

Appendix 3

Flood Mitigation Analysis Support Data – Tables for Second Screening

DRIFTWOOD RIVER

Floodprone Area	Possible Solutions	Current Condition Flood Potential at 500 Year Levels				Cost & Benefits of Possible Solution						Comments
		Structures		Inaccessibility								
		Frequency at Which Structure Flooding Begins	Approximate Number of Flooded Structures	Frequency at Which Roads Start To Flood and Prevent Access to Structures	Approximate Number of Structures Inaccessible During 500 Year Flood	Estimated Construction Cost	Approximate Number of Flooded Structures Protected (floodproof/ buyout/ commercial floodproof)	Approximate Number of Inaccessible Structures That Would Become Accessible During 500 Year Flood	Reduction in Flooding of Major City Transportation Route (Yes/No)	Protects At-Risk Population **** (Yes/No/ Maybe)	Compatibility With/ Contribution to Other City Priorities	
11 Front Door West/ Westhill	Floodproofing	<10	20	<10	25	\$400 K**	(0/ 0/ 20)	0	N	-	-	non residential structures so no FEMA cost share for buyouts
	Levee/ Floodwall	<10	20	<10	25	\$650 K*	20	25	N	-	-	also requires closure structure under I-65 (not included in cost)
10 Front Door East/ Jonathan Moore Pike	Floodproofing	<10	25	<10	30	\$500 K**	(0/ 0/ 25)	0	N	-	-	non residential structures so no FEMA cost share for buyouts
	Levee/ Floodwall	<10	25	<10	30	\$4.1 M*	25	30	N	-	-	
CR 325 West	Combination: raise road & mitigation measures	<10	-	<10	10	NC	0	access allowed to additional areas	N	-	-	raise CR 325 W + channel improvement to offset floodway impacts + openings under road to maintain access to floodplain storage
15 Tellman Camp Road	Floodproofing/ Voluntary Buyout of Structures	<10	35	<10	50	\$950 K**	(5/30/0)	0	N	-	-	

NC cost not calculated

* Does not include costs for mitigation of negative impacts to flood elevations (such as channel improvements, compensatory floodplain storage, detention,...) that may be needed

** Estimate for commercial structures based on \$20,000 City cost share for each floodproofed structure only. Estimate for residential structures based on \$10,000 City cost share for each floodproofed structure plus 25% City cost share of 120% of assumed average structure value of \$100,000 for each buyout structure assuming FEMA grant programs are used


*** Estimate is for only the excavation portion of the construction costs

**** Includes apartment complexes, childcare centers, nursing homes, schools, and other similar facilities

Notes: Results for alternatives are for 500 year protection. Comments regarding impacts of alternative at other frequencies are noted where applicable.

OPOSSUM CREEK

Floodprone Area	Possible Solutions	Current Condition Flood Potential at 500 Year Levels				Cost & Benefits of Possible Solution						Comments
		Structures		Inaccessibility		Estimated Construction Cost	Approximate Number of Flooded Structures Protected (floodproof/ buyout)	Approximate Number of Inaccessible Structures That Would Become Accessible During 500 Year Flood	Reduction in Flooding of Major City Transportation Route (Yes/No)	Protects At-Risk Population **** (Yes/No/ Maybe)	Compatibility With/ Contribution to Other City Priorities	
		Frequency at Which Structure Flooding Begins	Approximate Number of Flooded Structures	Frequency at Which Roads Start To Flood and Prevent Access to Structures	Approximate Number of Structures Inaccessible During 500 Year Flood							
Opossum Creek	Off-line Detention	500	4	<10	35	>>\$2.3 M***	2	35	N	Y	-	would allow access from west to Southside Elementary School during flood event, cost is excessive for the benefit
7 CR 200 South	Bridge Replacement	500	4	<10	10	NC	0	access allowed to additional areas	N	Y	-	raise west approach to CCR 200 S bridge, increase flow capacity under the road to provide flood free access to Southside Elementary School
	2-Stage Ditch Channel Improvement	500	4	<10	10	NC	2	access allowed to additional areas	N	Y	-	300' wide shelf reduced flood elevations at the bridge negligibly so the road still overtops below the 50 year flood level
	Floodproofing/ Voluntary Buyout of Structures	500	4	<10	10	\$100 K**	1/ 3	0	N	Y	-	protection of structures from rare flooding is not a high priority
	Levee/ Floodwall	500	4	<10	10	\$550 K*	2	access allowed to additional areas	N	Y	-	construct east of CR 130 W to prevent backwater from entering subdivision and flooding CR 150 W
6 Shadow Creek Farms	Bridge Replacement	>500	0	>100	25	NC	0	access allowed to additional areas	N	-	-	replace SR 11 & RR to reduce backwater, then CR 150 W may or may not also need additional capacity in order to allow flood free access

 Solution did not meet the criteria for selection as a Promising Solution.

NC cost not calculated

* Does not include costs for mitigation of negative impacts to flood elevations (such as channel improvements, compensatory floodplain storage, detention,...) that may be needed

** Estimate based on \$10,000 City cost share for each floodproofed structure plus 25% City cost share of 120% of assumed average structure value of \$100,000 for each buyout structure assuming FEMA grant programs are used

*** Estimate is for only the excavation portion of the construction costs or, for detention, is based on \$25 K per Ac-ft of estimated storage needed

Notes: Results for alternatives are for 500 year protection. Comments regarding impacts of alternative at other frequencies are noted where applicable.

EAST FORK WHITE RIVER

Floodprone Area	Possible Solutions	Current Condition Flood Potential at 500 Year Levels				Cost & Benefits of Possible Solution						Comments
		Structures		Inaccessibility		Estimated Construction Cost	Approximate Number of Flooded Structures Protected (floodproof/ buyout)	Approximate Number of Inaccessible Structures That Would Become Accessible During 500 Year Flood	Reduction in Flooding of Major City Transportation Route (Yes/No)	Protects At-Risk Population ***** (Yes/No/ Maybe)	Compatibility With/ Contribution to Other City Priorities	
		Frequency at Which Structure Flooding Begins	Approximate Number of Flooded Structures	Frequency at Which Roads Start To Flood and Prevent Access to Structures	Approximate Number of Structures Inaccessible During 500 Year Flood							
8 Huffman Drive/ WWTP	Floodproofing/ Voluntary Buyout of Structures	<500	5	<10	10	\$50 K**	(5/0)	0	N	-	-	
9 Garden City	Floodproofing/ Voluntary Buyout of Structures	<10	55	<10	55+	\$1.0 M**	(35/55)	0	N	-	-	commercial structures would not be eligible for the FEMA buyout program
30 Mariah/ Reo Street	Floodproofing/ Voluntary Buyout of Structures	50	15	50	15	\$370 K**	(5/10)	0	N	-	-	cost doesn't include buyout or floodproofing of Mariah facilities (depths are greater than recommended for floodproofing)
	Voluntary Buyout of all Impacted Structures	50	15	50	15	\$620 K**	(0/15)	15	N	-	-	cost doesn't include buyout or floodproofing of Mariah facilities (depths are greater than recommended for floodproofing)
	Levee/ Floodwall	50	15	50	15	\$2.3 M*	15	15	N	-	-	additional levee required around Mariah for its protection
3 Southern Crossing	Bridge Replacement	>500		<10	-	NC	-	access allowed to additional areas	Y	-	-	Southern Crossing approaches
29 Water Street	Combination: raise access road to the east	>500	0	<10	1	NC	0	access allowed to additional areas	N	-	-	
5 SR 11 South	Floodproofing/ Voluntary Buyout of Structures	<10	25	<10	55	\$350 K**	(5/10)	0	N	-	-	protected structures still will be inaccessible during flood event due to SR 11 flooding
	Voluntary Buyout of all Impacted Structures	<10	25	<10	55	\$750 K**	(0/25)	NA	N	-	-	
	Combination: levee & mitigation	<10	25	<10	55	\$1.9 M*	35	0	N	-	-	buy 5 structures outside of floodway (assumed permissible levee location), protected structures would still be inaccessible due to SR 11
4 Bethel Village	Floodproofing/ Voluntary Buyout of Structures	<10	140	<10	200	\$2.8 M**	(100/60)	0	N	-	-	protected structures would still be inaccessible due to Deaver Road flooding
	Combination: levee and mitigation	<10	140	<10	200	\$3.3 M*	160	0	N	-	-	levee & buyout of 10 structures in floodway (assumed permissible location), requires continuation of RR as levee

NC cost not calculated

* Does not include costs for mitigation of negative impacts to flood elevations (such as channel improvements, compensatory floodplain storage, detention,...) that may be needed

** Estimate based on \$10,000 City cost share for each floodproofed structure plus 25% City cost share of 120% of assumed average structure value of \$100,000 for each buyout structure assuming FEMA grant programs are used

*** Estimate is for only the excavation portion of the construction costs

**** Includes apartment complexes, childcare centers, nursing homes, schools, and other similar facilities

Notes: Results for alternatives are for 500 year protection. Comments regarding impacts of alternative at other frequencies are noted where applicable.

DENIOS CREEK

Floodprone Area	Possible Solutions	Current Condition Flood Potential at 500 Year Levels				Cost & Benefits of Possible Solution						Comments
		Structures		Inaccessibility		Estimated Construction Cost	Approximate Number of Flooded Structures Protected (floodproof/ buyout)	Approximate Number of Inaccessible Structures That Would Become Accessible During 500 Year Flood	Reduction in Flooding of Major City Transportation Route (Yes/No)	Protects At-Risk Population **** (Yes/No/ Maybe)	Compatibility With/ Contribution to Other City Priorities	
		Frequency at Which Structure Flooding Begins	Approximate Number of Flooded Structures	Frequency at Which Roads Start To Flood and Prevent Access to Structures	Approximate Number of Structures Inaccessible During 500 Year Flood							
5 SR 11 South	2-Stage Ditch Channel Improvement	<10	15	<10	45	NC	0	0	N	-	-	computer modeling showed a 300' wide shelf lowered the 100 and 50 year flood levels up to 1' which is not sufficient to prevent flooding of structures, alternative would do nothing to prevent East Fork White River flooding of the area
	Floodproofing/ Voluntary Buyout of Structures	<10	15	<10	45	\$350 K**	(5/10)	0	N	-	-	still inaccessibility issues along SR 11 and Dawson Street
	Voluntary Buyout of all Flooded and Inaccessible Structures	<10	15	<10	45	\$450 K**	(0/15)	15	N	-	-	
	Combination: levee & mitigation	<10	15	<10	45	\$1.9 M*	45	0	N	-	-	consists of levee & buyout of the 5 structures outside of the floodway (assumed permitable levee location), protected area would still be inaccessible during flood event due to SR 11 flooding
4 Bethel Village	2-Stage Ditch Channel Improvement	<10	160	<10	200	NC	0	0	N	-	-	computer modeling showed a 300' wide shelf lowered the 100 and 50 year flood levels up to 1' which is not sufficient to prevent flooding of structures, alternative would do nothing to prevent East Fork White River flooding of the area
	Floodproofing/ Voluntary Buyout of Structures	<10	160	<10	200	\$2.8 M**	(100/60)	0	N	-	-	remaining structures would still be inaccessible during flood events on Denios Creek and East Fork White River
	Voluntary Buyout of all Flooded and Inaccessible Structures	<10	160	<10	200	\$6.0 M**	(0/200)	NA	N	-	-	
	Combination: levee & mitigation	<10	160	<10	200	\$3.3 M*	160	0	N	-	-	levee & buyout of 10 structures in floodway (assumed permitable location), requires continuation of RR as levee
6 Shadow Creek Farms	Bridge Replacement	>500	0	50	>60	NC	0	>60	N	-	-	replacement of CR 150 W would allow access to areas north and give all but a few inaccessible structures within Shadow Creek Farms an exit to the south.

Solution did not meet the criteria for selection as a Promising Solution.

NC cost not calculated

** Estimate based on \$10,000 City cost share for each floodproofed structure plus 25% City cost share of 120% of assumed average structure value of \$100,000 for each buyout structure assuming FEMA grant programs are used

*** Estimate is for only the excavation portion of the construction costs

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SLOAN BRANCH

Floodprone Area	Possible Solutions	Current Condition Flood Potential at 500 Year Levels				Cost & Benefits of Possible Solution						Comments
		Structures		Inaccessibility		Estimated Construction Cost	Approximate Number of Flooded Structures Protected (floodproof/ buyout/ commercial floodproof)	Approximate Number of Inaccessible Structures That Would Become Accessible During 500 Year Flood	Reduction in Flooding of Major City Transportation Route (Yes/No)	Protects At-Risk Population **** (Yes/No/ Maybe)	Compatibility With/ Contribution to Other City Priorities	
		Frequency at Which Structure Flooding Begins	Approximate Number of Flooded Structures	Frequency at Which Roads Start To Flood and Prevent Access to Structures	Approximate Number of Structures Inaccessible During 500 Year Flood							
Sloan Branch	Off-line Detention	<10	95	<10	345	\$20.5 M	95	345	Y	Y	-	Lutheran Home is in this area but access not structure flooding is its issue, (cost estimate based on \$25,000/ ac-ft of storage required)
26 Madison/ Grant/ Flintwood	Bypass/ Diversion	<10	65	<10	315	>\$2.2 M***	60	335	N	Y	-	Lutheran Home access is provided, Talley road overtopping is reduced to 1', may still be some residual flooding of less than 1/2'
	2-Stage Ditch Channel Improvement	<10	65	<10	315	\$1.5 M	30	5	N	Y	-	Lutheran Home is in this area, combining this alternative with a small berm may make this alternative have the same benefits as the bypass alternative (very close to 100 year protection is provided without the extra berm)
	Floodproofing/ Voluntary Buyout of Structures	<10	65	<10	315	\$790 K**	(65/0/ 7)	0	N	N	-	access to structures would still be an issue
	Levee/ Floodwall	<10	65	<10	315	\$350 K*	60	310	N	Y	-	Lutheran Home access would be protected by this alternative
27 Eastridge Manor	Bypass/ Diversion	10	30	10	30	> \$1.2 M**** plus cost of 2 bridges	25	30	N	-	-	also requires large crossings added on Talley Road and CR 250 N
	Floodproofing/ Voluntary Buyout of Structures	10	30	10	30	\$400 K**	(25/ 5/ 0)	0	N	-	-	

Solution did not meet the criteria for selection as a Promising Solution.

NC cost not calculated

* Does not include costs for mitigation of negative impacts to flood elevations (such as channel improvements, compensatory floodplain storage, detention,...) that may be needed

** Estimate based on \$10,000 City cost share for each floodproofed structure plus 25% City cost share of 120% of assumed average structure value of \$100,000 for each buyout structure assuming FEMA grant programs are used

**** Includes apartment complexes, childcare centers, nursing homes, schools, and other similar facilities

Notes: Results for alternatives are for 500 year protection. Comments regarding impacts of alternative at other frequencies are noted where applicable.

CLIFTY CREEK

Floodprone Area	Possible Solutions	Current Condition Flood Potential at 500 Year Levels				Cost & Benefits of Possible Solution						Comments
		Structure		Inaccessibility		Estimated Construction Cost	Approximate Number of Flooded Structures Protected (floodproof/ buyout/ commercial floodproof)	Approximate Number of Inaccessible Structures That Would Become Accessible During 500 Year Flood	Reduction in Flooding of Major City Transportation Route (Yes/No)	Protects At-Risk Population **** (Yes/No/ Maybe)	Compatibility With/ Contribution to Other City Priorities	
		Frequency at Which Structure Flooding Begins	Approximate Number of Flooded Structures	Frequency at Which Roads Start To Flood and Prevent Access to Structures	Approximate Number of Structures Inaccessible During 500 Year Flood							
25 Sandy Hook/ Clifty Crossing	Bridge Replacement	500	10	100	60	NC	undetermined	undetermined	Y (US 31)	-	-	US 31 - would require upstream and downstream channel improvement to provide much of any reduction in flood elevations
	2-Stage Ditch Channel Improvement	500	10	100	60	> \$13.4 M***	10	25	Y (US 31)	-	-	all structures become accessible if this is done in conjunction with the channel improvement for Area 24, cost is excessive for benefit
	Floodproofing/ Voluntary Buyout of Structures	500	10	100	60	\$100 K**	10	0	N	-	-	protection of only structures from rare flooding is not high priority
	Levee/ Floodwall	500	10	100	60	\$1.4 M*	10	60	N	-	-	
24 Wehmeier/ Columbus East	Bridge Replacement	50	65	50	140	NC	50	70	N	Y	-	Road is already flood free during 500 year event but adding capacity sufficient to remove surcharge created by the bridge could provide protection for the approximately 50 structures upstream of SR 46 flooded during the 100 year event
	2-Stage Ditch Channel Improvement	50	65	50	140	> \$16.9 M***	0	0	N	Y	-	lowers elevations enough that increases the number of structures that could be floodproofed for 500 year protection, provides 100 year protection, cost is excessive for benefit
	Floodproofing/ Voluntary Buyout of Structures	50	65	50	140	\$1.1 M**	(45/ 20/ 1)	0	N		-	would not address accessibility issues
	Levee/ Floodwall	50	65	50	140	\$1 M*	60	60	N	Y	-	
28 Regency Drive	2-Stage Ditch Channel Improvement	<500	2	>50	50		0	0	N	-	-	Area 24 & 25 channel improvement does reduce (not eliminate) road flooding here but it is substantial cost for little benefit.
	Floodproofing	<500	2	>50	50	\$20 K**	2	0	N	-	-	protection of only structures from rare flooding is not high priority
	Levee/ Floodwall	<500	2	>50	50	\$510 K*	2	50	N	-	-	

NC: cost not calculated

* Does not include costs for mitigation of negative impacts to flood elevations (such as channel improvements, compensatory floodplain storage, detention,...) that may be needed

** Estimate based on \$10,000 City cost share for each floodproofed structure plus 25% City cost share of 120% of assumed average structure value of \$100,000 for each buyout structure assuming FEMA grant programs are used

*** Estimate is for only the excavation portion of the construction costs

**** Includes apartment complexes, childcare centers, nursing homes, schools, and other similar facilities

Notes: Results for alternatives are for 500 year protection. Comments regarding impacts of alternative at other frequencies are noted where applicable.

FLATROCK RIVER

Floodprone Area	Possible Solutions	Current Condition Flood Potential at 500 Year Levels				Cost & Benefits of Possible Solution						Comments
		Structures		Inaccessibility		Estimated Construction Cost	Approximate Number of Flooded Structures Protected (floodproof/ buyout/ commercial floodproof)	Approximate Number of Inaccessible Structures That Would Become Accessible During 500 Year Flood	Reduction in Flooding of Major City Transportation Route (Yes/No)	Protects At-Risk Population **** (Yes/No/Maybe)	Compatibility With/ Contribution to Other City Priorities	
		Frequency at Which Structure Flooding Begins	Approximate Number of Flooded Structures	Frequency at Which Roads Start To Flood and Prevent Access to Structures	Approximate Number of Structures Inaccessible During 500 Year Flood							
45 Riverside Drive North	Bridge Replacement	>10	5	>10	2	NC	3	2	Y US 31)	-	-	US31 appears to have been replaced since the FIS, based on plans the 100 year elevation is lowered by 0.6' with the new bridge, additional capacity would reduce flood levels more
	2-Stage Ditch Channel Improvement	>10	5	>10	2	> \$12 M***	1	1	Y (US31)	-	-	is part of the channel improvement described for areas 21 & 22, also benefits upstream part of 16, reduction is <1' so cost outweighs benefit even to protect from more frequent floods (would protect only ~2 structures in the 100 yr)
	Floodproofing/ Voluntary Buyout of Structures	>10	5	>10	2	\$120 K**	(3/ 3/ 0)	0	N	-	-	
	Levee/ Floodwall	>10	5	>10	2	\$1.4 M*	5	2	N	-	-	
22 Long Road	Bridge Replacement	100	3	50	10+	NC	3	10+	Y (US31)	-	-	US 31 has been replaced since the FIS data. Based on plans, the 100 year elevation is lowered by 0.6' with the new bridge. Bridge would need additional capacity to make structures in this area accessible and flood free
	2-Stage Ditch Channel Improvement	100	3	50	10+	> \$12 M***	0	0	Y (US31)	-	-	this is part of the channel improvement that is described for areas 21 and 45, also will benefit upstream part of 16, reduction is however 1/2' or less (for 500 and 100 year floods) just upstream of US 31 where most of the flooded structures are located
	Floodproofing	100	3	50	10+	\$40 K**	(0/ 0/ 2))	0	N	-	-	structures are not residential so no FEMA cost share available for buyout
	Levee/ Floodwall	100	3	50	10+	\$2.5 M*	2	10+	N	-	-	requires compensatory measures
21 Commerce Park	2-Stage Ditch Channel Improvement	500	5	< 50	15	> \$12 M***	3	0	Y (US31)	-	-	this is part of the channel improvement that is described for areas 22 and 45, also will benefit upstream part of 16, reduction is 1' for the 500 year and less for the 100 year so is excessive cost for the benefit especially if buildings are elevated more than what the DEM elevations show
	Floodproofing/ Voluntary Buyout of Structures	500	5	< 50	15	\$100 K**	5	0	N	-	-	commercial structures, protection of structures from rare flooding is not a high priority
	Levee/ Floodwall	500	5	< 50	15	\$1.1 M*	5	15	N	-	-	requires compensatory measures
14 Mill Race Park	Floodproofing/ Voluntary Buyout of Structures	100	2	100	5	\$40 K**	(2/ 0/ 0)	0	N	-	-	non-residential structures - per City the main building is elevated, others can be individually protected if needed
16 Indianapolis Road	Levee/ Floodwall	10	25	10	125	\$6.9 M*	35	90	N	-	large scale economic development area	significant mitigation for lost floodplain storage may be required to negate adverse impacts on flood elevations
	Raise Road	10	25	10	125	NC	0	0 (because drives are still inaccessible)	Y (Indianapolis Road)	-	large scale economic development area	Indianapolis Road and access roads west of Indianapolis Road could be made passable by raising the road and providing culverts etc. under the road to allow connection between river and floodplain storage areas
17 Washington Street	Floodproofing/ Voluntary Buyout of Structures	< 50	130	< 50	80	\$1.7 M**	(35/45/ 0)	0	N	-	-	
	Levee/ Floodwall	< 50	130	< 50	80	\$1.5 M*	80	80	N	-	-	
18 Noblitt Falls	Floodproofing/ Voluntary Buyout of Structures	50	55	50	55	\$2.8M**	(10/45/ 0)	0	N	-	-	
	Levee/ Floodwall	50	55	50	55	\$3.0 M*	55	55	N	-	-	
Solution did not meet the criteria for selection as a Promising Solution.												

NC cost not calculated

* Does not include costs for mitigation of negative impacts to flood elevations (such as channel improvements, compensatory floodplain storage, detention,...) that may be needed

** Estimate for commercial structures based on \$20,000 City cost share for each floodproofed structure only. Estimate for residential structures based on \$10,000 City cost share for each floodproofed structure plus 25% City cost share of 120% of assumed average structure value of \$100,000 for each buyout structure assuming FEMA grant programs are used

*** Estimate is for only the excavation portion of the construction costs

**** Includes apartment complexes, childcare centers, nursing homes, schools, and other similar facilities

HAW CREEK

Summary of Feasible Projects

Floodprone Area	Possible Solutions	Current Condition Flood Potential at 500 Year Levels				Cost & Benefits of Possible Solution						Comments
		Structure		Inaccessibility		Estimated Construction Cost	Approximate Number of Flooded Structures Protected (floodproof/ buyout/ commercial floodproof)	Approximate Number of Inaccessible Structures That Would Become Accessible During 500 Year Flood	Reduction in Flooding of Major City Transportation Route (Yes/No)	Protects At-Risk Population **** (Yes/No/Maybe)	Compatibility With/ Contribution to Other City Priorities	
		Frequency at Which Structure Flooding Begins	Approximate Number of Flooded Structures	Frequency at Which Roads Start To Flood and Prevent Access to Structures	Approximate Number of Structures Inaccessible During 500 Year Flood							
Marr Road	Bridge Replacement	>500	0	<10	2	NC	0	allows access to additional areas	Y (Marr Rd)	-	-	Marr Road could be made passable by raising floodprone segments and adding additional flow capacity to allow continued access to floodplain storage and conveyance
42 Sycamore Bend/ Arrowood	2-Stage Ditch Channel Improvement	>100	65	>100	115	\$16.7 M*				-	-	channel improvement from National Road to Marr Road benefitting Area 40 as well, 100 year flood would still flood almost the same area as current conditions
	Floodproofing/ Voluntary Buyout of Structures	>100	65	>100	115	\$950 K**	(50/15/5)	0	N	-	-	
	Levee/ Floodwall	>100	65	>100	115	\$1.0 M*	65	110	N	-	-	
41 Northbrook/ Candlelight	2-Stage Ditch Channel Improvement	10	380	50	400+	\$16.7 M*			N	-	-	channel improvement from National Road to Marr Road benefitting Area 40 as well, 100 year flood would still flood almost the same area as current conditions
	Floodproofing/ Voluntary Buyout of Structures	10	380	50	400+	\$5.4 M**	(300/ 80/ 0)	0	N	-	-	
	Levee/ Floodwall	10	380	50	400+	\$1.9 M*	380	400+	N	-	-	
40 Windsor Place/ Hillcrest	2-Stage Ditch Channel Improvement	<50	70	<50	105	\$16.7 M*			Y (Marr Road 1.7')	-	-	channel improvement from National Road to Marr Road benefitting Area 40 as well, 0.2' reduction at the south end varying to 2' reduction at the north end meaning that most of the structures north of Victoria Avenue would be protected but they only flood in the 500 year anyway, those structures with more frequent flooding would not be protected
	Floodproofing/ Voluntary Buyout of Structures	<50	70	<50	95	\$1.25 M**	(95/10/0)	0	N	-	-	
	Levee/ Floodwall	<50	70	<50	95	\$1.6 M*	105	105	N	-	-	may still be flooding from overflow of the tributary north of Rocky Ford Road
38 Everoad Park West/ Eastbrook	Floodproofing/ Voluntary Buyout of Structures	100	50	<50	160+	\$1.5 M**	(150/0/ 0)	0	N	-	-	
	Levee/floodwall	100	50	<50	160+	\$4.3 M*	160	160+	N	-	-	
37 Everoad Park East	Floodproofing/ Voluntary Buyout of Structures	50	30	<50	75	\$700 K**	(10/ 20/ 0)	0	N	-	-	protects only a few structures and does not improve accessibility to the area during floods
	Levee/ Floodwall	50	30	<50	75	\$1.8 M*	30	30	N	-	-	
36 Midway	2-Stage Ditch Channel Improvement	<100	25	<10	32				Y (25th Street 0.2')	M	-	Columbus Health & Rehabilitation is located in this area, results of computer modeling show reduction in 100 year water surface elevation of 0.3' with a channel improvement option in the available space
	Floodproofing/ Voluntary Buyout of Structures	<100	25	<10	30	\$300 K**	(20/ 2/ 2)	0	N	Y	-	Columbus Health & Rehabilitation located in this area
	Levee/ Floodwall	<100	25	<10	30	\$1.3 M*	24	24	N	Y	-	Columbus Health & Rehabilitation located in this area
34 17th/ Keller	Floodproofing/ Voluntary Buyout of Structures	>50	25	50	50	\$240 K**	(17/1/2)	0	N	-	-	
	Levee/ Floodwall	>50	25	50	50	\$900 K*	20	50	N	-	-	
33 10th/ Central	Floodproofing/ Voluntary Buyout of Structures	<10	100	10	185	\$2.2 M**	(40/ 60/ 0)	0	N	-	-	
	Floodproofing/ Voluntary Buyout of Structures	10	25	10	25	\$670 K**	(5/19/ 1)	24	N	-	-	

NC Solution did not meet the criteria for selection as a Promising Solution.

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