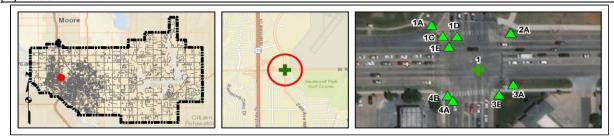
City of Norman ADA Self-Evaluation and Transition Plan Signalized Intersection Cost Projection Summary 4/30/2018

GPS ID	Project Name	Co	st Projection	Priority
1	Intersection of W Robinson St and 24th Ave NW	\$	77,000	2
2	Intersection of 24th Ave NW and Boardwalk St	\$	56,000	2
3	Intersection of 24th Ave NW and Hemphill Dr	\$	16,000	5
4	Intersection of 24th Ave NW and W Main St	\$	73,000	5
5	Intersection of 24th Ave SW and W Boyd St	\$	55,000	2
6	Intersection of 24th Ave SW and Brooks St	\$	61,000	2
7	Intersection of 24th Ave SW and W Lindsey St	\$	17,000	5
8	Intersection of W Main St and Hal Muldrow Dr	\$	48,000	5
9	Intersection of W Main St and N Mercedes Dr	\$	66,000	5
10	Intersection of W Main St and N Berry Rd	\$	35,000	2
11	Intersection of N Webster Ave and W Gray St	\$	37,000	5
12	Intersection of W Boyd St and S Berry Rd	\$	29,000	2
13	Intersection of W Boyd St and S Flood Ave	\$	32,000	4
14	Intersection of W Boyd St and Chautauqua Ave	\$	56,000	2
15	Intersection of E Lindsey St and Biloxi Dr	\$	46,000	5
16	Intersection of E Lindsey St and Oakhurst Ave	\$	26,000	5
17	Intersection of E Lindsey St and 24th Ave SE	\$	36,000	2
18	Intersection of Stubbeman Ave and W Rock Creek Rd	\$	59,000	2
19	Intersection of 12th Ave NW and W Tecumseh Rd	\$	42,000	4
20	Intersection of Brookhollow Rd and 36th Ave NW	\$	28,000	4
	TOTAL	\$	895,000	

Kimley-Horn and A Project Description	ssociates, Inc. n for Signalized Intersection				Priority: 2
Client: Program: KHA No.:	City of Norman ADA Self-Evaluation and Transition Plan 061298800				Date: 4/30/18 ared By: CMP cked By: EPE
Corridor : Project Name: City:	24th Ave NW Intersection of W Robinson St and 24th Ave NW Norman				GPS ID: 1
Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
ODOT 202(A)-0183	Unclassified Excavation	0	CY	\$ 5.50	\$-
	Concrete Curb (6" Barrier-Integral)	0	LF	\$ 7.00	s -
	4" Concrete Sidewalk	82	SY	\$ 50.00	\$ 4,100.00
ODOT 610(I)-4610	Tactile Warning Device - New	80	SF	\$ 25.00	\$ 2,000.00
	Tactile Warning Device - Retrofit	0	SF	\$ 60.00	s -
ODOT 619(B)-4792	Removal of Sidewalk	77	SY	\$ 12.00	\$ 924.00
	Push Button Pole	6	EA	\$ 1,200.00	\$ 7,200.00
ODOT 857(F)-8006	Pavement Marking Removal (Traffic Stripe)	0	LF	\$ 0.25	s -
	Crosswalk Pavement Markings	800	LF	\$ 6.00	\$ 4,800.00
	Pedestrian Push Button (APS)	0	EA	\$ 1,200.00	\$ -
	Removal of Pedestrian Push Buttons	0	EA	\$ 50.00	s -
	Relocate Pedestrian Push Button	6	EA	\$ 300.00	\$ 1,800.00
	12" LED Countdown Ped Signal Module with Housing	0	EA	\$ 650.00	\$-
	Pedestrian Push Button Sign	0	EA	\$ 150.00	s -
	Remove Pedestrian Push Button Sign	0	EA	\$ 50.00	\$-
	Repave Roadway	4	LS	\$ 5,000.00	\$ 20,000.00
	Fix Ponding	1	LS	\$ 2,000.00	\$ 2,000.00
	Fix Curb Ramp Transition	7	LS	\$ 2,000.00	\$ 14,000.00
	Median Nose Modification	0	LS	\$ 5,000.00	
	Remove Temporary Obstruction	0	LS	\$ 500.00	
	Fix Curb Ramp Counter Slope	0	LS	\$ 2,000.00	
Basis for Cost Proje				Subtotal: S	
	No Design Completed			Engineering: (% +/-) 15% 5	\$ 8,646.86
	Preliminary Design			Contingency: (% +/-) 20% 5	
	Final Design			Estimated Project Cost: 5	\$ 77,000.00



Field	Observations
+	

								Cros	swalk			
Intersection Issues			N		E					S	W	Possible Solutions
Path of travel pavement condition		Dan	gerous	3		Dang	erous	;		Dangerous	Dangerous	Repave roadway and install crosswalk pavement markings
Path of travel running slope is greater than 5%		••••		•								
Path of travel cross slope is greater than 5%		••••		•		••••	•••••			•		
Crosswalk width is less than 6'												Remove and replace crosswalk pavement markings
Crosswalk striping condition		Good				W	orn			Good	Good	Remove and replace closswark pavement markings
i					15 /							
Curb Ramp Issues	1A		urb F							indicates no e	kisting ramp)	Possible Solutions
Curb ramp does not exist and is needed		Х		Х								Remove and replace curb ramp
Curb ramp does not land in crosswalk		1		<u>.</u>								
No 4' x 4' clear space at base of curb ramp				L		.						
Curbed side is not 90° or has traversable adjacent surface	Х	ļ		ļ	ļ	.	Х	ļ	ļ			
Flare cross slope is greater than 10%		ļ		ļ	ļ	Х						
Curb ramp running slope is greater than 8.3%	Х	ļ		ļ	Х	.		ļ	ļ			
Blended transition running slope is greater than 5%		ļ		ļ		.		ļ				
Cut-thru ramp running slope is greater than 5%				ļ								Remove and replace curb ramp
Curb ramp cross slope is greater than 2%	Х			ļ		Х		Х				Romoro and replace care ramp
Cut-thru ramp cross slope is greater than 5%		ļ		ļ	ļ	.		ļ	ļ			
Curb ramp width is less than 48"		ļ		ļ	ļ	.						
Cut-thru ramp width is less than 60"		ļ		ļ	ļ	.		ļ	ļ			
Permanent obstruction (>0.25") in curb ramp/landing/flares		Х		Х	ļ	Х		ļ				
Temporary obstruction (>0.25") in curb ramp/landing/flares		ļ		ļ	ļ	.						
No textured surface at base of curb ramp		ļ		ļ	ļ	······		ļ				
No color contrast at base of curb ramp				ļ		.						
Landing area does not exist and is needed	ļ	ļ		ļ	ļ	······		ļ				
Landing area is less than 5' x 5' or slopes greater than 2%		X	Х	ļ		.			ļ			Remove and replace landing area
Missing or no pedestrian push buttons	ļ	ļ		ļ	ļ	······		ļ				
Pedestrian push button is offset more than 5' from the nearest					х		х	х				Install push button pole and relocate pedestrian push
crosswalk edge		ļ		ļ	ļ	v						buttons
Pedestrian push button offset more than 10' from curb face		ļ		ļ		Х	Х	X	Х			
Pedestrian push button is not parallel to crosswalk		ļ		ļ	Х	·····•	ļ	Ļ	ļ			Relocate pedestrian push buttons
Pedestrian push button height is greater than 48"				ļ		·····•						
Pedestrian push button diameter is not 2"		ļ		ļ	ļ	·····•	ļ	ļ	ļļ			
Pedestrian push button sign does not exist		ļ		ļ		·····•			ļ			
Pedestrian push button sign is not MUTCD approved		ļ		ļ		·····•			ļ			
Clear floor space does not exist and is needed		ļ		.	ļ	·····•		ļ	ļ			
Clear floor space for pedestrian push button is less than 30" x 48" or			Х			х			х			Remove and replace clear floor space
has a slope greater than 2%		ļ		ļ	ļ	·····•		ļ	ļ			
Missing or no pedestrian signal heads					~	~	~	~				Fix curb ramp transition
Curb ramp transition onto roadway is greater than 0.25" Counter slope of the gutter or street at the foot of the curb ramp is	Х	Х		X	Х	Х	Х	Х	ļ			
counter slope of the gutter or street at the foot of the curb ramp is greater than 5%	1	1	1	1	1							
greater than 5% Ponding occurs at base of curb ramp		ł		х	ļ	·····•						Fix ponding
Ponding occurs at base of curb ramp		i		X	<u> </u>							

Intersection of W Robinson St and 24th Ave NW



Ramp 3B

Ramp 4A

Ramp 4B

Opinion of Probable Construction Cost Disclaimer:

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Project Location Map Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

End of Project Description for Project 1 Intersection of W Robinson St and 24th Ave NW

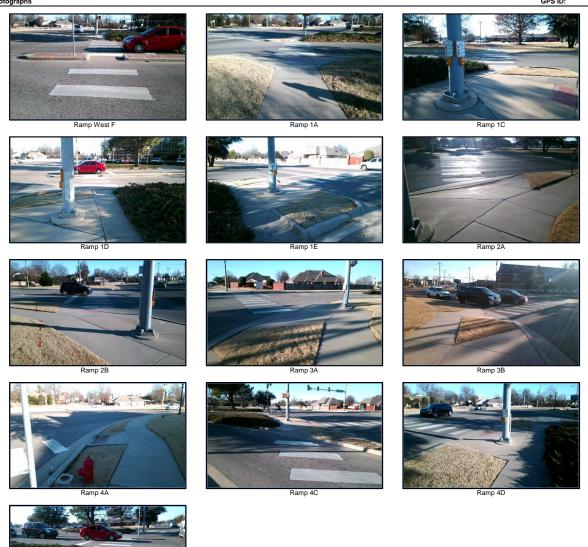
Kimley-Horn and A Project Descriptior	ssociates, Inc. n for Signalized Intersection				Priority: 2
Client: Program: KHA No.:	City of Norman ADA Self-Evaluation and Transition Plan 061298800				Date: 4/30/18 pared By: CMP cked By: EPE
	24th Ave NW Intersection of 24th Ave NW and Boardwalk St Norman				GPS ID: 2
Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
ODOT 202(A)-0183	Unclassified Excavation	0	CY	\$ 5.50	\$-
	Concrete Curb (6" Barrier-Integral)	0	LF	\$ 7.00	\$ -
	4" Concrete Sidewalk	108	SY	\$ 50.00	\$ 5,400.00
ODOT 610(I)-4610	Tactile Warning Device - New	100	SF	\$ 25.00	\$ 2,500.00
ODOT 610(I)-4615	Tactile Warning Device - Retrofit	20	SF	\$ 60.00	\$ 1,200.00
ODOT 619(B)-4792	Removal of Sidewalk	126	SY	\$ 12.00	\$ 1,512.00
	Push Button Pole	2	EA	\$ 1,200.00	\$ 2,400.00
ODOT 857(F)-8006	Pavement Marking Removal (Traffic Stripe)	0	LF	\$ 0.25	\$ -
	Crosswalk Pavement Markings	0	LF	\$ 6.00	\$-
	Pedestrian Push Button (APS)	0	EA	\$ 1,200.00	\$-
	Removal of Pedestrian Push Buttons	0	EA	\$ 50.00	s -
	Relocate Pedestrian Push Button	2	EA	\$ 300.00	\$ 600.00
	12" LED Countdown Ped Signal Module with Housing	0	EA	\$ 650.00	\$-
	Pedestrian Push Button Sign	8	EA	\$ 150.00	\$ 1,200.00
	Remove Pedestrian Push Button Sign	8	EA	\$ 50.00	\$ 400.00
	Repave Roadway	0	LS	\$ 5,000.00	\$-
	Fix Ponding	4	LS	\$ 2,000.00	\$ 8,000.00
	Fix Curb Ramp Transition	6	LS	\$ 2,000.00	\$ 12,000.00
	Median Nose Modification	0	LS	\$ 5,000.00	\$-
	Remove Temporary Obstruction	4	LS	\$ 500.00	\$ 2,000.00
	Fix Curb Ramp Counter Slope	2	LS	\$ 2,000.00	\$ 4,000.00
Basis for Cost Proje				Subtotal:	\$ 41,212.00
	No Design Completed			Engineering: (% +/-) 15%	\$ 6,337.71
	Preliminary Design			Contingency: (% +/-) 20%	\$ 8,450.29
	Final Design			Estimated Project Cost:	



Field Observations

Intersection Issues		Cros	swalk	Possible Solutions	
Intersection issues	N	E	S	W	Possible Bolutions
Path of travel pavement condition	Good	Good	Good	Good	
Path of travel running slope is greater than 5%					
Path of travel cross slope is greater than 5%					
Crosswalk width is less than 6'					
Crosswalk striping condition	Good	Good	Good	Good	

Curb Ramp Issues		С	urb I	Ramp	ID ('	z' or '	' <i>i</i> ' in I	ramp	label	indic	ates	no ex	kisting	g ramp) Possible Solutions
Cub Namp Issues	WF	1A	1C	1D	1E	2A	2B	ЗA	3B	4A	4C	4D	4E	
Curb ramp does not exist and is needed			Х	Х	Х							Х	Х	Remove and replace curb ramp
Curb ramp does not land in crosswalk														
No 4' x 4' clear space at base of curb ramp														
Curbed side is not 90° or has traversable adjacent surface														
Flare cross slope is greater than 10%					Х			Х	Х				Х	
Curb ramp running slope is greater than 8.3%				Х		Х	Х		Х	Х		Х		
Blended transition running slope is greater than 5%														
Cut-thru ramp running slope is greater than 5%														Remove and replace curb ramp
Curb ramp cross slope is greater than 2%			Х											Remove and replace curb ramp
Cut-thru ramp cross slope is greater than 5%														
Curb ramp width is less than 48"						1		1						
Cut-thru ramp width is less than 60"														
Permanent obstruction (>0.25") in curb ramp/landing/flares				Х										
Temporary obstruction (>0.25") in curb ramp/landing/flares	••••		Х					1			Х	Х	Х	Remove temporary obstruction
No textured surface at base of curb ramp	Х		Х			1		1			Х	1		For intersection, commercial driveway, and park ramps,
No color contrast at base of curb ramp	Х		Х	Х							Х			install color truncated domes
Landing area does not exist and is needed	••••			1	1	1		1	1	1		1		
Landing area is less than 5' x 5' or slopes greater than 2%	••••		Х		Х	Х	Х	1	Х	Х	Х	Х	Х	Remove and replace landing area
Missing or no pedestrian push buttons														
Pedestrian push button is offset more than 5' from the nearest	••••		1	1	1	1	1	v	х	1	1	1		Install push button pole and relocate pedestrian push
crosswalk edge								^	^					buttons
Pedestrian push button offset more than 10' from curb face	••••			1	I	1	1	1				1		
Pedestrian push button is not parallel to crosswalk	••••			1	1	1		1	1	1		1		
Pedestrian push button height is greater than 48"	••••		1	1	1	1	1	1	ľ	1		1		
Pedestrian push button diameter is not 2"	••••					1		1				1		
Pedestrian push button sign does not exist	••••		1	1	1	1	1	1	Γ	1	1	1		
Pedestrian push button sign is not MUTCD approved	••••			Х	Х	Х	Х	Х	Х			Х	Х	Remove and replace pedestrian push button sign
Clear floor space does not exist and is needed	••••			1	1	1		1						
Clear floor space for pedestrian push button is less than 30" x 48" or			1	х	х		х	v	х		1	1	v	Remove and replace clear floor space
has a slope greater than 2%			1	X	X	1	X	X	X	1	1	1	х	Remove and replace clear noor space
Missing or no pedestrian signal heads	•••••	[[1	T	Ĩ	1	1	1	Ĩ		1		
Curb ramp transition onto roadway is greater than 0.25"		Х	Х	T	T	Х	1	Ī	ľ	Х	Х	Х		Fix curb ramp transition
Counter slope of the gutter or street at the foot of the curb ramp is	х		х	1	1	1	1	1	1	1	1	1		Fix outb romo counter clope
greater than 5%	X		×	1	1	1	1	1	1		1	1		Fix curb ramp counter slope
Ponding occurs at base of curb ramp	••••		Х		[Х	Х	I				I	Х	Fix ponding



Opinion of Probable Construction Cost Disclaimer:

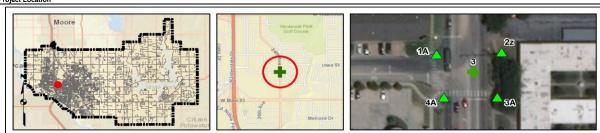
Ramp 4F

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Project Location Map Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

End of Project Description for Project 2 Intersection of 24th Ave NW and Boardwalk St

Kimley-Horn and A Project Description	ssociates, Inc. n for Signalized Intersection					Priority: 5
Client:	City of Norman				_	Date: 4/30/18
Program:	ADA Self-Evaluation and Transition Plan					ared By: CMP
KHA No.:	061298800				Che	cked By: EPE
Corridor :	24th Ave NW					GPS ID: 3
Project Name:	Intersection of 24th Ave NW and Hemphill Dr					
City:	Norman					
Item No.	Item Description	Quantity	Unit		Unit Price	Item Cost
	Unclassified Excavation	Quantity	CY	\$	5.50	
	Concrete Curb (6" Barrier-Integral)	0	LF	ې ۲	7.00	
	4" Concrete Sidewalk	39	SY	9 S	50.00	
	Tactile Warning Device - New	40	SF	ş S	25.00	
	Tactile Warning Device - Retrofit	0	SF	\$	60.00	
	Removal of Sidewalk	40	SY	\$	12.00	
	Push Button Pole	1	EA	Š	1.200.00	
	Pavement Marking Removal (Traffic Stripe)	0	LF	ş S	0.25	
	Crosswalk Pavement Markings	0	LF	Š	6.00	
	Pedestrian Push Button (APS)	0	EA	Ś	1,200.00	
	Removal of Pedestrian Push Buttons	0	EA	\$	50.00	
	Relocate Pedestrian Push Button	1	EA	\$	300.00	\$ 300.00
	12" LED Countdown Ped Signal Module with Housing	0	EA	\$	650.00	s -
	Pedestrian Push Button Sign	4	EA	\$	150.00	\$ 600.00
	Remove Pedestrian Push Button Sign	4	EA	\$	50.00	\$ 200.00
	Repave Roadway	0	LS	\$	5,000.00	\$-
	Fix Ponding	1	LS	\$	2,000.00	\$ 2,000.00
	Fix Curb Ramp Transition	2	LS	\$	2,000.00	\$ 4,000.00
	Median Nose Modification	0	LS	\$	5,000.00	
	Remove Temporary Obstruction	0	LS	\$	500.00	
	Fix Curb Ramp Counter Slope	0	LS	\$	2,000.00	
Basis for Cost Proje					Subtotal:	
	No Design Completed			Engineering: (%		
	Preliminary Design			Contingency: (%		
	Final Design			Estimate	d Project Cost:	\$ 16,000.00



Field	Observations	

					Cros	swalk		
Intersection Issues		Ν	1		E	S	W	Possible Solutions
Path of travel pavement condition		N/	'A		N/A	Good	Good	
Path of travel running slope is greater than 5%		N/	A		N/A			
Path of travel cross slope is greater than 5%		N/	Ά		N/A			
Crosswalk width is less than 6		N/	'A		N/A			
Crosswalk striping condition	1	N/	Ά		N/A	Good	Good	
Curb Ramp Issues					D ('z' or 'i' in ramp	label indicates no e	existing ramp)	Possible Solutions
	1A	2z	3A	4A				
Curb ramp does not exist and is needed								
Curb ramp does not land in crosswalk								
No 4' x 4' clear space at base of curb ramp								
Curbed side is not 90° or has traversable adjacent surface	. .		Х					
Flare cross slope is greater than 10%								
Curb ramp running slope is greater than 8.3%	Х		Х	Х				
Blended transition running slope is greater than 5%								
Cut-thru ramp running slope is greater than 5%								Remove and replace curb ramp
Curb ramp cross slope is greater than 2%			Х	Х				itemove and replace curb ramp
Cut-thru ramp cross slope is greater than 5%	1							
Curb ramp width is less than 48"	1		ľ					
Cut-thru ramp width is less than 60"	1							
Permanent obstruction (>0.25") in curb ramp/landing/flares	Х		Х					
Temporary obstruction (>0.25") in curb ramp/landing/flares	1		Ī					
No textured surface at base of curb ramp	Х		Х					For intersection, commercial driveway, and park ramps,
No color contrast at base of curb ramp	X		Х					install color truncated domes
Landing area does not exist and is needed	1		1					
Landing area is less than 5' x 5' or slopes greater than 2%	X		Х	Х				Remove and replace landing area
Missing or no pedestrian push buttons	1							
Pedestrian push button is offset more than 5' from the nearest	1 1		Ť					Install push button pole and relocate pedestrian push
crosswalk edge				Х				buttons
Pedestrian push button offset more than 10' from curb face	11		Ť					
Pedestrian push button is not parallel to crosswalk	11		····					
Pedestrian push button height is greater than 48"	1			[
Pedestrian push button diameter is not 2"	1		·····	[
Pedestrian push button sign does not exist	11							
Pedestrian push button sign is not MUTCD approved	Х		Х	Х				Remove and replace pedestrian push button sign
Clear floor space does not exist and is needed	1 1							a and a second a second s
Clear floor space for pedestrian push button is less than 30" x 48" or	1							
has a slope greater than 2%	Х		Х	Х				Remove and replace clear floor space
Missing or no pedestrian signal heads	1							
Curb ramp transition onto roadway is greater than 0.25"	Х		Х					Fix curb ramp transition
Counter slope of the gutter or street at the foot of the curb ramp is	+							
greater than 5%								
Ponding occurs at base of curb ramp	ᠠ		х					Fix ponding
r onang occurs at base of ours failp	<u> </u>		~	1				

Intersection of 24th Ave NW and Hemphill Dr GPS ID:



S MATTINE 4A



Corner 2 No Ramp (2z)

A P

Opinion of Probable Construction Cost Disclaimer:

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Project Location Map Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

End of Project Description for Project 3 Intersection of 24th Ave NW and Hemphill Dr

Kimley-Horn and A Project Description	ssociates, Inc. n for Signalized Intersection					Priority: 5
Client: Program: KHA No.:	City of Norman ADA Self-Evaluation and Transition Plan 061298800					Date: 4/30/18 ared By: CMP ked By: EPE
Corridor : Project Name: City:	W Main St Intersection of 24th Ave NW and W Main St Norman					GPS ID: 4
Item No.	Item Description	Quantity	Unit		Jnit Price	Item Cost
ODOT 202(A)-0183	Unclassified Excavation	0	CY	\$	5.50	- 6
ODOT 609(A)-0300	Concrete Curb (6" Barrier-Integral)	20	LF	\$	7.00 \$	5 140.00
ODOT 610(A)-0602	4" Concrete Sidewalk	101	SY	\$	50.00	5,050.00
ODOT 610(I)-4610	Tactile Warning Device - New	100	SF	\$	25.00	2,500.00
ODOT 610(I)-4615	Tactile Warning Device - Retrofit	0	SF	\$	60.00 \$	-
ODOT 619(B)-4792	Removal of Sidewalk	106	SY	\$	12.00	1,272.00
	Push Button Pole	1	EA	\$	1,200.00	5 1,200.00
ODOT 857(F)-8006	Pavement Marking Removal (Traffic Stripe)	0	LF	\$	0.25	-
	Crosswalk Pavement Markings	648	LF	\$	6.00	3,888.00
	Pedestrian Push Button (APS)	0	EA	\$	1,200.00 \$	- 3
	Removal of Pedestrian Push Buttons	0	EA	\$	50.00	- ·
	Relocate Pedestrian Push Button	1	EA	S	300.00	300.00
	12" LED Countdown Ped Signal Module with Housing	0	EA	S	650.00	- ·
	Pedestrian Push Button Sign	0	EA	S	150.00	- ·
	Remove Pedestrian Push Button Sign	0	EA	S	50.00 \$	- ·
	Repave Roadway	3	LS	S	5.000.00	5 15,000.00
	Fix Ponding	6	LS	\$	2,000.00	5 12,000.00
	Fix Curb Ramp Transition	6	LS	\$	2,000.00	12,000.00
	Median Nose Modification	0	LS	\$	5,000.00 \$	- 3
	Remove Temporary Obstruction	1	LS	\$	500.00	500.00
	Fix Curb Ramp Counter Slope	0	LS	\$	2,000.00 \$	
Basis for Cost Project	ction				Subtotal: \$	53,850.00
	No Design Completed			Engineering: (%	+/-) 15% 9	8.207.14
	Preliminary Design			Contingency: (%		
	Final Design				Project Cost:	



Field Observations

Intersection Issues								Cros	swalk			Possible Solutions		
			N			E				S	W			
ath of travel pavement condition		Dang	erous	\$		Go	od			Dangerous	Dangerous	Repave roadway and install crosswalk pavement marking		
ath of travel running slope is greater than 5%		.				.	.	····•						
ath of travel cross slope is greater than 5%		.		····•		.	·····•	·····						
Crosswalk width is less than 6				····•			<u>.</u>	····-			_			
crosswalk striping condition		G	boc			Go	bod			Good	Good			
		0	urb F	amn		z' or '	<i>i</i> ' in r	amn	lahol	indicates no ex	isting ramp)			
Curb Ramp Issues	EF				2B					maioates no ex	isting ramp)	Possible Solutions		
Curb ramp does not exist and is needed	Х											Remove and replace cut-thru ramp		
Curb ramp does not land in crosswalk														
lo 4' x 4' clear space at base of curb ramp		Х										Remove and replace crosswalk pavement markings		
Curbed side is not 90° or has traversable adjacent surface		1		Х	Х	Х	Х	Х	Х					
lare cross slope is greater than 10%		Х	Х	Ĭ	[ĺ						
urb ramp running slope is greater than 8.3%		X	Х	Х	Х	Х	Х	Х	Х					
lended transition running slope is greater than 5%		ľ		ľ				ľ						
ut-thru ramp running slope is greater than 5%				Ī								Remove and replace curb ramp		
urb ramp cross slope is greater than 2%		T	Х	Х	[Х		Х	Х			Remove and replace curb ramp		
ut-thru ramp cross slope is greater than 5%		1		Ī										
urb ramp width is less than 48"		1	Х	Х	Х		Х	Х						
ut-thru ramp width is less than 60"	Х			Ī										
ermanent obstruction (>0.25") in curb ramp/landing/flares	Х	Х		Х				[Х					
emporary obstruction (>0.25") in curb ramp/landing/flares				Ī					Х			Remove temporary obstruction		
o textured surface at base of curb ramp	Х	Х			Х				Х			For intersection, commercial driveway, and park ran		
o color contrast at base of curb ramp	Х	Х	Х	Х	Х	Х	Х	Х	Х			install color truncated domes		
anding area does not exist and is needed	1	Х	Х	Ĩ	1			[Install landing area		
anding area is less than 5' x 5' or slopes greater than 2%		1		-		Х	Х	Х	Х			Remove and replace landing area		
lissing or no pedestrian push buttons		1		ľ				ĺ						
edestrian push button is offset more than 5' from the nearest				Ī			х					Install push button pole and relocate pedestrian push		
osswalk edge		1	1	1	1		^					buttons		
edestrian push button offset more than 10' from curb face		1		Ī										
edestrian push button is not parallel to crosswalk	1	1	1	1	1			1						
edestrian push button height is greater than 48"				Ī										
edestrian push button diameter is not 2"		1		Ĭ				[
edestrian push button sign does not exist				1										
edestrian push button sign is not MUTCD approved		1		•										
lear floor space does not exist and is needed		1		Ī										
lear floor space for pedestrian push button is less than 30" x 48" or		х	v	х	1	v	v	v	х			Remove and replace clear floor space		
as a slope greater than 2%		X	Х	X	1	х	Х	Х	X			Remove and replace clear noor space		
lissing or no pedestrian signal heads		1	1	•	1									
urb ramp transition onto roadway is greater than 0.25"		Х	Х	Х	1		Х	Х	Х			Fix curb ramp transition		
ounter slope of the gutter or street at the foot of the curb ramp is		1	1	1	1									
reater than 5%														
onding occurs at base of curb ramp	Х	Х	1	Х	ſ	Х	Х	Ī	Х			Fix ponding		

Intersection of 24th Ave NW and W Main St



Ramp 3B

Ramp 4A

Ramp 4B

Opinion of Probable Construction Cost Disclaimer:

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Project Location Map Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

End of Project Description for Project 4 Intersection of 24th Ave NW and W Main St

Kimley-Horn and A Project Description	ssociates, Inc. n for Signalized Intersection				Priority: 2
Client: Program: KHA No.:	City of Norman ADA Self-Evaluation and Transition Plan 061298800				Date: 4/30/18 repared By: CMP hecked By: EPE
Corridor : Project Name: City:	24th Ave SW Intersection of 24th Ave SW and W Boyd St Norman				GPS ID: 5
Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
ODOT 202(A)-0183	Unclassified Excavation	0	CY	\$ 5.50	\$ -
	Concrete Curb (6" Barrier-Integral)	0	LF	\$ 7.00	\$-
ODOT 610(A)-0602	4" Concrete Sidewalk	82	SY	\$ 50.00	\$ 4,100.00
ODOT 610(I)-4610	Tactile Warning Device - New	80	SF	\$ 25.00	\$ 2,000.00
ODOT 610(I)-4615	Tactile Warning Device - Retrofit	0	SF	\$ 60.00	\$ -
ODOT 619(B)-4792	Removal of Sidewalk	90	SY	\$ 12.00	\$ 1,080.00
	Push Button Pole	4	EA	\$ 1,200.00	\$ 4,800.00
ODOT 857(F)-8006	Pavement Marking Removal (Traffic Stripe)	0	LF	\$ 0.25	\$-
	Crosswalk Pavement Markings	243	LF	\$ 6.00	\$ 1,458.00
	Pedestrian Push Button (APS)	0	EA	\$ 1,200.00	\$ -
	Removal of Pedestrian Push Buttons	0	EA	\$ 50.00	S -
	Relocate Pedestrian Push Button	4	EA	\$ 300.00	\$ 1,200.00
	12" LED Countdown Ped Signal Module with Housing	0	EA	\$ 650.00	\$ -
	Pedestrian Push Button Sign	8	EA	\$ 150.00	\$ 1,200.00
	Remove Pedestrian Push Button Sign	8	EA	\$ 50.00	\$ 400.00
	Repave Roadway	2	LS	\$ 5,000.00	\$ 10,000.00
	Fix Ponding	2	LS	\$ 2,000.00	\$ 4,000.00
	Fix Curb Ramp Transition	4	LS	\$ 2,000.00	\$ 8,000.00
	Median Nose Modification	0	LS	\$ 5,000.00	\$-
	Remove Temporary Obstruction	0	LS	\$ 500.00	\$-
	Fix Curb Ramp Counter Slope	1	LS	\$ 2,000.00	\$ 2,000.00
Basis for Cost Proje	ction			Subtotal	: \$ 40,238.00
	No Design Completed			Engineering: (% +/-) 15%	\$ 6,326.57
	Preliminary Design			Contingency: (% +/-) 20%	\$ 8,435.43
	Final Design			Estimated Project Cost	\$ 55,000.00



Field Observations	
	Intersection Issues

								Cross	swalk		
Intersection Issues			N		E				S	W	Possible Solutions
Path of travel pavement condition	1		bod			Dang			Dangerous	Good	Repave roadway and install crosswalk pavement markings
Path of travel running slope is greater than 5%	1			••••							
Path of travel cross slope is greater than 5%		•••••	•••••	••••		•••••	•••••				
Crosswalk width is less than 6	1	•••••	•••••	••••		•••••	•••••				
Crosswalk striping condition		Go	Good		Good			Good	Good		
Curb Ramp Issues									abel indicates no exis	sting ramp)	Possible Solutions
	<u>1A</u>	<u>1B</u>	2A	2B	ЗA	<u>3B</u>	4A	4B			
Curb ramp does not exist and is needed		ļ									
Curb ramp does not land in crosswalk											
No 4' x 4' clear space at base of curb ramp							.				
Curbed side is not 90° or has traversable adjacent surface	ļ	ļ	Х	Х	Х	Х	Х				
Flare cross slope is greater than 10%	<u>.</u>	<u> </u>					.				
Curb ramp running slope is greater than 8.3%			Х				Х				
Blended transition running slope is greater than 5%											
Cut-thru ramp running slope is greater than 5%											Remove and replace curb ramp
Curb ramp cross slope is greater than 2%	Х			Х			Х				Remove and replace curb ramp
Cut-thru ramp cross slope is greater than 5%	-			••••			•••••				
Curb ramp width is less than 48"	Х	Х						Х			
Cut-thru ramp width is less than 60"	1			••••			•••••				
Permanent obstruction (>0.25") in curb ramp/landing/flares	Х	Х		••••			•••••	Х			
Temporary obstruction (>0.25") in curb ramp/landing/flares	1			····			·····				
No textured surface at base of curb ramp	Х	Х		····			·····	Х			For intersection, commercial driveway, and park ramps,
No color contrast at base of curb ramp	X	X		····			·····	X			install color truncated domes
Landing area does not exist and is needed				····			·····				
Landing area is less than 5' x 5' or slopes greater than 2%	Х	Х		Х			·····				Remove and replace landing area
Missing or no pedestrian push buttons	1						·····				9
Pedestrian push button is offset more than 5' from the nearest	·	l		····			·····•				
crosswalk edge											Install push button pole and relocate pedestrian push
Pedestrian push button offset more than 10' from curb face			v	Х			Y	х			buttons
Pedestrian push button is not parallel to crosswalk			^	~							
		<u> </u>		····			·····•				
Pedestrian push button height is greater than 48"		ļ		····			·····•				
Pedestrian push button diameter is not 2"											
Pedestrian push button sign does not exist		~	~	~	v	~		~			Demous and employe and estime much hutter size
Pedestrian push button sign is not MUTCD approved	Х	Х	X	X	Х	X	Х	X			Remove and replace pedestrian push button sign
Clear floor space does not exist and is needed				.	ļļ		·····•				
Clear floor space for pedestrian push button is less than 30" x 48" or	Х	х	Х	х			х	х			Remove and replace clear floor space
has a slope greater than 2%		ļ			ļļ						
Missing or no pedestrian signal heads	ļ	ļ			ļļ						
Curb ramp transition onto roadway is greater than 0.25"	Х	ļ				Х	Х	Х			Fix curb ramp transition
Counter slope of the gutter or street at the foot of the curb ramp is			х								Fix curb ramp counter slope
greater than 5%		ļ									
Ponding occurs at base of curb ramp		Х					Х				Fix ponding

Intersection of 24th Ave SW and W Boyd St GPS ID:



Ramp 4A

Ramp 4B

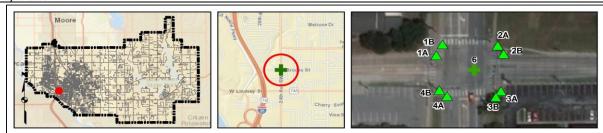
Opinion of Probable Construction Cost Disclaimer:

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Project Location Map Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

End of Project Description for Project 5 Intersection of 24th Ave SW and W Boyd St

Kimley-Horn and A Project Description	Associates, Inc. n for Signalized Intersection					Priority: 2
Client: Program: KHA No.:	City of Norman ADA Self-Evaluation and Transition Plan 061298800					Date: 4/30/18 ared By: CMP cked By: EPE
Corridor : Project Name: City:	24th Ave SW Intersection of 24th Ave SW and Brooks St Norman					GPS ID: 6
Item No.	Item Description	Quantity	Unit	Unit F	rice	Item Cost
ODOT 202(A)-0183	Unclassified Excavation	0	CY	\$	5.50	G -
	Concrete Curb (6" Barrier-Integral)	0	LF	\$	7.00 \$	5 -
	4" Concrete Sidewalk	71	SY	\$	50.00	\$ 3,550.00
ODOT 610(I)-4610	Tactile Warning Device - New	80	SF	\$	25.00	\$ 2,000.00
	Tactile Warning Device - Retrofit	0	SF	\$	60.00	s -
ODOT 619(B)-4792	Removal of Sidewalk	86	SY	\$	12.00	\$ 1,032.00
	Push Button Pole	0	EA	\$	1,200.00	s -
ODOT 857(F)-8006	Pavement Marking Removal (Traffic Stripe)	0	LF	\$	0.25	s -
	Crosswalk Pavement Markings	489	LF	\$	6.00	\$ 2,934.00
	Pedestrian Push Button (APS)	0	EA	\$	1,200.00 \$	s -
	Removal of Pedestrian Push Buttons	0	EA	\$	50.00	S -
	Relocate Pedestrian Push Button	0	EA	\$	300.00	G -
	12" LED Countdown Ped Signal Module with Housing	0	EA	\$	650.00	-
	Pedestrian Push Button Sign	0	EA	\$	150.00 \$	S -
	Remove Pedestrian Push Button Sign	0	EA	\$	50.00	-
	Repave Roadway	4	LS	\$	5,000.00	\$ 20,000.00
	Fix Ponding	3	LS	\$	2,000.00	\$ 6,000.00
	Fix Curb Ramp Transition	3	LS	\$	2,000.00	\$ 6,000.00
	Median Nose Modification	0	LS	\$	5,000.00	- 6
	Remove Temporary Obstruction	2	LS	\$	500.00	\$ 1,000.00
	Fix Curb Ramp Counter Slope	1	LS	\$	2,000.00	\$ 2,000.00
Basis for Cost Proje					Subtotal:	44,516.00
	No Design Completed		Er	igineering: (% +/-)	15% \$	7,064.57
	Preliminary Design			ntingency: (% +/-)	20%	9,419.43
	Final Design			Estimated Pro		



Field	Observations	

Intersection Issues								Cros	swalk		Possible Solutions		
Intersection issues		N				E			S	W			
Path of travel pavement condition		Dang	erous	\$		Dang	erous	5	Dangerous	Poor	Repave roadway and install crosswalk pavement markings		
Path of travel running slope is greater than 5%													
Path of travel cross slope is greater than 5%			.	.	<u> </u>	.		.					
Crosswalk width is less than 6' Crosswalk striping condition					Install crosswalk pavement markings		
		Go	bod			Go	bod		Good	Worn	nitan oroonan paromon manango		
i		_		_									
Curb Ramp Issues	1A			2B					label indicates no ex	isting ramp)	Possible Solutions		
Curb ramp does not exist and is needed	1	<u> </u>		<u> </u>				1					
Curb ramp does not land in crosswalk		1											
No 4' x 4' clear space at base of curb ramp		<u>.</u>		•	1			1					
Curbed side is not 90° or has traversable adjacent surface	Х	Х	Х	Х	Х	Х	[Х					
Flare cross slope is greater than 10%		1		1	1			1					
Curb ramp running slope is greater than 8.3%		1		Ī	1	Х	Х	1					
Blended transition running slope is greater than 5%		Ĭ		Ĭ				1					
Cut-thru ramp running slope is greater than 5%		1		Ī							Remove and replace curb ramp		
Curb ramp cross slope is greater than 2%	Х	1		Х		Х	Х	Х			Remove and replace curb ramp		
Cut-thru ramp cross slope is greater than 5%		Ī		Ī				1					
Curb ramp width is less than 48"		Х		1			Х	Х					
Cut-thru ramp width is less than 60"		Ī		-									
Permanent obstruction (>0.25") in curb ramp/landing/flares	Х				Х	Х	Х	Х					
Temporary obstruction (>0.25") in curb ramp/landing/flares		Ī	Х								Remove temporary obstruction		
No textured surface at base of curb ramp	Х	Х	Х		Х						For intersection, commercial driveway, and park ramps,		
No color contrast at base of curb ramp	Х	Х	Х	Х	Х	Х	Х	Х			install color truncated domes		
Landing area does not exist and is needed		<u> </u>		<u> </u>									
Landing area is less than 5' x 5' or slopes greater than 2%		ļ	Х	Х	Х	Х	Х	Х			Remove and replace landing area		
Missing or no pedestrian push buttons		<u> </u>		<u> </u>									
Pedestrian push button is offset more than 5' from the nearest													
crosswalk edge		<u> </u>	l	<u> </u>	<u>.</u>			<u> </u>					
Pedestrian push button offset more than 10' from curb face		ļ	ļ	ļ	ļ		ļ	ļ					
Pedestrian push button is not parallel to crosswalk		ļ		ļ	ļ			ļ					
Pedestrian push button height is greater than 48"		ļ	ļ	ļ	ļ		ļ	Į					
Pedestrian push button diameter is not 2"		ļ		ļ				ļ					
Pedestrian push button sign does not exist		ļ	ļ	ļ	ļ		ļ	ļ					
Pedestrian push button sign is not MUTCD approved		ļ		ļ	ļ			ļ					
Clear floor space does not exist and is needed		ļ		ļ	ļ	Х		ļ			Install clear floor space		
Clear floor space for pedestrian push button is less than 30" x 48" or		х	х		х		х	х			Remove and replace clear floor space		
has a slope greater than 2%		~	~	ļ	~		~				· · · · · · · · · · · · · · · · · · ·		
Missing or no pedestrian signal heads		Į		Į	ļ			Į					
Curb ramp transition onto roadway is greater than 0.25"		ļ		ļ	Х	Х	Х	ļ			Fix curb ramp transition		
Counter slope of the gutter or street at the foot of the curb ramp is	1	1		1	х			1			Fix curb ramp counter slope		
greater than 5%		ļ		Ļ				Ļ					
Ponding occurs at base of curb ramp			Х	X	Х						Fix ponding		

Intersection of 24th Ave SW and Brooks St GPS ID:



Ramp 4A

Ramp 4B

Opinion of Probable Construction Cost Disclaimer:

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Project Location Map Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

End of Project Description for Project 6 Intersection of 24th Ave SW and Brooks St

Kimley-Horn and A Project Descriptior	ssociates, Inc. n for Signalized Intersection					Priority: 5
Program:	City of Norman ADA Self-Evaluation and Transition Plan 061298800					Date: 4/30/18 Dared By: CMP Ecked By: EPE
Project Name:	24th Ave SW Intersection of 24th Ave SW and W Lindsey St Norman					GPS ID: 7
Item No.	Item Description	Quantity	Unit		Unit Price	Item Cost
ODOT 202(A)-0183	Unclassified Excavation	0	CY	\$	5.50	\$-
ODOT 609(A)-0300	Concrete Curb (6" Barrier-Integral)	0	LF	\$	7.00	s -
ODOT 610(A)-0602	4" Concrete Sidewalk	12	SY	\$	50.00	\$ 600.00
ODOT 610(I)-4610	Tactile Warning Device - New	10	SF	\$	25.00	\$ 250.00
	Tactile Warning Device - Retrofit	0	SF	\$	60.00	\$ -
ODOT 619(B)-4792	Removal of Sidewalk	10	SY	\$	12.00	\$ 120.00
	Push Button Pole	1	EA	\$	1,200.00	\$ 1,200.00
ODOT 857(F)-8006	Pavement Marking Removal (Traffic Stripe)	0	LF	\$	0.25	\$ -
	Crosswalk Pavement Markings	0	LF	\$	6.00	\$ -
	Pedestrian Push Button (APS)	0	EA	\$	1,200.00	\$ -
	Removal of Pedestrian Push Buttons	0	EA	\$	50.00	\$ -
	Relocate Pedestrian Push Button	1	EA	\$	300.00	\$ 300.00
	12" LED Countdown Ped Signal Module with Housing	0	EA	\$	650.00	\$ -
	Pedestrian Push Button Sign	0	EA	\$	150.00	\$ -
	Remove Pedestrian Push Button Sign	0	EA	\$	50.00	\$ -
	Repave Roadway	0	LS	\$	5,000.00	\$ -
	Fix Ponding	3	LS	\$	2,000.00	\$ 6,000.00
	Fix Curb Ramp Transition	2	LS	\$	2,000.00	\$ 4,000.00
	Median Nose Modification	0	LS	\$	5,000.00	\$ -
	Remove Temporary Obstruction	0	LS	\$	500.00	\$ -
	Fix Curb Ramp Counter Slope	0	LS	\$	2,000.00	\$-
Basis for Cost Proje					Subtotal:	\$ 12,470.00
	No Design Completed			Engineering: (%	+/-) 15%	\$ 1,941.43
	Preliminary Design			Contingency: (%	5 +/-) 20%	
	Final Design			Estimate	d Project Cost:	



	Field	Observations
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Intersection Issues								Cross	swalk		Possible Solutions			
Intersection issues		1	N			E	=		S	W	Possible Solutions			
Path of travel pavement condition Path of travel running slope is greater than 5% Path of travel cross slope is greater than 5%		G	bod			Go	od		Good	Good				
Crosswalk width is less than 6' Crosswalk striping condition		G	bod			Go	od		Good	Good				
		_												
Curb Ramp Issues	1A		urb R 2A						label indicates no ex	sisting ramp)	Possible Solutions			
Curb ramp does not exist and is needed		<u> </u>		<u> </u>										
Curb ramp does not land in crosswalk														
No 4' x 4' clear space at base of curb ramp		l		L										
Curbed side is not 90° or has traversable adjacent surface		ļ					Х							
Flare cross slope is greater than 10%		1		L										
Curb ramp running slope is greater than 8.3%		ļ												
Blended transition running slope is greater than 5%														
Cut-thru ramp running slope is greater than 5%		1									Remove and replace curb ramp			
Curb ramp cross slope is greater than 2%		1									Remove and replace curb ramp			
Cut-thru ramp cross slope is greater than 5%		1												
Curb ramp width is less than 48"	1	Ĩ		1										
Cut-thru ramp width is less than 60"		Ī												
Permanent obstruction (>0.25") in curb ramp/landing/flares														
Temporary obstruction (>0.25") in curb ramp/landing/flares		1												
No textured surface at base of curb ramp		1												
No color contrast at base of curb ramp		Ī												
Landing area does not exist and is needed		1	1											
Landing area is less than 5' x 5' or slopes greater than 2%		1												
Missing or no pedestrian push buttons		<u>.</u>	1											
Pedestrian push button is offset more than 5' from the nearest	1	1		1							to stall a set to many solar and astronate as the Reasonable			
crosswalk edge	1	1	1								Install push button pole and relocate pedestrian push			
Pedestrian push button offset more than 10' from curb face	1	t		İ	Х						buttons			
Pedestrian push button is not parallel to crosswalk	-	•	1											
Pedestrian push button height is greater than 48"	1	1	1	İ										
Pedestrian push button diameter is not 2"	-	•	1	·····	·			•••••						
Pedestrian push button sign does not exist	-	†												
Pedestrian push button sign is not MUTCD approved	1	†												
Clear floor space does not exist and is needed	1	t	1	İ			Х	Х			Install clear floor space			
Clear floor space for pedestrian push button is less than 30" x 48" or		†	1	h	h									
has a slope greater than 2%		Х		Х							Remove and replace clear floor space			
Missing or no pedestrian signal heads	1	†		••••••										
Curb ramp transition onto roadway is greater than 0.25"	X	Х									Fix curb ramp transition			
Counter slope of the gutter or street at the foot of the curb ramp is			1					·			1 2 2 2 2 2 2			
preater than 5%		1												
Ponding occurs at base of curb ramp	X	х	Х	•				· · · · · · · · · · · · · · · · · · ·			Fix ponding			

Intersection of 24th Ave SW and W Lindsey St GPS ID:



Ramp 4A

Ramp 4B

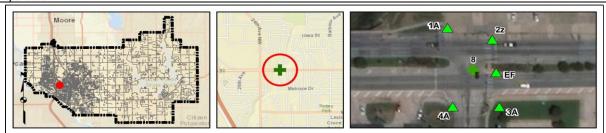
Opinion of Probable Construction Cost Disclaimer:

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Project Location Map Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

End of Project Description for Project 7 Intersection of 24th Ave SW and W Lindsey St

Kimley-Horn and A Project Description	ssociates, Inc. n for Signalized Intersection					Priority: 5
Client: Program: KHA No.:	City of Norman ADA Self-Evaluation and Transition Plan 061298800					Date: 5/2/18 ared By: CMP ked By: EPE
Corridor : Project Name: City:	W Main St Intersection of W Main St and Hal Muldrow Dr Norman					GPS ID: 8
Item No.	Item Description	Quantity	Unit	U	nit Price	Item Cost
ODOT 202(A)-0183	Unclassified Excavation	0	CY	\$	5.50 \$	· -
ODOT 609(A)-0300	Concrete Curb (6" Barrier-Integral)	26	LF	\$	7.00	6 182.00
ODOT 610(A)-0602	4" Concrete Sidewalk	47	SY	\$	50.00	2,350.00
	Tactile Warning Device - New	60	SF	\$	25.00	5 1,500.00
	Tactile Warning Device - Retrofit	0	SF	\$	60.00	- -
	Removal of Sidewalk	41	SY	Ś	12.00	6 492.00
	Push Button Pole	2	ĒA	S	1.200.00	2.400.00
ODOT 857(F)-8006	Pavement Marking Removal (Traffic Stripe)	0	LF	\$	0.25 \$	-
	Crosswalk Pavement Markings	402	LF	Ś	6.00	2.412.00
	Pedestrian Push Button (APS)	2	EA	S	1.200.00	2.400.00
	Removal of Pedestrian Push Buttons	0	EA	S	50.00 \$	-
	Relocate Pedestrian Push Button	0	EA	S	300.00	
	12" LED Countdown Ped Signal Module with Housing	2	EA	S	650.00	1.300.00
	Pedestrian Push Button Sign	4	EA	S	150.00	600.00
	Remove Pedestrian Push Button Sign	4	EA	ŝ	50.00	
	Repave Roadway	3	LS	S	5.000.00	
	Fix Ponding	1	LS	Š	2.000.00	
	Fix Curb Ramp Transition	2	LS	S	2,000.00	4,000.00
	Median Nose Modification	0	LS	Š	5,000.00 \$	
	Remove Temporary Obstruction	0	LS	Š	500.00	
	Fix Curb Ramp Counter Slope	ŏ	LS	Š	2.000.00	
Basis for Cost Proie			1		Subtotal: \$	34.836.00
	No Design Completed			Engineering: (% -		
	Preliminary Design			Contingency: (% -		
	Final Design				Project Cost:	



Field Observations	
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Intersection Issues		Cros	swalk	Possible Solutions				
Intersection issues	N	E	S	W	Possible Solutions			
Path of travel pavement condition	Dangerous	Dangerous	Poor	N/A	Repave roadway and install crosswalk pavement markings			
Path of travel running slope is greater than 5%				N/A				
Path of travel cross slope is greater than 5%				N/A				
Crosswalk width is less than 6'	N/A			N/A	Install crosswalk pavement markings			
Crosswalk striping condition	None	Good	Good	N/A	install closswalk pavement markings			

Curb Ramp Issues						z' or 'j' in ramp label indicates no existing ramp) Possible Solutions
		1A	2z	ЗA	4A	
Curb ramp does not exist and is needed	Х					Remove and replace cut-thru ramp
Curb ramp does not land in crosswalk						
No 4' x 4' clear space at base of curb ramp						
Curbed side is not 90° or has traversable adjacent surface				Х	Х	
Flare cross slope is greater than 10%						
Curb ramp running slope is greater than 8.3%						
Blended transition running slope is greater than 5%						
Cut-thru ramp running slope is greater than 5%						Remove and replace curb ramp
Curb ramp cross slope is greater than 2%				Х		Kentove and replace curb ramp
Cut-thru ramp cross slope is greater than 5%						
Curb ramp width is less than 48"						
Cut-thru ramp width is less than 60"	Х					
Permanent obstruction (>0.25") in curb ramp/landing/flares		Х				
Temporary obstruction (>0.25") in curb ramp/landing/flares						
No textured surface at base of curb ramp		Х				For intersection, commercial driveway, and park ramps,
No color contrast at base of curb ramp	Х	Х				install color truncated domes
Landing area does not exist and is needed						
Landing area is less than 5' x 5' or slopes greater than 2%	<u> </u>	Х		Х		Remove and replace landing area
Missing or no pedestrian push buttons		Х	Х			Install push button pole and APS push buttons
Pedestrian push button is offset more than 5' from the nearest	1		1			
crosswalk edge	<u> </u>					
Pedestrian push button offset more than 10' from curb face						
Pedestrian push button is not parallel to crosswalk	<u> </u>					
Pedestrian push button height is greater than 48"	ļ					
Pedestrian push button diameter is not 2"	<u> </u>	<u> </u>				
Pedestrian push button sign does not exist	1					
Pedestrian push button sign is not MUTCD approved	<u> </u>	<u> </u>	Х	Х	Х	Remove and replace pedestrian push button sign
Clear floor space does not exist and is needed	ļ	Х	Х			Install clear floor space
Clear floor space for pedestrian push button is less than 30" x 48" or	1		1		х	Remove and replace clear floor space
has a slope greater than 2%	ļ				^	
Missing or no pedestrian signal heads	ļ	Х	Х			Install countdown pedestrian signal head
Curb ramp transition onto roadway is greater than 0.25"	Х	Х				Fix curb ramp transition
Counter slope of the gutter or street at the foot of the curb ramp is			1			
greater than 5%	ļ					
Ponding occurs at base of curb ramp	Х		<u> </u>			Fix ponding

Intersection of W Main St and Hal Muldrow Dr



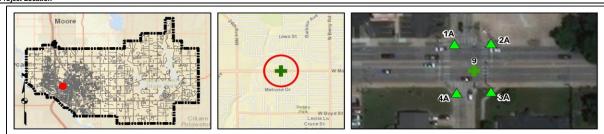
Opinion of Probable Construction Cost Disclaimer:

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End of Project Description for Project 8 Intersection of W Main St and Hal Muldrow Dr

Kimley-Horn and A Project Description	ssociates, Inc. n for Signalized Intersection					Priority: 5
Program:	City of Norman ADA Self-Evaluation and Transition Plan 061298800					Date: 4/30/18 pared By: CMP ecked By: EPE
Project Name:	W Main St Intersection of W Main St and N Mercedes Dr Norman					GPS ID: 9
Item No.	Item Description	Quantity	Unit		Unit Price	Item Cost
ODOT 202(A)-0183	Unclassified Excavation	0	CY	\$	5.50	\$ -
	Concrete Curb (6" Barrier-Integral)	0	LF	\$	7.00	\$ -
ODOT 610(A)-0602	4" Concrete Sidewalk	84	SY	\$	50.00	\$ 4,200.00
	Tactile Warning Device - New	80	SF	\$	25.00	\$ 2,000.00
ODOT 610(I)-4615	Tactile Warning Device - Retrofit	0	SF	\$	60.00	s -
	Removal of Sidewalk	58	SY	\$	12.00	\$ 696.00
	Push Button Pole	3	EA	\$	1,200.00	\$ 3,600.00
ODOT 857(F)-8006	Pavement Marking Removal (Traffic Stripe)	0	LF	\$	0.25	s -
	Crosswalk Pavement Markings	458	LF	\$	6.00	\$ 2,748.00
	Pedestrian Push Button (APS)	0	EA	\$	1,200.00	\$ -
	Removal of Pedestrian Push Buttons	0	EA	\$	50.00	s -
	Relocate Pedestrian Push Button	5	EA	S	300.00	\$ 1,500.00
	12" LED Countdown Ped Signal Module with Housing	0	EA	Ś	650.00	
	Pedestrian Push Button Sign	8	EA	S	150.00	\$ 1.200.00
	Remove Pedestrian Push Button Sign	8	EA	\$	50.00	\$ 400.00
	Repave Roadway	4	LS	\$	5,000.00	\$ 20,000.00
	Fix Ponding	1	LS	\$	2,000.00	\$ 2,000.00
	Fix Curb Ramp Transition	4	LS	S	2.000.00	\$ 8,000.00
	Median Nose Modification	0	LS	Ś	5,000.00	
	Remove Temporary Obstruction	0	LS	\$	500.00	s -
	Fix Curb Ramp Counter Slope	1	LS	\$	2,000.00	
Basis for Cost Project	ction				Subtotal:	\$ 48,344.00
	No Design Completed			Engineering: (%	6 +/-) 15%	\$ 7,566.86
	Preliminary Design			Contingency: (%		
	Final Design			Estimate	d Project Cost:	



Field Observations	
-	

to the second sector second					Cros	swalk		Possible Solutions
Intersection Issues		Ν			E	S	W	
ath of travel pavement condition	D	anger	rous		Dangerous	Dangerous	Dangerous	Repave roadway and install crosswalk pavement marking
ath of travel running slope is greater than 5%								
Path of travel cross slope is greater than 5%		•••••	•••••					
crosswalk width is less than 6		•••••	••••••					lastell concernelly a successful addition
Crosswalk striping condition	•	Goo	d		Good	Good	Worn	Install crosswalk pavement markings
· *						•	•	
Curb Ramp Issues		Cur	'b Ra	mp l	D ('z' or 'i' in ramp	label indicates no ex	cisting ramp)	Possible Solutions
	1A	2A :	3A 4	4A				
Curb ramp does not exist and is needed								
Curb ramp does not land in crosswalk	1		Ī					
lo 4' x 4' clear space at base of curb ramp	1		Х					Remove and replace crosswalk pavement markings
Curbed side is not 90° or has traversable adjacent surface	X		1	Х				
lare cross slope is greater than 10%			Х	1				
Curb ramp running slope is greater than 8.3%	X	Х	X	X				
lended transition running slope is greater than 5%	1							
Cut-thru ramp running slope is greater than 5%	1							
Curb ramp cross slope is greater than 2%	1	х						Remove and replace curb ramp
Cut-thru ramp cross slope is greater than 5%	tert			1				
urb ramp width is less than 48"	х							
Cut-thru ramp width is less than 60"								
ermanent obstruction (>0.25") in curb ramp/landing/flares	Х		х					
emporary obstruction (>0.25") in curb ramp/landing/flares	+ ^		<u> </u>					
lo textured surface at base of curb ramp	Х	v	х	v				For intersection, commercial driveway, and park rar
lo color contrast at base of curb ramp	X			Ŷ				install color truncated domes
anding area does not exist and is needed		^	^	\sim				
anding area is less than 5' x 5' or slopes greater than 2%	х		·····	х				Remove and replace landing area
	· ^ ·		·····	^				Remove and replace landing area
lissing or no pedestrian push buttons								Install push button pole and relocate pedestrian pus
edestrian push button is offset more than 5' from the nearest		х	х					
rosswalk edge								buttons
edestrian push button offset more than 10' from curb face								
edestrian push button is not parallel to crosswalk			ļ					
edestrian push button height is greater than 48"				Х				Relocate pedestrian push buttons
edestrian push button diameter is not 2"	<u> </u>							
edestrian push button sign does not exist								
edestrian push button sign is not MUTCD approved	Х	Х						Remove and replace pedestrian push button sign
lear floor space does not exist and is needed	L			Х				Install clear floor space
lear floor space for pedestrian push button is less than 30" x 48" or	х		х					Remove and replace clear floor space
as a slope greater than 2%	^		^					itemove and replace clear moor space
lissing or no pedestrian signal heads	1			1				
Curb ramp transition onto roadway is greater than 0.25"	Х	Х	Х	X				Fix curb ramp transition
ounter slope of the gutter or street at the foot of the curb ramp is				[
reater than 5%			х	1				Fix curb ramp counter slope
Ponding occurs at base of curb ramp	Х		·····					Fix ponding

Intersection of W Main St and N Mercedes Dr GPS ID:

Ramp 3A



Ramp 1A



Ramp 2A

Opinion of Probable Construction Cost Disclaimer:

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End of Project Description for Project 9 Intersection of W Main St and N Mercedes Dr

Kimley-Horn and A Project Description	ssociates, Inc. n for Signalized Intersection					Priority: 2
Client: Program: KHA No.:	City of Norman ADA Self-Evaluation and Transition Plan 061298800					Date: 4/30/18 bared By: CMP cked By: EPE
Corridor : Project Name: City:	W Main St Intersection of W Main St and N Berry Rd Norman					GPS ID: 10
Item No.	Item Description	Quantity	Unit		Jnit Price	Item Cost
ODOT 202(A)-0183	Unclassified Excavation	0	CY	\$	5.50	s -
ODOT 609(A)-0300	Concrete Curb (6" Barrier-Integral)	0	LF	\$	7.00	s -
ODOT 610(A)-0602	4" Concrete Sidewalk	95	SY	\$	50.00	\$ 4,750.00
	Tactile Warning Device - New	80	SF	\$	25.00	\$ 2,000.00
	Tactile Warning Device - Retrofit	0	SF	\$	60.00	s -
	Removal of Sidewalk	58	SY	\$	12.00	\$ 696.00
	Push Button Pole	2	EA	\$	1,200.00	\$ 2,400.00
ODOT 857(F)-8006	Pavement Marking Removal (Traffic Stripe)	160	LF	\$	0.25	\$ 40.00
	Crosswalk Pavement Markings	544	LF	\$	6.00	\$ 3,264.00
	Pedestrian Push Button (APS)	0	EA	\$	1,200.00	\$ -
	Removal of Pedestrian Push Buttons	0	EA	\$	50.00	s -
	Relocate Pedestrian Push Button	2	EA	S	300.00	\$ 600.00
	12" LED Countdown Ped Signal Module with Housing	0	EA	S	650.00	\$ -
	Pedestrian Push Button Sign	0	EA	S	150.00	s -
	Remove Pedestrian Push Button Sign	0	EA	S	50.00	\$ -
	Repave Roadway	2	LS	\$	5,000.00	\$ 10,000.00
	Fix Ponding	0	LS	\$	2,000.00	\$ -
	Fix Curb Ramp Transition	1	LS	S	2.000.00	\$ 2,000.00
	Median Nose Modification	0	LS	\$	5,000.00	
	Remove Temporary Obstruction	0	LS	\$	500.00	s -
	Fix Curb Ramp Counter Slope	0	LS	\$	2,000.00	
Basis for Cost Project	ction				Subtotal:	\$ 25,750.00
	No Design Completed			Engineering: (%	+/-) 15%	\$ 3,964.29
	Preliminary Design			Contingency: (%		
	Final Design				Project Cost:	



	Field	Observations
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Intersection Issues					Cro	Possible Solutions			
Intersection issues		N			E	S	W	Possible Solutions	
Path of travel pavement condition Path of travel running slope is greater than 5% Path of travel cross slope is greater than 5%		Dang	gerou	S	Good	Dangerous	Good	Repave roadway and install crosswalk pavement marki	
Crosswalk width is less than 6'		·····•	·····	·····					
Crosswalk striping condition		G	ood	·····	Good	Good	Worn	Install crosswalk pavement markings	
Stobbindik okliping bondikon		-	000		0000	0000			
Curb Ramp Issues	1A		urb F 3A		D ('z' or ' <i>i</i> ' in ram	p label indicates no ex	sisting ramp)	Possible Solutions	
Curb ramp does not exist and is needed		<u> </u>		<u> </u>					
Curb ramp does not land in crosswalk									
No 4' x 4' clear space at base of curb ramp		Х	Х					Remove and replace crosswalk pavement markings	
Curbed side is not 90° or has traversable adjacent surface	Х		Х	Х					
lare cross slope is greater than 10%		1		1					
Curb ramp running slope is greater than 8.3%		X		X					
Blended transition running slope is greater than 5%		1	1	1					
Cut-thru ramp running slope is greater than 5%		Ī	1	1				Remove and replace curb ramp	
Curb ramp cross slope is greater than 2%		ï	1	Х				Remove and replace curb ramp	
ut-thru ramp cross slope is greater than 5%		Ī	1	1					
urb ramp width is less than 48"	Х	1		1					
Cut-thru ramp width is less than 60"		1	1	1					
Permanent obstruction (>0.25") in curb ramp/landing/flares	Х	Х		Х					
emporary obstruction (>0.25") in curb ramp/landing/flares				1					
lo textured surface at base of curb ramp		Х		Х				For intersection, commercial driveway, and park ran	
lo color contrast at base of curb ramp		Х	Х	Х				install color truncated domes	
anding area does not exist and is needed	Х	1	Х	1				Install landing area	
anding area is less than 5' x 5' or slopes greater than 2%		1	1	Х				Remove and replace landing area	
lissing or no pedestrian push buttons	1	1	1	°					
edestrian push button is offset more than 5' from the nearest		~	1	1				Install such butter sale and sale ante and advised and	
rosswalk edge	1	Х	1	1				Install push button pole and relocate pedestrian push	
Pedestrian push button offset more than 10' from curb face		Х	1	1				buttons	
edestrian push button is not parallel to crosswalk		†	1	÷					
edestrian push button height is greater than 48"	1	t	1	1					
Pedestrian push button diameter is not 2"		.	1	·					
Pedestrian push button sign does not exist		t	t	1					
Pedestrian push button sign is not MUTCD approved		†	1	1					
Clear floor space does not exist and is needed		t	Х	1				Install clear floor space	
lear floor space for pedestrian push button is less than 30" x 48" or	1	†	1	† • • • •					
as a slope greater than 2%	Х		1	х				Remove and replace clear floor space	
lissing or no pedestrian signal heads		†	1	·••····					
Curb ramp transition onto roadway is greater than 0.25"		†	+	Х				Fix curb ramp transition	
Counter slope of the gutter or street at the foot of the curb ramp is		•		+ ^					
areater than 5%		1		1					
Ponding occurs at base of curb ramp		ł	1	+					
onoing occurs at base of ourb famp			<u>. </u>	-					

Intersection of W Main St and N Berry Rd GPS ID: 10



Ramp 1A



Opinion of Probable Construction Cost Disclaimer:

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Ramp 2A

Project Location Map Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

End of Project Description for Project 10 Intersection of W Main St and N Berry Rd



Kimley-Horn and Associates, Inc.	
Project Description for Signalized Intersection	

Priority: 5

Date:	4/30/18
Prepared By:	CMP

Program:	City of Norman ADA Self-Evaluation and Transition Plan 061298800					Date: 4/30/18 red By: CMP ked By: EPE
Corridor : Proiect Name:	Intersection of N Webster Ave and W Gray St					GPS ID: 11
	Norman					
Item No.	Item Description	Quantity	Unit		Init Price	Item Cost
	Unclassified Excavation	0	CY	s	5.50 \$	-
	Concrete Curb (6" Barrier-Integral)	0	LF	ş	7.00 \$	-
	4" Concrete Sidewalk	58	SY	\$	50.00 \$	2.900.
	Tactile Warning Device - New	60	SF	\$	25.00 \$	
	Tactile Warning Device - Retrofit	10	SF	s.	60.00 \$	
	Removal of Sidewalk	44	SY	\$	12.00 \$	528
	Push Button Pole	2	EA	Š	1.200.00 \$	
ODOT 857(F)-8006	Pavement Marking Removal (Traffic Stripe)	0	LF	S	0.25 \$	
	Crosswalk Pavement Markings	178	LF	Ŝ	6.00 \$	1.068
	Pedestrian Push Button (APS)	0	EA	\$	1,200.00 \$	
	Removal of Pedestrian Push Buttons	0	EA	\$	50.00 \$	
	Relocate Pedestrian Push Button	2	EA	S	300.00 \$	600
	12" LED Countdown Ped Signal Module with Housing	0	EA	S	650.00 \$	
	Pedestrian Push Button Sign	8	EA	S	150.00 \$	1.200
	Remove Pedestrian Push Button Sign	8	EA	\$	50.00 \$	400
	Repave Roadway	2	LS	\$	5,000.00 \$	10,000
	Fix Ponding	0	LS	\$	2,000.00 \$	
	Fix Curb Ramp Transition	3	LS	\$	2,000.00 \$	6,000
	Median Nose Modification	0	LS	\$	5,000.00 \$	
	Remove Temporary Obstruction	0	LS	\$	500.00 \$	
	Fix Curb Ramp Counter Slope	0	LS	\$	2,000.00 \$	
asis for Cost Project	tion			-	Subtotal: \$	27,196
	No Design Completed			Engineering: (% -		4,201
	Preliminary Design			Contingency: (% -		5,602
	Final Design				Project Cost: \$	37,000



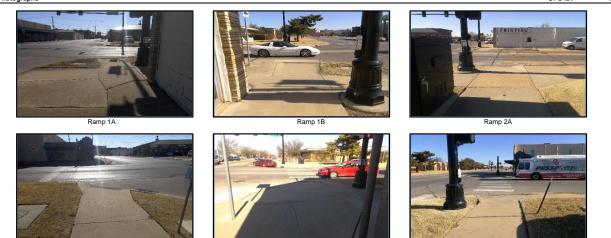
Field Observations	
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							Cross	swalk		
Intersection Issues	N			E			S W		Possible Solutions	
Path of travel pavement condition	1	Dang		3			bod	Good	Dangerous	Repave roadway and install crosswalk pavement markings
Path of travel running slope is greater than 5%			•••••				•			
Path of travel cross slope is greater than 5%		•••••	•••••							
Crosswalk width is less than 6		•••••	•••••							
Crosswalk striping condition		Go	od			Go	bod	Good	Good	
Curb Ramp Issues							<i>i</i> ' in ramp l	abel indicates no ex	cisting ramp)	Possible Solutions
	1A	1B	2A	2B	3A	4A				
Curb ramp does not exist and is needed				Ļ	ļļ					
Curb ramp does not land in crosswalk				ļ						
No 4' x 4' clear space at base of curb ramp				ļ	ļļ					
Curbed side is not 90° or has traversable adjacent surface				ļ						
Flare cross slope is greater than 10%	X	Х	Х	Х						
Curb ramp running slope is greater than 8.3%				Į						
Blended transition running slope is greater than 5%										
Cut-thru ramp running slope is greater than 5%				-						Remove and replace outb romp
Curb ramp cross slope is greater than 2%				Х						Remove and replace curb ramp
Cut-thru ramp cross slope is greater than 5%				Ī						
Curb ramp width is less than 48"				•••••						
Cut-thru ramp width is less than 60"				1			1			
Permanent obstruction (>0.25") in curb ramp/landing/flares				····	Х					
Temporary obstruction (>0.25") in curb ramp/landing/flares										
No textured surface at base of curb ramp	X	Х	Х	Х	Х	Х				For intersection, commercial driveway, and park ramps,
No color contrast at base of curb ramp	Х					Х	1			install color truncated domes
Landing area does not exist and is needed	1		•	•		Х				Install landing area
Landing area is less than 5' x 5' or slopes greater than 2%				<u> </u>						
Missing or no pedestrian push buttons				•·····						
Pedestrian push button is offset more than 5' from the nearest				÷						
crosswalk edge										Install push button pole and relocate pedestrian push
Pedestrian push button offset more than 10' from curb face	Х	х		<u>.</u>						buttons
Pedestrian push button is not parallel to crosswalk	· ^	^		ļ						
Pedestrian push button is not parallel to crosswalk Pedestrian push button height is greater than 48"				<u> </u>						
				ł						
Pedestrian push button diameter is not 2" Pedestrian push button sign does not exist				.	ļļ					
Pedestrian push button sign does not exist Pedestrian push button sign is not MUTCD approved	x	х	х	Х	x	х				Remove and replace pedestrian push button sign
	· · ·	^	^	· ^	^	X				Install clear floor space
Clear floor space does not exist and is needed				÷		^				Install clear noor space
Clear floor space for pedestrian push button is less than 30" x 48" or	Х		Х		Х					Remove and replace clear floor space
has a slope greater than 2%				ļ	ļļ					
Missing or no pedestrian signal heads			~	ļ	~	~				Fix curb ramp transition
Curb ramp transition onto roadway is greater than 0.25"			Х	ļ	Х	Х				Fix curb ramp transition
Counter slope of the gutter or street at the foot of the curb ramp is										
greater than 5%				ļ	ļļ					
Ponding occurs at base of curb ramp				<u> </u>						

Ramp 2B

Intersection of N Webster Ave and W Gray St GPS ID: 11

Ramp 4A



Ramp 3A

Opinion of Probable Construction Cost Disclaimer:

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Project Location Map Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

End of Project Description for Project 11 Intersection of N Webster Ave and W Gray St

Kimley-Horn and Associates, Inc.							
Project Description for Signalized Intersection							

Priority: 2

Date:	4/30/18
Prepared By:	CMP
Checked By:	EPE

Client: Program: KHA No.:	City of Norman ADA Self-Evaluation and Transition Plan 061298800					Date: 4/30/18 red By: CMP red By: EPE
Corridor :					G	PS ID: 12
Project Name:	Intersection of W Boyd St and S Berry Rd					
City:	Norman					
Item No.	Item Description	Quantity	Unit	Unit	Price	Item Cost
ODOT 202(A)-0183	Unclassified Excavation	0	CY	\$	5.50 \$	-
	Concrete Curb (6" Barrier-Integral)	0	LF	\$	7.00 \$	-
	4" Concrete Sidewalk	41	SY	\$	50.00 \$	2,050.00
ODOT 610(I)-4610	Tactile Warning Device - New	40	SF	\$	25.00 \$	1,000.00
ODOT 610(I)-4615	Tactile Warning Device - Retrofit	0	SF	\$	60.00 \$	-
ODOT 619(B)-4792	Removal of Sidewalk	26	SY	\$	12.00 \$	312.00
	Push Button Pole	1	EA	\$	1,200.00 \$	1,200.00
ODOT 857(F)-8006	Pavement Marking Removal (Traffic Stripe)	0	LF	\$	0.25 \$	-
	Crosswalk Pavement Markings	194	LF	\$	6.00 \$	1,164.00
	Pedestrian Push Button (APS)	0	EA	\$	1,200.00 \$	-
	Removal of Pedestrian Push Buttons	0	EA	\$	50.00 \$	-
	Relocate Pedestrian Push Button	3	EA	\$	300.00 \$	900.00
	12" LED Countdown Ped Signal Module with Housing	0	EA	\$	650.00 \$	-
	Pedestrian Push Button Sign	4	EA	\$	150.00 \$	600.00
	Remove Pedestrian Push Button Sign	4	EA	\$	50.00 \$	200.00
	Repave Roadway	2	LS	\$	5,000.00 \$	10,000.00
	Fix Ponding	0	LS	\$	2,000.00 \$	-
	Fix Curb Ramp Transition	2	LS	\$	2,000.00 \$	4,000.00
	Median Nose Modification	0	LS	\$	5,000.00 \$	-
	Remove Temporary Obstruction	0	LS	\$	500.00 \$	-
	Fix Curb Ramp Counter Slope	0	LS	\$	2,000.00 \$	-
Basis for Cost Proje					Subtotal: \$	21,426.00
	No Design Completed			Engineering: (% +/-)	15% \$	3,246.00
	Preliminary Design			Contingency: (% +/-)	20% \$	4,328.00
	Final Design			Estimated Pro	oject Cost: \$	29,000.00



Intersection Issues		Cros	swalk	Possible Solutions	
Intersection issues	N	E	S	W	Possible Solutions
Path of travel pavement condition	Poor	N/A	N/A	Dangerous	Repave roadway and install crosswalk pavement markings
Path of travel running slope is greater than 5%		N/A	N/A		
Path of travel cross slope is greater than 5%		N/A	N/A		
Crosswalk width is less than 6'		N/A	N/A		Install crosswalk pavement markings
Crosswalk striping condition	Good	N/A	N/A	Worn	Install closswalk pavement markings

Curb Ramp Issues		С	urb F	Ramp	ID ('z' or 'i' in ramp label indicates no existing ramp)	Possible Solutions
Culb Rallp issues	1A	2z	3z	4Å		Possible Solutions
Curb ramp does not exist and is needed		Х				Install curb ramp; if median improvement, see sha
Curb ramp does not land in crosswalk	1			1		
No 4' x 4' clear space at base of curb ramp				1		
Curbed side is not 90° or has traversable adjacent surface						
Flare cross slope is greater than 10%	1		1	1		
Curb ramp running slope is greater than 8.3%	Х			Х		
Blended transition running slope is greater than 5%				1		
Cut-thru ramp running slope is greater than 5%	1		1	T		Demous and realizes such same
Curb ramp cross slope is greater than 2%	Х		1	Х		Remove and replace curb ramp
Cut-thru ramp cross slope is greater than 5%						
Curb ramp width is less than 48"	1	1	1	1		
Cut-thru ramp width is less than 60"	Γ		1	T		
Permanent obstruction (>0.25") in curb ramp/landing/flares	Х	•••••	1	1		
Temporary obstruction (>0.25") in curb ramp/landing/flares				1		
No textured surface at base of curb ramp	Х	1	1	Х		For intersection, commercial driveway, and park r
No color contrast at base of curb ramp	Х			Х		install color truncated domes
Landing area does not exist and is needed	1		1	1		
Landing area is less than 5' x 5' or slopes greater than 2%	Х			Х		Remove and replace landing area
Missing or no pedestrian push buttons				1		
Pedestrian push button is offset more than 5' from the nearest	1	~				Install push button pole and relocate pedestrian p
crosswalk edge		Х				buttons
Pedestrian push button offset more than 10' from curb face		[1		
Pedestrian push button is not parallel to crosswalk	1		1	1		
Pedestrian push button height is greater than 48"	Х			1		Relocate pedestrian push buttons
Pedestrian push button diameter is not 2"		•••••				
Pedestrian push button sign does not exist	1		1	1		
Pedestrian push button sign is not MUTCD approved	Х	Х		Х		Remove and replace pedestrian push button sign
Clear floor space does not exist and is needed	Х	Х		1		Install clear floor space
Clear floor space for pedestrian push button is less than 30" x 48" or	1	[1	1		
has a slope greater than 2%	1		1	1		
Missing or no pedestrian signal heads	1	•••••	1	1		
Curb ramp transition onto roadway is greater than 0.25"	Х	İ		Х		Fix curb ramp transition
Counter slope of the gutter or street at the foot of the curb ramp is	1		1	1		
greater than 5%						
Ponding occurs at base of curb ramp	ſ	I	1	T		

Intersection of W Boyd St and S Berry Rd GPS ID: 12



Ramp 1A





Corner 2 No Ramp (2z)



Corner 3 No Ramp (3z)

Opinion of Probable Construction Cost Disclaimer:

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Project Location Map Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

End of Project Description for Project 12 Intersection of W Boyd St and S Berry Rd

Kimley-Horn and Associates, Inc.	
Project Description for Signalized Intersection	

Priority:	4

Date: 4/30/18

City of Norman ADA Self-Evaluation and Transition Plan 061298800 Prepared By: CMP Checked By: EPE Program: KHA No.: Corridor : Project Name: City: GPS ID: 13 Intersection of W Boyd St and S Flood Ave Norman Unit Price 5.50 \$ 7.00 \$ 50.00 \$ 25.00 \$ 60.00 { 12.00 { 200,00 { 12.00 { 200,00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 { 50.00 {
 Item No.
 Item Description

 ODOT 202(A)-0183
 Unclassified Excavation

 ODOT 609(A)-0300
 Concrete Curb (6" Barrier-Integral)

 ODOT 610(A)-0602
 4" Concrete Sidewalk

 ODOT 610(A)-4610
 Tactile Warning Device - New

 ODOT 610(D)-4615
 Tactile Warning Device - New

 ODOT 610(D)-4615
 Tactile Warning Device - Retrofit

 ODOT 619(B)-4792
 Removal of Sidewalk

 Push Button Pole
 Push Button Pole

 ODOT 657(F)-8006
 Pavement Marking Removal (Traffic Stripe)

 -- Crosswalk Pavement Markings

 -- Pedestrian Push Button (APS)

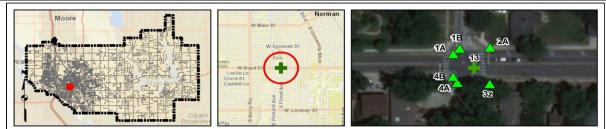
 -- Removal of Pedestrian Push Buttons

 -- Relocate Pedestrian Push Button
 Quantity 0 Unit CY Item Cost 0 LF 3,750.00 75 80 SY SF 2,000.00 SF 0 52 624.00 SY EA 0 1,200.00 1,200.00 0.25 6.00 1,200.00 50.00 300.00 650.00 150.00 0 LF 1,116.00 186 LF EA EA 0 Relocate Pedestrian Push Button 12" LED Countdown Ped Signal Module with Housing Pedestrian Push Button Sign EA 0 0 ΕA EA Pedestrian Push Button Sign Remove Pedestrian Push Button Sign Repare Roadway Fix Ponding Fix Curb Ramp Transition Median Nose Modification Remove Temporary Obstruction Fix Curb Ramp Counter Slope ention ----0 50.00 5,000.00 2,000.00 2,000.00 0 ΕA ---LS LS 10,000.00 6,000.00 LS LS 0

5,000.00 500.00 2,000.00 LS LS 0 Basis for Cost Projection Ø No Design Completed Preliminary Design Final Design 23,490,00 Subtotal: \$ 15% \$ 20% \$ 3,647.14 Engineering: (% +/-) Contingency: (% +/-) 20% Estimated Project Cost: 4.862.86 32,000.00

Project Location

Client:



Field Observations

Intersection Issues							Cros	swalk		Possible Solutions
Intersection Issues			N		E S			S	W	
Path of travel pavement condition		G	bod			Dang	rous	Dangerous	Good	Repave roadway and install crosswalk pavement markings
Path of travel running slope is greater than 5%										
Path of travel cross slope is greater than 5%		•••••	•••••		•••••	•••••				
Crosswalk width is less than 6'										
Crosswalk striping condition		Go	bod		•	Go	d	Good	Good	
Curb Ramp Issues							in ramp	label indicates no exi	sting ramp)	Possible Solutions
	1A	1B	2A		4A	4B				
Curb ramp does not exist and is needed		<u> </u>		Х						Install curb ramp; if median improvement, see shapef
Curb ramp does not land in crosswalk										
to 4' x 4' clear space at base of curb ramp										
Curbed side is not 90° or has traversable adjacent surface	Х	Х	Х			Х				
Flare cross slope is greater than 10%		1			Х					
Curb ramp running slope is greater than 8.3%			Х			Х				
Blended transition running slope is greater than 5%										
Cut-thru ramp running slope is greater than 5%		1								Remove and replace curb ramp
Curb ramp cross slope is greater than 2%	T	ï	Х		1					Remove and replace curb ramp
Cut-thru ramp cross slope is greater than 5%	T	1								
Curb ramp width is less than 48"	1	1								
Cut-thru ramp width is less than 60"		1								
Permanent obstruction (>0.25") in curb ramp/landing/flares		•	Х							
emporary obstruction (>0.25") in curb ramp/landing/flares	1	1								
No textured surface at base of curb ramp	-	·····	Х							For intersection, commercial driveway, and park rame
lo color contrast at base of curb ramp	1	t	Х							install color truncated domes
anding area does not exist and is needed	1	•	Х		1					Install landing area
anding area is less than 5' x 5' or slopes greater than 2%	Х	Х			Х	Х				Remove and replace landing area
Aissing or no pedestrian push buttons	1	•								
Pedestrian push button is offset more than 5' from the nearest		†								
crosswalk edge										
Pedestrian push button offset more than 10' from curb face										
Pedestrian push button is not parallel to crosswalk	+	İ								
Pedestrian push button height is greater than 48"	+	ł								
Pedestrian push button diameter is not 2"	+	ł								
Pedestrian push button sign does not exist		ł								
Pedestrian push button sign is not MUTCD approved	-	ł								
Clear floor space does not exist and is needed		<u>+</u>	х	Х						Install clear floor space
Clear floor space for pedestrian push button is less than 30" x 48" or	-	ł		^						
has a slope greater than 2%	Х	Х	Х		Х					Remove and replace clear floor space
as a slope greater than 2% Aissing or no pedestrian signal heads		ł								
		ļ	v		v	~				Fix curb ramp transition
Curb ramp transition onto roadway is greater than 0.25" Counter slope of the gutter or street at the foot of the curb ramp is		ļ	Х		X	Х				
greater than 5%		ļ								
Ponding occurs at base of curb ramp										

Intersection of W Boyd St and S Flood Ave GPS ID: 13





Corner 3 No Ramp (3z)









Ramp 2A



Opinion of Probable Construction Cost Disclaimer:

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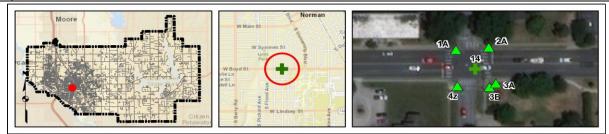
End of Project Description for Project 13 Intersection of W Boyd St and S Flood Ave

Kimley-Horn and Associates, Inc.
Project Description for Signalized Intersection

Priority:	2

	Date:	4/30/18
-		

Client: Program: KHA No.:	City of Norman ADA Self-Evaluation and Transition Plan 061298800				Date: 4/30/18 epared By: CMP ecked By: EPE
Corridor :					GPS ID: 14
Project Name: City:	Intersection of W Boyd St and Chautauqua Ave Norman				
City.	Norman				
Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
ODOT 202(A)-0183	Unclassified Excavation	0	CY	\$ 5.50	\$-
	Concrete Curb (6" Barrier-Integral)	0	LF	\$ 7.00	\$-
	4" Concrete Sidewalk	86	SY	\$ 50.00	\$ 4,300.00
ODOT 610(I)-4610	Tactile Warning Device - New	80	SF	\$ 25.00	\$ 2,000.00
ODOT 610(I)-4615	Tactile Warning Device - Retrofit	0	SF	\$ 60.00	s -
	Removal of Sidewalk	60	SY	\$ 12.00	\$ 720.0
	Push Button Pole	5	EA	\$ 1,200.00	\$ 6,000.0
ODOT 857(F)-8006	Pavement Marking Removal (Traffic Stripe)	0	LF	\$ 0.25	s -
	Crosswalk Pavement Markings	234	LF	\$ 6.00	\$ 1,404.00
	Pedestrian Push Button (APS)	0	EA	\$ 1,200.00	s -
	Removal of Pedestrian Push Buttons	0	EA	\$ 50.00	s -
	Relocate Pedestrian Push Button	7	EA	\$ 300.00	\$ 2,100.0
	12" LED Countdown Ped Signal Module with Housing	0	EA	\$ 650.00	\$-
	Pedestrian Push Button Sign	8	EA	\$ 150.00	\$ 1,200.0
	Remove Pedestrian Push Button Sign	8	EA	\$ 50.00	\$ 400.0
	Repave Roadway	3	LS	\$ 5,000.00	\$ 15,000.00
	Fix Ponding	0	LS	\$ 2,000.00	\$-
	Fix Curb Ramp Transition	4	LS	\$ 2,000.00	\$ 8,000.00
	Median Nose Modification	0	LS	\$ 5,000.00	\$-
	Remove Temporary Obstruction	0	LS	\$ 500.00	\$-
	Fix Curb Ramp Counter Slope	0	LS	\$ 2,000.00	\$-
Basis for Cost Proje	ction			Subtotal:	\$ 41,124.00
	No Design Completed		Engi	neering: (% +/-) 15%	\$ 6,375.43
	Preliminary Design			ngency: (% +/-) 20%	\$ 8,500.57
	Final Design			Estimated Project Cost:	\$ 56,000.0



Intersection Issues		Cro	sswalk	Possible Solutions	
Intersection issues	N	E	S	W	Possible Solutions
Path of travel pavement condition	Dangerous	Poor	Dangerous	Good	Repave roadway and install crosswalk pavement markings
Path of travel running slope is greater than 5%					
Path of travel cross slope is greater than 5%					
Crosswalk width is less than 6'					Remove and replace crosswalk pavement markings
Crosswalk striping condition	Worn	Good	Good	Good	Remove and replace closswalk pavement markings
Curb Ramp Issues	Curb Ram		b label indicates no ex	cisting ramp)	Possible Solutions

Curb Ramp Issues		С	urb I	Ramp) ID ('	z' or 'i' in ramp label indicates no existing ramp)	Possible Solutions
Curb Ramp Issues	1A	2A	ЗA	3B	4z		
Curb ramp does not exist and is needed					Х		Install curb ramp; if median improvement, see shapefile
Curb ramp does not land in crosswalk	••••			T			
No 4' x 4' clear space at base of curb ramp				1			
Curbed side is not 90° or has traversable adjacent surface	Х	Х	Х	1			
Flare cross slope is greater than 10%	••••			Х	1		
Curb ramp running slope is greater than 8.3%		Х		Х			
Blended transition running slope is greater than 5%				1			
Cut-thru ramp running slope is greater than 5%	••••			T			Remove and replace curb ramp
Curb ramp cross slope is greater than 2%	Х	Х		1			Remove and replace curb ramp
Cut-thru ramp cross slope is greater than 5%				1			
Curb ramp width is less than 48"	Х			1	1		
Cut-thru ramp width is less than 60"				-			
Permanent obstruction (>0.25") in curb ramp/landing/flares				1			
Temporary obstruction (>0.25") in curb ramp/landing/flares	••••			Ī			
No textured surface at base of curb ramp	Х	Х	Х	Х)	For intersection, commercial driveway, and park ramps,
No color contrast at base of curb ramp	Х	Х	Х	Х			install color truncated domes
Landing area does not exist and is needed	••••			1	1		
Landing area is less than 5' x 5' or slopes greater than 2%	Х	Х	Х	Х			Remove and replace landing area
Missing or no pedestrian push buttons				1			
Pedestrian push button is offset more than 5' from the nearest	х	х		х	х		Install push button pole and relocate pedestrian push
crosswalk edge							buttons
Pedestrian push button offset more than 10' from curb face	Х	Х	Х	Х			buttons
Pedestrian push button is not parallel to crosswalk				<u> </u>			
Pedestrian push button height is greater than 48"						ļ	
Pedestrian push button diameter is not 2"				<u> </u>			
Pedestrian push button sign does not exist]	
Pedestrian push button sign is not MUTCD approved	Х	Х	Х		Х		Remove and replace pedestrian push button sign
Clear floor space does not exist and is needed				Х]	Install clear floor space
Clear floor space for pedestrian push button is less than 30" x 48" or	х	х	1	1	1		Remove and replace clear floor space
has a slope greater than 2%	^	^					Territore and replace oreal floor space
Missing or no pedestrian signal heads				<u> </u>			
Curb ramp transition onto roadway is greater than 0.25"	Х	Х	Х	Х			Fix curb ramp transition
Counter slope of the gutter or street at the foot of the curb ramp is			1	1	1		
greater than 5%							
Ponding occurs at base of curb ramp			<u> </u>	1	1		

Intersection of W Boyd St and Chautauqua Ave GPS ID: 14

Ramp 3A



TRATE

Ramp 1A





Corner 4 No Ramp (4z)

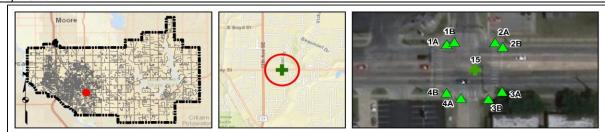
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Project Location Map Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

End of Project Description for Project 14 Intersection of W Boyd St and Chautauqua Ave

Kimley-Horn and A Project Description	ssociates, Inc. n for Signalized Intersection					Priority: 5
Client: Program: KHA No.:	City of Norman ADA Self-Evaluation and Transition Plan 061298800					Date: 4/30/18 pared By: CMP ecked By: EPE
Corridor : Project Name: City:	E Lindsey St Intersection of E Lindsey St and Biloxi Dr Norman					GPS ID: 15
Item No.	Item Description	Quantity	Unit		Unit Price	Item Cost
ODOT 202(A)-0183	Unclassified Excavation	0	CY	\$	5.50	\$ -
	Concrete Curb (6" Barrier-Integral)	0	LF	\$	7.00	\$ -
ODOT 610(A)-0602	4" Concrete Sidewalk	95	SY	\$	50.00	\$ 4,750.00
	Tactile Warning Device - New	80	SF	\$	25.00	\$ 2,000.00
ODOT 610(I)-4615	Tactile Warning Device - Retrofit	0	SF	\$	60.00	\$ -
ODOT 619(B)-4792	Removal of Sidewalk	87	SY	\$	12.00	\$ 1,044.00
	Push Button Pole	5	EA	\$	1,200.00	\$ 6,000.00
ODOT 857(F)-8006	Pavement Marking Removal (Traffic Stripe)	72	LF	\$	0.25	\$ 18.00
	Crosswalk Pavement Markings	191	LF	\$	6.00	\$ 1,146.00
	Pedestrian Push Button (APS)	0	EA	\$	1,200.00	\$ -
	Removal of Pedestrian Push Buttons	0	EA	\$	50.00	\$ -
	Relocate Pedestrian Push Button	5	EA	S	300.00	\$ 1,500.00
	12" LED Countdown Ped Signal Module with Housing	0	EA	Ś	650.00	
	Pedestrian Push Button Sign	1	EA	S	150.00	\$ 150.00
	Remove Pedestrian Push Button Sign	1	EA	\$	50.00	\$ 50.00
	Repave Roadway	1	LS	\$	5,000.00	\$ 5,000.00
	Fix Ponding	0	LS	\$	2,000.00	\$ -
	Fix Curb Ramp Transition	5	LS	S	2.000.00	\$ 10.000.00
	Median Nose Modification	0	LS	S	5,000.00	\$ -
	Remove Temporary Obstruction	0	LS	\$	500.00	
	Fix Curb Ramp Counter Slope	1	LS	\$	2,000.00	
Basis for Cost Proje	ction				Subtotal:	\$ 33,658.00
	No Design Completed			Engineering: (% +/-) 15%	\$ 5,289,43
	Preliminary Design			Contingency: (
	Final Design				ed Project Cost:	



Field Observations	
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Intersection Issues		Crosswalk									Possible Solutions	
			N		E				S	W		
Path of travel pavement condition		Dang	erous	8		G	bod		Good	Good	Repave roadway and install crosswalk pavement markings	
Path of travel running slope is greater than 5% Path of travel cross slope is greater than 5% Crosswalk width is less than 6'												
Crosswalk striping condition		G	ood	••••		G	ood		Good	Good		
Curb Ramp Issues	1A				ID (': 3A				label indicates no ex	kisting ramp)	Possible Solutions	
Curb ramp does not exist and is needed	.ļ	ļ		ļ	ļ	ļ						
Curb ramp does not land in crosswalk		ļ		ļ	ļ	ļ	ļ	ļ				
No 4' x 4' clear space at base of curb ramp		ļ		ļ	ļ		Х				Remove and replace crosswalk pavement markings	
Curbed side is not 90° or has traversable adjacent surface	Х	Х	Х	Х	Х	Х	Х	Х				
Flare cross slope is greater than 10%	.ļ	ļ	ļ	Ļ	ļ	ļ	ļ	ļ				
Curb ramp running slope is greater than 8.3%		ļ		ļ	Х	Х	Х	Х				
Blended transition running slope is greater than 5%	.ļ	ļ		Ļ	ļ	Ļ	ļ	ļ				
Cut-thru ramp running slope is greater than 5%		ļ		ļ	ļ						Remove and replace curb ramp	
Curb ramp cross slope is greater than 2%	.ļ	ļ	ļ	ļ	ļ	X	Х	Х				
Cut-thru ramp cross slope is greater than 5%		ļ		ļ								
Curb ramp width is less than 48"	ļ	ļ		ļ	ļ	ļ		Х				
Cut-thru ramp width is less than 60"		ļ		ļ								
Permanent obstruction (>0.25") in curb ramp/landing/flares		ļ	Х	X	Х	ļ						
Temporary obstruction (>0.25") in curb ramp/landing/flares		ļ										
No textured surface at base of curb ramp	X		Х				Х				For intersection, commercial driveway, and park ramps,	
No color contrast at base of curb ramp	Х	Х	Х		Х	Х	Х	Х			install color truncated domes	
Landing area does not exist and is needed		ļ	Х	Х	ļ						Install landing area	
Landing area is less than 5' x 5' or slopes greater than 2%		Х		ļ	ļ	Х					Remove and replace landing area	
Missing or no pedestrian push buttons		ļ		ļ	ļ	ļ						
Pedestrian push button is offset more than 5' from the nearest			х	х	х		х	х			Install push button pole and relocate pedestrian push	
crosswalk edge		ļ		ļ	ļ	ļ					buttons	
Pedestrian push button offset more than 10' from curb face		ļ		ļ	ļ	ļ						
Pedestrian push button is not parallel to crosswalk	ļ	ļ		ļ	ļ	ļ						
Pedestrian push button height is greater than 48"		ļ		ļ								
Pedestrian push button diameter is not 2"		ļ		ļ	ļ	ļ						
Pedestrian push button sign does not exist		ļ		ļ	ļ	ļ						
Pedestrian push button sign is not MUTCD approved	X	ļ		ļ	ļ	ļ		ļ			Remove and replace pedestrian push button sign	
Clear floor space does not exist and is needed	Х	Х		Ļ	Х	Х		ļ			Install clear floor space	
Clear floor space for pedestrian push button is less than 30" x 48" or		1	х	х	1		1				Remove and replace clear floor space	
has a slope greater than 2% Missing or no pedestrian signal heads		ļ	~		ļ							
Curb ramp transition onto roadway is greater than 0.25"	Х	Х		Х	t	Х	1	х			Fix curb ramp transition	
Counter slope of the gutter or street at the foot of the curb ramp is					1		1	•••••				
greater than 5%		1		1	1		1	х			Fix curb ramp counter slope	
Ponding occurs at base of curb ramp	1	t		1	t	İ	1	†				

Intersection of E Lindsey St and Biloxi Dr GPS ID: 15



Ramp 4A

Ramp 4B

Opinion of Probable Construction Cost Disclaimer:

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Project Location Map Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

End of Project Description for Project 15 Intersection of E Lindsey St and Biloxi Dr

Kimley-Horn and A Project Description	Associates, Inc. n for Signalized Intersection				Priority: 5
Client: Program: KHA No.:	City of Norman ADA Self-Evaluation and Transition Plan 061298800				Date: 4/30/18 epared By: CMP ecked By: EPE
Corridor : Project Name: City:	E Lindsey St Intersection of E Lindsey St and Oakhurst Ave Norman				GPS ID: 16
Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
	Unclassified Excavation	0	CY	\$ 5.50	
	Concrete Curb (6" Barrier-Integral)	0	LF	\$ 7.00	
	4" Concrete Sidewalk	68	SY	\$ 50.00	
	Tactile Warning Device - New	80	SF	\$ 25.00	\$ 2.000.00
	Tactile Warning Device - Retrofit	0	SF	\$ 60.00	\$ -
	Removal of Sidewalk	52	SY	\$ 12.00	
	Push Button Pole	1	ĒA	\$ 1.200.00	\$ 1.200.00
ODOT 857(F)-8006	Pavement Marking Removal (Traffic Stripe)	0	LF	\$ 0.25	\$ -
	Crosswalk Pavement Markings	262	LF	\$ 6.00	\$ 1.572.00
	Pedestrian Push Button (APS)	0	EA	\$ 1,200.00	\$ -
	Removal of Pedestrian Push Buttons	0	EA	\$ 50.00	s -
	Relocate Pedestrian Push Button	1	EA	\$ 300.00	\$ 300.0
	12" LED Countdown Ped Signal Module with Housing	0	EA	\$ 650.00	\$ -
	Pedestrian Push Button Sign	8	EA	\$ 150.00	\$ 1,200.0
	Remove Pedestrian Push Button Sign	8	EA	\$ 50.00	
	Repave Roadway	0	LS	\$ 5,000.00	s -
	Fix Ponding	0	LS	\$ 2,000.00	\$-
	Fix Curb Ramp Transition	4	LS	\$ 2,000.00	\$ 8,000.0
	Median Nose Modification	0	LS	\$ 5,000.00	s -
	Remove Temporary Obstruction	0	LS	\$ 500.00	\$-
	Fix Curb Ramp Counter Slope	0	LS	\$ 2,000.00	\$-
Basis for Cost Proje	ction			Subtotal:	\$ 18,696.0
	No Design Completed			Engineering: (% +/-) 15%	\$ 3,130.29
	Preliminary Design			Contingency: (% +/-) 20%	
	Final Design			Estimated Project Cost:	



Field Observations

Internetion Income						Cro	Possible Solutions		
Intersection Issues		1	N			E	S	W	Possible Solutions
Path of travel pavement condition	1	Go	boc			Good	Good	Good	
Path of travel running slope is greater than 5%			•••••						
Path of travel cross slope is greater than 5%		•••••	•••••	•••••					
Crosswalk width is less than 6'	1	•••••	•••••	•••••	1				
Crosswalk striping condition	-	W	orn	•••••		Worn	Good	Good	Remove and replace crosswalk pavement markings
Curb Ramp Issues		С	urb F	lamp	ID ('z	' or ' <i>i</i> ' in ramp	label indicates no ex	isting ramp)	Possible Solutions
	1A	1B	2A	ЗA	4A				r ossible Solutions
Curb ramp does not exist and is needed									
Curb ramp does not land in crosswalk									
No 4' x 4' clear space at base of curb ramp									
Curbed side is not 90° or has traversable adjacent surface									
Flare cross slope is greater than 10%		Х	Х	Х					
Curb ramp running slope is greater than 8.3%	Х		Х						
Blended transition running slope is greater than 5%									
Cut-thru ramp running slope is greater than 5%									Remove and replace curb ramp
Curb ramp cross slope is greater than 2%	T	ľ	1	ľ	Х				remove and replace curb ramp
Cut-thru ramp cross slope is greater than 5%									
Curb ramp width is less than 48"		1	1	1	1				
Cut-thru ramp width is less than 60"	1								
Permanent obstruction (>0.25") in curb ramp/landing/flares	1	[Х	[Х				
Temporary obstruction (>0.25") in curb ramp/landing/flares	1		1						
No textured surface at base of curb ramp			1		1				
No color contrast at base of curb ramp									
anding area does not exist and is needed		1	1	1					
anding area is less than 5' x 5' or slopes greater than 2%	1	İ	Х	İ	Х				Remove and replace landing area
Missing or no pedestrian push buttons	1	1	1	1	1				
Pedestrian push button is offset more than 5' from the nearest	-								leaded and button and and advanta as for the second
crosswalk edge	1		1						Install push button pole and relocate pedestrian push
Pedestrian push button offset more than 10' from curb face	1	Х	1	1	11				buttons
Pedestrian push button is not parallel to crosswalk	1								
Pedestrian push button height is greater than 48"	1	İ	1	İ	1				
Pedestrian push button diameter is not 2"	1	ŀ	1	•••••	1				
Pedestrian push button sign does not exist			·····						
Pedestrian push button sign is not MUTCD approved	X	х	Х	х	Х				Remove and replace pedestrian push button sign
Clear floor space does not exist and is needed			- <u>^ </u>	· · · ·	· ^				
Clear floor space for pedestrian push button is less than 30" x 48" or	-		·		h				
has a slope greater than 2%	х	х	х	х	Х				Remove and replace clear floor space
Alissing or no pedestrian signal heads		•	1	••••••	1				
Curb ramp transition onto roadway is greater than 0.25"	Х	ł	Х	x	х				Fix curb ramp transition
Counter slope of the gutter or street at the foot of the curb ramp is	- ^-			^	- ^ -				
preater than 5%									
Ponding occurs at base of curb ramp									
- unuing occurs at base of curb rainp									

Intersection of E Lindsey St and Oakhurst Ave GPS ID: 16



Opinion of Probable Construction Cost Disclaimer:

The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Project Location Map Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

End of Project Description for Project 16 Intersection of E Lindsey St and Oakhurst Ave

Kimley-Horn and A Project Description	ssociates, Inc. n for Signalized Intersection				Priority: 2
Client: Program: KHA No.:	City of Norman ADA Self-Evaluation and Transition Plan 061298800				Date: 4/30/18 pared By: CMP ecked By: EPE
Corridor : Project Name: City:	E Lindsey St Intersection of E Lindsey St and 24th Ave SE Norman				GPS ID: 17
Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
ODOT 202(A)-0183	Unclassified Excavation	0	CY	\$ 5.50	\$ -
	Concrete Curb (6" Barrier-Integral)	0	LF	\$ 7.00	\$ -
	4" Concrete Sidewalk	79	SY	\$ 50.00	\$ 3,950.00
ODOT 610(I)-4610	Tactile Warning Device - New	80	SF	\$ 25.00	\$ 2,000.00
ODOT 610(I)-4615	Tactile Warning Device - Retrofit	0	SF	\$ 60.00	\$ -
ODOT 619(B)-4792	Removal of Sidewalk	58	SY	\$ 12.00	\$ 696.00
	Push Button Pole	4	EA	\$ 1,200.00	\$ 4,800.00
ODOT 857(F)-8006	Pavement Marking Removal (Traffic Stripe)	0	LF	\$ 0.25	\$-
	Crosswalk Pavement Markings	0	LF	\$ 6.00	\$-
	Pedestrian Push Button (APS)	0	EA	\$ 1,200.00	\$-
	Removal of Pedestrian Push Buttons	0	EA	\$ 50.00	\$ -
	Relocate Pedestrian Push Button	7	EA	\$ 300.00	\$ 2,100.00
	12" LED Countdown Ped Signal Module with Housing	0	EA	\$ 650.00	\$-
	Pedestrian Push Button Sign	8	EA	\$ 150.00	\$ 1,200.00
	Remove Pedestrian Push Button Sign	8	EA	\$ 50.00	\$ 400.00
	Repave Roadway	0	LS	\$ 5,000.00	\$-
	Fix Ponding	1	LS	\$ 2,000.00	\$ 2,000.00
	Fix Curb Ramp Transition	3	LS	\$ 2,000.00	\$ 6,000.00
	Median Nose Modification	0	LS	\$ 5,000.00	\$ -
	Remove Temporary Obstruction	2	LS	\$ 500.00	\$ 1,000.00
	Fix Curb Ramp Counter Slope	1	LS	\$ 2,000.00	\$ 2,000.00
Basis for Cost Proje	ction			Subtotal:	\$ 26,146.00
	No Design Completed			Engineering: (% +/-) 15%	\$ 4,223.14
	Preliminary Design			Contingency: (% +/-) 20%	\$ 5,630.86
	Final Design			Estimated Project Cost:	



Field Observations

Intersection Issues		Cros	swalk	Possible Solutions	
Intersection issues	N	E	S	W	Possible Solutions
Path of travel pavement condition	Good	Good	Good	Good	
Path of travel running slope is greater than 5%					
Path of travel cross slope is greater than 5%					
Crosswalk width is less than 6'					
Crosswalk striping condition	Good	Good	Good	Good	
Curb Ramp Issues	Curb Ramp 1A 2A 3A 4A	ID ('z' or 'i' in ramp	existing ramp)	Possible Solutions	
Curb ramp does not exist and is needed					
Curb ramp does not land in crosswalk				l l l l l l l l l l l l l l l l l l l	

Curb ramp does not exist and is needed				
Curb ramp does not land in crosswalk				
No 4' x 4' clear space at base of curb ramp			ļ	ļ
Curbed side is not 90° or has traversable adjacent surface				
Flare cross slope is greater than 10%		Х	Х	ļ
Curb ramp running slope is greater than 8.3%	ļ		ļ	ļ
Blended transition running slope is greater than 5%				
Cut-thru ramp running slope is greater than 5%				
Curb ramp cross slope is greater than 2%				
Cut-thru ramp cross slope is greater than 5%				
Curb ramp width is less than 48"				
Cut-thru ramp width is less than 60"				
Permanent obstruction (>0.25") in curb ramp/landing/flares	Х		Х	
Temporary obstruction (>0.25") in curb ramp/landing/flares		Х	Х	
No textured surface at base of curb ramp				
No color contrast at base of curb ramp				
Landing area does not exist and is needed				
Landing area is less than 5' x 5' or slopes greater than 2%	Х	Х	Х	Х
Missing or no pedestrian push buttons				
Pedestrian push button is offset more than 5' from the nearest	Y	х	х	х
crosswalk edge	^			
Pedestrian push button offset more than 10' from curb face		Х	Х	Х
Pedestrian push button is not parallel to crosswalk				1
Pedestrian push button height is greater than 48"				
Pedestrian push button diameter is not 2"				1
Pedestrian push button sign does not exist				
Pedestrian push button sign is not MUTCD approved	Х	Х	Х	Х
Clear floor space does not exist and is needed		Х		
Clear floor space for pedestrian push button is less than 30" x 48" or	х		х	v
has a slope greater than 2%	×		X	х
Missing or no pedestrian signal heads				1
Curb ramp transition onto roadway is greater than 0.25"		Х	Х	Х
Counter slope of the gutter or street at the foot of the curb ramp is		х		
greater than 5%		x		
Ponding occurs at base of curb ramp			Х	

Intersection of E Lindsey St and 24th Ave SE GPS ID: 17



Ramp 1A





Ramp 2A



Ramp 3A

Opinion of Probable Construction Cost Disclaimer:

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Project Location Map Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

End of Project Description for Project 17 Intersection of E Lindsey St and 24th Ave SE

(imley-Horn and Associates, Inc.	
reject Description for Signalized Intersection	

Kimley-Horn and Associates, Inc. Project Description for Signalized Intersection				Priority: 2
Client: City of Norman Program: ADA Self-Evaluation and Transition Plan KHA No.: 061298800				Date: 4/30/18 pared By: CMP cked By: EPE
Corridor :				GPS ID: 18
Project Name: Intersection of Stubbeman Ave and W Rock Creek Rd City: Norman				
Item No. Item Description	Quantity	Unit	Unit Price	Item Cost
ODOT 202(A)-0183 Unclassified Excavation	0	CY	\$ 5.50	\$-
ODOT 609(A)-0300 Concrete Curb (6" Barrier-Integral)	0	LF	\$ 7.00	\$-
ODOT 610(A)-0602 4" Concrete Sidewalk	80	SY	\$ 50.00	
ODOT 610(I)-4610 Tactile Warning Device - New	80	SF	\$ 25.00	\$ 2,000.00
ODOT 610(I)-4615 Tactile Warning Device - Retrofit	0	SF	\$ 60.00	\$-
ODOT 619(B)-4792 Removal of Sidewalk	80	SY	\$ 12.00	\$ 960.00
Push Button Pole	5	EA	\$ 1,200.00	\$ 6,000.00
ODOT 857(F)-8006 Pavement Marking Removal (Traffic Stripe)	0	LF	\$ 0.25	ş -
Crosswalk Pavement Markings	450	LF		\$ 2,700.00
Pedestrian Push Button (APS)	0	EA	\$ 1,200.00	
Removal of Pedestrian Push Buttons	0	EA	\$ 50.00	
Relocate Pedestrian Push Button	6	EA	\$ 300.00	
12" LED Countdown Ped Signal Module with Housing	0	EA	\$ 650.00	\$-
Pedestrian Push Button Sign	8	EA	\$ 150.00	
Remove Pedestrian Push Button Sign	8	EA	\$ 50.00	
Repave Roadway	2	LS		\$ 10,000.00
Fix Ponding	2	LS	\$ 2,000.00	
Fix Curb Ramp Transition	5	LS	\$ 2,000.00	
Median Nose Modification	0	LS	\$ 5,000.00	
Remove Temporary Obstruction	0	LS	\$ 500.00	
Fix Curb Ramp Counter Slope	0	LS	\$ 2,000.00	
Basis for Cost Projection			Subtotal:	
No Design Completed			Engineering: (% +/-) 15%	
Preliminary Design			Contingency: (% +/-) 20%	
Final Design			Estimated Project Cost:	\$ 59,000.00



Intersection Issues							Crosswalk		Possible Solutions	
IIIIel Section ISSUES			N			E	S	W		
Path of travel pavement condition Path of travel running slope is greater than 5%		P	Poor			Good	Good	Dangerous	Repave roadway and install crosswalk pavement markings	
Path of travel cross slope is greater than 5%		······	•••••	····•	·					
Crosswalk width is less than 6'		·····	•••••	····•		N/A				
Crosswalk striping condition		G	boc			None	Good	Good	Install crosswalk pavement markings	
		_	_							
Curb Ramp Issues	1A		urb R 2A				mp label indicates no ex	cisting ramp)	Possible Solutions	
Curb ramp does not exist and is needed		ļ								
Curb ramp does not land in crosswalk		ļ			ļ					
No 4' x 4' clear space at base of curb ramp		<u> </u>		L						
Curbed side is not 90° or has traversable adjacent surface	Х	Х	Х	Х	Х	Х				
Flare cross slope is greater than 10%		1								
Curb ramp running slope is greater than 8.3%	Х	Х	Х		ļ					
Blended transition running slope is greater than 5%										
Cut-thru ramp running slope is greater than 5%									Remove and replace curb ramp	
Curb ramp cross slope is greater than 2%	Х	Х							Nemove and replace out I fallip	
Cut-thru ramp cross slope is greater than 5%										
Curb ramp width is less than 48"		1			Х					
Cut-thru ramp width is less than 60"										
Permanent obstruction (>0.25") in curb ramp/landing/flares		Х	Х	Х		Х				
Temporary obstruction (>0.25") in curb ramp/landing/flares		Ī			1					
No textured surface at base of curb ramp	Х	Х	Х	Х	Х	х			For intersection, commercial driveway, and park ram	
No color contrast at base of curb ramp	Х	Х	Х	Х	Х	X			install color truncated domes	
Landing area does not exist and is needed										
Landing area is less than 5' x 5' or slopes greater than 2%	X	Ī	Х	Х	Х	X			Remove and replace landing area	
Missing or no pedestrian push buttons		1								
Pedestrian push button is offset more than 5' from the nearest	~	İ	~	~		X			leastell such hutten and and and and and and and the	
crosswalk edge	х	1	х	х	1	х			Install push button pole and relocate pedestrian push	
Pedestrian push button offset more than 10' from curb face	Х	Х	Х	1	1				buttons	
Pedestrian push button is not parallel to crosswalk		†			1					
Pedestrian push button height is greater than 48"		t	1	İ	1					
Pedestrian push button diameter is not 2"		İ		·	1					
Pedestrian push button sign does not exist		t	1	İ	1					
Pedestrian push button sign is not MUTCD approved	Х	Х	Х	Х	Х	X			Remove and replace pedestrian push button sign	
Clear floor space does not exist and is needed		†							a at an a constant of the second second second second second second second second second second second second s	
Clear floor space for pedestrian push button is less than 30" x 48" or		†	1	h	ł					
has a slope greater than 2%	Х		Х	х					Remove and replace clear floor space	
Missing or no pedestrian signal heads	-	†		•••••	1	[
Curb ramp transition onto roadway is greater than 0.25"		Х	Х	x	Х	X			Fix curb ramp transition	
Counter slope of the gutter or street at the foot of the curb ramp is		~	~	~	<u>^</u>	·····				
greater than 5%		ļ		ļ	ļ					
Ponding occurs at base of curb ramp					Х	Х			Fix ponding	



Opinion of Probable Construction Cost Disclaimer:

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Project Location Map Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

End of Project Description for Project 18 Intersection of Stubbeman Ave and W Rock Creek Rd

Kimley-Horn and Associates, Inc.
Project Description for Signalized Intersection

Program:	City of Norman ADA Self-Evaluation and Transition Plan 061298800					Date: 4/30/18 red By: CMP ced By: EPE
Corridor :					0	SPS ID: 19
	Intersection of 12th Ave NW and W Tecumseh Rd					
City:	Norman					
litere Nie	Item Description	Ouentitu	11-14		sit Drive	Item Cent
	Item Description	Quantity	Unit		nit Price	Item Cost
	Unclassified Excavation	0	CY	\$	5.50 \$	-
	Concrete Curb (6" Barrier-Integral)	0	LF	\$	7.00 \$	-
	4" Concrete Sidewalk	93	SY	\$	50.00 \$	4,650.00
	Tactile Warning Device - New	80	SF	\$	25.00 \$	2,000.00
	Tactile Warning Device - Retrofit	0	SF	\$	60.00 \$	-
	Removal of Sidewalk	45	SY	\$	12.00 \$	540.00
	Push Button Pole	3	EA	\$	1,200.00 \$	3,600.00
	Pavement Marking Removal (Traffic Stripe)	0	LF	\$	0.25 \$	-
	Crosswalk Pavement Markings	336	LF	\$	6.00 \$	2,016.00
	Pedestrian Push Button (APS)	1	EA	\$	1,200.00 \$	1,200.00
	Removal of Pedestrian Push Buttons	1	EA	\$	50.00 \$	50.00
	Relocate Pedestrian Push Button	2	EA	\$	300.00 \$	600.00
	12" LED Countdown Ped Signal Module with Housing	0	EA	\$	650.00 \$	-
	Pedestrian Push Button Sign	0	EA	\$	150.00 \$	-
	Remove Pedestrian Push Button Sign	0	EA	\$	50.00 \$	-
	Repave Roadway	2	LS	\$	5,000.00 \$	10,000.00
	Fix Ponding	2	LS	\$	2,000.00 \$	4,000.00
	Fix Curb Ramp Transition	1	LS	\$	2,000.00 \$	2,000.00
	Median Nose Modification	0	LS	\$	5,000.00 \$	-
	Remove Temporary Obstruction	0	LS	S	500.00 \$	-
	Fix Curb Ramp Counter Slope	0	LS	\$	2,000.00 \$	-
Basis for Cost Project			<u> </u>		Subtotal: \$	30,656.00
	☑ No Design Completed		Eng	ineering: (% +		4.861.71
	Preliminary Design			ingency: (% +		6,482.29
	 Final Design 		Com		Project Cost: \$	42,000.00

Priority: 4

Project Location



Field Observations

Intersection Issues		Cros	swalk	Possible Solutions		
Intersection issues	N	E	S	W	Possible Solutions	
Path of travel pavement condition	Good	Poor	Good	Poor	Repave roadway and install crosswalk pavement markings	
Path of travel running slope is greater than 5%						
Path of travel cross slope is greater than 5%						
Crosswalk width is less than 6'						
Crosswalk striping condition	Good	Good	Good	Good		

Curb Ramp Issues		С	urb F	Ramp	D ('z' or 'i' in ramp label indicates no existing ramp)	Possible Solutions
Culb Namp Issues	1A	2z	ЗA	4A		
Curb ramp does not exist and is needed		Х				Install curb ramp; if median improvement, see
Curb ramp does not land in crosswalk						
No 4' x 4' clear space at base of curb ramp						
Curbed side is not 90° or has traversable adjacent surface						
Flare cross slope is greater than 10%	Х		Х	Х		
Curb ramp running slope is greater than 8.3%				Х		
Blended transition running slope is greater than 5%						
Cut-thru ramp running slope is greater than 5%						Remove and replace curb ramp
Curb ramp cross slope is greater than 2%						Remove and replace curb ramp
Cut-thru ramp cross slope is greater than 5%	1					
Curb ramp width is less than 48"						
Cut-thru ramp width is less than 60"						
Permanent obstruction (>0.25") in curb ramp/landing/flares	Х					
Temporary obstruction (>0.25") in curb ramp/landing/flares						
No textured surface at base of curb ramp	Х		Х			For intersection, commercial driveway, and pa
No color contrast at base of curb ramp	Х		Х	Х		install color truncated domes
Landing area does not exist and is needed	Х		Х			Install landing area
Landing area is less than 5' x 5' or slopes greater than 2%	1			Х		Remove and replace landing area
Missing or no pedestrian push buttons						
Pedestrian push button is offset more than 5' from the nearest	х	х		х		Install push button pole and relocate pedestria
crosswalk edge	^	^		^		buttons
Pedestrian push button offset more than 10' from curb face	-					
Pedestrian push button is not parallel to crosswalk	1			1		
Pedestrian push button height is greater than 48"	1					
Pedestrian push button diameter is not 2"	1	Х				Remove PBs and replace with APS push butto
Pedestrian push button sign does not exist						
Pedestrian push button sign is not MUTCD approved	1			1		
Clear floor space does not exist and is needed	Х	Х	Х			Install clear floor space
Clear floor space for pedestrian push button is less than 30" x 48" or	1			v		Remove and replace clear floor space
has a slope greater than 2%	1			х		Remove and replace clear noor space
Missing or no pedestrian signal heads						
Curb ramp transition onto roadway is greater than 0.25"	Х	[T		Fix curb ramp transition
Counter slope of the gutter or street at the foot of the curb ramp is						
greater than 5%	1					
Ponding occurs at base of curb ramp	Х		Х			Fix ponding





Corner 2 No Ramp (2z)



Ramp 4A

Opinion of Probable Construction Cost Disclaimer:

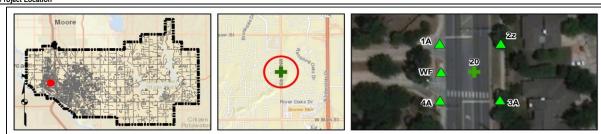
The Engineer has no control over the cost of labor, materials, equipment, or over the Contractor's methods of determining prices or over competitive bidding or market conditions. Opinions of probable costs provided herein are based on the information known to Engineer at this time and represent only the Engineer's judgment as a design professional familiar with the construction industry. The Engineer cannot and does not guarantee that proposals, bids, or actual construction costs will not vary from its opinions of probable costs.

Project Location Map Sources: Esri, DeLorme, NAVTEQ, USGS, Intermap, iPC, NRCAN, Esri Japan, METI, Esri China (Hong Kong), Esri (Thailand), TomTom, 2013, DigitalGlobe, GeoEye, i-cubed, USDA, AEX, Getmapping, Aerogrip, IGN, IGP, swisstopo, and the GIS User Community

End of Project Description for Project 19 Intersection of 12th Ave NW and W Tecumseh Rd

Kimley-Horn a	nd Associates, Inc.	Priority: 4
Project Descri	ption for Signalized Intersection	
Client:	City of Norman	Date: 4/30/18
Client: Program:	City of Norman ADA Self-Evaluation and Transition Plan	Date: 4/30/18 Prepared By: CMP

KHA No.:	061298800			Ch	ecked By: EPE
Corridor :					GPS ID: 20
Project Name:	Intersection of Brookhollow Rd and 36th Ave NW				
City:	Norman				
I 					
Item No.	Item Description	Quantity	Unit	Unit Price	Item Cost
	Unclassified Excavation	0	CY	\$ 5.50	
	Concrete Curb (6" Barrier-Integral)	54	LF	\$ 7.00	\$ 378.00
	4" Concrete Sidewalk	76	SY	\$ 50.00	\$ 3,800.00
	Tactile Warning Device - New	80	SF	\$ 25.00	\$ 2,000.00
	Tactile Warning Device - Retrofit	0	SF	\$ 60.00	<u>\$</u> -
	Removal of Sidewalk	51	SY	\$ 12.00	\$ 612.00
	Push Button Pole	3	EA	\$ 1,200.00	\$ 3,600.00
ODOT 857(F)-8006	Pavement Marking Removal (Traffic Stripe)	0	LF	\$ 0.25	\$-
	Crosswalk Pavement Markings	162	LF	\$ 6.00	\$ 972.00
	Pedestrian Push Button (APS)	2	EA	\$ 1,200.00	\$ 2,400.00
	Removal of Pedestrian Push Buttons	0	EA	\$ 50.00	\$-
	Relocate Pedestrian Push Button	1	EA	\$ 300.00	\$ 300.00
	12" LED Countdown Ped Signal Module with Housing	2	EA	\$ 650.00	\$ 1,300.00
	Pedestrian Push Button Sign	4	EA	\$ 150.00	\$ 600.00
	Remove Pedestrian Push Button Sign	4	EA	\$ 50.00	\$ 200.00
	Repave Roadway	0	LS	\$ 5,000.00	\$-
	Fix Ponding	1	LS	\$ 2,000.00	\$ 2,000.00
	Fix Curb Ramp Transition	1	LS	\$ 2,000.00	\$ 2,000.00
	Median Nose Modification	0	LS	\$ 5,000.00	s -
	Remove Temporary Obstruction	0	LS	\$ 500.00	S -
	Fix Curb Ramp Counter Slope	0	LS	\$ 2,000.00	\$ -
Basis for Cost Proje	ction		Ì	Subtotal:	\$ 20,162,00
	No Design Completed			Engineering: (% +/-) 15%	\$ 3,359,14
	Preliminary Design			Contingency: (% +/-) 20%	
	Final Design			Estimated Project Cost:	
			<u> </u>		



Field Observations

Intersection Issues					Cr	osswalk		Possible Solutions
Intersection issues			Ν		E	S	W	Possible Solutions
Path of travel pavement condition			N/A		Good	Good	Good	
Path of travel running slope is greater than 5%		I	N/A					
Path of travel cross slope is greater than 5%		I	N/A					
Crosswalk width is less than 6'		I	N/A				N/A	Install crosswalk pavement markings
Crosswalk striping condition			N/A		Good	Good	None	Install closswark pavement markings
Curb ramp does not exist and is needed	X	10	<u> </u>	0,7				Install curb ramp; if median improvement, see shapefil
Curb Ramp Issues	WF			3A ·		p label indicates no ex	(isting ramp)	Possible Solutions
Curb ramp does not land in crosswalk		1						
No 4' x 4' clear space at base of curb ramp				· · · · ·				
Curbed side is not 90° or has traversable adjacent surface	Х	Х		Х	х			
Flare cross slope is greater than 10%		1	1	T				
Curb ramp running slope is greater than 8.3%								
Blended transition running slope is greater than 5%				I T				
Cut-thru ramp running slope is greater than 5%		1		T T				

Curb ramp running slope is greater than 8.3%					
Blended transition running slope is greater than 5%					
Cut-thru ramp running slope is greater than 5%					
Curb ramp cross slope is greater than 2%		Х			
Cut-thru ramp cross slope is greater than 5%					
Curb ramp width is less than 48"					
Cut-thru ramp width is less than 60"	Х				
Permanent obstruction (>0.25") in curb ramp/landing/flares				Х	
Temporary obstruction (>0.25") in curb ramp/landing/flares					
No textured surface at base of curb ramp					
No color contrast at base of curb ramp					
Landing area does not exist and is needed					
Landing area is less than 5' x 5' or slopes greater than 2%		Х			
Missing or no pedestrian push buttons		Х	Х		
Pedestrian push button is offset more than 5' from the nearest					х
crosswalk edge					^
Pedestrian push button offset more than 10' from curb face					
Pedestrian push button is not parallel to crosswalk					
Pedestrian push button height is greater than 48"					
Pedestrian push button diameter is not 2"					
Pedestrian push button sign does not exist					
Pedestrian push button sign is not MUTCD approved		Х		Х	Х
Clear floor space does not exist and is needed		Х	Х	Х	
Clear floor space for pedestrian push button is less than 30" x 48" or		х			х
has a slope greater than 2%					^
Missing or no pedestrian signal heads		Х	Х		
Curb ramp transition onto roadway is greater than 0.25"					Х
Counter slope of the gutter or street at the foot of the curb ramp is					
greater than 5%	1				
Ponding occurs at base of curb ramp				Х	

Intersection of Brookhollow Rd and 36th Ave NW 20



Opinion of Probable Construction Cost Disclaimer:

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End of Project Description for Project 20 Intersection of Brookhollow Rd and 36th Ave NW