



# STUDIU DE FUNDAMENTARE PRIVIND CIRCULAȚIA ȘI MOBILITATEA URBANĂ ȘI METROPOLITANĂ

PLANUL URBANISTIC GENERAL PLOIEȘTI 2015

# FOAIE DE CAPĂT

Proiect nr.  
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Revizuire Plan Urbanistic General al Municipiului Ploiești,  
Regulamentul Local de Urbanism aferent, Elaborare Strategie de  
Dezvoltare Urbană a Municipiului Ploiești și Plan de Amenajare a  
Teritoriului Metropolitan

## Faza 1 – Studii de fundamentare

**Studiu de fundamentare privind circulația și mobilitatea urbană și metropolitană**

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## STUDIU DE FUNDAMENTARE TRAFIC

### 1.Introducere

#### 1.1. Conceptul de abordare al studiului

##### **Mobilitatea in mediul urban si peri-urban**

Într-un înțeles general, în domeniul de studiu al orașului și a vecinătăților sale, *mobilitatea definește capacitatea de deplasare a persoanelor, mărfurilor și activităților, fiind determinată și legată de spațiu*. Existența unei distanțe de parcurs, cât și a motivației fundamentale „*accesibilitatea activităților localizate*” determina în sens larg *mobilitatea spațială*.

O mobilitate urbană sustenabilă – care să permită oamenilor și bunurilor să circule liber, în siguranță, cu protejarea mediului înconjurător - reprezintă principalul obiectiv al comunității urbane care prin dezvoltarea politicilor de transport va crea cadrul necesar pentru asigurarea calității vieții și pentru dezvoltarea economică.

În condițiile societății actuale, „*serviciul de transport*” este rezultatul eforturilor depuse de specialiștii care își aduc aportul la realizarea unei activități eficiente. În acest sens, rolul determinant în gestionarea mobilității urbane este condiționat de cooperarea factorilor implicați, care prin acțiunile lor, pot influența „*politica de transport*” la nivel local (oras, județ) sau la nivele superioare (stat, regiune).

În cadrul dezvoltării urbane, politica de mobilitate a comunității este adesea influențată de acțiunile dezvoltatorilor, care investesc în activități economice și în egală măsură în infrastructura de transport. Investițiile în infrastructura de

transport urmaresc realizarea unui mediu rutier prietenos utilizatorilor si contribuie la armonizarea si eficientizarea serviciilor.

## **1.2. Documentatii utilizate pentru realizarea studiului**

Studiul de fundamentare "*Trafic*" s-a realizat pe baza unei cercetari complexe asupra documentelor tehnice de specialitate care au abordat in timp problematica transporturilor urbane si periurbane. Documentatiile analizate au fost puse la dispozitie, in format electronic, de catre beneficiar. Separat, autorii studiului au consultat institutii care au activitati legate de transporturi: Politia Rutiera Ploiesti si S.N.C.F.R. – Directia Transport Calatori.

Datele culese din toate documentatiile avute la dispozitie au fost analizate cu scopul de a obtine o sinteza a prevederilor urbanistice anterioare. Mentionam in acest sens documentul "*Planul de Urbanism General Municipiul Ploiesti*", "*memoriu general*" elaborat de catre S.C. CONSPROIECT S.A. in anul 1999 si prelungit in anul 2009.

Avand in vedere importanta etapei de documentare, ca parte integrata de lucru in cadrul prezentului studiu de fundamentare, evidentiem mai jos documentele primite de la beneficiar utilizate in aceasta faza:

1. "*Plan de Urbanism General – Municipiul Ploiesti*" – *memoriu general elaborat de catre S.C. CONPROIECT in anul 1999 – (actualizare 2009).*
2. "*Master Plan de Transport Urban - Bucuresti, Ploiesti, Sibiu, Ploiesti*". "*Raport final Ploiesti*", – *European Aid/1234579/D/SER/RO elaborat de asocierea: WSP, NEA, UNIVERSITAT KARLSRUHE (TH) in anul 2007.*
3. "*Studiu de circulatie pentru municipiul Ploiesti*" – *Proiectarea si implementarea Bazei de Date Tehnice Stradale – elaborat de S.C. SEARCH Ltd. in anul 2004.*

4. *"Studiu Pilot pentru Actualizarea Planului pe Amenajare a Teritoriului Judetean" – P.A.T.J. - pentru judetele traversate de culoarele de transport european si paneuropean – P.A.T.J. – Prahova. Vol 1 "Situatia existenta, probleme si prioritati. Vol 2 Propuneri, program de masuri, elaborate de Institutul National de Cercetare – Dezvoltare pentru Urbanism si Amenajarea Teritoriului – URBANPROIECT – Bucuresti, S.C. SEARCH Ltd, Institutul National al Monumentelor Istorice, R.B. Invest s.r.l. in anul 2002.*
5. *"Plan de amenajare a teritoriului intercomunal" PATICO – Zona metropolitana Ploiesti – Studiu de fundamentare, demografie si retea de localitati elaborate de Universitatea de Arhitectura si Urbanism "Ion Mincu" Bucuresti, Centrul de Cercetare, Proiectare si Expertiza si Consulting – in anul 2004.*
6. *"Planul de Dezvoltare Durabila a Judetului Prahova" 2007 – 2013.*
7. *"Planul de Dezvoltare Durabila a Judetului Prahova" 2014– 2020 – editat 2013.*
8. *"Planul de Dezvoltare Regionala Sud-Muntenia" 2014 – 2020, - draft 2013.*
9. *"Strategia de Dezvoltare a Municipiului Ploiesti" 2007 – 2025 – elaborat de Institute for Housing and Urban Development Sudies CIHS – Romania s.r.l. – 2007.*

10. *"Planul Integrat de Dezvoltare a Polului de Crestere Ploiesti – Prohova" – 2010.*
11. *"Plan local de actiune ADVANCE – Municipiul Ploiesti" elaborat de Intelligent Energy Europe – autor Anca Dragutescu / auditor ADVANCE – anul 2013.*
12. *"H.C.L. – Ploiesti - nr. 103" – privind regulamentul pentru infiintarea, organizarea si exploatarea parcarilor publice cu plata aflate pe domeniul public si privat al municipiului Ploiesti- emisa in anul 2010.*
13. *"H.C..L – Ploiesti - nr. 263" – privind regulamentul pentru infiintarea, organizarea si exploatarea parcarilor publice cu plata aflate pe domeniul public si privat al municipiului Ploiesti- emisa in anul 2012.*
14. *"Plan Operational Regional (P.O.R.) 2014 – 2020" – elaborat in august 2014.*
15. *"Studiu de cercetare pentru zona Nordica a Municipiului Ploiesti – Sp. Judetean – artera Gageni Valeni, Alba Iulia", elaborat de S.C. Mobil Proiect s.r.l. – anul 2008..*
16. *"Planuri de mobilitate urbana durabila pentru polii de crestere din Romania – Lot 2: Craiova, Iasi, Ploiesti" – Raport interimar 1 - elaborat de asocierea P.T.V. Group, S.C. SEARCH Ltd, T.T.K. – februarie 2015.*
17. *"Buletinul Sigurantei Rutiere" – Raport anual 2013 – Inspectoratul General al Politiei Romane*

## 2. Cadrul socio – economic pentru realizarea studiului

### 2.1. Amplasarea in teritoriu

Municipiul Ploiesti reprezinta un centru urban de rang 1 amplasat aproximativ in sudul judetului Prahova. In conformitate cu regulamentele prevazute in legea 151/1998, municipiul Ploiesti reprezinta „centrul” polului de crestere Ploiesti cuprins in Regiunea 3 Sud – Muntenia.

In cadrul Planului Integral de Dezvoltare (2007), polul de crestere Ploiesti este definit de o suprafata administrativa de 61165 ha si o populatie de circa 350500 locuitori (fig. 1)

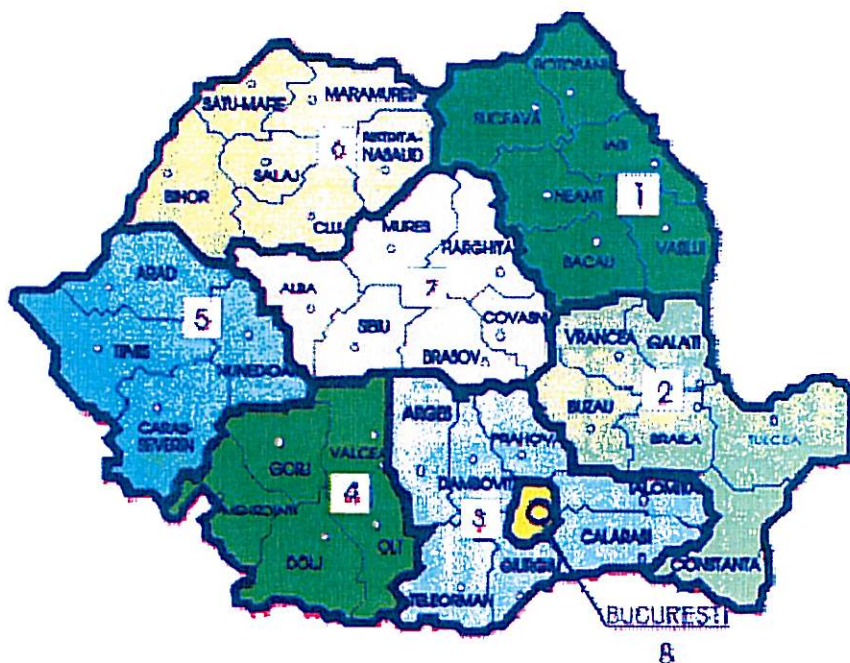


Fig 1

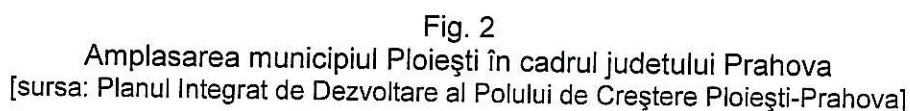
Regiunile de Dezvoltare ale României conform Legii 151/1998  
[sursa: Planul Integral de Dezvoltare al Polului de Creștere Ploiești-Prahova].

Municipiul Ploiesti ocupa o suprafata de circa 58 km<sup>2</sup> si are o populatie de circa 230000 locuitori.

Din punct de vedere al amplasarii in teritoriu, municipiul Ploiesti se gaseste pe axa de transport nord – sud: Brasov – Bucuresti – Giurgiu la circa 60km distanta fata de Bucuresti, 110 km distanta fata de Municipiul Brasov. Pe directia est – vest orasele invecinate mai importante sunt municipiul Buzau in



Amplasarea Municipiului Ploiesti in raport cu principalele trasee de comunicatie este prezentata in figura 2.



Actualizare P.U.G. – municipiu Ploiesti  
Studiu de fundamentare – “Trafic”

Zona periurbana a municipiului Ploiesti cuprinde urmatoarele localitati:

Tabel 1

<b>NORD</b>	Orașe Comune	Băicoi
		Boldești - Scăieni
		Ploeni
		Bleji
		Bucov
		Dumbrăvești
		Păulești
<b>EST</b>	Comune	Berceni
		Valea Călușărească
<b>SUD</b>	Comune	Bărcănești
		Brazi
<b>VEST</b>	Comune	Ariceștii Rahtivani
		Târgșoru Vechi

[sursa: Planul Integrat de Dezvoltare al Polului de Creștere Ploiești-Prahova]



Fig. 3

Organizarea administrativ teritoriala din zona de influenta a municipiului Ploiesti  
[sursa: Planul Integrat de Dezvoltare al Polului de Creștere Ploiești-Prahova]



## 2.2. Aspecte de dezvoltare a municipiului Ploiesti si a zonelor adiacente in contextul regional si national

Abordarile asupra unor aspecte legate de dezvoltarea mobilitatii sub aspect regional sau in context mai larg au in vedere paliere de analiza: demografia, produsul intern brut si motorizarea.

Master Plan de Transport Urban - Bucuresti, Sibiu si Ploiesti – elaborat de W.S.P. si asociatii, evidentiaza la nivel national o tendinta de descrestere a populatiei. La nivel regional aceeaasi tendinta de descrestere se pastreaza proportional. In figura 4 sunt prezentate previziunile demografice la nivelul tarii estimate de diferite surse de prognoza.

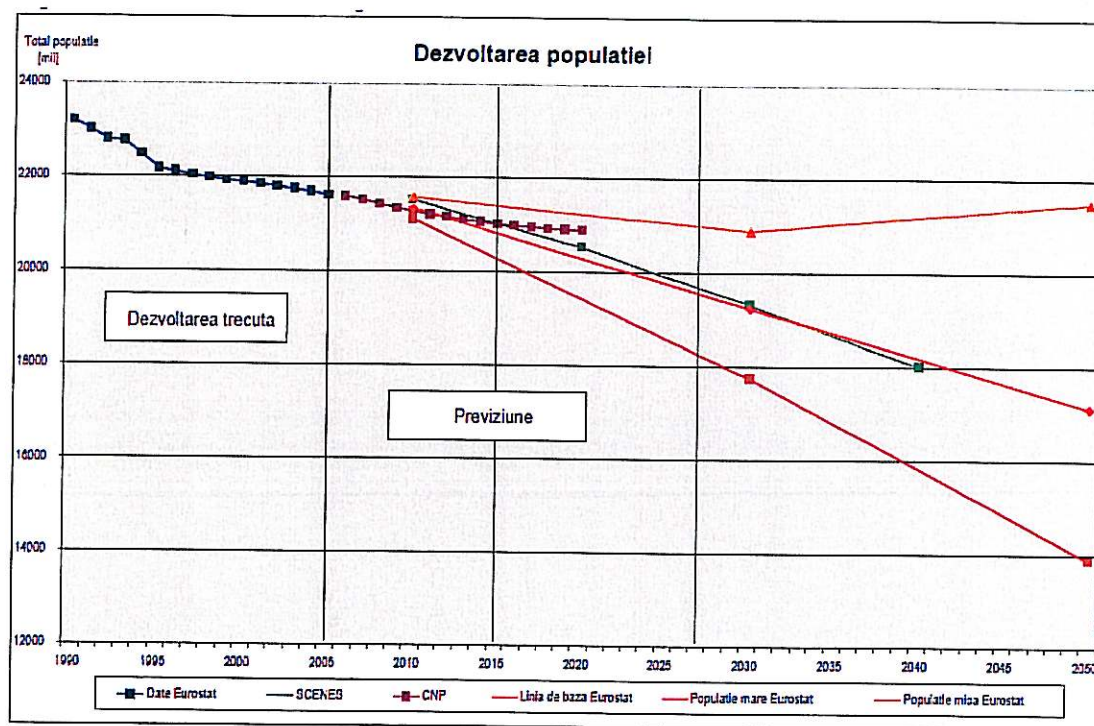


Fig. 4  
Previziunile demografice la nivelul tarii  
[sursa : Master Plan de Transport Urban - Bucuresti, Sibiu si Ploiesti]

In palierul parametrilor de analiza mentionati in paragraful anterior, estimarile formulate de acelasi master plan arata o tendinta de crestere a produsului intern brut (P.I.B.) pe un orizont de prognoza de 20 – 25 ani. In figura 5 este aratat graficul de tendinta pentru PIB in diferite scenarii de prognoza: EUROSTAT, C.N.P. si SCENES.

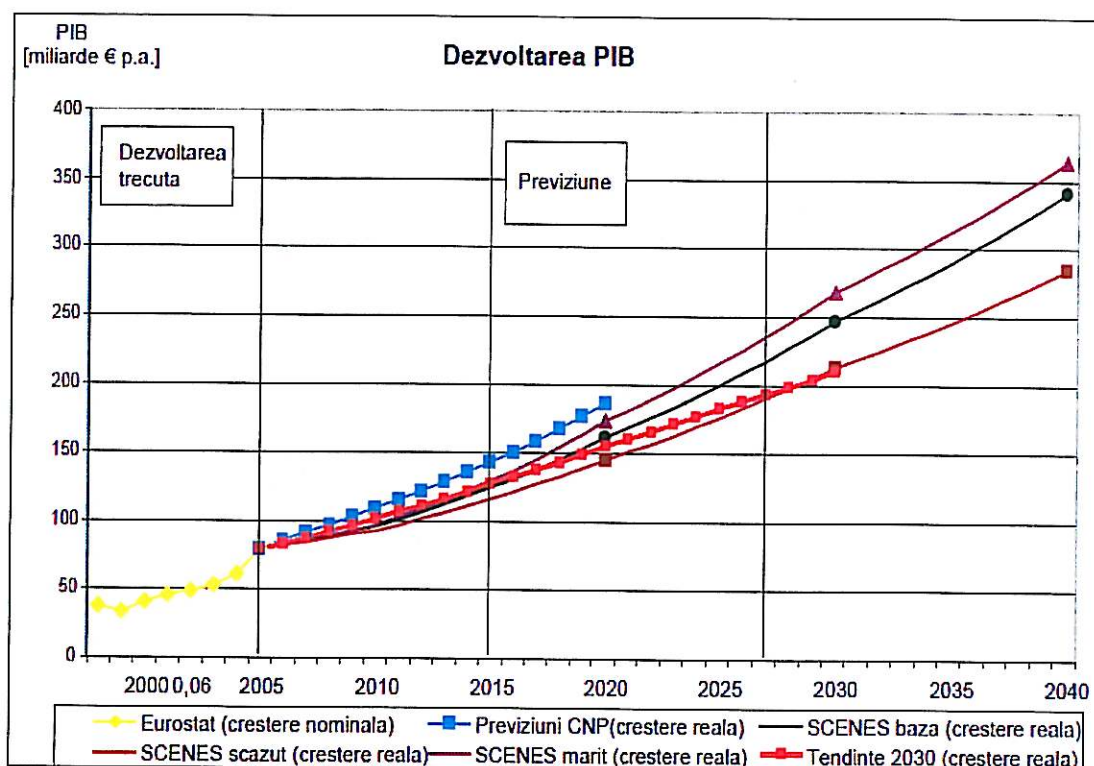


Fig. 5  
Estimarea evoluției Produsului Intern Brut  
[sursa : Master Plan de Transport Urban - București, Sibiu și Ploiești]

Coreland previziunile menționate mai sus constatam că din punct de vedere economic, tendința de scădere a populației și tendința de sporire a PIB arată că rezultat o creștere în termeni nominali a puterii de cumpărare a populației. Din această perspectivă constatam că pentru perioada de prognoză, consumul populației va crește și implicit va spori achiziționarea de bunuri de consum. Este știut faptul că în țara noastră, la nivel larg, a existat din totdeauna disponibilitatea populației de a achiziționa autoturisme proprietate personală. Această constatare este confirmată de dinamica creșterii gradului de motorizare din țara noastră. În fig. 6 este prezentată corelarea dintre gradul de motorizare și produsul intern brut.

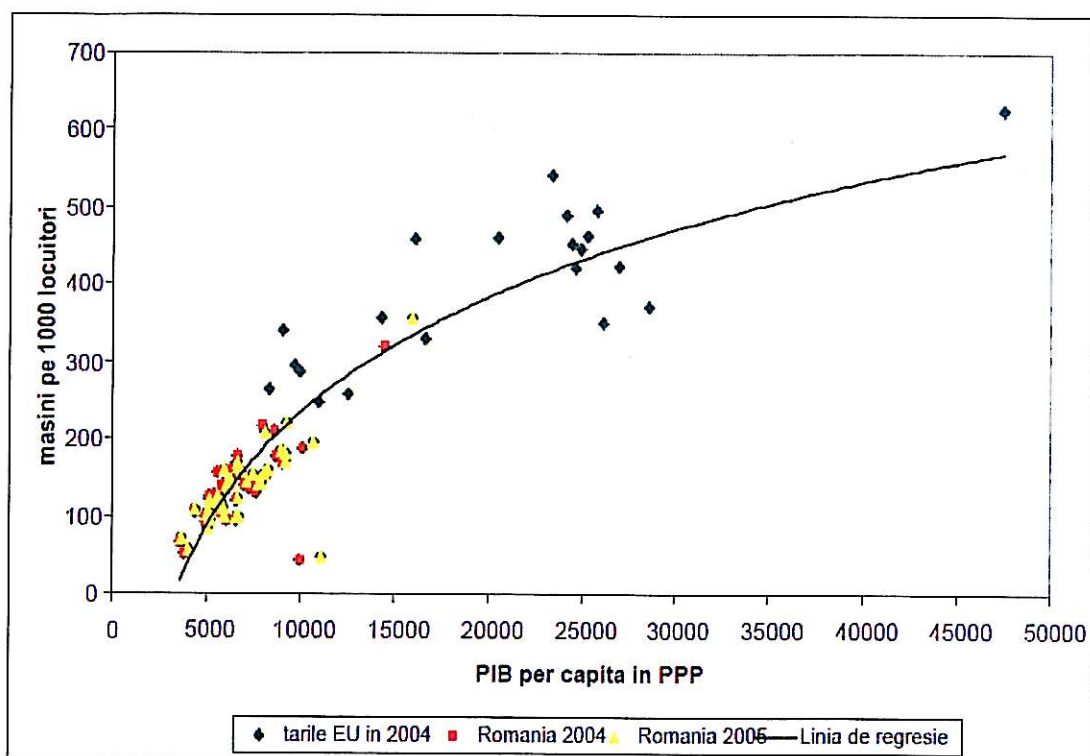


Fig. 6  
Corelarea gradului de motorizare cu produsul intern brut  
[sursa : Master Plan de Transport Urban - Bucuresti, Sibiu si Ploiesti]

Situatia parcului de autovehicule si a gradului de motorizare la nivel national sunt evidentiata in figurile 7 si respectiv 8.

Evoluția parcului de autovehicule înmatriculate în perioada 2009-2013  
(sursa: DRPCIV si INS)

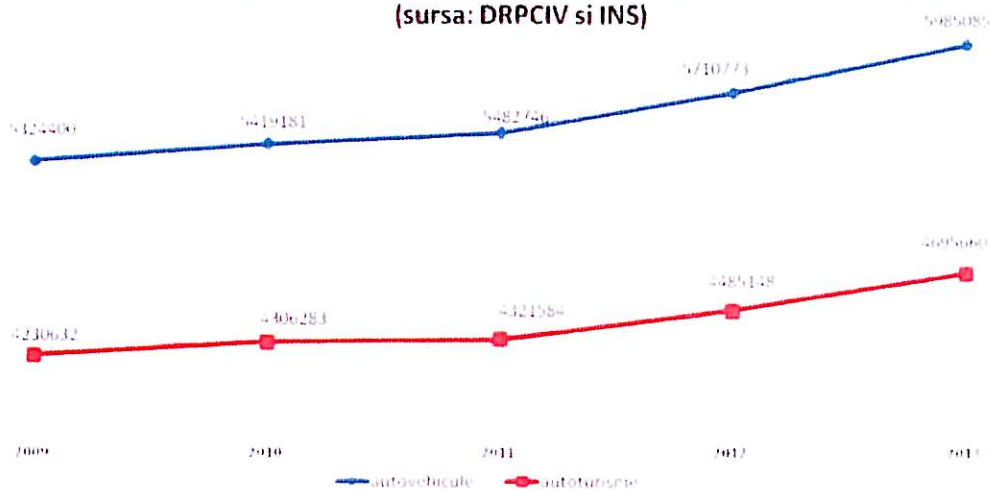


Fig. 7  
Evoluția parcului de autovehicule în România  
[sursa : Buletinul Siguranței Rutiere – Raport anual 2013 – Inspectoratul General al Poliției]



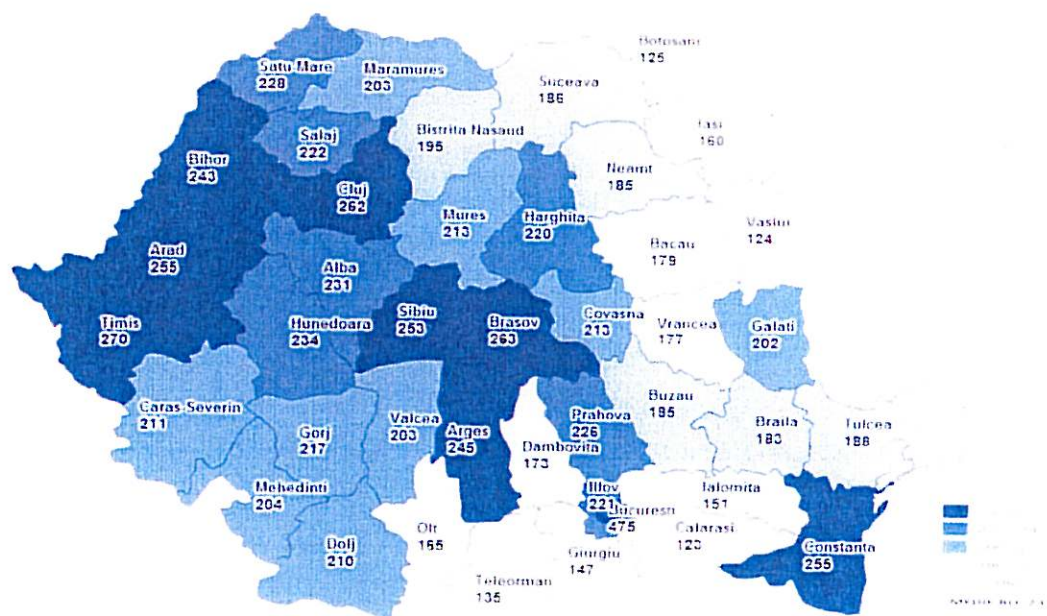


Fig. 8

Repartitia gradului de motorizare in Romania

[sursa : Buletinul Sigurantei Rutiere – Raport anual 2013 – Inspectoratul General al Politiei]

Din analiza datelor prezentate mai sus remarcam ca judetul Prahova si implicit municipiul Ploiesti se plaseaza in apropierea mediei nationale legate de indicatorul "grad de motorizare": 226auto/1000loc pentru judet si circa 300auto/1000loc pentru municipiul Ploiesti.

La nivel european Romania se poate considera o tara cu grad de motorizare modest 220 vehicule/ 1000 locuitori si cu o repartitie redusa a numarului de locuitori raportati la km de drum (tabel 2).

Tabel 2

Tara	Parc auto(autoturisme)	Populație	Lungime totală a drumurilor (km)	Rata de motorizare (autoturisme/ 1000 locuitori)	Nr autoturisme / km de drum
Austria	4.584.000	8.219.743	124.580	558	37
Belarus	2.900.000	9.542.883	94.797	304	31
Belgia	5.393.000	10.438.353	156.143	517	35
Cehia	4.699.000	10.177.300	134.051	462	35
Danemarca	2.240.000	5.543.453	73.330	404	31
Finlanda	3.037.000	5.262.930	303.815	577	10
Franta	31.600.000	65.423.023	1.124.418	483	28
Germania	43.431.000	81.305.856	644.480	534	67
Grecia	5.168.000	10.767.827	117.533	480	44
Ungaria	2.986.000	9.958.453	31.872	300	94
Italia	37.078.000	61.261.254	490.023	605	76
Polonia	18.744.000	38.415.284	425.700	488	44
Rusia	38.748.000	138.082.178	1.022.992	281	38
Slovacia	1.826.000	5.483.088	43.406	333	42
Slovenia	1.070.000	1.996.617	39.125	536	27
Suedia	4.447.000	9.103.788	581.332	488	8
Elveția	4.255.000	7.655.628	71.454	556	60
Regatul Unit	31.482.000	63.047.162	394.890	499	80
Ucraina	7.300.000	44.854.065	169.495	163	43
România	4.695.660*	21.305.097*	202.274**	220	23

Sursa: Asociația Producătorilor și Importatorilor de Automobile

Analiza deplasărilor rutiere pe rețeaua de drumuri indică o situație deficitară care se traduce în condiții proaste pentru participanții la trafic. Din această perspectivă se remarcă pe de o parte, sporirea parcului de vehicule și a indicelui de mobilitate cu o dinamică în timp foarte ridicată începând cu anul 2007, iar pe de altă parte o rețea rutieră la nivel național și la nivel local care a fost extinsă foarte puțin. Pe baza acestor considerente se poate afirma că în țara noastră calitatea serviciului de transport s-a depreciat substanțial în ultimii 10 ani și tendința de degradare se păstrează și pentru viitorul apropiat. În figura 9 este prezentată evoluția procentuală a principalilor indicatori pentru traficul rutier.

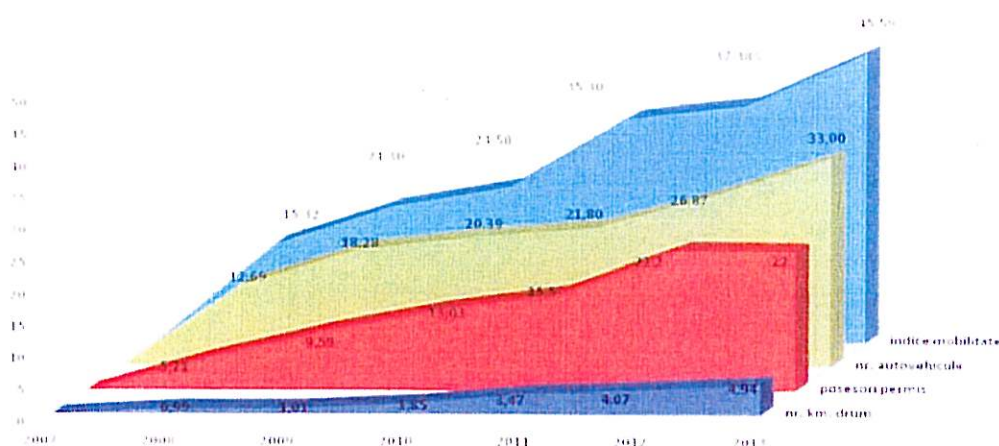


Fig. 9

Evolutia principalilor indicatori pentru traficul rutier

[sursa : Buletinul Sigurantei Rutiere – Raport anual 2013 – Inspectoratul General al Politiei]

### 3. Stadiul actual de realizarea proiectelor de infrastructura prevazute in studiile de urbanism anterioare

In vederea realizarii studiului de fundamentare pentru actualizare P.U.G. – Ploiesti au fost consultate principalele documente urbanistice care au definit politica de investitii in infrastuctura urbana. In acest sens s-au analizat: “Plan General de Urbanism” ed. 1999 si “*Master Plan de Transport Urban – Bucuresti, Sibiu si Ploiesti - Raport Final Ploiesti*”. In cadrul acestor documente, insusite de catre administratia municipiului, sunt prezentate o serie de propuneri cu privire la directiile de actiune sau chiar proiecte in vederea realizarii. In raport de documentele prezentate de catre beneficiar, in prezenta analiza a fost retinuta lista investitiilor in domeniul infrastructurii de transport implementate sau in curs de implementare, prezentate de care Directia Tehnica de Investitii a Primariei Ploiesti. Analiza stadiului de implementare a propunerilor urbanistice s-a realizat prin consultatii directe cu institutiile locale cu atributii in domeniul circulatiei din municipiul Ploiesti si prin verificari pe teren. In tabelul 3 sunt prezentate sintetic listele proiectelor propuse administratiei locale si statiile de implementare a acestora.



## LISTELE PROIECTELOR PROPUSE ADMINISTRATIEI LOCALE SI STATIILE DE IMPLEMENTARE A ACESTORA

PLANUL DE URBANISM GENERAL 1999 – prelungit 2009			
Capitolul propunerilor din P.U.G. 1999	Pozitia propunerilor in PUG	Propunere formulata in documentatia de urbanism	Stadiul de realizare la nivelul anului 2015
<b>4.2. EVOLUTIA POSIBILA, PRIORITATI</b>			
<b>4.2.8.1. Circulatii rutiere</b>			
		Realizarea unor artere de circulatie majore de categoria a I-a si a II-a	Nu s-au realizat
		Rezolvarea circulatiei in zona centrala	Propunere a fost realizata partial. Strazi modernizate: Tache Ionescu; Gh. Lazar; Dobrogeanu Ghenea
		Rezolvarea legaturii est-vest	Nu s-a realizat
		Rezolvarea circulatiei ocolitoare pentru traficul greu si de tranzit	Propunere a fost realizata partial. Varianta de ocolire vest
		Amenajarea intersectiilor principale de pe traseele majore	Propunere a fost realizata partial. Intersectia DN1A – centura est (Blejoi) - giratie

		Pasaje denivelate peste calea ferata pe directiile principale (pasaje noi sau exinderi).	Propunere a fost realizata partial. DJ 101D – str Tatarani – exindere DN72 – str. Cantacuzino – spre Targoviste Prelungire Marasesti – Gara de Vest - in executie 2015
		Dublarea numarului de benzi pe centurile vest si nord	Propunere a fost realizata partial pentru centura de nord Propunerea s-a realizat pentru centura de vest
		Realizarea de noi parcare in zonele de locuit	Propunerea s-a realizat in principal in zonele cu locuinte colective (blocuri).
		Marirea numarului de locuri de parcare sau garare din zona centrala	Propunerea s-a realizat in principal in zonele: piata de alimente, Palatul Administrativ, magazin Omnia, str Cuza-Voda.
		Exinderea transportului in comun interior si catre localitatile din periurban	Propunerea s-a realizat in principal prin promovarea transportului de persoane de catre societatile private de transport.
		Pasaje denivelate intre penetratii si centura	Propunere a fost realizata partial – pasaj denivelat intre DN1B – centura de est – (Paulesti).
		Strapungere de categoria a II-a intre garile de vest si sud.	Nu s-a realizat
		Exinderea traseelor de trolebuze	Propunere a fost realizata – fara a se putea preciza daca exinterile sunt suficiente
		Completarea si modernizarea parcului de autobuze	Propunere a fost realizata

		Parcaje tampon la intrarile in municipiu	Propunere a fost realizata partial – parcaj realizat la intrarea D102 – str Gageni
		Noi autogari	Propunere a fost realizata partial – autogara realizata la intersectia sos Nordului – str Gageni
		Traseu nou pentru centura de nord Bucov - Boldesti - Blejoi	Nu s-a realizat
	<b>4.2.8.2. Circulatii feroviare</b>		
		Electrificarea caii ferate: Ploiesti – Valeni si Ploiesti – Targoviste.	Nu s-au realizat
		Triplarea magistrelor: Bucuresti – Brasov si Bucuresti – Buzau.	Nu s-a realizat
		Masuri pentru reducerea poluarii intreprinderilor aferente S.N.C.F.R.	Nu s-au realizat
		Accese pietonale subterane / aeriene la peroanele din statii.	Propunere a fost realizata in statile: Gara de Vest si Gara de Sud
	<b>4.2.8.3. Circulatii aeriene</b>		
		Transformarea si modernizarea aereodromului sportiv – scoala Strojnic in aeroport pentru curse charter.	Nu s-a realizat

		Helioporturi in Strejnic si Ploiesti (zona hipodrom).	Nu s-au realizat
4.2.8.4. Alte probleme de circulatii			
	Trasee pietonale catre zonele de agrement Bucov si Paulesti		Propunere a fost realizata
	Piste biciclisti spre zonele de agrement		Propunere a fost realizata – zona din vecinatatea salii sporturilor Olimpia
	Pasaje pietonale sbuterane (in special in zona centrala)		Situatia actuala: <ul style="list-style-type: none"><li>pasajul pietonal pe bd. Republicii este <u>deschis</u> intre Palat administrativ si Complexul Comercial Omnia;</li><li>pasajul pietonal pe str. C.D. Gherea este <u>inchis</u>;</li><li>pasajul pietonal pe Bd. Bucuresti (zoa cladirii Timken) ea este <u>inchis</u>;</li><li>pasajul pietonal pe Bd. Bucuresti la intersectia cu str. Petrolului este <u>inchis</u>;</li></ul>
	Piste pentru rolleri in zonele verzi si de agrement		Propunere a fost realizata in zona salii sporturilor Olimpia
	Capitol 5 - DECALOG		
	Pct. 3	Sistemizarea circulatiei in zona centrala	Propunere a fost realizata partial. Strazi modernizate: Tache Ionescu; Gh. Lazar; Dobrogeanu Gherea
	Pct. 6	Strapungere strada 4 benzi (intre garile Vest si Sud).	Nu s-a realizat

<b>MASTER PLAN DE TRANSPORT URBAN – BUCURESTI, SIBIU SI PLOIESTI</b> <b>- Raport Final Ploiesti – European Aid/ 123579/D/SER/RO</b>		
<b>Proiect</b>	<b>Propunere formulata in proiectele propuse</b>	<b>Stadiul de realizare la nivelul anului 2015</b>
<b>Proiecte de infrastructura rutiera</b>		
	Pasajul subteran Marasesti	Propunerea este se realizeaza in zona Garii de vest - investitia este in desfasurare
	Pasajul suprateran Depoului între strada Rudului și zona Mimiui	Nu s-au realizat
	Pasajul suprateran Rafov între strada Lupeni și strada Rafov	Nu s-au realizat
	Două noi legături paralele cu râul Dâmbu de la strada Gageni la strada Strandului	Nu s-au realizat
	Închiderea Centurii Interne – faza I: legătură între strada Vestului – strada Depoului	Nu s-au realizat
	Închiderea Centurii Interne – faza II: lărgirea străzii Depoului și legătură între strada Depoului și strada Mircea cel Batran	Nu s-au realizat
	Închiderea Centurii Interne – faza III: legătură între strada Mircea cel Batran și strada Cornatel	Nu s-au realizat
	Închiderea Centurii Interne – faza IV: lărgirea străzii Cornatel	Nu s-au realizat

	Lărgirea drumului național 1B la patru benzi	Nu s-au realizat
	Lărgirea străzii Gageni și a drumului județean 102	Propunerea s-a realizat
	Racordarea între drumul național 1B și strada Gageni	Propunerea s-a realizat
	Lărgirea la patru benzi a rutei ocolitoare Ploiesti Vest	Propunerea s-a realizat
	Pasaj inferior la nivel la intersecția Tache Ionescu bulevardul Independentei	Nu s-au realizat
	<b>Transport Public: Ploiesti</b>	
	<b>TRAM</b> – Prioritate pentru tramvaie – Traseul 102 – Intersecția dintre Soseaua Vestului și strada Gh. Gr. Cantacuzino (Verde atunci când tramvaiul trece prin intersecție) (3.2 km)	Nu s-au realizat
	<b>TRAM</b> – Prioritate pentru tramvaie – Traseul 101 între Restaurant Nord si Banca Comerciala (Str Valeni) via Str. Gh.Doja (1.5 km)	Nu s-au realizat

		<p><b>TRAM</b> - Prioritate pentru tramvaie – Traseul 101 intre Restaurant Nord si Banca Comerciala (Str Valeni) via Str. Gh. Doja. (0.6 km)</p>	Nu s-au realizat	
		<p><b>TRAM</b> - Prioritate pentru tramvaie, Linile 101/102 intre Restaurant Nord si Spitalul Judetean (2 km)</p>	Nu s-au realizat	
		<p><b>TRAM</b> – Prioritate in in tersectie, Linia 102, int Soseanu Vestului si str Gh. Gr. Cantacuzino</p>	Nu s-au realizat	
		<p><b>TROLLEYBUS</b> – Junction priority, Route 244, entering terminus at end of route at Malu Rosu</p>	Nu s-au realizat	
		<p><b>TROLLEYBUS</b> – Junction priority, Route 244, exit from Elena Doamna St to Bdul. Republicii si intersectia Str. Vasile Lupu – Str. Trei Ierarhi</p>	Nu s-au realizat	
		<p><b>TROLLEYBUS</b> – Junction priority, Route 244, crossing between Pod Inalt St and Malu Rosu St.</p>	Nu s-au realizat	

		<b>BUS/TROLLEYBUS</b> – Junction priority for all routes departing from Coreco Hale stop into Carpati St.	Nu s-au realizat
		<b>ALL MODES</b> – Improved interchange at Gara de Sud (bus, trolleybus and tram)	Nu s-au realizat
		<b>ALL MODES</b> – Improved interchange at Hale Coreco (bus and trolleybus)	Nu s-au realizat
		<b>ALL MODES</b> – Improved interchange at Restaurant Nord (bus and tram)	Nu s-au realizat
		<b>TRAM</b> – New extension of track to connect Route 101 at Gara de Sud with Route 102 at Gara de Vest.	Nu s-au realizat
		<b>ALL SURFACE MODES</b> - Development of a Public Transport Stop Hierarchy and subsequent upgrade of facilities	Nu s-au realizat



		<b>ALL MODES</b> - Implementation of an integrated ticketing system	Nu s-au realizat
		<b>ALL MODES</b> - Implementation of a supporting passenger information strategy	Nu s-au realizat
		<b>ALL MODES</b> - Implementation of a comprehensive marketing strategy	Nu s-au realizat
<b>PROIECTE REALIZATE DE CATRE PRIMARIA MUNICIPIULUI PLOIESTI – in perioada 2010 - 2014</b>			
- cf. lista prezentata de catre Directia Tehnica de Investitii			
	<b>Denumirea proiectului</b>		
1	Cresterea mobilitatii transportului public prin reabilitarea traseului tramvaiului 102 cu lucrari vizand calea de rulare, statii cu peroane adaptate persoanelor cu dizabilitati, material rulant, elemente de semnalizare si automatizare - etapa II: B-dul Republicii- Bucla Vest		
2	Cresterea mobilitatii transportului public prin reabilitarea traseului tramvaiului 101 cu lucrari vizand calea de rulare, statii cu peroane adaptate persoanelor cu dizabilitati, material rulant, elemente de semnalizare si automatizare– etapa-I		
3	Cresterea mobilitatii transportului public prin reabilitarea traseului tramvaiului 101 cu lucrari vizand calea de rulare, statii cu peroane adaptate persoanelor cu dizabilitati, material rulant, elemente de semnalizare si automatizare–etapa II		

4	Accesibilitate si fluidizare trafic catre zona industriala Ploiesti Vest si Platforma industriala Brazi
5	Modernizare strada Rafov
6	Amenajari loc de joaca , loc de odihna si terenuri de sport Aleea Catinei nr.11P Cartier Nord
7	Refacere sistem rutier strada Dragos Voda
8	Modernizare strada Crangului (tronson str. Craitelor si str. Dumbravei)
9	Modernizare strada Lanariei
10	Modernizare strada Lunca Prutului
11	Refacere sistem rutier strada Bucegi
12	Modernizare strada Rubinelor
13	Modernizare strada Motilor
14	Modernizare strada Mitropolit Varlaam
15	Modernizare strada Ana Lugojana
16	Modernizare strada Santierului
17	Modernizare strada Saturn tr. I

18	Refacere sistem rutier strada Muntii Dobrogei
19	Modernizare strada Uranus
20	Modernizare strada Cercului
21	Modernizare strada Codrii Cosminului
22	Refacere sistem rutier strada Zmeului
23	Modernizare strada Azuga
24	Modernizare strada Bustenari
25	Modernizare strada Tanarul Muncitor
26	Modernizare strada Neptun
27	Modernizare strada Traian
28	Modernizare strada 13 Septembrie
29	Modernizare strada Victoriei
30	Modernizare strada Grigore Alexandrescu
31	Modernizare strada Scaieni

32	Modernizare strada Izvoare	
33	Modernizare strada Munteniei	
34	Modernizare strada Alecu Russo	
35	RK strada Rapsodiei	
36	RK str. Bobalna	
37	RK str. Ghe. Doja (tronson str. Romana - sens giratoriu Bariera Bucov)	
38	Modernizare strada Pacureti	
39	Amenajare parcare blocuri 6,7 str. Sg. Ghe.Mateescu	
40	Amenajare parcare str. Raristei ( Gradinita 10)	
41	Amenajare parcare bl.120 F(str. Enachita Vacarescu), bl.120 E (str.Vitejilor)	
42	Amenajare parcare Vest I strada Slt Erou Moldoveanu Marian etapa II(P 9)	
43	Amenajare parcare Vest I strada Slt Erou Moldoveanu Marian etapa III (P 10,P11)	
44	Amenajare parcare strada G-ral Eremia Grigorescu nr.20 P	

45	Amenajare parcare strada C-tin Brezeanu bloc 202
46	Modernizare strada Titan
47	RK Republicii (P-ta Mihai Viteazul - Catedrala)
48	Refacere sistem rutier strada Hanibal
49	Refacere sistem rutier strada Petre Negulescu
50	Refacere sistem rutier strada Petroniu
51	Refacere sistem rutier strada Transformatorului
52	Refacere sistem rutier strada Vasile Boierescu
53	Modernizare strada Petru Poni
54	Modernizare strada Cicero
55	Modernizare strada Fecioarei

56	Modernizare strada Posada
57	Modernizare strada Pricipatele Unite
58	Refacere sistem rutier strada Eufrosin Poteca
59	Refacere sistem rutier strada Agricultori
60	Refacere sistem rutier strada Dumbraveni
61	Refacere sistem rutier strada Bogdan Voda
62	Modernizare strada Sevastopol
63	Refacere sistem rutier strada Caminelor
64	Refacere sistem rutier strada Gazetei
65	Refacere sistem rutier strada Cioplea
66	Refacere sistem rutier strada Inotesti

67	Refacere sistem rutier strada Moreni
68	Modernizare strada Tintea
69	Modernizare strada Vintileanca
70	Modernizare strada Baicoi
71	Modernizare strada Ghiulului
72	Modernizare strada Livezilor
73	Modernizare strada Titeiului
74	Modernizare strada Gandului
75	Modernizare strada Pescarus
76	Modernizare strada Arnota
77	Modernizare strada Cerasului
78	Modernizare strada Trompetei
79	Modernizare strada Zorilor
80	Modernizare strada Otelului

81	Modernizare strada Ciabucet
82	Modernizare strada Olimpului
83	Modernizare strada Boian
84	Modernizare strada Aron Voda
85	Modernizare strada Graniceri
86	Modernizare strada Albisor
87	Modernizare strada Corabiei
88	Modernizare strada Tomis
89	Modernizare strada Poet Dimitrie Anghel
90	Modernizare strada Tinerimii
91	Modernizare strada Albesti



92	Modernizare strada Pictor Barbu Iscovescu
93	Modernizare strada Gheorghe Sion
94	Modernizare strada Grausorului
95	Modernizare strada Chindiei
96	Modernizare strada Turnatorului
97	Modernizare strada Salvador
98	Modernizare strada Graur
99	Modernizare strada Oituz
100	Modernizare strada Diaconu Coresi
101	Modernizare strada Bodocului
102	Modernizare strada Amzei

103	Modernizare strada Cap. Traian Dumitrescu
104	Modernizare strada Fagaras
105	Modernizare strada Corlatesti
106	Drumuri si accese Cartier Ghighiului (Brazi, Tinosu, Pietrosani, Tatarani, Alunis, Sima , Draganesti)
107	Reabilitare sistem rutier strazi Cartier 9 Mai
108	Modernizare Cartier Enachita Vacarescu
109	Modernizare Cartier Malu Rosu
110	Reparatii curente pasaj Gara de Sud
111	Reparatii capitale strazi si parcuri betonate, inclusiv canalizare, Cartier Mihai Bravu
112	Amenajare parcuri str. Ghe. Lazar si intersectia cu str. Stefan cel Mare si Dr. Bagdazar
113	Modernizare strada Dr. Bagdazar (tronson str.Gh.Lazar-str.N.Balcescu)

114	Modernizare strada Caineni
115	Modernizare si reabilitare strazi, inclusiv canalizare si racorduri Cartier Bereasca
116	Amenajare parcare B-dul Republicii si str. Ghe. Doja tr. III-IV
117	Amenajare parcare B-dul Republicii si str. Ghe. Doja tr. I-II
118	Amenajare parcare B-dul Republicii si str. Ghe. Doja tr. V
119	Amenajare parcare cu dale ecologice zona nord, zona vest si zona central-sud-est
120	Reparatii capitale strada Podul Inalt
121	Reparatie capitala strada Lapusna
122	Reabilitare si amenajare parcare bl.35 A-G strada Malu Rosu
123	Modernizare strada Pielari(tronsonul cuprins intre str. Carpenului si str. Alexandru Vlahuta)
124	Modernizare strada Splaiului (tronson cuprins intre strada Negru Voda si strada Dragos Voda)

125	Amenajare accese si parcare zona strazii Soldat Erou Arhip Nicolae- inclusiv proiectare
126	Amenajare parcare B-dul Republicii bl. A5, Aleea Codrului si Aleea Vlasiei
127	Reparatii capitale strada C-tin Brezeanu
128	Modernizare Cartier Penes Curcanul
129	Reparatii capitale parcare si accese cuprinse intre B-dul Bucuresti si str. Barcanesti si intre B-dul Bucuresti si strada Industriei
130	Refacere sisteme rutiere strazi Cartier Rafov (Petrut Cercel, Jiului, Dr.Ghe.Petrescu, Crisului, Cosmesti, Bihorului, Fundatura Petrolului, Arges, Intrarea Sticlarului, Intrarea Clubului)
131	Modernizare strazi Cartier Gheorghe Doja, inclusiv proiectare
132	Modernizare strazi Cartier Gageni
133	Refacere pavaj Palat Administrativ
134	Amenajare parcare Cartier Enachita Vacarescu
135	Amenajare esplanada Casa de Cultura a Sindicatelor

136	Amenajare pavaj pietonal Complex Nord si parcare
137	Amenajare parcare si pietonal strada Toma Caragiu (proiectare+executie)
138	Refacere sistem rutier strada Costilei, Salva Viseu, Tunari
139	Modernizare strazi in municipiul Ploiesti (proiectare si executie) - Fratiei, Horatiu, Peris- inclusiv canalizare, Ecoului, drum acces Ploiesti Triaj, Barzava, Aurora, Vidinului, Zanelor- inclusiv canalizare, Brazdei, Berzei, Dambovita- inclusiv canalizare, Rotari, Acarului, Lemnari - inclusiv canalizare, Dezrobirii - inclusiv canalizare, Neajlov- inclusiv canalizare, Otleni- inclusiv canalizare
140	Modernizare strada Varful cu Dor
141	Modernizare strada Cheia, inclusiv canalizare
142	Amenajare exteriora Sala Sporturilor Olimpia
143	Loc de odihna zona Casa Cartii
144	Loc de odihna zona Piata
145	Modernizare strada Caraiman (inclusiv canalizare)
146	Amenajare parcare strada Ghe. Doja (vis a vis SGU)

147	Sens giratoriu intersecție B-dul Republicii si strada Laboratorului		
148	Modernizare strada Mihai Bravu (tronson cuprins intre Nicolae Balcescu si strada Apelor)		
150	Modernizare str. Banesti (tronson cuprins intre str. Zidari si B-dul Republicii)		
151	Modernizare str. Sinaii (tronson cuprins intre str. Zidari si B-dul Republicii)		
<b>PROIECTE REALIZATE SAU IN CURS DE IMPLEMENTARE DE CATRE PRIMARIA MUNICIPIULUI PLOIESTI</b>			
- cf. lista prezentata de catre Directia Tehnica de Investitii			
	Denumirea proiectului	Stadiul de implementare	Sursa de finantare
1	Strapungere strada Grindului si amenajare parcare cu pavele inierbate (proiectare+executie)		buget local
2	Modernizare str. Toma Ionescu		buget local
3	Modernizare str. Rares Voda		buget local
4	Modernizare strada Panciu		buget local
5	Parcare supraterana str. Cuza Voda		buget local

6	Drum acces din strada Libertatii (proiectare + executie)			buget local
7	Amenajare loc de odihna str. Ghe. Doja (proiectare+executie)			buget local
8	Amenajare scuar zona nord str. Gageni bloc 110-111 (proiectare+executie)			buget local
9	Creare pasaj de trecere intre strada Depoului si strada Mimiului	in procedura de achizitie		credit intern
10	Asigurarea mobilitatii traficului prin prelungirea legaturii rutiere si de transport public intre Gara de sud si Gara de vest (strada Libertatii), inclusiv lucrarile de reabilitare a domeniului public al pietelor si garilor	Faza proiectare		fonduri europene
11	Accesibilitate si fluidizare trafic catre zona industriala Ploiesti Vest si platforma industrială Brazi - Supralargire strada Marasesti	Faza proiectare		fonduri europene
12	Cresterea accesibilitatii in partea de est a municipiului Ploiesti catre cordonul PAN european TEN IX prin realizarea pasajului rutier peste CF, in partea de S-E a municipiului Ploiesti	Faza proiectare		fonduri europene
13	Cresterea mobilitatii traficului prin realizarea terminalului multimodal incluzand si spatii de parcare pentru moduri de transport auto si biciclete (zona Spital Judetean) in municipiul Ploiesti	Faza proiectare		fonduri europene
14	Realizare drum acces parc municipal Vest	Faza proiectare		
15	Transformarea autobuzelor din functionare Diesel in functionare cu gaz petrolier lichefiat	Faza proiectare		fonduri Ministerul Mediului si Schimbarilor Climaterice

Ca o consideratie generala se poate afirma ca in perioada de timp 1999 – 2015 pe durata de valabilitate a Planului Urbanistic General, administratia locala a fost preocupata de imbunatatire conditiilor de transport in municipiul Ploiesti si in zonele periurbane invecinate. Avand in vedere faptul ca in aceasta perioada au existat o serie de situatii obiective cu conotatii socio-economice nefavorabile, o serie de proiecte nu au putut fi implementate sau chiar nu au fost incepute.

#### **4. Reteaua de transport in municipiul Ploiesti**

##### **4.1. Considerente asupra infrastructurii rutiere**

###### **4.1.1. Conexiuni rutiere a municipiului Ploiesti**

Municipiul Ploiesti reprezinta un nod important ce comunicatie rutiera care asigura legaturile rutiere in teritoriu atat in zona de influenta urbana catre localitatile invecinate, cat si un element de conexiune pentru traficul de tranzit pe directia nord-sud (Bucuresti – Brasov), dar si pe directie est- vest Targoviste – Buzau). Din aceasta perspectiva putem considera ca mobilitatea rutiera a orasului este influentata atat de traficul intern cat si de traficul pendular.

Referitor la traficul de tranzit pe directia nord-sud (Bucuresti – Brasov), acesta beneficiaza de variante ocolitoare orasului. Varianta de ocolire vest este caracterizata de amenajari rutiere care asigura o capacitate de circulatie ridicata. Pe acest tronson, drumul se suprapune peste traseul DN1. Varianta de ocolire vest are in sectiune transversala 4 benzi de circulatie, iar toate intersectiile la nivel sunt amenajate cu circulatie in sistem giratoriu. Intersectiile cu calea ferata sunt denivelate cu pasaje superioare modernizate.

Centura de est reprezinta o varianta de ocolire a orasului caracterizata de amenajari geometrice ale traseului cu numai 2 benzi de circulatie in sectiune transversala, (una pe fiecare sens). Traseul acestei variante se suprapune cu o portiune a drumului national DN1A. Intersectiile la nivel sunt partial modernizate, iar unele traversari ale caii ferate se realizeaza la invel. Din aceasta perspectiva se constata ca pe aceasta varianta de ocolire participantii



la trafic intampina o serie de restrictii atat pe traseu cat si in intersectii si la trecherile la nivel cu calea ferata. Vitezele de deplasare pe aceasta varianta sunt sensibil mai mici fata de varianta de ocolire vest. Rezultatul acestei situatii se traduce pentru participantii la trafic printr-o durata mai mare de deplasare (intarzieri mai mari) si printr-un mediu rutier care ofera conditii de siguranta rutiera sensibil mai reduse.

Solutia de ocolire prin partea de nord a municipiului Ploiesti este actualmente o combinatie de tronsoane rutiere formate din urmatoarele drumuri: DN1B si DN1A. In figura 10 sunt indicate variantele ocolitoare ale municipiului Ploiesti [sursa: [www/google maps](http://www.google.com/maps)].

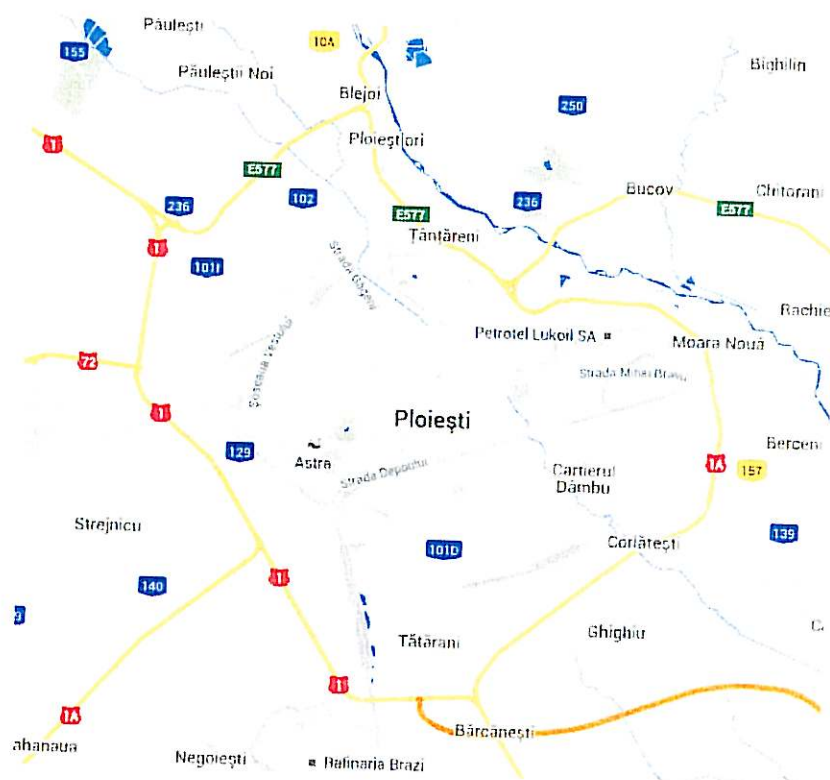


Fig. 10  
[sursa: [www/google maps](http://www.google.com/maps)].

Accesul rutier in municipiul Ploiesti este asigurat de o retea vasta de drumuri nationale si drumuri judetene:

- ° *Autostrada A3 - tronson Bucuresti – Ploiesti*
- ° *Drumuri nationale:*
  - DN1 - tronsoanele Bucuresti – Ploiesti si Ploiesti – Brasov

- DN1A – tronsoanele Bucuresti– Ploiesti via Buftea si Ploiesti - Brasov via Valeni
- DN1B – tronson Ploiesti – Buzau
- DN 72 – tronson Ploiesti Targoviste
- *Drumuri judetene:*
  - DJ101I – Ploiesti Nedelea
  - DJ102 – Ploiesti – Paulesti – Slanic
  - DJ101D – Ploiesti – Rafov
- *Drumuri comunale:*
  - DC92 – Ploiesti – Berceni
  - DC22A – Ploiesti Ghighiu

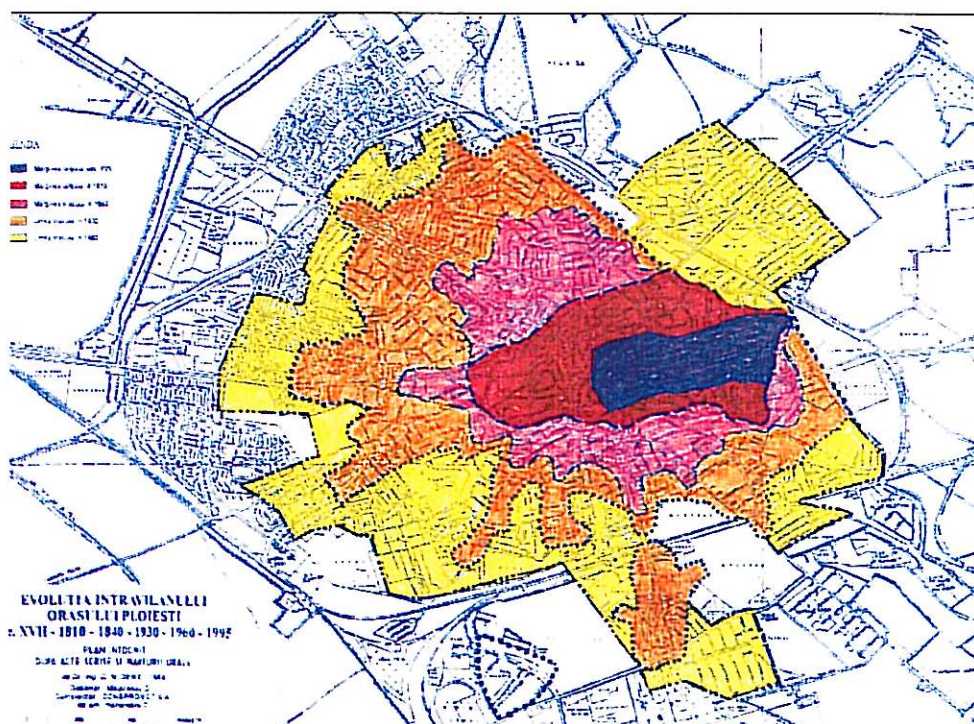
Referitor la tronsonul de autostrada A3 care leaga centura Ploiesti cu centura Bucuresti se poate afirma ca in momentul actual aceasta legatura este utilizata sub parametrii de trafic estimati prin studiile de fezabilitate. Aceasta situatie se explica prin faptul ca legatura rutiera la centura Bucuresti reprezinta o solutie tranzitorie de functionare cu un grad de aglomerare mare si pentru care utilizatorii inregistreaza intarzieri in trafic la intrarea in capitala. Pe de alta parte acest tronson de autostrada nu asigura decat foarte putine legaturi pe traseu la localitatile amplasate intre Bucuresti si Ploiesti. Din aceste motive multi participanti la trafic prefera traseul vechiului drum DN1 care din pacate traverseaza toate localitatile intre Bucuresti si Ploiesti. Pe traseul autostrazii A3 acoperirea cu semnal pentru telefoane mobile este asigurata partial.

Perspectiva realizarii autostrazii intre Ploiesti si Brasov reprezinta in momentul actual un set de dorinte care nu poate fi concretizat in proiecte finantabile. Estimam ca pentru un orizont de timp apropiat nu sunt intrunite conditiile de a definitiva solutii de finantare si executie a autostrazii catre Brasov.

#### **4.1.2. Reteaua de strazi**

Reteaua rutiera urbana a municipiului Ploiest este formata din circa 800 strazi care insumeaza o lungime de aproximativ 320km (cf. P.U.G.1999 – pf. 2.4.1).

Evolutia intravilanului municipiului Ploiesti sec XVII – 1810 -1840 -1930 – 1960 – 1995, prezentata in figura 11 explica configuratia retelui stradale a orasului si dezvoltarea in timp a acesteia. Din studierea documentelor cu caracter istoric in paralel cu analiza retelei stradale existente pe teren se constata ca in zona “orasului vechi” retea rutiera prezinta un tesut urban neomogen cu conexiuni rutiere scurte si cu un grad de sinuozitate a strazilor foarte ridicat. Putem afirma ca in aceasta parte a orasului traseele rutiere (strazile) sunt de fapt spatiile libere ramase intre proprietati care nu se poate inscrie intr-o gandire urbanistica coerenta.



Trebuie mentionat faptul ca in zona centrală și estică a orasului exista un tesut urban in care predomina locuințele individuale. In aceste zone, trama stradala are un aspect neregulat, cu un grad de sinuozitate sporit, fapt care determina



viteze de circulație modeste și pe cale de consecință o capacitate de circulație redusă. Strazile din aceste zone pot fi încadrate în categoria a III-a (2 benzi).

Dezvoltarea orașului modern, începând cu anii 1960 determină abordări diferite asupra conceptului de locuire astfel încât în zona de vest, zona în care se continuă dezvoltarea orașului, încep să apară locuințele colective (blocurile de apartamente), care determină realizarea unor artere de circulație cu capacitate de trafic mai mare și care au mai multe benzi de circulație în secțiune transversală. În cadrul acestor forme urbane arterele de circulație rutieră sunt caracterizate prin spații de deplasare cu secțiuni transversale care cuprind mai multe benzi de circulație pentru vehicule, încadrate cu spații pentru pietoni (trotuare), precum și unele spații verzi. Strazile din aceste zone pot fi încadrate în categoria I și a II-a.

Reteaua rutieră actuală a municipiului Ploiești cuprinde pe direcția nord – sud o importantă axă de circulație reprezentată de: Bd. Republicii – Bd. Independenței și Bd. București. Această conexiune rutieră este formată de strazi de categoria I și II cu 6 și respectiv 4 benzi de circulație în secțiune transversală.

Referitor la conexiunile pe direcția est – vest, acestea sunt deficitare. Remarcăm doar două artere str. Gh. Grigore Cantacuzino și parțial Gh. Doja care asigură parțial deplasările transversale orașului. Menționăm că aceste artere nu sunt conectate direct și în plus nu au aceleași caracteristici geometrice în secțiune transversală care să asigure volume ridicate de trafic. În figura 12 este prezentată de principiu trama strădă principală a municipiului Ploiești [sursa *www/google maps*]. În planșa nr. 1 a prezentului studiu este evidențiată rețeaua principală de strazi și categoria fiecăreia.



intersecțiilor dintre traseele rutiere și cele de cale ferată. [sursa: *Plan de Mobilitate Urbana Durabila pentru Polii de Crestere din Romania – Raport Interimar 1 feb 2015*]

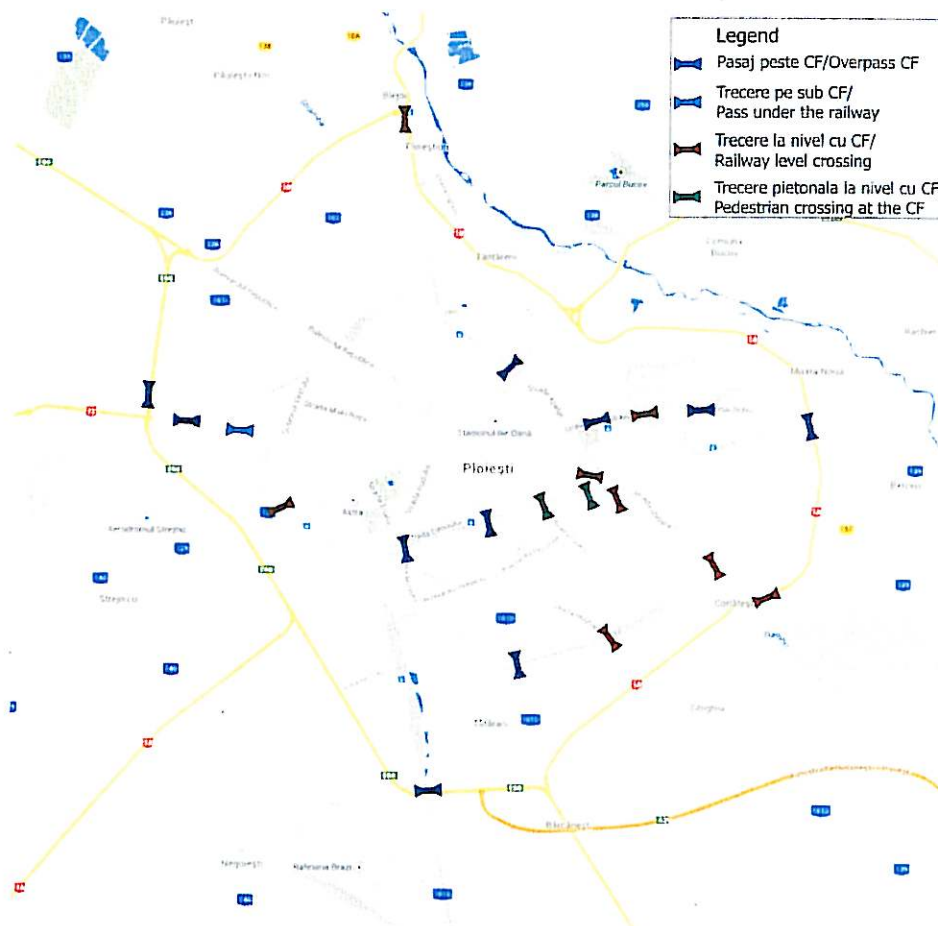


Fig. 13

Distributia intersecțiilor dintre traseele rutiere și cele de cale ferată  
[sursa: *Plan de Mobilitate Urbana Durabila pentru Polii de Crestere din Romania – Raport Interimar 1 feb 2015*]

Din punct de vedere a functionalitatii in teritoriu, municipiul reprezinta principalul nod de cale ferata din zona de dezvoltare Muntenia – sud. Nodul de cale ferata Ploiesti asigura interconectarea magistralelor C.F. in statiile “Ploiesti – Sud”, “Ploiesti – Vest”, “Ploiesti – Nord”. De asemenea in statia Ghigiu exista un triaj pentru vagoane. In afara statiilor mentionate mai sus, in zona de influenta a municipiului Ploiesti exista o serie de statii cf care conecteaza unitatile industriale: statia Est, statia Triaj, statia Crang si statia Dacia.

#### 4.3. Transportul public

În municipiul Ploiești transportul public de persoane este asigurat de către S.C. Transport Calatorii Express S.A. Ploiești. Aceasta a fost înființată în anul 2012 pe baza Hotărârii Consiliului Local nr. 220/2012, prin reorganizarea Regiei Autonome de Transport Public Ploiești.

Transportul public este asigurat cu următoarele tipuri de mijloace de transport : autobuze, tramvaie, troilebuze. În tabelul 4 sunt prezentate traseele transportului public precum și rutele pe care acesta se desfășoară [sursa: [www/ratp.ro](http://www/ratp.ro)].

Tabel 4

Tipul mijlocului de transport	Nr traseu	Ruta
Autobuz	1	METRO - CABLU- RAFINARIA ASTRA/COMAT
	2	GARA VEST -GARA DE SUD
	4	GARA NORD - GARA VEST
	4b	VEGA - HALE CATEDRALA
	5	SPITALUL JUDETEAN - MIHAI BRAVU
	7	DOROBANTUL - BARIERA RUDULUI
	8	HALE CATEDRALA - CIMITIR BOLVANI
	22/22b	POD INALT/AUCHAN - BARIERA UNIRII
	25rap	POD INALT - TORCATORI - GARA SUD
	28	SPITALUL JUDETEAN - UZTEL
	30	BLOC REPUBLICII - HIPODROM
	32/32b	HALE CATEDRALA - PROTAN
	35	LAMAITA - PALATUL CULTURII
	35b	BLOC 39 - PALATUL CULTURII
	36	POD INALT / BLOC 39 - UZTEL
	39/39b	POD INALT/HALE CATEDRALA - CARTIER PLOIESTI VEST
	40	HALE CATEDRALA - BEREASCA
	40b	HALE CATEDRALA - PARC C-TIN STERE
	42	POD INALT / COMAT
	44b	MALUL ROSU - UZTEL
	48	MALUL ROSU - COMAT
	52	DOMNISORI - GARA VEST/CANTACUZINO - UZTEL
	53	BLOC 39 - GARA DE SUD
	54	MALUL ROSU - BEREASCA
	104	ARMONIEI - UZTEL
	106	GARA SUD - UZTEL



	300	GARA DE SUD - POD INALT - P.I.P
	301	PROTAN - MALU ROSU - POD INALT - P.I.P
	302	FERO - CABLU ROMANESC - P.I.P
	303	RADU DE LA AFUMATI - SP.JUDETEAN - POD INALT - P.I.P
	304	GARA DE VEST - DOMNISORI - POD INALT - P.I.P
	305	ARMONIEI - LAMAITA - POD INALT - P.I.P
	306	HIPODROM - CABLU ROMANESC - POD INALT - P.I.P
	307	POD INALT - P.I.P
	401	HIPODROM - AFI PALACE
	402	LAMAITA - AFI PALACE
	444/444b	RAFINORILOR - GARA DE SUD/BARIERA RUDULUI
	445	BARIERA BUCURESTI - PLOIESTI TRIAJ
Tramvai	101	SPITALUL JUDETEAN – GARA DE SUD
	102	SPITALUL JUDETEAN – GARA DE VEST
Troleibuz	44	MALUL ROSU - GARA SUD
	202	POD INALT - GARA SUD

Traseele mijloacelor de transport public asigura conexiuni intre toate cartierele municipiului Ploiesti si zona centrala. In figura 14 este prezentata harta traseelor pentru transport in comun in municipiul Ploiesti [sursa : [www/ratp.ro](http://www.ratp.ro)].

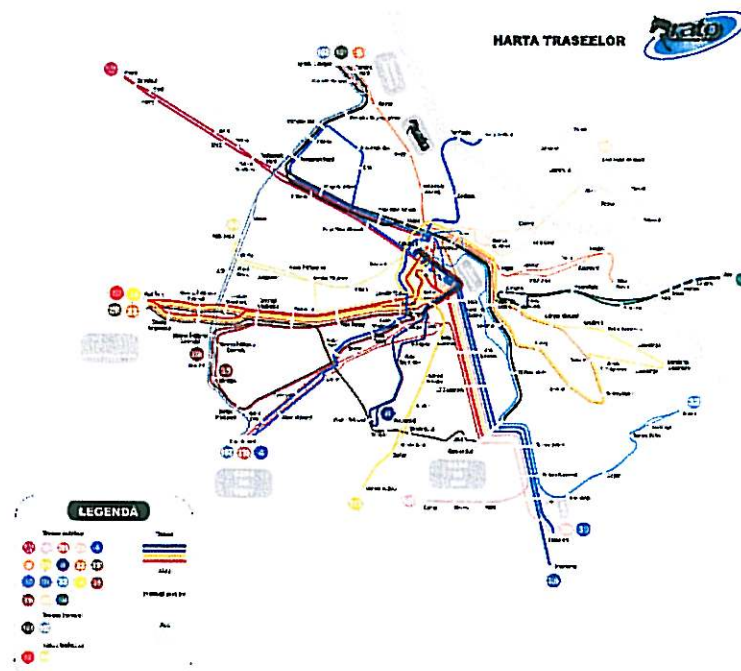


Fig. 14  
Traseele pentru transport in comun in municipiul Ploiesti  
[sursa : [www/ratp.ro](http://www.ratp.ro)].



#### 4.4. Transportul de marfuri

Referitor la transportul de marfuri trebuie mentionat faptul ca acesta se desfasoara in principal pe arterele de penetrare in oras, iar in zona centrala accesul vehiculelor de marfa este restrictionat din considerente ecologice si urbanistice. Politica de organizare a transportului de marfuri in interiorul orasului a fost reglementata de catre administratia locala prin *Planul Strategic de Logistica* adoptat in anul 2006. In figura 15 este prezentat planul zonelor urbane cu restrictii cu privire la transportul de marfa. [sursa: *Plan de Mobilitate Urbana Durabila pentru polii de crestere din Romania – Raport Interimar 1 feb 2015*]

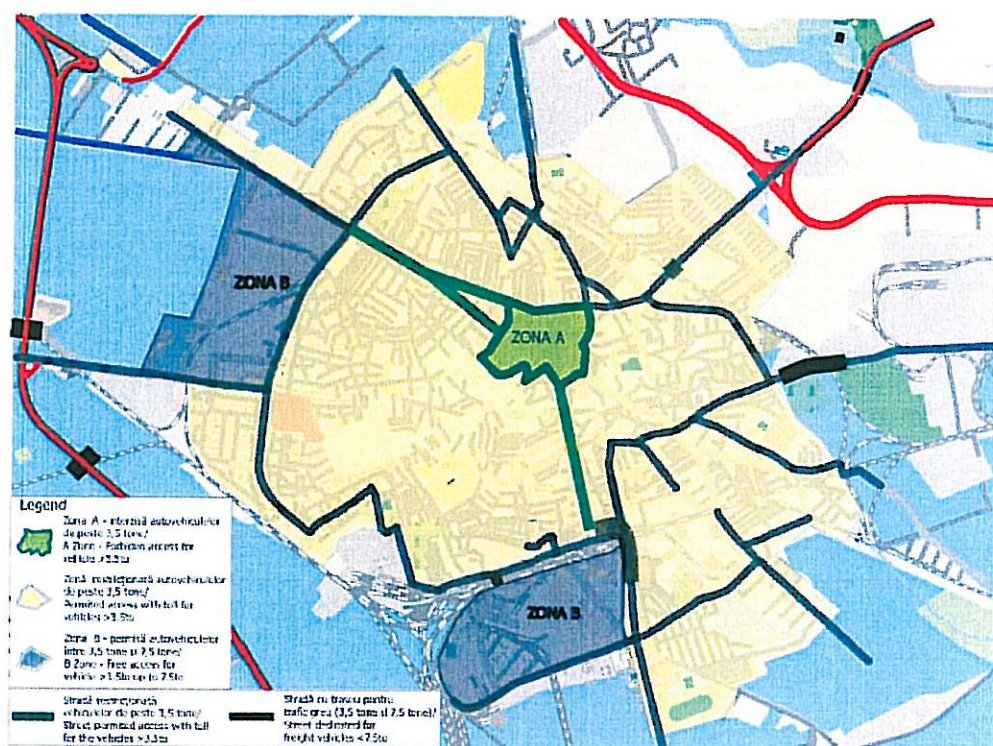


Fig. 15

#### Restrictii cu privire la transportul de marfa

[sursa: *Plan de Mobilitate Urbana Durabila pentru polii de crestere din Romania – Raport Interimar 1 feb 2015*]

#### 4.5. Parcarile

In municipiul Ploiesti parcare si stationarea vehiculelor reprezinta una din principalele probleme ale retelei rutiere urbane. In raport cu numarul de vehicule existent in municipiul Ploiesti (circa 100000 unitati), numarul spatiilor de parcare este total insuficient.



Daca consideram ca pentru un autoturism sunt necesari in medie circa 20mp (10mp la domiciliu si 10mp la destinatie), constatam ca la nivelul orasului sunt necesari circa:  $20\text{mp}/\text{auto} \times 100000 \text{ auto} = 2000000 \text{ mp}$ . Aceasta suprafata este echivalenta cu aproximativ *285km de drum cu doua benzi de circulatie*. Constatam ca aceasta suprafata necesara numai parcarii nu se regaseste decat in foarte mica masura pe suprafata orasului. Trebuie subliniat faptul ca suprafetele destinate parcarii nu trebuie inscise in suprafata de carosabilul destinata circulatiei. Avand in vedere faptul ca in municipiul Ploiesti reseaua rutiera cf. datelor prezentate de catre administratia locala, reprezinta circa *320km*. Din analiza datelor prezentate mai sus, rezulta faptul ca in momentul actual in municipiul Ploiesti, daca se doreste asigurarea spatiilor de parcare pentru toate autovehiculele, trebuie suplimentata substantial suprafata carosabila destinata parcarii.

Din analiza documentelor prezentate de catre beneficiar, (lista proiectelor realizate de catre primaria municipiului Ploiesti, Directia Tehnica de Investitii, in perioada 2010-2014), se remarca faptul ca Primaria Municipiului Ploiesti in perioada mentionata, a realizat un numar de 16 proiecte care au cuprins intre altele extinderea numarului de locuri de parcare.

#### **4.6. Circulatiile nepoluante: pietonii si biciclistii**

In municipiul Ploiesti pentru circulatia pietonilor sunt asigurate spatii de deplasare amenajate corespunzator. Traversarile arterelor de circulatie sunt semnalizate si marcate corespunzator. In intersectiile semaforizate timpii de verde asigura traversarea pietonilor in conditii corespunzatoare. In zona centrala in vecinatatea Palatului Administrativ si a pietii de alimente a fost organizata o zona de circulatie pietonala semnalizata si mobilata corespunzator.

Referitor la circulatia biciclistilor remarcam o serie de initiative pentru realizarea unor piste destinate acestui mod de transport, in general pe Bd. Bucuresti si in zonele cu locuinte colective pe Bd. Republicii. Pistele pentru biciclisti in forma in

care se prezinta nu incurajeaza deplasarea si chiar pot genera evenimente rutiere, prin lipsa masurilor de siguranta rutiera.

## **5. Analiza desfasurarii traficului de vehicule prin modelare numerica**

### **5.1. Consideratii asupra conceptului de modelare a traficului de vehicule**

Studiile de trafic analizeaza deplasarea vehiculelor pe retele rutiere sub forma fluxurilor de trafic. Din acest punct de vedere se constata ca traficul rutier se poate desfasura in "*flux continuu*" (fara opriri sau intarzieri) sau sub forma de "*flux intrerupt*". In practica, prima categorie de trafic corespunde deplasarilor in afara localitatilor, pe drumuri sau autostrazi. Categoria a doua (flux intrerupt) reprezinta situatia desfasurarii traficului in mediul urban. In concordanta cu cele aratate mai sus, rezulta ca traficul urban in cea mai mare parte, este caracterizat prin modele matematice care se inscriu in teoria de calcul a fluxului intrerupt. Fragmentarea deplasarilor de vehicule pe artere rutiere urbane este determinata de prezenta intersectiilor si de prezenta trecerilor de pietoni. In acest mod se poate intelege ca deplasarea vehiculelor prin intersectii determina o limitare a timpului in care un flux de circulatie poate traversa intersectia in decursul unitatii de timp (ora).

Avand in vedere aceste consideratii cu caracter teoretic general, in cadrul prezentului studiu de trafic au fost analizate cu prioritate conditiile de desfasurare a traficului de vehicule in intersectiile retelei rutiere din zona analizata. Desfasurarea deplasarilor de vehicule intre intersectii a fost analizata sub aspectul identificarii posibilelor obstacole care jeneaza desfasurarea traficului, influentand prin obstructionare sau prin limitarea sectiunii transversale a partii carosabile.

In cadrul analizei globale asupra desfasurarii traficului rutier in zona, au fost evaluate toate arterele care asigura deplasari ale vehiculelor, precum si intersectiile aferente.

## **5.2. Utilizarea tehnicii informationale in studiile de trafic**

Realizarea unui transport eficient necesita in permanenta o atenta analiza si o evaluare asupra modului in care se desfasoara deplasarile.

Se constata ca pentru stabilirea unei solutii de transport corecte si rationale, procesul de decizie trebuie sa se bazeze in politica de transport, pe analize si optimizari ale variantelor posibile. In aceste conditii, adoptarea solutiei pentru organizarea transporturilor poate fi privita ca o decizie manageriala cu contributii multidisciplinare din partea specialistilor (ingineri, urbanisti, economisti, specialisti de mediu, informaticieni, sociologi, etc.).

Utilizarea tehnicii informationale, a programelor specializate pentru domeniul ingineriei de trafic, reprezinta un domeniu de activitate cu multiple avantaje pe planul analizei si optimizarii solutiilor de transport. In acest sens, semnalam posibilitatea de a realiza analize ale modului in care se desfasoara traficul rutier folosind *conceptul de modelarea numerica*. Aceasta abordare ofera specialistilor posibilitatea modelarii pe calculator a retelelor rutiere urbane (artere si intersectii) prin generarea elementelor geometrice si declararea in intersectii a valorilor de trafic pentru care se doreste studiul de trafic.

Alegerea programelor de calcul necesita pe de o parte, cunoasterea cerintelor beneficiarului (conditii de tema, restrictii ale normelor tehnice), iar pe de alta parte, evaluarea in detaliu a performantelor programelor de calcul care se vor folosi ca instrumente de lucru. Programele de calcul care sunt folosite in domeniul studiilor de trafic, ofera posibilitatea realizarii de analize dinamice, in timp real, asupra variantelor propuse pentru analiza. In aceste conditii, remarcam faptul ca specialistul are la indemana un instrument de analiza, atat sub aspectul realizarii de modele de trafic, cat si sub aspectul optimizarii solutiilor pentru circulatia pe retele rutiere urbane.



### **5.2.1. Programul de modelare folosit si algoritmi de calcul ai modelului de calcul "Synchro"**

Pe piata I.T. destinata ingineriei de trafic, produsul IT "Synchro" reprezinta o solutie integrata pusa la dispozitia specialistilor din domeniul ingineriei de trafic.

Programul de calcul realizeaza modelarea retelelor rutiere urbane (artere si intersectii) prin generarea elementelor geometrice si declararea in intersectii a valorilor de trafic.

Analiza de trafic are la baza o teorie proprie de calcul a capacitatii de circulatie in intersectii I.C.U. (Intersection Capacity Utilisation), dezvoltata de specialistii de la compania "Trafficware Corporation" (Albany – California). In acelasi timp, in program, sunt utilizati si algoritmi de calcul dezvoltati de Manualul de Capacitate (H.C.M. 2000) al Administratiei Americane de Drumuri (A.A.S.H.T.O.). Referitor la coordonarea si optimizarea circulatiei, programul Synchro permite realizarea in timp real a unor scenarii pentru planificarea intersectiilor. Functiile de optimizare se realizeaza pe baza algoritmului de reducere a intarzierilor si evitarea blocajelor.

Functiile de optimizare abordeaza mai multe nivele de lucrari:

- ✱ Optimizarea lungimii ciclului de semaforizare si a fazelor in fiecare intersectie izolata. Pe baza acestui nivel de optimizare se poate realiza o partitie a retelei in mai multe subsisteme.
- ✱ Optimizarea lungimii ciclurilor de semaforizare in toate intersectiile de pe artera analizata.
- ✱ Optimizarea decalajelor intre faze in cadrul ciclurilor de semaforizare la intersectiile de pe artera analizata.
- ✱ In cazul retelelor rutiere urbane, cu ajutorul programului se poate realiza o analiza a diagramei timp–spatiu, care ofera posibilitatea stabilirii solutiilor optime pentru circulatia vehiculelor in sistemul coordonat de semaforizare. Marimea ferestrei de verde pentru artera analizata poate fi stabilita in variante multiple: artere de transport, artere comerciale, sensuri preferentiale cu prioritati diferite.

Analiza rezultatelor obtinute prin modelarea circulatiei se face cu ajutorul programelor de simulare si vizualizare "*SimTraffic*" sau "*CORSIM*". De asemenea, rezultatele pot fi exportate pentru programul "H.C.S." (Highways Capacity Software).

Utilizarea programului "*SimTraffic*" permite vizualizarea, pe modelul digital al intersectiei, circulatia vehiculelor in sistem animat, precum si scheme ale intersectiilor, in care sunt evidentiata rezultatele procesului de simulare.

In acest sens se pot analiza urmatoarele categorii de informatii:

- ▶ intarzierea vehiculelor la accesul in intersectie (sec);
- ▶ timpul de stationare a vehiculelor la intrarea in intersectie (sec/veh);
- ▶ viteza medie de circulatie prin intersectie (km/h);
- ▶ consumul de carburant (km/l);
- ▶ numarul de vehicule care nu pot intra in intersectie pe faze de verde;
- ▶ lungimea coloanei de vehicule care se acumuleaza la accese in intersectie.

### **5.2.2. Parametrii de analiza folositi de modelul de calcul "*Synchro*".**

In vederea modelarii cat mai fidele a desfasurarii traficului de vehicule au fost retinuti pentru analiza comparativa intre modelele realizate urmatoorii parametri:

#### ***Nivelul de servicii al intersectiei.***

Nivelul de serviciu pentru intersectiile se exprima ca o masura a discomfortului, frustrarii soferului, consumului de carburant si timpului crescut de calatorie. Intarzierea unui conducator auto este compusa dintr-un numar de factori legati de semaforizarea intersectiilor, traficul de vehicule, obstacole sau incidente. Intarzierea totala este data de diferenta dintre timpul total de calatorie si timpul de referinta al calatoriei. Aceasta rezulta in conditii ideale de circulatie: absenta semaforului electric in intersectie, absenta altor vehicule in intersectie.

*Nivelul de servicii* reprezinta masuri / limite rezonabile in aprecierea calitatii calatoriei in intersectii (intarzierea controlata):

Nivelul A (LOS A) descrie un nivel scazut al intarzierilor calculate, (maxim 10s/veh). Acest nivel de servicii este adoptat in caracterizarea circulatiei intr-o intersectie atunci cand deplasarea vehiculelor se face fara intarzii si majoritatea vehiculelor care sosesc pot traversa intersectia. Majoritatea vehicule nu opresc deloc. Lungimi scurte ale ciclului de semaforizare pot contribui la valori scazute ale intarzierilor.

Nivelul B (LOS B) exprima faptul ca intersectia functioneaza cu intarzii minore. Deplasarea vehiculelor in intersectie se face fara intarzii apreciabile. Valoarea estimata a intarzierilor se plaseaza intre 10 s/veh si 20 s/veh.

Nivelul C (LOS C) descrie deplasari ale vehiculelor in intersectie cu intarzierea limitata, cuprinse in marja de 20 s/veh pana la 35 s/veh. Aceste intarzii pot rezulta din deplasarea vehiculelor cu o viteza moderata. In aceste conditii poate sa apara fenomenul de supraincarcare a benzilor de circulatie. Numarul vehiculelor ce opresc la intersectie in cadrul unei functionari de nivel "C" sa fie insemnat, desi multe vehicule pot trece fara sa opreasca.

Nivelul D (LOS D) descrie deplasari ale vehiculelor in intersectie cu intarziere controlata mai mare de 35 s/veh pana la limita a 55 s/veh. In cadrul acestui nivel de servicii, influenta congestiei in trafic devine usor de remarcat. Intarzierile mai lungi pot rezulta din deplasari ingreunate ale vehiculelor si valori ale indicatorului volum/capacitate ( $v/c$ ) ridicate.

Nivelul E (LOS E) descrie conditii de circulatie ale vehiculelor in intersectie cu o intarziere controlata cuprinsa in marja 55s/veh - 80s/veh. Valorile ridicate ale intarzierilor indica viteza de deplasare redusa in intersectie si rate ridicate ale indicatorului volum/capacitate ( $v/c$ ). Numarul ciclurilor de semaforizare care nu pot asigura trecerea tuturor vehiculelor (acumulate in sirul de asteptare) pe faza de verde, este ridicat.

Nivelul F (LOS F) indica un nivel al intarzierilor mai mari de 80 s/veh. Acest nivel, considerat inacceptabil de catre majoritatea



soferilor, apare adesea în situația blocărilor în trafic. Din punct de vedere al debitelor care determină acest nivel ridicat al întârzierilor se poate remarca faptul că această situație are loc atunci când rata fluxului de sosire depășește capacitatea grupurilor de benzi de circulație. În cadrul acestui nivel de servicii viteza de deplasare a vehiculelor este redusă și adesea se observă opriri în flux.

Nivelul G (LOS G),  $1.00 < ICU = 1.09$ : Intersecția este cu 10% - 20% peste capacitatea sa și este probabil să se înregistreze congestii de 60 to 120 min pe zi. Cozile de așteptare sunt lungi și pot apărea blocaje frecvente.

Nivelul H (LOS H),  $1.09 < ICU$ : Intersecția este cu 20% peste capacitatea de circulație și pot apărea congestii de peste 120 min pe zi. Cozile de așteptare sunt lungi și pot apărea blocaje frecvente.

### **Capacitatea de circulație a intersecției**

Capacitatea de circulație a intersecției este măsurată prin intermediul coeficientului de utilizare a capacității de circulație a intersecției (I.C.U.). Coeficientul se calculează pe baza raportului dintre suma timpului total necesar pentru a se asigura relațiile de mișcare în intersecție a tuturor participanților la trafic, raportat la lungimea ciclului de semaforizare calculat.

Coeficientul I.C.U. indică rezerva de capacitate disponibilă a intersecției sau cu cât s-a depășit această rezerva. Coeficientul nu poate estima întârzierile, dar poate fi folosit pentru a indica când o intersecție va fi congestionată. Coeficientul I.C.U. poate fi de asemenea folosit pentru o intersecție nesemnalizată pentru a determina capacitatea de circulație.

### **Lungime estimată a sirurilor de așteptare**

Acest parametru exprimă calitatea traficului de vehicule la traversarea unei intersecții. Calculul sirurilor de așteptare se face în conformitate cu Manualul de Capacitate (H.C.M.) realizat de către administrația americană de drumuri (A.A.S.H.T.O.). Valorile estimate ale sirurilor de așteptare se calculează pt.

fiecare banda de circulatie si in concordanta cu dorinta de miscare in intersectie a participantilor la trafic. Pentru intersectiile nesemaforizate calculul teoretic al sirurilor de asteptare este prezentat in H.C.M. capitolul 17, (pag. 17-21). Lungimea medie a sirurilor de asteptare este rezultatul produsului dintre intarzierea calculata pentru fiecare relatie de miscare in intersectie si debitul orar pe banda de circulatie considerata.

$$L_{sir} = (d_i \times Q_i) / 3600 \text{ [veh]}$$

unde:  $d_i$  - intarzierea calculata pe banda "i"

$Q_i$  = debitul orar pe banda de circulatie

### **5.3. Modelul de desfasurarii traficului de vehicule**

#### **5.3.1. Masuratori de debite de trafic**

In vederea intocmirii studiului de trafic in cadrul prezentei lucrari, s-a realizat un program de investigatii asupra deplasarilor vehiculelor in intersetiile de pe reteaia majora de transport.

Programul de masuratori s-a realizat pe baza planului de situatie al municipiului Ploiesti. In vederea modelarii retelei rutiere s-au intocmit releveele alcatuirii geometrice a tuturor intersectiilor analizate. Cu aceasta ocazie au fost codificate intersectiile. In plansa 7 este prezentat planului de situatie al Municipiului Ploiesti si codificarea intersectiilor investigate.

Investigatiile de trafic realizate sunt de tipul "*sondaje de trafic*". Ele au urmarit inregistrarea debitelor de trafic pe categorii de vehicule. Inregistrările realizate au fost programate pentru o esantionare reprezentativa a traficului de vehicule atat in zilele de lucru cat si in zilele de la sfarsitul de saptamana. Intervalele de masuratori au fost alese de asa natura incat valorile masurate sa poata fi reprezentative pentru desfasurarea traficului.

Avand in vedere distributia zilnica a traficului rutier, s-a convenit ca inregistrările de debite, sa se realizeze in perioadelor orelor cu valori importante ale deplasarilor. Valorile pentru debitele de trafic s-au inregistrat pe categorii

distincte de vehicule: motociclete, autoturisme, autoutilitare, autocamioane peste 7.5t, autobuze, etc. Masuratorile inregistrate in cadrul sondajelor de trafic sunt prezentate in anexa 1.

Prelucrarea datelor inregistrate s-a facut prin transformarea traficului recenzat pe categorii de vehicule, in trafic exprimat in vehicule etalon turisme (v.e.t.). La transformare s-au utilizat coeficientii de echivalare stabiliti de normele in vigoare.

Pe baza masuratorilor inregistrate s-a intocmit planul curentilor de trafic pentru fiecare intersectie analizata.

In figurile urmatoare (fig.16 – fig.54 ) sunt prezentate in detaliu valorile debitelor de calcul exprimate in vehicule etalon turisme corespunzatoare fiecărei intersectii de pe reseaua rutiera majora analizata.

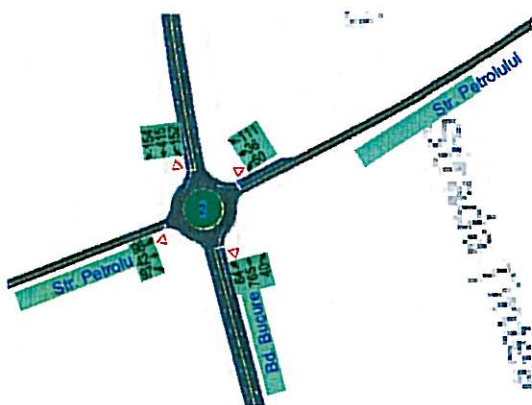


Fig.16



Fig.17

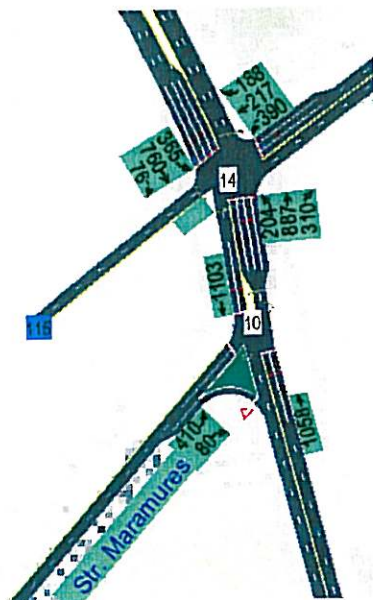


Fig.18

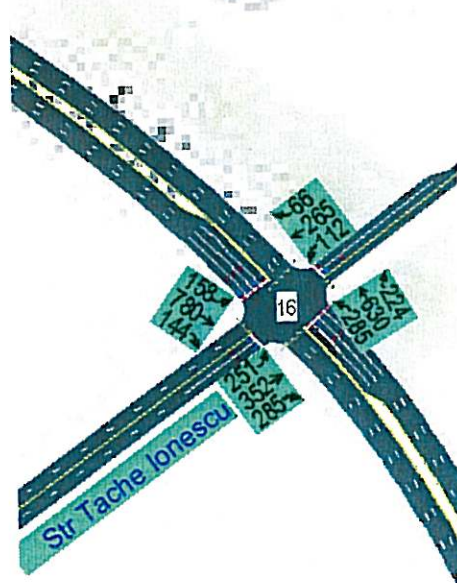


Fig.19

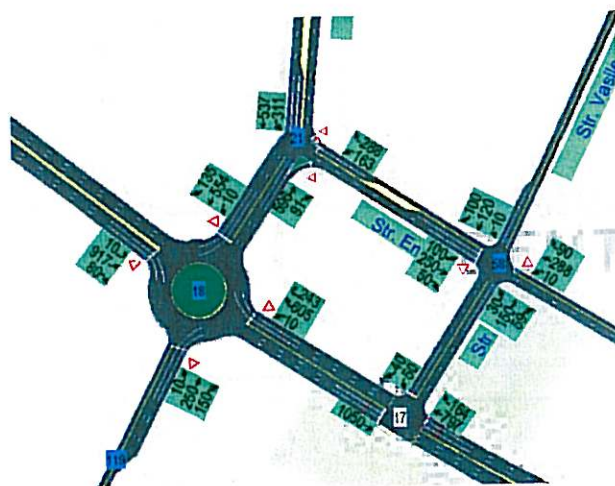


Fig.20



Fig.21

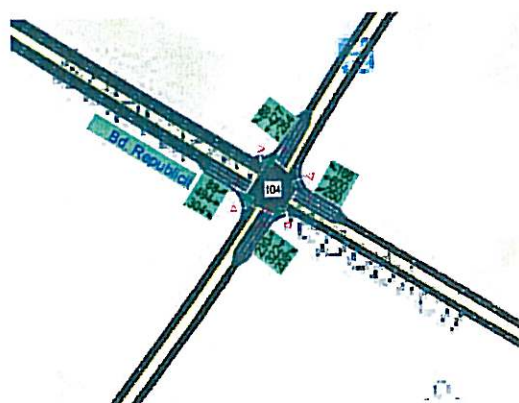


Fig.22



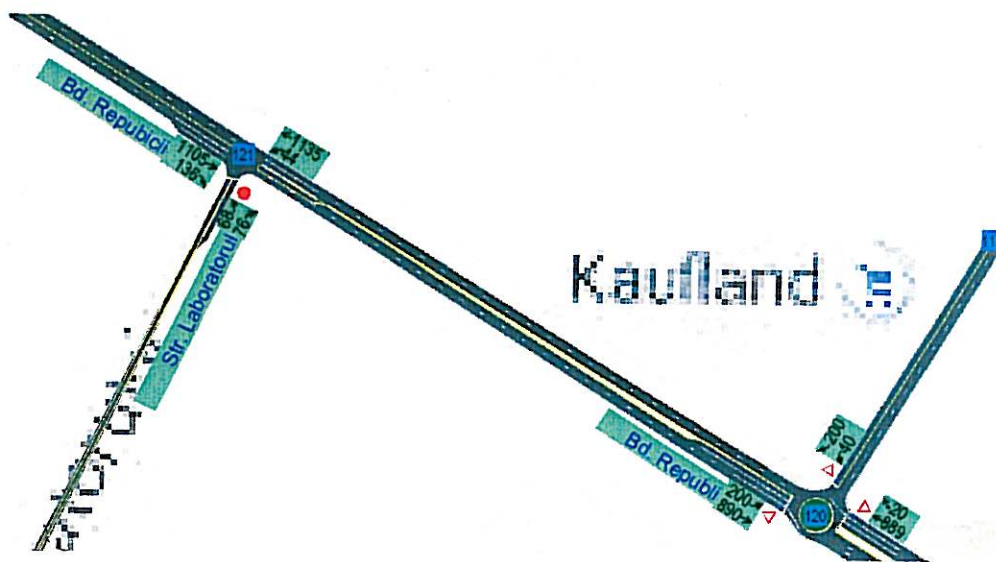


Fig.23

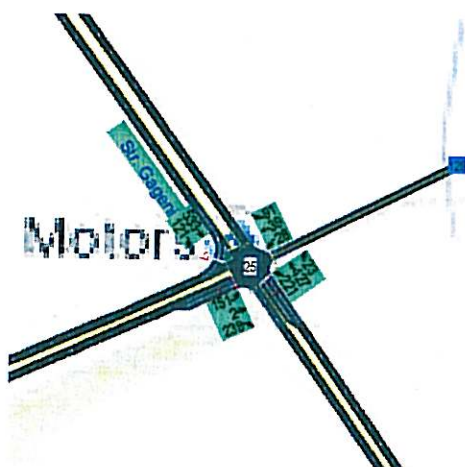


Fig.24

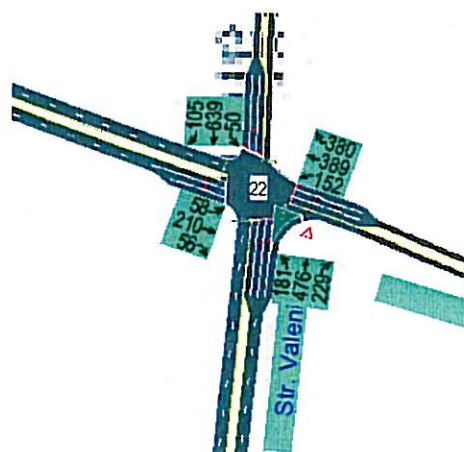


Fig.25

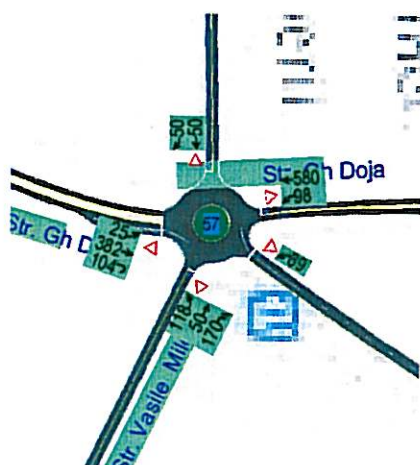


Fig.26

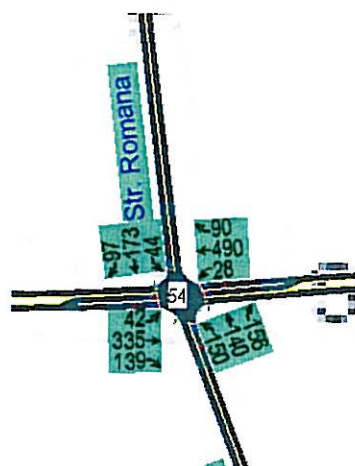


Fig.27

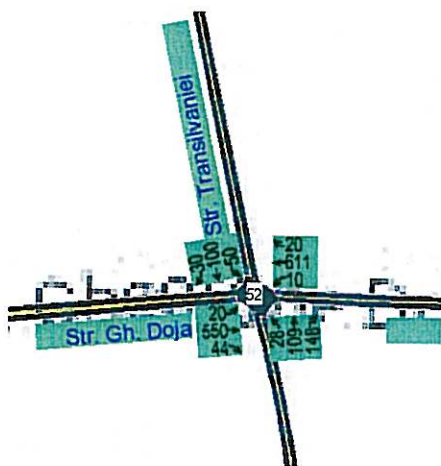


Fig.28



Fig.29



Fig.30

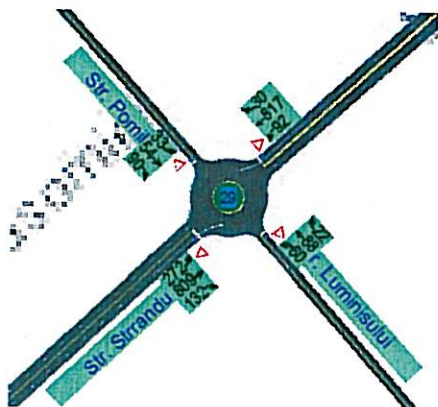


Fig.31

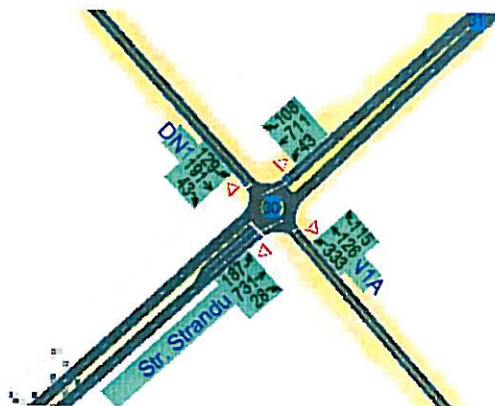


Fig.32



Fig.33



Fig.34





Fig.35

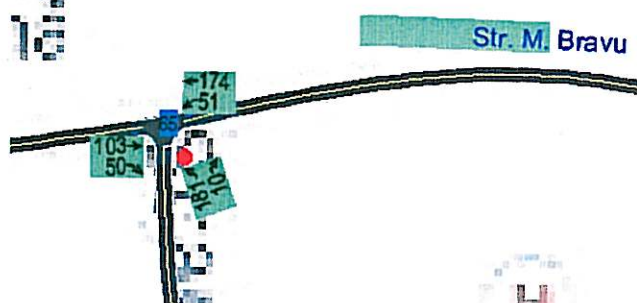


Fig.36

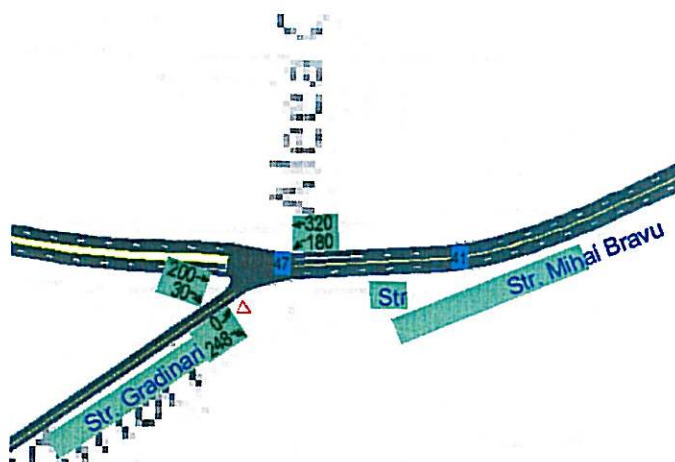


Fig.37

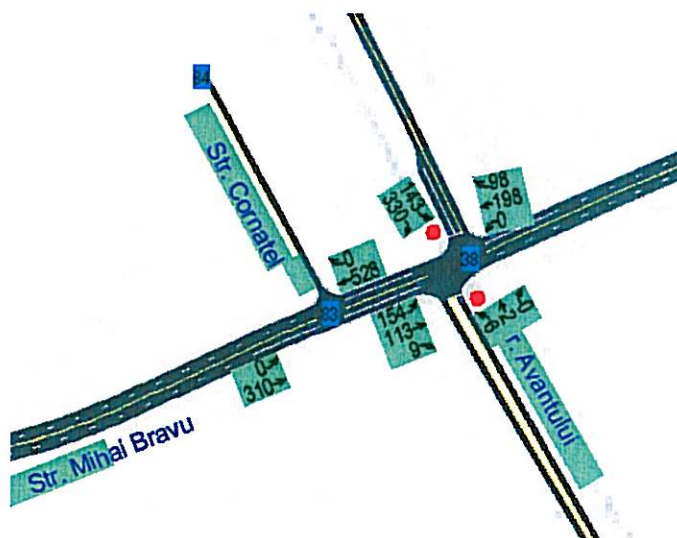


Fig.38

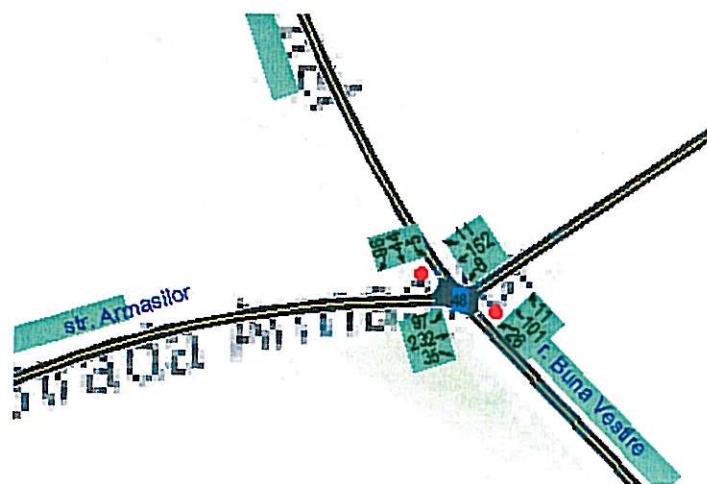


Fig.39



Fig.40

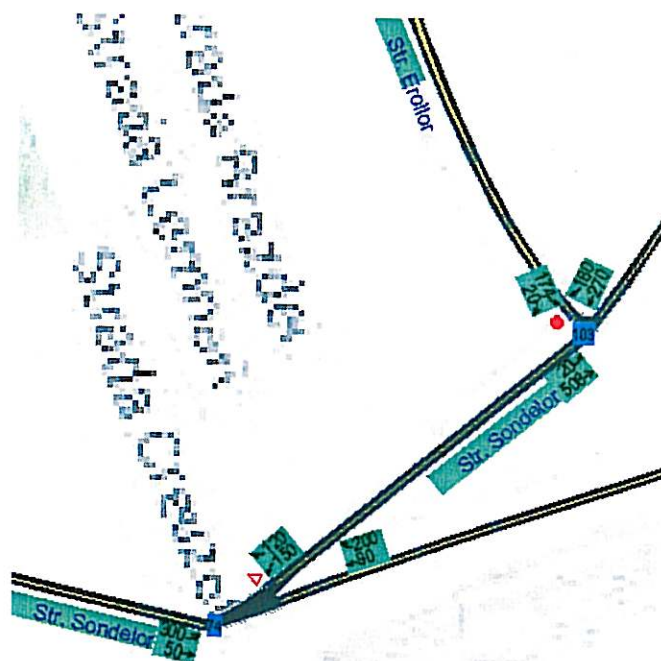


Fig.41



Fig.42

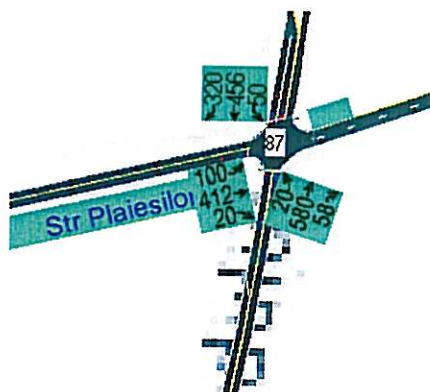


Fig.43

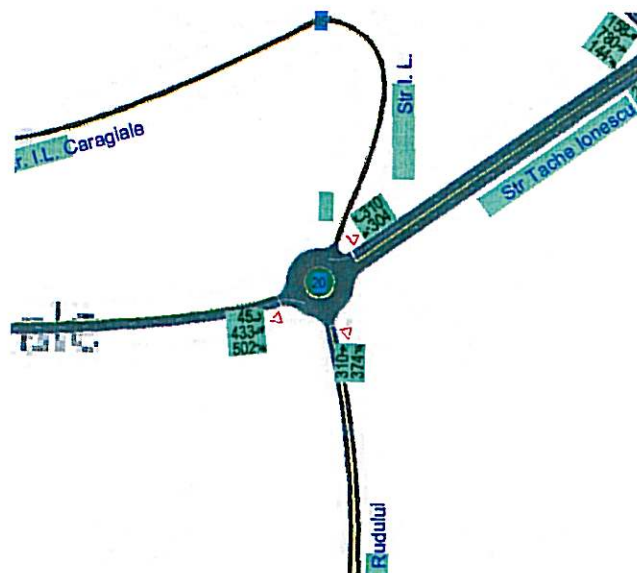


Fig.44

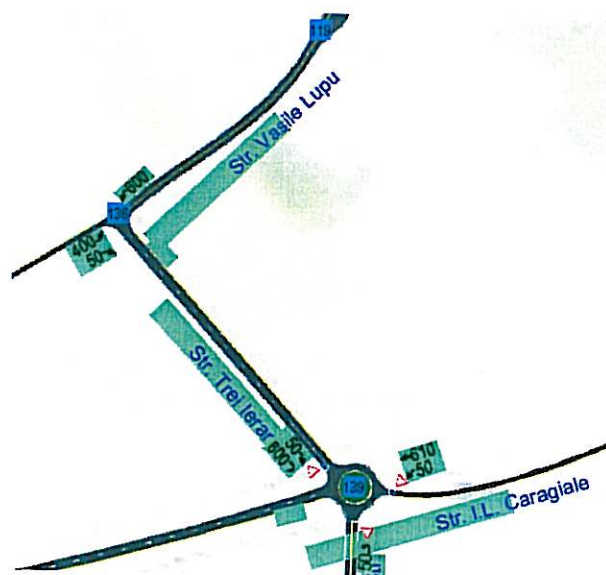


Fig.45

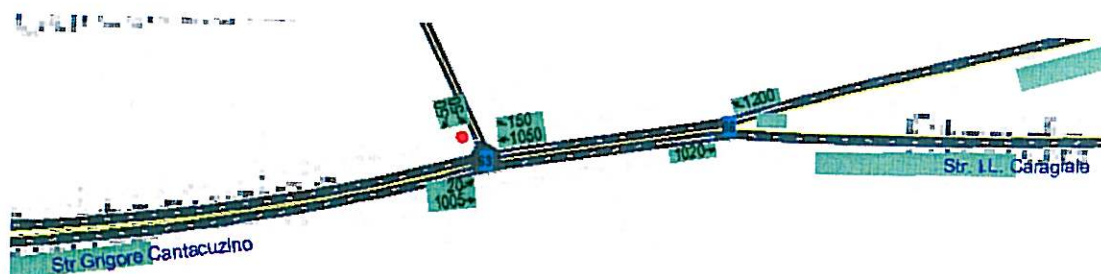


Fig.46



Fig.47

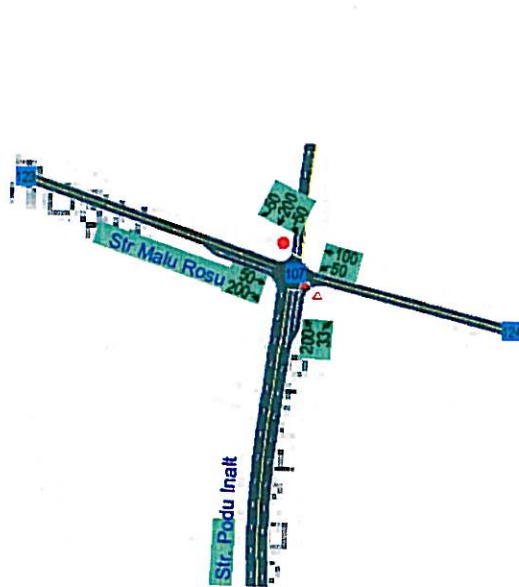


Fig.48

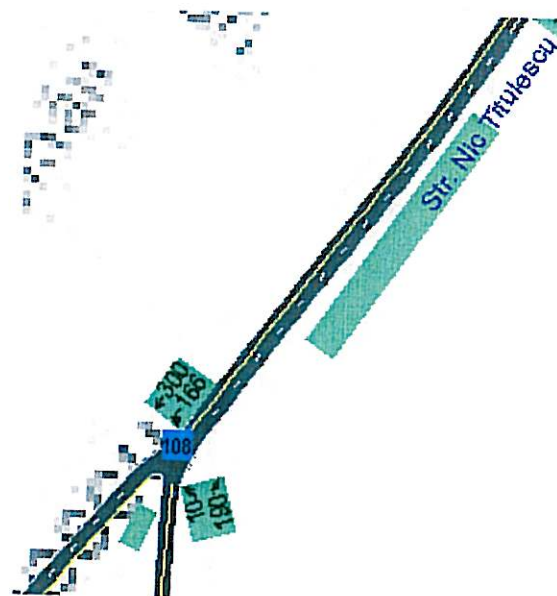


Fig.49





Fig.50

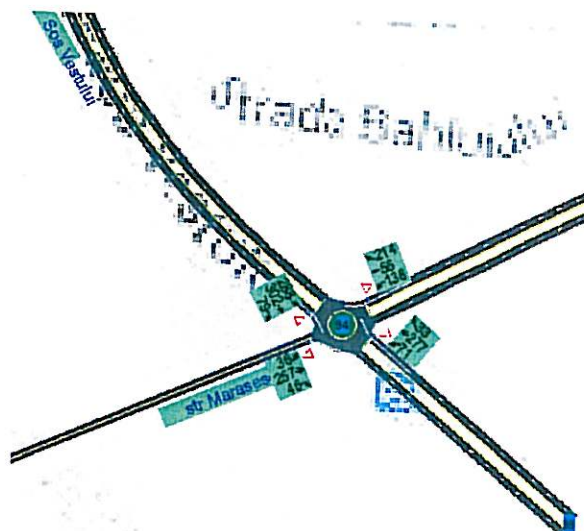


Fig.51

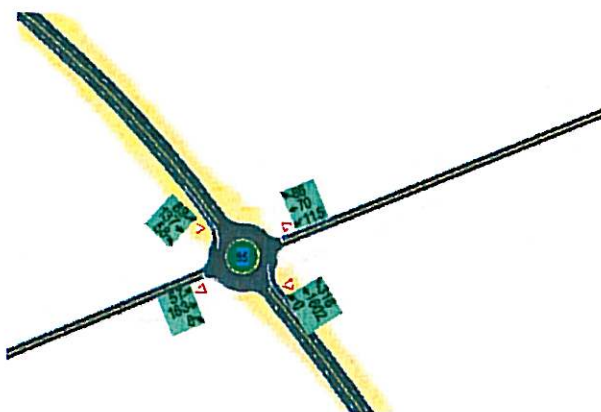


Fig.52

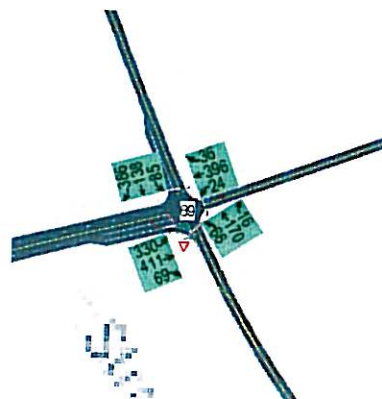


Fig.53

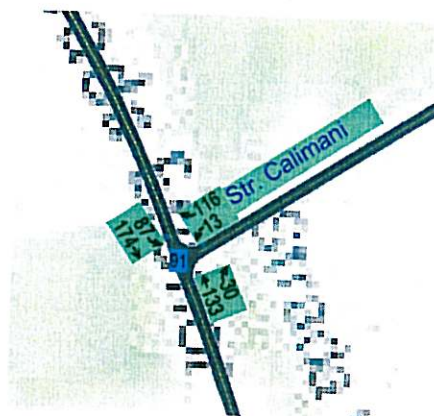


Fig.54

### **5.3.3. Model numeric pentru circulatia rutiera**

#### *Etape de studiu*

In cadrul prezentei lucrari au fost realizate urmatoarele etape:

- Evaluarea tramei stradale a municipiului si identificarea arterelor majore de transport rutier care vor fi introduse in modelul de trafic.
- Releveul retelei rutiere – artere, intersectii.
- Investigatii asupra desfasurarii traficului de vehicule in intersectii (masuratori de debite de trafic pe categorii de vehicule).
- Construirea modelului de trafic al circuletiei existente.
- Calibrarea modelului de trafic realizat prin compararea rezultatelor obtinute din simularea numerica cu valorile similare identificate pe teren.
- Formularea unor observatii care sa evidentieze deficiente ale desfasurarii traficului in municipiul Ploiesti.

La realizarea modelului numeric au fost introduse ca date de calcul particularitatile fiecărei intersectie din aria urbana analizata:

- alcatuirea si functionarea intersectiei;
- elementel geometrice ale fiecarui acces al intersectiei;
- semaforizarea daca exista;
- semnalizarea rutiera verticala;
- latimile identificate pe teren pentru fiecare strada;
- prezenta trecerilor de pietoni in intersectii;
- parcajele la bordura ale autovehiculelor;
- prezenta pistelor pentru biciclisti;
- existenta sensurilor unice pe artere.

### **5.3.4. Rezultate obtinute din simularea numerica**

Modelarea desfasurarii traficului de vehicule, precum si evaluarea rezultatelor obtinute se realizeaza prin analiza pe doua paliere:

- analiza parametrilor care caracterizeaza modelul de trafic. Acest set de informatii sunt furnizate de catre programul de modelare Synchro.



- analiza rezultatelor obtinute in urma simularii numerice a desfasurarii deplasarilor realizata cu ajutorul aplicatiei SimmTraffic.

Principalii parametri de analiza a calitatii desfasurarii traficului utilizati in evaluarea traficului sunt:

- Indicele de utilizare a capacitatii (I.C.U.)
- Nivelul de Servici (L.O.S.) in intersectiile semaforizate.
- Intarzieri medii in intersectii.
- Viteza medie de deplasare a vehiculelor
- Lungimea medie a sirurilor de asteptare la intrarea in intersectii.

In plansele anexate prezentului raport se pot identifica valorile parametrilor astfel:

- Planşa 8 – indicii de utilizare a capacitatii in fiecare intersectie cuprinsa in analiza.
- Planşa 9 - intrazieri medii calculate pe accese in intersectii.
- Planşa 10 – viteze medii estimate pe accese.

Valorile detaliate pentru toti parametrii rezultati din modelarea circulatiei si din simularea numerica sunt evidentiati astfel:

- ° in anexa 2 - *parametrii care caracterizeaza modelul de trafic.*
- ° in anexa 3 - *rezultatele obtinute in urma simularii numerice.*

## **6. Concluzii rezultate din studii si analize**

- In raport cu dimensiunile orasului, cu conditiile socio-economice aferente care determina nivelul cererii de mobilitate, se poate considera ca in municipiul Ploiesti, la nivelul anului 2015, transportul rutier se desfasoara in parametrii corespunzatori fara importante rezerve de capacitate de circulatie.
- In perioada 2010-2014 administratia locala a depus eforturi importante pentru modernizarea si extinderea infrastructurii rutiere

urbane. In acest sens se evidentiaza un numar de 151 de proiecte de infrastructura si are in desfasurare alte 15 proiecte aflate in diferite stadii de desfasurara (vezi tabel 4). In urma acestor proiecte au fost modernizate un numar apreciabil de strazi, a fost modernizata infrastructura de transport pe sine, s-a imbunatatit transportul public cu autobuzele, au aparut primele initiative pentru introducerea sistemelor moderne de management al traficului.

- Accesibilitatea traficului rutier catre municipiul Ploiesti s-a imbunatatit substantial prin definitivarea unor proiecte majore de transport realizate de catre Ministerului Transporturilor si Consiliului Judetean Prahova:

- › Modernizarea centurii de vest si implicit sporirea capacitatii de circulatie a acesteia.
- › Deschiderea circulatiei rutiere pe tronsonul autostrazii A3 (Bucuresti – Ploiesti).
- › Realizarea pasajului denivelat peste DN1 care asigura legatura DJ236 si mai departe accesul in zona de nord a municipiului Ploiesti.
- › Modernizarea unor drumuri judetene care acced in municipiului Ploiesti.

- Tendinta de dezvoltare economica a orasului determina in continuare sporirea cererii de transport. Acesta situatie se identifica in zona de nord unde au fost realizate o serie de dezvoltari imobiliare: centre comerciale si cartiere de locuinte.

## ***7. Disfunctionalitati inregistrate in transportul rutier***

### ***7.1. Deficiente identificate din analiza modelarii numerice a traficului rutier.***

Modelarea desfasurarii traficului rutier cu ajutorul “*modelelor de trafic*” indica o serie de zone urbane cu deficiente in desfasurarea deplasarilor:

- *Capacitate de circulatie* in intersectii exprimata prin “indicele de utilizare a capacitatii” indica un numar apreciabil de intersectii care

sunt aproape de capacitatea maxima. Din analiza acestui indicator se poate estima rezerva de capacitate de circulatie pe care o ofera intersectiile analizate. In acest sens remarcam ca intersectiile cu probleme, sub aspectul capacitatii de circulatie se gasesc de regula pe arterele de categoria a-II-a si a-III-a. Din analiza plansei nr.8 a prezentului studiu, care evidentiaza indicii de utilizare a capacitatii, putem identifica doua zone distincte ale orasului amplasate aproximativ in arealul central, in care in intersectii exista o rezerva de capacitate redusa care poate genera blocaje.

Zonele deficitare pot fi evidentiata astfel:

*grup 1* – Str. Gh. Doja, Postei, Nic. Balcescu, Tache Ionescu, Bd. Republicii.

*grup 2* – str Rudului, I.L.Caragiale, Grigore Cantacuzino, Sos. Vestului.

- *Nivelul de servicii al intersectiilor.* Acest parametru folosit in ingineria de trafic exprima calitatea deplasarii vehiculelor in intersectii sub aspectul timpilor pierduti la traversare. Intarzierile in intersectii determina viteze reduse de deplasare pe arterele care converg in intersectie si de asemenea se creeaza sansa de a se forma siruri de asteptare pe accese.

*Rezultatele obtinute din modelarea numerica indica o serie de intersectii in care circulatia se desfasoara cu dificultati. Deficientele identificate sunt evidentiata in tabelul 5. Din analiza datelor centralizate rezulta ca nivelul de interventie pentru imbunatatirea conditiilor de circulatie in intersectii se structureaza pe doua paliere de urgenta: Interventii pe termen scurt pentru intersectiile cu capacitate de circulatie depasita, si interventii pe termen mediu pentru intersectiile cu rezerva de capacitate de circulatie redusa.*

Tabel 5

Nr. intersecției	Artere	Organizarea circulației	Parametrilor care caracterizează modelul de trafic					Rezultatelor obținute în urma simulării numerice		Observatii
			Raportul vol/cap	Indicele de utilizare a capacității ICU	Rezerva de capacitate de circulație	Nivelul de servicii	Lungimea maximă a sirului de așteptare	Intârzieri medii în intersecție	Viteze medii posibile	
				%	%		m	sec/veh	km/h	
2	Str. Petrolului & Bd. București	giratie		66.9	33.1	C		6.1	38	
5	Bd. București & Democratiei	nes emaforizata		39.3	60.7	A		2.8	42	
6	Str. Veronica Micle & Bd. Independentei	giratie		77.5	22.5	D		42	19	Intersecție cu rezerva de capacitate redusă
9	Bd. Independentei & 13 Decembrie	semaforizare	0.94	41.4	58.6	A	26.30	10.8	38	
10	Str. Maramures & Bd. Independentei	semaforizare	0.69	48.9	51.1	A	23.10	7.8	31	
11	Str. Mihai Bravu & Armoniei	nes emaforizata		31.9	68.1	A		1.8	39	
14	Str. Gh. Lazar & Bd Independentei	semaforizare	0.85	71.2	28.8	C	17.10	16.1	16	Intersecție cu rezerva de capacitate redusă
15	Str. Nic. Balcescu & Gh. Lazar	nes emaforizata		39.6	60.4	A		7.9	18	
16	Str. Tache Ionescu & Bd. Republicii	semaforizare	1.76	92.2	7.8	F	25.00	17.7	23	Intersecție cu capacitate de circulație depasita
17	Str. Vasile Milea & Bd. Republicii	semaforizare	0.60	33.6	66.4	A	13.70	9.3	28	
18	Str. Carpati & Bd. Republicii	giratie		60.2	39.8	B		34.6	18	

Tabel 5 - continuare

20	Str. Rudului & Tașe Ionescu	giratie		102.8	-2.8	G		15.7	24	
21	Str. Emil Zola & Str. Carpati	nesemaforizata		47.9	52.1	A		10.5	22	
22	Str. Gh Doja & Str. Valeni	semaforizare	1.05	87.6	12.4	E	32.20	20	25	
25	Sos. Nordului & Str. Gageni	semaforizare	1.08	69.5	30.5	C	50.90	13.3	35	
28	Str. Pomilor & Str. Strandului	giratie		80.7	19.3	D		25.5	28	
30	DN1A & Strandului	giratie		76.5	23.5	D		19.5	25	
34	Str. Apelor & Strandului	giratie		71.7	28.3	C		53.4	12	
38	Str. Mihai Bravu & Str. Avântului	nesemaforizata		42.4	57.6	A		6.4	39	
39	Str. Gh Doja & Strandului	giratie		44.7	55.3	A		8.6	18	
43	Str. Buzau & Str. Postei	nesemaforizata		71.0	28.1	C		2.8	34	Intersecție cu rezerva de capacitate redusă
44	Str. Postei & Str. Stadionului	semaforizare	0.70	56.6	43.4	B	19.70	38	25	
45	Str. Iasului & Str. Neagoe Basarab	nesemaforizata		67.2	32.8	C		5.4	25	
47	Str. Mihai Bravu & Str. Grădinari	nesemaforizata		41.8	58.2	A		1.6	43	
48	Str. Armăsitor & Str. Udriste Năsturel	nesemaforizata		50.9	43.1	B		3.9	39	
49	Str. Gh. Doja & Str. Calomfirescu	nesemaforizata		80.3	19.7	E		1.7	39	Intersecție cu capacitate de circulație depășită
50	Str. Postei & Str. Ion Creangă	nesemaforizata		62.4	37.6	B		1.3	34	
52	Str. Gh. Doja & Str. Transilvaniei	semaforizare	0.67	70.2	29.8	C	28.90	12.6	26	Intersecție cu rezerva de capacitate redusă
54	Str. Gh Doja & Str. Romana	semaforizare	0.88	87.6	12.4	E	27.50	26.9	18	Intersecție cu capacitate de circulație depășită
56	Str. Găreanu & Romana	semaforizare	0.89	84.9	15.1	E	18.60	28.7	13	Intersecție cu capacitate de circulație depășită
57	Str. Gh Doja & Decebal	nesemaforizata		102.9	-2.9	G		34	13	Intersecție cu capacitate de circulație depășită



Tabel 5 - continuare

58	Str. Emil Zola & Str. Vasile Milea	nes emaforizata		64.1	35.9	C		8.5	23	
60	Bd. Republicii & Str. Andrei Muresan	semaforizare	1.00	100.0	0	G	55.80	45.7	22	Intersectie cu capacitate de circulatie depasita
63	Str. Grigore Cantacuzino & Str. Traian	nes emaforizata		54.5	45.5	A		2.8	40	
65	Str. Mihai Bravu & Str. Udriste Nasturel	nes emaforizata		41.4	58.6	A		4.4	39	
67	Str. Nicolae Balcescu & Mihai Bravu	semaforizare	0.77	84.2	15.8	E	29.40	13.2	11	Intersectie cu capacitate de circulatie depasita
70	Str. N. Balcescu & Str. Greceanu	semaforizare	1.03	105.5	-5.5	G	54.00	65.3	5	Intersectie cu capacitate de circulatie depasita
71	Str. Greceanu & Str. Iasului	nes emaforizata		42.8	57.2	A		2.6	30	
72	str. Gh. Lazar & Mihai Bravu	nes emaforizata		25.4	74.6	A		3.8	16	
74	Str. Sordelor & Depoului	nes emaforizata		61.9	38.1	B		5.8	40	
76	Str. D. Bagdazar & Str. Gh. Lazar	nes emaforizata		49.2	50.8	A		0.9	30	
77	Str. D. Bagdazar & Str. Nicolae Balcescu	semaforizare	0.67	47.1	52.9	A	15.90	9.1	15	
79	Str. Mihai Bravu & str. Avram Iancu	nes emaforizata		25.3	74.7	A		1.1	45	
81	Str. Dobrogeanu Ghenea & Basarabilor	nes emaforizata		47.7	52.3	A		2.3	19	
83	Str. Mihai Bravu & Str. Comatel	nes emaforizata		17.9	82.1	A		0.4	40	
86	Str. I.L. Caragiale & Str. Gr. Cantacuzino	nes emaforizata		45.3	54.7	A		1.7	41	
87	Str. Plaesilor & Str. Rudului	semaforizare	1.05	78.5	21.5	D	100.90	25	28	Intersectie cu capacitate de circulatie depasita
89	Str. Marasesti & str. Torcatori	semaforizare	0.72	83.9	16.1	D	24.30	11.7	38	Intersectie cu rezerva de capacitate redus a
90	Str. Grigore Cantacuzino &	semaforizare	0.86	67.3	32.7	C	21.10	13.1	35	
91	Str. Calimani & Str. Erolor	nes emaforizata		40.7	59.3	A		2.4	43	
92	Str. Grigore Cantacuzino & Sos Vestului	semaforizare	0.93	72.8	27.2	C	41.40	26.8	30	Intersectie cu rezerva de capacitate redus a



## **7.2. Problematica parcarii**

- Parcarea autovehiculelor este deficitara in multe zone ale orasului
- In zona centrala exista o grava lipsa de spatii de parcare pentru autoturisme atat pentru riverani cat si pentru vizitatori.
- In zonele cu locuinte colective nu exista o viziune unitara asupra parcarii de resedinta.
- Din materialele studiate nu a fost identificata o reglementare legata de spatiile de parcare, care sa fie aplicata in cadrul proiectelor de constructii noi.
- Nu exista un management al parcarilor si o viziune de dezvoltare a serviciilor de parcare pentru cetateni la nivelul municipiului. In momentul actual exista doar reglementari ale administratiei locale doar pentru taxarea autoturismelor in zona centrala. Sistemul de taxare este greoi si rudimentar.
- Pe strazile din zona veche a orasului cu artere care au 2 benzi in sectiune transversala, parcare vehiculelor la bordura sau pe trotuare, impiedica desfasurarea circulatiei rutiere si pietonale.

## **7.3. Semaforizarea**

Semaforizarea intersectiilor nu este coordonata in sistem de *"unda verde"* care sa asigure o deplasare fluenta a participantilor la trafic cu pierderi minime de timp.

## **7.4. Transportul public**

- Transportul public este adesea intarziat in trafic datorita faptului ca nu exista benzi specializate pentru aceasta categorie de vehicule.
- Nu exista suficiente amenajari ale statiilor pentru transport public in *"alveola"* in afara partii carosabile.

## **7.5. Conceptul *park and ride* si transportul multimodal**

- Nu este dezvoltat conceptul *"park and ride"* la accesele in municipiul Ploiesti.

- Nu exista abordari in nici un proiect pentru implementarea conceptului urban de « *transport multimodal* ». Amenajarile existente nu incurajeaza pasagerii de a folosi mai multe moduri de transport. Aceasta situatie este se intalneste cu precadere in toate statiile cf.

#### **7.6. Transportul cu bicileta**

Transportul cu bicileta nu este incurajat. Pistele dedicate pentru biciclisti nu au amenajari corecte si nu au continuitate. Din materialele studiate nu s-a identificat nici un proiect care sa solutioneze transportul cu bicileta la nivelul orasului sau macar pe cartiere.

#### **7.8. Siguranta rutiera**

Din materialele existente puse la dispozitie de catre beneficiar, nu au fost identificate preocupari ale administratiei pentru siguranta rutiera pe arterele orasului.

**7.9. O serie de proiecte propuse prin documentele urbanistice anterioare nu au fost indeplinite** – vezi tabel 4 al prezentului raport.

Intocmit  
dr.ing. **Valentin ANTON**

# **ANEXA 1**

## **ANEXA 2**

## **ANEXA 3**


















# **ANEXA 1**



# **ANEXA 2**

Lanes, Volumes, Timings  
2: Str. Petrolului & Bd. Bucuresti

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	96	42	97	20	36	111	64	465	40	152	415	154
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		30.0	0.0		0.0	0.0		0.0
Storage Lanes	0		0	0		1	0		0	0		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.944			0.946	0.850		0.990			0.968	
Flt Protected		0.980			0.989			0.994			0.990	
Satd. Flow (prot)	0	1624	0	0	1561	1418	0	3283	0	0	3197	0
Flt Permitted		0.980			0.989			0.994			0.990	
Satd. Flow (perm)	0	1624	0	0	1561	1418	0	3283	0	0	3197	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		501.8			373.1			275.9			840.5	
Travel Time (s)		36.1			26.9			19.9			60.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	104	46	105	22	39	121	70	505	43	165	451	167
Shared Lane Traffic (%)						28%						
Lane Group Flow (vph)	0	255	0	0	95	87	0	618	0	0	783	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary










Area Type: Other

Control Type: Roundabout

Intersection Capacity Utilization 66.9%

ICU Level of Service C

Analysis Period (min) 15

						
Lane Group	NBL	NBT	SBT	SBR	SEL	SER
Lane Configurations						
Volume (vph)	650	50	0	0	0	710
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	0.88
Frt						0.850
Flt Protected	0.950					
Satd. Flow (prot)	1668	1756	0	0	0	2627
Flt Permitted	0.950					
Satd. Flow (perm)	1668	1756	0	0	0	2627
Link Speed (k/h)		50	50		50	
Link Distance (m)		840.5	220.4		291.8	
Travel Time (s)		60.5	15.9		21.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	707	54	0	0	0	772
Shared Lane Traffic (%)						
Lane Group Flow (vph)	707	54	0	0	0	772
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.0	3.0		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Stop		Free	

#### Intersection Summary


Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 39.3%  
Analysis Period (min) 15

ICU Level of Service A



Lanes, Volumes, Timings  
6: Str. Veronica Micle & Bd. Independentei

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	0	160	84	450	60	440	136	550	380	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		30.0	0.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	0		0	0		1	0		0	0		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	0.95	0.95	0.91	0.91	0.91	0.95	0.95	0.95
Frt					0.951	0.850		0.968			0.976	
Flt Protected					0.978			0.995			0.976	
Satd. Flow (prot)	0	0	0	0	1551	1418	0	4617	0	0	3178	0
Flt Permitted					0.978			0.995			0.976	
Satd. Flow (perm)	0	0	0	0	1551	1418	0	4617	0	0	3178	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		276.8			291.8			71.0			661.5	
Travel Time (s)		19.9			21.0			5.1			47.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	174	91	489	65	478	148	598	413	196
Shared Lane Traffic (%)						26%						
Lane Group Flow (vph)	0	0	0	0	392	362	0	691	0	0	1207	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25	1.09	1.09	1.09	1.09	1.09
Sign Control		Yield			Yield			Free		15	25	15

Intersection Summary

Area Type: Other

Control Type: Roundabout

Intersection Capacity Utilization 77.5%

















ICU Level of Service D

Analysis Period (min) 15



Lanes, Volumes, Timings  
9: Bd. Independentei &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	0	20	0	0	25	0	890	10	0	1150	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	1.00
Frt			0.865			0.865		0.998				
Flt Protected												
Satd. Flow (prot)	0	0	1519	0	0	1519	0	3329	0	0	3336	0
Flt Permitted												
Satd. Flow (perm)	0	0	1519	0	0	1519	0	3329	0	0	3336	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			15			42		3				
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		94.3			218.8			661.5			406.9	
Travel Time (s)		6.8			15.8			47.6			29.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	22	0	0	27	0	967	11	0	1250	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	22	0	0	27	0	978	0	0	1250	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type			custom			custom	Perm					
Protected Phases								2			6	
Permitted Phases			4			8	2					
Minimum Split (s)			20.0			20.0	20.0	20.0			20.0	
Total Split (s)	0.0	0.0	20.0	0.0	0.0	20.0	20.0	20.0	0.0	0.0	20.0	0.0
Total Split (%)	0.0%	0.0%	50.0%	0.0%	0.0%	50.0%	50.0%	50.0%	0.0%	0.0%	50.0%	0.0%
Maximum Green (s)			16.0			16.0	16.0	16.0			16.0	
Yellow Time (s)			3.5			3.5	3.5	3.5			3.5	
All-Red Time (s)			0.5			0.5	0.5	0.5			0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)			5.0			5.0	5.0	5.0			5.0	
Flash Dont Walk (s)			11.0			11.0	11.0	11.0			11.0	
Pedestrian Calls (#/hr)			0			0	0	0			0	
Act Effct Green (s)			16.0			16.0		16.0			16.0	
Actuated g/C Ratio			0.40			0.40		0.40			0.40	
v/c Ratio			0.04			0.04		0.73			0.94	
Control Delay			5.2			2.7		14.4			28.3	
Queue Delay			0.0			0.0		0.0			0.0	
Total Delay			5.2			2.7		14.4			28.3	
LOS			A			A		B			C	
Approach Delay								14.4			28.3	
Approach LOS								B			C	
Stops (vph)			10			6		695			904	
Fuel Used(l)			0			1		82			90	



Lanes, Volumes, Timings  
9: Bd. Independentei &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
CO Emissions (g/hr)			9			13		1519			1659	
NOx Emissions (g/hr)			2			3		296			323	
VOC Emissions (g/hr)			2			3		352			385	
Dilemma Vehicles (#)			0			0		0			0	
Queue Length 50th (m)			0.2			0.0		18.1			26.3	
Queue Length 95th (m)			1.9			1.4		28.7			#50.3	
Internal Link Dist (m)		70.3			194.8			637.5			382.9	
Turn Bay Length (m)												
Base Capacity (vph)			617			633		1333			1334	
Starvation Cap Reductn			0			0		0			0	
Spillback Cap Reductn			0			0		0			0	
Storage Cap Reductn			0			0		0			0	
Reduced v/c Ratio			0.04			0.04		0.73			0.94	

Intersection Summary

Area Type: Other  
 Cycle Length: 40  
 Actuated Cycle Length: 40  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.94  
 Intersection Signal Delay: 21.8  
 Intersection Capacity Utilization 41.8%  
 Analysis Period (min) 15  
 Intersection LOS: C  
 ICU Level of Service A  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.







Splits and Phases: 9: Bd. Independentei &











Lanes, Volumes, Timings  
10: Str. Maramures &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

						
Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations		↑↑	↑↑		↑↑	↑
Volume (vph)	0	1058	1103	0	410	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0			0.0	0.0	40.0
Storage Lanes	0			0	2	1
Taper Length (m)	7.5			7.5	7.5	7.5
Lane Util. Factor	1.00	0.95	0.95	1.00	0.97	1.00
Flt Protected					0.950	
Satd. Flow (prot)	0	3336	3336	0	3236	1492
Flt Permitted					0.950	
Satd. Flow (perm)	0	3336	3336	0	3236	1492
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)						49
Link Speed (k/h)		50	50		50	
Link Distance (m)		406.9	58.7		193.8	
Travel Time (s)		29.3	4.2		14.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1150	1199	0	446	87
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1150	1199	0	446	87
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	3.0		6.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25			15	25	15
Turn Type						Perm
Protected Phases		2	6		4	
Permitted Phases						4
Minimum Split (s)		20.0	20.0		20.0	20.0
Total Split (s)	0.0	30.0	30.0	0.0	20.0	20.0
Total Split (%)	0.0%	60.0%	60.0%	0.0%	40.0%	40.0%
Maximum Green (s)		26.0	26.0		16.0	16.0
Yellow Time (s)		3.5	3.5		3.5	3.5
All-Red Time (s)		0.5	0.5		0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)		5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0
Act Effct Green (s)		26.0	26.0		16.0	16.0
Actuated g/C Ratio		0.52	0.52		0.32	0.32
v/c Ratio		0.66	0.69		0.43	0.17
Control Delay		11.1	10.2		15.0	7.9
Queue Delay		0.0	0.2		0.0	0.0
Total Delay		11.1	10.4		15.0	7.9
LOS		B	B		B	A
Approach Delay		11.1	10.4		13.8	

Lanes, Volumes, Timings  
10: Str. Maramures &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

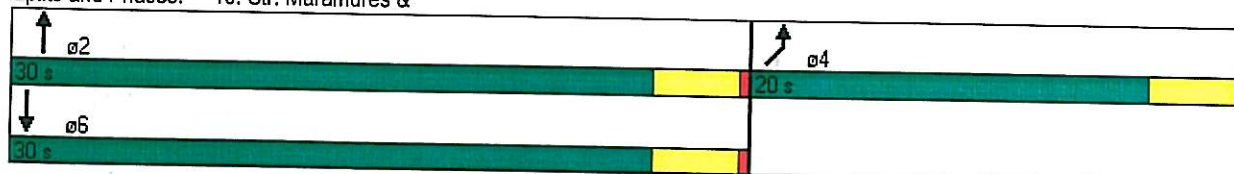
						
Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Approach LOS		B	B		B	
Stops (vph)		709	806		303	32
Fuel Used(l)		66	33		25	4
CO Emissions (g/hr)		1218	608		470	72
NOx Emissions (g/hr)		237	118		92	14
VOC Emissions (g/hr)		282	141		109	17
Dilemma Vehicles (#)		0	0		0	0
Queue Length 50th (m)		23.1	18.0		10.4	1.5
Queue Length 95th (m)		34.3	45.6		16.9	6.3
Internal Link Dist (m)		382.9	34.7		169.8	
Turn Bay Length (m)						40.0
Base Capacity (vph)		1735	1735		1036	511
Starvation Cap Reductn		0	92		0	0
Spillback Cap Reductn		0	0		0	0
Storage Cap Reductn		0	0		0	0
Reduced v/c Ratio		0.66	0.73		0.43	0.17

Intersection Summary

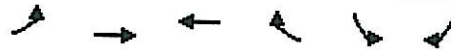
Area Type: Other  
 Cycle Length: 50  
 Actuated Cycle Length: 50  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
 Natural Cycle: 45  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.69  
 Intersection Signal Delay: 11.3  
 Intersection Capacity Utilization 48.9%  
 Analysis Period (min) 15

Intersection LOS: B  
 ICU Level of Service A

Splits and Phases: 10: Str. Maramures &







Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations			↑		↓	
Volume (vph)	0	0	300	55	30	70
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.979		0.906	
Flt Protected					0.985	
Satd. Flow (prot)	0	0	1719	0	1567	0
Flt Permitted					0.985	
Satd. Flow (perm)	0	0	1719	0	1567	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		86.8	162.5		39.0	
Travel Time (s)		6.2	11.7		2.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	326	60	33	76
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	386	0	109	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25			15	25	15
Sign Control		Stop	Free		Stop	

#### Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 31.8%





















ICU Level of Service A

Analysis Period (min) 15



Lanes, Volumes, Timings  
14: Str. Gh. Lazar &













Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	204	887	310	365	760	76	0	0	0	390	217	188
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		30.0	30.0		0.0	0.0		0.0	0.0		30.0
Storage Lanes	1		1	1		0	0		0	1		1
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	1.00	1.00	1.00	0.95	0.95	1.00
Frt			0.850		0.986							0.850
Flt Protected	0.950			0.950						0.950	0.986	
Satd. Flow (prot)	1668	3336	1492	1668	4726	0	0	0	0	1585	1645	1492
Flt Permitted	0.285			0.950						0.950	0.986	
Satd. Flow (perm)	500	3336	1492	1668	4726	0	0	0	0	1585	1645	1492
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			337		50							93
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		58.7			194.2			97.6			115.5	
Travel Time (s)		4.2			14.0			7.0			8.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	222	964	337	397	826	83	0	0	0	424	236	204
Shared Lane Traffic (%)										23%		
Lane Group Flow (vph)	222	964	337	397	909	0	0	0	0	326	334	204
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.0			3.0			3.0			3.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Perm		Perm	Prot						Perm		Perm
Protected Phases		2!		6!							8	
Permitted Phases	2		2		6					8		8
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0					20.0	20.0	20.0
Total Split (s)	30.0	30.0	30.0	30.0	30.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0
Total Split (%)	60.0%	60.0%	60.0%	60.0%	60.0%	0.0%	0.0%	0.0%	0.0%	40.0%	40.0%	40.0%
Maximum Green (s)	26.0	26.0	26.0	26.0	26.0					16.0	16.0	16.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5					3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5					0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0	5.0	5.0					5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0					11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0					0	0	0
Act Effct Green (s)	26.0	26.0	26.0	26.0	26.0					16.0	16.0	16.0
Actuated g/C Ratio	0.52	0.52	0.52	0.52	0.52					0.32	0.32	0.32
v/c Ratio	0.85	0.56	0.36	0.46	0.37					0.64	0.63	0.38
Control Delay	38.4	6.5	1.8	9.7	7.2					21.8	21.2	9.9
Queue Delay	0.0	0.5	0.3	0.0	0.1					0.0	0.0	0.0
Total Delay	38.4	6.9	2.1	9.7	7.3					21.8	21.2	9.9
LOS	D	A	A	A	A					C	C	A
Approach Delay		10.4			8.0						18.8	



Lanes, Volumes, Timings  
14: Str. Gh. Lazar &

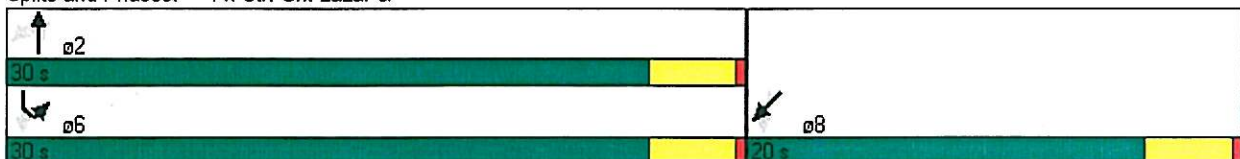
Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului









												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS		B			A						B	
Stops (vph)	134	349	26	215	418					247	252	81
Fuel Used(l)	10	17	3	14	29					14	14	5
CO Emissions (g/hr)	188	318	51	264	544					256	259	98
NOx Emissions (g/hr)	37	62	10	51	106					50	50	19
VOC Emissions (g/hr)	44	74	12	61	126					59	60	23
Dilemma Vehicles (#)	0	0	0	0	0					0	0	0
Queue Length 50th (m)	5.2	11.7	0.0	13.0	9.6					16.8	17.1	4.7
Queue Length 95th (m)	m#28.1	15.6	m1.9	23.9	13.9					#32.9	#32.4	12.9
Internal Link Dist (m)		34.7			170.2			73.6			91.5	
Turn Bay Length (m)	30.0		30.0	30.0								30.0
Base Capacity (vph)	260	1735	938	867	2482					507	526	541
Starvation Cap Reductn	0	342	197	0	0					0	0	0
Spillback Cap Reductn	0	0	0	0	450					0	0	0
Storage Cap Reductn	0	0	0	0	0					0	0	0
Reduced v/c Ratio	0.85	0.69	0.45	0.46	0.45					0.64	0.63	0.38

Intersection Summary

Area Type: Other  
 Cycle Length: 50  
 Actuated Cycle Length: 50  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.85  
 Intersection Signal Delay: 11.5  
 Intersection Capacity Utilization 71.2%  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.  
 m Volume for 95th percentile queue is metered by upstream signal.  
 ! Phase conflict between lane groups.

Splits and Phases: 14: Str. Gh. Lazar &



						
Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations						
Volume (vph)	0	420	550	120	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.976				
Flt Protected						
Satd. Flow (prot)	0	1756	1714	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	1756	1714	0	0	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		39.9	88.8		54.2	
Travel Time (s)		2.9	6.4		3.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	457	598	130	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	457	728	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	




















#### Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 39.6% ICU Level of Service A  
Analysis Period (min) 15



Lanes, Volumes, Timings  
16: Str Tache Ionescu &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	158	780	144	285	630	180	251	250	285	112	265	66
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		0.0	30.0		0.0	0.0		0.0	0.0		50.0
Storage Lanes	1		0	1		0	0		0	0		1
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	0.91	0.91	1.00	0.91	0.91	0.95	0.95	0.95	1.00	0.95	0.95
Frt		0.977			0.967			0.946			0.997	0.850
Flt Protected	0.950			0.950				0.984			0.986	
Satd. Flow (prot)	1668	4683	0	1668	4635	0	0	3105	0	0	1640	1418
Flt Permitted	0.286			0.250				0.649			0.544	
Satd. Flow (perm)	502	4683	0	439	4635	0	0	2048	0	0	905	1418
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		112			196			64			3	65
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		319.5			194.2			223.0			135.1	
Travel Time (s)		23.0			14.0			16.1			9.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	172	848	157	310	685	196	273	272	310	122	288	72
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	172	1005	0	310	881	0	0	855	0	0	417	65
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.5			3.5			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Perm			Perm			Perm			Perm		Perm
Protected Phases		6			2			4			8	
Permitted Phases	6			2			4			8		8
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	20.0	20.0	0.0	20.0	20.0	0.0	20.0	20.0	0.0	20.0	20.0	20.0
Total Split (%)	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%	50.0%
Maximum Green (s)	16.0	16.0		16.0	16.0		16.0	16.0		16.0	16.0	16.0
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	0
Act Effct Green (s)	16.0	16.0		16.0	16.0			16.0			16.0	16.0
Actuated g/C Ratio	0.40	0.40		0.40	0.40			0.40			0.40	0.40
v/c Ratio	0.86	0.52		1.76	0.45			1.00			1.15	0.11
Control Delay	45.3	2.5		384.7	7.5			46.1			113.2	3.3
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	0.0
Total Delay	45.3	2.5		384.7	7.5			46.1			113.2	3.3
LOS	D	A		F	A			D			F	A
Approach Delay		8.8			105.7			46.1			98.4	



Lanes, Volumes, Timings  
16: Str Tache Ionescu &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului



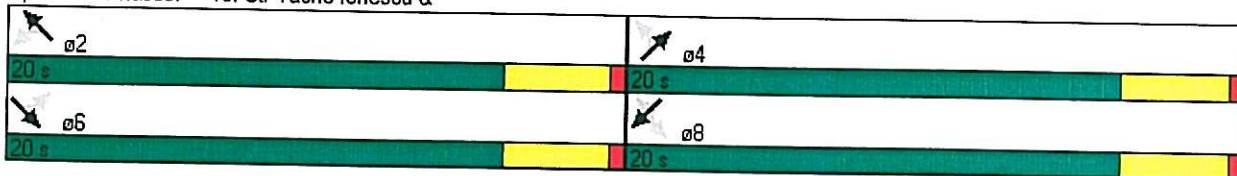
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Approach LOS		A			F			D			F	
Stops (vph)	44	38		246	411			572			284	14
Fuel Used(l)	11	31		95	29			57			46	2
CO Emissions (g/hr)	209	568		1760	534			1062			845	33
NOx Emissions (g/hr)	41	111		343	104			207			164	6
VOC Emissions (g/hr)	48	132		408	124			246			196	8
Dilemma Vehicles (#)	0	0		0	0			0			0	0
Queue Length 50th (m)	1.3	0.0		~22.3	7.3			17.4			~24.9	0.0
Queue Length 95th (m)	m#17.9	0.0		#38.6	11.9			#39.4			#52.2	3.0
Internal Link Dist (m)		295.5			170.2			199.0			111.1	
Turn Bay Length (m)	30.0			30.0								50.0
Base Capacity (vph)	201	1940		176	1972			858			364	606
Starvation Cap Reductn	0	0		0	0			0			0	0
Spillback Cap Reductn	0	0		0	0			0			0	0
Storage Cap Reductn	0	0		0	0			0			0	0
Reduced v/c Ratio	0.86	0.52		1.76	0.45			1.00			1.15	0.11

Intersection Summary

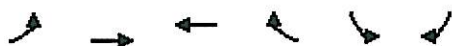
Area Type: Other  
Cycle Length: 40  
Actuated Cycle Length: 40  
Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SETL, Start of Green  
Natural Cycle: 40  
Control Type: Pretimed  
Maximum v/c Ratio: 1.76  
Intersection Signal Delay: 60.2  
Intersection Capacity Utilization 92.2%  
Analysis Period (min) 15  
Intersection LOS: E  
ICU Level of Service F

~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.  
# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.  
m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 16: Str Tache Ionescu &







Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↑↑↑	↑↑↑		↑	↑
Volume (vph)	0	1050	797	164	80	128
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.91	0.91	0.91	1.00	1.00
Frt			0.974			0.850
Flt Protected					0.950	
Satd. Flow (prot)	0	4793	4669	0	1668	1492
Flt Permitted					0.950	
Satd. Flow (perm)	0	4793	4669	0	1668	1492
Right Turn on Red				Yes		Yes
Satd. Flow (RTOR)			131			60
Link Speed (k/h)		50	50		50	
Link Distance (m)		129.0	319.5		98.6	
Travel Time (s)		9.3	23.0		7.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	1141	866	178	87	139
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1141	1044	0	87	139
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25			15	25	15
Turn Type					Perm	
Protected Phases		4	8		6	
Permitted Phases						6
Minimum Split (s)		20.0	20.0		20.0	20.0
Total Split (s)	0.0	20.0	20.0	0.0	20.0	20.0
Total Split (%)	0.0%	50.0%	50.0%	0.0%	50.0%	50.0%
Maximum Green (s)		16.0	16.0		16.0	16.0
Yellow Time (s)		3.5	3.5		3.5	3.5
All-Red Time (s)		0.5	0.5		0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)		5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0
Act Effct Green (s)		16.0	16.0		16.0	16.0
Actuated g/C Ratio		0.40	0.40		0.40	0.40
v/c Ratio		0.60	0.54		0.13	0.22
Control Delay		11.0	5.9		8.3	6.1
Queue Delay		0.0	0.0		0.0	0.0
Total Delay		11.0	5.9		8.3	6.1
LOS		B	A		A	A
Approach Delay		11.0	5.9		7.0	
Approach LOS		B	A		A	
Stops (vph)		747	373		49	51
Fuel Used(l)		39	42		2	3

Lanes, Volumes, Timings  
17: Str. Vasile Milea &

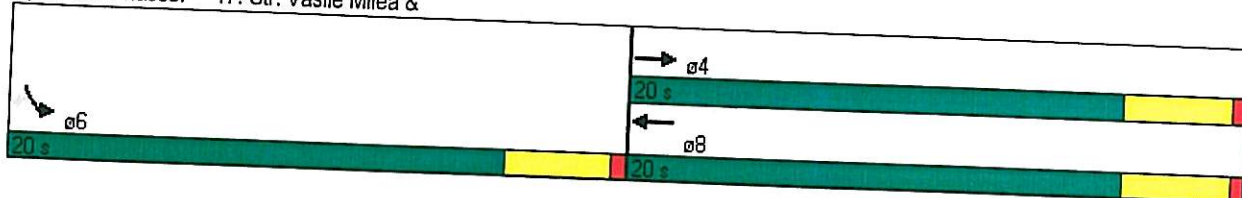
Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
CO Emissions (g/hr)		712	774		44	54
NOx Emissions (g/hr)		139	151		8	11
VOC Emissions (g/hr)		165	179		10	13
Dilemma Vehicles (#)		0	0		0	0
Queue Length 50th (m)		13.7	6.6		2.3	2.1
Queue Length 95th (m)		20.0	m9.0		6.0	6.8
Internal Link Dist (m)		105.0	295.5		74.6	
Turn Bay Length (m)						
Base Capacity (vph)		1917	1946		667	633
Starvation Cap Reductn		0	0		0	0
Spillback Cap Reductn		0	0		0	0
Storage Cap Reductn		0	0		0	0
Reduced v/c Ratio		0.60	0.54		0.13	0.22

Intersection Summary

Area Type: Other  
 Cycle Length: 40  
 Actuated Cycle Length: 40  
 Offset: 0 (0%), Referenced to phase 2: and 6: SBL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.60  
 Intersection Signal Delay: 8.4  
 Intersection Capacity Utilization 33.6%  
 Analysis Period (min) 15  
 Intersection LOS: A  
 ICU Level of Service A  
 m Volume for 95th percentile queue is metered by upstream signal.
























Splits and Phases: 17: Str. Vasile Milea &





Lanes, Volumes, Timings  
18: Str. Carpati &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului














												
Lane Group	WBL	WBR	WBR2	NBL	NBT	NBR	SBL	SBT	SBR	SEL2	SEL	SER
Lane Configurations					  			 			  	
Volume (vph)	10	605	243	10	250	150	10	554	135	10	917	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.88	1.00	0.91	0.91	0.91	0.95	0.91	0.91	0.91	0.94	0.91
Frt		0.850			0.945			0.996	0.850		0.988	
Flt Protected	0.950				0.999			0.999			0.956	
Satd. Flow (prot)	1668	2627	0	0	4525	0	0	3180	1358	0	4677	0
Flt Permitted	0.950				0.999			0.999			0.956	
Satd. Flow (perm)	1668	2627	0	0	4525	0	0	3180	1358	0	4677	0
Link Speed (k/h)	50				50			50			50	
Link Distance (m)	129.0				100.4			98.2			731.1	
Travel Time (s)	9.3				7.2			7.1			52.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	658	264	11	272	163	11	602	147	11	997	87
Shared Lane Traffic (%)									10%			
Lane Group Flow (vph)	11	922	0	0	446	0	0	628	132	0	1095	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)	3.0				0.0			0.0			10.0	
Link Offset(m)	0.0				0.0			0.0			0.0	
Crosswalk Width(m)	4.8				4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25	15	15	25		15	25		15	25	25	15
Sign Control	Yield				Yield			Yield			Yield	

Intersection Summary

Area Type: Other  
Control Type: Roundabout  
Intersection Capacity Utilization 60.2%  
Analysis Period (min) 15  
ICU Level of Service B

Lanes, Volumes, Timings  
20: Str. Rudului &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	EBL2	EBL	EBR	NBL	NBT	NBR	SBL	SBT	SBR	SWL	SWR	SWR2
Lane Configurations												
Volume (vph)	45	433	502	0	310	374	0	0	0	304	0	310
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.986	0.850		0.926					1.00	1.00	1.00
Flt Protected		0.957										0.850
Satd. Flow (prot)	0	1657	1418	0	1626	0	0	0	0	0.950		
Flt Permitted		0.957								1668	0	1492
Satd. Flow (perm)	0	1657	1418	0	1626	0	0	0	0	0.950		
Link Speed (k/h)		50			50					1668	0	1492
Link Distance (m)		211.4			294.9					50		
Travel Time (s)		15.2			21.2					155.1		
Peak Hour Factor										223.0		
Adj. Flow (vph)	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	11.2	16.1	
Shared Lane Traffic (%)	49	471	546	0	337	407	0	0	0	0.92	0.92	0.92
Lane Group Flow (vph)	0	575	491	0	744	0	0	0	0	330	0	337
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(m)		3.0			0.0					3.0		
Link Offset(m)		0.0			0.0					0.0		
Crosswalk Width(m)		4.8			4.8					0.0		
Two way Left Turn Lane										4.8		
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25	25	15	25		15	25		15	25	15	15
Sign Control		Yield			Yield			Yield		Yield		

Intersection Summary

Area Type: Other

Control Type: Roundabout

Intersection Capacity Utilization 102.8%

Analysis Period (min) 15

ICU Level of Service G



Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations	↖	↗	↕	↖	↗	↕
Volume (vph)	163	188	420	91	311	537
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0	0.0		0.0	30.0	
Storage Lanes	1	1		1	1	
Taper Length (m)	7.5	7.5		7.5	7.5	
Lane Util. Factor	1.00	1.00	0.95	1.00	1.00	0.95
Frt		0.850		0.850		
Flt Protected	0.950				0.950	
Satd. Flow (prot)	1668	1492	3336	1492	1668	3336
Flt Permitted	0.950				0.950	
Satd. Flow (perm)	1668	1492	3336	1492	1668	3336
Link Speed (k/h)	50		50			50
Link Distance (m)	129.0		98.2			160.2
Travel Time (s)	9.3		7.1			11.5
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	177	204	457	99	338	584
Shared Lane Traffic (%)						
Lane Group Flow (vph)	177	204	457	99	338	584
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.0		0.0			3.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25	15		15	25	
Sign Control	Yield		Free		Free	

#### Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 47.9%  
Analysis Period (min) 15

ICU Level of Service A



Lanes, Volumes, Timings  
22: str. Gh Doja & Str. Valeni

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑	↑	↑	↑↑	↑	↑	↑↑	↑	↑	↑	↑
Volume (vph)	58	210	56	152	389	380	165	376	98	50	639	105
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		20.0	30.0		30.0	30.0		30.0	30.0		30.0
Storage Lanes	0		1	1		1	1		1	1		1
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	0.95	0.91	0.91	0.95	0.91	0.95	1.00	0.95	1.00	1.00	0.95	0.95
Frt		0.997	0.850		0.987	0.850			0.850		0.998	0.850
Flt Protected		0.990		0.950	0.998		0.950			0.950		
Satd. Flow (prot)	0	3154	1358	1585	1574	1418	1668	3336	1492	1668	1665	1418
Flt Permitted		0.607		0.563	0.982		0.224			0.512		
Satd. Flow (perm)	0	1934	1358	939	1549	1418	393	3336	1492	899	1665	1418
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		4	55		9	372			107		2	103
Link Speed (k/h)		50			50			50				
Link Distance (m)		677.2			186.9			160.2			50	
Travel Time (s)		48.8			13.5			11.5			357.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	63	228	61	165	423	413	179	409	107	54	695	114
Shared Lane Traffic (%)			10%	10%		10%						10%
Lane Group Flow (vph)	0	297	55	148	481	372	179	409	107	54	706	103
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.0			3.0			3.0			3.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Perm		Perm	Perm		Perm	Perm		Perm	Perm		Perm
Protected Phases		4			8			2				
Permitted Phases	4		4	8		8	2		2	6		6
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (s)	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Total Split (%)	36.4%	36.4%	36.4%	36.4%	36.4%	36.4%	35.0	35.0	35.0	35.0	35.0	35.0
Maximum Green (s)	16.0	16.0	16.0	16.0	16.0	16.0	31.0	31.0	31.0	31.0	31.0	31.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0	0	0	0	0	0	0	0
Act Effct Green (s)	16.0	16.0	16.0	16.0	16.0	31.0	31.0	31.0	31.0	31.0	31.0	31.0
Actuated g/C Ratio	0.29	0.29	0.29	0.29	0.29	0.56	0.56	0.56	0.56	0.56	0.56	0.56
v/c Ratio	0.53	0.13	0.54	1.05	0.55	0.81	0.22	0.12	0.11	0.75	0.12	
Control Delay	20.1	5.9	25.2	80.6	5.7	42.6	6.3	1.9	6.3	15.8	1.9	
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Delay	20.1	5.9	25.2	80.6	5.7	42.6	6.3	1.9	6.3	15.8	1.9	
LOS	C	A	C	F	A	D	A	A	A	B	A	
Approach Delay	17.9			44.6			15.0			13.6		



Lanes, Volumes, Timings  
22: str. Gh Doja & Str. Valeni

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			D			B			B	
Stops (vph)		217	14	114	347	47	114	166	11	23	459	11
Fuel Used(l)		27	4	8	43	9	10	11	2	7	98	12
CO Emissions (g/hr)		493	71	141	797	160	194	209	35	128	1818	224
NOx Emissions (g/hr)		96	14	27	155	31	38	41	7	25	354	44
VOC Emissions (g/hr)		114	16	33	185	37	45	48	8	30	422	52
Dilemma Vehicles (#)		0	0	0	0	0	0	0	0	0	0	0
Queue Length 50th (m)		8.6	0.0	8.5	~39.0	0.0	8.2	6.1	0.0	1.4	32.2	0.0
Queue Length 95th (m)		15.6	4.5	#19.7	#73.7	10.8	#29.8	9.8	3.1	4.1	#61.4	3.1
Internal Link Dist (m)		653.2			162.9			136.2			333.6	
Turn Bay Length (m)			20.0	30.0		30.0	30.0		30.0	30.0		30.0
Base Capacity (vph)		565	434	273	457	676	222	1880	888	507	939	844
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.53	0.13	0.54	1.05	0.55	0.81	0.22	0.12	0.11	0.75	0.12

Intersection Summary

Area Type: Other

Cycle Length: 55

Actuated Cycle Length: 55

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 70

Control Type: Pretimed

Maximum v/c Ratio: 1.05

Intersection Signal Delay: 25.1

Intersection LOS: C

Intersection Capacity Utilization 87.6%

ICU Level of Service E

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.






















Splits and Phases: 22: str. Gh Doja & Str. Valeni



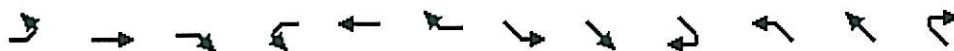


Lanes, Volumes, Timings  
25: Sos. Nordului & Str. Gageni

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	151	2	238	28	39	91	0	533	121	221	427	23
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		30.0	0.0		0.0	0.0		0.0	25.0		0.0
Storage Lanes	1		1	0		0	0		1	1		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95
Frt			0.850		0.922			0.997	0.850		0.992	
Flt Protected	0.950	0.953			0.991					0.950		
Satd. Flow (prot)	1585	1590	1492	0	1604	0	0	1663	1418	1668	3309	0
Flt Permitted	0.950	0.953			0.938					0.249		
Satd. Flow (perm)	1585	1590	1492	0	1518	0	0	1663	1418	437	3309	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			259		67			2	119		9	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		536.2			131.1			564.0			628.1	
Travel Time (s)		38.6			9.4			40.6			45.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	164	2	259	30	42	99	0	579	132	240	464	25
Shared Lane Traffic (%)	49%								10%			
Lane Group Flow (vph)	84	82	259	0	171	0	0	592	119	240	489	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		5.0			0.0			5.0			3.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Split		Perm	Perm					Perm	Perm		
Protected Phases	4	4			8			6			2	
Permitted Phases			4	8					6	2		
Minimum Split (s)	20.0	20.0	20.0	20.0	20.0			20.0	20.0	20.0	20.0	
Total Split (s)	20.0	20.0	20.0	20.0	20.0	0.0	0.0	50.0	50.0	50.0	50.0	0.0
Total Split (%)	22.2%	22.2%	22.2%	22.2%	22.2%	0.0%	0.0%	55.6%	55.6%	55.6%	55.6%	0.0%
Maximum Green (s)	16.0	16.0	16.0	16.0	16.0			46.0	46.0	46.0	46.0	
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5			3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5			0.5	0.5	0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0	5.0	5.0			5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0			11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0	0	0			0	0	0	0	
Act Effect Green (s)	16.0	16.0	16.0		16.0			46.0	46.0	46.0	46.0	
Actuated g/C Ratio	0.18	0.18	0.18		0.18			0.51	0.51	0.51	0.51	
v/c Ratio	0.30	0.29	0.54		0.53			0.70	0.15	1.08	0.29	
Control Delay	35.5	35.3	9.1		26.8			22.1	2.8	108.0	12.9	
Queue Delay	0.0	0.0	0.0		0.0			0.0	0.0	0.0	0.0	
Total Delay	35.5	35.3	9.1		26.8			22.1	2.8	108.0	12.9	
LOS	D	D	A		C			C	A	F	B	
Approach Delay		19.4			26.8			18.8			44.2	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Approach LOS		B			C			B			D	
Stops (vph)	66	63	33		88			404	11	166	238	
Fuel Used(l)	11	11	26		7			47	6	49	65	
CO Emissions (g/hr)	205	199	474		132			879	117	912	1207	
NOx Emissions (g/hr)	40	39	92		26			171	23	178	235	
VOC Emissions (g/hr)	48	46	110		31			204	27	212	280	
Dilemma Vehicles (#)	0	0	0		0			0	0	0	0	
Queue Length 50th (m)	8.8	8.6	0.0		10.6			50.9	0.0	~30.7	15.5	
Queue Length 95th (m)	17.7	17.4	12.9		23.5			77.7	5.3	#59.6	22.0	
Internal Link Dist (m)		512.2			107.1			540.0			604.1	
Turn Bay Length (m)			30.0							25.0		
Base Capacity (vph)	282	283	478		325			851	783	223	1696	
Starvation Cap Reductn	0	0	0		0			0	0	0	0	
Spillback Cap Reductn	0	0	0		0			0	0	0	0	
Storage Cap Reductn	0	0	0		0			0	0	0	0	
Reduced v/c Ratio	0.30	0.29	0.54		0.53			0.70	0.15	1.08	0.29	

#### Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NWTL and 6:SET, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 1.08

Intersection Signal Delay: 28.7

Intersection LOS: C

Intersection Capacity Utilization 69.5%

ICU Level of Service C

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

















Queue shown is maximum after two cycles.

Splits and Phases: 25: Sos. Nordului & Str. Gageni

ø2 50 s	ø4 20 s	ø8 20 s
ø6 50 s		

Lanes, Volumes, Timings  
29: Str. Pomilor & Str. Strandului

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	33	54	90	60	88	22	172	809	132	62	718	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.931			0.982			0.982			0.994	
Flt Protected		0.991			0.983			0.992			0.996	
Satd. Flow (prot)	0	1620	0	0	1695	0	0	3250	0	0	3303	0
Flt Permitted		0.991			0.983			0.992			0.996	
Satd. Flow (perm)	0	1620	0	0	1695	0	0	3250	0	0	3303	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		394.8			511.1			549.1			500.0	
Travel Time (s)		28.4			36.8			39.5			36.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	36	59	98	65	96	24	187	879	143	67	780	33
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	193	0	0	185	0	0	1209	0	0	880	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary

Area Type: Other


















Control Type: Roundabout

Intersection Capacity Utilization 80.7%

ICU Level of Service D

Analysis Period (min) 15



												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	129	191	43	133	126	115	187	631	28	43	611	80
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		0.0	30.0		30.0	0.0		0.0
Storage Lanes	0		0	0		0	1		0	0		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95
Frt		0.984			0.959			0.994			0.984	
Flt Protected		0.983			0.982		0.950				0.997	
Satd. Flow (prot)	0	1698	0	0	1653	0	1668	3316	0	0	3273	0
Flt Permitted		0.983			0.982		0.950				0.997	
Satd. Flow (perm)	0	1698	0	0	1653	0	1668	3316	0	0	3273	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		365.1			301.8			500.0			58.3	
Travel Time (s)		26.3			21.7			36.0			4.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	140	208	47	145	137	125	203	686	30	47	664	87
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	395	0	0	407	0	203	716	0	0	798	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.0			3.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Yield			Yield			Yield			Yield	

#### Intersection Summary

Area Type: Other

Control Type: Roundabout



















Intersection Capacity Utilization 76.5%

ICU Level of Service D

Analysis Period (min) 15

Lanes, Volumes, Timings  
34: Str. Apelor &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	SEL	SET	SER	NWL	NWT	NWR	NEL	NET	NER	SWL	SWT	SWR
Lane Configurations												
Volume (vph)	0	0	219	175	10	185	131	880	214	0	958	61
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	50.0		0.0	0.0		0.0	0.0		50.0
Storage Lanes	0		2	1		0	0		0	0		1
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	0.88	0.95	0.95	1.00	0.91	0.91	0.91	1.00	0.95	1.00
Frt			0.850		0.869			0.974				0.850
Flt Protected				0.950	0.996			0.995				
Satd. Flow (prot)	0	0	2627	1585	1444	0	0	4645	0	0	3336	1492
Flt Permitted				0.950	0.996			0.995				
Satd. Flow (perm)	0	0	2627	1585	1444	0	0	4645	0	0	3336	1492
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		328.3			200.8			60.9			259.9	
Travel Time (s)		23.6			14.5			4.4			18.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	238	190	11	201	142	957	233	0	1041	66
Shared Lane Traffic (%)				10%								
Lane Group Flow (vph)	0	0	238	171	231	0	0	1332	0	0	1041	66
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.0			3.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary

Area Type: Other

Control Type: Roundabout

Intersection Capacity Utilization 71.7%


















ICU Level of Service C

Analysis Period (min) 15



Lanes, Volumes, Timings  
38: Str. Mihai Bravu & Str. Avantului

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	154	113	9	0	198	98	6	2	0	143	0	330
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		0.0	0.0		0.0	0.0		30.0
Storage Lanes	0		0	0		0	0		0	1		1
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	0.95	0.95	0.95	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.950							0.850
Flt Protected		0.973						0.963		0.950		
Satd. Flow (prot)	0	3230	0	0	3169	0	0	1691	0	1668	0	1492
Flt Permitted		0.973						0.963		0.950		
Satd. Flow (perm)	0	3230	0	0	3169	0	0	1691	0	1668	0	1492
Link Speed (k/h)		50			50			50				50
Link Distance (m)		61.8			766.5			215.3				634.8
Travel Time (s)		4.4			55.2			15.5				45.7
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	167	123	10	0	215	107	7	2	0	155	0	359
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	300	0	0	322	0	0	9	0	155	0	359
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			3.5				3.0
Link Offset(m)		0.0			0.0			-15.0				0.0
Crosswalk Width(m)		4.8			4.8			4.8				4.8
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 42.4%

ICU Level of Service A

Analysis Period (min) 15



Lane Group	EBL	EBR	NBL	NBR	SWU	SWL	SWR
Lane Configurations	TTT			TTT		TT	T
Volume (vph)	520	110	0	630	71	620	580
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0	0.0	0.0	50.0		0.0	0.0
Storage Lanes	1	0	0	2		2	1
Taper Length (m)	7.5	7.5	7.5	7.5		7.5	7.5
Lane Util. Factor	0.97	0.95	1.00	0.76	0.95	0.97	1.00
Frt	0.974			0.850			0.850
Flt Protected	0.960					0.950	
Satd. Flow (prot)	3185	0	0	3403	0	3236	1492
Flt Permitted	0.960					0.950	
Satd. Flow (perm)	3185	0	0	3403	0	3236	1492
Link Speed (k/h)	50		50			50	
Link Distance (m)	169.2		91.6			60.9	
Travel Time (s)	12.2		6.6			4.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	565	120	0	685	77	674	630
Shared Lane Traffic (%)							
Lane Group Flow (vph)	685	0	0	685	0	751	630
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	R NA	Left	Right
Median Width(m)	6.0		0.0			6.0	
Link Offset(m)	0.0		0.0			0.0	
Crosswalk Width(m)	4.8		4.8			4.8	
Two way Left Turn Lane							
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25	15	25	15	15	25	15
Sign Control	Yield		Yield			Yield	

#### Intersection Summary

Area Type: Other

Control Type: Roundabout

Intersection Capacity Utilization 44.7%

ICU Level of Service A

Analysis Period (min) 15





Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Volume (vph)	240	75	285	280	46	189
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.968				0.891	
Flt Protected				0.975	0.990	
Satd. Flow (prot)	1700	0	0	1712	1549	0
Flt Permitted				0.975	0.990	
Satd. Flow (perm)	1700	0	0	1712	1549	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	91.1			256.8	143.1	
Travel Time (s)	6.6			18.5	10.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	261	82	310	304	50	205
Shared Lane Traffic (%)						
Lane Group Flow (vph)	343	0	0	614	255	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		15	25		25	15
Sign Control	Stop			Free	Free	

#### Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 71.9%

















ICU Level of Service C

Analysis Period (min) 15



Lanes, Volumes, Timings  
44: Str. Postei & Str. Stadionului













Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	55	10	21	330	26	75	150	0	52	274	21
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.979			0.991						0.992	
Flt Protected					0.997			0.984			0.993	
Satd. Flow (prot)	0	1719	0	0	1735	0	0	1728	0	0	1730	0
Flt Permitted					0.985			0.803			0.928	
Satd. Flow (perm)	0	1719	0	0	1714	0	0	1410	0	0	1616	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		11			8						9	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		63.4			143.1			77.3			206.0	
Travel Time (s)		4.6			10.3			5.6			14.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	60	11	23	359	28	82	163	0	57	298	23
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	71	0	0	410	0	0	245	0	0	378	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type			Perm			Perm			Perm			
Protected Phases		2			6			4			8	
Permitted Phases				6			4			8		
Minimum Split (s)		20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	0.0	21.0	0.0	21.0	21.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	0.0%	42.0%	0.0%	42.0%	42.0%	0.0%	58.0%	58.0%	0.0%	58.0%	58.0%	0.0%
Maximum Green (s)		17.0		17.0	17.0		25.0	25.0		25.0	25.0	
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)		0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)		5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)		11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)		0		0	0		0	0		0	0	
Act Effct Green (s)		17.0		17.0	17.0		25.0	25.0		25.0	25.0	
Actuated g/C Ratio		0.34		0.34	0.34		0.50	0.50		0.50	0.50	
v/c Ratio		0.12		0.70	0.70		0.35	0.35		0.46	0.46	
Control Delay		10.7		22.2	22.2		9.3	9.3		10.3	10.3	
Queue Delay		0.0		0.0	0.0		0.0	0.0		0.0	0.0	
Total Delay		10.7		22.2	22.2		9.3	9.3		10.3	10.3	
LOS		B		C	C		A	A		B	B	
Approach Delay		10.7		22.2	22.2		9.3	9.3		10.3	10.3	
Approach LOS		B		C	C		A	A		B	B	
Stops (vph)		40		299	299		128	128		208	208	
Fuel Used(l)		2		18	18		6	6		14	14	



Lanes, Volumes, Timings  
44: Str. Postei & Str. Stadionului

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului





												
Lane Group	NBL	NBT	NBR	SBL	SBT	SBR	SEL	SET	SER	NWL	NWT	NWR
CO Emissions (g/hr)		34			338			114			263	
NOx Emissions (g/hr)		7			66			22			51	
VOC Emissions (g/hr)		8			78			26			61	
Dilemma Vehicles (#)		0			0			0			0	
Queue Length 50th (m)		2.3			19.7			7.8			12.6	
Queue Length 95th (m)		6.6			#42.0			15.6			23.7	
Internal Link Dist (m)		39.4			119.1			53.3			182.0	
Turn Bay Length (m)												
Base Capacity (vph)		592			588			705			813	
Starvation Cap Reductn		0			0			0			0	
Spillback Cap Reductn		0			0			0			0	
Storage Cap Reductn		0			0			0			0	
Reduced v/c Ratio		0.12			0.70			0.35			0.46	

Intersection Summary

Area Type: Other  
 Cycle Length: 50  
 Actuated Cycle Length: 50  
 Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green  
 Natural Cycle: 40  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.70  
 Intersection Signal Delay: 14.5  
 Intersection Capacity Utilization 56.6%  
 Analysis Period (min) 15  
 # 95th percentile volume exceeds capacity, queue may be longer.  
 Queue shown is maximum after two cycles.

Intersection LOS: B  
 ICU Level of Service B

Splits and Phases: 44: Str. Postei & Str. Stadionului

 ø2	 ø4
21 s	29 s
 ø6	 ø8
21 s	29 s

Lanes, Volumes, Timings  
45: Str. Iasului & Str. Neagoe Basarab

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↰	↱		↕			↕	
Volume (vph)	0	0	0	150	120	55	90	400	280	74	88	54
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.850		0.951			0.966	
Flt Protected					0.973			0.994			0.983	
Satd. Flow (prot)	0	0	0	0	1708	1492	0	1660	0	0	1667	0
Flt Permitted					0.973			0.994			0.983	
Satd. Flow (perm)	0	0	0	0	1708	1492	0	1660	0	0	1667	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		103.9			91.1			93.3			217.1	
Travel Time (s)		7.5			6.6			6.7			15.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	163	130	60	98	435	304	80	96	59
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	293	60	0	837	0	0	235	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 67.2%

ICU Level of Service C

Analysis Period (min) 15





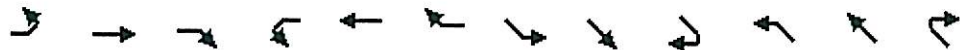
Lane Group	EBT	EBR	WBL	WBT	NEL	NER
Lane Configurations	↑↑		↵	↑	↵	
Volume (vph)	200	30	180	320	0	248
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00
Frt	0.980				0.865	
Flt Protected			0.950			
Satd. Flow (prot)	3269	0	1668	1756	1519	0
Flt Permitted			0.950			
Satd. Flow (perm)	3269	0	1668	1756	1519	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	347.3			77.5	536.5	
Travel Time (s)	25.0			5.6	38.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	217	33	196	348	0	270
Shared Lane Traffic (%)						
Lane Group Flow (vph)	250	0	196	348	270	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.0			3.0	3.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Yield	

#### Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 41.8% ICU Level of Service A  
Analysis Period (min) 15

Lanes, Volumes, Timings  
48: str. Armasilor & Str. Udriste Nasturel

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↔			↔			↔			↔	
Volume (vph)	97	232	35	8	152	11	5	44	96	26	101	11
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.987			0.991			0.911			0.989	
Flt Protected		0.987			0.998			0.998			0.991	
Satd. Flow (prot)	0	1710	0	0	1736	0	0	1596	0	0	1721	0
Flt Permitted		0.987			0.998			0.998			0.991	
Satd. Flow (perm)	0	1710	0	0	1736	0	0	1596	0	0	1721	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		303.7			536.5			448.5			219.5	
Travel Time (s)		21.9			38.6			32.3			15.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	105	252	38	9	165	12	5	48	104	28	110	12
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	395	0	0	186	0	0	157	0	0	150	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 56.9%

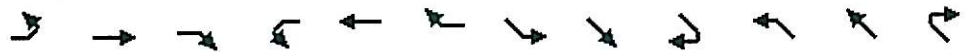
ICU Level of Service B

Analysis Period (min) 15



Lanes, Volumes, Timings  
49: Str. Gh. Doja & Str. Calomfirescu

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations		↔			↔			↔				
Volume (vph)	70	650	27	10	520	20	0	10	58	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.995			0.995			0.885				
Flt Protected		0.995			0.999							
Satd. Flow (prot)	0	1738	0	0	1745	0	0	1554	0	0	0	0
Flt Permitted		0.995			0.999							
Satd. Flow (perm)	0	1738	0	0	1745	0	0	1554	0	0	0	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		245.4			169.2			243.5			136.9	
Travel Time (s)		17.7			12.2			17.5			9.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	76	707	29	11	565	22	0	11	63	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	812	0	0	598	0	0	74	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Yield			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized
















Intersection Capacity Utilization 83.0%

ICU Level of Service E

Analysis Period (min) 15

Lanes, Volumes, Timings  
50: Str. Postei & Str. ion Creanga

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	0	429	15	30	530	0	10	30	10	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.996						0.973				
Flt Protected					0.997			0.990				
Satd. Flow (prot)	0	1749	0	0	1751	0	0	1691	0	0	0	0
Flt Permitted					0.997			0.990				
Satd. Flow (perm)	0	1749	0	0	1751	0	0	1691	0	0	0	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		256.8			80.4			136.9			67.5	
Travel Time (s)		18.5			5.8			9.9			4.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	466	16	33	576	0	11	33	11	0	0	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	482	0	0	609	0	0	55	0	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Yield			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 62.4%







ICU Level of Service B

Analysis Period (min) 15



Lanes, Volumes, Timings  
52: Str. Gh. Doja & Str. Transilvaniei

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

											
Lane Group	EBL	EBT	EBR	WBL	WBT		NBT	NBR	SBL	SBT	SBR
Lane Configurations											
Volume (vph)	20	550	44	10	611		109	148	50	100	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900		1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00		1.00	1.00	1.00	1.00	1.00
Frts		0.990			0.996		0.930			0.977	
Flt Protected		0.998			0.999		0.995			0.986	
Satd. Flow (prot)	0	1735	0	0	1747		1625	0	0	1691	0
Flt Permitted		0.973			0.990		0.957			0.813	
Satd. Flow (perm)	0	1691	0	0	1731		1563	0	0	1395	0
Right Turn on Red			Yes					Yes			Yes
Satd. Flow (RTOR)		12			5		89			17	
Link Speed (k/h)		50			50		50			50	
Link Distance (m)		260.0			245.4		217.1			196.0	
Travel Time (s)		18.7			17.7		15.6			14.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	598	48	11	664		118	161	54	109	33
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	668	0	0	697		309	0	0	196	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0		0.0			0.0	
Link Offset(m)		0.0			0.0		0.0			0.0	
Crosswalk Width(m)		4.8			4.8		4.8			4.8	
Two way Left Turn Lane											
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15		15	25		15
Turn Type	Perm			Perm					Perm		
Protected Phases		4			8		2			6	
Permitted Phases	4			8					6		
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0		20.0	20.0	
Total Split (s)	40.0	40.0	0.0	40.0	40.0	0.0	0.0	0.0	20.0	20.0	0.0
Total Split (%)	66.7%	66.7%	0.0%	66.7%	66.7%	0.0%	3%	0.0%	33.3%	33.3%	0.0%
Maximum Green (s)	36.0	36.0		36.0	36.0		6.0		16.0	16.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	0.0	4.0	4.0	4.0	4.0
Lead/Lag											
Lead-Lag Optimize?											
Walk Time (s)	5.0	5.0		5.0	5.0		0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0		0	0	
Act Effct Green (s)		36.0			36.0					16.0	
Actuated g/C Ratio		0.60			0.60					0.27	
v/c Ratio		0.66			0.67					0.51	
Control Delay		11.5			12.0					22.5	
Queue Delay		0.0			0.0					0.0	
Total Delay		11.5			12.0					22.5	
LOS		B			B					C	
Approach Delay		11.5			12.0					22.5	
Approach LOS		B			B					C	
Stops (vph)		356			405					137	
Fuel Used(l)		29			30					10	



# Lanes, Volumes, Timings 52: Str. Gh. Doja & Str. Transilvaniei

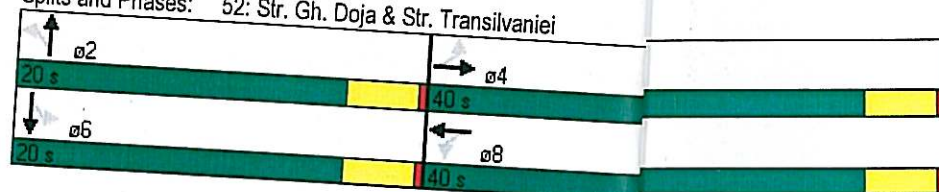
care PUG - Ploiesti  
enta a desfasurarii traficului

Lane Group	EBL	EBT	EBR	WBL	WBL	SBL	SBT	SBR
CO Emissions (g/hr)		529					176	
NOx Emissions (g/hr)		103					34	
VOC Emissions (g/hr)		123					41	
Dilemma Vehicles (#)		0					0	
Queue Length 50th (m)		24.8					10.8	
Queue Length 95th (m)		m47.2					22.1	
Internal Link Dist (m)		236.0			2		172.0	
Turn Bay Length (m)								
Base Capacity (vph)		1019					384	
Starvation Cap Reductn		0					0	
Spillback Cap Reductn		0					0	
Storage Cap Reductn		0					0	
Reduced v/c Ratio		0.66					0.51	

## Intersection Summary

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of G  
 Natural Cycle: 55  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.67  
 Intersection Signal Delay: 14.4  
 Intersection Capacity Utilization 70.2%  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal




















Splits and Phases: 52: Str. Gh. Doja & Str. Transilvaniei





Lanes, Volumes, Timings  
54: Str. Gh Doja & Str. Romana

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	42	335	139	28	490	90	150	140	156	44	173	97
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		0.0	30.0		0.0	0.0		0.0	0.0		0.0
Storage Lanes	1		0	1		0	0		0	0		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.956			0.977			0.953			0.958	
Flt Protected	0.950			0.950				0.983			0.993	
Satd. Flow (prot)	1668	1679	0	1668	1715	0	0	1645	0	0	1670	0
Flt Permitted	0.208			0.312				0.748			0.908	
Satd. Flow (perm)	365	1679	0	548	1715	0	0	1252	0	0	1527	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		45			20			56			46	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		177.7			260.0			161.1			348.7	
Travel Time (s)		12.8			18.7			11.6			25.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	46	364	151	30	533	98	163	152	170	48	188	105
Shared Lane Traffic (%)												
Lane Group Flow (vph)	46	515	0	30	631	0	0	485	0	0	341	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.0			3.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Perm			Perm			Perm			Perm		
Protected Phases		4			8			2			6	
Permitted Phases	4			8			2			6		
Minimum Split (s)	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0	
Total Split (s)	31.0	31.0	0.0	31.0	31.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0
Total Split (%)	51.7%	51.7%	0.0%	51.7%	51.7%	0.0%	48.3%	48.3%	0.0%	48.3%	48.3%	0.0%
Maximum Green (s)	27.0	27.0		27.0	27.0		25.0	25.0		25.0	25.0	
Yellow Time (s)	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0		0	0		0	0		0	0	
Act Effct Green (s)	27.0	27.0		27.0	27.0			25.0			25.0	
Actuated g/C Ratio	0.45	0.45		0.45	0.45			0.42			0.42	
v/c Ratio	0.28	0.66		0.12	0.81			0.88			0.51	
Control Delay	16.1	16.7		11.2	18.8			34.7			14.5	
Queue Delay	0.0	0.0		0.0	0.0			0.0			0.0	
Total Delay	16.1	16.7		11.2	18.8			34.7			14.5	
LOS	B	B		B	B			C			B	
Approach Delay		16.7			18.5			34.7			14.5	



Lanes, Volumes, Timings  
54: Str. Gh Doja & Str. Romana

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

	↖	→	↘	↙	←	↖	↙	↑	↘	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			C			B	
Stops (vph)	29	331		14	436			322			196	
Fuel Used(l)	2	22		1	33			26			18	
CO Emissions (g/hr)	35	398		23	602			480			338	
NOx Emissions (g/hr)	7	77		4	117			93			66	
VOC Emissions (g/hr)	8	92		5	139			111			78	
Dilemma Vehicles (#)	0	0		0	0			0			0	
Queue Length 50th (m)	2.0	24.9		0.8	18.1			27.5			14.8	
Queue Length 95th (m)	6.6	44.2		m1.8	#39.7			#62.1			28.2	
Internal Link Dist (m)		153.7			236.0			137.1			324.7	
Turn Bay Length (m)	30.0			30.0								
Base Capacity (vph)	164	780		247	783			554			663	
Starvation Cap Reductn	0	0		0	0			0			0	
Spillback Cap Reductn	0	0		0	0			0			0	
Storage Cap Reductn	0	0		0	0			0			0	
Reduced v/c Ratio	0.28	0.66		0.12	0.81			0.88			0.51	

Intersection Summary

Area Type: Other

Cycle Length: 60

Actuated Cycle Length: 60

Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green

Natural Cycle: 40

Control Type: Pretimed

Maximum v/c Ratio: 0.88

Intersection Signal Delay: 21.2

Intersection LOS: C

Intersection Capacity Utilization 87.6%

ICU Level of Service E

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.















Queue shown is maximum after two cycles.

m Volume for 95th percentile queue is metered by upstream signal.

Splits and Phases: 54: Str. Gh Doja & Str. Romana

↑ ø2	→ ø4
29 s	31 s
↓ ø6	← ø8
29 s	31 s



											
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL	NER	
Lane Configurations											
Volume (vph)	0	0	0	104	180	327	210	186	180	109	
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	
Frt					0.928		0.937		0.949		
Flt Protected					0.992		0.974		0.970		
Satd. Flow (prot)	0	0	0	0	1616	0	1602	0	1616	0	
Flt Permitted					0.992		0.974		0.970		
Satd. Flow (perm)	0	0	0	0	1616	0	1602	0	1616	0	
Right Turn on Red			Yes			Yes				Yes	
Satd. Flow (RTOR)					172				90		
Link Speed (k/h)		50			50		50		50		
Link Distance (m)		272.8			132.3		161.1		211.2		
Travel Time (s)		19.6			9.5		11.6		15.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	
Adj. Flow (vph)	0	0	0	113	196	355	228	202	196	118	
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	0	0	0	664	0	430	0	314	0	
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Right	Left	Right	
Median Width(m)		0.0			0.0		3.0		3.0		
Link Offset(m)		0.0			0.0		0.0		0.0		
Crosswalk Width(m)		4.8			4.8		4.8		4.8		
Two way Left Turn Lane											
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	
Turning Speed (k/h)	25		15	25		15	25	15	25	15	
Turn Type				Perm							
Protected Phases					8		6!		2!		
Permitted Phases				8							
Minimum Split (s)				20.0	20.0		20.0		20.0		
Total Split (s)	0.0	0.0	0.0	20.0	20.0	0.0	20.0	0.0	20.0	0.0	
Total Split (%)	0.0%	0.0%	0.0%	50.0%	50.0%	0.0%	50.0%	0.0%	50.0%	0.0%	
Maximum Green (s)				16.0	16.0		16.0		16.0		
Yellow Time (s)				3.5	3.5		3.5		3.5		
All-Red Time (s)				0.5	0.5		0.5		0.5		
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	
Lead/Lag											
Lead-Lag Optimize?											
Walk Time (s)				5.0	5.0		5.0		5.0		
Flash Dont Walk (s)				11.0	11.0		11.0		11.0		
Pedestrian Calls (#/hr)				0	0		0		0		
Act Effct Green (s)				16.0	16.0		16.0		16.0		
Actuated g/C Ratio				0.40	0.40		0.40		0.40		
v/c Ratio				0.89	0.89		0.67		0.45		
Control Delay				26.6	26.6		16.9		10.0		
Queue Delay				0.0	0.0		0.0		0.0		
Total Delay				26.6	26.6		16.9		10.0		
LOS				C	C		B		B		
Approach Delay				26.6	26.6		16.9		10.0		
Approach LOS				C	C		B		B		
Stops (vph)				359	359		300		156		
Fuel Used(l)				28	28		18		17		



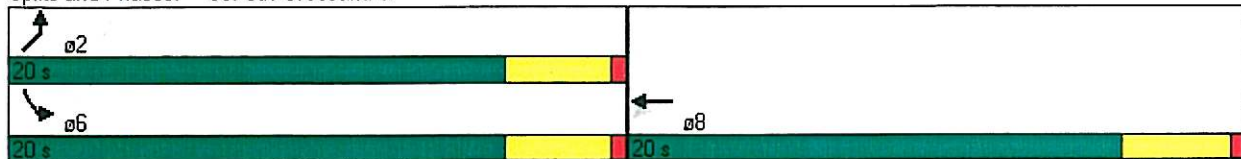


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SBL	SBR	NEL	NER
CO Emissions (g/hr)					522		332		308	
NOx Emissions (g/hr)					102		65		60	
VOC Emissions (g/hr)					121		77		71	
Dilemma Vehicles (#)					0		0		0	
Queue Length 50th (m)					18.6		14.7		7.5	
Queue Length 95th (m)					#53.9		#35.9		17.1	
Internal Link Dist (m)		248.8			108.3		137.1		187.2	
Turn Bay Length (m)										
Base Capacity (vph)					750		641		700	
Starvation Cap Reductn					0		0		0	
Spillback Cap Reductn					0		0		0	
Storage Cap Reductn					0		0		0	
Reduced v/c Ratio					0.89		0.67		0.45	

#### Intersection Summary

Area Type: Other  
Cycle Length: 40  
Actuated Cycle Length: 40  
Offset: 0 (0%), Referenced to phase 2:NEL and 6:SBL, Start of Green  
Natural Cycle: 50  
Control Type: Pretimed  
Maximum v/c Ratio: 0.89  
Intersection Signal Delay: 20.0  
Intersection LOS: B  
Intersection Capacity Utilization 84.9%  
ICU Level of Service E  
Analysis Period (min) 15  
# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.  
! Phase conflict between lane groups.


















Splits and Phases: 56: Str. Greceanu &





Lanes, Volumes, Timings  
57: Str. Gh Doja &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

											
Lane Group	EBL	EBT	EBR2	WBL	WBT	NBL	NBT	NBR	SBT	SBR	NWL
Lane Configurations											
Volume (vph)	25	259	104	150	580	185	50	210	50	50	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0			0.0		0.0		0.0		0.0	0.0
Storage Lanes	0			0		0		0		0	2
Taper Length (m)	7.5			7.5		7.5		7.5		7.5	7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.97
Frt			0.850				0.936		0.932		
Flt Protected		0.996			0.990		0.980				0.950
Satd. Flow (prot)	0	1749	1492	0	1738	0	1611	0	1636	0	3236
Flt Permitted		0.996			0.990		0.980				0.950
Satd. Flow (perm)	0	1749	1492	0	1738	0	1611	0	1636	0	3236
Link Speed (k/h)		50			50		50		50		50
Link Distance (m)		186.9			177.7		197.7		176.4		272.8
Travel Time (s)		13.5			12.8		14.2		12.7		19.6
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	27	282	113	163	630	201	54	228	54	54	97
Shared Lane Traffic (%)											
Lane Group Flow (vph)	0	309	113	0	793	0	483	0	108	0	97
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Left	Left	Right	Left	Right	Left
Median Width(m)		0.0			0.0		0.0		0.0		6.0
Link Offset(m)		0.0			0.0		0.0		0.0		0.0
Crosswalk Width(m)		4.8			4.8		4.8		4.8		4.8
Two way Left Turn Lane											
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		25		15		15	25
Sign Control		Free			Stop		Stop		Stop		Free

Intersection Summary

Area Type: Other

Control Type: Unsignalized



















Intersection Capacity Utilization 102.9%

ICU Level of Service G

Analysis Period (min) 15

Lanes, Volumes, Timings  
58: Str. Emil Zola & Str. Vasile Milea

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	250	50	10	188	190	30	150	59	10	170	100
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	39.0		0.0	0.0		0.0	0.0		0.0	0.0		30.0
Storage Lanes	1		0	0		0	0		0	0		1
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	0.95	0.95	0.95	1.00	0.95	0.95
Ped Bike Factor												
Frt		0.975			0.934			0.963			0.992	0.850
Flt Protected	0.950				0.999			0.994			0.997	
Satd. Flow (prot)	1668	3253	0	0	1638	0	0	3193	0	0	1072	922
Flt Permitted	0.950				0.999			0.994			0.997	
Satd. Flow (perm)	1668	3253	0	0	1638	0	0	3193	0	0	1072	922
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		129.0			185.8			98.6			197.7	
Travel Time (s)		9.3			13.4			7.1			14.2	
Confl. Peds. (#/hr)										200		200
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)										50	50	50
Adj. Flow (vph)	109	272	54	11	204	207	33	163	64	11	185	109
Shared Lane Traffic (%)												10%
Lane Group Flow (vph)	109	326	0	0	422	0	0	260	0	0	207	98
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.84	1.84
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Yield			Yield			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 64.1%

ICU Level of Service C

Analysis Period (min) 15



Lanes, Volumes, Timings  
60: Bd. Republicii & Str Andrei Muresan

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului



Lane Group	EBL	EBT	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL2
Lane Configurations		LT	LT			LT			LT			LT
Volume (vph)	109	200	690	57	153	380	48	50	120	56	35	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		30.0		0.0		0.0	0.0		0.0		
Storage Lanes	0		1		0		0	0		1		
Taper Length (m)	7.5		7.5		7.5		7.5	7.5		7.5		
Lane Util. Factor	0.95	0.91	0.91	0.95	0.95	0.95	0.95	1.00	0.95	0.95	0.95	1.00
Frt		0.918	0.850			0.988			0.961		0.850	
Flt Protected		0.992				0.987			0.989			
Satd. Flow (prot)	0	2910	1358	0	0	3253	0	0	1585	0	1418	0
Flt Permitted		0.606				0.549			0.248			
Satd. Flow (perm)	0	1778	1358	0	0	1809	0	0	398	0	1418	0
Right Turn on Red				Yes			Yes				Yes	
Satd. Flow (RTOR)			11			12			1		34	
Link Speed (k/h)		50				50			50			
Link Distance (m)		695.8				677.2			232.9			
Travel Time (s)		50.1				48.8			16.8			
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	118	217	750	62	166	413	52	54	130	61	38	36
Shared Lane Traffic (%)			54%								10%	
Lane Group Flow (vph)	0	740	407	0	0	631	0	0	249	0	34	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Right	Left	Left	Right	Left	Left	Right	Right	Left
Median Width(m)		3.0				3.0			0.0			
Link Offset(m)		0.0				0.0			0.0			
Crosswalk Width(m)		4.8				4.8			4.8			
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	15	25		15	25		15	15	25
Turn Type	Perm		Perm		Perm			Perm			Perm	custom
Protected Phases		4				8			2!			
Permitted Phases	4		4		8			2!			2	6
Minimum Split (s)	20.0	20.0	20.0		20.0	20.0		20.0	20.0		20.0	20.0
Total Split (s)	26.0	26.0	26.0	0.0	26.0	26.0	0.0	34.0	34.0	0.0	34.0	20.0
Total Split (%)	32.5%	32.5%	32.5%	0.0%	32.5%	32.5%	0.0%	42.5%	42.5%	0.0%	42.5%	25.0%
Maximum Green (s)	22.0	22.0	22.0		22.0	22.0		30.0	30.0		30.0	16.0
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5		3.5	3.5		3.5	3.5
All-Red Time (s)	0.5	0.5	0.5		0.5	0.5		0.5	0.5		0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)	0	0	0		0	0		0	0		0	0
Act Effct Green (s)		22.0	22.0			22.0			30.0		30.0	
Actuated g/C Ratio		0.28	0.28			0.28			0.38		0.38	
v/c Ratio		1.51	1.07			1.71dl			1.66		0.06	
Control Delay		264.2	88.3			155.1			348.4		6.4	
Queue Delay		0.0	0.0			0.0			0.0		0.0	
Total Delay		264.2	88.3			155.1			348.4		6.4	
LOS		F	F			F			F		A	
Approach Delay		201.8				155.1			307.4			





Lane Group	SBL	SBT	SBR	NWL2	NWL	NWR
Lane Configurations						
Volume (vph)	190	213	167	83	423	163
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0		0.0	0.0
Storage Lanes	1		0		2	1
Taper Length (m)	7.5		7.5		7.5	7.5
Lane Util. Factor	1.00	1.00	1.00	0.95	0.97	0.91
Frt		0.934			0.995	0.850
Flt Protected	0.950				0.954	
Satd. Flow (prot)	1668	1640	0	0	3233	1358
Flt Permitted	0.597				0.515	
Satd. Flow (perm)	1048	1640	0	0	1745	1358
Right Turn on Red		Yes				
Satd. Flow (RTOR)		44				
Link Speed (k/h)		50			50	
Link Distance (m)		342.6			731.1	
Travel Time (s)		24.7			52.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	207	232	182	90	460	177
Shared Lane Traffic (%)						10%
Lane Group Flow (vph)	243	414	0	0	568	159
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right
Median Width(m)		3.0			6.0	
Link Offset(m)		0.0			0.0	
Crosswalk Width(m)		4.8			4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25	25	15
Turn Type	Prot			Perm		Perm
Protected Phases	6				2!	
Permitted Phases		6		2!		2
Minimum Split (s)	20.0	20.0		20.0	20.0	20.0
Total Split (s)	20.0	20.0	0.0	34.0	34.0	34.0
Total Split (%)	25.0%	25.0%	0.0%	42.5%	42.5%	42.5%
Maximum Green (s)	16.0	16.0		30.0	30.0	30.0
Yellow Time (s)	3.5	3.5		3.5	3.5	3.5
All-Red Time (s)	0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag						
Lead-Lag Optimize?						
Walk Time (s)	5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0		0	0	0
Act Effct Green (s)	16.0	16.0			30.0	30.0
Actuated g/C Ratio	0.20	0.20			0.38	0.38
v/c Ratio	1.16	1.14			1.02dl	0.31
Control Delay	144.0	120.6			39.4	19.9
Queue Delay	0.0	0.0			0.0	0.0
Total Delay	144.0	120.6			39.4	19.9
LOS	F	F			D	B
Approach Delay		129.3			35.1	



Lanes, Volumes, Timings  
60: Bd. Republicii & Str Andrei Muresan

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului



Lane Group	EBL	EBT	EBR	EBR2	WBL	WBT	WBR	NBL	NBT	NBR	NBR2	SBL2
Approach LOS		F				F			F			
Stops (vph)		477	266			457			163		8	
Fuel Used(l)		194	56			117			70		1	
CO Emissions (g/hr)		3592	1038			2164			1297		19	
NOx Emissions (g/hr)		699	202			421			252		4	
VOC Emissions (g/hr)		833	241			502			301		4	
Dilemma Vehicles (#)		0	0			0			0		0	
Queue Length 50th (m)		~55.8	~46.7			~41.8			~39.1		0.0	
Queue Length 95th (m)		m#77.0	m#75.4			#63.1			#69.3		3.5	
Internal Link Dist (m)		671.8				653.2			208.9			
Turn Bay Length (m)			30.0									
Base Capacity (vph)		489	381			506			150		553	
Starvation Cap Reductn		0	0			0			0		0	
Spillback Cap Reductn		0	0			0			0		0	
Storage Cap Reductn		0	0			0			0		0	
Reduced v/c Ratio		1.51	1.07			1.25			1.66		0.06	

Intersection Summary

Area Type: Other  
Cycle Length: 80  
Actuated Cycle Length: 80  
Offset: 0 (0%), Referenced to phase 2:NBNW, Start of Green  
Natural Cycle: 80  
Control Type: Pretimed  
Maximum v/c Ratio: 1.66  
Intersection Signal Delay: 152.9  
Intersection Capacity Utilization 100.6%  
Analysis Period (min) 15  
Intersection LOS: F  
ICU Level of Service G

~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.  
# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.  
m Volume for 95th percentile queue is metered by upstream signal.  
dl Defacto Left Lane. Recode with 1 though lane as a left lane.  
! Phase conflict between lane groups.

Splits and Phases: 60: Bd. Republicii & Str Andrei Muresan

 2 34 s	 6 20 s	 4 26 s
		 8 26 s



Lane Group	SBL	SBT	SBR	NWL2	NWL	NWR
Approach LOS		F			D	
Stops (vph)	175	276			445	100
Fuel Used(l)	36	54			62	15
CO Emissions (g/hr)	666	998			1150	270
NOx Emissions (g/hr)	130	194			224	53
VOC Emissions (g/hr)	155	231			267	63
Dilemma Vehicles (#)	0	0			0	0
Queue Length 50th (m)	~29.2	~45.5			26.5	12.0
Queue Length 95th (m)	#56.9	#80.4			#45.8	22.4
Internal Link Dist (m)		318.6			707.1	
Turn Bay Length (m)						
Base Capacity (vph)	210	363			654	509
Starvation Cap Reductn	0	0			0	0
Spillback Cap Reductn	0	0			0	0
Storage Cap Reductn	0	0			0	0
Reduced v/c Ratio	1.16	1.14			0.87	0.31
Intersection Summary						





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↕↕	↕↕		↕↕	
Volume (vph)	20	1005	1050	150	50	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Frt			0.981		0.932	
Flt Protected		0.999			0.976	
Satd. Flow (prot)	0	3333	3273	0	1597	0
Flt Permitted		0.999			0.976	
Satd. Flow (perm)	0	3333	3273	0	1597	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		366.5	128.9		739.2	
Travel Time (s)		26.4	9.3		53.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	1092	1141	163	54	54
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1114	1304	0	108	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

#### Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 54.5% ICU Level of Service A  
Analysis Period (min) 15



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑			↑	↑	
Volume (vph)	103	50	51	174	181	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.956				0.993	
Flt Protected				0.989	0.955	
Satd. Flow (prot)	1679	0	0	1736	1665	0
Flt Permitted				0.989	0.955	
Satd. Flow (perm)	1679	0	0	1736	1665	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	341.3			266.9	448.5	
Travel Time (s)	24.6			19.2	32.3	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	112	54	55	189	197	11
Shared Lane Traffic (%)						
Lane Group Flow (vph)	166	0	0	244	208	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	


#### Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 41.1% ICU Level of Service A  
Analysis Period (min) 15



Lanes, Volumes, Timings  
67: Str. Nicolae Balcescu &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations					↔↔			↕			↔	
Volume (vph)	0	0	0	50	315	60	50	450	0	0	460	230
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00
Frt					0.979						0.955	
Flt Protected					0.994			0.995				
Satd. Flow (prot)	0	0	0	0	3246	0	0	1747	0	0	1677	0
Flt Permitted					0.994			0.821				
Satd. Flow (perm)	0	0	0	0	3246	0	0	1441	0	0	1677	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)					34						75	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		41.3			86.8			45.1			39.9	
Travel Time (s)		3.0			6.2			3.2			2.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	54	342	65	54	489	0	0	500	250
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	461	0	0	543	0	0	750	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type				Perm			Perm					
Protected Phases					8			2			6	
Permitted Phases					8			2				
Minimum Split (s)				20.0	20.0		20.0	20.0			20.0	
Total Split (s)	0.0	0.0	0.0	20.0	20.0	0.0	35.0	35.0	0.0	0.0	35.0	0.0
Total Split (%)	0.0%	0.0%	0.0%	36.4%	36.4%	0.0%	63.6%	63.6%	0.0%	0.0%	63.6%	0.0%
Maximum Green (s)				16.0	16.0		31.0	31.0			31.0	
Yellow Time (s)				3.5	3.5		3.5	3.5			3.5	
All-Red Time (s)				0.5	0.5		0.5	0.5			0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)				5.0	5.0		5.0	5.0			5.0	
Flash Dont Walk (s)				11.0	11.0		11.0	11.0			11.0	
Pedestrian Calls (#/hr)				0	0		0	0			0	
Act Efect Green (s)					16.0			31.0			31.0	
Actuated g/C Ratio					0.29			0.56			0.56	
v/c Ratio					0.48			0.67			0.77	
Control Delay					16.8			13.5			15.3	
Queue Delay					0.0			48.1			0.0	
Total Delay					16.8			61.6			15.3	
LOS					B			E			B	
Approach Delay					16.8			61.6			15.3	
Approach LOS					B			E			B	
Stops (vph)					306			339			454	
Fuel Used(l)					16			15			21	



Lanes, Volumes, Timings  
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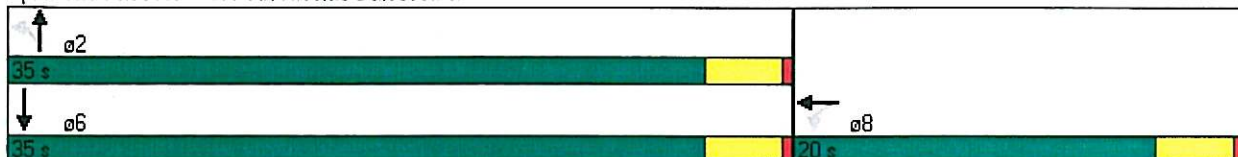


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
CO Emissions (g/hr)					293			276			386	
NOx Emissions (g/hr)					57			54			75	
VOC Emissions (g/hr)					68			64			90	
Dilemma Vehicles (#)					0			0			0	
Queue Length 50th (m)					11.8			21.8			29.4	
Queue Length 95th (m)					19.2			41.1			#61.2	
Internal Link Dist (m)		17.3			62.8			21.1			15.9	
Turn Bay Length (m)												
Base Capacity (vph)					968			812			978	
Starvation Cap Reductn					0			312			0	
Spillback Cap Reductn					0			0			0	
Storage Cap Reductn					0			0			0	
Reduced v/c Ratio					0.48			1.09			0.77	

Intersection Summary

Area Type: Other  
Cycle Length: 55  
Actuated Cycle Length: 55  
Offset: 34 (62%), Referenced to phase 2:NBTL and 6:SBT, Start of Green  
Natural Cycle: 60  
Control Type: Pretimed  
Maximum v/c Ratio: 0.77  
Intersection Signal Delay: 30.0  
Intersection LOS: C  
Intersection Capacity Utilization 84.2%  
ICU Level of Service E  
Analysis Period (min) 15  
# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.




















Splits and Phases: 67: Str. Nicolae Balcescu &





Lanes, Volumes, Timings  
70: Str. N. Balcescu & Str. Greceanu

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	NBL	NBR	SET	SER	SER2	NWL	NWT	NWR	NEL	NET	NER	SWL
Lane Configurations												
Volume (vph)	58	418	100	210	214	58	230	10	75	350	93	108
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0	0.0		30.0		0.0		0.0	0.0		10.0	0.0
Storage Lanes	1	0		1		0		0	0		1	0
Taper Length (m)	7.5	7.5		7.5		7.5		7.5	7.5		7.5	7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00
Frt	0.881			0.850			0.995			0.997	0.850	
Flt Protected	0.994						0.990			0.991		
Satd. Flow (prot)	1538	0	1756	1492	0	0	1730	0	0	1648	1418	0
Flt Permitted	0.892						0.919			0.805		
Satd. Flow (perm)	1380	0	1756	1492	0	0	1605	0	0	1339	1418	0
Right Turn on Red					Yes			Yes				
Satd. Flow (RTOR)				57			2					
Link Speed (k/h)	50		50				50			50		
Link Distance (m)	109.1		84.6				77.3			141.5		
Travel Time (s)	7.9		6.1				5.6			10.2		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	63	454	109	228	233	63	250	11	82	380	101	117
Shared Lane Traffic (%)											10%	
Lane Group Flow (vph)	517	0	109	461	0	0	324	0	0	472	91	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Right	Left	Left	Right	Left	Left	Right	Left
Median Width(m)	3.0		0.0				0.0			0.0		
Link Offset(m)	0.0		0.0				0.0			0.0		
Crosswalk Width(m)	4.8		4.8				4.8			4.8		
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25	15		15	15	25		15	25		15	25
Turn Type				Perm		Perm			Perm		Perm	Split
Protected Phases			4				8			2!		6
Permitted Phases	2!			4		8			2		2!	
Minimum Split (s)	20.0		20.0	20.0		20.0	20.0		20.0	20.0	20.0	20.0
Total Split (s)	41.0	0.0	29.0	29.0	0.0	29.0	29.0	0.0	41.0	41.0	41.0	20.0
Total Split (%)	45.6%	0.0%	32.2%	32.2%	0.0%	32.2%	32.2%	0.0%	45.6%	45.6%	45.6%	22.2%
Maximum Green (s)	37.0		25.0	25.0		25.0	25.0		37.0	37.0	37.0	16.0
Yellow Time (s)	3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5	3.5
All-Red Time (s)	0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0		5.0	5.0		5.0	5.0		5.0	5.0	5.0	5.0
Flash Dont Walk (s)	11.0		11.0	11.0		11.0	11.0		11.0	11.0	11.0	11.0
Pedestrian Calls (#/hr)	0		0	0		0	0		0	0	0	0
Act Effct Green (s)	37.0		25.0	25.0		25.0			37.0	37.0		
Actuated g/C Ratio	0.41		0.28	0.28		0.28			0.41	0.41		
v/c Ratio	0.91		0.22	1.01		0.72			0.86	0.16		
Control Delay	48.2		26.6	75.4		40.1			41.7	17.7		
Queue Delay	0.0		0.0	0.0		1.5			0.0	0.0		
Total Delay	48.2		26.6	75.4		41.6			41.7	17.7		
LOS	D		C	E		D			D	B		
Approach Delay	48.2		66.1			41.6			37.8			

















Lane Group	SWT	SWR
Lane Configurations		
Volume (vph)	135	50
Ideal Flow (vphpl)	1900	1900
Storage Length (m)		0.0
Storage Lanes		0
Taper Length (m)		7.5
Lane Util. Factor	1.00	1.00
Frt	0.977	
Flt Protected	0.982	
Satd. Flow (prot)	1685	0
Flt Permitted	0.982	
Satd. Flow (perm)	1685	0
Right Turn on Red		Yes
Satd. Flow (RTOR)	10	
Link Speed (k/h)	50	
Link Distance (m)	93.3	
Travel Time (s)	6.7	
Peak Hour Factor	0.92	0.92
Adj. Flow (vph)	147	54
Shared Lane Traffic (%)		
Lane Group Flow (vph)	318	0
Enter Blocked Intersection	No	No
Lane Alignment	Left	Right
Median Width(m)	0.0	
Link Offset(m)	0.0	
Crosswalk Width(m)	4.8	
Two way Left Turn Lane		
Headway Factor	1.09	1.09
Turning Speed (k/h)		15
Turn Type		
Protected Phases	6	
Permitted Phases		
Minimum Split (s)	20.0	
Total Split (s)	20.0	0.0
Total Split (%)	22.2%	0.0%
Maximum Green (s)	16.0	
Yellow Time (s)	3.5	
All-Red Time (s)	0.5	
Lost Time Adjust (s)	0.0	0.0
Total Lost Time (s)	4.0	4.0
Lead/Lag		
Lead-Lag Optimize?		
Walk Time (s)	5.0	
Flash Dont Walk (s)	11.0	
Pedestrian Calls (#/hr)	0	
Act Effct Green (s)	16.0	
Actuated g/C Ratio	0.18	
v/c Ratio	1.03	
Control Delay	97.4	
Queue Delay	0.0	
Total Delay	97.4	
LOS	F	
Approach Delay	97.4	



Lanes, Volumes, Timings  
70: Str. N. Balcescu & Str. Greceanu

Actualizare PUG - Ploiesti  
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Lane Group	NBL	NBR	SET	SER	SER2	NWL	NWT	NWR	NEL	NET	NER	SWL
Approach LOS	D		E				D			D		
Stops (vph)	399		75	320			259			364	52	
Fuel Used(l)	32		5	35			17			28	3	
CO Emissions (g/hr)	583		84	651			318			516	64	
NOx Emissions (g/hr)	113		16	127			62			100	12	
VOC Emissions (g/hr)	135		19	151			74			120	15	
Dilemma Vehicles (#)	0		0	0			0			0	0	
Queue Length 50th (m)	54.0		9.5	~48.3			33.1			50.1	6.7	
Queue Length 95th (m)	#94.5		18.1	#88.5			#56.4			#88.7	13.3	
Internal Link Dist (m)	85.1		60.6				53.3			117.5		
Turn Bay Length (m)				30.0							10.0	
Base Capacity (vph)	567		488	456			447			550	583	
Starvation Cap Reductn	0		0	0			35			0	0	
Spillback Cap Reductn	0		0	0			0			0	0	
Storage Cap Reductn	0		0	0			0			0	0	
Reduced v/c Ratio	0.91		0.22	1.01			0.79			0.86	0.16	

Intersection Summary

Area Type: Other  
Cycle Length: 90  
Actuated Cycle Length: 90  
Offset: 0 (0%), Referenced to phase 2:NENB, Start of Green  
Natural Cycle: 90  
Control Type: Pretimed  
Maximum v/c Ratio: 1.03  
Intersection Signal Delay: 56.0  
Intersection Capacity Utilization 105.5%  
Analysis Period (min) 15  
Intersection LOS: E  
ICU Level of Service G

~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.  
# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.  
! Phase conflict between lane groups.

Splits and Phases: 70: Str. N. Balcescu & Str. Greceanu

 02	 06	 04
41 s	20 s	29 s
		 08
		29 s



Lane Group	SWT	SWR
Approach LOS	F	
Stops (vph)	239	
Fuel Used(l)	30	
CO Emissions (g/hr)	553	
NOx Emissions (g/hr)	108	
VOC Emissions (g/hr)	128	
Dilemma Vehicles (#)	0	
Queue Length 50th (m)	~38.3	
Queue Length 95th (m)	#71.5	
Internal Link Dist (m)	69.3	
Turn Bay Length (m)		
Base Capacity (vph)	308	
Starvation Cap Reductn	0	
Spillback Cap Reductn	0	
Storage Cap Reductn	0	
Reduced v/c Ratio	1.03	

#### Intersection Summary





Lane Group	SEL	SET	NWT	NWR	SWL	SWR
Lane Configurations		↑	↑			↑
Volume (vph)	0	402	390	0	0	252
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt						0.865
Flt Protected						
Satd. Flow (prot)	0	1756	1756	0	0	1519
Flt Permitted						
Satd. Flow (perm)	0	1756	1756	0	0	1519
Link Speed (k/h)		50	50		50	
Link Distance (m)		132.3	84.6		103.9	
Travel Time (s)		9.5	6.1		7.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	437	424	0	0	274
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	437	424	0	0	274
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Stop	

#### Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 42.8% ICU Level of Service A  
Analysis Period (min) 15





Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations	↔↔					↔↔
Volume (vph)	545	0	0	0	0	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.97	1.00	1.00	1.00	1.00	0.95
Frt						
Flt Protected	0.950					
Satd. Flow (prot)	3236	0	0	0	0	3336
Flt Permitted	0.950					
Satd. Flow (perm)	3236	0	0	0	0	3336
Link Speed (k/h)	50		50			50
Link Distance (m)	41.3		73.5			54.2
Travel Time (s)	3.0		5.3			3.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	592	0	0	0	0	130
Shared Lane Traffic (%)						
Lane Group Flow (vph)	592	0	0	0	0	130
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	6.0		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Stop			Free

#### Intersection Summary

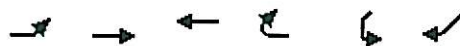
Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 25.5%

ICU Level of Service A

Analysis Period (min) 15



Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations						
Volume (vph)	300	50	90	200	150	120
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.907		0.940	
Flt Protected		0.959			0.973	
Satd. Flow (prot)	0	1684	1592	0	1606	0
Flt Permitted		0.959			0.973	
Satd. Flow (perm)	0	1684	1592	0	1606	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		224.6	1184.2		219.7	
Travel Time (s)		16.2	85.3		15.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	326	54	98	217	163	130
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	380	315	0	293	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Yield	

#### Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 61.9%

ICU Level of Service B

Analysis Period (min) 15





Lane Group	WBL	WBR	NET	NER	SWL	SWT
Lane Configurations				↑↑		↑↑
Volume (vph)	0	0	0	580	0	710
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.88	1.00	0.95
Fr <sub>t</sub>				0.850		
Flt Protected						
Satd. Flow (prot)	0	0	0	2627	0	3336
Flt Permitted						
Satd. Flow (perm)	0	0	0	2627	0	3336
Link Speed (k/h)	50		50			50
Link Distance (m)	97.8		115.5			73.5
Travel Time (s)	7.0		8.3			5.3
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	630	0	772
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	0	0	630	0	772
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	0.0		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25	15		15	25	
Sign Control	Stop		Free			Free

#### Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 49.2% ICU Level of Service A  
Analysis Period (min) 15






Lanes, Volumes, Timings

77: Str. D Bagdazar & Str. Nicolae Balcescu

Actualizare PUG - Ploiesti

Situatia existenta a desfasurarii traficului

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑						↑			↑	
Volume (vph)	321	226	0	0	0	0	0	175	45	0	430	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt								0.972				
Flt Protected		0.972										
Satd. Flow (prot)	0	3243	0	0	0	0	0	1707	0	0	1756	0
Flt Permitted		0.972										
Satd. Flow (perm)	0	3243	0	0	0	0	0	1707	0	0	1756	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)								39				
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		97.8			104.5			75.9			45.1	
Travel Time (s)		7.0			7.5			5.5			3.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	349	246	0	0	0	0	0	190	49	0	467	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	595	0	0	0	0	0	239	0	0	467	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Perm											
Protected Phases		4						2			6	
Permitted Phases	4											
Minimum Split (s)	20.0	20.0						20.0			20.0	
Total Split (s)	20.0	20.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	0.0	20.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	0.0%	50.0%	0.0%
Maximum Green (s)	16.0	16.0						16.0			16.0	
Yellow Time (s)	3.5	3.5						3.5			3.5	
All-Red Time (s)	0.5	0.5						0.5			0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0						5.0			5.0	
Flash Dont Walk (s)	11.0	11.0						11.0			11.0	
Pedestrian Calls (#/hr)	0	0						0			0	
Act Effct Green (s)		16.0						16.0			16.0	
Actuated g/C Ratio		0.40						0.40			0.40	
v/c Ratio		0.46						0.34			0.67	
Control Delay		10.3						8.6			15.9	
Queue Delay		0.0						0.0			20.8	
Total Delay		10.3						8.6			36.7	
LOS		B						A			D	
Approach Delay		10.3						8.6			36.7	
Approach LOS		B						A			D	
Stops (vph)		367						118			327	
Fuel Used(l)		18						6			14	



Lanes, Volumes, Timings  
77: Str. D Bagdazar & Str. Nicolae Balcescu

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
CO Emissions (g/hr)		326						105			267	
NOx Emissions (g/hr)		63						20			52	
VOC Emissions (g/hr)		76						24			62	
Dilemma Vehicles (#)		0						0			0	
Queue Length 50th (m)		9.5						5.7			15.9	
Queue Length 95th (m)		15.8						12.8			#32.5	
Internal Link Dist (m)		73.8			80.5			51.9			21.1	
Turn Bay Length (m)												
Base Capacity (vph)		1297						706			702	
Starvation Cap Reductn		0						0			234	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		0.46						0.34			1.00	

Intersection Summary

Area Type: Other  
Cycle Length: 40  
Actuated Cycle Length: 40  
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
Natural Cycle: 40  
Control Type: Pretimed  
Maximum v/c Ratio: 0.67  
Intersection Signal Delay: 19.4  
Intersection Capacity Utilization 47.1%  
Analysis Period (min) 15  
# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Splits and Phases: 77: Str. D Bagdazar & Str. Nicolae Balcescu

↑ ø2	→ ø4
20 s	20 s
↓ ø6	
20 s	





Lane Group	WBL	WBR	SEL	SET	NWT	NWR
Lane Configurations						
Volume (vph)	0	355	55	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.865				
Flt Protected			0.950			
Satd. Flow (prot)	0	1519	1668	0	0	0
Flt Permitted			0.950			
Satd. Flow (perm)	0	1519	1668	0	0	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	341.3			162.5	71.7	
Travel Time (s)	24.6			11.7	5.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	386	60	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	386	60	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			3.0	3.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25	15	25			15
Sign Control	Free			Free	Stop	

#### Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 25.3%

ICU Level of Service A

Analysis Period (min) 15

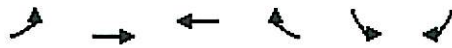


Lane Group	EBL2	EBL	SBL	SBR	SWR	SWR2
Lane Configurations						
Volume (vph)	132	440	0	50	390	30
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>				0.865	0.865	
Flt Protected		0.950				
Satd. Flow (prot)	0	1668	0	1519	1519	0
Flt Permitted		0.950				
Satd. Flow (perm)	0	1668	0	1519	1519	0
Link Speed (k/h)		20	50		20	
Link Distance (m)		79.5	133.0		141.5	
Travel Time (s)		14.3	9.6		25.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	143	478	0	54	424	33
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	621	0	54	457	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Right	Right
Median Width(m)		3.0	0.0		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25	25	25	15	15	15
Sign Control		Free	Stop		Free	

#### Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 36.0% ICU Level of Service A  
Analysis Period (min) 15



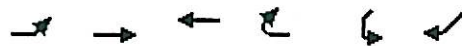


Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations		↔↔	↔↔			
Volume (vph)	0	310	528	0	0	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	0.95	1.00	1.00
Fr <sub>t</sub>						
Flt Protected						
Satd. Flow (prot)	0	3336	3336	0	0	0
Flt Permitted						
Satd. Flow (perm)	0	3336	3336	0	0	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		154.5	61.8		109.0	
Travel Time (s)		11.1	4.4		7.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	337	574	0	0	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	337	574	0	0	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Free		Free	

#### Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 17.9% ICU Level of Service A  
Analysis Period (min) 15






















Lane Group	EBL	EBT	WBT	WBR	SWL	SWR
Lane Configurations		↑↑				↑↑
Volume (vph)	0	1020	0	0	0	1200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	0.95	1.00	1.00	1.00	0.88
Frt						0.850
Flt Protected						
Satd. Flow (prot)	0	3336	0	0	0	2167
Flt Permitted						
Satd. Flow (perm)	0	3336	0	0	0	2167
Link Speed (k/h)		50	50		50	
Link Distance (m)		128.9	376.8		391.4	
Travel Time (s)		9.3	27.1		28.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)						50
Adj. Flow (vph)	0	1109	0	0	0	1304
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	1109	0	0	0	1304
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		0.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.39
Turning Speed (k/h)	25			15	25	15
Sign Control		Free	Stop		Free	

#### Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 45.3% ICU Level of Service A  
Analysis Period (min) 15



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	100	412	20	0	0	0	20	580	58	50	456	320
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	0.0		0.0	39.0		0.0	30.0		0.0
Storage Lanes	0		0	0		0	1		0	1		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	1.00	0.95	0.95	1.00
Frt		0.995						0.986			0.939	
Flt Protected		0.991					0.950			0.950		
Satd. Flow (prot)	0	1731	0	0	0	0	1585	1645	0	1585	1566	0
Flt Permitted		0.991					0.147	0.999		0.243	0.997	
Satd. Flow (perm)	0	1731	0	0	0	0	245	1643	0	405	1562	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		2						8			54	
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		521.6			163.3			498.7			294.9	
Travel Time (s)		37.6			11.8			35.9			21.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	109	448	22	0	0	0	22	630	63	54	496	348
Shared Lane Traffic (%)							10%			10%		
Lane Group Flow (vph)	0	579	0	0	0	0	20	695	0	49	849	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			3.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Perm						Perm			Perm		
Protected Phases		4						2			6	
Permitted Phases		4						2			6	
Minimum Split (s)	20.0	20.0					20.0	20.0		20.0	20.0	
Total Split (s)	42.0	42.0	0.0	0.0	0.0	0.0	78.0	78.0	0.0	78.0	78.0	0.0
Total Split (%)	35.0%	35.0%	0.0%	0.0%	0.0%	0.0%	65.0%	65.0%	0.0%	65.0%	65.0%	0.0%
Maximum Green (s)	38.0	38.0					74.0	74.0		74.0	74.0	
Yellow Time (s)	3.5	3.5					3.5	3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5					0.5	0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0					5.0	5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0					11.0	11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0					0	0		0	0	
Act Effct Green (s)		38.0					74.0	74.0		74.0	74.0	
Actuated g/C Ratio		0.32					0.62	0.62		0.62	0.62	
v/c Ratio		1.05					0.13	0.68		0.20	0.86	
Control Delay		83.4					12.2	19.4		12.5	28.6	
Queue Delay		0.0					0.0	0.0		0.0	0.0	
Total Delay		83.4					12.2	19.4		12.5	28.6	
LOS		F					B	B		B	C	
Approach Delay		83.4						19.2			27.7	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		F						B			C	
Stops (vph)		429					10	410		19	584	
Fuel Used(l)		94					1	49		2	52	
CO Emissions (g/hr)		1743					23	907		39	965	
NOx Emissions (g/hr)		339					4	176		8	188	
VOC Emissions (g/hr)		404					5	210		9	224	
Dilemma Vehicles (#)		0					0	0		0	0	
Queue Length 50th (m)		~98.6					1.2	69.5		3.2	100.9	
Queue Length 95th (m)		#140.6					4.1	99.4		7.8	#169.1	
Internal Link Dist (m)		497.6			139.3			474.7			270.9	
Turn Bay Length (m)							39.0			30.0		
Base Capacity (vph)		550					151	1016		250	984	
Starvation Cap Reductn		0					0	0		0	0	
Spillback Cap Reductn		0					0	0		0	0	
Storage Cap Reductn		0					0	0		0	0	
Reduced v/c Ratio		1.05					0.13	0.68		0.20	0.86	

#### Intersection Summary

Area Type: Other  
Cycle Length: 120  
Actuated Cycle Length: 120  
Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
Natural Cycle: 80  
Control Type: Pretimed  
Maximum v/c Ratio: 1.05  
Intersection Signal Delay: 39.7  
Intersection LOS: D  
Intersection Capacity Utilization 78.5%  
ICU Level of Service D  
Analysis Period (min) 15  
~ Volume exceeds capacity, queue is theoretically infinite.  
Queue shown is maximum after two cycles.  
# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.

Splits and Phases: 87: Str Plaiesilor & Str. Rudului

<p>ø2</p> <p>78 s</p>	<p>ø4</p> <p>42 s</p>
<p>ø6</p> <p>78 s</p>	



	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group												
Lane Configurations		↕↕	↗		↕		↗	↗			↕	↗
Volume (vph)	330	411	69	24	396	36	66	170	16	85	138	386
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		30.0	0.0		0.0	30.0		0.0	0.0		30.0
Storage Lanes	0		1	0		0	1		0	0		1
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt			0.850		0.989			0.987				0.850
Flt Protected		0.978			0.997		0.950				0.981	
Satd. Flow (prot)	0	3263	1492	0	1731	0	1668	1733	0	0	1722	1492
Flt Permitted		0.629			0.942		0.557				0.799	
Satd. Flow (perm)	0	2098	1492	0	1636	0	978	1733	0	0	1403	1492
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			75		11			8				385
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		1007.9			473.9			553.7			497.5	
Travel Time (s)		72.6			34.1			39.9			35.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	359	447	75	26	430	39	72	185	17	92	150	420
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	806	75	0	495	0	72	202	0	0	242	420
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Perm		Perm	Perm			Perm			Perm		Perm
Protected Phases		4			8			2			6	
Permitted Phases	4		4	8			2			6		6
Minimum Split (s)	21.0	21.0	21.0	21.0	21.0		21.0	21.0		21.0	21.0	21.0
Total Split (s)	37.0	37.0	37.0	37.0	37.0	0.0	23.0	23.0	0.0	23.0	23.0	23.0
Total Split (%)	61.7%	61.7%	61.7%	61.7%	61.7%	0.0%	38.3%	38.3%	0.0%	38.3%	38.3%	38.3%
Maximum Green (s)	32.0	32.0	32.0	32.0	32.0		18.0	18.0		18.0	18.0	18.0
Yellow Time (s)	4.0	4.0	4.0	4.0	4.0		4.0	4.0		4.0	4.0	4.0
All-Red Time (s)	1.0	1.0	1.0	1.0	1.0		1.0	1.0		1.0	1.0	1.0
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	5.0	5.0	5.0	5.0	5.0	4.0	5.0	5.0	4.0	5.0	5.0	5.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0	5.0	5.0	5.0		5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)	11.0	11.0	11.0	11.0	11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)	0	0	0	0	0		0	0		0	0	0
Act Effct Green (s)		32.0	32.0		32.0		18.0	18.0		18.0	18.0	
Actuated g/C Ratio		0.53	0.53		0.53		0.30	0.30		0.30	0.30	
v/c Ratio		0.72	0.09		0.56		0.25	0.38		0.57	0.59	
Control Delay		15.3	2.4		11.4		17.9	17.7		24.2	6.8	
Queue Delay		0.0	0.0		0.0		0.0	0.0		0.0	0.0	
Total Delay		15.3	2.4		11.4		17.9	17.7		24.2	6.8	
LOS		B	A		B		B	B		C	A	
Approach Delay		14.2			11.4			17.8		13.2		



	↖	→	↘	↙	←	↖	↙	↑	↘	↘	↓	↙
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		B			B			B			B	
Stops (vph)		535	10		294		48	135			185	66
Fuel Used(l)		92	7		54		5	15			19	22
CO Emissions (g/hr)		1697	129		992		101	284			349	402
NOx Emissions (g/hr)		330	25		193		20	55			68	78
VOC Emissions (g/hr)		394	30		230		23	66			81	93
Dilemma Vehicles (#)		0	0		0		0	0			0	0
Queue Length 50th (m)		21.0	0.0		24.3		4.4	12.2			14.6	1.8
Queue Length 95th (m)		33.9	3.0		m36.9		m7.7	m18.3			27.6	13.9
Internal Link Dist (m)		983.9			449.9			529.7			473.5	
Turn Bay Length (m)			30.0				30.0					30.0
Base Capacity (vph)		1119	831		878		293	526			421	717
Starvation Cap Reductn		0	0		0		0	0			0	0
Spillback Cap Reductn		0	0		0		0	0			0	0
Storage Cap Reductn		0	0		0		0	0			0	0
Reduced v/c Ratio		0.72	0.09		0.56		0.25	0.38			0.57	0.59

#### Intersection Summary

Area Type: Other  
 Cycle Length: 60  
 Actuated Cycle Length: 60  
 Offset: 0 (0%), Referenced to phase 2:NBTL and 6:SBTL, Start of Green  
 Natural Cycle: 60  
 Control Type: Pretimed  
 Maximum v/c Ratio: 0.72  
 Intersection Signal Delay: 13.7  
 Intersection LOS: B  
 Intersection Capacity Utilization 83.9%  
 ICU Level of Service E  
 Analysis Period (min) 15  
 m Volume for 95th percentile queue is metered by upstream signal.

#### Splits and Phases: 89: str. Marasesti & str. Torcatori

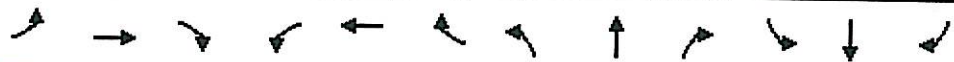
↑ ø2	→ ø4
23 s	37 s
↓ ø6	← ø8
23 s	37 s





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations		↑↑		↵	↑↑			↕		↵	↑	↵↵
Volume (vph)	0	780	62	129	878	109	5	124	90	170	208	122
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		0.0	30.0		0.0	0.0		0.0	0.0		30.0
Storage Lanes	0		0	1		0	0		0	1		2
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	0.95	1.00	0.95	0.95	1.00	1.00	1.00	1.00	1.00	0.88
Frt		0.989			0.983			0.944				0.850
Flt Protected				0.950				0.999		0.950		
Satd. Flow (prot)	0	3299	0	1668	3279	0	0	1656	0	1668	1756	2627
Flt Permitted				0.200				0.994		0.589		
Satd. Flow (perm)	0	3299	0	351	3279	0	0	1648	0	1034	1756	2627
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		17			38			76				133
Link Speed (k/h)		50			50			50				50
Link Distance (m)		919.6			366.5			497.5			103.1	
Travel Time (s)		66.2			26.4			35.8			7.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	848	67	140	954	118	5	135	98	185	226	133
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	915	0	140	1072	0	0	238	0	185	226	133
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			3.0			0.0			3.0	
Link Offset(m)		0.0			0.0			10.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type				pm+pt			Perm			Perm		Perm
Protected Phases		4		3	8			2			6	
Permitted Phases				8			2			6		6
Minimum Split (s)		20.0		8.0	20.0		20.0	20.0		20.0	20.0	20.0
Total Split (s)	0.0	20.0	0.0	9.0	29.0	0.0	21.0	21.0	0.0	21.0	21.0	21.0
Total Split (%)	0.0%	40.0%	0.0%	18.0%	58.0%	0.0%	42.0%	42.0%	0.0%	42.0%	42.0%	42.0%
Maximum Green (s)		16.0		5.0	25.0		17.0	17.0		17.0	17.0	17.0
Yellow Time (s)		3.5		3.5	3.5		3.5	3.5		3.5	3.5	3.5
All-Red Time (s)		0.5		0.5	0.5		0.5	0.5		0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag		Lag		Lead								
Lead-Lag Optimize?		Yes		Yes								
Walk Time (s)		5.0			5.0		5.0	5.0		5.0	5.0	5.0
Flash Dont Walk (s)		11.0			11.0		11.0	11.0		11.0	11.0	11.0
Pedestrian Calls (#/hr)		0			0		0	0		0	0	0
Act Effct Green (s)		16.0		25.0	25.0			17.0		17.0	17.0	17.0
Actuated g/C Ratio		0.32		0.50	0.50			0.34		0.34	0.34	0.34
v/c Ratio		0.86		0.46	0.65			0.39		0.53	0.38	0.14
Control Delay		26.3		11.9	11.1			10.7		19.8	14.8	3.3
Queue Delay		0.0		0.0	0.0			0.0		0.0	0.0	0.0
Total Delay		26.3		11.9	11.1			10.7		19.8	14.8	3.3
LOS		C		B	B			B		B	B	A
Approach Delay		26.3			11.2			10.7			13.7	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	C			B			B			B		
Stops (vph)	692			65			110			136		
Fuel Used(l)	106			7			15			11		
CO Emissions (g/hr)	1963			132			270			195		
NOx Emissions (g/hr)	382			26			53			38		
VOC Emissions (g/hr)	455			31			63			45		
Dilemma Vehicles (#)	0			0			0			0		
Queue Length 50th (m)	25.3			4.0			6.7			8.4		
Queue Length 95th (m)	#45.0			8.7			15.8			18.8		
Internal Link Dist (m)	895.6			342.5			473.5			79.1		
Turn Bay Length (m)				30.0								
Base Capacity (vph)	1067			307			610			352		
Starvation Cap Reductn	0			0			0			0		
Spillback Cap Reductn	0			0			0			0		
Storage Cap Reductn	0			0			0			0		
Reduced v/c Ratio	0.86			0.46			0.39			0.53		

#### Intersection Summary

Area Type: Other

Cycle Length: 50

Actuated Cycle Length: 50

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green, Master Intersection

Natural Cycle: 55

Control Type: Pretimed

Maximum v/c Ratio: 0.86

Intersection Signal Delay: 16.4

Intersection LOS: B

Intersection Capacity Utilization 67.3%

ICU Level of Service C

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 90: str Grigore Cantacuzino &





Lane Group	WBL	WBR	NBT	NBR	SBL	SBT
Lane Configurations						
Volume (vph)	13	116	133	30	87	174
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.878		0.975			
Flt Protected	0.995					0.984
Satd. Flow (prot)	1534	0	1712	0	0	1728
Flt Permitted	0.995					0.984
Satd. Flow (perm)	1534	0	1712	0	0	1728
Link Speed (k/h)	50		50			50
Link Distance (m)	297.1		450.8			553.7
Travel Time (s)	21.4		32.5			39.9
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	126	145	33	95	189
Shared Lane Traffic (%)						
Lane Group Flow (vph)	140	0	178	0	0	284
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.0		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25	15		15	25	
Sign Control	Free		Free			Free

#### Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 40.7% ICU Level of Service A  
Analysis Period (min) 15



Lanes, Volumes, Timings  
92: str Grigore Cantacuzino &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations	↖	↗	↘	↖	↗	↘	↖	↗	↘	↖	↗	↘
Volume (vph)	279	423	153	284	601	224	171	337	210	220	386	177
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	30.0		30.0	50.0		30.0	50.0		30.0	50.0		30.0
Storage Lanes	1		1	1		1	1		1	1		1
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	1.00	1.00	0.91	0.91	1.00	0.91	0.91	1.00	0.91	0.91
Frt			0.850		0.995	0.850		0.983	0.850		0.994	0.850
Flt Protected	0.950			0.950			0.950			0.950		
Satd. Flow (prot)	1668	3336	1492	1668	3180	1358	1668	3141	1358	1668	3176	1358
Flt Permitted	0.950			0.950			0.950			0.950		
Satd. Flow (perm)	1668	3336	1492	1668	3180	1358	1668	3141	1358	1668	3176	1358
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			166		4	219		13	180		4	173
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		247.9			919.6			596.0			904.0	
Travel Time (s)		17.8			66.2			42.9			65.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	303	460	166	309	653	243	186	366	228	239	420	192
Shared Lane Traffic (%)						10%			21%			10%
Lane Group Flow (vph)	303	460	166	309	677	219	186	414	180	239	439	173
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		3.0			3.5			5.0			5.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Minimum Split (s)	8.0	21.5	21.5	8.0	21.5	21.5	8.0	20.0	20.0	8.0	21.5	21.5
Total Split (s)	23.0	25.0	25.0	24.0	26.0	26.0	16.0	22.0	22.0	19.0	25.0	25.0
Total Split (%)	25.6%	27.8%	27.8%	26.7%	28.9%	28.9%	17.8%	24.4%	24.4%	21.1%	27.8%	27.8%
Maximum Green (s)	19.0	19.5	19.5	20.0	20.5	20.5	12.0	18.0	18.0	15.0	19.5	19.5
Yellow Time (s)	3.5	5.0	5.0	3.5	5.0	5.0	3.5	3.5	3.5	3.5	5.0	5.0
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	5.5	5.5	4.0	5.5	5.5	4.0	4.0	4.0	4.0	5.5	5.5
Lead/Lag	Lag	Lead	Lead	Lag	Lead	Lead	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes			Yes			Yes			Yes		
Walk Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effct Green (s)	19.0	19.5	19.5	20.0	20.5	20.5	12.0	18.0	18.0	15.0	19.5	19.5
Actuated g/C Ratio	0.21	0.22	0.22	0.22	0.23	0.23	0.13	0.20	0.20	0.17	0.22	0.22
v/c Ratio	0.86	0.64	0.37	0.83	0.93	0.46	0.84	0.65	0.43	0.86	0.64	0.40
Control Delay	59.0	36.7	7.5	54.2	55.3	7.7	69.8	37.4	8.6	66.0	36.5	8.0
Queue Delay	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay	59.0	36.7	7.5	54.2	55.3	7.7	69.8	37.4	8.6	66.0	36.5	8.0
LOS	E	D	A	D	E	A	E	D	A	E	D	A
Approach Delay		38.7			46.4			38.5			39.0	





Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS	D			D			D			D		
Stops (vph)	243	374	23	250	550	28	150	330	25	192	353	24
Fuel Used(l)	25	30	5	42	93	19	29	54	17	45	73	23
CO Emissions (g/hr)	457	560	93	782	1726	358	527	997	317	829	1353	420
NOx Emissions (g/hr)	89	109	18	152	336	70	103	194	62	161	263	82
VOC Emissions (g/hr)	106	130	21	181	400	83	122	231	74	192	314	97
Dilemma Vehicles (#)	0	0	0	0	0	0	0	0	0	0	0	0
Queue Length 50th (m)	33.4	25.1	0.0	33.8	41.4	0.0	20.9	23.1	0.0	26.7	24.8	0.0
Queue Length 95th (m)	#62.1	35.5	10.0	#61.6	#64.4	12.4	#43.9	33.6	11.8	#52.8	35.4	11.3
Internal Link Dist (m)	223.9			895.6			572.0			880.0		
Turn Bay Length (m)	30.0		30.0	50.0		30.0	50.0		30.0	50.0		30.0
Base Capacity (vph)	352	723	453	371	727	478	222	639	416	278	691	430
Starvation Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn	0	0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio	0.86	0.64	0.37	0.83	0.93	0.46	0.84	0.65	0.43	0.86	0.64	0.40

#### Intersection Summary

Area Type: Other

Cycle Length: 90

Actuated Cycle Length: 90

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 90

Control Type: Pretimed

Maximum v/c Ratio: 0.93

Intersection Signal Delay: 41.2

Intersection LOS: D

Intersection Capacity Utilization 72.8%

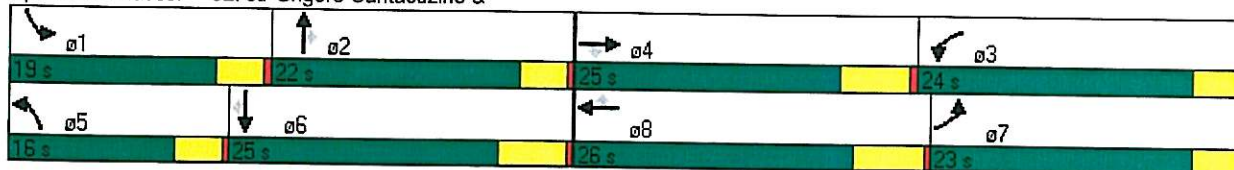
ICU Level of Service C

















Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 92: str Grigore Cantacuzino &



												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	36	257	46	138	55	214	288	302	79	71	277	33
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.982			0.921			0.982			0.987	
Flt Protected		0.995			0.983			0.979			0.991	
Satd. Flow (prot)	0	1716	0	0	3020	0	0	3207	0	0	3263	0
Flt Permitted		0.995			0.983			0.979			0.991	
Satd. Flow (perm)	0	1716	0	0	3020	0	0	3207	0	0	3263	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		844.6			1007.9			386.2			174.5	
Travel Time (s)		60.8			72.6			27.8			12.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	39	279	50	150	60	233	313	328	86	77	301	36
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	368	0	0	443	0	0	727	0	0	414	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			5.0			5.0			5.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Yield			Yield			Yield			Yield	

#### Intersection Summary

Area Type: Other

Control Type: Roundabout

Intersection Capacity Utilization 74.1%

















ICU Level of Service D

Analysis Period (min) 15



Lanes, Volumes, Timings  
95: str Maraseseti &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	SEL	SET	SER	NWL	NWT	NWR
Lane Configurations												
Volume (vph)	57	163	8	115	70	86	89	137	58	0	237	118
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	0.95	0.95	0.95	0.95	0.95	0.95
Frt		0.995			0.957			0.969			0.950	
Flt Protected		0.988			0.979			0.985				
Satd. Flow (prot)	0	1726	0	0	1645	0	0	3184	0	0	3169	0
Flt Permitted		0.988			0.979			0.985				
Satd. Flow (perm)	0	1726	0	0	1645	0	0	3184	0	0	3169	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		231.2			844.6			291.1			315.7	
Travel Time (s)		16.6			60.8			21.0			22.7	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	62	177	9	125	76	93	97	149	63	0	258	128
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	248	0	0	294	0	0	309	0	0	386	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Yield			Yield			Yield			Yield	

Intersection Summary

Area Type: Other

Control Type: Roundabout

Intersection Capacity Utilization 54.5%

















ICU Level of Service A

Analysis Period (min) 15



Lanes, Volumes, Timings  
99: Str. Pompierilor &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	15	20	24	28	7	82	602	34	30	450	10
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.951			0.983			0.994			0.997	
Flt Protected		0.982			0.980			0.994			0.997	
Satd. Flow (prot)	0	1640	0	0	1691	0	0	1735	0	0	1745	0
Flt Permitted		0.982			0.980			0.994			0.997	
Satd. Flow (perm)	0	1640	0	0	1691	0	0	1735	0	0	1745	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		105.0			165.3			758.2			498.7	
Travel Time (s)		7.6			11.9			54.6			35.9	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	22	16	22	26	30	8	89	654	37	33	489	11
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	60	0	0	64	0	0	780	0	0	533	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Stop			Stop			Free			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 71.1%

ICU Level of Service C

Analysis Period (min) 15



Lane Group	SEL	SER	NEL	NET	SWT	SWR
Lane Configurations						
Volume (vph)	174	20	20	508	270	180
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.986				0.946	
Flt Protected	0.957			0.998		
Satd. Flow (prot)	1657	0	0	1752	1661	0
Flt Permitted	0.957			0.998		
Satd. Flow (perm)	1657	0	0	1752	1661	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	450.8			219.7	758.2	
Travel Time (s)	32.5			15.8	54.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	189	22	22	552	293	196
Shared Lane Traffic (%)						
Lane Group Flow (vph)	211	0	0	574	489	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	3.0			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25	15	25			15
Sign Control	Stop			Free	Free	
























#### Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 60.5% ICU Level of Service B  
Analysis Period (min) 15



Lanes, Volumes, Timings  
104: Bd. Republicii & Sos Nordului

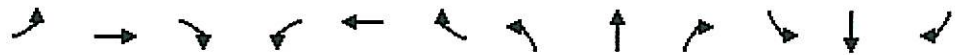
Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	88	494	304	250	600	166	180	210	208	284	427	89
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		30.0	30.0		30.0	30.0		30.0	30.0		30.0
Storage Lanes	0		1	1		1	1		1	1		1
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	0.91	0.91	1.00	0.91	0.86	0.91	1.00	0.95	1.00	1.00	0.95	1.00
Frt			0.850		0.996	0.850			0.850			0.850
Flt Protected		0.992		0.950	0.998		0.950			0.950		
Satd. Flow (prot)	0	4755	1492	1518	3002	1358	1668	3336	1492	1668	3336	1492
Flt Permitted		0.751		0.950	0.940		0.950			0.950		
Satd. Flow (perm)	0	3600	1492	1518	2827	1358	1668	3336	1492	1668	3336	1492
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)			330		4	162			226			97
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		496.4			695.8			499.1			491.6	
Travel Time (s)		35.7			50.1			35.9			35.4	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	96	537	330	272	652	180	196	228	226	309	464	97
Shared Lane Traffic (%)				10%		10%						
Lane Group Flow (vph)	0	633	330	245	697	162	196	228	226	309	464	97
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		5.0			5.0			5.0			5.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Prot		Perm	Prot		Perm	Prot		Perm	Prot		Perm
Protected Phases	7	4		3	8		5	2		1	6	
Permitted Phases			4			8			2			6
Minimum Split (s)	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0	8.0	20.0	20.0
Total Split (s)	8.0	20.0	20.0	19.0	31.0	31.0	20.0	20.0	20.0	21.0	21.0	21.0
Total Split (%)	10.0%	25.0%	25.0%	23.8%	38.8%	38.8%	25.0%	25.0%	25.0%	26.3%	26.3%	26.3%
Maximum Green (s)	4.0	16.0	16.0	15.0	27.0	27.0	16.0	16.0	16.0	17.0	17.0	17.0
Yellow Time (s)	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5	3.5
All-Red Time (s)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5	0.5
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag	Lead	Lag	Lag
Lead-Lag Optimize?	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Walk Time (s)		5.0	5.0		5.0	5.0		5.0	5.0		5.0	5.0
Flash Dont Walk (s)		11.0	11.0		11.0	11.0		11.0	11.0		11.0	11.0
Pedestrian Calls (#/hr)		0	0		0	0		0	0		0	0
Act Effect Green (s)		20.0	16.0	15.0	35.0	27.0	16.0	16.0	16.0	17.0	17.0	17.0
Actuated g/C Ratio		0.25	0.20	0.19	0.44	0.34	0.20	0.20	0.20	0.21	0.21	0.21
v/c Ratio		1.16dl	0.59	0.86	0.80	0.29	0.59	0.34	0.47	0.87	0.65	0.25
Control Delay		28.4	8.3	39.8	19.1	4.7	37.1	29.2	7.8	57.2	33.9	8.0
Queue Delay		0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Delay		28.4	8.3	39.8	19.1	4.7	37.1	29.2	7.8	57.2	33.9	8.0
LOS		C	A	D	B	A	D	C	A	E	C	A
Approach Delay		21.5			21.6			24.1			39.3	



Lanes, Volumes, Timings  
104: Bd. Republicii & Sos Nordului

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

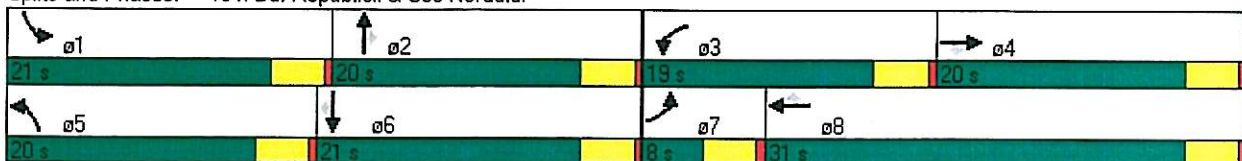


Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Approach LOS		C			C			C			D	
Stops (vph)		587	41	184	392	40	162	173	30	245	379	17
Fuel Used(l)		53	17	26	61	11	33	37	30	46	61	10
CO Emissions (g/hr)		986	318	479	1121	209	606	677	549	846	1134	178
NOx Emissions (g/hr)		192	62	93	218	41	118	132	107	165	221	35
VOC Emissions (g/hr)		229	74	111	260	48	141	157	127	196	263	41
Dilemma Vehicles (#)		0	0	0	0	0	0	0	0	0	0	0
Queue Length 50th (m)		14.5	0.0	24.6	24.0	1.4	17.9	10.3	0.0	30.1	22.4	0.0
Queue Length 95th (m)		19.6	13.4	m23.0	m23.3	m0.9	31.3	16.8	11.2	#58.3	32.5	7.4
Internal Link Dist (m)		472.4			671.8			475.1			467.6	
Turn Bay Length (m)			30.0	30.0		30.0	30.0		30.0	30.0		30.0
Base Capacity (vph)		829	562	285	866	566	334	667	479	354	709	393
Starvation Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Spillback Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Storage Cap Reductn		0	0	0	0	0	0	0	0	0	0	0
Reduced v/c Ratio		0.76	0.59	0.86	0.80	0.29	0.59	0.34	0.47	0.87	0.65	0.25

Intersection Summary








Area Type: Other  
Cycle Length: 80  
Actuated Cycle Length: 80  
Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green  
Natural Cycle: 80  
Control Type: Pretimed  
Maximum v/c Ratio: 0.87  
Intersection Signal Delay: 26.3  
Intersection LOS: C  
Intersection Capacity Utilization 63.5%  
ICU Level of Service B  
Analysis Period (min) 15  
# 95th percentile volume exceeds capacity, queue may be longer.  
Queue shown is maximum after two cycles.  
m Volume for 95th percentile queue is metered by upstream signal.  
dl Defacto Left Lane. Recode with 1 though lane as a left lane.

Splits and Phases: 104: Bd. Republicii & Sos Nordului



Lanes, Volumes, Timings  
107: Str Malu Rosu & Str. Nicolae Titulescu

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	0	50	200	50	100	0	200	0	33	50	200	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	0.0		30.0	0.0		0.0	0.0		20.0	0.0		0.0
Storage Lanes	0		1	0		0	2		1	0		0
Taper Length (m)	7.5		7.5	7.5		7.5	7.5		7.5	7.5		7.5
Lane Util. Factor	1.00	0.95	0.95	1.00	1.00	1.00	0.97	1.00	1.00	0.95	0.95	0.95
Frt		0.908	0.850						0.850		0.975	
Flt Protected					0.984		0.950				0.992	
Satd. Flow (prot)	0	1515	1418	0	1728	0	3236	0	1492	0	3227	0
Flt Permitted					0.984		0.950				0.992	
Satd. Flow (perm)	0	1515	1418	0	1728	0	3236	0	1492	0	3227	0
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		148.5			116.3			199.0			521.1	
Travel Time (s)		10.7			8.4			14.3			37.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	54	217	54	109	0	217	0	36	54	217	54
Shared Lane Traffic (%)			39%									
Lane Group Flow (vph)	0	139	132	0	163	0	217	0	36	0	325	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			6.0			6.0	
Link Offset(m)		0.0			0.0			0.0			-5.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Sign Control		Free			Free			Stop			Stop	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 39.0%

ICU Level of Service A

Analysis Period (min) 15



Lanes, Volumes, Timings  
108: Str. Traian & Str. Nicolae Titulescu

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului



Lane Group	NBL	NBR	NET	NER	SWL	SWT
Lane Configurations						
Volume (vph)	10	190	0	0	166	300
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.872					
Flt Protected	0.997					0.983
Satd. Flow (prot)	1526	0	0	0	0	1726
Flt Permitted	0.997					0.983
Satd. Flow (perm)	1526	0	0	0	0	1726
Link Speed (k/h)	50		50			50
Link Distance (m)	739.2		521.1			232.9
Travel Time (s)	53.2		37.5			16.8
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	11	207	0	0	180	326
Shared Lane Traffic (%)						
Lane Group Flow (vph)	218	0	0	0	0	506
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Left
Median Width(m)	3.0		0.0			0.0
Link Offset(m)	0.0		0.0			0.0
Crosswalk Width(m)	4.8		4.8			4.8
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25	15		15	25	
Sign Control	Free		Stop			Free

Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 43.9% ICU Level of Service A  
Analysis Period (min) 15



Lanes, Volumes, Timings  
110: Int

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului



Lane Group	NBL	NBT	SBT	SBR	NEL	NER
Lane Configurations		↑	↑	↘	↘	
Volume (vph)	0	110	82	580	390	50
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt				0.850	0.985	
Flt Protected					0.958	
Satd. Flow (prot)	0	1756	1756	1492	1657	0
Flt Permitted					0.958	
Satd. Flow (perm)	0	1756	1756	1492	1657	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		73.7	91.6		80.4	
Travel Time (s)		5.3	6.6		5.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	120	89	630	424	54
Shared Lane Traffic (%)						
Lane Group Flow (vph)	0	120	89	630	478	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		0.0	0.0		3.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25			15	25	15
Sign Control		Stop	Free		Free	
















Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 39.2% ICU Level of Service A  
Analysis Period (min) 15



Lanes, Volumes, Timings  
112: Str. Nic. Balcescu &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

									
Lane Group	EBL2	EBR2	NBT	NBR	SBT	NWR	SWL2	SWL	SWR
Lane Configurations									
Volume (vph)	13	14	384	55	354	70	82	250	20
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.850	0.983			0.865		0.992	
Flt Protected	0.950							0.955	
Satd. Flow (prot)	1668	1492	1726	0	1756	1519	0	1663	0
Flt Permitted	0.950							0.955	
Satd. Flow (perm)	1668	1492	1726	0	1756	1519	0	1663	0
Right Turn on Red		Yes							
Satd. Flow (RTOR)		313							
Link Speed (k/h)			50		50			50	
Link Distance (m)			88.8		109.1			63.4	
Travel Time (s)			6.4		7.9			4.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	14	15	417	60	385	76	89	272	22
Shared Lane Traffic (%)									
Lane Group Flow (vph)	14	15	477	0	385	76	0	383	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right	Left	Left	Right
Median Width(m)			0.0		0.0			3.0	
Link Offset(m)			0.0		0.0			0.0	
Crosswalk Width(m)			4.8		4.8			4.8	
Two way Left Turn Lane									
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25	15		15		15	25	25	15
Turn Type	custom	custom				custom	Perm		
Protected Phases			2		6			8!	
Permitted Phases	4	4				8!	8!		
Minimum Split (s)	20.0	20.0	20.0		20.0	20.0	20.0	20.0	
Total Split (s)	20.0	20.0	20.0	0.0	20.0	20.0	20.0	20.0	0.0
Total Split (%)	50.0%	50.0%	50.0%	0.0%	50.0%	50.0%	50.0%	50.0%	0.0%
Maximum Green (s)	16.0	16.0	16.0		16.0	16.0	16.0	16.0	
Yellow Time (s)	3.5	3.5	3.5		3.5	3.5	3.5	3.5	
All-Red Time (s)	0.5	0.5	0.5		0.5	0.5	0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag									
Lead-Lag Optimize?									
Walk Time (s)	5.0	5.0	5.0		5.0	5.0	5.0	5.0	
Flash Dont Walk (s)	11.0	11.0	11.0		11.0	11.0	11.0	11.0	
Pedestrian Calls (#/hr)	0	0	0		0	0	0	0	
Act Effct Green (s)	16.0	16.0	16.0		16.0	16.0		16.0	
Actuated g/C Ratio	0.40	0.40	0.40		0.40	0.40		0.40	
v/c Ratio	0.02	0.02	0.69		0.55	0.12		0.58	
Control Delay	7.5	0.1	17.2		12.9	8.3		13.6	
Queue Delay	0.0	0.0	0.0		0.0	0.0		0.1	
Total Delay	7.5	0.1	17.2		12.9	8.3		13.8	
LOS	A	A	B		B	A		B	
Approach Delay			17.2		12.9			13.8	
Approach LOS			B		B			B	
Stops (vph)	11	0	332		256	44		260	
Fuel Used(l)	0	0	17		13	2		12	



Lanes, Volumes, Timings  
112: Str. Nic. Balcescu &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului



Lane Group	EBL2	EBR2	NBT	NBR	SBT	NWR	SWL2	SWL	SWR
CO Emissions (g/hr)	7	2	314		239	43		215	
NOx Emissions (g/hr)	1	0	61		46	8		42	
VOC Emissions (g/hr)	2	0	73		55	10		50	
Dilemma Vehicles (#)	0	0	0		0	0		0	
Queue Length 50th (m)	0.4	0.0	16.5		12.4	2.0		12.4	
Queue Length 95th (m)	1.7	0.0	#39.1		24.1	5.5		24.7	
Internal Link Dist (m)			64.8		85.1			39.4	
Turn Bay Length (m)									
Base Capacity (vph)	667	785	690		702	608		665	
Starvation Cap Reductn	0	0	0		0	0		23	
Spillback Cap Reductn	0	0	0		0	0		0	
Storage Cap Reductn	0	0	0		0	0		0	
Reduced v/c Ratio	0.02	0.02	0.69		0.55	0.13		0.60	

Intersection Summary

Area Type: Other

Cycle Length: 40

Actuated Cycle Length: 40

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBT, Start of Green

Natural Cycle: 45

Control Type: Pretimed

Maximum v/c Ratio: 0.69

Intersection Signal Delay: 14.2

Intersection LOS: B

Intersection Capacity Utilization 56.5%

ICU Level of Service B

Analysis Period (min) 15

# 95th percentile volume exceeds capacity, queue may be longer.

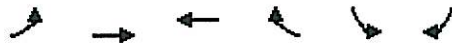
Queue shown is maximum after two cycles.

! Phase conflict between lane groups.

Splits and Phases: 112: Str. Nic. Balcescu &

 ø2	 ø4
20 s	20 s
 ø6	 ø8
20 s	20 s





Lane Group	EBL	EBT	WBT	WBR	SBL	SBR
Lane Configurations						
Volume (vph)	150	820	920	20	40	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)	50.0			0.0	0.0	0.0
Storage Lanes	1			0	1	0
Taper Length (m)	7.5			7.5	7.5	7.5
Lane Util. Factor	0.91	0.91	0.91	0.91	1.00	1.00
Frt			0.997		0.887	
Flt Protected	0.950	0.999			0.992	
Satd. Flow (prot)	1518	3192	4779	0	1545	0
Flt Permitted	0.950	0.999			0.992	
Satd. Flow (perm)	1518	3192	4779	0	1545	0
Link Speed (k/h)		50	50		50	
Link Distance (m)		323.4	496.4		155.4	
Travel Time (s)		23.3	35.7		11.2	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	163	891	1000	22	43	217
Shared Lane Traffic (%)	10%					
Lane Group Flow (vph)	147	907	1022	0	260	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	Left	Right
Median Width(m)		3.0	3.0		3.0	
Link Offset(m)		0.0	0.0		0.0	
Crosswalk Width(m)		4.8	4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25			15	25	15
Sign Control		Yield	Yield		Yield	

#### Intersection Summary

Area Type: Other  
Control Type: Roundabout  
Intersection Capacity Utilization 65.4% ICU Level of Service C  
Analysis Period (min) 15



Lane Group	EBT	EBR	WBL	WBT	NBL	NBR
Lane Configurations	↑↑	↑	↑	↑↑	↑	↑
Volume (vph)	805	136	44	1135	68	76
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Storage Length (m)		25.0	30.0		0.0	30.0
Storage Lanes		1	1		1	1
Taper Length (m)		7.5	7.5		7.5	7.5
Lane Util. Factor	0.95	1.00	1.00	0.95	1.00	1.00
Frt		0.850				0.850
Flt Protected			0.950		0.950	
Satd. Flow (prot)	3336	1492	1668	3336	1668	1492
Flt Permitted			0.950		0.950	
Satd. Flow (perm)	3336	1492	1668	3336	1668	1492
Link Speed (k/h)	50			50	50	
Link Distance (m)	1375.5			323.4	396.5	
Travel Time (s)	99.0			23.3	28.5	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	875	148	48	1234	74	83
Shared Lane Traffic (%)						
Lane Group Flow (vph)	875	148	48	1234	74	83
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	0.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

#### Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 41.8%

ICU Level of Service A

Analysis Period (min) 15



Lanes, Volumes, Timings  
125: Str Depoului &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului



Lane Group	EBL	EBT	WBT	WBR	SBU	SBL	SBR
Lane Configurations							
Volume (vph)	180	50	100	277	190	177	200
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900
Storage Length (m)	40.0			30.0		0.0	0.0
Storage Lanes	2			1		2	1
Taper Length (m)	7.5			7.5		7.5	7.5
Lane Util. Factor	0.97	1.00	0.95	0.95	0.95	0.97	0.91
Frt			0.926	0.850		0.991	0.850
Flt Protected	0.950					0.955	
Satd. Flow (prot)	3236	1756	1545	1418	0	3224	1358
Flt Permitted	0.950					0.955	
Satd. Flow (perm)	3236	1756	1545	1418	0	3224	1358
Link Speed (k/h)		50	50			50	
Link Distance (m)		65.3	110.1			71.0	
Travel Time (s)		4.7	7.9			5.1	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	196	54	109	301	207	192	217
Shared Lane Traffic (%)				35%			12%
Lane Group Flow (vph)	196	54	214	196	0	425	191
Enter Blocked Intersection	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Left	Right	R NA	Left	Right
Median Width(m)		6.0	5.0			8.0	
Link Offset(m)		0.0	0.0			0.0	
Crosswalk Width(m)		4.8	4.8			4.8	
Two way Left Turn Lane							
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25			15	15	25	15
Sign Control		Yield	Yield			Free	

Intersection Summary

Area Type: Other

Control Type: Unsignalized

Intersection Capacity Utilization 38.6%

ICU Level of Service A

Analysis Period (min) 15



Lanes, Volumes, Timings  
132: Int

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului



Lane Group	SET	SER	NWL	NWT	NEL	NER
Lane Configurations						
Volume (vph)	50	118	58	85	128	87
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.905				0.945	
Flt Protected				0.980	0.971	
Satd. Flow (prot)	1589	0	0	1721	1611	0
Flt Permitted				0.980	0.971	
Satd. Flow (perm)	1589	0	0	1721	1611	0
Link Speed (k/h)	50			50	50	
Link Distance (m)	183.2			453.1	383.4	
Travel Time (s)	13.2			32.6	27.6	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	54	128	63	92	139	95
Shared Lane Traffic (%)						
Lane Group Flow (vph)	182	0	0	155	234	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Left	Left	Right
Median Width(m)	0.0			0.0	3.0	
Link Offset(m)	0.0			0.0	0.0	
Crosswalk Width(m)	4.8			4.8	4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)		15	25		25	15
Sign Control	Free			Free	Stop	

Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 40.0% ICU Level of Service A  
Analysis Period (min) 15

Lanes, Volumes, Timings  
136: Str. Trei Ierarhi &

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului



Lane Group	EBL	EBR	NWL	NWR	SWL	SWR
Lane Configurations						
Volume (vph)	400	50	0	0	600	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00
Frt	0.985					
Flt Protected	0.957				0.950	
Satd. Flow (prot)	1655	0	0	0	1668	0
Flt Permitted	0.957				0.950	
Satd. Flow (perm)	1655	0	0	0	1668	0
Link Speed (k/h)	50		50		50	
Link Distance (m)	134.1		177.5		135.6	
Travel Time (s)	9.7		12.8		9.8	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	435	54	0	0	652	0
Shared Lane Traffic (%)						
Lane Group Flow (vph)	489	0	0	0	652	0
Enter Blocked Intersection	No	No	No	No	No	No
Lane Alignment	Left	Right	Left	Right	Left	Right
Median Width(m)	3.0		0.0		3.0	
Link Offset(m)	0.0		0.0		0.0	
Crosswalk Width(m)	4.8		4.8		4.8	
Two way Left Turn Lane						
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25	15	25	15	25	15
Sign Control	Free		Stop		Free	
















Intersection Summary

Area Type: Other  
Control Type: Unsignalized  
Intersection Capacity Utilization 65.1% ICU Level of Service C  
Analysis Period (min) 15



Lanes, Volumes, Timings  
137: Str. I.L. Caragiale & Str. Vlad Tepes

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului

												
Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Lane Configurations												
Volume (vph)	20	950	50	0	0	0	0	50	50	50	50	0
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	0.95	0.95	0.95	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Frt		0.993						0.932				
Flt Protected		0.999									0.976	
Satd. Flow (prot)	0	2730	0	0	0	0	0	1636	0	0	1714	0
Flt Permitted		0.999									0.848	
Satd. Flow (perm)	0	2730	0	0	0	0	0	1636	0	0	1489	0
Right Turn on Red			Yes			Yes			Yes			Yes
Satd. Flow (RTOR)		15						33				
Link Speed (k/h)		50			50			50			50	
Link Distance (m)		376.8			211.4			153.8			97.5	
Travel Time (s)		27.1			15.2			11.1			7.0	
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Parking (#/hr)		50										
Adj. Flow (vph)	22	1033	54	0	0	0	0	54	54	54	54	0
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	1109	0	0	0	0	0	108	0	0	108	0
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Left	Right
Median Width(m)		0.0			0.0			0.0			0.0	
Link Offset(m)		0.0			0.0			0.0			0.0	
Crosswalk Width(m)		4.8			4.8			4.8			4.8	
Two way Left Turn Lane												
Headway Factor	1.09	1.39	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25		15	25		15
Turn Type	Perm									Perm		
Protected Phases		4						2			6	
Permitted Phases	4									6		
Minimum Split (s)	20.0	20.0						20.0		20.0	20.0	
Total Split (s)	20.0	20.0	0.0	0.0	0.0	0.0	0.0	20.0	0.0	20.0	20.0	0.0
Total Split (%)	50.0%	50.0%	0.0%	0.0%	0.0%	0.0%	0.0%	50.0%	0.0%	50.0%	50.0%	0.0%
Maximum Green (s)	16.0	16.0						16.0		16.0	16.0	
Yellow Time (s)	3.5	3.5						3.5		3.5	3.5	
All-Red Time (s)	0.5	0.5						0.5		0.5	0.5	
Lost Time Adjust (s)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Total Lost Time (s)	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0	4.0
Lead/Lag												
Lead-Lag Optimize?												
Walk Time (s)	5.0	5.0						5.0		5.0	5.0	
Flash Dont Walk (s)	11.0	11.0						11.0		11.0	11.0	
Pedestrian Calls (#/hr)	0	0						0		0	0	
Act Effct Green (s)		16.0						16.0			16.0	
Actuated g/C Ratio		0.40						0.40			0.40	
v/c Ratio		1.01						0.16			0.18	
Control Delay		45.3						6.6			8.8	
Queue Delay		0.0						0.0			0.0	
Total Delay		45.3						6.6			8.8	
LOS		D						A			A	
Approach Delay		45.3						6.6			8.8	
Approach LOS		D						A			A	
Stops (vph)		791						45			61	



Lanes, Volumes, Timings  
137: Str. I.L. Caragiale & Str. Vlad Tepes

Actualizare PUG - Ploiesti  
Situatia existenta a desfasurarii traficului



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL	NBT	NBR	SBL	SBT	SBR
Fuel Used(l)		90						3			3	
CO Emissions (g/hr)		1661						55			55	
NOx Emissions (g/hr)		323						11			11	
VOC Emissions (g/hr)		385						13			13	
Dilemma Vehicles (#)		0						0			0	
Queue Length 50th (m)		~24.6						2.0			2.9	
Queue Length 95th (m)		#49.0						6.1			7.3	
Internal Link Dist (m)		352.8			187.4			129.8			73.5	
Turn Bay Length (m)												
Base Capacity (vph)		1101						674			596	
Starvation Cap Reductn		0						0			0	
Spillback Cap Reductn		0						0			0	
Storage Cap Reductn		0						0			0	
Reduced v/c Ratio		1.01						0.16			0.18	

Intersection Summary

Area Type: Other

Cycle Length: 40

Actuated Cycle Length: 40

Offset: 0 (0%), Referenced to phase 2:NBT and 6:SBTL, Start of Green

Natural Cycle: 50

Control Type: Pretimed

Maximum v/c Ratio: 1.01

Intersection Signal Delay: 39.2

Intersection LOS: D

Intersection Capacity Utilization 47.2%

ICU Level of Service A

Analysis Period (min) 15

~ Volume exceeds capacity, queue is theoretically infinite.

Queue shown is maximum after two cycles.

# 95th percentile volume exceeds capacity, queue may be longer.

Queue shown is maximum after two cycles.

Splits and Phases: 137: Str. I.L. Caragiale & Str. Vlad Tepes

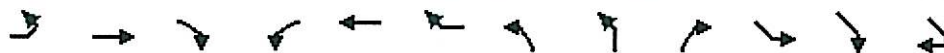
20 s	20 s
20 s	

## Lanes, Volumes, Timings

139: Str. Grigore Cantacuzino &amp; Str. Trei Ierarhi

Actualizare PUG - Ploiesti

Situatia existenta a desfasurarii traficului



Lane Group	EBL	EBT	EBR	WBL	WBT	WBR	NBL2	NBL	NBR	SEL	SER	SER2
Lane Configurations												
Volume (vph)	0	0	0	50	610	0	50	0	0	0	50	600
Ideal Flow (vphpl)	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900	1900
Lane Util. Factor	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00	1.00
Fr <sub>t</sub>											0.850	0.850
Flt Protected					0.996		0.950					
Satd. Flow (prot)	0	0	0	0	1749	0	1668	0	0	0	1492	1492
Flt Permitted					0.996		0.950					
Satd. Flow (perm)	0	0	0	0	1749	0	1668	0	0	0	1492	1492
Link Speed (k/h)		50			50			50		50		
Link Distance (m)		391.4			219.2			97.5		177.5		
Travel Time (s)		28.2			15.8			7.0		12.8		
Peak Hour Factor	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92	0.92
Adj. Flow (vph)	0	0	0	54	663	0	54	0	0	0	54	652
Shared Lane Traffic (%)												
Lane Group Flow (vph)	0	0	0	0	717	0	54	0	0	0	54	652
Enter Blocked Intersection	No	No	No	No	No	No	No	No	No	No	No	No
Lane Alignment	Left	Left	Right	Left	Left	Right	Left	Left	Right	Left	Right	Right
Median Width(m)		0.0			0.0			3.0		0.0		
Link Offset(m)		0.0			0.0			0.0		0.0		
Crosswalk Width(m)		4.8			4.8			4.8		4.8		
Two way Left Turn Lane												
Headway Factor	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.09
Turning Speed (k/h)	25		15	25		15	25	25	15	25	15	15
Sign Control		Yield			Yield			Yield		Yield		

## Intersection Summary

Area Type: Other

Control Type: Roundabout

Intersection Capacity Utilization 78.7%

ICU Level of Service D

Analysis Period (min) 15

## **ANEXA 3**



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Summary of All Intervals

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Start Time	6:57
End Time	7:10
Total Time (min)	13
Time Recorded (min)	10
# of Intervals	2
# of Recorded Intvls	1
Vehs Entered	2953
Vehs Exited	2070
Starting Vehs	717
Ending Vehs	1600
Denied Entry Before	7
Denied Entry After	46
Travel Distance (km)	6113
Travel Time (hr)	206.3
Total Delay (hr)	71.1
Total Stops	7090
Fuel Used (l)	566.2

---

Interval #0 Information Seeding

---

Start Time	6:57
End Time	7:00
Total Time (min)	3
Volumes adjusted by Growth Factors.	
No data recorded this interval.	

---

Interval #1 Information Recording

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Start Time	7:00
End Time	7:10
Total Time (min)	10
Volumes adjusted by Growth Factors.	

Vehs Entered	2953
Vehs Exited	2070
Starting Vehs	717
Ending Vehs	1600
Denied Entry Before	7
Denied Entry After	46
Travel Distance (km)	6113
Travel Time (hr)	206.3
Total Delay (hr)	71.1
Total Stops	7090
Fuel Used (l)	566.2



## 2: Str. Petrolului &amp; Bd. Bucuresti Performance by approach

Approach	EB	WB	NB	SB	All
Total Delay (hr)	0.0	0.0	0.2	0.1	0.4
Delay / Veh (s)	4.1	5.2	7.3	5.6	6.1
Stop Delay (hr)	0.0	0.0	0.1	0.0	0.1
St Del/Veh (s)	0.8	1.6	2.1	0.8	1.5
Total Stops	5	10	26	11	52
Stop/Veh	0.18	0.33	0.28	0.18	0.25
Travel Dist (km)	13.1	10.1	23.0	50.2	96.4
Travel Time (hr)	0.3	0.3	0.7	1.2	2.5
Avg Speed (kph)	41	40	33	40	38
Fuel Used (l)	1.1	0.6	2.5	4.0	8.1
Fuel Eff. (kpl)	12.4	16.0	9.3	12.7	11.8
HC Emissions (g)	2	1	7	6	16
CO Emissions (g)	88	13	279	238	618
NOx Emissions (g)	7	2	27	23	60
Vehicles Entered	28	31	92	65	216
Vehicles Exited	28	29	93	58	208
Hourly Exit Rate	168	174	558	348	1248
Input Volume	235	176	569	721	1701
% of Volume	71	99	98	48	73
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

## 5: Bd. Bucuresti &amp; Performance by approach

Approach	NB	SE	All
Total Delay (hr)	0.1	0.0	0.1
Delay / Veh (s)	3.1	2.6	2.9
Stop Delay (hr)	0.0	0.0	0.0
St Del/Veh (s)	0.3	0.6	0.4
Total Stops	0	0	0
Stop/Veh	0.00	0.00	0.00
Travel Dist (km)	92.7	20.6	113.3
Travel Time (hr)	2.1	0.6	2.7
Avg Speed (kph)	44	34	42
Fuel Used (l)	7.1	1.9	9.0
Fuel Eff. (kpl)	13.1	10.9	12.6
HC Emissions (g)	19	3	22
CO Emissions (g)	543	178	721
NOx Emissions (g)	59	13	72
Vehicles Entered	106	66	172
Vehicles Exited	113	63	176
Hourly Exit Rate	678	378	1056
Input Volume	700	710	1410
% of Volume	97	53	75
Denied Entry Before	0	0	0
Denied Entry After	0	0	0



## 6: Str. Veronica Micle &amp; Bd. Independentei Performance by approach

Approach	WB	NB	SB	All
Total Delay (hr)	1.4	0.0	2.1	3.5
Delay / Veh (s)	49.4	1.5	61.5	42.0
Stop Delay (hr)	1.3	0.0	1.7	2.9
St Del/Veh (s)	45.5	0.3	48.8	35.2
Total Stops	110	3	156	269
Stop/Veh	1.09	0.04	1.27	0.89
Travel Dist (km)	27.3	3.5	83.0	113.8
Travel Time (hr)	2.0	0.2	3.8	6.0
Avg Speed (kph)	13	20	22	19
Fuel Used (l)	3.5	0.5	8.0	12.0
Fuel Eff. (kpl)	7.8	6.4	10.4	9.4
HC Emissions (g)	6	1	8	15
CO Emissions (g)	292	23	365	680
NOx Emissions (g)	24	4	42	70
Vehicles Entered	107	78	139	324
Vehicles Exited	95	77	108	280
Hourly Exit Rate	570	462	648	1680
Input Volume	694	647	1170	2511
% of Volume	82	71	55	67
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

## 9: Bd. Independentei &amp; Performance by approach

Approach	EB	WB	NB	SB	All
Total Delay (hr)	0.0	0.0	0.3	0.5	0.8
Delay / Veh (s)	1.5	2.4	10.1	11.7	10.8
Stop Delay (hr)	0.0	0.0	0.2	0.2	0.4
St Del/Veh (s)	1.2	1.1	5.6	5.8	5.6
Total Stops	1	1	55	77	134
Stop/Veh	0.25	0.33	0.51	0.53	0.52
Travel Dist (km)	0.3	0.6	74.1	59.4	134.5
Travel Time (hr)	0.0	0.0	1.9	1.7	3.6
Avg Speed (kph)	25	33	39	36	38
Fuel Used (l)	0.0	0.1	6.1	4.7	10.9
Fuel Eff. (kpl)	7.3	8.8	12.2	12.6	12.3
HC Emissions (g)	0	0	14	6	20
CO Emissions (g)	5	5	474	230	715
NOx Emissions (g)	0	1	47	27	75
Vehicles Entered	4	3	110	150	267
Vehicles Exited	4	3	106	139	252
Hourly Exit Rate	24	18	636	834	1512
Input Volume	20	25	900	1183	2128
% of Volume	120	72	71	70	71
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0



## 10: Bd. independentei &amp; Str. Maramures Performance by approach

Approach	NB	SB	NE	All
Total Delay (hr)	0.3	0.3	0.2	0.7
Delay / Veh (s)	8.1	6.2	11.6	7.8
Stop Delay (hr)	0.2	0.2	0.1	0.5
St Del/Veh (s)	4.0	3.8	9.5	4.7
Total Stops	43	48	25	116
Stop/Veh	0.30	0.31	0.50	0.33
Travel Dist (km)	49.9	9.7	9.2	68.8
Travel Time (hr)	1.4	0.5	0.4	2.2
Avg Speed (kph)	38	20	25	31
Fuel Used (l)	4.5	1.5	0.6	6.6
Fuel Eff. (kpl)	11.2	6.5	14.9	10.4
HC Emissions (g)	10	2	1	13
CO Emissions (g)	360	109	25	493
NOx Emissions (g)	38	12	3	53
Vehicles Entered	144	158	53	355
Vehicles Exited	138	154	48	340
Hourly Exit Rate	828	924	288	2040
Input Volume	1058	1150	520	2728
% of Volume	78	80	55	75
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

## 11: Str. Mihai Bravu &amp; Performance by approach

Approach	WB	SB	All
Total Delay (hr)	0.0	0.0	0.0
Delay / Veh (s)	1.4	3.4	1.8
Stop Delay (hr)	0.0	0.0	0.0
St Del/Veh (s)	0.0	3.5	0.6
Total Stops	0	11	11
Stop/Veh	0.00	0.73	0.13
Travel Dist (km)	11.0	0.4	11.5
Travel Time (hr)	0.3	0.0	0.3
Avg Speed (kph)	43	13	39
Fuel Used (l)	0.7	0.0	0.7
Fuel Eff. (kpl)	16.5	12.3	16.3
HC Emissions (g)	2	0	2
CO Emissions (g)	41	1	42
NOx Emissions (g)	6	0	6
Vehicles Entered	68	15	83
Vehicles Exited	69	15	84
Hourly Exit Rate	414	90	504
Input Volume	355	100	455
% of Volume	117	90	111
Denied Entry Before	0	0	0
Denied Entry After	0	0	0



## 14: Bd. Republicii &amp; Str. Gh. Lazar Performance by approach

Approach	NB	SB	SW	All
Total Delay (hr)	0.4	1.1	0.4	2.0
Delay / Veh (s)	9.0	25.7	14.3	16.1
Stop Delay (hr)	0.3	0.9	0.3	1.6
St Del/Veh (s)	6.7	21.8	10.7	13.0
Total Stops	83	103	82	268
Stop/Veh	0.46	0.67	0.77	0.61
Travel Dist (km)	11.5	29.4	10.4	51.2
Travel Time (hr)	0.7	1.8	0.7	3.2
Avg Speed (kph)	15	17	16	16
Fuel Used (l)	1.6	3.7	1.0	6.3
Fuel Eff. (kpl)	7.0	7.9	10.8	8.1
HC Emissions (g)	4	7	1	12
CO Emissions (g)	133	354	40	527
NOx Emissions (g)	15	28	4	47
Vehicles Entered	182	163	104	449
Vehicles Exited	179	146	107	432
Hourly Exit Rate	1074	876	642	2592
Input Volume	1468	1201	795	3464
% of Volume	73	73	81	75
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

## 15: Str. Nic. Balcescu &amp; Str. Gh Lazar Performance by approach

Approach	NB	SB	All
Total Delay (hr)	0.1	0.2	0.3
Delay / Veh (s)	8.1	7.8	7.9
Stop Delay (hr)	0.1	0.1	0.2
St Del/Veh (s)	6.9	4.0	4.9
Total Stops	9	37	46
Stop/Veh	0.19	0.38	0.31
Travel Dist (km)	1.7	8.4	10.1
Travel Time (hr)	0.2	0.4	0.6
Avg Speed (kph)	11	20	18
Fuel Used (l)	0.4	1.0	1.4
Fuel Eff. (kpl)	4.5	8.4	7.3
HC Emissions (g)	2	2	4
CO Emissions (g)	47	77	124
NOx Emissions (g)	6	9	16
Vehicles Entered	50	99	149
Vehicles Exited	47	98	145
Hourly Exit Rate	282	588	870
Input Volume	510	670	1180
% of Volume	55	88	74
Denied Entry Before	0	0	0
Denied Entry After	0	0	0



## 16: Bd. Republicii &amp; Str. Dobrogeanu Gherea Performance by approach

Approach	SE	NW	NE	SW	All
Total Delay (hr)	0.3	0.9	0.5	0.4	2.1
Delay / Veh (s)	7.6	24.4	17.2	28.0	17.7
Stop Delay (hr)	0.2	0.8	0.4	0.3	1.7
St Del/Veh (s)	4.5	20.1	13.1	23.5	13.8
Total Stops	38	101	76	55	270
Stop/Veh	0.28	0.74	0.70	1.04	0.62
Travel Dist (km)	42.5	27.2	24.7	6.8	101.1
Travel Time (hr)	1.2	1.5	1.1	0.6	4.4
Avg Speed (kph)	37	18	22	11	23
Fuel Used (l)	3.9	3.1	3.0	1.0	11.0
Fuel Eff. (kpl)	11.0	8.8	8.1	6.5	9.2
HC Emissions (g)	12	6	5	4	27
CO Emissions (g)	407	280	292	108	1088
NOx Emissions (g)	42	23	21	12	98
Vehicles Entered	137	146	111	58	452
Vehicles Exited	136	128	106	49	419
Hourly Exit Rate	816	768	636	294	2514
Input Volume	1130	1095	808	470	3503
% of Volume	72	70	79	63	72
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

## 17: Bd. Republicii &amp; Str. Vasile Milea Performance by approach

Approach	EB	WB	SB	All
Total Delay (hr)	0.3	0.4	0.0	0.7
Delay / Veh (s)	8.3	11.6	5.2	9.3
Stop Delay (hr)	0.2	0.2	0.0	0.4
St Del/Veh (s)	5.2	6.2	4.4	5.5
Total Stops	54	54	15	123
Stop/Veh	0.42	0.49	0.48	0.45
Travel Dist (km)	20.4	35.8	2.8	59.1
Travel Time (hr)	0.8	1.1	0.1	2.1
Avg Speed (kph)	24	32	22	28
Fuel Used (l)	2.9	3.4	0.2	6.5
Fuel Eff. (kpl)	7.0	10.5	12.6	9.0
HC Emissions (g)	12	9	0	21
CO Emissions (g)	387	346	20	753
NOx Emissions (g)	41	33	1	75
Vehicles Entered	130	115	32	277
Vehicles Exited	127	108	31	266
Hourly Exit Rate	762	648	186	1596
Input Volume	1077	961	230	2268
% of Volume	71	67	81	70
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0



## 18: Bd. Republicii &amp; Performance by approach

Approach	WB	NB	SB	SE	All
Total Delay (hr)	0.3	1.0	0.4	1.7	3.5
Delay / Veh (s)	11.6	52.8	20.2	52.4	34.6
Stop Delay (hr)	0.2	1.1	0.4	1.5	3.1
St Del/Veh (s)	6.0	53.2	17.7	44.4	30.0
Total Stops	57	65	58	133	313
Stop/Veh	0.58	0.92	0.73	1.12	0.85
Travel Dist (km)	10.5	5.5	5.5	85.1	106.5
Travel Time (hr)	0.6	1.2	0.6	3.6	5.9
Avg Speed (kph)	18	5	10	23	18
Fuel Used (l)	1.2	1.2	0.8	8.3	11.5
Fuel Eff. (kpl)	8.5	4.6	7.3	10.2	9.2
HC Emissions (g)	2	0	0	26	29
CO Emissions (g)	78	29	24	765	895
NOx Emissions (g)	10	3	3	79	95
Vehicles Entered	104	74	82	130	390
Vehicles Exited	94	68	77	108	347
Hourly Exit Rate	564	408	462	648	2082
Input Volume	925	410	700	1007	3042
% of Volume	61	100	66	64	68
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

## 20: Str. Rudului &amp; Performance by approach

Approach	EB	NB	SW	All
Total Delay (hr)	0.7	0.5	0.1	1.3
Delay / Veh (s)	19.3	18.9	5.6	15.7
Stop Delay (hr)	0.4	0.3	0.0	0.7
St Del/Veh (s)	11.4	12.0	1.5	9.1
Total Stops	84	65	21	170
Stop/Veh	0.67	0.69	0.28	0.58
Travel Dist (km)	23.8	26.6	14.7	65.0
Travel Time (hr)	1.2	1.1	0.5	2.7
Avg Speed (kph)	20	25	31	24
Fuel Used (l)	2.7	2.3	1.8	6.8
Fuel Eff. (kpl)	8.8	11.6	8.2	9.6
HC Emissions (g)	3	2	8	14
CO Emissions (g)	175	114	278	567
NOx Emissions (g)	17	13	28	58
Vehicles Entered	131	96	76	303
Vehicles Exited	119	92	73	284
Hourly Exit Rate	714	552	438	1704
Input Volume	1050	684	694	2428
% of Volume	68	81	63	70
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0



**21: Str. Emil Zola & Str. Carpati Performance by approach**

Approach	WB	NB	SB	All
Total Delay (hr)	0.3	0.0	0.2	0.6
Delay / Veh (s)	33.8	1.8	8.1	10.5
Stop Delay (hr)	0.3	0.0	0.1	0.4
St Del/Veh (s)	30.5	0.8	3.9	7.5
Total Stops	20	0	35	55
Stop/Veh	0.54	0.00	0.32	0.26
Travel Dist (km)	4.4	7.5	18.8	30.6
Travel Time (hr)	0.5	0.3	0.7	1.4
Avg Speed (kph)	9	30	29	22
Fuel Used (l)	0.8	1.3	1.9	3.9
Fuel Eff. (kpl)	5.6	6.0	9.8	7.8
HC Emissions (g)	2	2	3	7
CO Emissions (g)	68	143	188	399
NOx Emissions (g)	6	11	15	32
Vehicles Entered	42	68	115	225
Vehicles Exited	33	68	104	205
Hourly Exit Rate	198	408	624	1230
Input Volume	351	511	849	1711
% of Volume	56	80	73	72
Denied Entry Before	0	0	0	0
Denied Entry After	1	0	0	1

**22: str. Gh Doja & Str. Valeni Performance by approach**

Approach	EB	WB	NB	SB	All
Total Delay (hr)	0.2	0.8	0.2	0.5	1.8
Delay / Veh (s)	22.3	32.8	10.8	15.7	20.0
Stop Delay (hr)	0.2	0.7	0.2	0.2	1.2
St Del/Veh (s)	17.1	25.7	7.9	6.3	13.4
Total Stops	31	106	39	65	241
Stop/Veh	0.79	1.15	0.48	0.57	0.73
Travel Dist (km)	25.2	17.0	12.7	41.7	96.5
Travel Time (hr)	0.8	1.2	0.5	1.3	3.9
Avg Speed (kph)	33	14	24	31	25
Fuel Used (l)	2.3	2.4	1.2	2.8	8.7
Fuel Eff. (kpl)	11.1	6.9	10.3	14.9	11.0
HC Emissions (g)	3	3	3	3	12
CO Emissions (g)	140	194	104	73	512
NOx Emissions (g)	12	17	12	9	51
Vehicles Entered	39	97	84	120	340
Vehicles Exited	39	88	81	109	317
Hourly Exit Rate	234	528	486	654	1902
Input Volume	324	921	639	800	2684
% of Volume	72	57	76	82	71
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0



## 25: Sos. Nordului &amp; Str. Gageni Performance by approach

Approach	EB	WB	SE	NW	All
Total Delay (hr)	0.2	0.1	0.4	0.3	1.0
Delay / Veh (s)	13.5	15.7	12.4	13.8	13.3
Stop Delay (hr)	0.2	0.1	0.2	0.3	0.8
St Del/Veh (s)	10.6	14.0	7.9	11.2	9.9
Total Stops	39	19	45	36	139
Stop/Veh	0.63	0.86	0.42	0.44	0.51
Travel Dist (km)	29.0	2.7	57.2	44.0	132.8
Travel Time (hr)	0.8	0.2	1.6	1.2	3.8
Avg Speed (kph)	34	15	36	37	35
Fuel Used (l)	2.0	0.5	5.1	3.2	10.7
Fuel Eff. (kpl)	14.7	6.0	11.2	13.9	12.4
HC Emissions (g)	2	1	12	5	20
CO Emissions (g)	48	41	453	115	657
NOx Emissions (g)	7	4	43	17	71
Vehicles Entered	63	23	108	84	278
Vehicles Exited	62	21	107	79	269
Hourly Exit Rate	372	126	642	474	1614
Input Volume	464	158	654	814	2090
% of Volume	80	80	98	58	77
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

## 29: Str. Pomilor &amp; Str. Strandului Performance by approach

Approach	SE	NW	NE	SW	All
Total Delay (hr)	0.1	0.1	0.6	1.4	2.2
Delay / Veh (s)	6.5	7.5	17.3	42.4	25.5
Stop Delay (hr)	0.0	0.0	0.4	1.2	1.7
St Del/Veh (s)	2.9	4.2	10.2	36.6	19.5
Total Stops	17	20	81	113	231
Stop/Veh	0.57	0.80	0.62	0.92	0.75
Travel Dist (km)	11.1	11.6	68.1	62.9	153.6
Travel Time (hr)	0.3	0.3	2.0	2.9	5.5
Avg Speed (kph)	37	39	34	22	28
Fuel Used (l)	1.1	1.0	4.6	6.2	12.9
Fuel Eff. (kpl)	10.4	11.6	14.7	10.1	11.9
HC Emissions (g)	5	2	5	8	19
CO Emissions (g)	153	81	130	405	769
NOx Emissions (g)	17	7	18	33	76
Vehicles Entered	31	23	134	125	313
Vehicles Exited	29	26	126	122	303
Hourly Exit Rate	174	156	756	732	1818
Input Volume	177	170	1113	810	2270
% of Volume	98	92	68	90	80
Denied Entry Before	0	0	1	0	1
Denied Entry After	0	0	0	0	0



## 30: DN1A &amp; Performance by approach

Approach	SE	NW	NE	SW	All
Total Delay (hr)	0.4	0.4	0.2	0.8	1.8
Delay / Veh (s)	18.6	22.1	7.3	30.7	19.5
Stop Delay (hr)	0.3	0.4	0.0	0.9	1.6
St Del/Veh (s)	14.7	18.7	1.3	32.9	16.8
Total Stops	54	59	37	21	171
Stop/Veh	0.77	0.86	0.36	0.21	0.51
Travel Dist (km)	24.0	18.8	51.9	4.2	98.9
Travel Time (hr)	0.9	0.9	1.4	0.9	4.0
Avg Speed (kph)	27	22	38	5	25
Fuel Used (l)	2.5	2.1	4.5	1.0	10.0
Fuel Eff. (kpl)	9.7	9.2	11.5	4.3	9.9
HC Emissions (g)	4	3	7	0	14
CO Emissions (g)	219	203	321	22	765
NOx Emissions (g)	17	14	27	2	60
Vehicles Entered	72	67	101	99	339
Vehicles Exited	68	70	102	98	338
Hourly Exit Rate	408	420	612	588	2028
Input Volume	363	374	864	734	2335
% of Volume	112	112	71	80	87
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

## 34: Str. Apelor &amp; Performance by approach

Approach	SE	NW	NE	SW	All
Total Delay (hr)	0.6	0.9	0.1	4.0	5.6
Delay / Veh (s)	43.7	62.0	3.2	111.9	53.4
Stop Delay (hr)	0.5	0.9	0.0	3.7	5.2
St Del/Veh (s)	42.0	59.5	1.1	104.2	49.4
Total Stops	42	56	1	148	247
Stop/Veh	0.89	1.08	0.01	1.15	0.65
Travel Dist (km)	14.9	8.5	9.9	31.2	64.5
Travel Time (hr)	0.9	1.1	0.4	4.7	7.1
Avg Speed (kph)	16	8	23	11	12
Fuel Used (l)	1.8	1.2	1.5	4.9	9.4
Fuel Eff. (kpl)	8.1	7.0	6.8	6.4	6.9
HC Emissions (g)	2	0	2	2	8
CO Emissions (g)	140	30	77	108	355
NOx Emissions (g)	11	3	14	8	36
Vehicles Entered	49	59	149	142	399
Vehicles Exited	46	45	149	117	357
Hourly Exit Rate	276	270	894	702	2142
Input Volume	219	370	1225	1019	2833
% of Volume	126	73	73	69	76
Denied Entry Before	0	0	0	1	1
Denied Entry After	0	1	1	26	28



**38: Str. Mihai Bravu & Str. Avantului Performance by approach**

Approach	EB	WB	NB	SB	All
Total Delay (hr)	0.0	0.0	0.0	0.3	0.4
Delay / Veh (s)	1.8	1.4	33.8	12.8	6.4
Stop Delay (hr)	0.0	0.0	0.0	0.2	0.3
St Del/Veh (s)	0.9	0.2	31.4	9.7	4.6
Total Stops	13	0	2	82	97
Stop/Veh	0.20	0.00	1.00	0.99	0.47
Travel Dist (km)	2.8	40.5	0.4	33.7	77.4
Travel Time (hr)	0.1	0.9	0.0	1.1	2.1
Avg Speed (kph)	27	47	14	35	39
Fuel Used (l)	0.2	3.5	0.1	2.8	6.6
Fuel Eff. (kpl)	12.5	11.7	6.7	11.8	11.7
HC Emissions (g)	0	13	0	10	23
CO Emissions (g)	9	348	5	275	637
NOx Emissions (g)	1	39	0	31	72
Vehicles Entered	63	56	2	84	205
Vehicles Exited	65	56	2	82	205
Hourly Exit Rate	390	336	12	492	1230
Input Volume	310	296	8	473	1087
% of Volume	126	114	150	104	113
Denied Entry Before	0	0	0	1	1
Denied Entry After	0	0	0	1	1

**39: Str. Gh Doja & Performance by approach**

Approach	EB	NB	SW	All
Total Delay (hr)	0.1	0.5	0.2	0.8
Delay / Veh (s)	9.3	18.9	3.3	8.6
Stop Delay (hr)	0.1	0.4	0.0	0.6
St Del/Veh (s)	5.8	18.0	0.8	6.4
Total Stops	32	63	1	96
Stop/Veh	0.57	0.70	0.01	0.29
Travel Dist (km)	8.5	6.0	11.3	25.8
Travel Time (hr)	0.3	0.7	0.5	1.5
Avg Speed (kph)	26	10	21	18
Fuel Used (l)	0.6	1.1	1.9	3.5
Fuel Eff. (kpl)	14.5	5.6	6.1	7.3
HC Emissions (g)	1	2	2	5
CO Emissions (g)	29	61	88	178
NOx Emissions (g)	3	7	16	27
Vehicles Entered	57	92	181	330
Vehicles Exited	55	88	181	324
Hourly Exit Rate	330	528	1086	1944
Input Volume	650	630	1352	2632
% of Volume	51	84	80	74
Denied Entry Before	0	0	0	0
Denied Entry After	0	2	0	2



## 43: Str. Buzau &amp; Str. Postei Performance by approach

Approach	EB	WB	NB	All
Total Delay (hr)	0.1	0.0	0.0	0.1
Delay / Veh (s)	7.0	0.8	1.8	2.8
Stop Delay (hr)	0.0	0.0	0.0	0.1
St Del/Veh (s)	4.5	0.0	0.8	1.5
Total Stops	34	0	2	36
Stop/Veh	0.89	0.00	0.07	0.27
Travel Dist (km)	3.0	15.9	3.2	22.0
Travel Time (hr)	0.2	0.4	0.1	0.6
Avg Speed (kph)	17	44	28	34
Fuel Used (l)	0.4	0.9	0.4	1.7
Fuel Eff. (kpl)	7.3	16.7	8.4	12.7
HC Emissions (g)	1	1	2	4
CO Emissions (g)	25	33	63	121
NOx Emissions (g)	3	4	7	13
Vehicles Entered	39	62	30	131
Vehicles Exited	37	64	30	131
Hourly Exit Rate	222	384	180	786
Input Volume	354	565	235	1154
% of Volume	63	68	77	68
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

## 44: Str. Postei &amp; Performance by approach

Approach	NB	SB	SE	NW	All
Total Delay (hr)	0.0	0.2	0.1	1.2	1.6
Delay / Veh (s)	10.3	13.9	11.9	88.4	38.6
Stop Delay (hr)	0.0	0.1	0.1	1.1	1.4
St Del/Veh (s)	9.1	10.3	9.5	82.1	34.5
Total Stops	4	31	20	61	116
Stop/Veh	0.80	0.60	0.50	1.22	0.79
Travel Dist (km)	0.3	7.1	2.6	10.5	20.5
Travel Time (hr)	0.0	0.4	0.2	1.5	2.1
Avg Speed (kph)	12	18	13	7	10
Fuel Used (l)	0.1	0.9	0.4	2.1	3.5
Fuel Eff. (kpl)	5.3	7.9	6.0	4.9	5.8
HC Emissions (g)	1	1	1	2	5
CO Emissions (g)	13	86	31	125	255
NOx Emissions (g)	2	7	3	10	21
Vehicles Entered	5	53	40	62	160
Vehicles Exited	5	51	40	39	135
Hourly Exit Rate	30	306	240	234	810
Input Volume	65	378	225	347	1015
% of Volume	46	81	107	67	80
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0



## 45: Str. Iasului &amp; Str. Neagoe Basarab Performance by approach

Approach	WB	NB	SB	All
Total Delay (hr)	0.1	0.1	0.1	0.2
Delay / Veh (s)	8.1	4.7	5.0	5.4
Stop Delay (hr)	0.0	0.0	0.0	0.1
St Del/Veh (s)	6.2	0.9	2.5	2.4
Total Stops	27	8	11	46
Stop/Veh	1.00	0.11	0.26	0.33
Travel Dist (km)	2.4	6.7	7.6	16.7
Travel Time (hr)	0.1	0.3	0.3	0.7
Avg Speed (kph)	20	23	31	25
Fuel Used (l)	0.2	0.9	0.8	1.9
Fuel Eff. (kpl)	13.6	7.6	9.0	8.8
HC Emissions (g)	0	1	4	5
CO Emissions (g)	10	60	136	206
NOx Emissions (g)	1	7	12	20
Vehicles Entered	27	70	42	139
Vehicles Exited	27	70	42	139
Hourly Exit Rate	162	420	252	834
Input Volume	327	778	216	1321
% of Volume	50	54	117	63
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

## 47: Str. Mihai Bravu &amp; Str. Gradinari Performance by approach

Approach	EB	WB	NE	All
Total Delay (hr)	0.0	0.0	0.0	0.1
Delay / Veh (s)	0.7	1.6	2.3	1.6
Stop Delay (hr)	0.0	0.0	0.0	0.0
St Del/Veh (s)	0.2	0.7	0.7	0.6
Total Stops	1	13	9	23
Stop/Veh	0.02	0.13	0.19	0.12
Travel Dist (km)	10.9	7.7	24.9	43.5
Travel Time (hr)	0.2	0.2	0.6	1.0
Avg Speed (kph)	45	36	44	43
Fuel Used (l)	1.0	0.5	1.6	3.1
Fuel Eff. (kpl)	11.0	14.4	15.4	13.8
HC Emissions (g)	2	2	2	6
CO Emissions (g)	96	49	58	204
NOx Emissions (g)	7	6	7	20
Vehicles Entered	43	99	47	189
Vehicles Exited	44	98	49	191
Hourly Exit Rate	264	588	294	1146
Input Volume	230	528	248	1006
% of Volume	115	111	119	114
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0



## 48: str. Armasilor &amp; Str. Udriste Nasturel Performance by approach

Approach	EB	WB	SE	NW	All
Total Delay (hr)	0.0	0.0	0.0	0.1	0.2
Delay / Veh (s)	2.1	1.1	6.0	10.2	3.9
Stop Delay (hr)	0.0	0.0	0.0	0.1	0.1
St Del/Veh (s)	0.5	0.2	4.6	6.9	2.2
Total Stops	4	0	22	30	56
Stop/Veh	0.06	0.00	0.96	1.00	0.34
Travel Dist (km)	20.5	19.9	9.4	6.2	56.0
Travel Time (hr)	0.5	0.5	0.3	0.2	1.5
Avg Speed (kph)	41	44	36	27	39
Fuel Used (l)	2.2	1.7	0.9	0.7	5.5
Fuel Eff. (kpl)	9.3	11.5	10.5	8.8	10.1
HC Emissions (g)	4	7	4	1	16
CO Emissions (g)	229	203	102	86	619
NOx Emissions (g)	17	23	12	6	58
Vehicles Entered	70	44	24	29	167
Vehicles Exited	70	41	23	30	164
Hourly Exit Rate	420	246	138	180	984
Input Volume	364	210	146	138	858
% of Volume	115	117	95	130	115
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

## 49: Str. Gh. Doja &amp; Str. Calomfirescu Performance by approach

Approach	EB	WB	SE	All
Total Delay (hr)	0.0	0.0	0.0	0.1
Delay / Veh (s)	2.5	0.6	4.7	1.7
Stop Delay (hr)	0.0	0.0	0.0	0.0
St Del/Veh (s)	0.4	0.0	3.5	0.4
Total Stops	4	0	4	8
Stop/Veh	0.06	0.00	0.33	0.05
Travel Dist (km)	15.5	14.2	3.0	32.7
Travel Time (hr)	0.4	0.4	0.1	0.8
Avg Speed (kph)	41	39	33	39
Fuel Used (l)	1.5	1.6	0.3	3.4
Fuel Eff. (kpl)	10.5	9.1	9.6	9.7
HC Emissions (g)	2	3	1	6
CO Emissions (g)	118	183	41	342
NOx Emissions (g)	11	12	3	25
Vehicles Entered	64	82	13	159
Vehicles Exited	65	78	12	155
Hourly Exit Rate	390	468	72	930
Input Volume	748	580	68	1396
% of Volume	52	81	106	67
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0



## 50: Str. Postei &amp; Str. ion Creanga Performance by approach

Approach	EB	WB	SE	All
Total Delay (hr)	0.0	0.0	0.0	0.0
Delay / Veh (s)	2.0	0.2	6.5	1.3
Stop Delay (hr)	0.0	0.0	0.0	0.0
St Del/Veh (s)	0.3	0.0	3.1	0.2
Total Stops	0	0	2	2
Stop/Veh	0.00	0.00	0.40	0.02
Travel Dist (km)	13.1	5.3	0.7	19.0
Travel Time (hr)	0.3	0.2	0.0	0.6
Avg Speed (kph)	40	26	26	34
Fuel Used (l)	1.4	1.0	0.1	2.6
Fuel Eff. (kpl)	9.1	5.1	7.5	7.4
HC Emissions (g)	5	2	0	7
CO Emissions (g)	176	150	12	337
NOx Emissions (g)	17	10	1	28
Vehicles Entered	52	65	5	122
Vehicles Exited	50	64	5	119
Hourly Exit Rate	300	384	30	714
Input Volume	444	580	50	1074
% of Volume	68	66	60	66
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

## 52: Str. Gh. Doja &amp; Str. Transilvaniei Performance by approach

Approach	EB	WB	NB	SB	All
Total Delay (hr)	0.2	0.3	0.1	0.2	0.8
Delay / Veh (s)	11.7	11.3	8.7	23.2	12.6
Stop Delay (hr)	0.1	0.2	0.1	0.2	0.6
St Del/Veh (s)	7.2	7.1	6.4	20.1	8.8
Total Stops	34	45	19	29	127
Stop/Veh	0.56	0.47	0.50	0.91	0.55
Travel Dist (km)	14.5	21.4	6.8	6.1	48.7
Travel Time (hr)	0.5	0.8	0.2	0.4	1.9
Avg Speed (kph)	28	29	28	17	26
Fuel Used (l)	1.5	1.7	0.7	0.8	4.7
Fuel Eff. (kpl)	9.7	12.4	9.6	7.4	10.3
HC Emissions (g)	2	2	1	1	7
CO Emissions (g)	122	78	61	95	357
NOx Emissions (g)	11	9	5	6	31
Vehicles Entered	63	97	40	33	233
Vehicles Exited	60	96	37	32	225
Hourly Exit Rate	360	576	222	192	1350
Input Volume	614	641	455	180	1890
% of Volume	59	90	49	107	71
Denied Entry Before	0	0	0	0	0
Denied Entry After	1	0	0	0	1



## 54: Str. Gh Doja &amp; Str. Romana Performance by approach

Approach	EB	WB	NB	SB	All
Total Delay (hr)	0.4	0.8	0.6	0.3	2.1
Delay / Veh (s)	19.8	29.8	50.0	16.3	26.9
Stop Delay (hr)	0.3	0.6	0.5	0.2	1.7
St Del/Veh (s)	15.0	22.4	46.5	12.0	21.6
Total Stops	51	63	42	42	198
Stop/Veh	0.66	0.66	1.00	0.67	0.71
Travel Dist (km)	13.1	24.1	6.5	21.8	65.5
Travel Time (hr)	0.8	1.3	0.8	0.8	3.6
Avg Speed (kph)	18	18	8	28	18
Fuel Used (l)	1.5	2.5	1.2	2.2	7.4
Fuel Eff. (kpl)	8.6	9.8	5.4	9.9	8.9
HC Emissions (g)	2	2	1	4	9
CO Emissions (g)	108	117	75	188	488
NOx Emissions (g)	9	13	6	15	44
Vehicles Entered	83	103	47	64	297
Vehicles Exited	72	90	37	63	262
Hourly Exit Rate	432	540	222	378	1572
Input Volume	517	669	507	314	2007
% of Volume	84	81	44	120	78
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

## 56: Str. Greceanu &amp; Str. Romana Performance by approach

Approach	WB	SB	NE	All
Total Delay (hr)	0.2	1.1	0.1	1.3
Delay / Veh (s)	12.4	57.1	7.4	29.7
Stop Delay (hr)	0.1	1.0	0.1	1.2
St Del/Veh (s)	9.3	51.3	5.4	25.8
Total Stops	45	85	26	156
Stop/Veh	0.85	1.27	0.65	0.97
Travel Dist (km)	6.8	10.0	8.1	24.9
Travel Time (hr)	0.4	1.3	0.3	2.0
Avg Speed (kph)	18	8	31	13
Fuel Used (l)	0.7	1.9	0.5	3.1
Fuel Eff. (kpl)	9.5	5.4	16.0	8.1
HC Emissions (g)	1	2	1	3
CO Emissions (g)	50	97	24	171
NOx Emissions (g)	5	8	3	16
Vehicles Entered	54	75	41	170
Vehicles Exited	53	60	39	152
Hourly Exit Rate	318	360	234	912
Input Volume	642	396	319	1357
% of Volume	50	91	73	67
Denied Entry Before	0	0	0	0
Denied Entry After	0	2	0	2



## 57: Str. Gh Doja &amp; Str. Decebal Performance by approach

Approach	EB	WB	NB	SB	NW	All
Total Delay (hr)	0.1	1.8	0.3	0.1	0.0	2.2
Delay / Veh (s)	4.1	73.8	16.5	10.0	3.6	34.4
Stop Delay (hr)	0.0	1.7	0.2	0.0	0.0	2.0
St Del/Veh (s)	0.9	69.9	14.7	7.9	1.2	31.5
Total Stops	0	99	56	19	4	178
Stop/Veh	0.00	1.10	1.00	1.00	0.25	0.76
Travel Dist (km)	8.7	15.6	10.8	3.2	3.5	41.8
Travel Time (hr)	0.3	2.2	0.5	0.1	0.1	3.2
Avg Speed (kph)	34	7	20	23	39	13
Fuel Used (l)	1.2	2.7	1.1	0.4	0.3	5.7
Fuel Eff. (kpl)	7.4	5.9	9.7	8.7	10.2	7.4
HC Emissions (g)	2	1	2	1	1	7
CO Emissions (g)	131	88	119	48	31	417
NOx Emissions (g)	10	8	8	3	2	32
Vehicles Entered	53	98	56	19	15	241
Vehicles Exited	52	82	56	19	16	225
Hourly Exit Rate	312	492	336	114	96	1350
Input Volume	388	737	445	100	180	1850
% of Volume	80	67	76	114	53	73
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0

## 58: Str. Emil Zola &amp; Str. Vasile Milea Performance by approach

Approach	EB	WB	NB	SB	All
Total Delay (hr)	0.1	0.2	0.0	0.0	0.4
Delay / Veh (s)	10.0	17.2	1.5	2.2	8.5
Stop Delay (hr)	0.1	0.2	0.0	0.0	0.3
St Del/Veh (s)	6.0	14.0	1.0	0.6	6.0
Total Stops	33	34	6	2	75
Stop/Veh	0.70	0.71	0.17	0.05	0.44
Travel Dist (km)	5.6	7.3	2.3	7.3	22.6
Travel Time (hr)	0.3	0.4	0.1	0.2	1.0
Avg Speed (kph)	20	19	24	35	23
Fuel Used (l)	0.7	0.6	0.4	0.8	2.6
Fuel Eff. (kpl)	7.9	11.8	5.7	8.7	8.8
HC Emissions (g)	2	1	1	2	5
CO Emissions (g)	85	20	47	92	245
NOx Emissions (g)	8	3	4	7	22
Vehicles Entered	47	49	38	39	173
Vehicles Exited	47	47	34	39	167
Hourly Exit Rate	282	282	204	234	1002
Input Volume	403	388	239	304	1334
% of Volume	70	73	85	77	75
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0



## 60: Bd. Republicii &amp; Str Andrei Muresan Performance by approach

Approach	EB	WB	NB	SB	NW	All
Total Delay (hr)	1.3	0.8	0.1	2.2	0.6	5.1
Delay / Veh (s)	37.4	41.5	14.0	76.6	32.8	45.7
Stop Delay (hr)	1.0	0.7	0.1	2.0	0.6	4.3
St Del/Veh (s)	27.7	37.0	11.8	68.9	30.0	39.2
Total Stops	134	45	19	164	44	406
Stop/Veh	1.05	0.67	0.66	1.58	0.64	1.02
Travel Dist (km)	89.3	44.1	5.5	35.3	46.4	220.7
Travel Time (hr)	3.3	1.7	0.3	3.0	1.7	9.9
Avg Speed (kph)	28	26	21	12	28	22
Fuel Used (l)	8.3	4.0	0.7	5.2	4.3	22.5
Fuel Eff. (kpl)	10.8	11.1	7.4	6.8	10.8	9.8
HC Emissions (g)	32	5	4	6	11	58
CO Emissions (g)	791	242	115	360	335	1843
NOx Emissions (g)	97	21	12	27	35	192
Vehicles Entered	136	71	30	115	71	423
Vehicles Exited	120	64	28	93	68	373
Hourly Exit Rate	720	384	168	558	408	2238
Input Volume	1056	659	261	603	750	3329
% of Volume	68	58	64	93	54	67
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	0	0	0	0	0

## 63: Str Grigore Cantacuzino &amp; Str. Traian Performance by approach

Approach	EB	WB	SB	All
Total Delay (hr)	0.1	0.0	0.0	0.2
Delay / Veh (s)	3.1	0.7	4.8	2.1
Stop Delay (hr)	0.0	0.0	0.0	0.0
St Del/Veh (s)	0.3	0.1	4.0	0.4
Total Stops	1	3	5	9
Stop/Veh	0.01	0.02	0.36	0.03
Travel Dist (km)	48.6	15.6	7.2	71.4
Travel Time (hr)	1.1	0.5	0.2	1.8
Avg Speed (kph)	43	32	42	40
Fuel Used (l)	4.6	2.4	0.6	7.6
Fuel Eff. (kpl)	10.6	6.4	12.6	9.4
HC Emissions (g)	7	9	1	16
CO Emissions (g)	282	381	40	703
NOx Emissions (g)	31	31	3	65
Vehicles Entered	139	127	13	279
Vehicles Exited	128	122	15	265
Hourly Exit Rate	768	732	90	1590
Input Volume	1040	1201	166	2407
% of Volume	74	61	54	66
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0



## 65: Str. Mihai Bravu &amp; Str. Udriste Nasturel Performance by approach

Approach	EB	WB	NB	All
Total Delay (hr)	0.0	0.0	0.1	0.2
Delay / Veh (s)	1.1	2.1	10.1	4.4
Stop Delay (hr)	0.0	0.0	0.1	0.1
St Del/Veh (s)	0.7	0.7	6.6	2.6
Total Stops	0	6	37	43
Stop/Veh	0.00	0.10	0.92	0.34
Travel Dist (km)	6.6	13.4	16.9	36.8
Travel Time (hr)	0.2	0.3	0.5	0.9
Avg Speed (kph)	42	43	35	39
Fuel Used (l)	0.6	0.9	1.5	3.1
Fuel Eff. (kpl)	10.5	14.4	11.1	12.0
HC Emissions (g)	1	5	2	9
CO Emissions (g)	62	83	117	262
NOx Emissions (g)	5	14	9	28
Vehicles Entered	29	57	39	125
Vehicles Exited	30	60	41	131
Hourly Exit Rate	180	360	246	786
Input Volume	153	320	209	682
% of Volume	118	112	118	115
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

## 67: Str. Mihai Bravu &amp; Performance by approach

Approach	WB	NB	SB	All
Total Delay (hr)	0.4	0.2	0.2	0.8
Delay / Veh (s)	16.7	17.2	8.8	13.2
Stop Delay (hr)	0.3	0.2	0.2	0.7
St Del/Veh (s)	13.7	14.7	6.6	10.7
Total Stops	54	29	34	117
Stop/Veh	0.70	0.66	0.34	0.53
Travel Dist (km)	6.3	2.2	3.4	11.9
Travel Time (hr)	0.5	0.3	0.3	1.1
Avg Speed (kph)	12	8	12	11
Fuel Used (l)	0.7	0.5	0.5	1.7
Fuel Eff. (kpl)	8.4	4.7	6.8	7.0
HC Emissions (g)	2	1	1	4
CO Emissions (g)	61	32	18	111
NOx Emissions (g)	6	4	3	13
Vehicles Entered	81	47	100	228
Vehicles Exited	73	42	98	213
Hourly Exit Rate	438	252	588	1278
Input Volume	425	500	690	1615
% of Volume	103	50	85	79
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	2	2



## 70: Str. N. Balcescu &amp; Str. Greceanu Performance by approach

Approach	NB	SE	NW	NE	SW	All
Total Delay (hr)	1.6	0.9	1.0	0.7	0.5	4.6
Delay / Veh (s)	150.5	37.6	116.1	40.4	40.9	65.3
Stop Delay (hr)	1.5	0.8	1.0	0.6	0.4	4.3
St Del/Veh (s)	145.7	34.6	111.2	33.9	37.1	60.8
Total Stops	53	66	37	55	37	248
Stop/Veh	1.39	0.80	1.19	0.92	0.86	0.98
Travel Dist (km)	4.0	6.0	2.4	8.5	3.4	24.3
Travel Time (hr)	1.7	1.0	1.1	0.9	0.6	5.3
Avg Speed (kph)	2	7	2	9	6	5
Fuel Used (l)	1.7	1.2	1.1	1.4	0.8	6.2
Fuel Eff. (kpl)	2.3	5.2	2.2	5.9	4.5	4.0
HC Emissions (g)	0	0	0	1	1	4
CO Emissions (g)	36	31	19	71	40	197
NOx Emissions (g)	3	3	2	7	4	19
Vehicles Entered	43	87	35	63	45	273
Vehicles Exited	33	77	27	58	41	236
Hourly Exit Rate	198	462	162	348	246	1416
Input Volume	476	524	300	521	293	2114
% of Volume	42	88	54	67	84	67
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	1	0	0	1	2

## 71: Str. Greceanu &amp; Str. Iasului Performance by approach

Approach	SE	NW	SW	All
Total Delay (hr)	0.0	0.0	0.0	0.1
Delay / Veh (s)	1.3	1.9	7.0	2.6
Stop Delay (hr)	0.0	0.0	0.0	0.0
St Del/Veh (s)	0.3	0.2	5.9	1.4
Total Stops	0	0	24	24
Stop/Veh	0.00	0.00	0.96	0.20
Travel Dist (km)	8.1	2.7	2.5	13.3
Travel Time (hr)	0.2	0.1	0.1	0.4
Avg Speed (kph)	35	33	19	30
Fuel Used (l)	1.2	0.4	0.3	1.9
Fuel Eff. (kpl)	6.9	6.2	7.7	6.9
HC Emissions (g)	2	1	1	4
CO Emissions (g)	156	42	31	229
NOx Emissions (g)	11	4	3	18
Vehicles Entered	68	31	26	125
Vehicles Exited	65	31	25	121
Hourly Exit Rate	390	186	150	726
Input Volume	402	413	264	1079
% of Volume	97	45	57	67
Denied Entry Before	0	0	0	0
Denied Entry After	1	0	0	1



## 72: Str. Mihai Bravu &amp; str. Gh. Lazar Performance by approach

Approach	WB	SW	All
Total Delay (hr)	0.1	0.0	0.1
Delay / Veh (s)	4.3	0.2	3.8
Stop Delay (hr)	0.1	0.0	0.1
St Del/Veh (s)	2.6	0.0	2.3
Total Stops	81	0	81
Stop/Veh	0.92	0.00	0.81
Travel Dist (km)	3.3	0.6	3.9
Travel Time (hr)	0.2	0.0	0.2
Avg Speed (kph)	15	23	16
Fuel Used (l)	0.4	0.1	0.6
Fuel Eff. (kpl)	7.7	5.0	7.1
HC Emissions (g)	0	0	1
CO Emissions (g)	18	18	36
NOx Emissions (g)	3	1	4
Vehicles Entered	87	12	99
Vehicles Exited	88	12	100
Hourly Exit Rate	528	72	600
Input Volume	595	120	715
% of Volume	89	60	84
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

## 74: Str. Sondelor &amp; str. Depoului Performance by approach

Approach	EB	WB	SW	All
Total Delay (hr)	0.1	0.0	0.0	0.2
Delay / Veh (s)	5.9	3.5	9.8	5.8
Stop Delay (hr)	0.0	0.0	0.0	0.1
St Del/Veh (s)	3.2	1.5	9.1	3.7
Total Stops	14	8	5	27
Stop/Veh	0.28	0.25	0.28	0.27
Travel Dist (km)	11.0	35.5	3.6	50.1
Travel Time (hr)	0.4	0.8	0.1	1.3
Avg Speed (kph)	32	46	26	40
Fuel Used (l)	1.3	2.3	0.3	3.8
Fuel Eff. (kpl)	8.7	15.6	13.0	13.2
HC Emissions (g)	5	3	0	8
CO Emissions (g)	194	62	19	275
NOx Emissions (g)	16	9	1	27
Vehicles Entered	51	33	20	104
Vehicles Exited	49	32	17	98
Hourly Exit Rate	294	192	102	588
Input Volume	350	300	290	940
% of Volume	84	64	35	63
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0



**76: Str. D Bagdazar & Str. Gh. Lazar Performance by approach**

Approach	NE	SW	All
Total Delay (hr)	0.0	0.0	0.0
Delay / Veh (s)	1.0	0.9	0.9
Stop Delay (hr)	0.0	0.0	0.0
St Del/Veh (s)	0.3	0.2	0.3
Total Stops	1	0	1
Stop/Veh	0.02	0.00	0.01
Travel Dist (km)	5.0	7.3	12.3
Travel Time (hr)	0.2	0.2	0.4
Avg Speed (kph)	27	33	30
Fuel Used (l)	0.7	1.4	2.0
Fuel Eff. (kpl)	7.5	5.4	6.1
HC Emissions (g)	1	3	5
CO Emissions (g)	80	204	283
NOx Emissions (g)	6	14	21
Vehicles Entered	49	97	146
Vehicles Exited	49	97	146
Hourly Exit Rate	294	582	876
Input Volume	675	710	1385
% of Volume	44	82	63
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

**77: Str. D Bagdazar & Str. Nicolae Balcescu Performance by approach**

Approach	EB	NB	SB	All
Total Delay (hr)	0.1	0.1	0.2	0.4
Delay / Veh (s)	8.2	8.3	10.0	9.1
Stop Delay (hr)	0.1	0.1	0.1	0.3
St Del/Veh (s)	6.3	6.7	6.8	6.6
Total Stops	23	15	44	82
Stop/Veh	0.55	0.54	0.60	0.57
Travel Dist (km)	3.7	1.7	3.6	9.0
Travel Time (hr)	0.2	0.1	0.3	0.6
Avg Speed (kph)	17	14	13	15
Fuel Used (l)	0.6	0.3	0.6	1.5
Fuel Eff. (kpl)	6.3	6.1	5.9	6.1
HC Emissions (g)	1	1	1	3
CO Emissions (g)	61	33	37	131
NOx Emissions (g)	5	4	4	13
Vehicles Entered	41	27	76	144
Vehicles Exited	43	28	71	142
Hourly Exit Rate	258	168	426	852
Input Volume	580	220	510	1310
% of Volume	44	76	84	65
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0



## 79: Str Avram Iancu &amp; Str. Mihai Bravu Performance by approach

Approach	SE	NW	All
Total Delay (hr)	0.0	0.0	0.0
Delay / Veh (s)	0.3	1.3	1.1
Stop Delay (hr)	0.0	0.0	0.0
St Del/Veh (s)	0.2	0.4	0.4
Total Stops	0	0	0
Stop/Veh	0.00	0.00	0.00
Travel Dist (km)	1.1	23.0	24.1
Travel Time (hr)	0.0	0.5	0.5
Avg Speed (kph)	37	45	45
Fuel Used (l)	0.2	2.0	2.2
Fuel Eff. (kpl)	5.7	11.4	10.9
HC Emissions (g)	0	7	7
CO Emissions (g)	31	179	210
NOx Emissions (g)	2	21	23
Vehicles Entered	11	70	81
Vehicles Exited	11	68	79
Hourly Exit Rate	66	408	474
Input Volume	55	355	410
% of Volume	120	115	116
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

## 81: Str. Basarabilor &amp; Str. Dobrogeanu Gherea Performance by approach

Approach	EB	SB	SW	All
Total Delay (hr)	0.0	0.1	0.0	0.1
Delay / Veh (s)	0.7	10.0	0.9	2.3
Stop Delay (hr)	0.0	0.1	0.0	0.1
St Del/Veh (s)	0.0	8.6	0.3	1.5
Total Stops	0	22	0	22
Stop/Veh	0.00	1.00	0.00	0.16
Travel Dist (km)	4.5	2.7	6.6	13.8
Travel Time (hr)	0.2	0.1	0.3	0.7
Avg Speed (kph)	19	19	19	19
Fuel Used (l)	0.5	0.4	0.7	1.5
Fuel Eff. (kpl)	10.0	7.6	9.8	9.3
HC Emissions (g)	0	2	1	3
CO Emissions (g)	9	59	35	102
NOx Emissions (g)	1	6	5	12
Vehicles Entered	63	21	53	137
Vehicles Exited	61	23	51	135
Hourly Exit Rate	366	138	306	810
Input Volume	588	160	420	1168
% of Volume	62	86	73	69
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0



**83: Str. Mihai Bravu & Str. Cornatel Performance by approach**

Approach	EB	WB	All
Total Delay (hr)	0.0	0.0	0.0
Delay / Veh (s)	0.4	0.4	0.4
Stop Delay (hr)	0.0	0.0	0.0
St Del/Veh (s)	0.0	0.3	0.2
Total Stops	0	0	0
Stop/Veh	0.00	0.00	0.00
Travel Dist (km)	12.0	5.7	17.7
Travel Time (hr)	0.2	0.2	0.4
Avg Speed (kph)	49	29	40
Fuel Used (l)	0.8	1.1	1.8
Fuel Eff. (kpl)	15.7	5.3	9.6
HC Emissions (g)	1	5	6
CO Emissions (g)	32	166	198
NOx Emissions (g)	3	17	20
Vehicles Entered	87	100	187
Vehicles Exited	88	102	190
Hourly Exit Rate	528	612	1140
Input Volume	448	534	982
% of Volume	118	115	116
Denied Entry Before	0	0	0
Denied Entry After	0	0	0

**86: Str. I.L. Caragiale & Str. Grigore Cantacuzino Performance by approach**

Approach	EB	SW	All
Total Delay (hr)	0.0	0.1	0.1
Delay / Veh (s)	0.5	2.9	1.7
Stop Delay (hr)	0.0	0.0	0.0
St Del/Veh (s)	0.0	0.3	0.2
Total Stops	0	6	6
Stop/Veh	0.00	0.04	0.02
Travel Dist (km)	16.4	53.6	70.0
Travel Time (hr)	0.3	1.4	1.7
Avg Speed (kph)	47	39	41
Fuel Used (l)	1.1	4.6	5.7
Fuel Eff. (kpl)	14.6	11.6	12.2
HC Emissions (g)	1	14	15
CO Emissions (g)	31	496	527
NOx Emissions (g)	4	47	51
Vehicles Entered	130	143	273
Vehicles Exited	130	133	263
Hourly Exit Rate	780	798	1578
Input Volume	1055	1260	2315
% of Volume	74	63	68
Denied Entry Before	0	0	0
Denied Entry After	0	0	0



## 87: Str Plaiesilor &amp; Str. Rudului Performance by approach

Approach	EB	NB	SB	All
Total Delay (hr)	1.0	0.4	0.2	1.6
Delay / Veh (s)	54.5	14.2	11.5	25.0
Stop Delay (hr)	0.8	0.2	0.2	1.1
St Del/Veh (s)	42.1	7.8	7.9	17.7
Total Stops	65	40	30	135
Stop/Veh	0.97	0.42	0.43	0.58
Travel Dist (km)	36.4	46.2	22.5	105.1
Travel Time (hr)	1.8	1.3	0.8	3.8
Avg Speed (kph)	21	36	30	28
Fuel Used (l)	3.1	3.5	2.3	8.8
Fuel Eff. (kpl)	11.9	13.4	9.9	12.0
HC Emissions (g)	5	4	4	14
CO Emissions (g)	100	142	216	458
NOx Emissions (g)	15	16	15	46
Vehicles Entered	74	98	75	247
Vehicles Exited	60	92	66	218
Hourly Exit Rate	360	552	396	1308
Input Volume	532	658	826	2016
% of Volume	68	84	48	65
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

## 89: str. Marasesti &amp; str. Torcatori Performance by approach

Approach	EB	WB	NB	SB	All
Total Delay (hr)	0.4	0.1	0.1	0.3	0.9
Delay / Veh (s)	11.7	5.6	15.3	13.9	11.7
Stop Delay (hr)	0.2	0.0	0.1	0.2	0.6
St Del/Veh (s)	7.6	2.9	12.3	9.8	7.9
Total Stops	63	10	16	61	150
Stop/Veh	0.56	0.23	0.67	0.69	0.56
Travel Dist (km)	97.6	17.1	12.2	31.3	158.2
Travel Time (hr)	2.4	0.4	0.4	1.1	4.3
Avg Speed (kph)	40	41	35	31	38
Fuel Used (l)	7.9	1.3	1.0	2.9	13.2
Fuel Eff. (kpl)	12.4	12.9	11.8	10.7	12.0
HC Emissions (g)	11	2	1	12	26
CO Emissions (g)	443	84	69	353	950
NOx Emissions (g)	41	8	6	37	92
Vehicles Entered	114	47	22	89	272
Vehicles Exited	111	42	26	87	266
Hourly Exit Rate	666	252	156	522	1596
Input Volume	810	456	252	609	2127
% of Volume	82	55	62	86	75
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0



## 90: str Grigore Cantacuzino &amp; Performance by approach

Approach	EB	WB	NB	SB	All
Total Delay (hr)	0.7	0.2	0.1	0.2	1.3
Delay / Veh (s)	21.7	8.2	6.5	11.9	13.1
Stop Delay (hr)	0.4	0.2	0.1	0.2	0.8
St Del/Veh (s)	11.8	5.3	4.6	9.2	8.1
Total Stops	92	45	19	38	194
Stop/Veh	0.77	0.42	0.29	0.53	0.53
Travel Dist (km)	105.2	38.0	20.7	6.6	170.5
Travel Time (hr)	2.9	1.0	0.6	0.4	4.9
Avg Speed (kph)	36	37	37	17	35
Fuel Used (l)	8.6	2.7	2.1	0.5	14.0
Fuel Eff. (kpl)	12.2	14.1	9.7	12.2	12.2
HC Emissions (g)	17	5	4	0	26
CO Emissions (g)	471	130	196	22	819
NOx Emissions (g)	59	17	15	2	93
Vehicles Entered	117	110	66	76	369
Vehicles Exited	122	103	64	68	357
Hourly Exit Rate	732	618	384	408	2142
Input Volume	854	1117	536	500	3007
% of Volume	86	55	72	82	71
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

## 91: Str. Calimani &amp; Str. Eroilor Performance by approach

Approach	WB	NB	SB	All
Total Delay (hr)	0.0	0.0	0.0	0.0
Delay / Veh (s)	0.8	0.8	4.1	2.4
Stop Delay (hr)	0.0	0.0	0.0	0.0
St Del/Veh (s)	0.1	0.1	0.1	0.1
Total Stops	1	0	1	2
Stop/Veh	0.05	0.00	0.04	0.03
Travel Dist (km)	5.9	4.8	14.7	25.4
Travel Time (hr)	0.1	0.1	0.3	0.6
Avg Speed (kph)	40	43	43	43
Fuel Used (l)	0.6	0.5	1.2	2.2
Fuel Eff. (kpl)	10.6	10.5	12.3	11.5
HC Emissions (g)	1	1	2	4
CO Emissions (g)	69	44	69	182
NOx Emissions (g)	4	3	7	14
Vehicles Entered	20	12	28	60
Vehicles Exited	19	11	27	57
Hourly Exit Rate	114	66	162	342
Input Volume	129	200	261	590
% of Volume	88	33	62	58
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0



## 92: Str. Gr. Cantacuzino &amp; Sos. Vestului Performance by approach

Approach	EB	WB	NB	SB	All
Total Delay (hr)	1.6	0.8	0.6	0.4	3.5
Delay / Veh (s)	38.3	25.5	23.3	14.5	26.8
Stop Delay (hr)	1.4	0.6	0.5	0.3	2.8
St Del/Veh (s)	32.8	18.5	19.3	10.6	21.5
Total Stops	124	77	58	43	302
Stop/Veh	0.83	0.65	0.59	0.43	0.65
Travel Dist (km)	35.7	95.0	47.1	80.4	258.3
Travel Time (hr)	2.4	2.8	1.6	2.0	8.9
Avg Speed (kph)	16	34	29	39	30
Fuel Used (l)	5.3	7.6	4.0	5.6	22.5
Fuel Eff. (kpl)	6.8	12.5	11.7	14.5	11.5
HC Emissions (g)	20	17	5	9	50
CO Emissions (g)	643	462	185	178	1466
NOx Emissions (g)	62	56	19	27	163
Vehicles Entered	152	129	101	103	485
Vehicles Exited	148	107	98	97	450
Hourly Exit Rate	888	642	588	582	2700
Input Volume	855	1109	718	981	3663
% of Volume	104	58	82	59	74
Denied Entry Before	0	0	0	0	0
Denied Entry After	1	0	0	0	1

## 94: str Maraseseti &amp; Sos Vestului Performance by approach

Approach	EB	WB	SE	NW	All
Total Delay (hr)	0.1	0.1	0.1	0.1	0.4
Delay / Veh (s)	6.9	2.6	4.4	7.7	5.0
Stop Delay (hr)	0.0	0.0	0.0	0.1	0.1
St Del/Veh (s)	1.5	0.5	0.4	3.6	1.3
Total Stops	14	6	12	32	64
Stop/Veh	0.21	0.07	0.14	0.57	0.21
Travel Dist (km)	54.5	60.2	29.1	8.8	152.6
Travel Time (hr)	1.3	1.3	0.7	0.3	3.7
Avg Speed (kph)	43	45	41	27	42
Fuel Used (l)	4.3	4.8	2.0	1.1	12.2
Fuel Eff. (kpl)	12.7	12.4	14.9	7.9	12.5
HC Emissions (g)	6	13	4	2	24
CO Emissions (g)	248	388	75	122	832
NOx Emissions (g)	23	42	13	10	87
Vehicles Entered	70	96	85	57	308
Vehicles Exited	66	84	82	56	288
Hourly Exit Rate	396	504	492	336	1728
Input Volume	370	848	823	381	2422
% of Volume	107	59	60	88	71
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0



## 95: str Maraseseti &amp; DN1 Performance by approach

Approach	EB	WB	SE	NW	All
Total Delay (hr)	0.1	0.1	0.1	0.2	0.4
Delay / Veh (s)	5.4	5.7	4.7	9.5	6.6
Stop Delay (hr)	0.0	0.0	0.0	0.1	0.1
St Del/Veh (s)	1.5	1.6	0.9	5.2	2.6
Total Stops	18	8	12	34	72
Stop/Veh	0.43	0.20	0.24	0.54	0.37
Travel Dist (km)	9.0	29.0	13.6	18.3	69.9
Travel Time (hr)	0.3	0.7	0.4	0.6	1.9
Avg Speed (kph)	33	43	35	32	37
Fuel Used (l)	1.0	2.3	1.5	1.9	6.7
Fuel Eff. (kpl)	8.8	12.6	9.1	9.7	10.4
HC Emissions (g)	2	3	7	3	16
CO Emissions (g)	125	134	213	179	651
NOx Emissions (g)	9	13	24	14	60
Vehicles Entered	42	42	49	65	198
Vehicles Exited	42	40	52	61	195
Hourly Exit Rate	252	240	312	366	1170
Input Volume	228	271	284	355	1138
% of Volume	111	89	110	103	103
Denied Entry Before	0	0	1	0	1
Denied Entry After	0	0	0	0	0

## 99: Str. Pompierilor &amp; Str Rudului Performance by approach

Approach	EB	WB	NB	SB	All
Total Delay (hr)	0.0	0.0	0.2	0.0	0.3
Delay / Veh (s)	5.6	16.3	6.8	3.1	6.3
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1
St Del/Veh (s)	4.3	12.8	1.4	0.5	1.8
Total Stops	5	9	13	2	29
Stop/Veh	1.00	1.12	0.12	0.05	0.18
Travel Dist (km)	0.5	1.4	79.8	18.8	100.5
Travel Time (hr)	0.0	0.1	1.8	0.4	2.4
Avg Speed (kph)	21	20	44	45	43
Fuel Used (l)	0.1	0.2	5.3	1.4	7.0
Fuel Eff. (kpl)	7.8	7.5	15.0	13.2	14.3
HC Emissions (g)	0	0	7	2	10
CO Emissions (g)	8	23	183	81	296
NOx Emissions (g)	1	2	23	8	34
Vehicles Entered	6	9	109	41	165
Vehicles Exited	5	8	113	38	164
Hourly Exit Rate	30	48	678	228	984
Input Volume	55	59	718	490	1322
% of Volume	55	81	94	47	74
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0



## 103: Str. Eroilor &amp; Str. Rudului Performance by approach

Approach	SE	NE	SW	All
Total Delay (hr)	0.1	0.0	0.0	0.1
Delay / Veh (s)	11.7	1.0	2.3	3.0
Stop Delay (hr)	0.0	0.0	0.0	0.1
St Del/Veh (s)	8.4	0.4	0.1	1.5
Total Stops	19	1	0	20
Stop/Veh	0.95	0.01	0.00	0.15
Travel Dist (km)	8.6	15.2	24.1	47.9
Travel Time (hr)	0.3	0.4	0.5	1.2
Avg Speed (kph)	34	38	46	41
Fuel Used (l)	0.6	1.8	1.5	3.9
Fuel Eff. (kpl)	14.9	8.6	15.6	12.3
HC Emissions (g)	1	3	2	6
CO Emissions (g)	26	211	49	286
NOx Emissions (g)	2	14	7	24
Vehicles Entered	21	76	36	133
Vehicles Exited	19	79	32	130
Hourly Exit Rate	114	474	192	780
Input Volume	194	528	494	1216
% of Volume	59	90	39	64
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

## 104: Bd. Republicii &amp; Sos Nordului Performance by approach

Approach	EB	WB	NB	SB	All
Total Delay (hr)	2.4	0.5	0.4	0.6	4.0
Delay / Veh (s)	65.5	18.3	13.2	24.9	32.5
Stop Delay (hr)	2.2	0.4	0.3	0.5	3.4
St Del/Veh (s)	60.3	12.5	9.9	21.1	28.0
Total Stops	126	51	46	59	282
Stop/Veh	0.95	0.50	0.39	0.70	0.64
Travel Dist (km)	70.6	70.0	49.7	27.3	217.6
Travel Time (hr)	3.9	2.0	1.5	1.2	8.6
Avg Speed (kph)	18	35	34	24	25
Fuel Used (l)	7.6	5.6	3.6	2.8	19.6
Fuel Eff. (kpl)	9.3	12.5	13.7	9.9	11.1
HC Emissions (g)	18	8	4	12	42
CO Emissions (g)	594	336	111	329	1369
NOx Emissions (g)	53	32	15	35	136
Vehicles Entered	145	106	120	88	459
Vehicles Exited	121	99	116	81	417
Hourly Exit Rate	726	594	696	486	2502
Input Volume	886	1020	840	800	3546
% of Volume	82	58	83	61	71
Denied Entry Before	1	0	0	0	1
Denied Entry After	0	0	0	1	1



## 107: Str Malu Rosu &amp; Str. Nicolae Titulescu Performance by approach

Approach	EB	WB	NB	SB	All
Total Delay (hr)	0.0	0.0	0.0	0.1	0.1
Delay / Veh (s)	1.3	2.1	4.6	7.1	3.8
Stop Delay (hr)	0.0	0.0	0.0	0.0	0.1
St Del/Veh (s)	0.8	1.4	2.6	3.8	2.2
Total Stops	0	2	18	35	55
Stop/Veh	0.00	0.11	0.75	1.03	0.48
Travel Dist (km)	5.3	1.9	4.7	17.8	29.7
Travel Time (hr)	0.2	0.1	0.1	0.4	0.8
Avg Speed (kph)	32	31	34	41	37
Fuel Used (l)	0.7	0.3	0.3	1.1	2.4
Fuel Eff. (kpl)	7.5	6.7	16.9	15.5	12.3
HC Emissions (g)	1	1	0	1	4
CO Emissions (g)	87	43	5	38	174
NOx Emissions (g)	7	3	1	5	15
Vehicles Entered	38	17	24	34	113
Vehicles Exited	40	18	24	34	116
Hourly Exit Rate	240	108	144	204	696
Input Volume	250	150	233	311	944
% of Volume	96	72	62	66	74
Denied Entry Before	0	0	0	0	0
Denied Entry After	0	0	0	0	0

## 108: Str. Traian &amp; Str. Nicolae Titulescu Performance by approach

Approach	NB	SW	All
Total Delay (hr)	0.0	0.0	0.0
Delay / Veh (s)	1.2	2.6	2.2
Stop Delay (hr)	0.0	0.0	0.0
St Del/Veh (s)	0.3	0.3	0.3
Total Stops	1	0	1
Stop/Veh	0.05	0.00	0.01
Travel Dist (km)	14.5	11.4	25.8
Travel Time (hr)	0.3	0.3	0.6
Avg Speed (kph)	44	40	42
Fuel Used (l)	1.2	1.2	2.4
Fuel Eff. (kpl)	12.4	9.2	10.7
HC Emissions (g)	7	5	11
CO Emissions (g)	157	171	327
NOx Emissions (g)	20	16	36
Vehicles Entered	23	51	74
Vehicles Exited	21	49	70
Hourly Exit Rate	126	294	420
Input Volume	200	506	706
% of Volume	63	58	59
Denied Entry Before	0	0	0
Denied Entry After	0	0	0



## 110: Str. Alex Vlahuta &amp; Str. Postei Performance by approach

Approach	NB	SB	NE	All
Total Delay (hr)	0.0	0.0	0.0	0.1
Delay / Veh (s)	5.4	1.0	2.3	1.9
Stop Delay (hr)	0.0	0.0	0.0	0.0
St Del/Veh (s)	3.1	0.1	1.0	0.7
Total Stops	16	2	9	27
Stop/Veh	1.00	0.02	0.18	0.18
Travel Dist (km)	1.0	10.4	3.7	15.0
Travel Time (hr)	0.1	0.4	0.1	0.5
Avg Speed (kph)	18	28	29	28
Fuel Used (l)	0.1	1.0	0.2	1.3
Fuel Eff. (kpl)	6.9	10.7	19.1	11.6
HC Emissions (g)	0	1	0	2
CO Emissions (g)	10	71	12	93
NOx Emissions (g)	1	6	1	8
Vehicles Entered	16	81	50	147
Vehicles Exited	16	80	49	145
Hourly Exit Rate	96	480	294	870
Input Volume	110	730	440	1280
% of Volume	87	66	67	68
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

## 112: Str. M. Kogalniceanu &amp; Str. Postei Performance by approach

Approach	EB	NB	SB	NW	SW	All
Total Delay (hr)	0.1	1.0	0.2	0.2	0.3	1.7
Delay / Veh (s)	34.6	95.1	11.2	53.9	22.0	37.2
Stop Delay (hr)	0.1	0.9	0.1	0.2	0.3	1.6
St Del/Veh (s)	34.4	90.7	7.3	53.6	19.9	34.1
Total Stops	6	40	34	11	41	132
Stop/Veh	0.86	1.08	0.58	1.00	0.80	0.80
Travel Dist (km)	0.3	3.1	5.8	1.1	3.0	13.3
Travel Time (hr)	0.1	1.0	0.4	0.2	0.4	2.1
Avg Speed (kph)	4	3	16	6	8	7
Fuel Used (l)	0.1	1.1	0.8	0.2	0.5	2.8
Fuel Eff. (kpl)	3.3	2.9	6.9	4.5	5.4	4.8
HC Emissions (g)	0	1	2	0	0	3
CO Emissions (g)	4	32	68	14	20	137
NOx Emissions (g)	0	3	8	1	3	14
Vehicles Entered	7	42	57	13	52	171
Vehicles Exited	7	33	60	10	50	160
Hourly Exit Rate	42	198	360	60	300	960
Input Volume	27	439	354	70	382	1272
% of Volume	156	45	102	86	79	75
Denied Entry Before	0	0	0	0	0	0
Denied Entry After	0	3	0	0	0	3



## 120: Bd. Republicii &amp; Str. Alba Iulia Performance by approach

Approach	EB	WB	SB	All
Total Delay (hr)	0.4	0.3	0.0	0.7
Delay / Veh (s)	8.7	11.6	3.4	8.9
Stop Delay (hr)	0.0	0.1	0.0	0.1
St Del/Veh (s)	0.7	3.1	0.4	1.4
Total Stops	5	32	3	40
Stop/Veh	0.03	0.37	0.09	0.14
Travel Dist (km)	47.7	40.7	4.8	93.2
Travel Time (hr)	1.4	1.1	0.2	2.7
Avg Speed (kph)	35	37	30	35
Fuel Used (l)	3.9	3.5	0.7	8.0
Fuel Eff. (kpl)	12.3	11.6	7.3	11.6
HC Emissions (g)	9	9	1	19
CO Emissions (g)	263	332	69	663
NOx Emissions (g)	34	35	6	75
Vehicles Entered	161	91	35	287
Vehicles Exited	164	83	34	281
Hourly Exit Rate	984	498	204	1686
Input Volume	970	940	240	2150
% of Volume	101	53	85	78
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

## 121: Bd. Republicii &amp; Str. Laboratorului Performance by approach

Approach	EB	WB	NB	All
Total Delay (hr)	0.1	0.0	0.1	0.2
Delay / Veh (s)	3.6	1.2	9.4	3.0
Stop Delay (hr)	0.0	0.0	0.1	0.1
St Del/Veh (s)	0.2	0.6	8.2	1.0
Total Stops	0	3	25	28
Stop/Veh	0.00	0.02	1.04	0.10
Travel Dist (km)	190.3	38.4	9.2	237.9
Travel Time (hr)	4.1	0.9	0.3	5.2
Avg Speed (kph)	47	44	35	46
Fuel Used (l)	14.0	3.7	0.9	18.6
Fuel Eff. (kpl)	13.6	10.4	10.1	12.8
HC Emissions (g)	20	10	1	31
CO Emissions (g)	629	400	74	1103
NOx Emissions (g)	72	32	6	110
Vehicles Entered	131	125	23	279
Vehicles Exited	144	123	25	292
Hourly Exit Rate	864	738	150	1752
Input Volume	941	1179	144	2264
% of Volume	92	63	104	77
Denied Entry Before	0	0	2	2
Denied Entry After	0	0	0	0



## 125: Str Depoului &amp; Piata 1 Decembrie Performance by approach

Approach	EB	WB	SB	All
Total Delay (hr)	0.0	0.1	0.0	0.2
Delay / Veh (s)	4.3	7.8	1.8	4.5
Stop Delay (hr)	0.0	0.1	0.0	0.1
St Del/Veh (s)	3.1	6.0	0.8	3.2
Total Stops	6	25	2	33
Stop/Veh	0.40	0.44	0.03	0.24
Travel Dist (km)	0.7	5.4	7.4	13.5
Travel Time (hr)	0.0	0.3	0.3	0.6
Avg Speed (kph)	18	23	26	24
Fuel Used (l)	0.1	0.8	0.9	1.7
Fuel Eff. (kpl)	10.5	7.0	8.4	7.9
HC Emissions (g)	0	1	1	2
CO Emissions (g)	4	69	46	119
NOx Emissions (g)	0	7	6	13
Vehicles Entered	15	59	68	142
Vehicles Exited	15	56	65	136
Hourly Exit Rate	90	336	390	816
Input Volume	230	377	567	1174
% of Volume	39	89	69	70
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

## 132: Str. Lupeni &amp; Bd. Petrolului Performance by approach

Approach	SE	NW	NE	All
Total Delay (hr)	0.0	0.0	0.0	0.1
Delay / Veh (s)	0.5	1.4	5.5	2.4
Stop Delay (hr)	0.0	0.0	0.0	0.0
St Del/Veh (s)	0.1	0.3	3.1	1.1
Total Stops	0	1	24	25
Stop/Veh	0.00	0.04	0.92	0.29
Travel Dist (km)	5.7	12.2	9.6	27.4
Travel Time (hr)	0.2	0.3	0.2	0.7
Avg Speed (kph)	37	45	38	41
Fuel Used (l)	0.7	1.1	0.6	2.4
Fuel Eff. (kpl)	8.4	11.0	16.7	11.6
HC Emissions (g)	2	2	1	4
CO Emissions (g)	99	86	10	194
NOx Emissions (g)	6	7	2	15
Vehicles Entered	33	27	25	85
Vehicles Exited	30	29	26	85
Hourly Exit Rate	180	174	156	510
Input Volume	168	143	234	545
% of Volume	107	122	67	94
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0



## 136: Str. Vasile Lupu &amp; Str. Trei Ierarhi Performance by approach

Approach	EB	SW	All
Total Delay (hr)	0.1	0.1	0.1
Delay / Veh (s)	3.4	3.6	3.5
Stop Delay (hr)	0.0	0.0	0.1
St Del/Veh (s)	1.8	1.6	1.7
Total Stops	17	22	39
Stop/Veh	0.21	0.31	0.25
Travel Dist (km)	10.1	9.8	19.9
Travel Time (hr)	0.4	0.3	0.7
Avg Speed (kph)	28	33	30
Fuel Used (l)	1.3	0.5	1.9
Fuel Eff. (kpl)	7.6	18.6	10.7
HC Emissions (g)	4	0	4
CO Emissions (g)	147	17	163
NOx Emissions (g)	16	2	17
Vehicles Entered	83	73	156
Vehicles Exited	81	72	153
Hourly Exit Rate	486	432	918
Input Volume	450	644	1094
% of Volume	108	67	84
Denied Entry Before	0	0	0
Denied Entry After	1	0	1

## 137: Str. I.L. Caragiale &amp; Str. Vlad Tepes Performance by approach

Approach	EB	NB	SB	All
Total Delay (hr)	0.4	0.0	0.0	0.5
Delay / Veh (s)	12.9	5.0	10.6	11.6
Stop Delay (hr)	0.2	0.0	0.0	0.3
St Del/Veh (s)	6.9	3.7	8.6	6.6
Total Stops	67	10	10	87
Stop/Veh	0.55	0.50	0.83	0.56
Travel Dist (km)	45.4	2.9	1.5	49.9
Travel Time (hr)	1.3	0.1	0.1	1.5
Avg Speed (kph)	34	27	19	32
Fuel Used (l)	3.2	0.4	0.2	3.7
Fuel Eff. (kpl)	14.3	7.8	7.6	13.3
HC Emissions (g)	3	3	0	6
CO Emissions (g)	83	96	16	194
NOx Emissions (g)	12	9	1	23
Vehicles Entered	124	22	13	159
Vehicles Exited	119	18	12	149
Hourly Exit Rate	714	108	72	894
Input Volume	1021	100	100	1221
% of Volume	70	108	72	73
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0



## 139: Str. Grigore Cantacuzino &amp; Str. Trei Ierarhi Performance by approach

Approach	WB	NB	SE	All
Total Delay (hr)	0.1	0.0	0.2	0.3
Delay / Veh (s)	4.6	4.2	8.0	6.1
Stop Delay (hr)	0.0	0.0	0.1	0.1
St Del/Veh (s)	0.1	1.0	3.5	1.7
Total Stops	1	2	43	46
Stop/Veh	0.01	0.22	0.59	0.29
Travel Dist (km)	16.2	0.8	12.4	29.4
Travel Time (hr)	0.4	0.0	0.5	0.9
Avg Speed (kph)	38	27	26	32
Fuel Used (l)	1.0	0.1	1.4	2.5
Fuel Eff. (kpl)	16.0	9.0	9.1	12.0
HC Emissions (g)	3	0	2	6
CO Emissions (g)	63	13	128	204
NOx Emissions (g)	10	2	11	22
Vehicles Entered	80	9	75	164
Vehicles Exited	78	9	71	158
Hourly Exit Rate	468	54	426	948
Input Volume	666	70	650	1386
% of Volume	70	77	66	68
Denied Entry Before	0	0	0	0
Denied Entry After	0	0	0	0

## Total Network Performance

Total Delay (hr)	71.1
Delay / Veh (s)	101.9
Stop Delay (hr)	54.3
St Del/Veh (s)	77.8
Total Stops	7090
Stop/Veh	2.82
Travel Dist (km)	6112.7
Travel Time (hr)	206.3
Avg Speed (kph)	30
Fuel Used (l)	566.2
Fuel Eff. (kpl)	10.8
HC Emissions (g)	1145
CO Emissions (g)	42241
NOx Emissions (g)	4169
Vehicles Entered	2953
Vehicles Exited	2070
Hourly Exit Rate	12420
Input Volume	149269
% of Volume	8
Denied Entry Before	7
Denied Entry After	46