

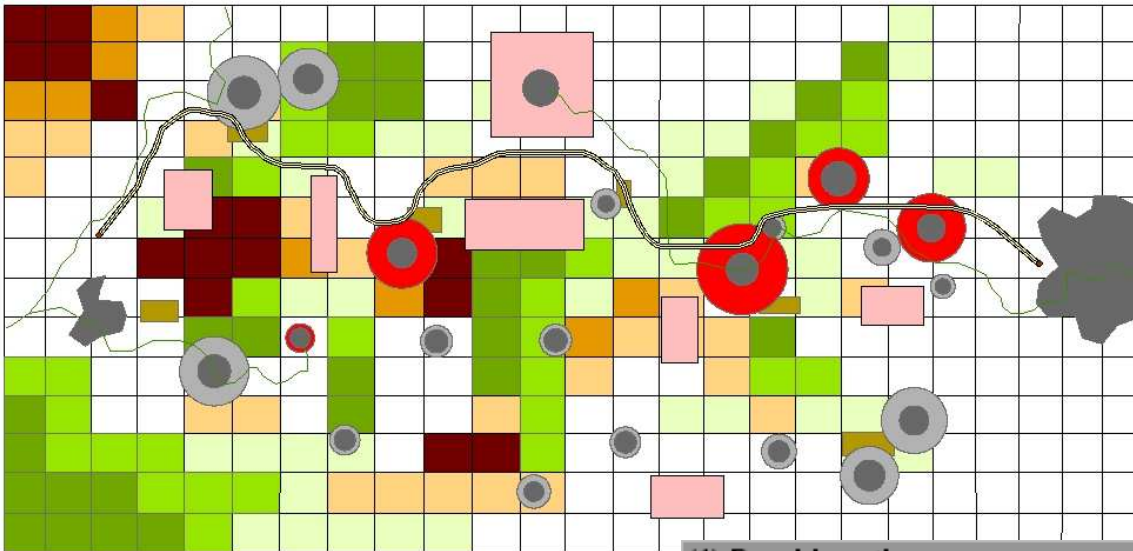


Geografie dopravy

Route selection problem

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Varianta 1



Pozitiva:

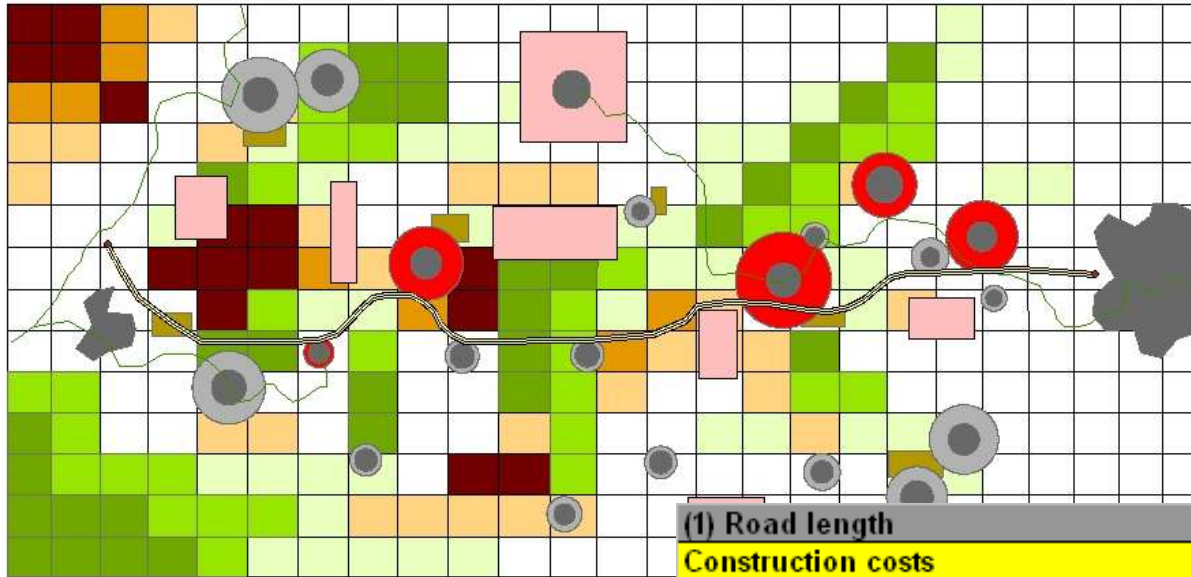
- obsluhuje největší počet obyvatel
- napojuje 3 průmyslové zóny

Negativa:

- délka trasy
- cena

(1) Road length	137,5 miles
Construction costs	
(a) Basic construction costs (\$0.5 million per mile)	\$M 68,75
(b) Additional costs for rugged terrain	\$M 29,00
(c) Additional costs for river crossing (\$2 million per bridge)	\$M 2,00
Gross construction cost (a + b + c)	\$M 99,75
(d) Additional costs for public audiences (\$3 millions per unit)	\$M 0,00
(e) Costs saved from collaboration (\$3 millions per city in favor)	\$M 12,00
(f) To serve an industrial development zone (\$5 millions per zone)	\$M 15,00
(g) Savings (benefit) from providing new roads to additional population (\$15 per person)	\$M 7,65
(2) Total cost = Gross cost + d - e - f - g	\$M 65,1
Environmental impacts	
(h) Level of environmental damage	14,000 units
(i) Level of environmental damage for road construction (0.25 per mile)	34,375 units
(3) Environmental score (h + i)	48,375 units

Varianta 2



Pozitiva:

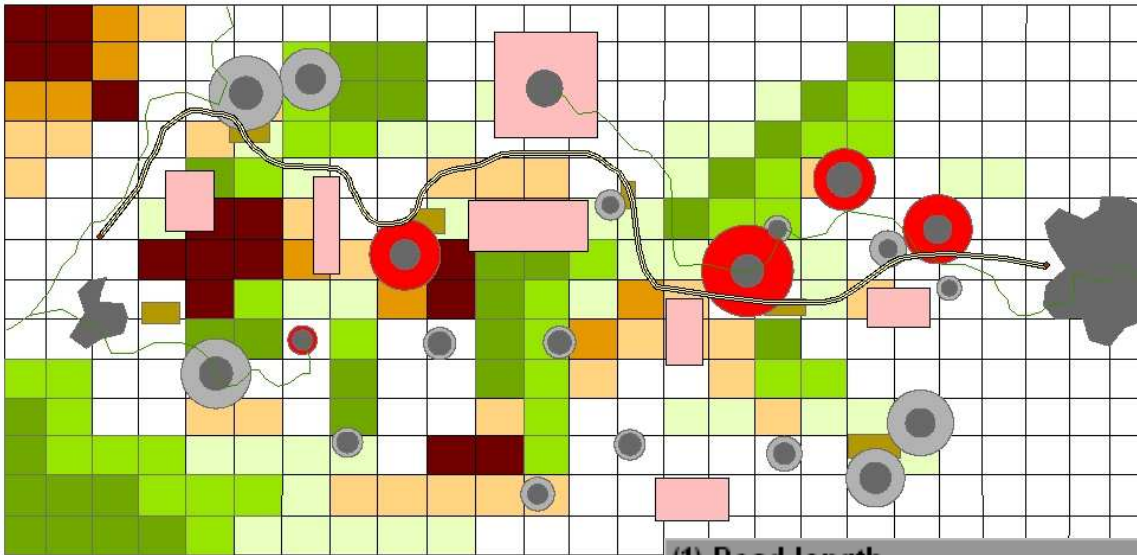
- délka trasy
- cena

Negativa:

- obsluhuje nejmenší počet obyvatel
- nejvíce zatěžuje ŽP
- napojuje 2 prům. zóny

(1) Road length	110,0 miles
Construction costs	
(a) Basic construction costs (\$0.5 million per mile)	\$M 55,00
(b) Additional costs for rugged terrain	\$M 26,00
(c) Additional costs for river crossing (\$2 million per bridge)	\$M 2,00
Gross construction cost (a + b + c)	\$M 83,00
(d) Additional costs for public audiences (\$3 millions per unit)	\$M 0,00
(e) Costs saved from collaboration (\$3 millions per city in favor)	\$M 12,00
(f) To serve an industrial development zone (\$5 millions per zone)	\$M 10,00
(g) Savings (benefit) from providing new roads to additional population (\$15 per person)	\$M 6,15
(2) Total cost = Gross cost + d - e - f - g	\$M 54,85
Environmental impacts	
(h) Level of environmental damage	22,00 units
(i) Level of environmental damage for road construction (0.25 per mile)	27,50 units
(3) Environmental score (h + i)	49,50 units

Varianta 3



Pozitiva:

- nejméně zatěžuje ŽP
- napojuje 4 průmyslové zóny
- obsluhuje relativně velký počet obyvatel

Negativa:

- délka trasy
- cena

(1) Road length	142,5 miles
Construction costs	
(a) Basic construction costs (\$0.5 million per mile)	\$M 71,25
(b) Additional costs for rugged terrain	\$M 29,00
(c) Additional costs for river crossing (\$2 million per bridge)	\$M 2,00
Gross construction cost (a + b + c)	\$M 102,25
(d) Additional costs for public audiences (\$3 millions per unit)	\$M 0,00
(e) Costs saved from collaboration (\$3 millions per city in favor)	\$M 9,00
(f) To serve an industrial development zone (\$5 millions per zone)	\$M 20,00
(g) Savings (benefit) from providing new roads to additional population (\$15 per person)	\$M 7,05
(2) Total cost = Gross cost + d - e - f - g	\$M 66,2
Environmental impacts	
(h) Level of environmental damage	9,00 units
(i) Level of environmental damage for road construction (0.25 per mile)	35,63 units
(3) Environmental score (h + i)	44,63 units

Závěrečné shrnutí

	Varianta 1	Varianta 2	Varianta 3
(1) Road length	137,5 miles	110,0 miles	142,5 miles
Construction costs			
(a) Basic construction costs (\$0.5 million per mile)	\$M 68,75	\$M 55,00	\$M 71,25
(b) Additional costs for rugged terrain	\$M 29,00	\$M 26,00	\$M 29,00
(c) Additional costs for river crossing (\$2 million per bridge)	\$M 2,00	\$M 2,00	\$M 2,00
Gross construction cost (a + b + c)	\$M 99,75	\$M 83,00	\$M 102,25
(d) Additional costs for public audiences (\$3 millions per unit)	\$M 0,00	\$M 0,00	\$M 0,00
(e) Costs saved from collaboration (\$3 millions per city in favor)	\$M 12,00	\$M 12,00	\$M 9,00
(f) To serve an industrial development zone (\$5 millions per zone)	\$M 15,00	\$M 10,00	\$M 20,00
(g) Savings (benefit) from providing new roads to additional population (\$15 per person)	\$M 7,65	\$M 6,15	\$M 7,05
(2) Total cost = Gross cost + d - e - f - g	\$M 65,1	\$M 54,85	\$M 66,2
Environmental impacts			
(h) Level of environmental damage	14,000 units	22,00 units	9,00 units
(i) Level of environmental damage for road construction (0.25 per mile)	34,375 units	27,50 units	35,63 units
(3) Environmental score (h + i)	48,375 units	49,50 units	44,63 units

Pramen:

<http://www.people.hofstra.edu/geotrans/eng/ch1en/appl1en/ch1a2en.html>



Děkujeme za pozornost