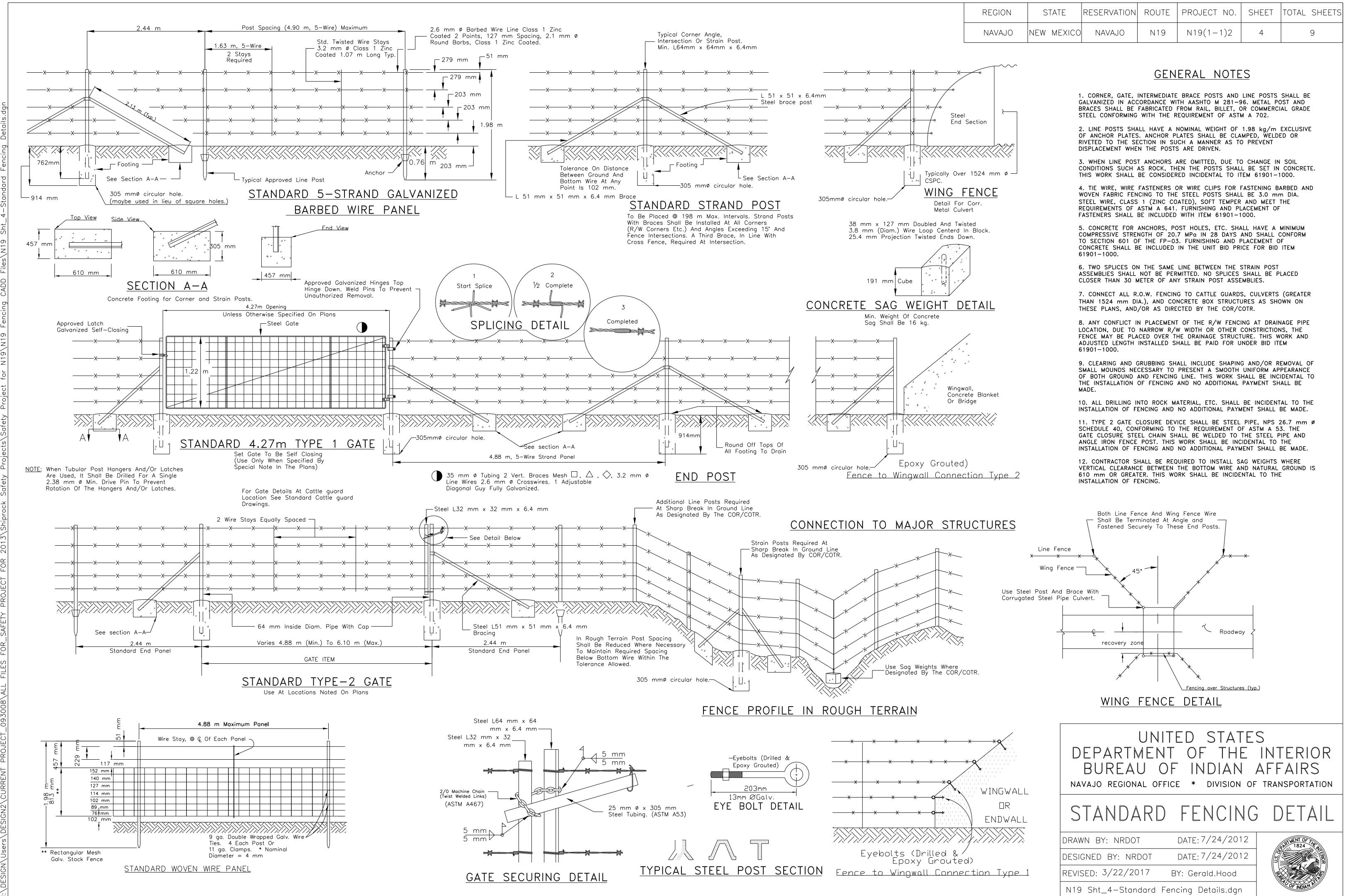
	ROW TA	BLE LENG	THS & ARE	Â						
	Station Lt	to Station Rt	Length Left (m)	Length Right (m)	ROW Width RT (m)	ROW Width LT (m)	Area (ha)	Area (Ac)	Total Area (ha)	Total Area (Ac)
	00+000.000	00+000.000	0.000	0.000	22.860	22.860	0.000	0000		
	00+019.854	00+019.854	19.854	19.854	28,860	22.860	0.091	0.284		
	00+349.598	00+349.598	329.744	329.744	22.860	22.860	1.508	3,725		
	00+855 616	00+855.616	506.018	506 018	22.860	22,860	2.314	5.717		
	01+240.676	01+240.676	385.060	385.060	22.860	22.860	1,760	4.350		
	04+092,543	04+092.543	2,851.867	2,851,867	22.860	22,860	13.039	32.219		
	04+361.757	04+361.757	269.214	269.214	22.860	22.860	1.231	3.041		
	04+544.874	04+544.874	83.117	183.117	\$2.868	22.860	0.837	2.069		
	04+798.580	04+798.580	253 706	253.706	22.860	22.860	1.160	2.866		
	08+317.585	08+317.585	3,519.005	3,519.005	22.860	22.860	16.089	39.757		
SEGMENT 4	08+548.655	08+548.655	231.070	231.070	22.860	22.860	1.056	2.611	23.12	57.131
	09+855.498	09+855.498	1,306.843	1,306.843	22.860	22.860	5.975	14.764		
SEGMENT 3	10+114.583	10+114.583	259.085	259.085	22.860	22.860	1.185	2.927	1.185	2.928
SEGMENT 2	12+430.000	12+430.000	2,315.417	2,315.417	22.860	22.860	10.586	26.159	12.206	30.162
SEGIVILINT 2	12+710.000	12+710.000	280.000	280.000	22.860	35.000	1.620	4.003	12.200	30.102
	18+517.145	18+517.145	5,807.145	5,807.145	22.860	22.860	26.550	65.607		
	18+767.748	18+767.748	0.000	250.603	22.860	22.860	0.573	1.416		
	18+951.984	18+951.984	0.000	184.236	22.860	22.860	0.421	1.041		
SEGMENT 1	19+126.348	19+126.348	174.364	174.364	22.860	22.860	0.797	1.970	30.423	75.177
	19+298.408	19+298.408	172.060	172.060	22.860	22.860	0.787	1.944	50.425	/3.1//
	19+446.805	19+446.805	148.397	148.397	22.860	22.860	0.678	1.677		
	19+511.632	19+511.632	64.827	64.827	22.860	22.860	0.296	0.732		
	19+581.912	19+581.912	70.280	70.280	22.860	22.860	0.321	0.794		
	19+652.315	19+652 315	70.403	70.403	22,860	22.860	0.322	0.795		
	\land		$\overline{)}$		\land	Total:	89.196	220.409		

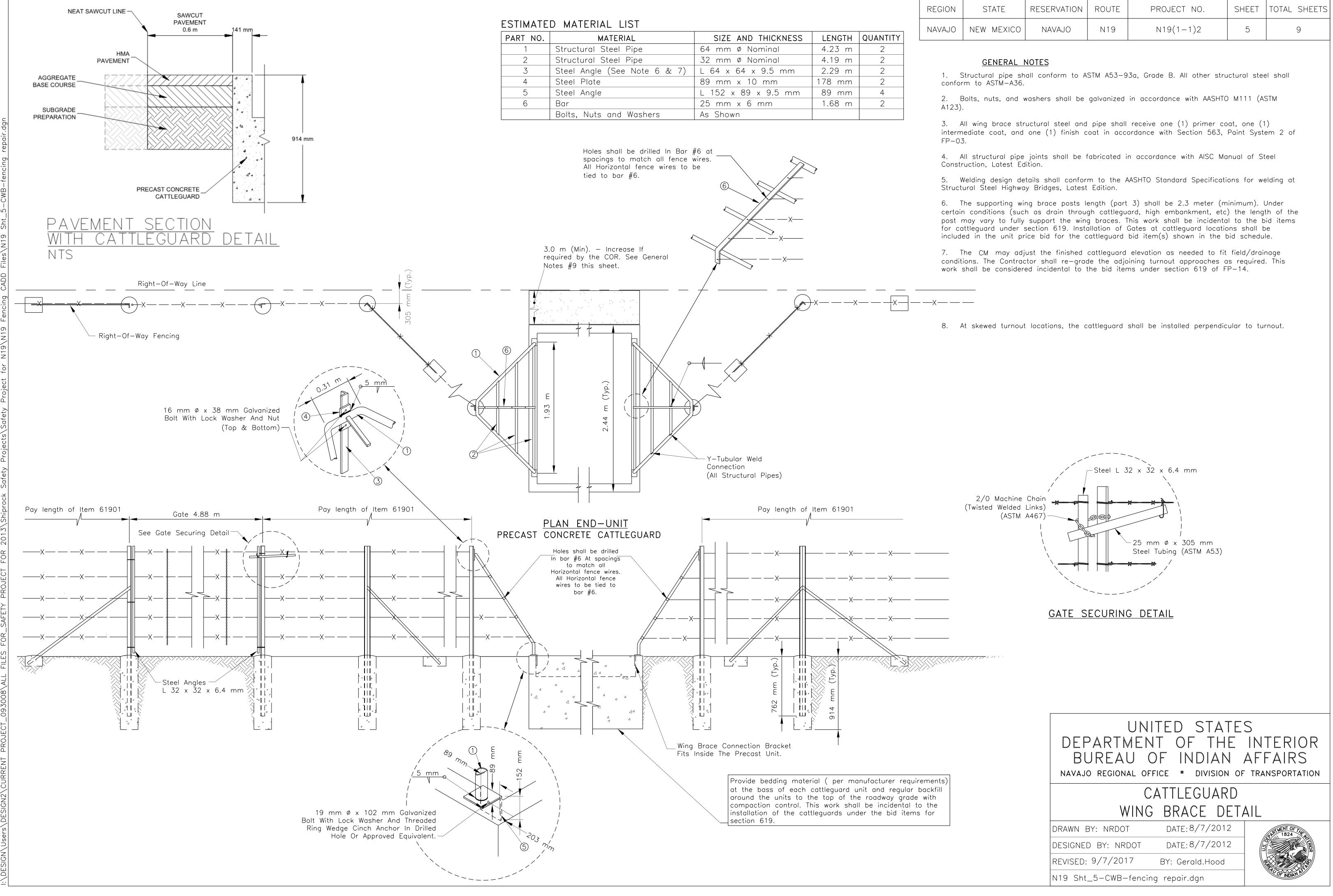
REGION	STATE	RESERVATION	ROUTE	PROJECT NO.	SHEET	TOTAL SHEETS
NAVAJO	NEW MEXICO	NAVAJO	N19	N19(1-1)2	3	9

<u>General Note:</u>

1. ALIGNMENT PROJECTION IS NAD83 NEW MEXICO, STATE PLANE COORDINATES WEST ZONE GRID. SEE ROW TABLE THIS SHEET.

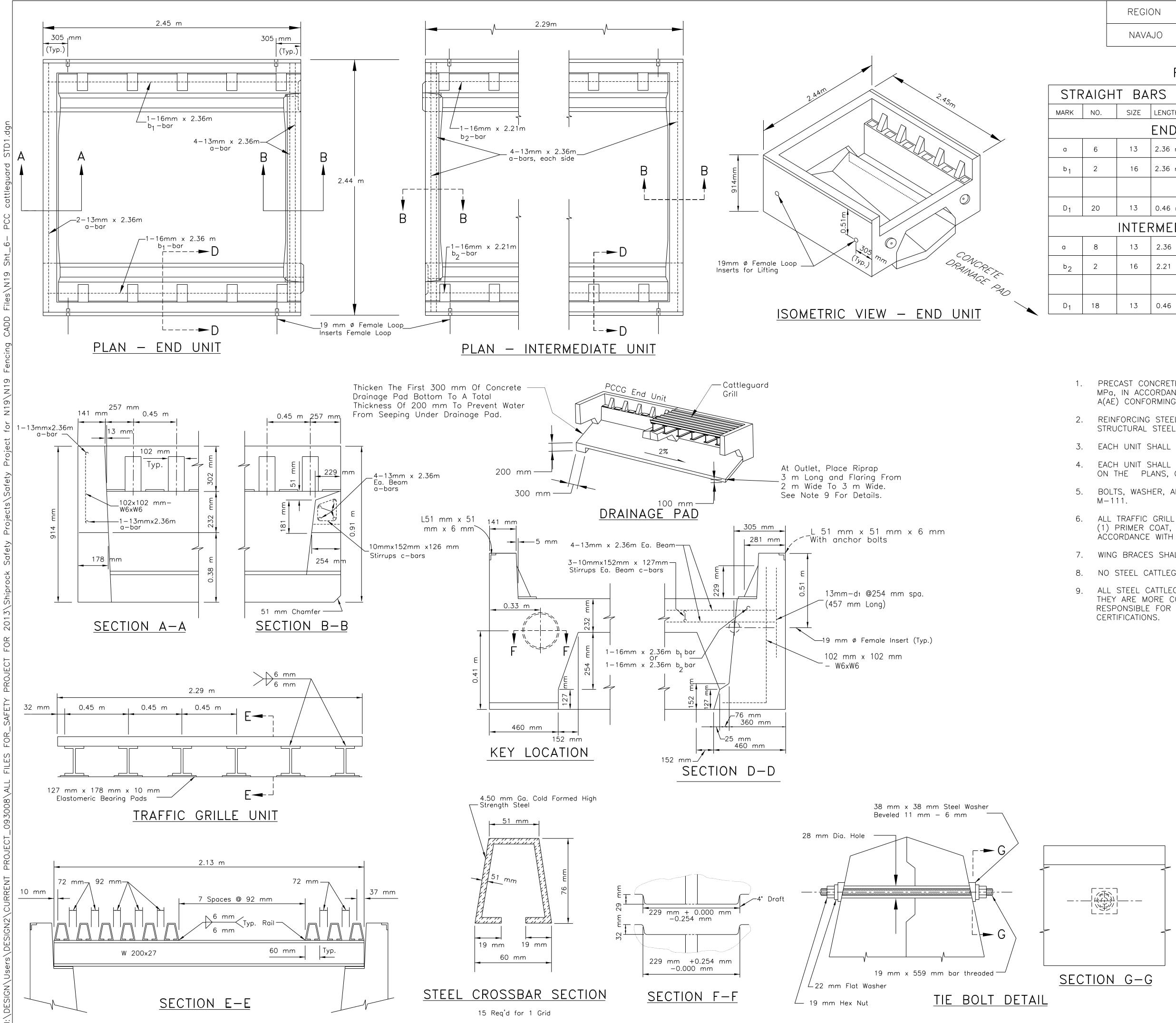






PART NO.	MATERIAL	SIZE AND THICKNESS	LENGTH	QUANTITY
1	Structural Steel Pipe	64 mm Ø Nominal	4.23 m	2
2	Structural Steel Pipe	32 mm Ø Nominal	4.19 m	2
3	Steel Angle (See Note 6 & 7)	L 64 x 64 x 9.5 mm	2.29 m	2
4	Steel Plate	89 mm x 10 mm	178 mm	2
5	Steel Angle	L 152 x 89 x 9.5 mm	89 mm	4
6	Bar	25 mm x 6 mm	1.68 m	2
	Bolts, Nuts and Washers	As Shown		

REGION	STATE	RESERVATION	ROUTE	PROJECT NO.	SHEET	TOTAL SHEETS
NAVAJO	NEW MEXICO	NAVAJO	N19	N19(1-1)2	5	9



REGION	STATE	RESERVATION	ROUTE	PROJECT NO.	SHEET	TOTAL SHEETS
NAVAJO	NEW MEXICO	NAVAJO	N19	N19(1-1)2	6	9

REINFORCING STEEL SCHEDULE

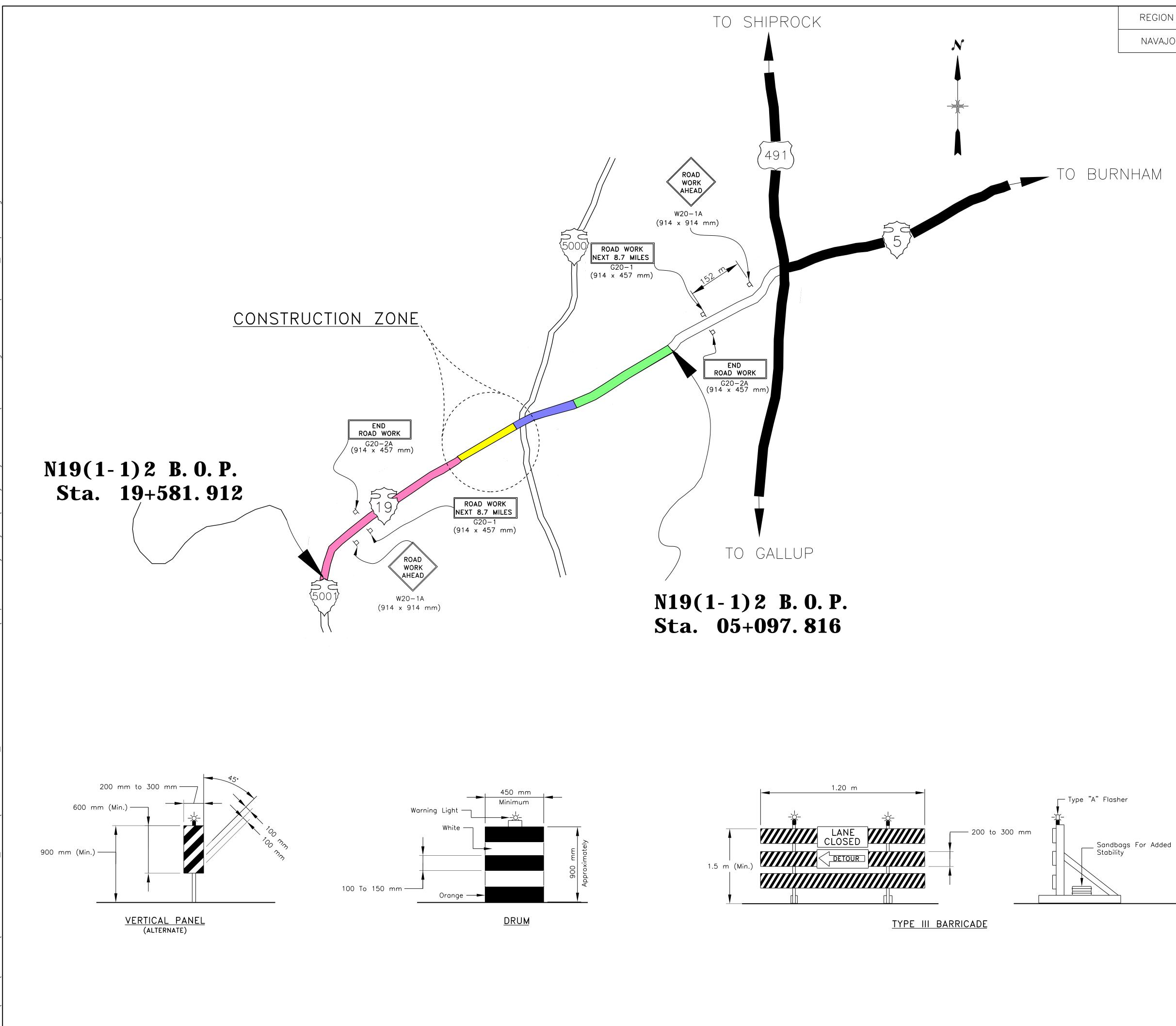
STRAIGHT BARS				BENT	BAR	S	BENDING DIAGRAMS	
MARK	NO.	SIZE	LENGTH	MARK	NO.	SIZE	LENGTH	ALL DIMENSIONS ARE
			END	OUT TO OUT				
a	6	13	2.36 m					b₂ bar 2.21 m
^b 1	2	16	2.36 m					
				с	3	10	0.61 m	a bar 2.36 m
D ₁	20	13	0.46 m					by bar 2.36 m
INTERMEDIATE UNIT								
a	8	13	2.36 m					
b ₂	2	16	2.21 m					c bar 9 02
				С	6	10	0.61 m	
D ₁	18	13	0.46 m					152 mm

<u>GENERAL NOTES</u>

- 1. PRECAST CONCRETE SHALL ATTAIN A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 27.6 MPa, IN ACCORDANCE WITH AASHTO T22 (ASTM C-39). THE CONCRETE SHALL BE CLASS A(AE) CONFORMING TO SECTION 552 OF THE FP-14.
- 2. REINFORCING STEEL SHALL CONFORM TO ASTM SPECIFICATION A615, GRADE 300. ALL STRUCTURAL STEEL SHALL CONFORM TO AASHTO M270M, GRADE 250.
- 3. EACH UNIT SHALL CONFORM TO THE AASHTO MS-18 HIGHWAY LOADING REQUIREMENTS.
- 4. EACH UNIT SHALL BE FABRICATED TO CONFORM TO THE ROADWAY CROWN AS SHOWN ON THE PLANS, OR AS DESIGNATED BY THE CM.
- 5. BOLTS, WASHER, AND NUTS, SHALL BE GALVANIZED IN ACCORDANCE WITH AASHTO
- ALL TRAFFIC GRILL UNIT, INCLUDING STEEL ANGLES SHALL BE SHOP PAINTED WITH ONE (1) PRIMER COAT, ONE (1) INTERMEDIATE COAT, AND ONE (1) FINISH COAT IN ACCORDANCE WITH SECTIÓN 563, PAINT SYSTEM 2 OF FP-14.
- 7. WING BRACES SHALL BE CONSIDERED SUBSIDIARY ITEMS TO THE CATTLEGUARD UNIT.
- 8. NO STEEL CATTLEGUARDS TO BE USED AT PCC DRAINAGE PAD CATTLEGUARD LOCATIONS.
- 9. ALL STEEL CATTLEGUARDS MAYBE SUBSTITUTED PROVIDED THE CONTRACTOR CAN SHOW THEY ARE MORE COST EFFECTIVE WITH SUPPORTING DATA. THE CONTRACTOR IS RESPONSIBLE FOR PATENT PROTECTION RIGHTS AND ALL SHOP DRAWINGS AND MATERIAL

DEPARTMEN	ITED STATE IT OF THE DF INDIAN fice * division of	INTERIOR AFFAIRS						
PRECAST CONCRETE CATTLEGUARD DETAILS								
DRAWN BY: NRDOT	DATE:9/5/2014	6 BTI MENT OF THE						
DESIGNED BY: NRDOT	DATE: 9/5/2014							
REVISED: 9/7/2017	BY: Gerald.Hood							
N19 Sht 6- PCC cattle	equard STD1 dap	OF INDIAN AT						

N19 Sht_6- PCC cattleguard STD1.dgn



REGION	STATE	RESERVATION	ROUTE	PROJECT NO.	SHEET	TOTAL SHEETS
NAVAJO	NEW MEXICO	NAVAJO	N19	N19(1-1)2	7	9

GENERAL NOTES

1. ALL TRAFFIC CONTROL DEVICES SHALL BE IN ACCORDANCE WITH THE MUTCD MANUAL (LATEST EDITION AND AMENDMENTS) AND THE SUPPLEMENTAL SPECIFICATIONS FOR THIS PROJECT.

2. THE TRAFFIC CONTROL DETAILS SHOWN ARE ONLY A GUIDE AND REFLECTS GENERAL REQUIREMENTS. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR IMPLEMENTING HIS TCP IN ACCORDANCE WITH THIS PLAN AND THE MUTCD UNDER CONTRACT ITEM 63501. ANY ADDITIONAL TRAFFIC CONTROL DEVICES CALLED FOR ON THE CONTRACTOR'S TCP WILL NOT BE MEASURED FOR PAYMENT BUT SHALL BE CONSIDERED INCIDENTAL TO CONTRACT ITEM 63501. SEE SUPPLEMENTAL SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS.

3. SIGNS (G20-1, W20-1A & B, AND G20-2A) SHALL BE PLACED AT THE PROJECT LIMITS AND REMAIN IN PLACE THROUGH THE DURATION OF THE PROJECT.

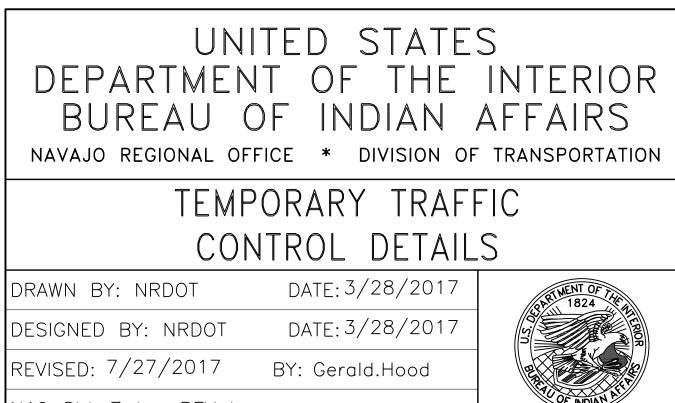
4. FLAGGERS SHALL BE STATIONED LEFT & RIGHT AS SHOWN WHEN EQUIPMENT IS CROSSING OR WORKING WITHIN EXISTING ROADWAY PRISM OR AT DETOURS.

5. AT THE END OF EACH WORKING DAY, IT WILL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE A DRIVING SURFACE FREE OF OBSTRUCTIONS AS SHOWN ON THE PHASED CONSTRUCTION DETAIL. ACCESS TO ALL ADJOINING PROPERTIES AND BIA SYSTEM ROUTES SHALL BE MAINTAINED AT ALL TIMES DAY AND NIGHT.

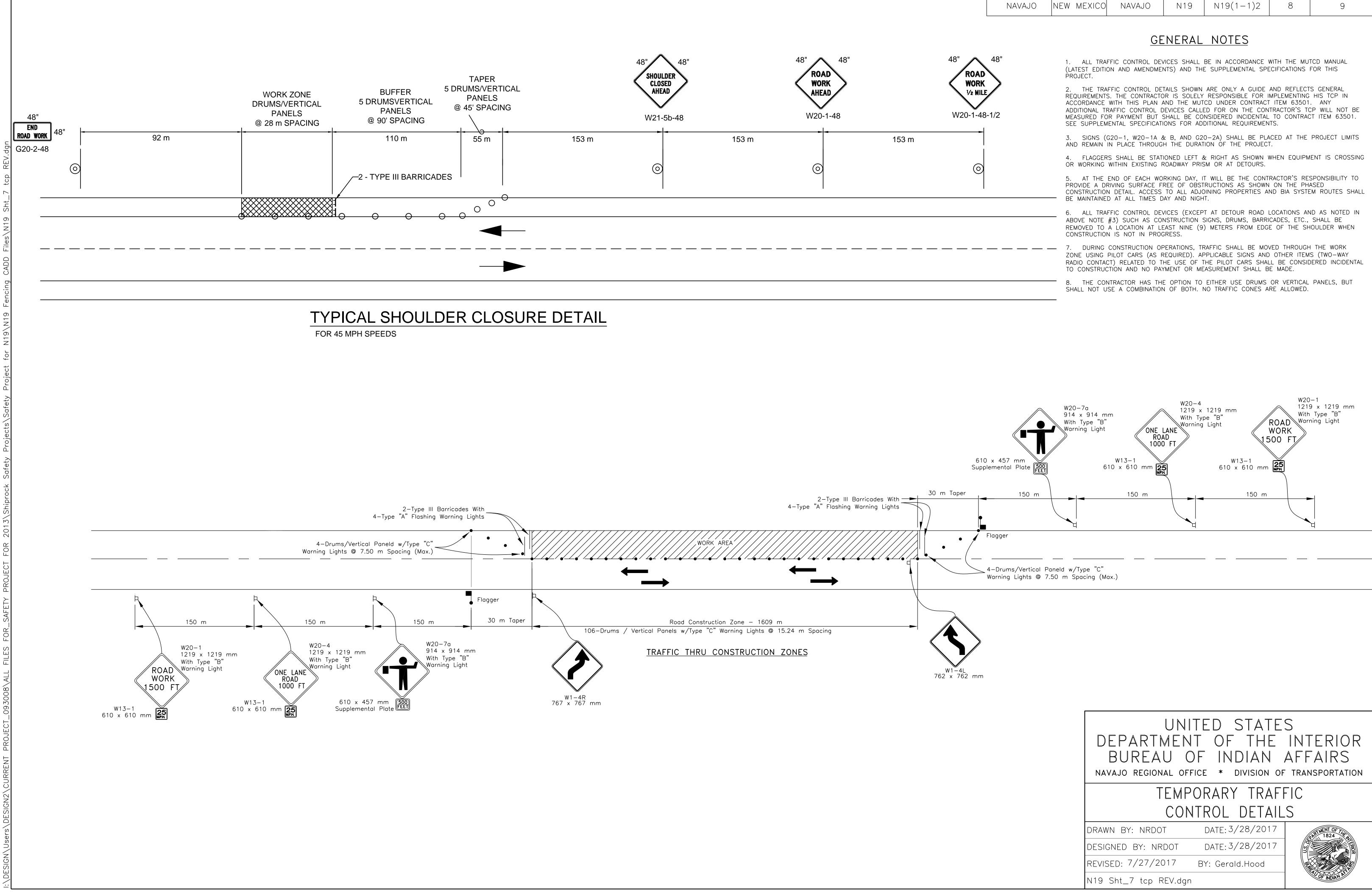
6. ALL TRAFFIC CONTROL DEVICES (EXCEPT AT DETOUR ROAD LOCATIONS AND AS NOTED IN ABOVE NOTE #3) SUCH AS CONSTRUCTION SIGNS, DRUMS, BARRICADES, ETC., SHALL BE REMOVED TO A LOCATION AT LEAST NINE (9) METERS FROM EDGE OF THE SHOULDER WHEN CONSTRUCTION IS NOT IN PROGRESS.

7. DURING CONSTRUCTION OPERATIONS, TRAFFIC SHALL BE MOVED THROUGH THE WORK ZONE USING PILOT CARS (AS REQUIRED). APPLICABLE SIGNS AND OTHER ITEMS (TWO-WAY RADIO CONTACT) RELATED TO THE USE OF THE PILOT CARS SHALL BE CONSIDERED INCIDENTAL TO CONSTRUCTION AND NO PAYMENT OR MEASUREMENT SHALL BE MADE.

8. THE CONTRACTOR HAS THE OPTION TO EITHER USE DRUMS OR VERTICAL PANELS, BUT SHALL NOT USE A COMBINATION OF BOTH. NO TRAFFIC CONES ARE ALLOWED.



N19 Sht_7 tcp REV.dgn



NAVAJO NEW MEXICO NAVAJO N19 N19(1-1)2 8 9	REGION	STATE	RESERVATION	ROUTE	PROJECT NO.	SHEET	TOTAL SHEETS
	NAVAJO	NEW MEXICO	NAVAJO	N19	N19(1-1)2	8	9