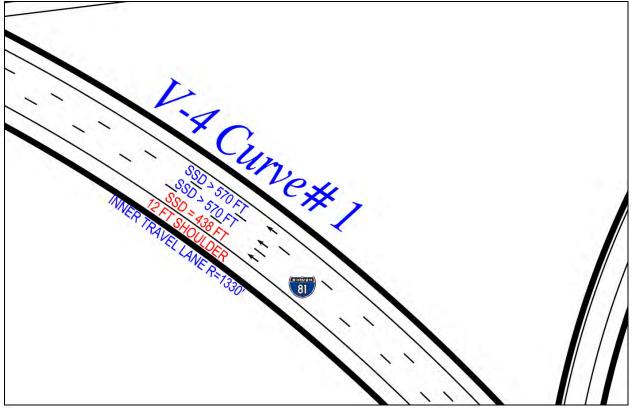
Appendix A-3 Nonstandard Features Justification Forms

## VIADUCT ALTERNATIVE

		Exhibit Nonstandard Fe	A-3-1-01 ature Justifica	tion				
PIN:	3501.60		Route No. & Name	: I-8	1 Northbound			
Project Type:	New Constr	uction	Design Classificati	on: Inte	erstate			
ADT (2050)	51,700		Design Speed		MPH			
DHV (2050)	5,046		% Trucks:	169	%			
1. Description of N	onstandard F	eature						
Type of I	Feature (e.		ght Distance					
horizontal curve Location:	radius):	I-81 Northbound (RM 2 inner lane of curve only		urve#1;	Viaduct Alternative			
Standard Value	:	570 FT (HSSD)	Design Spee	d	60 MPH			
Existing Value:		270 FT (HSSD)						
Proposed Value		438 FT (HSSD) Note	2					
2. Accident Analys	is	acc/mvm or acc/mev			I			
Current Accident	Rate:	(Note 3) 3.21 acc/mvm	Statewide Accide	nt Rate:	acc/mvm or acc/mev (Note 3) 1.06 acc/mvm			
Is the NSF a contributir identified accide Choose YES of	ents?	YES 🗵	3		NO 🗆			
If YES, describe how contributes to acc	the feature cidents	accidents occurred within the potentially related to the ex	his curve segment - isting non-standard isting non-standard	of which sight dista	hrough June 30, 2013, a total of 66 1 accident was identified to be ince feature. The number of accidents juates to 1.5% of total accidents, and			
3. Cost Estimates Sector Fully Mart Standards \$10.1 M (based on additional over-widening of the inner shoulder								
Cost to Fully Meet Standards: \$ 10.1 M (based on additional over-widening of the inner shoulder along the length of the curve. See Note 5). \$ 6 9 M based on widening left shoulder from 4 ft to 12 ft (see								
Cost(s) For In	cremental Imp	provements:	\$ 6.9 M based or note 5).	widening	left shoulder from 4 ft. to 12 ft. (see			
4. Measures to Mit ITS for non-standard LO		ential Adverse Effects of the I	NSF (e.g., curve wa	ning signs	for a non-standard horizontal curve;			
signs to indicate the non	-standard HS g term operation	SD condition. An open rail sy onal issues, and would be in-	stem was also cons	idered and	be used as supplement of warning I dismissed because it would be difficult t's bridge rail policy in Chapter 6			
5. Compatibility wit	h Future Plan	s for Adjacent Segments						
Over-widening of the in are no future plans for a			increase HSSD is co	onsistent w	ith other curves in the area and there			
6. Social, Economic	c & Environme	ental factors that weigh in the	e decision to retain o	r propose t	he NSF			
<ul> <li>potentially encourses during winterchange area</li> <li>2) Increasing the p design similar to buildings, nine (s costs that would acquisitions would</li></ul>	widening of the uraging unauth nter weather a a and the total roposed curve Alternative O B) of which are be associated ald present uni	e inner side shoulder (from 1 norized use of the wider shou and increased long term main cost to over-widen the shou e radii from 1330ft to 2260ft v ption V-2 and significantly in e on or eligible for listing on the	ulder as a travel lane ntenance costs. This lder of all five curves vould require realign creasing the numbe he National Register D criteria are estima	e, create sr s curve is ju s is estimat ment of the r of building of Historic	struction costs approximately \$10.1 M , now removal and de-icing logistical ust one of five curves within the ted to be \$26.0 M. (see Note 5). e entire interchange area, resulting in a g impacts (twelve (12) additional e Places). The additional ROW impact 20.0 M. In addition, several of these			
7. Recommendation								
curve and the proposed approximately 62 % abo design has corrected all lanes meet HSSD criteri additional accident reduc	design include ve the existing other non-sta a). See Figure ction benefit.	es an incremental improvem g HSSD and also achieve ne ndard features and the non-s e 1. Further increasing HSSI	ent (shoulder widen arly 77 % of the des standard HSSD appl D would increase co onstandard HSSD b	ed to 12') wign criteria ies only to sts and/or pe retained	e existing non-standard HSSD for this which would increase the HSSD standard. In addition, the proposed the inner most lane (the other travel property impacts and provide little to no for this curve, by including an			

- Non-Standard Horizontal Stopping Sight Distance (HSSD) condition applies to the inside travel lane only as sight distance is controlled by the concrete bridge barrier that is located at edge of proposed shoulder (See Figure 1).
- Proposed minimum HSSD of 438 feet (inner lane) is based on providing a widened 12' shoulder on the inside of the curve for the length of the curve. If a standard 4 foot shoulder were provided, the minimum HSSD would be 379 feet.
- 3. Rate reported is accidents per million vehicle miles (acc/mvm) for linear highway segments. The Statewide Accident Rate is from the published Average Accident Rates for State Highways By Facility Type (Based on accident data August 1, 2012 to July 31, 2014), based on an Urban, Divided 4 lane highway.
- 4. For more detailed accident report information, refer to Table 2 (copy attached) included in the Technical Memorandum titled I-81 Viaduct Project Syracuse, New York, Non-Standard and Non-Conforming Features Evaluation, S-Curve and Slalom Area, dated September 5, 2014.
- 5. The cost estimate is based on one potential approach to fully meet the standard for HSSD, which is providing additional widening of the inner side shoulder width from 12 ft to 25 ft along the length of the curve. (See note 7 for another potential approach). While widening the inside shoulder an additional 13 feet would satisfy the HSSD criteria for this curve, there are other concerns that this would introduce. Additional concerns include; potentially encouraging unauthorized use of the wider shoulder as a travel lane, snow removal and de-icing logistics during winter weather and increased long term maintenance costs. The estimated cost to over-widen the shoulder of this curve is \$10.1 M, but this curve is just one of five curves within the interchange area that would need to be widened to meet HSSD criteria. The total cost to over-widen the shoulder of all five curves is estimated to be \$26.0 M.
- 6. The design criterion for the left shoulder along this segment of I-81 is 4 feet. If a 4 foot wide left shoulder were provided, the resultant HSSD would be 379 feet (inner lane). By increasing the left shoulder width to 12 feet, the resultant HSSD increases to 438 feet, which is a significant improvement over the existing HSSD and represents an improvement to 77%, of the Design Criteria standard.
- 7. A second potential approach to fully meeting the HSSD for this curve (see note 5) would be to provide a flatter horizontal curve. By increasing the radius of the proposed curve from the current design of 1330 ft to 2260 ft., HSSD for this curve would meet design criteria. However, because of the complex geometry through the main I-81/I-690 Interchange, it is not possible to modify the alignment of the curve without modifying the geometry of I-81 southbound, I-690 westbound, I-690 eastbound and many of the interconnect ramps. This level of modification would essentially mimic alternative option V-2, which would result in approximately twelve (12) additional building impacts, nine (9) of which are on or eligible for listing on the National Register of Historic Places. The additional ROW impact costs that would be associated with fully meeting the HSSD criteria are estimated to be \$20.0 M. In addition, several of these building could also present additional social and economic impacts as well as unique relocation challenges. For example:
  - a. Nettleton Commons is a large building having both commercial and residential uses. As this building contains approximately 60 apartments and several businesses, acquisition of the building would impact a large number of residents and businesses in the core downtown area.
  - b. Samaritan Center is located in the former St. John the Evangelist church and currently serves approximately 300 meals a day to those in need as part of their breakfast and dinner service. Acquisition of this building could cause a disruption to these critical services and negatively impact those that depend on this critical service. In addition, prior to their opening at this location, they had encountered overwhelming neighborhood opposition at another proposed location, so if impacted, it is anticipated this would be a difficult and sensitive relocation.
  - c. The Community Reentry Center is operated by the Federal Bureau of Prisons as a halfway house for helping to transition released federal prisoners back into society. Recent attempts to relocate this facility proved to be controversial as community concerns included proximity to churches, homes, libraries and schools, so if this building is impacted by this project, it is anticipated this would present difficult and unique relocation challenges.
  - d. Snowden Apartments is a very large apartment building with nearly 200 apartments and 350 residents. But this building is also very unique in that nearly 80% of the residents are under the supervision of the NYS Department of Corrections and Community Service as parolees' who are registered sex offenders. If this building is impacted, it is anticipated that it would present unique and difficult relocation challenges.





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			Existing 5					020	017			
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I = Existing Non-standard/Non-conforming leature is improved E = Existing Non-standard/Non-conforming feature is eliminated	nts Were Rela	Design Status of Non-Standard/Non-Conforming Feature?	Siaht	Distance	0		0		0	_	F	
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		ure?		V/V	24		11		7		8	
	I to Potential	Non-Standard/Non-Conforming Feature?		U(nknown)	e		e		e		0	
ve to West)	Accidents Related to Potential	Idard/Non-Col		Y(es)	21		8		4		8	
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irve 1 (I-81 N		Deference	Marker		2043		2044		2045		2046	

# Curve 2 (I-81 Northbound, Curve to North)

-81

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	Alternative V-4	Increase	-			C C 0/	0/ 00			
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		Standard				670	0/0			
		Existing				020	017			
		Damn	Spacing					7	ш	7
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Non-Conform	ing Feature?		Grade			0	ш	0	ш	0
Vere Related to Each Non-Standard/Non-Conforming Feature?	/Non-Conform	Sunar	-					0	ш	0
ated to Each N	Non-Standard	Curve		2	ш	7	ш	6	ш	18
ents Were Rel	Design Status of Non-Standard/Non-Conforming Feature?	Sinht	Distance	0	_	0	_	1	_	Ł
How Many Accidents N	Des									0
Hov			Y/U Shoulder Median	0	ш	0	ш	1	ш	1
	ture?		V/V	2		7		18		27
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	Deference	Marker		2047		2048		2049		Total

## Curve 3 (I-81 Southbound, Curve to East)

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	Alternative V-4	Increase	over Existing			/000	0/ 00			
e (HSSU)	A		roposed			202	100			
ignt Distance		Percent of	Standard			/000	0/ 00			
Horizontal Stopping Signt Distance (HSSU)	Alternative V-3		over Existing			/000	0 00			
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		Standard	(ou mpn)			670	0/0			
		Existing	•			020	210			
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Non-Contorm	ing Feature?		Grade					0	Е	0
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ited to Each N	Von-Standard		Radius	2	ш	3	ш	3	Е	00
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to Potential	Informing Feat		U(nknown)	Ļ		t t		,		e
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10-1 + a/ino	countroound,	carve 4 (1-01 countribuaria, carve to country)																		
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Markor													Evicting	Standard	Standard	Increase Dercent of In	Dersont of		crease	Derect of
							Sight	Curve	Super-		Accel/Decel Ramp	Ramp	Fundation	(60 mph)	Proposed	over		Proposed	over	
	N(o)	Y(es)	U(nknown)	V/V	Shoulder	Median	Distance	Radius	elevation	Grade	Length	Spacing				Existing	Stanuard		Existing	Stanuard
2043	7	7	2	6	0		1	0				8								
					ш		_	ш				ш								
2044	0	9	0	9	0		0				0	9								
					ш		_				ш	ш	Uoc	670	407	700/	0.70/	644	700/	700/
2045	0	14	0	14	0		3	4			5	2	700	010	104	0/0/	0/10	Ĩ	0/0/	0/0/
					ш		_	ш			ш	ш								
2046	4	4	0	4	0		0	4												
					ш		_	ш												
Total	11	31	2	33	0	0	4	80	0	0	9	16								

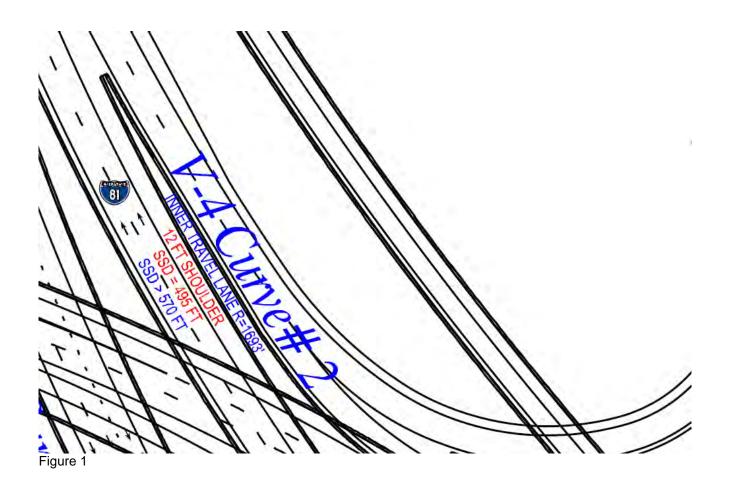
Curve 5 (1-6)	Curve 5 (I-690 Eastbound, Curve to South)	(, Curve to South) Accidents Delated to Detential	and to Dotonti-		Н	Manu Acc	How Many Accidents Wore Delated to Each New Standard Men Conforming Ecoture?	alated to Each	Mon Standard	Hon Confor	mina Ecoturo2				Horizont	Horizontal Stonning Sicht Nietanco (HSSN)	inht Dietance	(HCCD)		
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Marker	N(o)	Y(es)	U(nknown)	λ/U	Shoulder	Median	Sight Distance	Curve Radius	Super- elevation	Grade	Accel/Decel Length	Ramp Spacing	Existing	Standard (60 mph)	Proposed	Increase over Existing	Percent of Standard	Proposed	Increase over Existing	Percent of Standard
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							_	Е			Ш		067	0/0	000	14.70	0/ 60	644	0/00	0/.0/
2025	2	2	0	2	0		2	0	0											
					ш		_	ш	ш											
Total	6	6	0	6	0	0	33	-	0	0	5	0								
Curve 6 (1-65	Curve 6 (I-690 Eastbound. Curve to East)	Curve to East)																		
	Ā	Accidents Related to Potential	ted to Potentia	1	H	How Many Accident	idents Were R	elated to Each	ts Were Related to Each Non-Standard/Non-Conforming Feature?	d/Non-Confor	ming Feature?				Horizonta	Horizontal Stopping Sight Distance (HSSD)	ight Distance	(HSSD)		
Deference		Non-Standard/Non-Conforming Feature?	Conforming Fe	ature?		J	Design Status of Non-Standard/Non-Conforming Feature?	of Non-Standa	rd/Non-Confor	ming Feature	5				A	Alternative V-3			Alternative V-4	
Marker													Existing	Standard		Increase	Darrant of		Increase E	Parcent of
	N(o)	Y(es)	U(nknown)	N/A	Shoulder	Median	Sight Distance	Curve Radius	Super- elevation	Grade	Accel/Decel Length	Ramp Spacing	R	(e0 mph)	Proposed	over Existing	Standard	Proposed	over Existing	Standard
2025	2	2	0	2	0		2	0	0											
					ш		_	ш	ш											
2026	2	-	-	2	0		0	2	0											
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2027	10	7	2	6	F		3	5	0				000	0/0	600	0/01	0/ 00	200	°/ 0/	0/ 00
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					ш		_													
Total	27	12	3	15	-	0	7	7	0	0	0	0								
Curve 7 (1-65	Curve 7 (1-690 Westbound, Curve to West)	Curve to West																		
	A	Accidents Related to Potential	ted to Potentia	1	H	ow Many Acc.	How Many Accidents Were Related to Each Non-Standard/Non-Conforming Feature?	elated to Each	1 Non-Standar	d/Non-Confor	ming Feature?				Horizonta	Horizontal Stopping Sight Distance (HSSD)	ight Distance	(HSSD)		
		Non-Standard/Non-Conforming Feature?	Conforming Fe	ature?			Design Status of Non-Standard/Non-Conforming Feature?	of Non-Standa	rd/Non-Confor	ming Feature	5				A	Alternative V-3			Alternative V-4	
Kererence														Standard		Increase			ncrease	

Horizontal Stopping Sight Distance (HSSD)	Alternative V-3 Alternative V-4	Increase Decrease Decrease	Proposed over	Existing			1022 100C 111 10CO 1012	0/DC 1+++ 0/7C		
Horizontal	Alt	Standard	(60 mph) Proposed				570 575			
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ere Related to Each Non-Standard/Non-Conforming Feature?	e?		Accel/Decel	Length						
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ntial	Feature?			U/X (u	9		5		9	
Accidents Related to Potential	n-Conforming			U(nknown)	2		4		33	
Accidents Re	Non-Standard/Non-Conforming Feature?			Y(es)	4		-		3	
		ų		N(0)	3		4		14	
	Deference	Markor			2023		2024		2025	

069-I

		Exhibi Nonstandard Fe			ion				
PIN:	3501.6		Rout	e No. & Name:	1-8	1 Northbound			
Project Type:	New Constru	uction	Desi	gn Classificatio	n: Int	erstate			
ADT (2050)	50,000			gn Speed		MPH			
DHV (2050)	4,885		% Tr	ucks:	16	%			
1. Description of N	lonstandard Fe	eature							
<b>7</b> 1	Feature (e.g	g., Horizontal Stopping S	Sight D	stance					
horizontal curve	e radius):	I-81 Northbound (RM curve inner-most lane			rve#2;	Viaduct Alternative			
Standard Value	:	570 FT (HSSD)		Design Speed		60 MPH			
Existing Value:		270 FT (HSSD)	_						
Proposed Value		495 FT (HSSD) Note	2						
2. Accident Analys	sis	acc/mvm or acc/mev							
Current Accident	Rate:	(Note 3) 2.88 acc/mvm	Stat	ewide Acciden	t Rate:	acc/mvm or acc/mev (Note 3) 1.06 acc/mvm			
Is the NSF a contributir identified accide Choose YES o	ents?	YES [	$\triangleleft$			NO 🗌			
If YES, describe how contributes to acc	the feature cidents	accidents occurred in this related to the existing non	curve s -standa -standa	segment – of w ard sight distan ard feature equ	hich 1 a ce featu	through June 30, 2013, a total of 43 ccident was identified to be potentially re. The number of accidents potentially 2.3% of total accidents, and an accident			
3. Cost Estimates		,							
Cost to Fully Meet Standards:       \$ 0.8 M (based on additional over-widening of the inner shoulder along the length of the curve. See Note 5)         Cost(s) For Incremental Improvements:       \$ 1.1 M based on widening right shoulder from 10 ft. to 12 ft. (see note 5)									
\$ 1.1 M based on widening right should be from 10 ft to 12 ft (see									
4. Measures to Mi ITS for non-standard LC		ntial Adverse Effects of the	NSF (	e.g., curve war	ning sigr	s for a non-standard horizontal curve;			
to indicate the non-stand	dard HSSD cor erm operationa	ndition. An open rail system	n was a	also considered	and disr	be used as supplement of warning signs nissed because it would be difficult to s bridge rail policy in Chapter 6 (Section			
5. Compatibility with	th Future Plans	s for Adjacent Segments							
Over-widening of the ir are no future plans for a			o increa	ise HSSD is co	nsistent	with other curves in the area and there			
6. Social, Economi	c & Environme	ntal factors that weigh in th	ne decis	sion to retain or	propose	the NSF			
potentially encou issues during wi interchange area 2) Increasing the p design similar to buildings, nine ( costs that would	widening of the uraging unauth nter weather a a and the total roposed curve Alternative O 9) of which are l be associated	e inner side shoulder (from norized use of the wider shi nd increased long term ma cost to over-widen the sho radii from 1693ft to 2260ft ption V-2 and significantly i e on or eligible for listing on	oulder aintena oulder c would ncreas the Na	as a travel lane nce costs. This f all five curves require realign ing the number itional Register	, create s curve is is estim ment of t of buildi of Histor	nstruction costs approximately \$0.8 M , snow removal and de-icing logistical just one of five curves within the ated to be \$26.0 M. (see Note 5). he entire interchange area, resulting in a ng impacts (twelve (12) additional ic Places). The additional ROW impact \$20.0 M. In addition, several of these			
7. Recommendatio									
curve and the proposed approximately 83 % abc design has corrected all lane meets HSSD criter no additional accident re	design include ove the existing other non-star a). See Figure eduction benefi nt to provide a	es an incremental improver y HSSD and also achieve r ndard features and the non 1. Further increasing HSS t. It is recommended that 12 foot inside shoulder wice	ment (s hearly 8 -standa SD wou the nor	houlder widene 7 % of the desi ard HSSD appli Ild increase cos Istandard HSSI	d to 12') gn criteri es only t sts and/o D be reta	the existing non-standard HSSD for this which would increase the HSSD a standard. In addition, the proposed to the inner most lane (the other travel r property impacts and provide little to ined for this curve, by including an e.			

- Non-Standard Horizontal Stopping Sight Distance (HSSD) condition applies to inside travel lane only as sight distance is controlled by the concrete bridge barrier that is located at edge of proposed shoulder (See Figure 1).
- Proposed minimum HSSD of 495 feet is based on providing a widened 12' shoulder on the inside of the curve for the length of the curve. If a standard 10 foot shoulder were provided, the minimum HSSD would be 466ft.
- 3. Rate reported is accidents per million vehicle miles (acc/mvm) for linear highway segments. The Statewide Accident Rate is from the published Average Accident Rates for State Highways By Facility *Type* (Based on accident data August 1, 2012 to July 31, 2014), based on an Urban, Divided 4 lane highway.
- 4. For more detailed accident report information, refer to Table 2 (copy attached to Exhibit A-3-1-01) included in the Technical Memorandum titled I-81 Viaduct Project Syracuse, New York, Non-Standard and Non-Conforming Features Evaluation, S-Curve and Slalom Area, dated September 5, 2014.
- 5. The cost estimate is based on one potential approach to fully meet the standard for HSSD, which is providing additional widening of the inner side shoulder width from 12 ft to 18ft along the length of the curve. (See note 7 for another potential approach). While widening the inside shoulder an additional 6ft would satisfy the HSSD criteria for this curve, there are other concerns that this would introduce. Additional concerns include; potentially encouraging unauthorized use of the wider shoulder as a travel lane, snow removal and de-icing logistics during winter weather and increased long term maintenance costs. The estimated cost to over-widen the shoulder of this curve is \$0.8 M, but this curve is just one of five curves within the interchange area that would need to be widened to meet HSSD criteria. The total cost to over-widen the shoulder of all five curves is estimated to be \$26.0 M.
- 6. The design criterion for the right shoulder along this segment of I-81 is 10 feet. If a 10 foot wide right shoulder were provided, the resultant HSSD would be 466ft. By increasing the right shoulder width to 12 feet, the resultant HSSD increases to 495 feet, which is a significant improvement over the existing HSSD and represents an improvement to 87% of the Design Criteria standard.
- 7. A second potential approach to fully meeting the HSSD for this curve (see note 5) would be to provide a flatter horizontal curve. By increasing the radius of the proposed curve from the current design of 1693ft to 2260 ft., HSSD for this curve would meet design criteria. However, because of the complex geometry through the main I-81/I-690 Interchange, it is not possible to modify the alignment of the curve without modifying the geometry of I-81 southbound, I-690 westbound, I-690 eastbound and many of the interconnect ramps. This level of modification would essentially mimic alternative option V-2, which would result in approximately twelve (12) additional building impacts, nine (9) of which are on or eligible for listing on the National Register of Historic Places. The additional ROW impact costs that would be associated with fully meeting the HSSD criteria are estimated to be \$20.0 M. In addition, several of these building could also present additional social and economic impacts as well as unique relocation challenges. For example:
  - a. Nettleton Commons is a large building having both commercial and residential uses. As this building contains approximately 60 apartments and several businesses, acquisition of the building would impact a large number of residents and businesses in the core downtown area.
  - b. The Community Reentry Center is operated by the Federal Bureau of Prisons as a halfway house for helping to transition released federal prisoners back into society. Recent attempts to relocate this facility proved to be controversial as community concerns included proximity to churches, homes, libraries and schools, so if this building is impacted by this project, it is anticipated this would present difficult and unique relocation challenges.
  - c. Snowden Apartments is a very large apartment building with nearly 200 apartments and 350 residents. But this building is also very unique in that nearly 80% of the residents are under the supervision of the NYS Department of Corrections and Community Service as parolees' who are registered sex offenders. If this building is impacted, it is anticipated that it would present unique and difficult relocation challenges.



		Exhib Nonstandard F			ion				
PIN:	3501.6		Rout	e No. & Name:	I-81	I Southbound			
Project Type:	New Constru	uction	Desi	gn Classificatio	n: Inte	rstate			
ADT (2050)	48,100			gn Speed		MPH			
DHV (2050)	4,692		% Tr		16%	6			
1. Description of No	onstandard Fe	ature							
<b>71</b>	eature (e.g	., Horizontal Stopping S	ight Dis	stance					
horizontal curve Location:	radius):	I-81 Southbound (RM curve inner-most lane c			ve#3;	Viaduct Alternative			
Standard Value:		570 FT (HSSD)		Design Speed		60 MPH			
Existing Value:		270 FT (HSSD)							
Proposed Value:		507-509 FT (HSSD)	Note 2						
2. Accident Analysi	S								
Current Accident	Rate:	acc/mvm or acc/mev (Note 3) 1.67 acc/mvm	Stat	ewide Acciden	t Rate:	acc/mvm or acc/mev (Note 3) 1.06 acc/mvm			
Is the NSF a contributin identified accide Choose YES or	nts?	YES				NO 🗌			
If YES, describe how t contributes to acc	ine reature	accidents occurred in this or related to the existing non-	curve s standa standa	egment – of wh rd sight distanc rd feature equa	ich 1 acci e feature.	ough June 30, 2013, a total of 24 dent was identified to be potentially The number of accidents potentially % of total accidents and an accident			
3. Cost Estimates									
Cost to Fully N			alon	g the length of	the curve.				
Cost(s) For Incremental Improvements:       \$ 5.1 M based on widening left shoulder from 4 ft. to 12 ft. (see note 5).         4.       Measures to Mitigate the Potential Adverse Effects of the NSF (e.g., curve warning signs for a non-standard horizontal curve; ITS for non-standard LOS, etc.)									
indicate the non-standard	HSSD condit	ion. An open rail system wa	s also d	considered and	dismissed	used as supplement of warning signs to because it would be difficult to maintain, plicy in Chapter 6 (Section 6.3.3.1) of the			
5. Compatibility with	n Future Plans	for Adjacent Segments							
Over-widening of the ins no future plans for adjace		o a maximum of 12 feet to i	ncrease	e HSSD is cons	istent with	other curves in the area and there are			
6. Social, Economic	& Environmer	ntal factors that weigh in the	decisio	n to retain or pr	opose the	NSF			
potentially encou during winter wea and the total cost 2) Increasing the pr a design similar t buildings, nine (9 that would be ass	videning of the raging unauth ather and incre- t to over-wider oposed curve o Alternative ( ) of which are sociated with f	inner side shoulder (from 1. orized use of the wider shou eased long term maintenance the shoulder of all five curv radii from 1788/1800ft to 22 Option V-2 and significantly on or eligible for listing on the	Ider as e costs es is es 60ft wo ncreasi ne Natio	a travel lane, c . This curve is j stimated to be \$ uld require realing the number onal Register of	reate snow ust one of 26.0 M. (s gnment of of building Historic P	uction costs approximately \$2.5 M , v removal and de-icing logistical issues five curves within the interchange area ee Note 5). the entire interchange area, resulting in impacts (twelve (12) additional laces). The additional ROW impact costs In addition, several of these acquisitions			
7. Recommendation									
and the proposed design % above the existing HS other non-standard featu Figure 1. Further increas	includes an in SD and also a res and the no sing HSSD wo ed that the nor	cremental improvement (sh chieve nearly 89 % of the do n-standard HSSD applies o uld increase costs and/or pr nstandard HSSD be retained	oulder esign cr nly to th operty i	widened to 12') iteria standard. ne inner most la mpacts and pro	which wou In addition ne (the oth wide little t	kisting non-standard HSSD for this curve uld increase the HSSD approximately 88 n, the proposed design has corrected all her travel lanes meet HSSD criteria). See o no additional accident reduction cremental improvement to provide a 12			

SEE ATTACHED CONTINUATION SHEET

- 1. Non-Standard Horizontal Stopping Sight Distance (HSSD) condition applies to inside travel lane only as sight distance is controlled by the concrete bridge barrier that is located at edge of proposed shoulder (See Figure 1).
- Proposed minimum HSSD of 507ft/509ft is based on providing a widened 12' shoulder on the inside of the curve for the length of the curve. If a standard 4 foot shoulder were provided, the minimum HSSD would be 378 feet.
- 3. Rate reported is accidents per million vehicle miles (acc/mvm) for linear highway segments. The Statewide Accident Rate is from the published Average Accident Rates for State Highways By Facility Type (Based on accident data August 1, 2012 to July 31, 2014), based on an Urban, Divided 4 lane highway.
- 4. For more detailed accident report information, refer to Table 2 (copy attached to Exhibit A-3-1-01) included in the Technical Memorandum titled I-81 Viaduct Project Syracuse, New York, Non-Standard and Non-Conforming Features Evaluation, S-Curve and Slalom Area, dated September 5, 2014.
- 5. The cost estimate is based on one potential approach to fully meet the standard for HSSD, which is providing additional widening of the inner side shoulder width from 12 ft to 17 ft along the length of the curve. (See note 7 for another potential approach). While widening the inside shoulder an additional 5 feet would satisfy the HSSD criteria for this curve, there are other concerns that this would introduce. Additional concerns include; potentially encouraging unauthorized use of the wider shoulder as a travel lane, snow removal and de-icing logistics during winter weather and increased long term maintenance costs. The estimated cost to over-widen the shoulder of this curve is \$2.5 M, but this curve is just one of five curves within the interchange area that would need to be widened to meet HSSD criteria. The total cost to over-widen the shoulder of all five curves is estimated to be \$26.0 M.
- 6. The design criterion for the left shoulder along this segment of I-81 is 4 feet. If a 4 foot wide left shoulder were provided, the resultant HSSD would be 378 feet. By increasing the left shoulder width to 12 feet, the resultant HSSD increases to 507ft/509ft, which is a significant improvement over the existing HSSD and represents an improvement to 89% of the Design Criteria standard.
- 7. A second potential approach to fully meeting the HSSD for this curve (see note 5) would be to provide a flatter horizontal curve. By increasing the radius of the proposed curve from the current design of 1788/1800 ft to 2260 ft., HSSD for this curve would meet design criteria. However, because of the complex geometry through the main I-81/I-690 Interchange, it is not possible to modify the alignment of the curve without modifying the geometry of I-81 northbound, I-690 westbound, I-690 eastbound and many of the interconnect ramps. This level of modification would essentially mimic alternative option V-2, which would result in approximately twelve (12) additional building impacts, nine (9) of which are on or eligible for listing on the National Register of Historic Places. The additional ROW impact costs that would be associated with fully meeting the HSSD criteria are estimated to be \$20.0 M. In addition, several of these building could also present additional social and economic impacts as well as unique relocation challenges. For example:
  - a. Nettleton Commons is a large building having both commercial and residential uses. As this building contains approximately 60 apartments and several businesses, acquisition of the building would impact a large number of residents and businesses in the core downtown area.
  - b. The Community Reentry Center is operated by the Federal Bureau of Prisons as a halfway house for helping to transition released federal prisoners back into society. Recent attempts to relocate this facility proved to be controversial as community concerns included proximity to churches, homes, libraries and schools, so if this building is impacted by this project, it is anticipated this would present difficult and unique relocation challenges.
  - c. Snowden Apartments is a very large apartment building with nearly 200 apartments and 350 residents. But this building is also very unique in that nearly 80% of the residents are under the supervision of the NYS Department of Corrections and Community Service as parolees' who are registered sex offenders. If this building is impacted, it is anticipated that it would present unique and difficult relocation challenges.

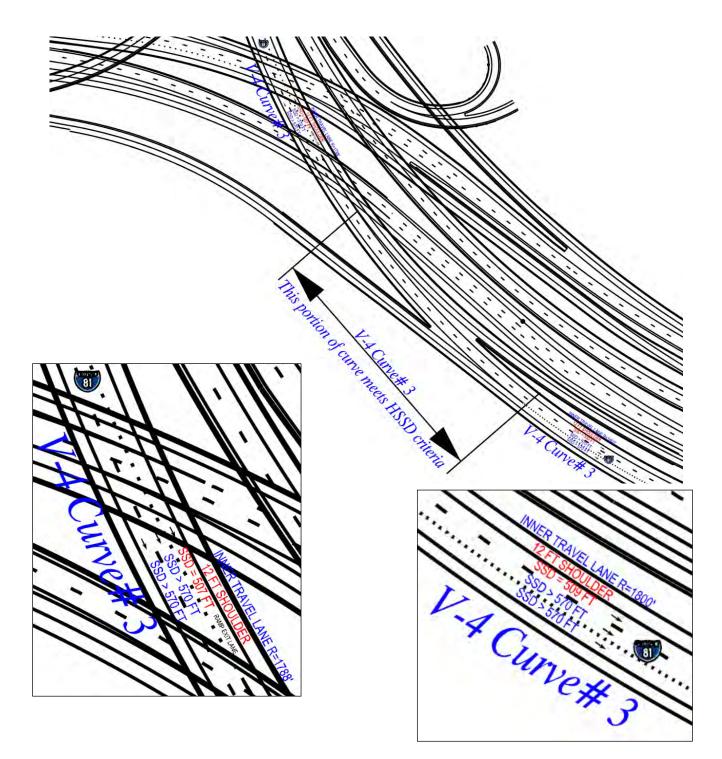


Figure 1

		Exhib Nonstandard F			ion					
PIN:	3501.6		Rout	e No. & Name:	1-8	1 Southbound				
Project Type:	New Constru	ction	Desi	gn Classificatio	n: Int	erstate				
ADT (2050)	48,100		Desi	gn Speed	60	MPH				
DHV (2050)	4,692		% Tr	ucks:	16	%				
1. Description of N	Ionstandard Fe	ature								
	Feature (e.g.	, Horizontal Stopping S	Sight Di	stance						
horizontal curve Location: Standard Value	,	I-81 Southbound (RN curve inner-most lane, see Note 1)				Viaduct Alternative				
Existing Value:		570 FT (HSSD)		Design Speed		60 MPH				
Proposed Value	<b>.</b> .	270 FT (HSSD)								
		426-553 FT (HSSD)	Note 2		<u>.</u>					
2. Accident Analys	sis					1				
Current Accident	Rate:	acc/mvm or acc/mev (Note 3) 2.30 acc/mvm	Stat	ewide Acciden	t Rate:	acc/mvm or acc/mev (Note 3) 1.06 acc/mvm				
Is the NSF a contributir identified accide Choose YES o	ents? r NO	YES				NO 🗌				
If YES, describe how contributes to acc	the feature p cidents p	ccidents occurred in this otentially related to the e otentially related to the e	curve s xisting xisting	segment – of w non-standard : non-standard t	/hich 4 a	through June 30, 2013, a total of 44 ccidents were identified to be ance feature. The number of accidents quates to 9.1% of total accidents, and				
an accident rate of 0.21 acc/mvm). See Note 4 3. Cost Estimates Cost to Fully Meet Standards: \$8.6 M (based on additional over-widening of the inner shoulder along the length of the curve. See Note 5)										
Cost to Fully Meet Standards: \$ 8.6 M (based on additional over-widening of the inner shoulder along the length of the curve. See Note 5) \$ 1.4 M based on widening right shoulder from 10 ft to 12 ft (see										
Cost(s) For Ir	along the length of the curve. See Note 5)									
4. Measures to Mi ITS for non-standard LC		tial Adverse Effects of the		,	ning sign	s for a non-standard horizontal curve;				
to indicate the non-stand	dard HSSD con erm operational	dition. An open rail syster	n was a	also considered	l and disr	e used as supplement of warning signs nissed because it would be difficult to s bridge rail policy in Chapter 6 (Section				
5. Compatibility with	th Future Plans	for Adjacent Segments								
Over-widening of the ir are no future plans for a			o increa	ise HSSD is co	nsistent	with other curves in the area and there				
		tal factors that weigh in the	ne decis	sion to retain or	· propose	the NSF				
M, potentially e issues during wi just one of five o be \$26.0 M. (se 2) Increasing the p current configur buildings). The	widening of the ncouraging una inter weather, ir curves within the e Note 5). proposed curve ation but would additional ROW	inner side shoulder (from uthorized use of the wide acrease long term mainten e interchange area and th radii from 1364/1260ft to require the acquisition of	r should hance c e total d 2260ft h six (6) be asso	der as a travel l costs and reduc cost to over-wic would avoid dire other buildings ociated with full	ane, crea te the offs len the sl ect impac and subs	e construction costs approximately \$8.6 ate snow removal and de-icing logistical set to one other building. This curve is noulder of all five curves is estimated to ets to six (6) buildings impacted by the stantially reduce the offset to three (3) g the HSSD criteria for all five curves				
7. Recommendatio										
this curve and the proport approximately 58-84 % proposed design has co and the middle decision including the middle de HSSD would increase c	bed design incl above the exist in rected all other in lane as it pertaction cision lane that osts and/or prop	udes an incremental impling HSSD and also achie r non-standard features a ains to traffic that is exitin is continuing southboun perty impacts and provide	overne ve near nd the r ng to Ha d on I-8 little a	nt (shoulder wid ly 75-78 % of th non-standard H arrison Street. 31, meets HSS dditional accide	dened to he desigr ISSD app Traffic in D criteria ent reduct	the existing non-standard HSSD for 12') which would increase the HSSD oriteria standard. In addition, the blies only to the inside "Exit Only" lane the two southbound thru lanes, a. See Figure 1. Further increasing ion benefit. It is recommended that the de a 12 foot inside shoulder width along				

SEE ATTACHED CONTINUATION SHEET

- Non-Standard Horizontal Stopping Sight Distance (HSSD) condition applies to the inside "Exit Only" lane and the middle decision lane as it pertains to traffic that is exiting to the Harrison Street Exit Ramp as sight distance is controlled by the concrete bridge barrier that is located at edge of proposed shoulder. Traffic in the two southbound thru lanes, including the middle decision lane that is continuing southbound on I-81 meets HSSD criteria. (See Figure 1).
- 2. Proposed minimum HSSD of 443/426 feet (inner "Exit Only" lane) and the proposed minimum HSSD of 570/553 feet (middle decision lane for exiting traffic only), is based on providing a widened 12' shoulder on the inside of the curve for the length of the curve. Thru traffic in the middle decision lane that is continuing southbound on I-81 SB would meet HSSD design criteria. If a standard 10 foot shoulder were provided, the minimum HSSD would be 418/402 feet (inner "Exit Only" lane) and 560/534 feet (middle decision lane for exiting traffic only).
- 3. Rate reported is accidents per million vehicle miles (acc/mvm) for linear highway segments. The Statewide Accident Rate is from the published Average Accident Rates for State Highways By Facility Type (Based on accident data August 1, 2012 to July 31, 2014), based on an Urban, Divided 4 lane highway.
- For more detailed accident report information, refer to Table 2 (copy attached to Exhibit A-3-1-01) included in the Technical Memorandum titled I-81 Viaduct Project – Syracuse, New York, Non-Standard and Non-Conforming Features Evaluation, S-Curve and Slalom Area, dated September 5, 2014.
- 5. The cost estimate is based on one potential approach to fully meet the standard for HSSD, which is providing additional widening of the inner side shoulder width from 12 ft to 24ft/27ft along the length of the curve. (See note 7 for another potential approach). While widening the inside shoulder an additional 12ft/15ft would satisfy the HSSD criteria for this curve, there are other concerns that this would introduce. Additional concerns include; potentially encouraging unauthorized use of the wider shoulder as a travel lane, snow removal and de-icing logistics during winter weather, increased long term maintenance costs and a reduced offset to one (1) building. As shown on Figure 2, over widening of the shoulder to meet HSSD would potentially increase impacts to building #12B by reducing the offset from the building to the elevated highway from 24' to12'. The estimated cost to over-widen the shoulder of this curve is \$8.6 M, but this curve is just one of five curves within the interchange area that would need to be widened to meet HSSD criteria. The total cost to over-widen the shoulder of all five curves is estimated to be \$26.0 M.
- 6. The design criterion for the right shoulder along this segment of I-81 is 10 feet. If a 10 foot wide left shoulder were provided, the resultant HSSD would be 402-418 feet (inner lane), 534 feet (middle lane). By increasing the right shoulder width to 12 feet, the resultant HSSD increases to 426-443 feet (inner lane), 553 feet (middle lane), which is a significant improvement over the existing HSSD and represents an improvement to 75-78% (inner lane), 97% (middle lane) of the Design Criteria standard.
- 7. A second potential approach to fully meeting the HSSD for this curve (see note 5) would be to provide a flatter horizontal curve. By increasing the radius of the proposed curve from the current design of 1364/1260 ft to 2260 ft. and retaining a standard tangent length between curves 3 and 4 (see Figure 3), HSSD for through lanes of this curve would meet 60 MPH design criteria but the HSSD for a limited length of the ramp exit only lane would meet 50 MPH design criteria (see Figure 4). Use of this flatter curve would avoid direct impacts to six (6) buildings impacted by the current configuration but would require the acquisition of six (6) other buildings and substantially reduce the offset to three (3) buildings as noted below. In addition, this is one of five curves in the interchange area and the additional ROW impact costs that would be associated with fully meeting the HSSD criteria for all five curves is estimated to be \$20.0 M. The follow summarizes the specific ROW impacts of realigning only this one curve.
  - Buildings 10, 12A, 13, 14, 31 and 32 would no longer be directly impacted, but buildings 3, 12B, 12C, 12D, 35 and 36 would be directly impacted by flattening the curve. As buildings 12A, 12B and 12D are on or eligible for listing on the National Register of Historic Places, the net effect of the realignment is one (1) additional eligible resource would be directly impacted.
  - b. While buildings 10, 12A and 13 would no longer be directly impacted by the flatter curve, they would still be relatively close (22', 50' and 3'), respectively to the edge of the realigned highway.
  - c. The offset from the highway to the building on the NW corner of Washington/Townsend would be reduced from 120' to 63'.
  - d. The offset from the highway to the building on the SE corner of Washington/Townsend would be reduced from 80' to 26'.
  - e. The offset from the highway to the building on the NW corner of Genesee/McBride would be reduced from 60' to 38'.

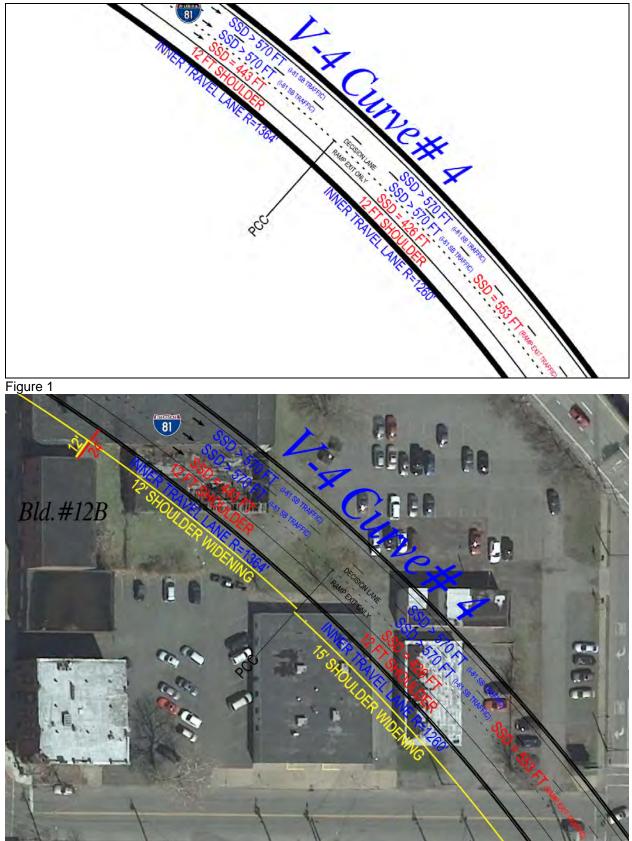


Figure 2 – Current Design

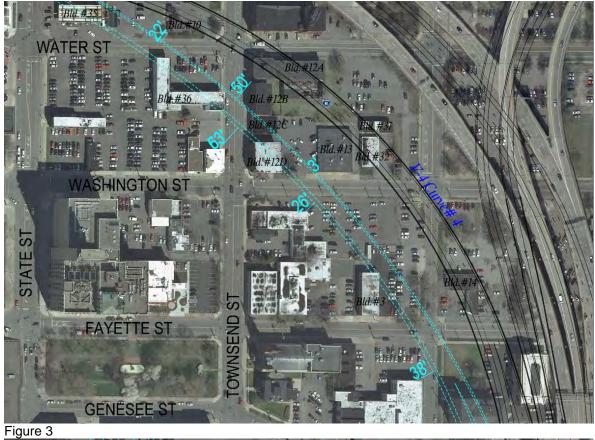




Figure 4 – Flatter Curve

			Exhibit Nonstandard Fe			ion		
PIN:	3501.6			Rout	e No. & Name:		I-69	0 Eastbound
Project Type:	New Constru	ucti	ion	Desi	gn Classificatio	n:	Inter	rstate
ADT (2050)	44,600				gn Speed		60 N	ЛРН
DHV (2050)	4,348				ucks:		16%	
1. Description of N	lonstandard Fe	eatu	ure	, o				
Type of horizontal curve	Feature (e.o	g.,	Horizontal Stopping S	ight D	stance			
Location:	,		I-690 Eastbound (RM curve inner-most lane c			ırve#6	i;	Viaduct Alternative
Standard Value	:		570 FT (HSSD)		Design Speed			60 MPH
Existing Value:			300 FT (HSSD)					
Proposed Value			509 FT (HSSD) Note	2		<u> </u>		
2. Accident Analys	sis	-	acc/mvm or acc/mev					
Current Accident	Rate:	6	(Note 3) 2.37 acc/mvm	Stat	ewide Acciden	t Rate	:	acc/mvm or acc/mev (Note 3) 1.06 acc/mvm
Is the NSF a contributir identified accide Choose YES of	nts? r NO		YES 🗵	_				NO 🗌
If YES, describe how contributes to acc	the feature cidents	acc pot pot	cidents occurred in this o entially related to the ex	curve s isting isting	segment – of w non-standard s non-standard f	/hich 7 sight d	7 aco lista	nrough June 30, 2013, a total of 42 cidents were identified to be nce feature. The number of accidents uates to 16.7% of total accidents, and
3. Cost Estimates								
	Meet Standarc		vements:	alon	g the length of 0 M based on	the cu	urve	l over-widening of the inner shoulder . See Note 5) eft shoulder from 4 ft. to 12 ft. (see
4. Measures to Mit		entia	al Adverse Effects of the		,	ning si	igns	for a non-standard horizontal curve;
to indicate the non-stand	dard HSSD con erm operationa	ndit	tion. An open rail system	was a	lso considered	l and d	lismi	used as supplement of warning signs issed because it would be difficult to bridge rail policy in Chapter 6 (Section
5. Compatibility wit	th Future Plans	s fo	or Adjacent Segments					
Over-widening of the in are no future plans for a				increa	ise HSSD is co	nsiste	nt wi	ith other curves in the area and there
6. Social, Economic	c & Environme	enta	I factors that weigh in the	e decis	sion to retain or	· propo	ose t	he NSF
<ul> <li>potentially encoursisting with interchange area</li> <li>2) Increasing the p design similar to buildings, nine (scots that would</li> </ul>	widening of the uraging unauth nter weather a a and the total roposed curve Alternative O 9) of which are be associated	e ini hori: and cos e rac ptio e on d wi	ner side shoulder (from zed use of the wider sho increased long term mai st to over-widen the shou dii from 1800ft to 2260ft on V-2 and significantly in or eligible for listing on	ulder a ulder c would ncreas the Na D crite	as a travel lane nce costs. This f all five curves require realign ing the number itional Register eria are estimat	e, creat curve is est ment c of bui of His	te sn is ju imat of the ilding toric	struction costs approximately \$4.0 M, now removal and de-icing logistical ust one of five curves within the ted to be \$26.0 M. (see Note 5). e entire interchange area, resulting in a g impacts (twelve (12) additional c Places). The additional ROW impact 20.0 M. In addition, several of these
7. Recommendatio	n							
curve and the proposed approximately 70 % abo design has corrected all lanes meet HSSD criteri	design include we the existing other non-star a). See Figure eduction benefi ht to provide a	es a g H nda e 1. ït. I 12	an incremental improvem SSD and also achieve ne rrd features and the non- Further increasing HSS It is recommended that the foot inside shoulder width	ient (s early 8 standa D wou he nor	houlder widene 9 % of the desi ard HSSD appli Ild increase cos Istandard HSS	ed to 12 ign crit ies onl sts and D be re	2') w teria ly to d/or   etair	sting non-standard HSSD for this which would increase the HSSD standard. In addition, the proposed the inner most lane (the other travel property impacts and provide little to hed for this curve, by including an

- Non-Standard Horizontal Stopping Sight Distance (HSSD) condition applies to inside travel lane only as sight distance is controlled by the concrete bridge barrier that is located at edge of proposed shoulder (See Figure 1).
- Proposed minimum HSSD of 509 feet is based on providing a widened 12' shoulder on the inside of the curve for the length of the curve. If a standard 4 foot shoulder were provided, the minimum HSSD would be 379 feet.
- 3. Rate reported is accidents per million vehicle miles (acc/mvm) for linear highway segments. The Statewide Accident Rate is from the published Average Accident Rates for State Highways By Facility Type (Based on accident data August 1, 2012 to July 31, 2014), based on an Urban, Divided 4 lane highway.
- 4. For more detailed accident report information, refer to Table 2 (copy attached to Exhibit A-3-1-01) included in the Technical Memorandum titled I-81 Viaduct Project Syracuse, New York, Non-Standard and Non-Conforming Features Evaluation, S-Curve and Slalom Area, dated September 5, 2014.
- 5. The cost estimate is based on one potential approach to fully meet the standard for HSSD, which is providing additional widening of the inner side shoulder width from 12 ft to 17 ft along the length of the curve. (See note 7 for another potential approach). While widening the inside shoulder an additional 5 feet would satisfy the HSSD criteria for this curve, there are other concerns that this would introduce. Additional concerns include; potentially encouraging unauthorized use of the wider shoulder as a travel lane, snow removal and de-icing logistics during winter weather and increased long term maintenance costs. The estimated cost to over-widen the shoulder of this curve is \$4.0 M, but this curve is just one of five curves within the interchange area that would need to be widened to meet HSSD criteria. The total cost to over-widen the shoulder of all five curves is estimated to be \$26.0 M.
- 6. The design criterion for the left shoulder along this segment of I-81 is 4 feet. If a 4 foot wide left shoulder were provided, the resultant HSSD would be 379 feet. By increasing the left shoulder width to 12 feet, the resultant HSSD increases to 509 feet, which is a significant improvement over the existing HSSD and represents an improvement to 89% of the Design Criteria standard.
- 7. A second potential approach to fully meeting the HSSD for this curve (see note 5) would be to provide a flatter horizontal curve. By increasing the radius of the proposed curve from the current design of 1800 ft to 2260 ft., HSSD for this curve would meet design criteria. However, because of the complex geometry through the main I-81/I-690 Interchange, it is not possible to modify the alignment of the curve without modifying the geometry of I-690 westbound, I-81 northbound, I-81 southbound and many of the interconnect ramps. This level of modification would essentially mimic alternative option V-2, which would result in approximately twelve (12) additional building impacts, nine (9) of which are on or eligible for listing on the National Register of Historic Places. The additional ROW impact costs that would be associated with fully meeting the HSSD criteria are estimated to be \$20.0 M. In addition, several of these building could also present additional social and economic impacts as well as unique relocation challenges. For example:
  - a. Nettleton Commons is a large building having both commercial and residential uses. As this building contains approximately 60 apartments and several businesses, acquisition of the building would impact a large number of residents and businesses in the core downtown area.
  - b. The Community Reentry Center is operated by the Federal Bureau of Prisons as a halfway house for helping to transition released federal prisoners back into society. Recent attempts to relocate this facility proved to be controversial as community concerns included proximity to churches, homes, libraries and schools, so if this building is impacted by this project, it is anticipated this would present difficult and unique relocation challenges.
  - c. Snowden Apartments is a very large apartment building with nearly 200 apartments and 350 residents. But this building is also very unique in that nearly 80% of the residents are under the supervision of the NYS Department of Corrections and Community Service as parolees' who are registered sex offenders. If this building is impacted, it is anticipated that it would present unique and difficult relocation challenges.

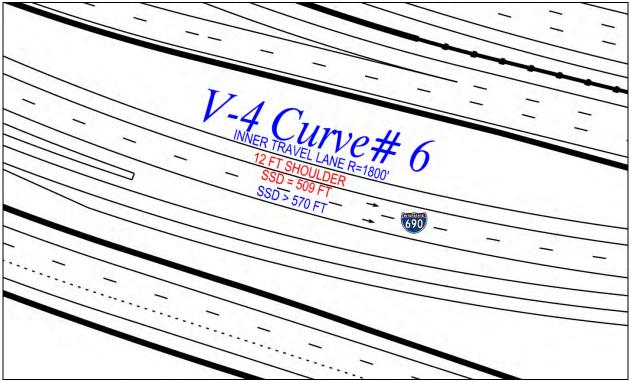
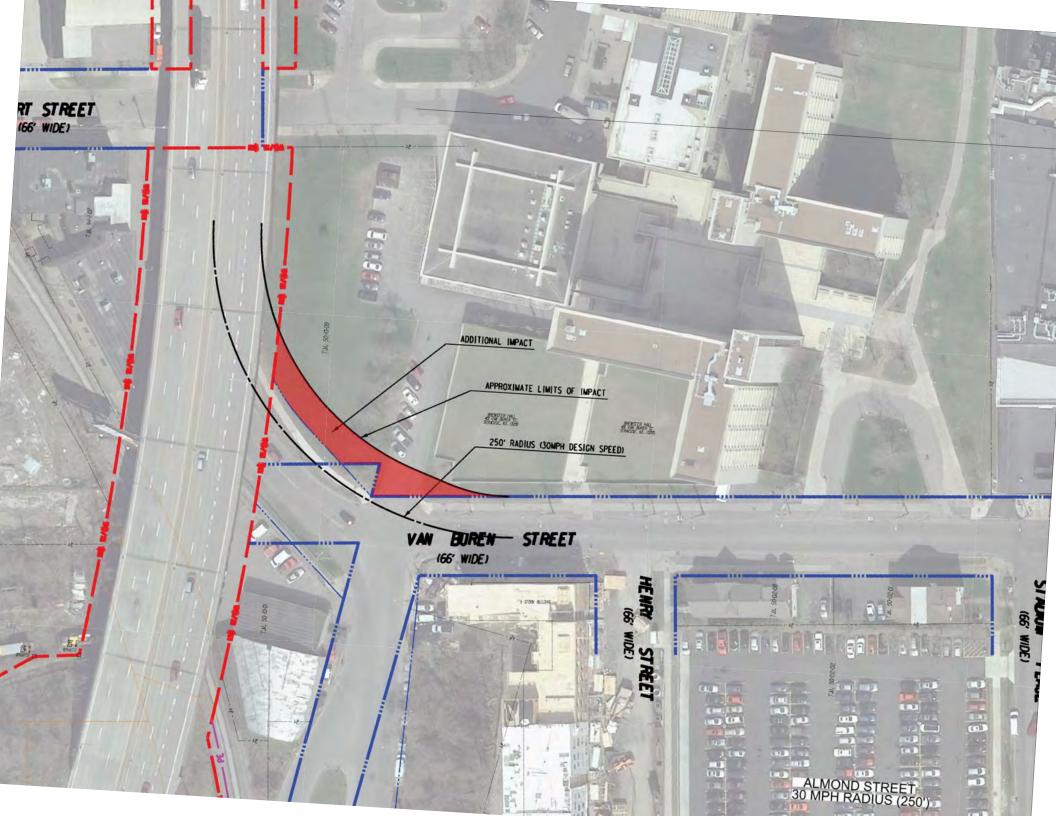


Figure 1

		Exhibit Nonstandard Fe			ion				
PIN:	3501.6		Rou	te No. & Name:	_	astbou	und I-690 to Northbound I-81		
Project Type:	Reconstruction	n	Des	ign Classificatic	on:	ntersta	ate Ramp		
ADT (2050)	12,300		Des	ign Speed	4	10 mph	h		
DHV (2050)	1290		% T	rucks:	7	7.4%			
1. Description of N	Ionstandard Fe	ature							
Type of horizontal curve	Feature (e.g	., Sight Distance (Headlig	ht)						
Location:	raulus).	STA 18+55 TO STA 21-	+78			Via	aduct Alternative		
Standard Value	:	305 ft		Design Speed		40	mph		
Existing Value:		N/A					1		
Proposed Value	e:	268 ft							
2. Accident Analys	sis				·	_			
Current Accident	Rate:	N/A New Ramp	Stat	ewide Acciden	t Rate:		1.03 acc/mvm		
Is the NSF a contributir identified accide Choose YES o	ents?	YES	l				NO 🛛		
If YES, describe how	the feature	lot Applicable, this is a new	w ram	р					
3. Cost Estimates									
3. Cost Estimates         Cost to Fully Meet Standards:       \$575,000 (Construction Cost)									
Cost(s) For Ir	ncremental Imp	rovements:	This	is a new ramp	. There	e are n	no incremental costs		
4. Measures to Mi ITS for non-standard LC		ntial Adverse Effects of the	NSF	(e.g., curve war	ning si	gns for	r a non-standard horizontal curve;		
Fixed source lighting wil	I mitigate the no	on-standard headlight sight	dista	nce.					
5. Compatibility wi	th Future Plans	for Adjacent Segments							
No future plans for adjac	cent segments	of this ramp							
		ntal factors that weigh in the							
the ramp which is direct raised about 1' above its the minimum clearance intersection and approa St./State Street intersec curve on the ramp as cu distance between this ra 7. Recommendatio	ly under the pro- s proposed desi over the raised ches as well as tion (see separa irrently propose amp and the Co n	posed Butternut Street brid ign to achieve the minimun ramp would require additio exacerbate another non-st ate Non-Standard Feature ed, would allow the ramp to ourt Street off-ramp.	lge. T n verti anda re anda Justifi merg	The proposed B cal clearance o econstruction of rd headlight sig ication Form). Ir e with the main	utternu over the f the Bu ht dista n additi lline so	t St. br ramp. tternut nce wl on, ma oner, tl	hich is located at the Butternut aintaining the shorter sag vertical hereby maximizing the weaving		
Maintain proposed non- mitigate the condition wi			ag ve	rtical curve in th	ne vicini	ty of th	he Butternut Street Bridge and		

	Exhibit A-3-1-07 Nonstandard Feature Justification							
PIN:	3501.6		Route No	o. & Name:	Butt	ernut Street		
Project Type:	Reconstruction	n	Design C	Classification:	Urb	an Minor Arterial		
ADT (2050)	4,700		Design S	Speed	30 I	nph		
DHV (2050)	520		% Trucks	s:	3.0	%		
1. Description of N	Nonstandard Fe	ature						
		., Sight Distance (Headligh	nt)					
horizontal curve Location:	e radius):	STA 109+00 TO STA 11	1+00			Viaduct Alternative		
Standard Value	ə:	200 ft	Des	ign Speed		30 mph		
Existing Value:		N/A						
Proposed Value	e:	132 ft						
2. Accident Analy	sis	 	•					
Current Accident	t Rate:	N/A New Location	Statewide Accident Rate:		e:	1.03 acc/mvm		
Is the NSF a contribution identified accident Choose YES of	ents?	YES 🗌			NO 🛛			
If YES, describe how contributes to ac		lot Applicable, this is a new	location					
3. Cost Estimates								
Cost to Fully	Meet Standards	5:	\$575,00	0 (Construction	Cos	t)		
Cost(s) For I	ncremental Imp	rovements:	This is a	new location.	There	are no incremental costs		
4. Measures to M ITS for non-standard LC		ntial Adverse Effects of the N	NSF (e.g.	, curve warning	signs	for a non-standard horizontal curve;		
Fixed source lighting wi	Il mitigate the no	on-standard headlight sight	distance.					
5. Compatibility wi	ith Future Plans	for Adjacent Segments						
No future plans for adja	cent segments	of this ramp						
6. Social, Economi	ic & Environmer	ntal factors that weigh in the	decision	to retain or prop	oose	the NSF		
Providing standard headlight sight distance would increase the elevations along the sag vertical curve about 2'. This would require additional reconstruction of the State St. and Butternut St. intersection and the approaches.								
7. Recommendation	n				-			
Propose non-standard I	headlight sight c	listance with fixed source lig	Ihting					

		Exhibit Nonstandard Fea			ion			
PIN:	3501.6		Rou	te No. & Name:		Almond Street/Van Buren Street		
Project Type:	Reconstructio	n	Desi	gn Classificatio	on:	Urban Principal Arterial - Other		
ADT (2050)	11,600		Des	gn Speed		35 mph		
DHV (2050)	700		% T	rucks:		3%		
1. Description of N	Ionstandard Fe	eature						
Type of horizontal curve		., Horizontal Curve Radius						
Location:	, radiaoj.	STA 108+30 TO STA 11	1+35	i		Viaduct Alte	ernative	
Standard Value	:	371 ft		Design Speed		35 mph		
Existing Value:		150 ft						
Proposed Value	e:	160 ft						
2. Accident Analys	sis			-				
Current Accident	Rate:	3.88 acc/mvm	Stat	Statewide Accident Rate:		3.	.52 acc/mvm	
identified accide	the NSF a contributing feature to identified accidents? YES Choose YES or NO			NO 🛛			0 🛛	
If YES, describe how contributes to acc	the feature cidents	During the three-year analyst accidents occurred on this so potentially related to the exist number of accidents potenti he total accidents, and an a	egm sting ally r	ent, of which no non-standard l elated to the ex	one of horizo xisting	the accidents w ntal curve west of non-standard fe	vere identified to be of Renwick Avenue. The	
3. Cost Estimates								
Cost to Fully	Meet Standard	s:				Cost) plus parl on and tempora	king garage demolition, ry easements	
Cost(s) For Ir	ncremental Imp	rovements:	Assuming a 250' Radius (30 mph design). \$1,500,000 (Construction Cost) plus permanent land acquisition and temporary easements					
4. Measures to Mi ITS for non-standard LC		ntial Adverse Effects of the I	NSF	e.g., curve war	ning s	gns for a non-st	andard horizontal curve;	
implementation of signali	zed control at	vill be installed on both the so he Almond Street/Van Bure und direction. The existing ir	n Str	eet/Renwick Av	venue i	ntersection is an	ticipated to slow vehicles	
5. Compatibility wi	th Future Plans	s for Adjacent Segments						
No future plans for adjac	cent segments							
6. Social, Economi	c & Environme	ntal factors that weigh in the	deci	sion to retain or	r propo	se the NSF		
Providing a standard curve radii would impact the Syracuse University Parking Garage to the north of Van Buren Street requiring demolition and acquisition of adjacent property.								
7. Recommendatio	n							
Retain proposed non-sta	andard curve r	adii with Curve Warning sigr	is an	d delineation.				



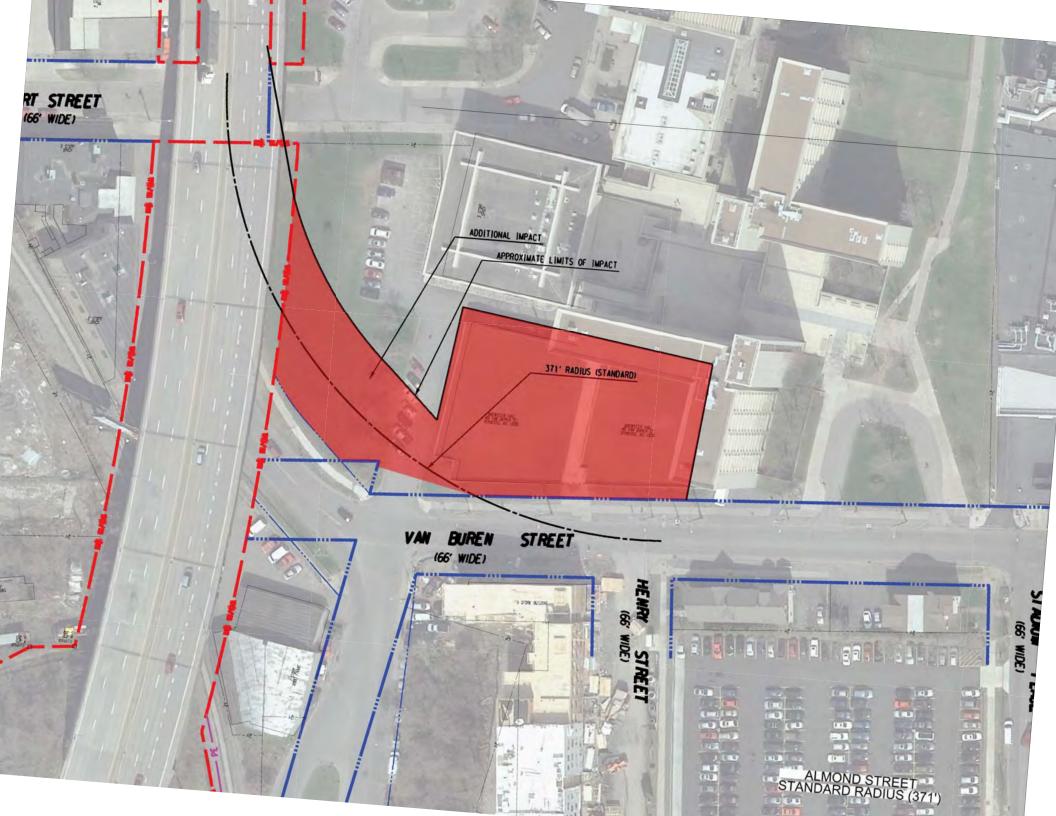


	Exhibit A-3-1-09 Nonstandard Feature Justification							
PIN:	3501.6		Rout	te No. & Name		Fineview Place		
Project Type:	Reconstruction		Desi	Design Classification:		Urban Local		
ADT (2050)	8,900		Desi	gn Speed		30 mph		
DHV (2050)	590		% T	rucks:	;	3%		
1. Description of Nonstandard Feature								
.,		, Horizontal Curve Radius	6					
horizontal curve Location:	e radius):	STA 101+08 TO 101+73 Renwick Ave)	3 (At i	ntersection wit	h	Viaduct Alternative		
Standard Value	):	250 ft		Design Speed		30 mph		
Existing Value:		12 ft						
Proposed Value	e:	40 ft						
2. Accident Analys	sis	-			•			
Current Accident	Rate:	7.05 acc/mvm	Statewide Accident Rate: 3.52 acc/mv			3.52 acc/mvm		
Is the NSF a contributir identified accide Choose YES o	ents?	YES 🛛				NO 🗌		
If YES, describe how contributes to acc	the feature O cidents H	ccidents occurred on the s nly one of the accidents w orizontal Curve Radius or	egme /as id Fine ially r	ent of Renwick entified to be p view Place nea elated to the e	Ave, b ootentia ar the in xisting	2013 through July 31, 2016, a total of five between MLK East and Van Buren St. ally related to the existing non-standard intersection with Renwick Avenue. The non-standard features equates to 20% of hym.		
3. Cost Estimates								
Cost to Fully	Meet Standards	:	curv	e or to improve inate the non-s	on the	constraints, it is infeasible to fit a standard e recommended curve. The only way to d curve radius is to close Fineview PI. See		
Cost(s) For Ir	ncremental Impr	ovements:		ncremental imp straints.	orovem	nents are feasible due to geographic		
4. Measures to Mi ITS for non-standard LC	tigate the Poten DS, etc.)	tial Adverse Effects of the	NSF	e.g., curve wai	ning si	igns for a non-standard horizontal curve;		
	wick Ave., mitig					e. Since the curve is located adjacent to ce vehicles will be turning into the curve		
5. Compatibility wi	th Future Plans	for Adjacent Segments						
Proposed configuration	is compatible wi	th adjacent segments. The	ere ar	e no future plar	ns to m	odify adjacent segments		
		tal factors that weigh in the						
Due to geographic constraints, it is infeasible to fit a standard curve radius or to improve on the recommended curve. Due to the close proximity of the railroad, Renwick Ave., and the Syracuse University Housing building, even a modest increase would require realigning Renwick Ave. to the east, This would result in severe property impacts to the east. In addition, providing the proposed radius, would allow Fineview Place to intersect with Renwick Ave. at a near right angle and provide sufficient separation between the Almond St./Van Buren St./Renwick Ave. and the Renwick Ave./Fineview Pl. intersections. The increase in traffic along Renwick Ave. warrants additional separation between these 2 intersections to minimize conflicts.								
7. Recommendatio	n							
Provide non-standard h	orizontal curve r	adius with curve warning s	igns a	and delineation	on the	northbound approach to the curve.		

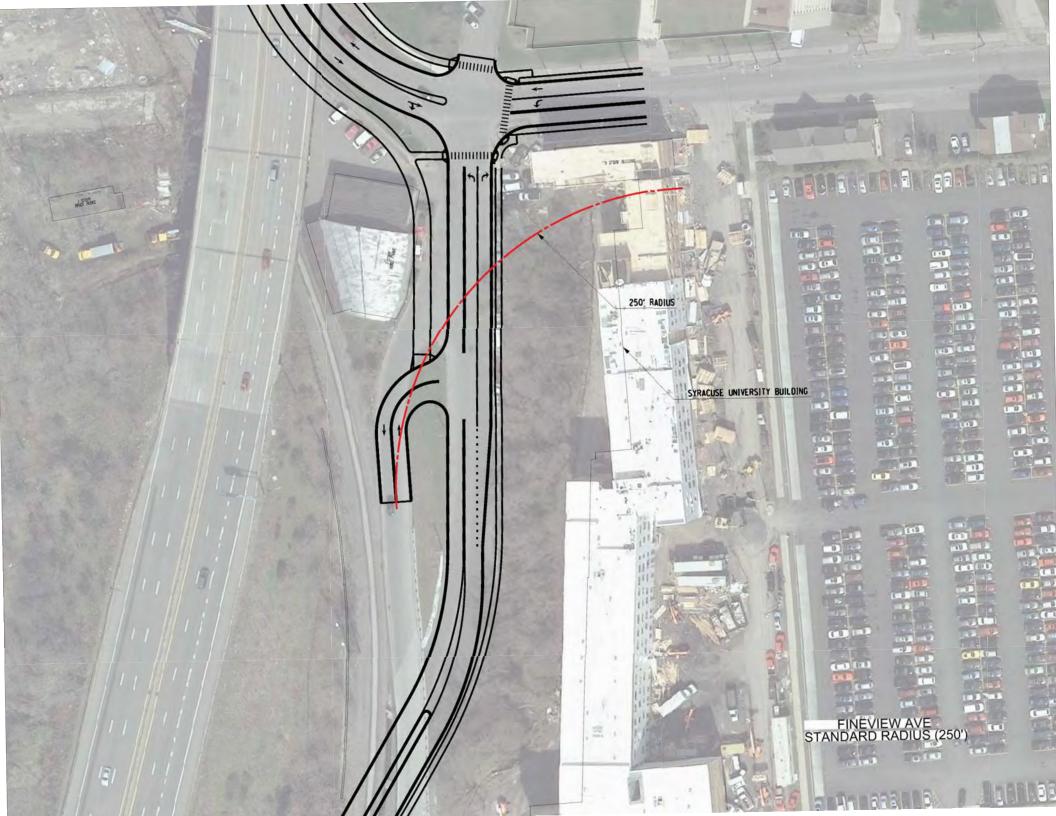


Exhibit A-3-1-10 Nonstandard Feature Justification								
PIN:	3501.6		Rou	te No. & Name		Ren	wick Ave	
Project Type:	Reconstruction			ign Classificatio	on:	Urb	an Minor Arterial	
ADT (2050)	14,700			ign Speed		35 mph		
DHV (2050)	930		% T	rucks:		3%		
1. Description of N	1. Description of Nonstandard Feature							
Type of Feature (e.g., Sight Distance (Headlight) horizontal curve radius):								
Location:	e radius).	STA 105+50 TO STA 10 Bridge)	6+50	) (Under Finevi	iew Pl	Ι.	Viaduct Alternative	
Standard Value	:	250 ft		Design Speed	I		35 mph	
Existing Value:		116 ft						
Proposed Value	e:	116 ft						
2. Accident Analys	sis							
Current Accident	Rate:	7.05 acc/mvm	Statewide Accident Rate:		ə:	3.52 acc/mvm		
Is the NSF a contributir identified accide Choose YES o	ents?	YES 🛛		NO			NO 🗌	
If YES, describe how contributes to acc	the feature cidents	accidents occurred on this s optentially related to the exist he railroad overpass. The r	egm sting numt	ent, of which o non-standard per of accidents	ne of Headl s pote	the a light ential	3 through July 31, 2016, a total of five accidents were identified to be Sight Distance in both directions of Ily related to the existing non-standard accident rate of 1.41 acc/mvm.	
3. Cost Estimates								
Cost to Fully	Meet Standards	5:	\$15,	000,000 (Cons	tructic	on C	ost)	
Cost(s) For Ir	ncremental Imp	rovements:		No incremental improvements. The existing sight distance is being naintained				
4. Measures to Mi ITS for non-standard LC		ntial Adverse Effects of the N	NSF	(e.g., curve wai	rning s	signs	s for a non-standard horizontal curve;	
Fixed source lighting wil	Il mitigate the n	on-standard headlight sight	dista	nce.				
5. Compatibility wi	th Future Plans	for Adjacent Segments						
Proposed configuration	is compatible w	vith adjacent segments. The	re ar	e no future plar	ns to n	nodi	fy adjacent segments	
6. Social, Economi	c & Environmer	ntal factors that weigh in the	deci	sion to retain o	r prop	ose	the NSF	
Providing standard headlight sight distance would increase the elevations along Renwick Ave and therefore reducing the clearance underneath the NYS&W railroad bridge and the Fineview Place bridge.								
7. Recommendatio	n							
Retain existing non-star	ndard headlight	sight distance and add fixed	d sou	rce lighting.				

Exhibit A-3-1-11 Nonstandard Feature Justification								
PIN:	3501.6		Rout	e No. & Name:		Renwick Ave (Viaduct Alternative)		
Project Type:	Reconstruction		Desi	gn Classificatio	on:	Urb	an Minor Arterial	
ADT (2050)	14,700			gn Speed		35 I	mph	
DHV (2050)	930		% Tı	ucks:		3%		
1. Description of N	Nonstandard Fe	ature						
<b>7 1 - -</b>	Feature (e.g	., Sight Distance (Horizon	al)					
horizontal curve Location:	e radius):	STA 107+00 TO STA 10 Only (Near Fineview Pla			Directi	on		
Standard Value	e:	250 ft		Design Speed			35 mph	
Existing Value:		190 ft						
Proposed Value	e:	190 ft						
2. Accident Analys	sis	100 11						
Current Accident	Rate:	7.05 acc/mvm	State	tatewide Accident Rate:		-	3.52 acc/mvm	
Is the NSF a contribution identified accident Choose YES of	ents?	YES 🛛					NO 🗌	
If YES, describe how contributes to acc	the feature p cidents d	ccidents occurred on this sotentially related to the exi	segme sting ccider	ent, of which or non-standard H nts potentially r	ne of tl Horizo elated	he a ntal to	3 through July 31, 2016, a total of five accidents were identified to be I Sight Distance in the southbound the existing non-standard features te of 1.41 acc/mvm.	
3. Cost Estimates								
Cost to Fully	Meet Standards	5:	\$15,	000,000 (Const	tructior	n Co	ost)	
Cost(s) For Ir	ncremental Imp	rovements:	No incremental improvement. The existing stopping sight distance is being maintained					
4. Measures to Mi ITS for non-standard LC		ntial Adverse Effects of the	NSF (	e.g., curve war	ning si	igns	s for a non-standard horizontal curve;	
Curve warning signs wil	ll be installed.							
5. Compatibility wi	th Future Plans	for Adjacent Segments						
Proposed configuration	is compatible w	vith adjacent segments. The	re are	e no future plan	is to m	odif	fy adjacent segments	
6. Social, Economi	ic & Environmer	ntal factors that weigh in the	decis	sion to retain or	· propo	se	the NSF	
Sight distance restriction only applies to the Southbound lane of Renwick Avenue. Providing standard stopping sight distance would require reconstruction of the Fineview Place and Railroad bridges and retaining walls. The Fineview place bridge and retaining walls are less than 10 years old.								
7. Recommendation	n							
Retain existing non-star	ndard stopping s	sight distance.						

	Exhibit A-3-1-12 Nonstandard Feature Justification							
PIN:	3501.6		Rout	e No. & Name:	Van	/an Buren Street		
Project Type:	Reconstruction	า	Desi	gn Classificatior	n: Urb	an Minor Arterial		
ADT (2050)	17,200			gn Speed		nph		
DHV (2050)	1,000		% Tr	ucks:	3%			
1. Description of N	lonstandard Fe	ature						
Type of	Feature (e.g		c)					
horizontal curve Location:	e radius):	Between Almond Stree	et and I	Henry Street		Viaduct Alternative		
Standard Value	:	8%		Design Speed		35 mph		
Existing Value:		15.52%						
Proposed Value	<u>-</u> .	15.52%						
2. Accident Analys	-				÷			
Current Accident	Rate:	17.47 acc/mvm	Stat	ewide Accident	Rate:	3.52 acc/mvm		
Is the NSF a contributir identified accide Choose YES o	ents?	YES [	3			NO 🗌		
If YES, describe how the feature contributes to accidents were identified to the existing non-standard grade (>8%) of Van Buren Street. The number of accidents potentially related to the existing non-standard grade (>8%) of Van Buren Street. The number of accidents, and an accident rate of 4.36 acc/mvm.					accidents were identified to be %) of Van Buren Street. The number			
3. Cost Estimates								
Cost to Fully	Meet Standards	3:	\$1,3	00,000 (Constr	uction C	ost) plus temporary easement cost		
Cost(s) For Ir	ncremental Imp	rovements:	No i	ncremental imp	rovemer	ts. Existing grade being maintained.		
4. Measures to Mi ITS for non-standard LC		ntial Adverse Effects of the	NSF (	(e.g., curve warr	ning sign	s for a non-standard horizontal curve;		
A W7-1a (Hill with Grade	e) sign will be p	laced near the top of the r	ion-sta	ndard grade to	warn driv	rers in the downhill direction.		
5. Compatibility with	th Future Plans	for Adjacent Segments						
Proposed configuration	is compatible w	vith adjacent segments. Th	iere ar	e no future plan	s to mod	fy adjacent segments		
6. Social, Economi	c & Environmer	ntal factors that weigh in th	e deci	sion to retain or	propose	the NSF		
Providing a standard grade would raise elevations about 11' near the intersection of Van Buren/Almond/Renwick, requiring raising the grade of Renwick Ave and Almond Street to a max grade of 8% to meet Van Buren St. Raising elevations at this intersection would also require relocating the driveway leading to the Syracuse University Parking Garage, on the north side of Van Buren St.								
7. Recommendatio	n							
Retain existing non-stan	ndard grade of 1	15.52%						

NOTES:

PIN:         Sol 1.6         Route No.8. Name:         Street           Project Type:         Reconstruction         Design Classification:         Interstate Ramp           ADT (200)         7.900         Design Classification:         Interstate Ramp           DHV (2050)         1.030         % Tucks:         30 mph           1.         Description of Nonstandard Feature:         State Not Nonstandard Feature:         Vialue:         Vialue: <th></th> <th colspan="9">Exhibit A-3-1-13 Nonstandard Feature Justification</th>		Exhibit A-3-1-13 Nonstandard Feature Justification								
Project Type:       Design Classification:       0 mph         ADT (2050)       1.030       % Trucks:       2.5%         1.       Description of Nonstandard Feature       1       2.5%         1.       Description of Nonstandard Feature       1       1000000000000000000000000000000000000	PIN:	3501.6		Rou	te No. & Name:					
Not (2000)       1,030       % Trucks:       2.5%         1.       Description of Nonstandard Feature       Type of Feature (e.g., Indicated and the easy of	Project Type:	Reconstruction		Design Classification:		n: In	terstate Ramp			
Driv (coso)       Image: Cost (coso)       Image: Cost (coso)         1.       Description of Nonstandard Feature         Type of Feature (c.g., horizontal curve radius):       Location:         Standard Value:       So ft         Standard Value:       So ft         Proposed Value:       20 ft         20 ft       20 ft         Proposed Value:       20 ft         20 ft       20 ft         2.       Accident Analysis         Current Accident Rate:       Statewide Accident Rate:         Is the NSF a contributing feature to identified accidents?       YES          Choose YES or NO       YES          If YES, describe how the feature contributes to accidents       No E         Cost to Fully Meet Standards:       None         Cost Stimates       No Incremental improvements.         An Measures to Mitigate the Potential Adverse Effects of the NSF (e.g., curve warning signs for a non-standard horizontal curve; ITS for non-standard LOS, etc.)         None. Driveway is expected to generate very few trips and therefore little risk of conflicts near the ramp terminal.         5.       Compatibility with Future Plans for Adjacent Segments         No future plans for adjacent segments of this ramp       Social, Economic & Environmental factors that weigh in the decision to retain or propose the NSF         Closing the	ADT (2050)	7,900		Design Speed			) mph			
Type of Feature (e.g., horizontal curve radius):       Control of Access       Viaduct Alternative         Location:       Standard Value:       So ft       Design Speed       30 mph         Existing Value:       20 ft       30 mph       30 mph       30 mph         Proposed Value:       20 ft       30 mph       30 mph       30 mph         2.       Accident Analysis       Statewide Accident Rate:       NO       NO       NO         Current Accident Rate:       YES       NO       NO <td< td=""><td>DHV (2050)</td><td>1,030</td><td></td><td>% T</td><td>rucks:</td><td>2.</td><td>5%</td></td<>	DHV (2050)	1,030		% T	rucks:	2.	5%			
hoizontal curve radius):       Driveway at 400 Pearl St.       Viaduct Alternative         Standard Value:       So ft       Design Speed       30 mph         Existing Value:       20 ft       20 ft       20 ft         20. Accident Analysis       20 ft       20 ft       20 ft         Current Accident Rate:       Statewide Accident Rate:       No       Xecident Rate:       No         Is the NSF a contributing feature to identified accidents?       YES       No       No       Xecident Rate:         3. Cost Estimates       Viaduct Alternential improvements:       No       No       Xecident Analysis         Cost to Fully Meet Standards:       None       No       No       Xecident Rate:       No         3. Cost Estimates       Vone       No Incremental improvements:       No Incremental improvement. Maintaining existing condition         4. Measures to Mitigate the Potential Adverse Effects of the NSF (e.g., curve warning signs for a non-standard horizontal curve; ITS for non-standard LOS, etc.)       None         None. Driveway is expected to generate very few trips and therefore little risk of conflicts near the ramp terminal.       So Compatibility with Future Plans for Adjacent Segments         6. Social, Economic & Environmental factors that weigh in the decision to retain or propose the NSF       Closing the driveway would require acquisition of the business.         7. Rec	1. Description of Nonstandard Feature									
Location:       priveway at 400 Pearl St.       Viaduct Alternative         Standard Value:       50 ft       Design Speed       30 mph         Proposed Value:       20 ft       Image: Speed       30 mph         2.       Accident Analysis       Image: Speed       30 mph         Current Accident Rate:       20 ft       Image: Speed       30 mph         Is the NSF a contributing feature to identified accidents?       Statewide Accident Rate:       NO Image: Speed			Control of Access							
Standard Value:       50 ft       Design Speed       30 mph         Existing Value:       20 ft		e radius).	Driveway at 400 Pearl St	t.			Viaduct Alternative			
Existing Value:       20 ft         Proposed Value:       20 ft         2. Accident Analysis		):	50 ft		Design Speed		30 mph			
2. Accident Analysis         Current Accident Rate:         Is the NSF a contributing feature to identified accidents?         Statewide Accident Rate:         Is the NSF a contributing feature to identified accidents?         Choose VES or NO         If YES, describe how the feature contributes to accidents         3. Cost Estimates         Cost to Fully Meet Standards:         No         Cost (s) For Incremental Improvements:         No Incremental Improvement. Maintaining existing condition         4. Measures to Mitigate the Potential Adverse Effects of the NSF (e.g., curve warning signs for a non-standard horizontal curve; ITS for non-standard LOS, etc.)         None. Driveway is expected to generate very few trips and therefore little risk of conflicts near the ramp terminal.         5. Compatibility with Future Plans for Adjacent Segments         No future plans for adjacent segments of this ramp         6. Social, Economic & Environmental factors that weigh in the decision to retain or propose the NSF         Closing the driveway would require acquisition of the business.         7. Recommendation	Existing Value:		20 ft							
Current Accident Rate:       Statewide Accident Rate:         Is the NSF a contributing feature to identified accidents? Choose YES or NO       YES         If YES, describe how the feature contributes to accidents       NO         3.       Cost Estimates         Cost of Fully Meet Standards: Cost(s) For Incremental Improvements:       None         No Incremental improvements:       No Incremental improvement. Maintaining existing condition         4.       Measures to Mitigate the Potential Adverse Effects of the NSF (e.g., curve warning signs for a non-standard horizontal curve; ITS for non-standard LOS, etc.)         None.       Driveway is expected to generate very few trips and therefore little risk of conflicts near the ramp terminal.         5.       Compatibility with Future Plans for Adjacent Segments         No future plans for adjacent segments of this ramp       6.         6.       Social, Economic & Environmental factors that weigh in the decision to retain or propose the NSF         Closing the driveway would require acquisition of the business.       7.         7.       Recommendation	Proposed Value	e:	20 ft							
Is the NSF a contributing feature to identified accidents?       YES       NO       NO         If YES, describe how the feature contributes to accidents       NO       If YES       NO       If YES         3. Cost Estimates       Image: Cost to Fully Meet Standards: Cost to Fully Meet Standards: Cost (s) For Incremental Improvements:       None       Image: Cost(s) For Incremental Improvements:       No Incremental improvement. Maintaining existing condition         4. Measures to Mitigate the Potential Adverse Effects of the NSF (e.g., curve warning signs for a non-standard horizontal curve; If S for non-standard LOS, etc.)       None         None. Driveway is expected to generate very few trips and therefore little risk of conflicts near the ramp terminal.       So further plans for Adjacent Segments         No future plans for adjacent segments of this ramp       So Social, Economic & Environmental factors that weigh in the decision to retain or propose the NSF         Closing the driveway would require acquisition of the business.       To Recommendation	2. Accident Analys	sis	•							
identified accidents?       If YES L       If VES or NO         If YES, describe how the feature contributes to accidents       If YES, describe how the feature contributes to accidents         3. Cost Estimates       None         Cost (s) For Incremental Improvements:       None         Cost(s) For Incremental Improvements:       No Incremental improvement. Maintaining existing condition         4. Measures to Mitigate the Potential Adverse Effects of the NSF (e.g., curve warning signs for a non-standard horizontal curve; ITS for non-standard LOS, etc.)         None. Driveway is expected to generate very few trips and therefore little risk of conflicts near the ramp terminal.         5. Compatibility with Future Plans for Adjacent Segments         No future plans for adjacent segments of this ramp         6. Social, Economic & Environmental factors that weigh in the decision to retain or propose the NSF         Closing the driveway would require acquisition of the business.         7. Recommendation	Current Accident	Rate:	_	Statewide Accident Rate:						
contributes to accidents         3. Cost Estimates         Cost to Fully Meet Standards:         Cost(s) For Incremental Improvements:         No Incremental improvement. Maintaining existing condition         4. Measures to Mitigate the Potential Adverse Effects of the NSF (e.g., curve warning signs for a non-standard horizontal curve; ITS for non-standard LOS, etc.)         None. Driveway is expected to generate very few trips and therefore little risk of conflicts near the ramp terminal.         5. Compatibility with Future Plans for Adjacent Segments         No future plans for adjacent segments of this ramp         6. Social, Economic & Environmental factors that weigh in the decision to retain or propose the NSF         Closing the driveway would require acquisition of the business.         7. Recommendation	identified accidents?						NO 🛛			
Cost to Fully Meet Standards:       None         Cost(s) For Incremental Improvements:       No Incremental improvement. Maintaining existing condition         4. Measures to Mitigate the Potential Adverse Effects of the NSF (e.g., curve warning signs for a non-standard horizontal curve; ITS for non-standard LOS, etc.)       None.         None. Driveway is expected to generate very few trips and therefore little risk of conflicts near the ramp terminal.       Social, Economic & Environmental factors that weigh in the decision to retain or propose the NSF         Closing the driveway would require acquisition of the business.       Recommendation	<i>'</i>									
Cost(s) For Incremental Improvements:       No Incremental improvement. Maintaining existing condition         4. Measures to Mitigate the Potential Adverse Effects of the NSF (e.g., curve warning signs for a non-standard horizontal curve; ITS for non-standard LOS, etc.)         None. Driveway is expected to generate very few trips and therefore little risk of conflicts near the ramp terminal.         5. Compatibility with Future Plans for Adjacent Segments         No future plans for adjacent segments of this ramp         6. Social, Economic & Environmental factors that weigh in the decision to retain or propose the NSF         Closing the driveway would require acquisition of the business.         7. Recommendation	3. Cost Estimates			_						
4. Measures to Mitigate the Potential Adverse Effects of the NSF (e.g., curve warning signs for a non-standard horizontal curve; ITS for non-standard LOS, etc.)         None. Driveway is expected to generate very few trips and therefore little risk of conflicts near the ramp terminal.         5. Compatibility with Future Plans for Adjacent Segments         No future plans for adjacent segments of this ramp         6. Social, Economic & Environmental factors that weigh in the decision to retain or propose the NSF         Closing the driveway would require acquisition of the business.         7. Recommendation	Cost to Fully	Meet Standards:		Non	e					
ITS for non-standard LOS, etc.)         None. Driveway is expected to generate very few trips and therefore little risk of conflicts near the ramp terminal.         5.       Compatibility with Future Plans for Adjacent Segments         No future plans for adjacent segments of this ramp         6.       Social, Economic & Environmental factors that weigh in the decision to retain or propose the NSF         Closing the driveway would require acquisition of the business.         7.       Recommendation	Cost(s) For Ir	ncremental Impro	vements:	No I	ncremental impr	oveme	nt. Maintaining existing condition			
5.       Compatibility with Future Plans for Adjacent Segments         5.       Compatibility with Future Plans for Adjacent Segments         No future plans for adjacent segments of this ramp         6.       Social, Economic & Environmental factors that weigh in the decision to retain or propose the NSF         Closing the driveway would require acquisition of the business.         7.       Recommendation			al Adverse Effects of the N	NSF (	(e.g., curve warn	ing sig	ns for a non-standard horizontal curve;			
No future plans for adjacent segments of this ramp         6.       Social, Economic & Environmental factors that weigh in the decision to retain or propose the NSF         Closing the driveway would require acquisition of the business.         7.       Recommendation	None. Driveway is expe	cted to generate	very few trips and therefor	e littl	e risk of conflicts	s near t	he ramp terminal.			
Social, Economic & Environmental factors that weigh in the decision to retain or propose the NSF     Closing the driveway would require acquisition of the business.     Recommendation	5. Compatibility wi	th Future Plans f	or Adjacent Segments							
Closing the driveway would require acquisition of the business. 7. Recommendation	No future plans for adjace	cent segments of	this ramp							
7. Recommendation	6. Social, Economi	c & Environment	al factors that weigh in the	deci	sion to retain or	propos	e the NSF			
	Closing the driveway would require acquisition of the business.									
Retain existing non-standard control of access.	7. Recommendation	n								
	Retain existing non-star	ndard control of a	ccess.							

Exhibit A-3-1-14 Nonstandard Feature Justification								
PIN:	3501.6		Rou	Route No. & Name:		I-81 Northbound Exit Ramp at Adams Street		
Project Type:	Reconstruction		Desi	ign Classificatio	n:	Inters	state Ramp	
ADT (2050)	7,185			ign Speed		30 mp	ph	
DHV (2050)	861		% T	rucks:		5%		
1. Description of N	1. Description of Nonstandard Feature							
71 -		Control of Access						
horizontal curve Location:	e radius):	Almond St.				V	/iaduct Alternative	
Standard Value	:	50 ft		Design Speed		30	0 mph	
Existing Value:		20 ft					•	
Proposed Value	э:	20 ft						
2. Accident Analys	sis	·			· ·			
Current Accident	Rate:		Statewide Accident Rate:					
Is the NSF a contributing feature to identified accidents? YES Choose YES or NO			NO 🛛			NO 🛛		
If YES, describe how contributes to acc								
3. Cost Estimates								
Cost to Fully	Meet Standards:		Non	e				
Cost(s) For Ir	ncremental Impro	vements:	No i	ncremental impr	rovem	ent. N	Naintaining existing condition	
4. Measures to Mi ITS for non-standard LC		al Adverse Effects of the I	NSF	(e.g., curve warr	ning si	gns fo	or a non-standard horizontal curve;	
None. Northbound Almo the risk of any conflicts.	ond Street and ex	it ramp traffic are on the s	ame	signal phase an	nd proe	ceed i	into their respective lanes reducing	
5. Compatibility wi	th Future Plans f	or Adjacent Segments						
No future plans for adjac	cent segments of	this ramp						
6. Social, Economi	c & Environment	al factors that weigh in the	deci	sion to retain or	propo	se the	e NSF	
Elimination of northbound Almond Street is not in keeping with the project objectives of enhancing connectivity.								
7. Recommendatio	n							
Retain existing non-star	ndard control of a	ccess.						

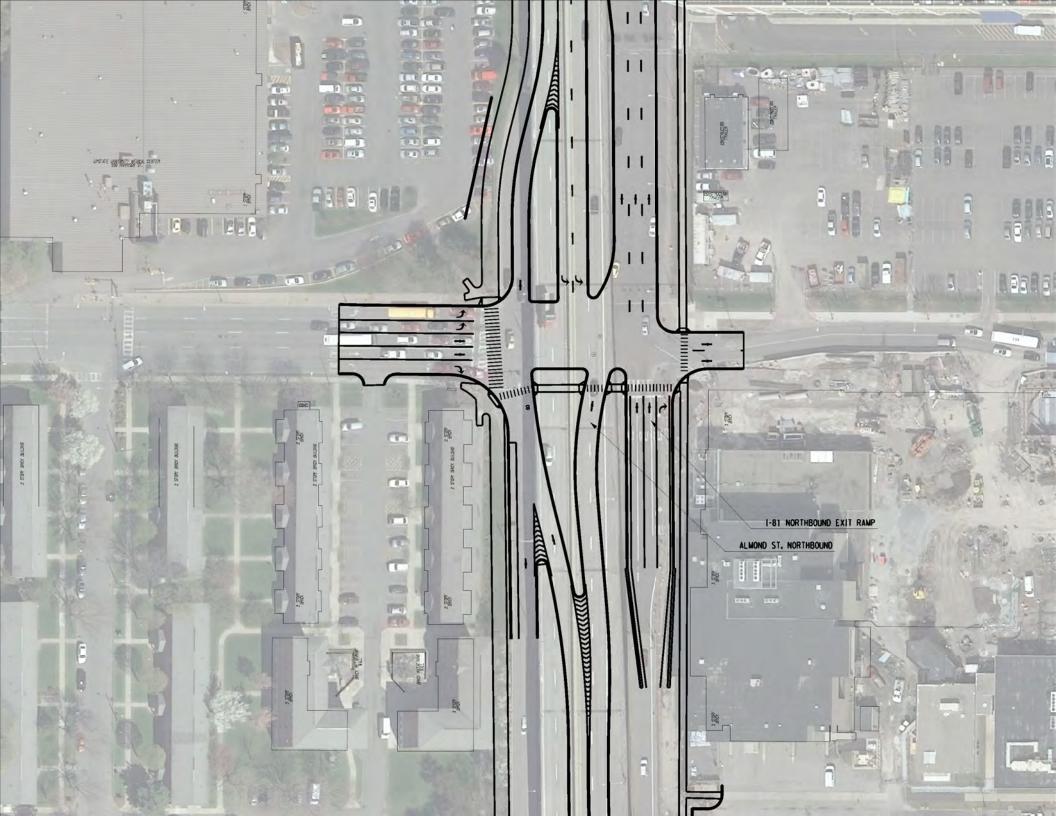


	Exhibit A-3-1-15 Nonstandard Feature Justification							
PIN:	3501.6			Ca	I-690 Eastbound Entrance Ramp at Catherine Street			
Project Type:	Reconstruction		Design Classificatio	n: Ir	nterstate Ramp			
ADT (2050)	10,547		Design Speed	3	0 mph			
DHV (2050)	1,402		% Trucks:	4	%			
1. Description of Nonstandard Feature								
<b>71</b>		Control of Access						
horizontal curve Location:	e radius):	Erie Boulevard			Viaduct Alternative			
Standard Value	):	100 ft	Design Speed		30 mph			
Existing Value:		N/A						
Proposed Value	e:	40 ft						
2. Accident Analys	sis	-		· ·				
Current Accident	Rate:	N/A New Ramp	Statewide Accident Rate:					
Is the NSF a contribution identified accident Choose YES of	ed accidents?				NO 🛛			
If YES, describe how contributes to acc								
3. Cost Estimates								
Cost to Fully	Meet Standards:		None					
Cost(s) For In	ncremental Impro	ovements:	No incremental imp	roveme	nt. New Ramp			
4. Measures to Mi ITS for non-standard LC	itigate the Potent DS, etc.)	ial Adverse Effects of the N	NSF (e.g., curve war	ning sig	ns for a non-standard horizontal curve;			
None.								
5. Compatibility wi	th Future Plans f	or Adjacent Segments						
No future plans for adja	cent segments o	f this ramp						
6. Social, Economi	c & Environment	al factors that weigh in the	decision to retain or	propos	e the NSF			
There is insufficient width between Burnet Ave. and Erie Boulevard to provide the required distances to achieve Control of Access while accommodating the 2 ramps along Catherine St. and I-690. Closure of Erie Blvd. is not in keeping with the project objectives of enhancing connectivity.								
7. Recommendation	n							
Provide non-standard c	ontrol of access.							

	Exhibit A-3-1-16 Nonstandard Feature Justification						
PIN:	3501.6		Route No. & Nan		I-690 Westbound Exit Ramp at Catherine St.		
Project Type:	Reconstruction		Design Classifica	ation:	Interstate Ramp		
ADT (2050)	8,928		Design Speed		30 mph		
DHV (2050)	1,120		% Trucks:		3%		
1. Description of N	Nonstandard Fea	ature					
<b>7 1 2</b>		Control of Access					
horizontal curve Location:	e radius):	Burnet Avenue			Viaduct Alternative		
Standard Value	e:	100 ft	Design Spe	ed	30 mph		
Existing Value:		N/A					
Proposed Value	e:	40 ft					
2. Accident Analys	sis	-					
Current Accident	Rate:	N/A New Ramp	Statewide Accide	ent Rate	9:		
Is the NSF a contribution identified accident Choose YES of	a contributing feature to ntified accidents?				NO 🛛		
If YES, describe how contributes to acc							
3. Cost Estimates							
Cost to Fully	Meet Standards	:	None				
Cost(s) For Ir	ncremental Impro	ovements:	No incremental ir	mproven	nent. New Ramp		
4. Measures to Mi ITS for non-standard LC	itigate the Potent DS, etc.)	tial Adverse Effects of the I	NSF (e.g., curve w	varning s	signs for a non-standard horizontal curve;		
None.							
5. Compatibility wi	th Future Plans	for Adjacent Segments					
No future plans for adja	cent segments o	f this ramp					
6. Social, Economi	c & Environment	tal factors that weigh in the	decision to retain	or prop	ose the NSF		
There is insufficient width between Burnet Ave. and Erie Boulevard to provide the required distances to achieve Control of Access while accommodating the 2 ramps along Catherine St. and I-690. Closure of Burnet Ave. is not in keeping with the project objectives of enhancing connectivity.							
7. Recommendation	n						
Provide non-standard c	ontrol of access.						

Exhibit A-3-1-17 Nonstandard Feature Justification								
PIN:	3501.6				<	I-81 Northbound Entrance Ramp at Sunset Ave.		
Project Type:	Reconstruction		Des	ign Classificatio	n:	Inte	rstate Ramp	
ADT (2050)	2,528			ign Speed		30 r	nph	
DHV (2050)	291		% T	rucks:		3%		
1. Description of N	Nonstandard Feat	ture						
		Control of Access						
horizontal curve Location:	e radius):	Several driveways from	147	Court St. to 310	) Suns	set	Viaduct Alternative	
Standard Value	<b>e</b> :	Ave. 100 ft		Design Speed			30 mph	
Existing Value:		0 ft		Design Opeed			50 mpn	
Proposed Value	e:	0 ft		1				
2. Accident Analys	sis			<u> </u>	<u> </u>			
Current Accident	t Rate:		Sta	ewide Accident	t Rate	:		
Is the NSF a contributing feature to identified accidents? YES □ Choose YES or NO			NO 🛛			NO 🛛		
If YES, describe how contributes to acc								
3. Cost Estimates								
Cost to Fully	Meet Standards:		Non	e				
Cost(s) For Ir	ncremental Impro	vements:	No i	ncremental imp	rovem	ent.	Maintaining existing condition	
4. Measures to Mi ITS for non-standard LC		al Adverse Effects of the N	ISF	(e.g., curve war	ning s	igns	for a non-standard horizontal curve;	
None. These driveways	service several r	esidences and generate v	ery f	ew trips.				
5. Compatibility wi	ith Future Plans fo	or Adjacent Segments						
No future plans for adja	cent segments of	this ramp						
6. Social, Economi	ic & Environmenta	al factors that weigh in the	deci	sion to retain or	propo	ose t	the NSF	
Closing these driveways would impact several residences.								
7. Recommendation	n							
Retain existing non-star	ndard control of a	ccess.						

Exhibit A-3-1-18 Nonstandard Feature Justification								
PIN:	3501.6		Rou	te No. & Name:		I-81 Northbound Exit Ramp at Sunset Ave.		
Project Type:	Reconstruction		Des	ign Classificatio	on:	Inte	erstate Ramp	
ADT (2050)	5,620			ign Speed		30 I	mph	
DHV (2050)	476		% T	rucks:		3%		
1. Description of N	Nonstandard Feat	ure						
Type of Feature (e.g., Control of Access								
horizontal curve Location:	e radius):	Several driveways from : Danforth St.	220 \$	Sunset Ave. to	201		Viaduct Alternative	
Standard Value	e:	100 ft		Design Speed			30 mph	
Existing Value:		0 ft						
Proposed Value	e:	0 ft						
2. Accident Analys	sis							
Current Accident	Rate:		Stat	ewide Accident	t Rate	e:		
Is the NSF a contributing feature to identified accidents? YES Choose YES or NO			NO 🛛			NO 🛛		
If YES, describe how contributes to acc								
3. Cost Estimates								
Cost to Fully	Meet Standards:		Non	е				
Cost(s) For Ir	ncremental Impro	vements:	No i	ncremental imp	roven	nent	. Maintaining existing condition	
4. Measures to Mi ITS for non-standard LC		al Adverse Effects of the I	NSF	(e.g., curve war	ning s	signs	s for a non-standard horizontal curve;	
None. These driveways	service several r	esidences and generate v	ery f	ew trips.				
5. Compatibility wi	th Future Plans for	or Adjacent Segments						
No future plans for adja	cent segments of	this ramp						
6. Social, Economi	c & Environmenta	al factors that weigh in the	deci	sion to retain or	· prop	ose	the NSF	
Closing these driveways would impact several residences.								
7. Recommendation								
Retain existing non-star	ndard control of a	ccess.						

Exhibit A-3-1-19 Nonstandard Feature Justification									
PIN:	3501.6		Rou	te No. & Name:	G	I-81 Southbound Entrance Ramp at Genant Drive			
Project Type:	Reconstruction		Desi	ign Classificatior	n:	Inter	rstate Ramp		
ADT (2050)	8,659			ign Speed		30 n	nph		
DHV (2050)	870		% T	rucks:		2%			
1. Description of N	Nonstandard Feat	ure							
Type of Feature (e.g., Control of Access horizontal curve radius):									
Location:		Bear Street					Viaduct Alternative		
Standard Value	):	100 ft		Design Speed			30 mph		
Existing Value:		80 ft		<u> </u>					
Proposed Value	e:	0 ft							
2. Accident Analys	sis	•							
Current Accident	Rate:		Statewide Accident Rate:						
Is the NSF a contribution identified accident Choose YES of	ents?	YES 🗌					NO 🛛		
If YES, describe how contributes to acc									
3. Cost Estimates			•						
Cost to Fully	Meet Standards:		Non	e					
Cost(s) For Ir	ncremental Impro	vements:	No I	ncremental impr	rovem	ent.	Maintaining existing condition		
4. Measures to Mi ITS for non-standard LC		al Adverse Effects of the N	NSF	(e.g., curve warr	ning si	gns	for a non-standard horizontal curve;		
None. Signing in advand southbound entrance ra			ction	n will guide vehic	cles int	o th	e correct lanes for either the I-81		
5. Compatibility wi	th Future Plans f	or Adjacent Segments							
No future plans for adja	cent segments of	this ramp							
6. Social, Economi	c & Environmenta	al factors that weigh in the	deci	sion to retain or	propo	se t	he NSF		
Placing the ramp to southbound I-81 further along Genant Drive would reduce the weaving distance to the exit ramp to Spencer St. It would also further reduce the non-conforming ramp spacing.									
7. Recommendation	n								
Retain non-standard co	ntrol of access.								

Exhibit A-3-1-20 Nonstandard Feature Justification								
PIN:	3501.6		Rou			I-81 Southbound Exit Ramp at Spencer Street		
Project Type:	Reconstruction		Des	ign Classificatio	n:	Interstate Ramp		
ADT (2050)	3,630			ign Speed		30 mph		
DHV (2050)	499		% T	rucks:	;	3%		
1. Description of N	Nonstandard Feat	ture						
<b>7 1</b>		Control of Access						
horizontal curve Location:	e radius):	800 North Clinton St. Dri	vewa	av		Viaduct Alternative		
Standard Value	):	100 ft	_	Design Speed		30 mph		
Existing Value:		N/A						
Proposed Value	e:	90 ft						
2. Accident Analys	sis				<u> </u>			
Current Accident	Rate:	N/A New Ramp	Stat	ewide Accident	Rate:			
identified accide	Is the NSF a contributing feature to identified accidents? YES Choose YES or NO			NO 🖾				
If YES, describe how contributes to acc		t applicable. New ramp.						
3. Cost Estimates								
Cost to Fully	Meet Standards:		Non	e				
Cost(s) For Ir	ncremental Impro	vements:	No i	ncremental impr	rovem	ent. New Ramp		
4. Measures to Mi ITS for non-standard LC		ial Adverse Effects of the N	NSF	(e.g., curve warr	ning si	igns for a non-standard horizontal curve;		
None. A 10ft reduction i	n distance from t	he driveway is not expecte	ed to	produce advers	e effe	cts		
5. Compatibility wi	th Future Plans for	or Adjacent Segments						
No future plans for adja	cent segments of	this ramp						
6. Social, Economi	c & Environment	al factors that weigh in the	deci	sion to retain or	propo	se the NSF		
Relocating driveway would impact the property and require elimination of parking spaces. There is also insufficient space to locate the ramp further away from the driveway.								
7. Recommendatio	n							
Provide non-standard c	ontrol of access.							

**COMMUNITY GRID ALTERNATIVE** 

Exhibit A-3-2-01 Nonstandard Feature Justification								
PIN:	3501.6		Rou	te No. & Name:	I-8	I-81 Northbound at South Interchange		
Project Type:	Reconstructio	Reconstruction			n: Ui	rban Principal Arterial - Interstate		
ADT (2050)	8,700		Des	ign Speed	70	) mph		
DHV (2050)	1,030		% T	rucks:	10	)%		
1. Description of N	Nonstandard Fe	eature						
Type of Feature (e.g., Stopping Sight Distance (Horizontal)								
horizontal curve	e radius):	STA 32+50 TO STA 44+	00			Community Grid Alternative		
Location: Standard Value	<u>.</u>	730 ft		Design Speed		70 mph		
Existing Value:		N/A, New Construction						
Proposed Value	e:	679 ft (Left Lane) (65 mp 524 ft (Right Lane) (55 m						
2. Accident Analys	sis							
Current Accident	Rate:	N/A, New Construction	Stat	ewide Accident	Rate:	1.08 acc/mvm		
Is the NSF a contributir identified accide Choose YES o	cidents?					NO 🗌		
If YES, describe how contributes to acc		Not applicable. New constru	ictior					
3. Cost Estimates	· · · · ·							
Cost to Fully	Meet Standard	ls:	shou	ulder from 12 fee	et to 29	ost based on further widening of bridge feet and tapering approach shoulder.		
Cost(s) For Ir	ncremental Imp	provements:	\$ 0.4 million construction cost based on widening bridge shoulder from 10 foot standard to 12 feet and tapering approach shoulder.					
4. Measures to Mi ITS for non-standard LC		ntial Adverse Effects of the N	NSF (	(e.g., curve warr	ning sigi	ns for a non-standard horizontal curve;		
distance around the brid	lge barrier. Hig	hway guiderail to be box bea	am o	r cable to avoid s	sight lin	bridge and approach to maximize sight e restrictions other than at bridge. R8-7 ing on the bridge that may create a		
5. Compatibility wi	th Future Plans	s for Adjacent Segments						
Proposed configuration	is compatible v	with adjacent segments. The	re ar	e no future plans	s to mod	dify adjacent segments		
6. Social, Economi	c & Environme	ntal factors that weigh in the	deci	sion to retain or	propose	e the NSF		
Trucks with a higher sightline, which compose of 10% of total traffic, will not be subjected to the restricted sight distance since they will be able to see over the barrier. Providing standard stopping sight distance would require a 29' inside (right) shoulder on the bridge using the proposed curve radius. This 29' wide shoulder may be mistaken for an additional travel lane and increase the risk of additional accidents. Flattening the radius to accommodate the required sight distance using a 12' shoulder would create severe impacts in the southeast quadrant of the interchange. This would require acquisition of over 40 acres of property and demolition of numerous residences and high rise buildings and was determined infeasible.								
7. Recommendatio	n							
		istance with a 12' inside (righ estrictions other than at the b			and br	idge approaches. Provide highway		

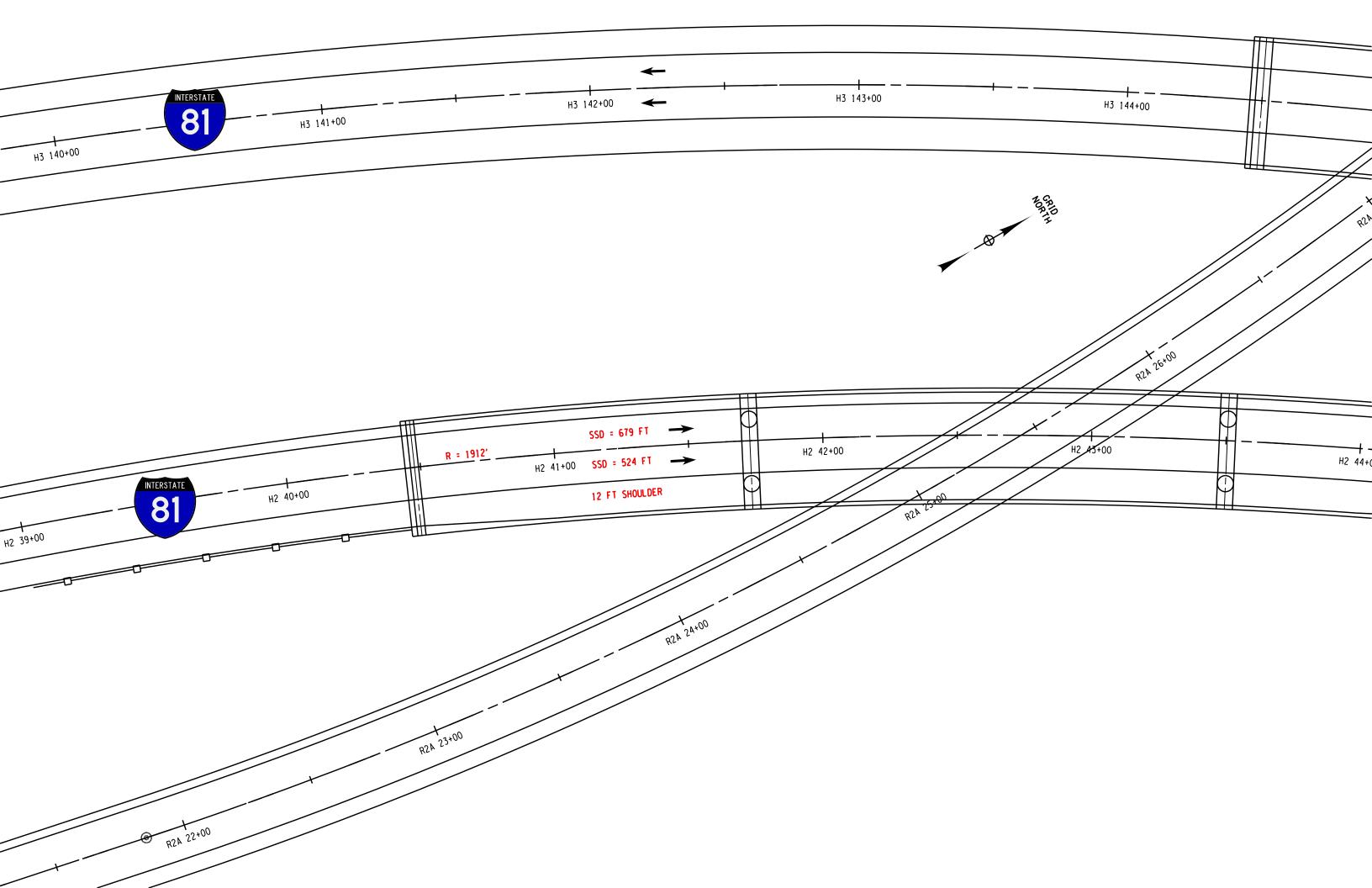


	Exhibit A-3-2-02 Nonstandard Feature Justification								
	3501.6				I-8	1 Southbound at South Interchange			
PIN:	Reconstructio	n		Route No. & Name:		rban Principal Arterial - Interstate			
Project Type: ADT (2050)	9,100			gn Classificatio		) mph			
(/	1,220			gn Speed	89				
DHV (2050) 1. Description of N	lonstandard E	astura	70 T	rucks:					
Sight Distance (Herizentel)									
horizontal curve	Feature (e.ç e radius):	STA 145+50 TO STA 15	,			Community Grid Alternative			
Location: Standard Value	:	730 ft		Design Speed		70 mph			
Existing Value:		N/A, New Construction							
Proposed Value	9:	542 ft (Left Lane) (55 mj 703 ft (Right Lane) (65 r	/						
2. Accident Analys	sis		. /						
Current Accident	Rate:	N/A, New Construction	Stat	ewide Accident	Rate:	1.08 acc/mvm			
Is the NSF a contributir identified accide Choose YES o	ents?	YES			NO 🗌				
If YES, describe how contributes to acc		Not applicable. New Constr	uctior	n					
3. Cost Estimates									
Cost to Fully	Meet Standarc	ls:				ost based on further widening of bridge feet and tapering approach shoulder.			
Cost(s) For Ir	ncremental Imp	provements:	\$ 1.5 million construction cost based on widening bridge shoulder from 4 foot standard to 12 feet and tapering approach shoulder.						
4. Measures to Mi ITS for non-standard LC		ntial Adverse Effects of the	NSF (	e.g., curve warr	ning sigr	ns for a non-standard horizontal curve;			
around the bridge barrie the left lane. Highway ge	r. The addition uiderail to be b	al shoulder width also serve	es as ( ight lii	extra space for a ne restrictions o	any eva ther tha	e curve/bridge to maximize sight distance sive maneuvering around obstructions in n at bridge. R8-7 signs (Emergency at may create a hazard.			
5. Compatibility wi	th Future Plan	s for Adjacent Segments							
Proposed configuration	is compatible v	with adjacent segments. The	ere are	e no future plan	s to moo	dify adjacent segments			
6. Social, Economi	6. Social, Economic & Environmental factors that weigh in the decision to retain or propose the NSF								
Trucks with a higher sightline, which compose of 8% of total traffic, will not be subjected to the restricted sight distance since they will be able to see over the barrier .Providing standard stopping sight distance would require a 27' inside (left) shoulder on the bridge using the proposed curve radius. This 27' wide shoulder may be mistaken for an additional travel lane and increase the risk of additional accidents. Flattening the radius to accommodate the required sight distance using a 12' shoulder would create severe impacts in the southeast quadrant of the interchange. This would require acquisition of over 40 acres of property and demolition of numerous residences and high rise buildings and was determined infeasible.									
7. Recommendatio	n								
Provide non-standard st restrictions other than a		istance with a 12' inside (left	) sho	ulder. Provide h	ighway	guiderail that will not cause sight line			

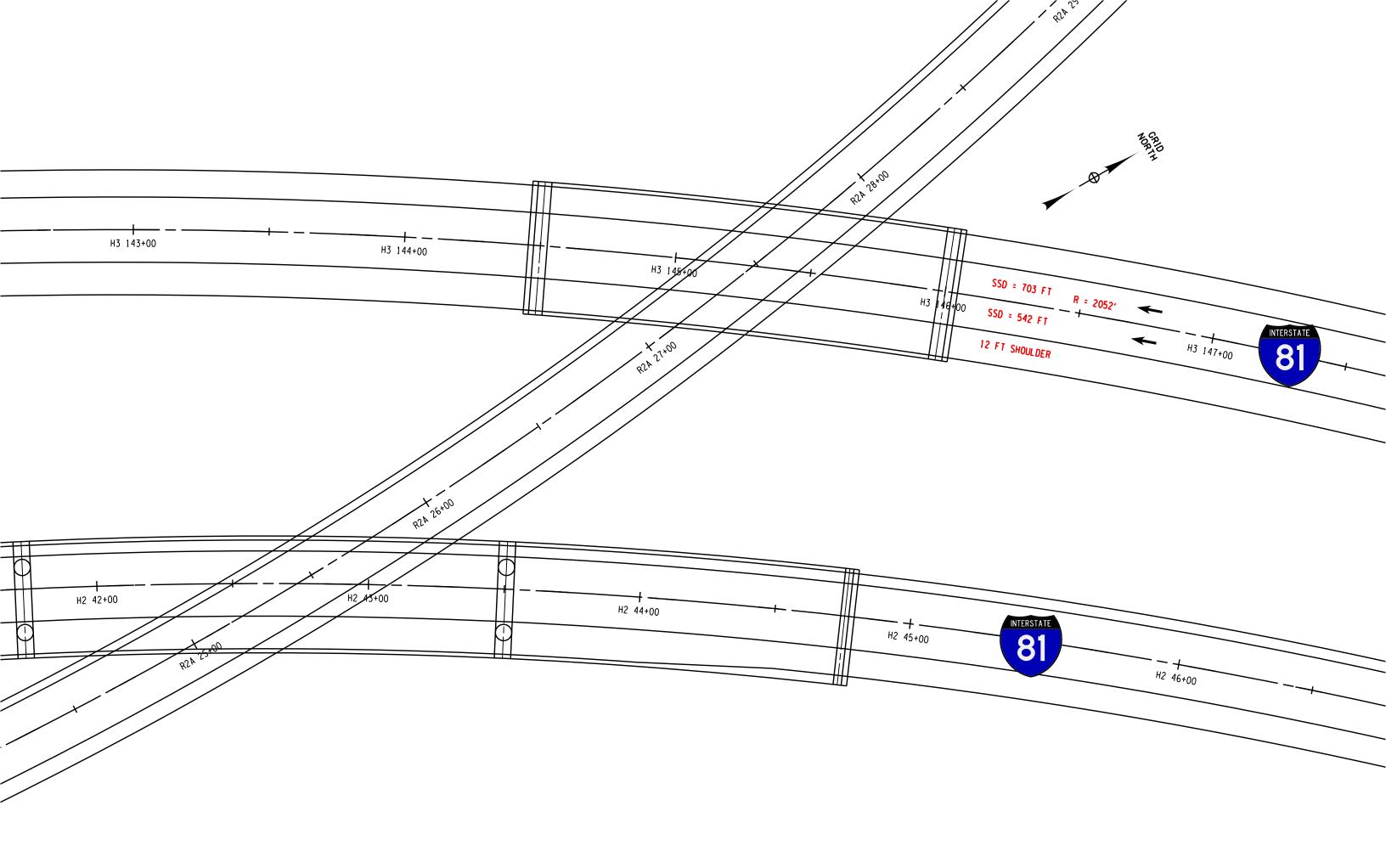
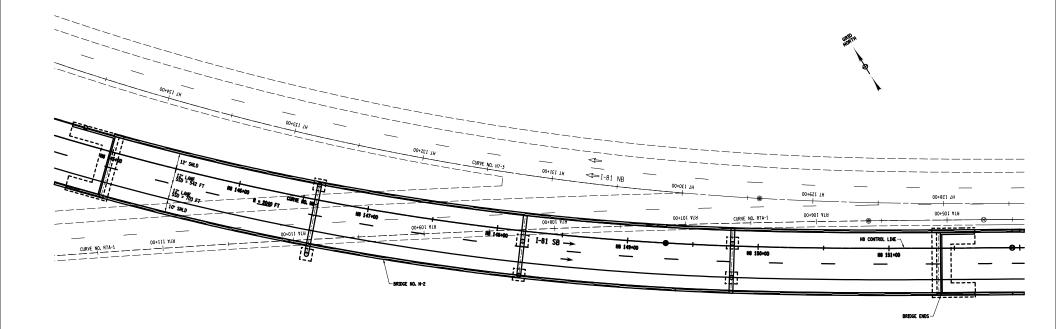


		Exhibit Nonstandard Fea			ion	
PIN:	3501.6		Rout	e No. & Name:		I-81 Southbound at North Interchange
Project Type:	Reconstructio	n	Desi	gn Classificatio	n:	Urban Principal Arterial - Interstate
ADT (2050)	13,800		Desi	gn Speed	·	70 mph
DHV (2050)	1,320		% Tı	ucks:		12.7%
1. Description of N	Ionstandard Fea	ature				
	Feature (e.g.	, Sight Distance (Horizon	tal)			
horizontal curve Location:	e radius):	STA H8 121+50 TO STA	A H8	152+00		Community Grid Alternative
Standard Value	:	730 ft		Design Speed		70 mph
Existing Value:		N/A, New Construction				
Proposed Value	9:	542 ft (Left Lane) (55 m 703 ft (Right Lane) (65 r	. /			
2. Accident Analys	sis					
Current Accident	Rate: N	/A, New Construction	Stat	ewide Accident	Rate:	1.08 acc/mvm
identified accide	Is the NSF a contributing feature to identified accidents? YES Choose YES or NO			NO 🗌		
If YES, describe how contributes to acc		ot applicable. New Constru	uctior	1		
3. Cost Estimates			1.			
Cost to Fully	Meet Standards	:				cost based on further widening of bridge 7 feet and tapering approach shoulder.
Cost(s) For Ir	ncremental Impr	ovements:	\$ 4.5 million construction cost based on widening bridge shoulder from 4 foot standard to 12 feet and tapering approach shoulder.			
4. Measures to Mi ITS for non-standard LC		tial Adverse Effects of the N	NSF (	e.g., curve warr	ning si	igns for a non-standard horizontal curve;
around the bridge barrie the left lane. Highway gu	er. The additiona uiderail to be bo	I shoulder width also serve	s as ( ght lii	extra space for a	any ev other th	he curve/bridge to maximize sight distance vasive maneuvering around obstructions in nan at bridge. R8-7 signs (Emergency that may create a hazard.
5. Compatibility with	th Future Plans	for Adjacent Segments				
Proposed configuration	is compatible wi	ith adjacent segments. The	re are	e no future plan	s to m	odify adjacent segments
6. Social, Economi	c & Environmen	tal factors that weigh in the	deci	sion to retain or	propo	ose the NSF
Trucks with a higher sightline, which compose of 12.7% of total traffic, will not be subjected to the restricted sight distance since they will be able to see over the barrier. Providing standard stopping sight distance would require a 27' inside (left) shoulder on the bridges using the proposed curve radius. This 27' wide shoulder may be mistaken for an additional travel lane and increase the risk of additional accidents. Flattening the radius to accommodate the required sight distance using a 12' shoulder would create severe impacts in the northeast quadrant of the interchange. This would require acquisition of 20+ acres of property and demolition of 30+ residences in the Brigadier Drive neighborhood and was determined infeasible.						
7. Recommendatio	n					
Provide non-standard st restrictions other than at		tance with a 12' inside (left)	) sho	ulder. Provide h	nighwa	ay guiderail that will not cause sight line



20 0 20 40 SCALE IN FEET

Exhibit A-3-2-04 Nonstandard Feature Justification								
PIN:	3501.6		Rou	te No. & Name:		Eastbound I-690 to Northbound Former I- 81		
Project Type:	Reconstruction		Des	ign Classificatio	n: Ir	terstate Ramp		
ADT (2050)	12,900		Des	ign Speed	4	) mph		
DHV (2050)	1,350		% T	rucks:	7.	4%		
1. Description of N	Ionstandard Feat	ture						
		Grade (One-Way Down)						
horizontal curve Location:	e radius).	STA 119+25 TO STA 12	6+45	5		Community Grid Alternative		
Standard Value	):	-6%		Design Speed		40 mph		
Existing Value:		N/A						
Proposed Value	e:	-6.42%						
2. Accident Analys	sis	•			· · ·	-		
Current Accident	Rate:	N/A New Ramp	Stat	ewide Accident	Rate:	1.03 acc/mvm		
identified accide	Is the NSF a contributing feature to identified accidents? YES Choose YES or NO					NO 🗌		
If YES, describe how contributes to acc	INC	t applicable. New constru	ctior	1				
3. Cost Estimates								
Cost to Fully	Meet Standards:			00,000 (Constru sibly 3 buildings	uction C	ost) plus demolition and acquisition of 2,		
Cost(s) For Ir	ncremental Impro	vements:	No i	ncremental imp	roveme	ent. This is new construction.		
4. Measures to Mi ITS for non-standard LC		ial Adverse Effects of the N	NSF	(e.g., curve warr	ning sig	ns for a non-standard horizontal curve;		
length of grade and the the limits of a horizontal	relatively small ir curve, which wo entering the mai	ncrease from the standard uld limit any increase in sp nline, downstream from the	valu eed,	e. The limits of to some extent.	he dow . In add	effects due to its location on the ramp, ograde are located almost entirely within tion, any increase in speed would aid in Stopping sight distance is also		
5. Compatibility wi	th Future Plans f	or Adjacent Segments						
No future plans for adjac	cent segments of	this ramp						
6. Social, Economi	c & Environment	al factors that weigh in the	deci	sion to retain or	propos	e the NSF		
A standard grade of 6% would require raising the Butternut Street bridge about 3' from the proposed design to achieve the minimum vertical clearance over the ramp. Raising Butternut Street would exacerbate the proposed non-standard headlight sight distance near the intersection with State St. and would impact access to several businesses located along Butternut Street and near the Butternut Street and State Street intersection.								
7. Recommendatio	n							
Provide non-standard g	rade of 6.42%							

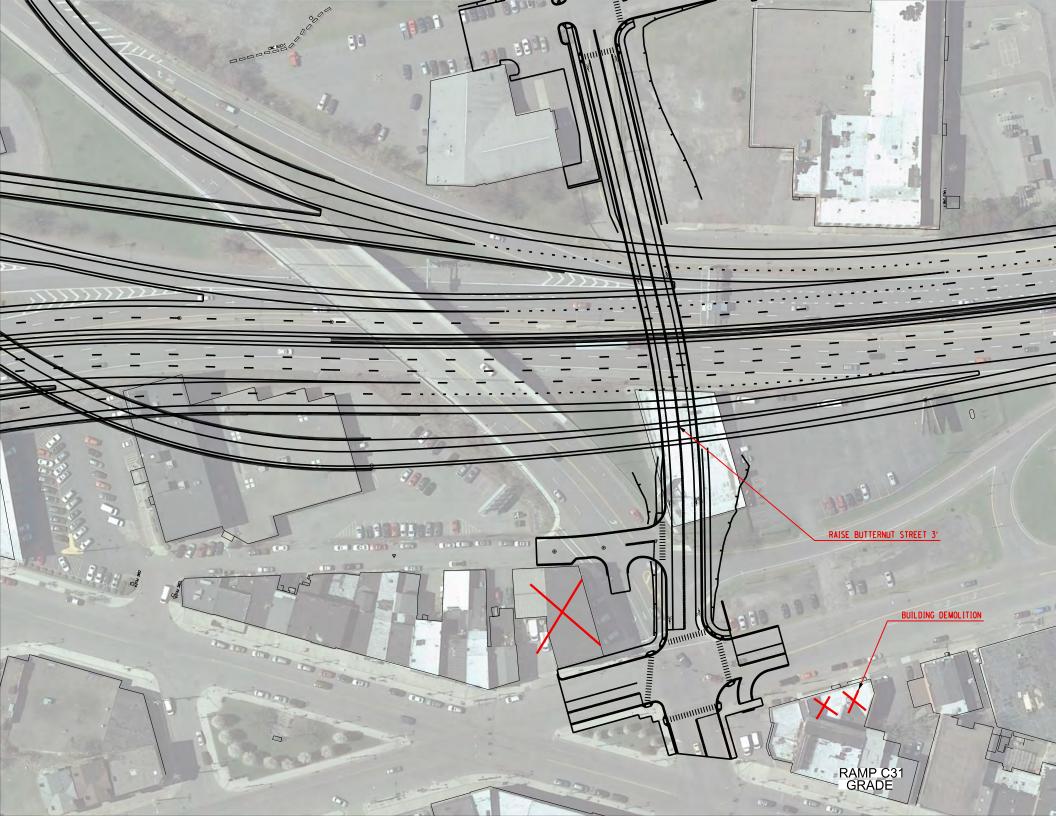


Exhibit A-3-2-05 Nonstandard Feature Justification									
PIN:	3501.6		Rou	te No. & Name:	9	Eastbound I-690 to Northbound Former I- 81			
Project Type:	Reconstruction		Desi	gn Classification	n:	Interstate	Ramp		
ADT (2050)	12,900		Desi	ign Speed		40 mph			
DHV (2050)	1,350		% T	rucks:		7.4%			
1. Description of N	Nonstandard Fea	ature							
Type of horizontal curve	Feature (e.g.,	, Sight Distance (Headligh	nt)						
Location:		STA 126+45 TO STA 12	29+93	3		Com	munity Grid Alternative		
Standard Value	):	305 ft		Design Speed		40 m	ph		
Existing Value:		N/A							
Proposed Value	e:	270 ft							
2. Accident Analys	sis	·							
Current Accident	Rate:	N/A New Ramp	Stat	ewide Accident	Rate	:	1.03 acc/mvm		
Is the NSF a contributi identified accide Choose YES o	ents?	YES 🗌					NO 🗌		
If YES, describe how contributes to acc		ot applicable. New constru	uction						
3. Cost Estimates									
Cost to Fully	Meet Standards	:	\$57	5,000 (Construc	ction (	Cost)			
Cost(s) For Ir	ncremental Impre	ovements:	No incremental improvement. This is new construction.						
4. Measures to Mi ITS for non-standard LC		tial Adverse Effects of the I	NSF	(e.g., curve warr	ning s	igns for a	non-standard horizontal curve;		
Fixed source lighting wi	Il mitigate the no	n-standard headlight sight	dista	nce.					
5. Compatibility wi	th Future Plans	for Adjacent Segments							
No future plans for adja	cent segments o	of this ramp							
6. Social, Economi	c & Environmen	tal factors that weigh in the	deci	sion to retain or	propo	se the NS	SF		
Providing standard headlight sight distance would require raising the proposed Butternut St. bridge about 1' above its proposed design to achieve the minimum vertical clearance over the ramp. Raising Butternut Street would exacerbate the proposed non-standard headlight sight distance near the intersection with State St. and would require additional reconstruction of the State St. and Butternut St. intersection and the approaches. In addition, a shorter sag vertical curve would allow the ramp to merge with the mainline sooner, therefore maximizing the weaving distance between this ramp and the Court Street off-ramp.									
7. Recommendation	n								
Propose non-standard h	neadlight sight di	stance with fixed source lig	ghting	1					

Exhibit A-3-2-06 Nonstandard Feature Justification									
PIN:	3501.6		Rou	te No. & Name:	Eas	Eastbound I-690 to Irving Ave. Ramp			
Project Type:	Reconstruction		Des	ign Classification	Int	erstate Ramp			
ADT (2050)	16,100		Des	ign Speed	30	mph			
DHV (2050)	1,370		% T	rucks:	7.4	1%			
1. Description of N	Nonstandard Feat	ture							
<b>7 1 2</b>		Horizontal Curve Radiu	s						
horizontal curve Location:	e radius):	STA 111+84 TO STA 1	14+3	7		Community Grid Alternative			
Standard Value	e:	231 ft		Design Speed		30 mph			
Existing Value:		N/A		5 5 5 5					
Proposed Value	e:	150 ft							
2. Accident Analys	sis				·				
Current Accident	t Rate:	N/A (New Ramp)	Sta	tewide Accident	Rate:	1.43 acc/mvm			
identified accide	Is the NSF a contributing feature to identified accidents? YES Choose YES or NO				NO 🗌				
If YES, describe how contributes to acc	INC	ot applicable. New constr	uctio	n					
3. Cost Estimates									
Cost to Fully	Meet Standards:					ost. Additional acquisition of property er of Historic Places			
Cost(s) For Ir	ncremental Impro	vements:	The	re are no increm	ental in	nprovements. This is new construction			
4. Measures to Mi ITS for non-standard LC		al Adverse Effects of the	NSF	(e.g., curve warn	ing sign	s for a non-standard horizontal curve;			
maneuver, as per AASH	TO. Overhead cu		head			rs to adjust their speeds for this type of dvance of the curve. Chevron			
5. Compatibility wi	ith Future Plans f	or Adjacent Segments							
No future plans for adja	cent segments of	this ramp.							
6. Social, Economi	ic & Environment	al factors that weigh in the	e dec	ision to retain or p	oropose	the NSF			
Providing a standard curve radii would create additional impacts to historic property and create a skewed intersection at Erie Boulevard. Traffic analysis has determined that the majority of trips on this ramp are destined for University Hill, therefore resulting in the proposed design of the ramp curve onto Irving Ave.									
7. Recommendation	n								
Propose non-standard o	curve radii with cu	urve warning signs, signa	ahea	ad signs and chev	ron alig	Inment signs.			

Exhibit A-3-2-07 Nonstandard Feature Justification									
PIN:	3501.6		Rou	te No. & Name:		Eastbound I-690 to Irving Ave. Ramp			
Project Type:	Reconstruction		Des	ign Classificatior	n:	nterstate Ramp			
ADT (2050)	16,100			ign Speed		0 mph			
DHV (2050)	1,370		% T	rucks:	7	′.4%			
1. Description of Nonstandard Feature									
Type of Feature (e.g., Stopping Sight Distance (Horizontal)									
horizontal curve Location:	e radius):	STA 110+50 TO STA 1	12+00	)		Community Grid Alternative			
Standard Value	):	200 ft		Design Speed		30 mph			
Existing Value:		N/A		5 5 5 1 5 5					
Proposed Value	э:	135 ft (Right Lane Only)							
2. Accident Analys	sis				·				
Current Accident	Rate:	N/A (New Ramp)	Stat	ewide Accident	Rate:	1.43 acc/mvm			
Is the NSF a contributir identified accide Choose YES o	ents?	YES 🗌			NO 🗌				
If YES, describe how contributes to acc		t applicable. New constr	uctior	ı					
3. Cost Estimates									
Cost to Fully	Meet Standards:					cost. Additional acquisition of property ster of Historic Places			
Cost(s) For Ir	ncremental Impro	vements:	No i	ncremental imp	rovem	ents. New construction.			
4. Measures to Mi ITS for non-standard LC		al Adverse Effects of the	NSF	(e.g., curve warr	ning się	gns for a non-standard horizontal curve;			
The non-standard curve design speed.	radius coupled w	ith the proposed warning	signs	in this area is e	expecte	d to reduce vehicle speeds below the			
5. Compatibility wi	th Future Plans f	or Adjacent Segments							
No future plans for adjac	cent segments of	this ramp.							
6. Social, Economi	c & Environmenta	al factors that weigh in the	e deci	sion to retain or	propos	se the NSF			
To eliminate the need for roadside barrier, which obstructs the sight line, additional property would have to be acquired to install recoverable side slopes. This would increase impacts to the historic property adjacent to the ramp. This property is listed on the National Register of Historic Places. In addition, this sight restriction only applies to cars in the right lane. Heavy vehicles with a higher sightline are not affected.									
7. Recommendatio	n								
Propose non-standard h	norizontal stoppin	g sight distance.							

Exhibit A-3-2-08 Nonstandard Feature Justification									
PIN:	3501.6		Rou	te No. & Name:	I	Irving Ave. to Westbound I-690 Ramp			
Project Type:	Reconstruction			ign Classificatior	n:	Interstate Ramp			
ADT (2050)	16,300		Des	ign Speed		30 mph			
DHV (2050)	1,270		% T	rucks:		7.4%			
1. Description of Nonstandard Feature									
Type of horizontal curve	Feature (e.g.,	Horizontal Curve Radius	6						
Location:	e radius).	North of Erie Blvd.				Community Grid Alternative			
Standard Value	): 	231 ft		Design Speed		30 mph			
Existing Value:		N/A							
Proposed Value	e:	158 ft							
2. Accident Analys	sis	· 		*					
Current Accident	Rate:	N/A (New Ramp)	Sta	ewide Accident	Rate	: 1.43 acc/mvm			
Is the NSF a contributir identified accide Choose YES o	ents?	YES	[		NO 🗌				
If YES, describe how contributes to acc		ot applicable. New constru	uctior	n					
3. Cost Estimates									
Cost to Fully	Meet Standards:		No a	additional constru	uction	n cost. See note 6.			
Cost(s) For Ir	ncremental Impro	ovements:	No i	ncremental impr	roven	ment. New construction			
4. Measures to Mi ITS for non-standard LC	tigate the Potent S, etc.)	ial Adverse Effects of the	NSF	(e.g., curve warn	ning s	signs for a non-standard horizontal curve;			
speeds and therefore drive have available sight distance available sigh	ve through the cu ance that is slight	urve below the ramp desig	in spe t dist	eed of 30mph. V ance needed for	/ehicl drive	amp are expected to remain at near turning les approaching the curve from Irving Ave. ers to adjust their speeds for this type of pe placed along the curve, as per the			
5. Compatibility wi	th Future Plans f	or Adjacent Segments							
No future plans for adjac	cent segments of	f this ramp.							
6. Social, Economi	c & Environment	al factors that weigh in the	e deci	sion to retain or	propo	ose the NSF			
Providing a standard curve radii would reduce the available distance to tie in with the mainline, requiring the gore to shift further west along westbound I-690. This would result in a reduction of the weaving distance on the mainline therefore impacting operations on the mainline. This would also be a further reduction of a non-conforming ramp spacing.									
7. Recommendatio	n								
Propose non-standard o	curve radii with cu	urve warning signs and ch	evror	n alignment signs	3.				

	Exhibit A-3-2-09 Nonstandard Feature Justification								
PIN:	3501.6		Rou	te No. & Name:	Va	an Buren Street			
Project Type:	Reconstruction			ign Classificatio		Jrban Minor Arterial			
ADT (2050)	21,770		Des	ign Speed	35	5 mph			
DHV (2050)	1,300		% Ti	rucks:	39	%			
1. Description of N	Nonstandard Fea	ature							
71		, Sight Distance (Headlig	,ht)						
horizontal curve Location:	e radius).	Between Almond Street	t and	Henry Street		Community Grid Alternative			
Standard Value	э:	250 ft		Design Speed		35 mph			
Existing Value:		N/A, new configuration							
Proposed Value	e:	76 ft							
2. Accident Analys	sis								
Current Accident	i Rate: N/	I/A, new configuration	Stat	tewide Acciden	t Rate:	3.52 acc/mvm			
Is the NSF a contributir identified accide Choose YES o	ents?	P YES []			NO 🗌				
If YES, describe how contributes to acc		lot applicable. New config	uratio	n.					
3. Cost Estimates									
Cost to Fully	Meet Standards:	:		ninistration Buil		Cost) plus acquisition of SHA ad potential access impacts to the Steam			
Cost(s) For Ir	ncremental Impro	ovements:	No i	No incremental improvements. New configuration					
4. Measures to Mi ITS for non-standard LC		tial Adverse Effects of the	NSF (	(e.g., curve war	ning sig	gns for a non-standard horizontal curve;			
						oposed signalized T-intersection at s compared to the existing condition.			
5. Compatibility with	ith Future Plans f	for Adjacent Segments							
Proposed configuration	is compatible wit	ith adjacent segments. The	ere ar	e no future plan	is to mo	dify adjacent segments			
6. Social, Economi	ic & Environment	tal factors that weigh in the	e deci	sion to retain or	<sup>,</sup> propos	se the NSF			
Providing standard headlight sight distance will require raising the Van Buren/Almond intersection about 15'-20'. This would require raising the proposed railroad bridge in addition to reprofiling several hundred feet of additional railroad track. Raising the grade of Almond street will lead to property impacts along Burt Street, adjacent to the Steam Plant and the Syracuse Housing Authority Administrative Building									
7. Recommendatio	n								
Propose non-standard h	neadlight sight di	istance with fixed source light	ghtinç	]					

NOTES:

Exhibit A-3-2-10 Nonstandard Feature Justification									
PIN:	3501.6		Rout	e No. & Name:	Va	Van Buren Street			
Project Type:	Reconstructio	n	Desi	Design Classification:		ban N	Minor Arterial		
ADT (2050)	21,770			gn Speed		mph			
DHV (2050)	1,300		% Tr	ucks:	3%	6			
1. Description of N	1. Description of Nonstandard Feature								
		., Grade (Two-Way traffic)							
horizontal curve Location:	radius).	Between Almond Street	and I	Henry Street		Co	ommunity Grid Alternative		
Standard Value	:	8%		Design Speed		35	mph		
Existing Value:		15.52%							
Proposed Value	e:	15.52%							
2. Accident Analys				•	÷	_			
Current Accident	Rate:	17.47 acc/mvm	Stat	ewide Acciden	t Rate:		3.52 acc/mvm		
Is the NSF a contributir identified accide Choose YES of	ents?	YES 🛛							
If YES, describe how contributes to acc	the feature cidents	ccidents occurred on this soctentially related to the exi	segm sting ted to	ent, of which fiv non-standard go the existing no	/e of the grade (> on-stan	e acci •8%) (	nrough July 31, 2016, a total of 20 idents were identified to be of Van Buren Street. The number grade equates to 25% of the total		
3. Cost Estimates									
Cost to Fully	Meet Standards	5:		inistration Build			plus acquisition of SHA ntial access impacts to the Steam		
Cost(s) For In	cremental Imp	rovements:	No incremental improvements. Existing grade being maintained.						
4. Measures to Mir ITS for non-standard LC		ntial Adverse Effects of the	NSF (	e.g., curve war	ning sig	ns for	r a non-standard horizontal curve;		
A W7-1a (Hill with Grade	e) sign will be p	laced near the top of the no	on-sta	ndard grade to	warn di	ivers	in the downhill direction.		
5. Compatibility with	th Future Plans	for Adjacent Segments							
Proposed configuration	is compatible w	<i>i</i> th adjacent segments. The	re ar	e no future plan	s to mo	dify a	djacent segments		
6. Social, Economic	c & Environmer	ntal factors that weigh in the	deci	sion to retain or	propos	e the	NSF		
Providing a standard grade would raise the proposed elevations about 11' near the intersection of Van Buren St. and Almond St. This would require raising the grade of Almond Street to a max grade of 8% to meet Van Buren St. Raising elevations at this intersection would also require relocating the driveway leading to the Syracuse University Parking Garage, on the north side of Van Buren St.									
7. Recommendatio	n								
Maintain existing non-st	andard grade o	f 15.52%							

NOTES:

		Exhibit Nonstandard Fea			on			
PIN:	3501.6		Rout	e No. & Name:	Bu	tternut Street		
Project Type:	Reconstruction		Desi	Design Classification:		rban Minor Arterial		
ADT (2050)	6,650		Desi	gn Speed	30	) mph		
DHV (2050)	5,70		% Tr	ucks:	39	%		
1. Description of N	Nonstandard Feature							
<b>7 1 2</b>	Feature (e.g.	, Sight Distance (Headligh	nt)					
horizontal curve Location:	e radius):	STA 109+00 TO STA 11	1+00			Community Grid Alternative		
Standard Value	):	200 ft		Design Speed		30 mph		
Existing Value:		N/A						
Proposed Value	e:	132 ft						
2. Accident Analys	sis				·			
Current Accident	Rate:	N/A New Location	State	Statewide Accident Rate:		1.03 acc/mvm		
Is the NSF a contribution identified accident Choose YES o	ents?	YES 🗌	YES			NO 🛛		
If YES, describe how contributes to acc	IN	ot Applicable, this is a new	ot Applicable, this is a new location					
3. Cost Estimates								
Cost to Fully	Meet Standards	:	\$575	5,000 (Construc	tion Co	ost		
Cost(s) For Ir	ncremental Impr	ovements:	This	is a new locatio	on. The	re are no incremental costs		
4. Measures to Mi ITS for non-standard LC	0	tial Adverse Effects of the N	NSF (	e.g., curve warr	ning sig	ns for a non-standard horizontal curve;		
Fixed source lighting wi	II mitigate the no	on-standard headlight sight	distar	nce.				
5. Compatibility wi	th Future Plans	for Adjacent Segments						
No future plans for adja	cent segments c	of this ramp						
6. Social, Economi	c & Environmen	tal factors that weigh in the	decis	sion to retain or	propos	e the NSF		
Providing standard headlight sight distance would increase the elevations along the sag vertical curve about 2'. This would require additional reconstruction of the State St. and Butternut St. intersection and the approaches.								
7. Recommendation								
Propose non-standard h	neadlight sight d	istance with fixed source lig	phting					

	Exhibit A-3-2-12 Nonstandard Feature Justification								
PIN:	3501.6		Rout	e No. & Name:	Nor	thbound Former I-81			
Project Type:	New Construct	ction		gn Classification:	Inte	rstate			
ADT (2050)	31,720		Desi	gn Speed	70 1	MPH			
DHV (2050)	4,455			ucks:	7%				
1. Description of N	lonstandard Fe	ature							
Type of Feature (e.g., Level of Service									
horizontal curve Location:	e radius):	Weave between Intercl off- ramps. See Note 1	nange	29N (NY 481) on	and	Community Grid Alternative			
Standard Value	:	LOS D		Design Speed		70 MPH			
Existing Value:		LOS C				· .			
Proposed Value	):	LOS C (2020), LOS F (2	2050)						
2. Accident Analys	sis			-					
Current Accident	Rate:	acc/mvm or acc/mev (Note 1) 4.93 acc/mvm	Stat	ewide Accident Ra	ate:	acc/mvm or acc/mev (Note 1) 1.09 acc/mvm			
Is the NSF a contributin identified accide Choose YES or	ed accidents? YES X NO					NO 🗌			
If YES, describe how t contributes to acc	the feature p cidents to	accidents occurred in this vootentially related to the ex	veavir isting	ng segment – of wl level of service. T	hich 29 The nu	hrough June 30, 2013, a total of 47 9 accident was identified to be mber of accidents potentially related cidents, and an accident rate of 3.0			
3. Cost Estimates									
Cost to Fully I	Meet Standards	S:	N/A						
Cost(s) For In	cremental Imp	rovements:	N/A						
4. Measures to Mit ITS for non-standard LO		ntial Adverse Effects of the	NSF (	e.g., curve warning	g signs	s for a non-standard horizontal curve;			
None. Level of service is unacceptable, mitigation		d for build year 2020 and d be taken.	legrad	es over time. If/wh	en the	level of service becomes			
5. Compatibility wit	th Future Plans	for Adjacent Segments							
Would be compatible wit	th future plans f	for adjacent segments.							
6. Social, Economic	c & Environmer	ntal factors that weigh in the	e decis	sion to retain or pro	poset	the NSF			
Remove loop ramp from southbound S.R. 481 to northbound I-81, convert the 4 lane weaving section to a 3 lane diverge with lane one forming an exit only lane to northbound S.R 481. This would reduce the number of lane changes for vehicles exiting the interstate and remove the weaving caused by vehicles entering the interstate from southbound S.R 481. Connectivity in the area would be reduced as a consequence of removing an existing ramp. Traffic traveling from the west to the north in the area would be diverted to Rt 31. Only marginal improvements in LOS would be achieved.									
7. Recommendation	n								
						nmended to construct the interchange lay the associated impacts.			

## NOTES:

- This NSF justification form also applies to the BFS on NB Former I-81 between Exit 29S (former I-481 South) and Interchange 29N (NY 481) on- ramp which operates at LOS E during the design year PM peak hour. That location is immediately downstream of, and is capacity constrained by, the weave that is the subject of the form and therefore the NSF would also be mitigated by undertaking the same measures outlined herein.
- 2. Use accidents per million vehicle miles (acc/mvm) for linear highway segments; use accidents per million entering vehicles (acc/mev) for intersections.

Exhibit A-3-2-13 Nonstandard Feature Justification							
PIN:	3501.6		Rou	te No. & Name:		I-690 Eastbound Entrance Ramp at Crouse Ave.	
Project Type:	Reconstructio	on	Des	Design Classification:		erstate Ramp	
ADT (2050)	9,780			ign Speed	30	mph	
DHV (2050)	1,390		% T	rucks:	4%	3	
1. Description of N	Nonstandard Fe	eature					
Type of Feature (e.g., Control of Access							
horizontal curve		Canal St.				Community Grid Alternative	
Standard Value	):	50 ft		Design Speed		30 mph	
Existing Value:		N/A, New Construction					
Proposed Value	э:	O ft					
2. Accident Analys	sis						
Current Accident	Rate:	N/A, New Construction	Statewide Accident Rate:				
Is the NSF a contributir identified accide Choose YES o	ents?	YES 🗌				NO 🗌	
If YES, describe how contributes to acc		Not applicable. New constr	uctior	ì			
3. Cost Estimates							
Cost to Fully	Meet Standard	ls:	Non	e			
Cost(s) For Ir	ncremental Imp	provements:	The	re are no increme	ntal im	provements. This is new construction	
4. Measures to Mi ITS for non-standard LC		ential Adverse Effects of the	NSF	(e.g., curve warnir	g sign	s for a non-standard horizontal curve;	
Right-in, Right-out acce	ss only will be	implemented on Canal Stre	et.				
5. Compatibility wi	th Future Plan	s for Adjacent Segments					
No future plans for adja	cent segments	of this ramp					
6. Social, Economi	c & Environme	ental factors that weigh in the	e deci	sion to retain or pr	opose	the NSF	
Canal Street is a dead end street that provides access to 2 properties. Severing Canal St. would require acquisition of these properties.							
7. Recommendation	n						
Provide non-standard co	ontrol of acces	s with right-in, right-out acc	ess or	nly off of Canal Str	eet.		

Exhibit A-3-2-14 Nonstandard Feature Justification							
PIN:	3501.6		Rou	te No. & Name:	Cr	I-690 Eastbound Entrance Ramp at Crouse Ave.	
Project Type:	Reconstructio	econstruction		Design Classification:		nterstate Ramp	
ADT (2050)	9,780		Des	ign Speed	3	0 mph	
DHV (2050)	1,390		% T	rucks:	4	%	
1. Description of N	Nonstandard Fo	eature					
Type of Feature (e.g., Control of Access							
horizontal curve	e radius):	Erie Blvd.				Community Grid Alternative	
Standard Value	):	100 ft		Design Speed		30 mph	
Existing Value:		N/A, New Construction	ı				
Proposed Value	e:	40 ft		-			
2. Accident Analys	sis						
Current Accident	Rate:	N/A, New Construction	Stat	Statewide Accident Rate:			
Is the NSF a contributir identified accide Choose YES o	ents?	YES [	YES 🗌			NO 🗌	
If YES, describe how contributes to acc		Not applicable. New cons	tructior	n			
3. Cost Estimates							
Cost to Fully	Meet Standard	ls:	Non	e			
Cost(s) For Ir	ncremental Imp	provements:	The	re are no increr	mental i	mprovements. This is new construction	
4. Measures to Mi ITS for non-standard LC		ential Adverse Effects of the	e NSF	(e.g., curve war	ning sig	ns for a non-standard horizontal curve;	
None							
5. Compatibility wi	th Future Plan	s for Adjacent Segments					
No future plans for adjac	cent segments	of this ramp					
6. Social, Economi	c & Environme	ental factors that weigh in th	he deci	sion to retain or	r propos	e the NSF	
There is insufficient width between Burnet Ave. and Erie Boulevard to provide the required distances to achieve Control of Access while accommodating the 2 ramps along Crouse Ave. and I-690. Closure of Erie Blvd. is not in keeping with the project objectives of enhancing connectivity.							
7. Recommendatio	n						
Provide non-standard c	ontrol of acces	S					

Exhibit A-3-2-15 Nonstandard Feature Justification								
PIN:	3501.6		Route	e No. & Name:		I-690 Westbound Exit Ramp at Crouse Ave.		
Project Type:	Reconstruction		Desig	Design Classification:		terstate Ramp		
ADT (2050)	10,150		Desi	gn Speed	30	) mph		
DHV (2050)	1,040		% Tr	ucks:	5.	5%		
1. Description of N	Ionstandard Fea	ture						
Type of Feature (e.g., Control of Access								
horizontal curve Location:	e radius):	Burnet Avenue				Community Grid Alternative		
Standard Value	:	100 ft	I	Design Speed		30 mph		
Existing Value:		N/A						
Proposed Value	e:	50 ft						
2. Accident Analys	sis							
Current Accident	Rate:	N/A New Ramp	State	Statewide Accident Rate:				
identified accide	the NSF a contributing feature to identified accidents? YES □ Choose YES or NO					NO 🛛		
If YES, describe how contributes to acc								
3. Cost Estimates								
Cost to Fully	Meet Standards:		None	•				
Cost(s) For Ir	ncremental Impro	ovements:	No in	cremental impro	ovemei	nt. New Ramp		
4. Measures to Mi ITS for non-standard LC	tigate the Potent DS, etc.)	ial Adverse Effects of the I	NSF (	e.g., curve warn	ning sigi	ns for a non-standard horizontal curve;		
None.								
5. Compatibility wi	th Future Plans f	for Adjacent Segments						
No future plans for adja	cent segments o	f this ramp						
6. Social, Economi	c & Environment	al factors that weigh in the	e decis	ion to retain or p	propos	e the NSF		
There is insufficient width between Burnet Ave. and Erie Boulevard to provide the required distances to achieve Control of Access while accommodating the 2 ramps along Crouse Ave. and I-690. Closure of Burnet Ave. is not in keeping with the project objectives of enhancing connectivity.								
7. Recommendatio	n							
Provide non-standard c	ontrol of access.							

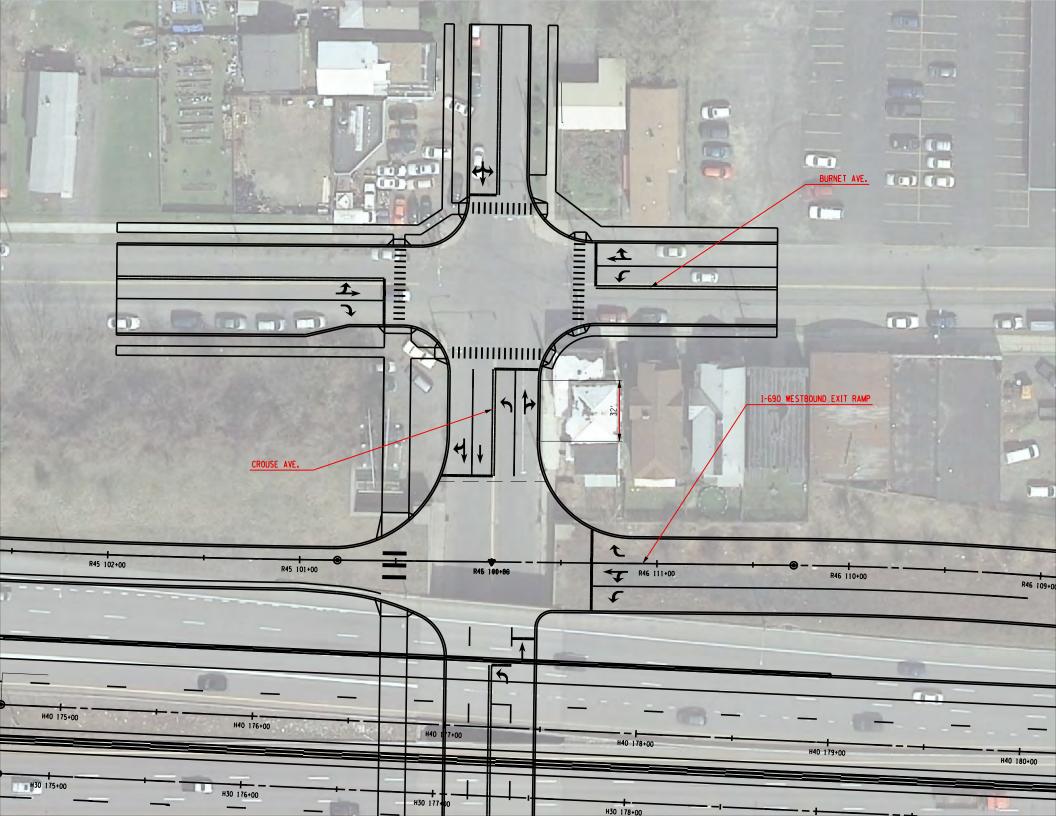


Exhibit A-3-2-16 Nonstandard Feature Justification							
PIN:	3501.6		Rou	te No. & Name:	hA/	Former I-81 Southbound Exit Ramp at Willow St.	
Project Type:	Reconstructio	on	Desi	ign Classificatic	on: Ir	nterstate Ramp	
ADT (2050)	10,890		Des	ign Speed	3	0 mph	
DHV (2050)	1,270		% Т	rucks:	2	.5%	
1. Description of N	Ionstandard F	eature					
Type of	Feature (e.g	g., Control of Access					
horizontal curve Location:	e radius):	Driveway at 123-29 W	illow St	t.		Community Grid Alternative	
Standard Value	e:	100 ft		Design Speed		30 mph	
Existing Value:		N/A, New Construction	า				
Proposed Value	э:	70 ft					
2. Accident Analys	sis						
Current Accident	Rate:	N/A, New Construction	Stat	ewide Acciden	t Rate:		
Is the NSF a contributir identified accide Choose YES o	ents?	YES	YES 🗌			NO 🗌	
If YES, describe how contributes to acc		Not applicable. New cons	tructior	ì			
3. Cost Estimates							
Cost to Fully	Meet Standard	ds:	Non	e			
Cost(s) For Ir	ncremental Imp	provements:	The	re are no increi	mentali	improvements. This is new construction	
4. Measures to Mi ITS for non-standard LC		ential Adverse Effects of th	e NSF	(e.g., curve war	ning sig	ins for a non-standard horizontal curve;	
None.							
5. Compatibility wi	th Future Plan	s for Adjacent Segments					
No future plans for adjac	cent segments	s of this ramp					
6. Social, Economi	c & Environme	ental factors that weigh in t	he deci	sion to retain or	r propos	e the NSF	
Closing the driveway would eliminate parking access to the garage on the associated property which would have a negative impact on the business and the property.							
7. Recommendation							
Provide non-standard co	ontrol of acces	S.					

Exhibit A-3-2-17 Nonstandard Feature Justification								
PIN:	3501.6		Rou	te No. & Name:		mer I-81 Southbound Exit Ramp at low St.		
Project Type:	Reconstructio	n	Des	ign Classificatior	n:	erstate Ramp		
ADT (2050)	10,890			ign Speed		mph		
DHV (2050)	1,270		% T	rucks:	2.5	5%		
1. Description of N	Nonstandard Fe	eature						
Type of Feature (e.g., Control of Access								
horizontal curve	e radius):	Warren St.				Community Grid Alternative		
Standard Value	):	50 ft		Design Speed		30 mph		
Existing Value:		N/A, New Construction						
Proposed Value	ə:	0 ft						
2. Accident Analys	sis							
Current Accident	Rate:	N/A, New Construction	Statewide Accident Rate:					
Is the NSF a contributir identified accide Choose YES o	ents?	YES 🗌				NO 🗌		
If YES, describe how contributes to acc		Not applicable. New const	ructior	1				
3. Cost Estimates								
Cost to Fully	Meet Standard	ls:	Non	e				
Cost(s) For Ir	ncremental Imp	provements:	The	re are no increm	nental in	nprovements. This is new construction		
4. Measures to Mi ITS for non-standard LC		ential Adverse Effects of the	NSF	(e.g., curve warn	ing sign	is for a non-standard horizontal curve;		
None.								
5. Compatibility wi	th Future Plan	s for Adjacent Segments						
No future plans for adjac	cent segments	of this ramp						
6. Social, Economi	c & Environme	ental factors that weigh in th	e deci	sion to retain or	propose	e the NSF		
Elimination of the non-standard control of access would require installation of a turn-around at Warren St. to sever access to Willow St. Severing city streets is not in keeping with the project objective of enhancing connectivity.								
7. Recommendation								
Provide non-standard c	ontrol of acces	S.						

Exhibit A-3-2-18 Nonstandard Feature Justification								
PIN:	3501.6		Rou	te No. & Name:		Former I-81 Northbound Entrance Ramp at Pearl St.		
Project Type:	Reconstructio	ก	Desi	ign Classification:	Int	erstate Ramp		
ADT (2050)	10,100			ign Speed	30	mph		
DHV (2050)	1,350		% T	rucks:				
1. Description of N	lonstandard F	eature						
Type of	Feature (e.g	g., Control of Access						
horizontal curve Location:	e radius):	Driveway at 320 Pearl S	treet.			Community Grid Alternative		
Standard Value	:	100 ft		Design Speed		30 mph		
Existing Value:		N/A, New Construction						
Proposed Value	e:	0 ft						
2. Accident Analys	sis							
Current Accident	Rate <sup>.</sup>	N/A, New Construction	Statewide Accident Rate					
Is the NSF a contributir identified accide Choose YES o	ents?	YES				NO 🗌		
If YES, describe how contributes to acc		Not applicable. New constru	uctior	ı				
3. Cost Estimates	-							
Cost to Fully	Meet Standard	ls:	Non	e				
Cost(s) For Ir	cremental Imp	provements:	The	re are no increme	ental im	nprovements. This is new construction		
4. Measures to Mi ITS for non-standard LC	tigate the Pote S, etc.)	ential Adverse Effects of the	NSF	(e.g., curve warnii	ng sign	s for a non-standard horizontal curve;		
None. This driveway is r	not expected to	o produce adverse effects du	ie to i	its limited use.				
5. Compatibility with	th Future Plan	s for Adjacent Segments						
No future plans for adjac	cent segments	of this ramp						
6. Social, Economi	c & Environme	ental factors that weigh in the	deci	sion to retain or p	ropose	the NSF		
This driveway provides access to an alleyway that serves as maintenance access (dumpster storage, etc.) for the property. Driveway access is important to the operations of the building.								
7. Recommendatio	n							
Provide non-standard co	ontrol of acces	S.						

Exhibit A-3-2-19 Nonstandard Feature Justification								
PIN:	3501.6		Rou	te No. & Name:		Former I-81 Southbound Exit Ramp at Spencer Street		
Project Type:	Reconstruction		Des	ign Classificatior	n: Ir	nterstate Ramp		
ADT (2050)	3,161			ign Speed		0 mph		
DHV (2050)	439		% T	rucks:	5	%		
1. Description of N	Nonstandard Fea	ture						
Type of Feature (e.g., Control of Access								
horizontal curve Location:	e radius):	800 North Clinton St. Dr	ivewa	ay		Community Grid Alternative		
Standard Value	e:	100 ft		Design Speed		30 mph		
Existing Value:		N/A						
Proposed Value	e:	90 ft						
2. Accident Analys	sis							
Current Accident	Rate:	N/A New Ramp	Stat	ewide Accident	Rate:			
Is the NSF a contributing feature to identified accidents? YES Choose YES or NO			NO 🖾			NO 🛛		
If YES, describe how contributes to acc		ot applicable. New ramp						
3. Cost Estimates			_					
Cost to Fully	Meet Standards:		Non	e				
Cost(s) For Ir	ncremental Impro	ovements:	No i	ncremental impr	oveme	ent. New Ramp		
4. Measures to Mi ITS for non-standard LC		ial Adverse Effects of the I	NSF	(e.g., curve warr	ning sig	ins for a non-standard horizontal curve;		
None. A 10ft reduction i	n distance from t	he driveway is not expecte	ed to	produce adverse	e effect	ts		
5. Compatibility wi	th Future Plans f	or Adjacent Segments						
No future plans for adja	cent segments of	f this ramp						
6. Social, Economi	c & Environment	al factors that weigh in the	deci	sion to retain or	propos	se the NSF		
Relocating driveway would impact the property and require elimination of parking spaces. There is also insufficient space to locate the ramp further away from the driveway.								
7. Recommendation								
Provide non-standard c	ontrol of access.							

Exhibit A-3-2-20 Nonstandard Feature Justification								
PIN:	3501.6		Rou	te No. & Name:		Former I-81 Northbound Exit Ramp at Sunset Ave.		
Project Type:	Reconstruction		Design Classification:		n:	Inte	erstate Ramp	
ADT (2050)	3,185			ign Speed		30 I	mph	
DHV (2050)	336		% T	rucks:		3%		
1. Description of Nonstandard Feature								
	Type of Feature (e.g., Control of Access							
horizontal curve Location:	e radius):	Several driveways from : Danforth St.	220 \$	Sunset Ave. to	201		Community Grid Alternative	
Standard Value	e:	100 ft		Design Speed			30 mph	
Existing Value:		0 ft		_ 00.9.1 0p000			55 mp.	
Proposed Valu	e:	0 ft						
2. Accident Analy	sis							
Current Accident	t Rate:		Stat	ewide Accident	t Rate	e:		
Is the NSF a contributing feature to identified accidents?				NO 🛛			NO 🛛	
If YES, describe how contributes to acc								
3. Cost Estimates								
Cost to Fully	Meet Standards:		Non	e				
Cost(s) For I	ncremental Impro	vements:	No i	ncremental imp	roven	nent	. Maintaining existing condition	
4. Measures to M ITS for non-standard LC		al Adverse Effects of the N	NSF	(e.g., curve war	ning s	signs	s for a non-standard horizontal curve;	
None. These driveways	s service several r	esidences and generate v	ery f	ew trips.				
5. Compatibility w	ith Future Plans fo	or Adjacent Segments						
No future plans for adja	cent segments of	this ramp						
6. Social, Economi	ic & Environmenta	al factors that weigh in the	deci	sion to retain or	. prop	ose	the NSF	
Closing these driveways would impact several residences.								
7. Recommendation	7. Recommendation							
Retain existing non-star	ndard control of a	ccess.						

Exhibit A-3-2-21 Nonstandard Feature Justification								
PIN:	3501.6		Rou	te No. & Name:	2	Former I-81 Northbound Entrance Ramp at Sunset Ave.		
Project Type:	Reconstruction		Design Classification:		n:	Inte	rstate Ramp	
ADT (2050)	2,757		Des	ign Speed		30 r	nph	
DHV (2050)	306		% T	rucks:	ļ	3%		
1. Description of N	Nonstandard Feat	ure						
Type of Feature (e.g., Control of Access								
horizontal curve Location:	e radius):	Several driveways from	147 (	Court St. to 310	) Suns	et	Community Grid Alternative	
Standard Value	e:	Ave. 100 ft		Design Speed			30 mph	
Existing Value:		0 ft						
Proposed Value	e:	0 ft						
2. Accident Analys	sis							
Current Accident	Rate:		Stat	ewide Accident	t Rate:			
Is the NSF a contributin identified accide Choose YES o	Is the NSF a contributing feature to identified accidents?						NO 🛛	
If YES, describe how contributes to acc								
3. Cost Estimates								
Cost to Fully	Meet Standards:		Non	e				
Cost(s) For Ir	ncremental Impro	vements:	No i	ncremental imp	rovem	ent.	Maintaining existing condition	
4. Measures to Mi ITS for non-standard LC		al Adverse Effects of the N	NSF	(e.g., curve warı	ning si	gns	for a non-standard horizontal curve;	
None. These driveways	service several r	esidences and generate v	ery f	ew trips.				
5. Compatibility wi	th Future Plans for	or Adjacent Segments						
No future plans for adja	cent segments of	this ramp						
6. Social, Economi	c & Environmenta	al factors that weigh in the	deci	sion to retain or	. propo	se t	he NSF	
Closing these driveways would impact several residences.								
7. Recommendation	n							
Retain existing non-star	ndard control of a	ccess.						

Exhibit A-3-2-22 Nonstandard Feature Justification							
PIN:	3501.6				G	I-81 Southbound Entrance Ramp at Genant Drive	
Project Type:	Reconstruction		Design Classification:		n: Ir	Interstate Ramp	
ADT (2050)	8,659			Design Speed		0 mph	
DHV (2050) 870			% Trucks:		2'	%	
1. Description of Nonstandard Feature							
Type of Feature (e.g., Control of Access							
horizontal curve radius): Location:		Bear Street				Viaduct Alternative	
Standard Value:		100 ft Design Speed			30 mph		
Existing Value:		80 ft					
Proposed Value:		O ft					
2. Accident Analysis							
Current Accident Rate:			Statewide Accident Rate		Rate:		
Is the NSF a contributing feature to identified accidents? Choose YES or NO		YES 🗌			NO 🛛		
If YES, describe how the feature contributes to accidents							
3. Cost Estimates							
Cost to Fully Meet Standards:			None				
Cost(s) For Incremental Improvements:			No Incremental improvement. Maintaining existing condition				
4. Measures to Mitigate the Potential Adverse Effects of the NSF (e.g., curve warning signs for a non-standard horizontal curve; ITS for non-standard LOS, etc.)							
None. Signing in advance of and at the Bear St./Genant Dr. intersection will guide vehicles into the correct lanes for either the I-81 southbound entrance ramp or Genant Drive.							
5. Compatibility with Future Plans for Adjacent Segments							
No future plans for adjacent segments of this ramp							
6. Social, Economic & Environmental factors that weigh in the decision to retain or propose the NSF							
Placing the ramp to southbound I-81 further along Genant Drive would reduce the weaving distance to the exit ramp to Spencer St. It would also further reduce the non-conforming ramp spacing.							
7. Recommendation							
Retain non-standard control of access.							