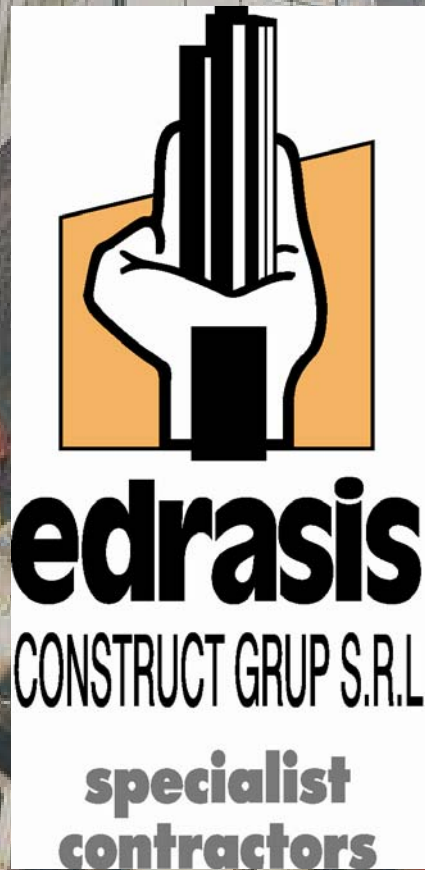


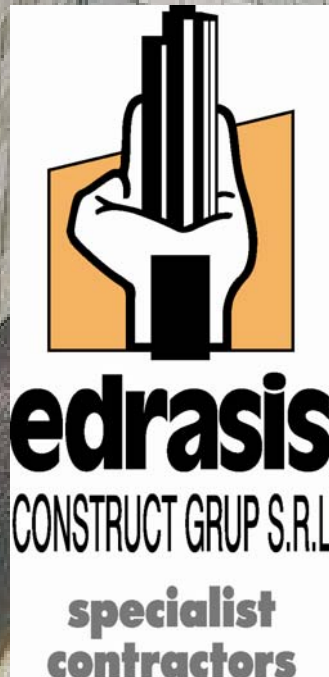
EDRASIS CONSTRUCT GRUP S.R.L.



27-Mar-09

Παρασκευή 20.03.2009

"Εξελίξεις στα μηχανήματα διάνοιξης και υποστήριξης σηράγγων"



"Παρουσίαση Έργων Διάνοιξης Μικροσηράγγων στη Ρουμανία"

27-Mar-09

Παναγιώτης Λούκας
Μεταλλειολόγος Μηχανικός, MBA
Γενικός Διευθυντής
Edrasis Construct Grup S.R.L.



Buna seara!
Καλίσπερα!



Feb 24, 2002

2002 2009

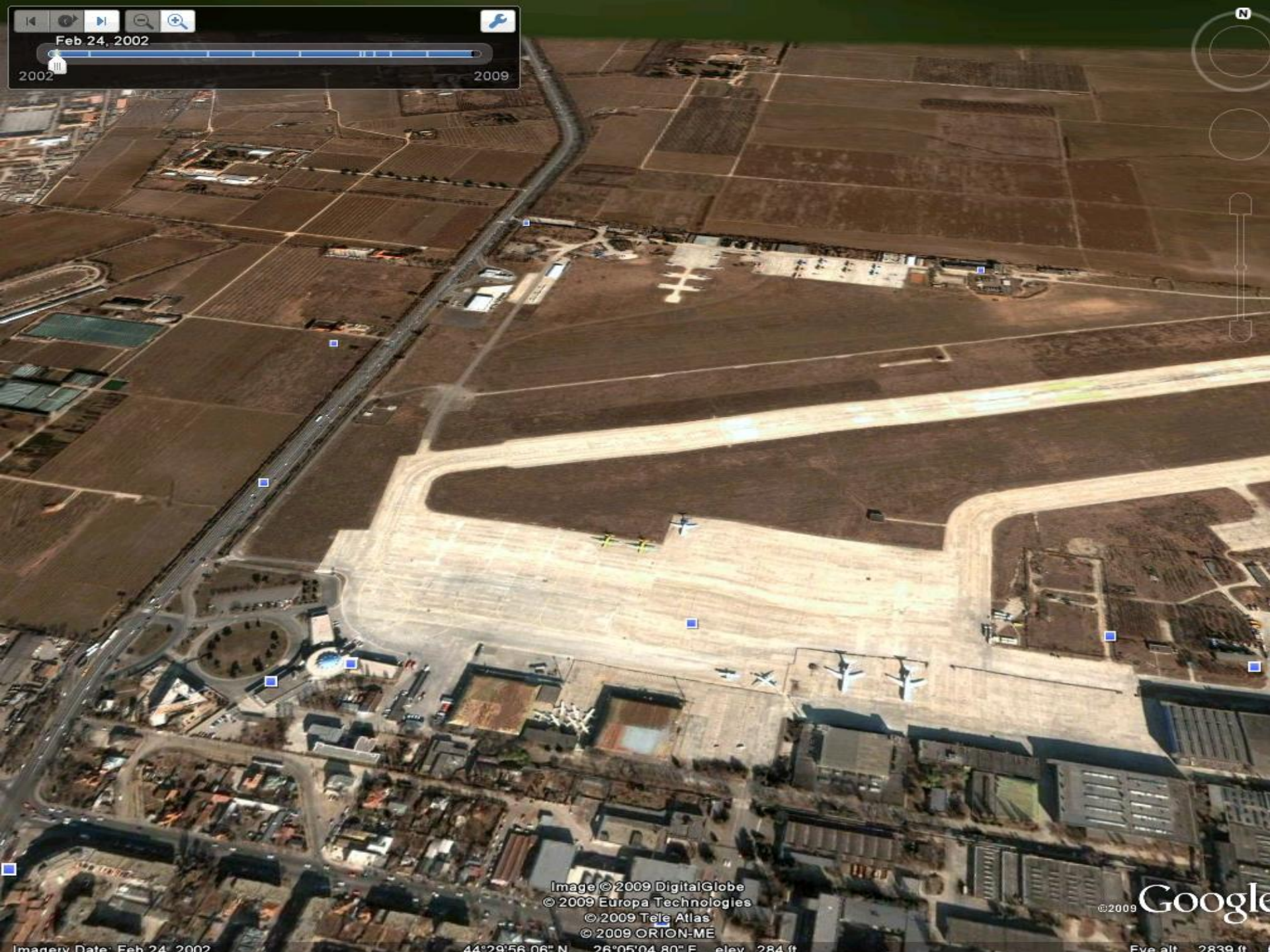


Image © 2009 DigitalGlobe
© 2009 Europa Technologies
© 2009 Tele Atlas
© 2009 ORION-ME

©2009 Google

Imagery Date: Feb 24, 2002

44°29'56.06" N 26°05'04.80" E elev. 284 ft

Eve alt. 2839 ft

Sep 15, 2004



Image © 2009 DigitalGlobe
© 2009 Europa Technologies
© 2009 Tele Atlas
© 2009 ORION-ME

© 2009 Google

Oct 17, 2007



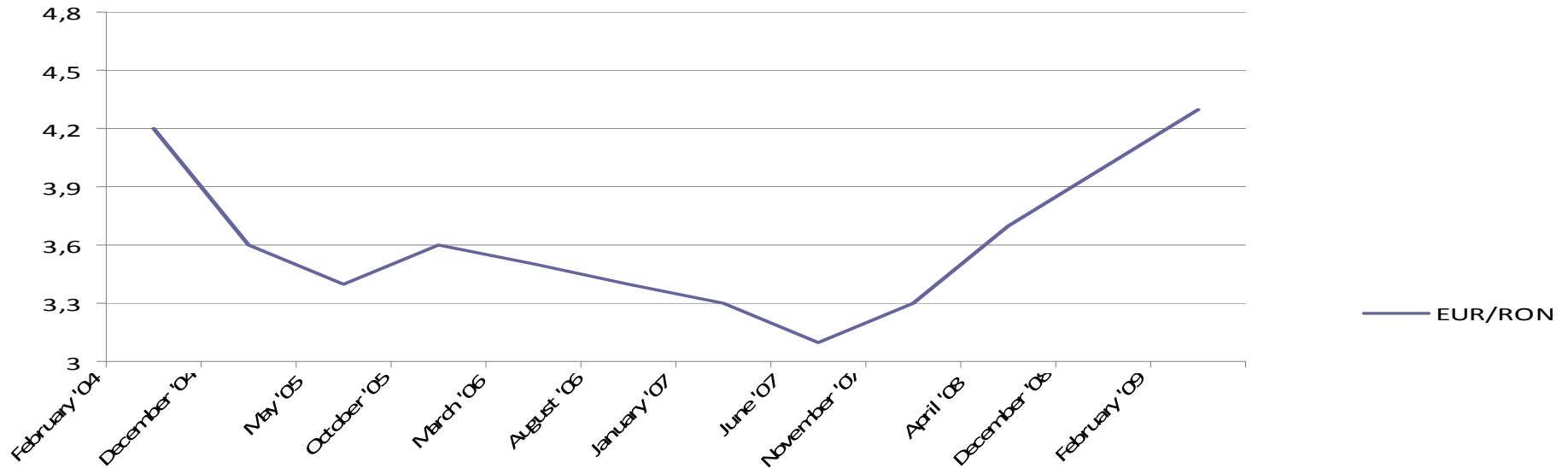
Image © 2009 DigitalGlobe
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© 2009

Google

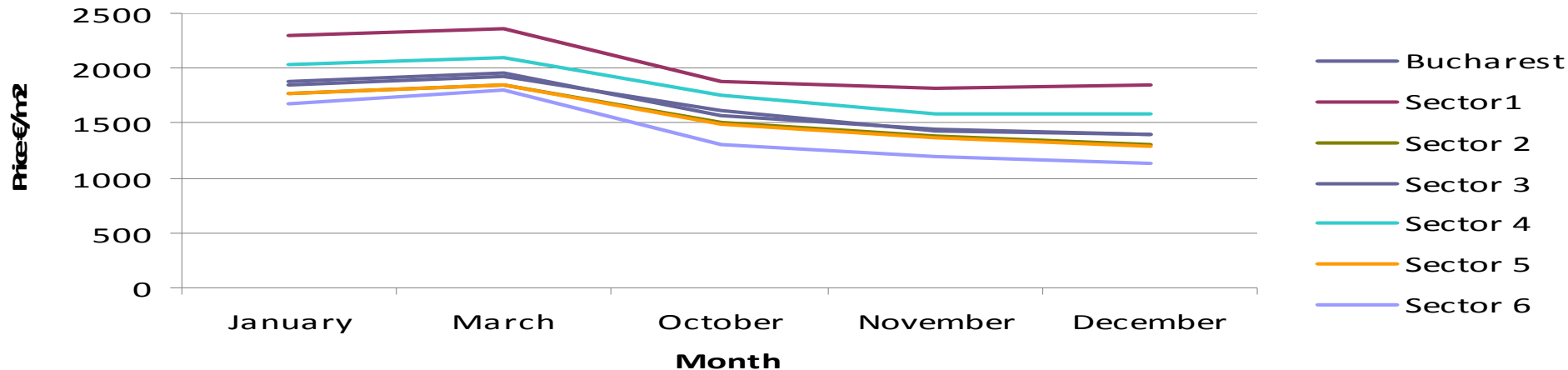
	Annual percentage change					
	2004-2010					
	2005	2006	2007	2008	2009	2010
GDP at previous year prices	4,2	7,9	6,2	7,8	1,8	2,5
Private consumption	10,1	12,7	11,6	8	1,9	2,9
Public consumption	3,8	-4,1	1,6	3,5	3,4	3,2
Exports (goods and services)	7,6	10,4	7,9	10,7	1,3	1,9
Imports (goods and services)	16	22,6	27,2	15,2	1,7	3,4
Unemployment Rate	7,2	7,3	6,4	6,2	7	6,9
Harmonised index of consumer prices	9,1	6,6	4,9	7,9	5,7	4
Trade Balance	-9,8	-12	-14,4	-13,9	-13,1	-12,5
Current account balance	-8,9	-10,6	-13,6	-12,9	-11,9	-11,1
Government balance	-1,2	-2,2	-2,5	-5,2	-7,5	-7,9
Government gross debt	15,8	12,4	12,7	15,2	21,1	26,8

EUR/RON



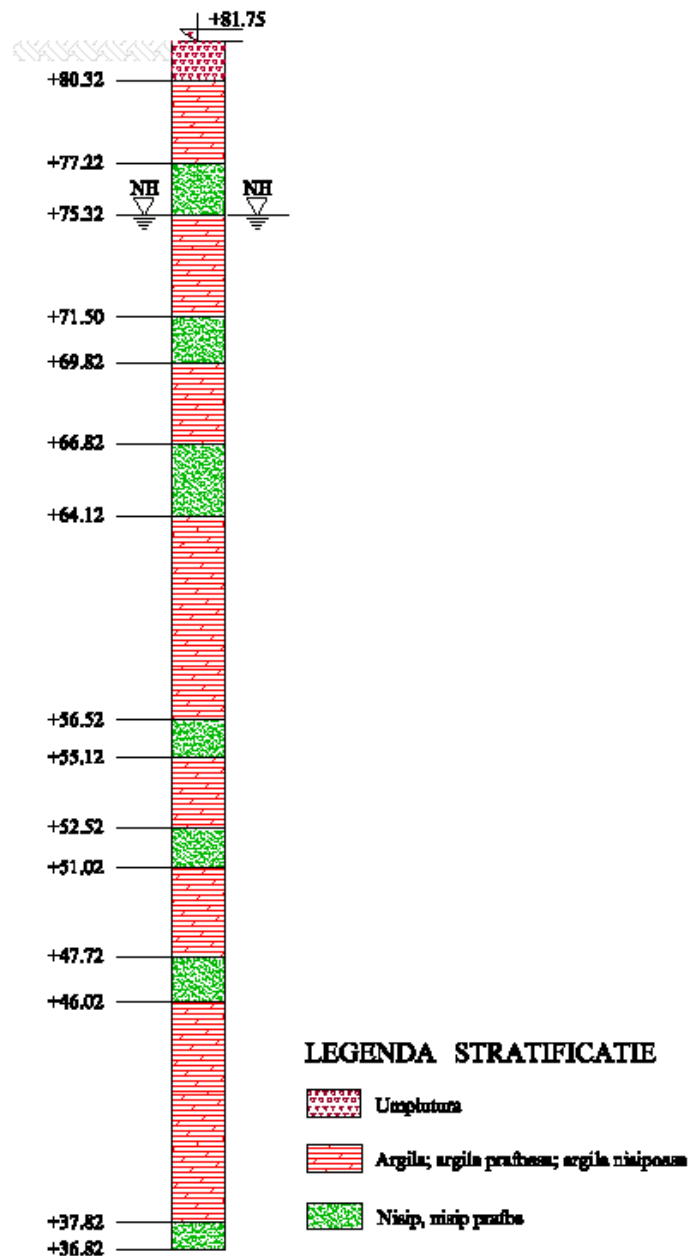
Source: Eurobank EFG Research

Prices of old apartments in Bucharest for 2008

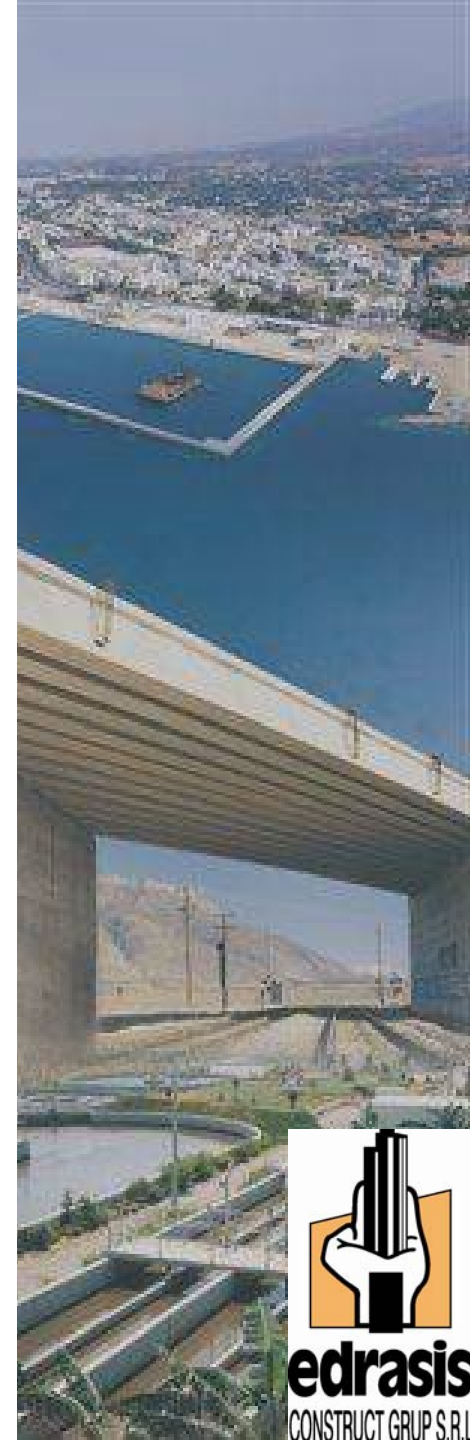


Source: Ziarul Financiar, 29.01.09

Geological Incision



27-Mar-09



ΜΙΚΡΟΣΗΡΑΓΓΕΣ ΠΟΥ ΚΑΤΑΣΚΕΥΑΣΤΗΚΑΝ ΑΠΟ ΤΗΝ ΕΔΡΑΣΗ ΣΤΗ ΡΟΥΜΑΝΙΑ

▲ Baneasa, Βουκουρέστι

- ➔ Αποχετευτικός Αγωγός Ø1200/1490mm μήκους 2,5km στην Baneasa του Βουκουρεστίου ως Ανάδοχος σε Κ/Ξ με την J&P-AVAX
- ➔ Αγωγός ομβρίων υδάτων Ø1200/1490mm μήκους 2,0km σε παράλληλη όδευση με τον αποχετευτικό αγωγό στην Baneasa του Βουκουρεστίου στα πλαίσια των έργων διαπλάτυνσης του υφιστάμενου αυτοκινητοδρόμου, ως υπεργολάβος της Ισπανικής εταιρείας LENA που ήταν ο ανάδοχος κατασκευής του αυτοκινητοδρόμου.

▲ Dambovinta Lake, Bucharest

- ➔ Αγωγός ομβρίων υδάτων Ø2400/2900mm μήκους 1,3km στην περιοχή της λίμνης Dambovinta ως ανάδοχος του έργου το οποίο προκηρύχθηκε και χρηματοδοτήθηκε από τον Δήμο Βουκουρεστίου για την αντιμετώπιση των πλημμυρικών φαινομένων στην περιοχή.

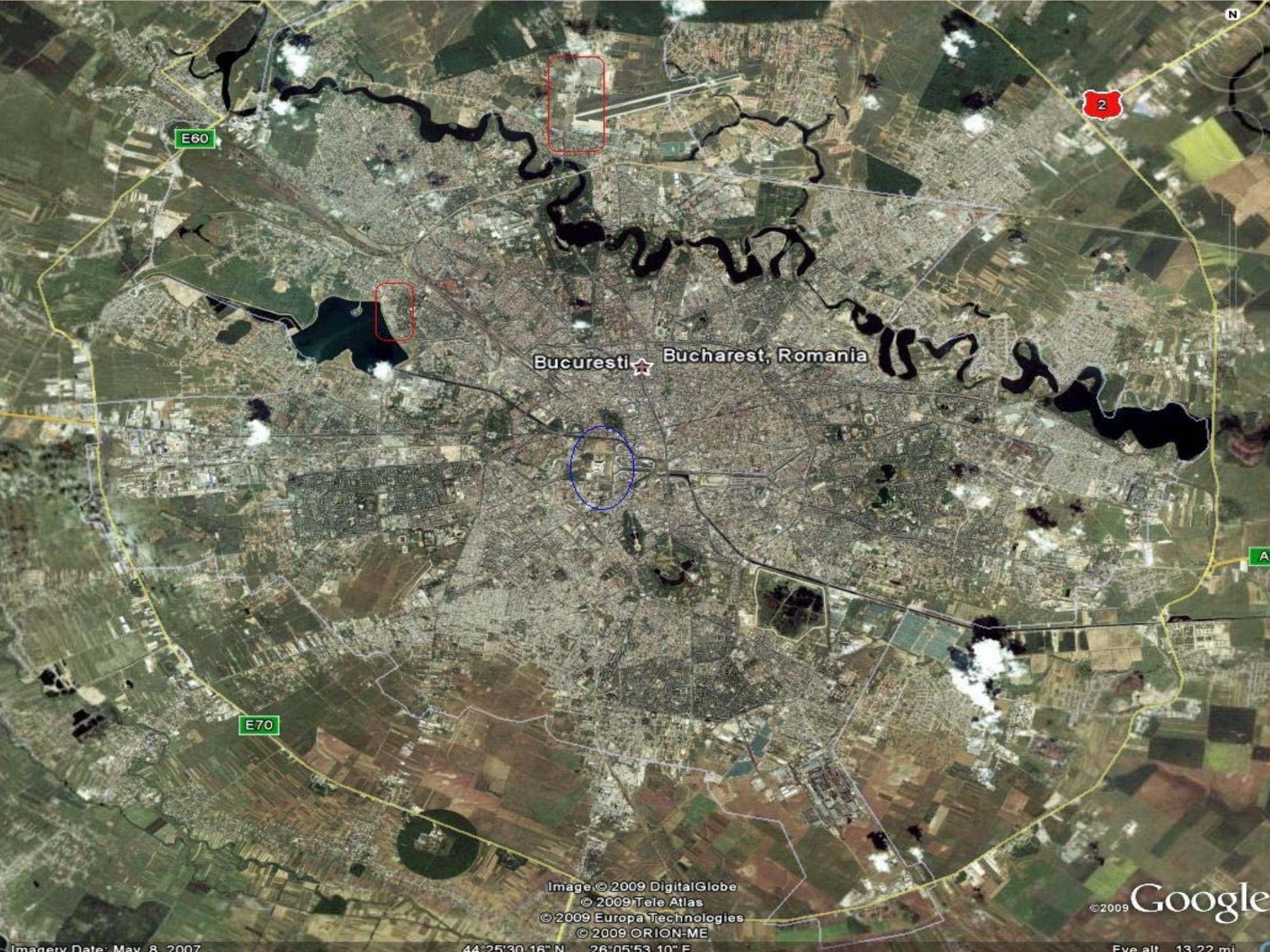


Image © 2009 DigitalGlobe
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© 2009 Europa Technologies
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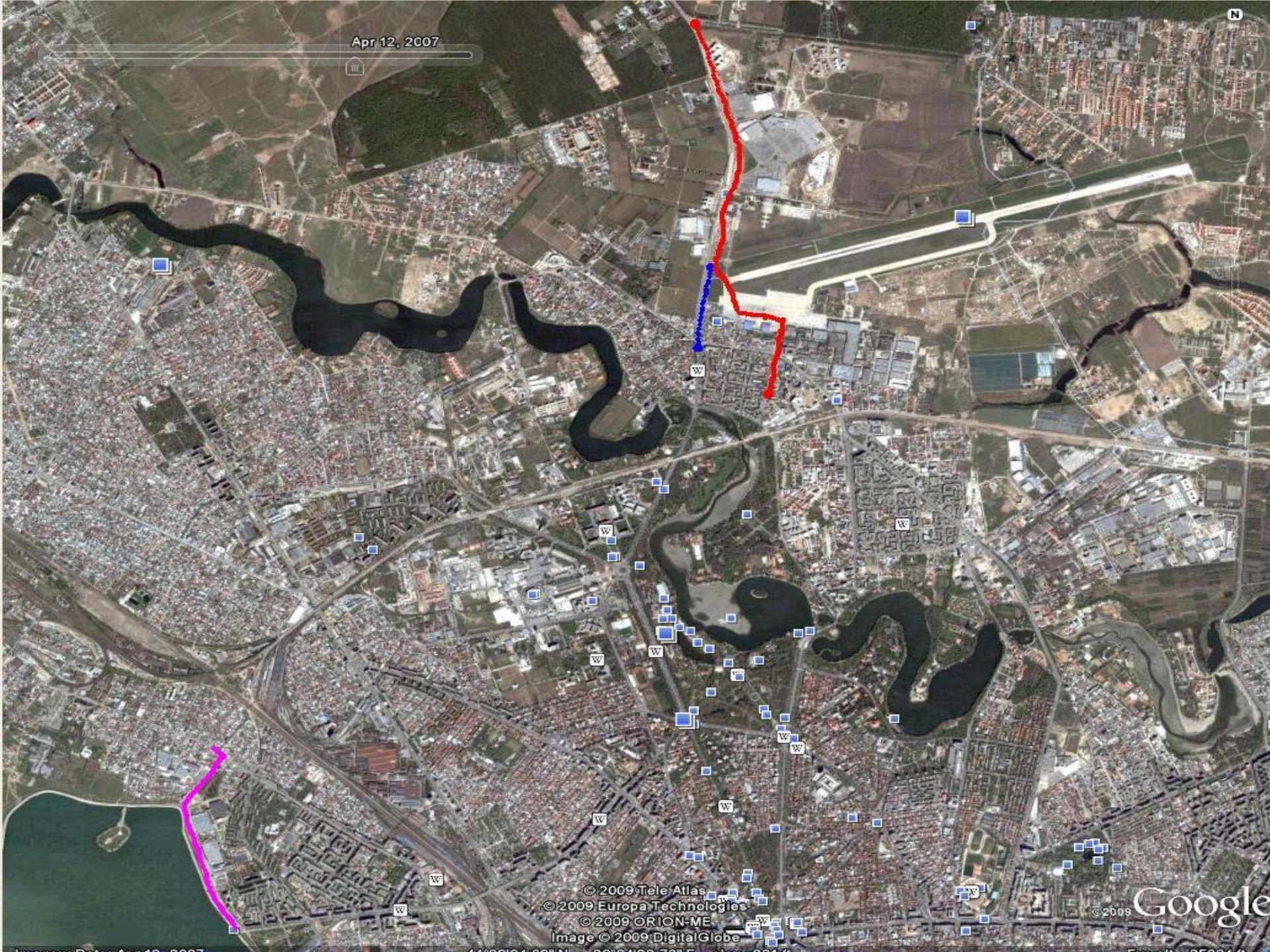
© 2009 Google

Imagery Date: May 8, 2007

44°25'30.16" N 26°05'53.10" E

Eye alt: 13.22 mi

Apr 12, 2007



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Image © 2009 DigitalGlobe

© 2009

Google

Oct 17, 2007



ΜΙΚΡΟΣΗΡΑΓΓΕΣ ΣΤΗΝ ΠΕΡΙΟΧΗ ΤΗΣ BANEASA

▲ Ιδιαιτερότητες και Τεχνικές Δυσκολίες

- ➔ Η ροή του αγωγού σε βάθος 6-8m από την επιφάνεια
- ➔ Τμήμα του αγωγού αποχέτευσης μήκους $\approx 1.200\text{m}$ έπρεπε να κατασκευασθεί εντός του αεροδρομίου της Baneasa
- ➔ Τμήμα του αγωγού μήκους $\approx 500\text{m}$ έπρεπε να κατασκευασθεί κάτω από δρόμους βαριάς κυκλοφορίας, εντός του υδροφόρου ορίζοντα σε μικρή απόσταση από παρακείμενη λίμνη
- ➔ Υπόγειες κατασκευές που συναντήθηκαν κατά την φάση κατασκευής
- ➔ Πιθανή ύπαρξη υπολειμάτων πυρομαχικών και βομβών από τον 2^ο Παγκόσμιο Πόλεμο

▲ Μέθοδος Κατασκευής Μικροσηρράγγων Baneasa Ø1200/1490mm

- ➔ Μηχάνημα σημειακής κοπής με ασπίδα (*open face shield*)
- ➔ Κυκλικά πηγάδια εισόδου με διάμετρο 7m ή ελλειπτικά με μεγάλη διάσταση 8m
- ➔ Κυκλικά πηγάδια εξόδου και ενδιάμεσα με διάμετρο 3m



edra
CONSTRUCT GRUP S.R.L.



13/09/2006 12:20



20/10/2006 12:17



19/08/2005 11:41



27/08/2005 15:02



23/08/2005 12:27



30/07/2005 13:38



BELLINGHAUSEN

05/09/2005 16:00



 **J&P**
αβαε
edraSis
ΕΡΓΑΛΕΙΑ ΣΑ
specialist
constructors

05/09/2005 15:55

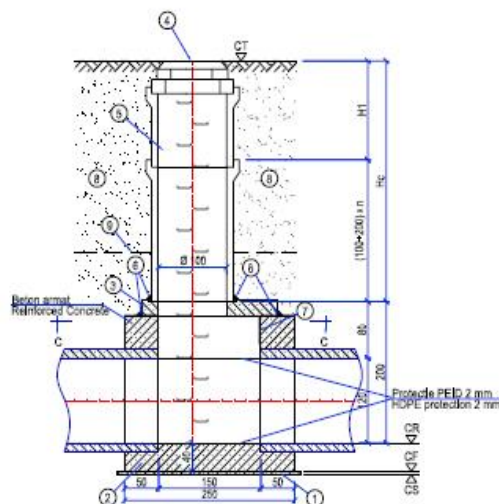
CAMINE DE VIZITARE FARA SCHIMBARE DE DIRECTIE - CAMERA DE LUCRU Dn 7.50 m

ALIGNMENT TYPICAL SEWERAGE PERMANENT CONSTRUCTIONS - SHAFT Dn 7.50 m

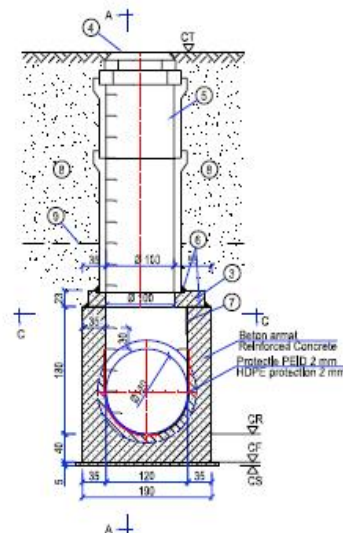
PLAN COFRAJ SI ARMARE / CASING PLAN AND REINFORCEMENT

Scara/Scale 1:50

Secliunea A - A
Section A - A

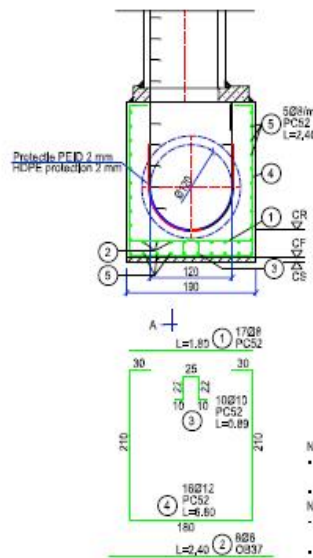


Secliunea B - B
Section B - B



Detaliu armare camin de vizitare
Detail of manhole reinforcement

Scara/Scale 1:50



BETON ARMAT C 12/15
OTEL BETON PC 52
OTEL BETON OB 37
ACOPERIREA ARMATURII 4 cm

REINFORCED CONCRETE C12/15
REINFORCEMENT RODS PC 52
REINFORCEMENT RODS 37
REINFORCEMENT COV. 4 cm

PREZENTA PLANSA DE VIA CITI ÎMPREUNA CU PLANSA CV-02
THE PRESENT DRAWING WILL BE READ WITH DWG. CV-02

NOTA:

- CANTITATEA DE CALITATE MINIMA CORESPUNZATOARE NIVELULUI DE PERFORMANTA ESTE A1 SI B9 CONFORM H.C. 925-95
- CATEGORIA DE IMPORTANTA "C" NORMALA
- NOTA:
- MINIMUM QUALITY REQUIREMENT CORRESPONDING TO THE PERFORMANCE LEVEL IS A1 AND B9 ACCORDING TO H.C. 925-95
- INTEREST CATEGORY IS NORMAL "C"

LEGENDA

- Foundation concrete, grade C2.8/3.5
- Reinforced concrete casing, grade C12/15, monolith cast
- Reinforced prefabricated concrete slab, C16/20
- Manhole consisting of:
 - Prefabricated concrete slab C16/20, laid between the access cover and the frame + cover
 - Prefabricated concrete piece for manhole frame and cover - C15/20 - STAS 2448-82
 - Trafficable manhole cover, with frame and locking device - STAS 2308-81
 - Access stairs Ø20, OB37 steel - STAS 838/1-80 (stainless steel or aluminum) - STAS 6168-90
- DN 1000 mm concrete pipe, grade C32/40, 1 m or 2 m length
- Hydro-insulating mortar filling of joints or posing mortar
- Hydro-insulating mortar protection layer for internal wall
- Compacted backfill
- Limit of manually compacted backfill
- CT - Terrain elevation
- CR - Manhole bottom elevation
- CS - Trench level
- CF - Foundation elevation
- n - Tubes number

LEGENDA

- Beton de egalizare, clasa C2.8/3.5
 - Cură din beton armat clasa C12/15 turnat monolit
 - Placa prefabricată din beton armat clasa C16/20
 - Camini de vizitare:
 - Placa prefabricată beton C16/20 între cos de acces și rama + capac
 - Placa prefabricată pentru capac și rama beton C16/20 - STAS 2448-82
 - Capac carosabil cu cheie și rama - STAS 2308-81
 - Trepte de acces Ø20 OB37 STAS 838/1-80 cu protecție anticorozivă sau din aluminiu - STAS 6168-90
 - Tub DN 1000mm din beton clasa C32/40, lungime 1 m sau 2 m
 - Roștile cu mortar hidroizolant sau mortar de pozare
 - Protecție cu mortar hidroizolant perete interior
 - Umplutura din pământ, compactată
 - Limita umpluturii compactată manual
 - CT - Cota teren
 - CR - Cota radier camin
 - CS - Cota sapatură
 - CF - Cota de fundare
 - n - număr tuburi
- NOTA: Spălările se vor executa în conformitate cu standardele în vigoare, astfel încât să se asigure condiții de rezistență, stabilitate și aliniere în execuție.
- NOTE: Trench supporting will be executed according to present standards in force thus to be assured the holding conditions, stability and safety in execution.

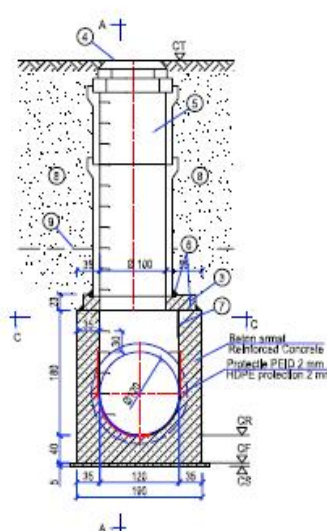
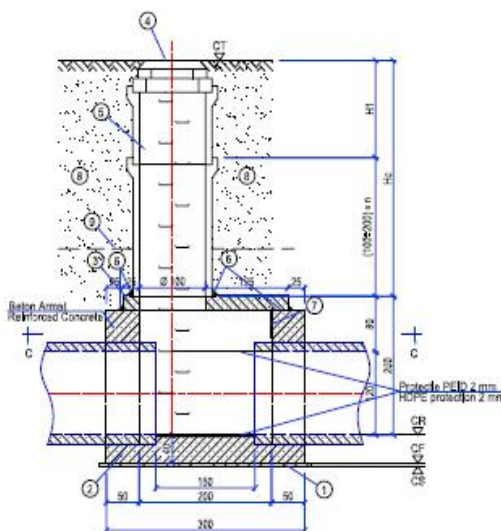
NOTA

Prezentul plan este în conformitate cu datele de pe planurile de referință J.V. EDRASIS C, PSALLIDAS S.A., J.A.P. AVAX S.A.

Implementing Agency:	MINISTRY OF EUROPEAN INTEGRATION (MINISTERUL INTEGRARII EUROPENE)
Contractor:	J.V. EDRASIS C, PSALLIDAS S.A. - J.A.P. AVAX S.A.
Project (Project):	REHABILITATION OF THE NORTHERN BUCHAREST SUBURBAN AREA WATER SUPPLY AND SEWERAGE WORKS AMELIORAREA ZONEI SUBURBANE NORD A MUNICIPIULUI BUCURESTI. ALIMENTARE CU APA SI CANALIZARE
Designer (Projectant):	ROMAIR CONSULTING LTD
Drawn (General):	Ioh. Radu ENACHE
Checked (Verified):	J.V. EDRASIS C, PSALLIDAS S.A. - J.A.P. AVAX S.A.
Scale (Scale):	AS BUILT
Date (Date):	November 2006
Scale (Scale):	1:50
Scale (Scale):	CV-01

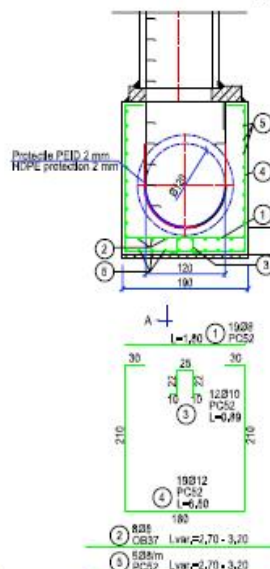
Scara/Scale 1:50

Section B - B



Detallu armare camlin de vizitare
Detail of manhole reinforcement

Scale/Scale 1: 50



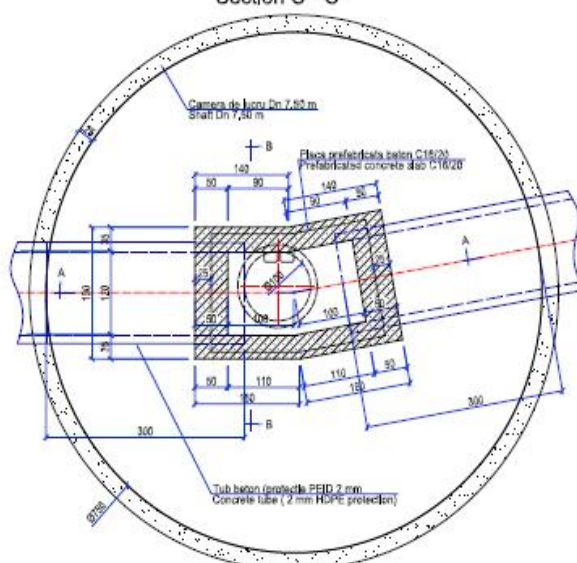
REINFORCED CONCRETE C12/15
REINFORCEMENT RODS PC 52
REINFORCEMENT RODS 37
REINFORCEMENT COV. 4 cm

PREZENTA PLANSĂ SE VA CITI ÎMPREUNĂ CU PLANSĂ CV - 04
THE PRESENT DRAWING WILL BE READ WITH DWG. CV - 04

NOTĂ:
- CERINȚA DE CALITATE MINIMĂ CORESPUNZĂTOARE NIVELULUI
DE PERFORMANȚĂ ESTE A1 SI 89 CONFORM H.G. 925/98
- CATEGORIA DE IMPORTANȚĂ "C" NORMALĂ

NOTE:
- MINIMUM QUALITY REQUIREMENT CORRESPONDING TO THE
PERFORMANCE LEVEL IS A1 AND 89 ACCORDING TO H.G. 925/98
- INTEREST CATEGORY IS NORMAL "C"

EXTRAS ARMARE EXTRACT REINFORCEMENT							
Marca	Ø	n	l	CB37	PC35		
				Ø6	Ø8	Ø12	
①	8	19	1,80		34,20		
②	6	8	2,95	23,60			
③	10	12	0,69			10,68	
④	12	19	6,60				125,40
⑤	5	30	2,06		55,50		
L / Ø				23,60	122,70	10,68	125,40
O / m				0,222	5,386	3,817	0,888
Ø / Ø				5,25	48,50	5,60	111,35
TOTAL Kg				5,45		166,45	

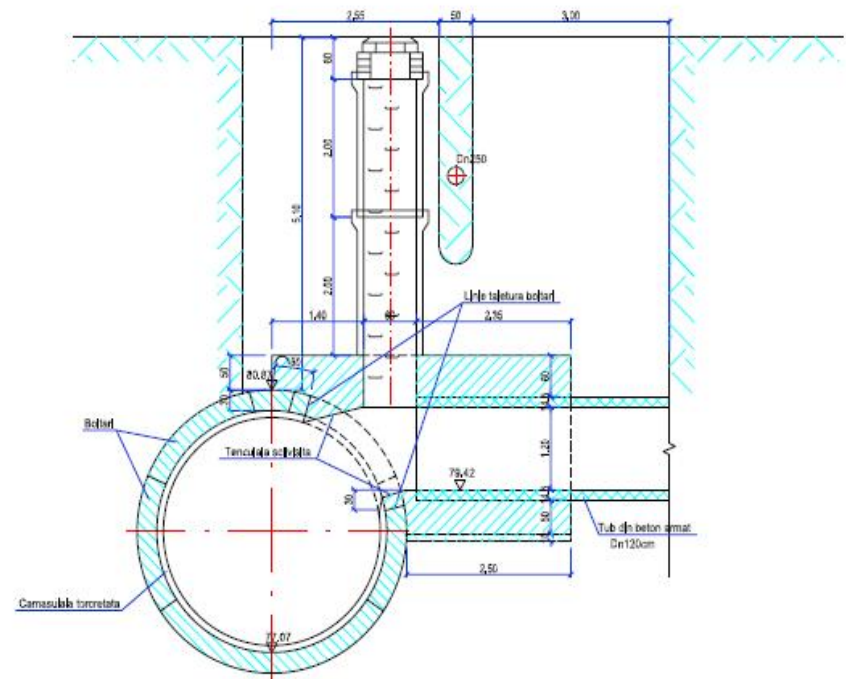
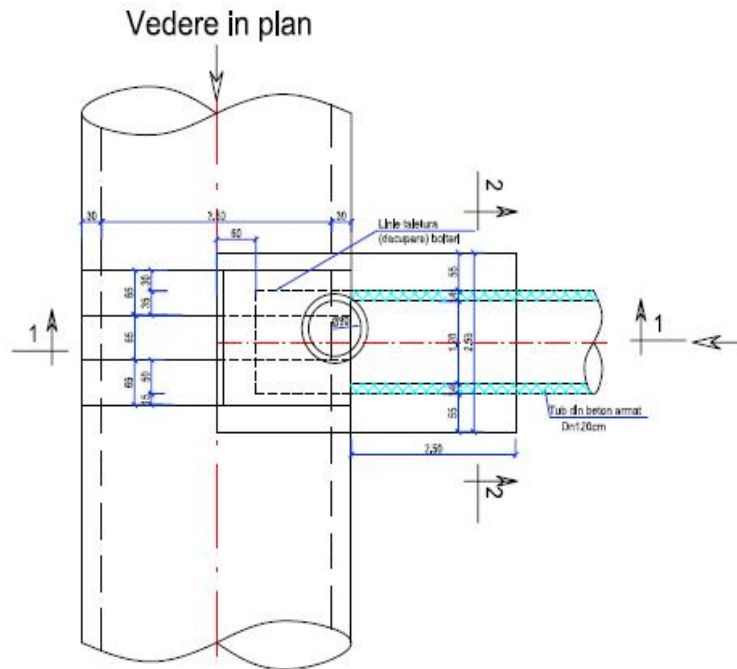


- LEGENDA**
- 1) Foundation concrete, grade C2/3/5
- 2) Reinforced concrete capson, grade C12/15, monolithic cast
- 3) Reinforced concrete slab, C16/20
- 4) Manhole consisting of:
- Prefabricated concrete slab C16/20, laid between the access cover and the frame + cover
 - Prefabricated concrete piece for manhole frame and cover • C16/20 • STAS 2448-02
 - Trafficable manhole cover, with frame and locking device • STAS 2306-01
 - Access stairs Ø20, Ø30/75 - STAS 8361-00 (stainless steel) or aluminum • STAS 8165-00
- 5) DN 100mm concrete pipe, grade C32/40, 1 m or 2 m length
- 6) Hydro-insulating mortar filling of joints or posing mortar
- 7) Hydro-insulating mortar protection layer for internal wall
- 8) Compacted backfill
- 9) Limit of manually compacted backfill
- CT - Terrain elevation
CR - Manhole bottom elevation
CS - Trench level
CF - Foundation elevation
n - Tubes number
- LEGENDA**
- 1) Beton de egalizare, clasa C2/3/5
- 2) Cuva din beton armat clasa C12/15 turnat monolit
- 3) Placa prefabricata din beton armat clasa C16/20
- 4) Cămin de scolare
- Placa prefabricata beton C16/20 între coș de acces și ramă + capac
 - Placa prefabricata pentru capac și ramă beton C16/20 • STAS 2448-02
 - Capac carosabil cu cheie și ramă • STAS 2306-01
 - Trepte de acces Ø20 Ø30/75 • STAS 8361-00 cu protecție antiscorzișă sau din aluminiu • STAS 8165-00
- 5) Tub DN 100mm din beton clasa C32/40, lungime 1 m sau 2 m
- 6) Restuire cu mortar hidroizolant sau mortar de pezare
- 7) Protecție cu mortar hidroizolant perete interior
- 8) Umplutura din pământ, compactată
- 9) Limita umplutura compactata manual
- CT - Cota teren
CR - Cota nașterii cămin
CS - Cota sașetura
CF - Cota de fundare
n - număr tuburi
- NOTA :** Spălații se vor executa în conformință cu standardele în vigoare, astfel încât să se asigure o bună aderență, atât între ele cât și cu suprafața de beton.
- NOTED :** Trench supporting will be executed according to present standards in force thus to be assured the holding conditions, stability and safety in execution.

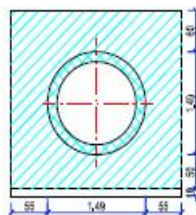
Prezentul plan este în conformitate cu datele de pe teren transmise de către AV EDRAȘIS C. PSALIDAS S.A. și J&P AVAX S.A.

Implementing Agency:	MINISTRY OF EUROPEAN INTEGRATION (MINISTERUL INTEGRARI EUROPENE)		
Contractor	JIV EDRASIS C. PSALIDAS S.A. & J&P AVAX S.A.		
Project (Project)	REHABILITATION OF THE NORTHERN BUCHAREST SUBURBAN AREA. WATER SUPPLY AND SEWERAGE WORKS. AMELORAREA ZONEI SUBURBANE NORD A MUNICIPIULUI BUCURESTI. ALIMENTARE CU APA SI CANALIZARE		
Designer (Projectant)	ROMAIR CONSULTING LTD		
Drawn (General)	Ing. Radu ENACHE	7/99 (7/99)	Date (Date): November 2006
As built	JIV EDRASIS C. PSALIDAS S.A. & J&P AVAX S.A.	AS BUILT	Date (Date): November 2006
Checked (Verif.)	Ing. Georgea STOICU		Date (Date): November 2006
Drawn (Technical)			Scale (Scara): 1:50
Non Typical sewerage permanent construction • Casing, pipe and Reinforcement • Ø 1000 Dn 7.5 m			Scale (Scara): 1:50
			CV = 03

Section 1-1



Section 2-2



NOTA

Proiectul s-a intocmit avand in vedere releveul prezentat de constructor

Executia se va face sub supravegherea directa a sefului punctului de lucru. Pe perioada executiei se vor lua toate masurile de protectia muncii in conformitate cu normele in vigoare (legea 90/1996)

Prezența planșei se dăteste cu planșa CV.22

NOTA:

- CĂMINUL DE CALITATE MINIMĂ CORESPUNZĂTOARE NIVELULUI DE PERFORMANȚĂ ESTE A1 SI B9 CONFORM H.C. 925/05
- CATEGORIA DE [IMPORTANTĂ A CONSTRUCȚIEI] ESTE "C" NORMALĂ

NOTA

Prezentul ghid este în conformitate cu datele de pe teren transmise de către J.V. EDRA S.L. C. PSALIDAS S.A., J.M.P. AVAX S.A.

Implementing Agency:	MINISTRY OF EUROPEAN INTEGRATION (MINISTERUL INTEGRARII EUROPENE)		
Contractor:	JV EDRASIS C. PSALIDAS S.A. - J&P AVAX S.A.		
Project: (Product)	[REDACTED]		
Designer (Projectant):	ROMAIR CONSULTING LTD		
Drawn (Desenat):	Isely, Radu ENACHE	Form (Forma):	Date (Data): November 2009
Checked (Verificat):	JV EDRASIS C. PSALIDAS S.A. - J&P AVAX S.A. Ing. Gheorghe CHOCE	AS BUILT	Date (Data): November 2009
Issued by (Emitentul):		Date (Data): November 2009	Date (Data): November 2009
		Scale (Scara):	No. Print
CVO, Construction details and sections, CVO, Plan cotraj al sectiunii			1:50
			CV-21

ScoreScale 2.5

④ $a + + c$



CT-99.01



④ CT-38



Placa prefabricada beton C18/25
 Colado en el concreto slab C18/25



NOTE:

- CATEGORIA DE CALITATE MINIMA CORESPUNZATOARE NIVELULUI DE PERFORMANTA ESTE A1 SI B9 CONFORM H.2, 925-95
- CATEGORIA DE IMPORTANTA "C" NORMALA

NOTE:

- MINIMUM QUALITY REQUIREMENT CORRESPONDING TO THE PERFORMANCE LEVEL IS A1 AND B9 ACCORDING TO H.2, 925-95
- INTEREST CATEGORY IS "NORMAL C"

- ① Foundation concrete, grade G2/B3.5
- ② Reinforced concrete column, grade C12/15, monolith cast
- ③ Reinforced prefabricated concrete slab, C16/20
- ④ Manhole consisting of:
 - Prefabricated concrete slab C16/20, 14d between the access cover and the frame + cover
 - Prefabricated concrete piece for manhole frame and cover • C16/20 • STAS 2448-62
 - Trickleable manhole cover, with frame and locking device • STAS 2308-61
 - Access stairs G20, C8/7 steel • STAS 838/1-60 (galvanized steel or aluminum) • STAS 8150-60
- ⑤ DN 1600 mm concrete pipe, grade C32/40, 1 m or 2 m length
- ⑥ Hydro-insulating mortar filling of joints or pooling mortar
- ⑦ Hydro-insulating mortar protection layer for internal wall
- ⑧ Compacted backfill
- ⑨ Unit of manually compacted backfill

OT • Terrain elevation
 OR Inlets • Inlet manhole bottom elevation
 OR Outlets • Outlet manhole bottom elevation
 GS • Trench level
 GP • Foundation elevation

- 1 Beton de egalizare, clasa C25/30.5
- 2 Cuvă din beton armat clasa C12/15 turnat monolit
- 3 Placa prefabricată din beton armat clasa C16/20
- 4 Grind de vizitare
 - Placa prefabricată beton C16/20 între cui de acceș și rampă 1 capăt
 - Placa prefabricată pentru capac al rampei beton C16/20 - STAS 2448-82
 - Capac ceramic al treptei al rampei - STAS 2960-81
 - Trepte de acceș 20x30x37 - STAS 838/140 cu protecție antiderapantă sau din aluminid - STAS 6160-90
- 5 Tulpă din 100mm din beton clasa C30/40, lungime 1 m sau 2 m
- 6 Rezolvare cu mortar hincobolant sau mortar de pozare
- 7 Protecție cu mortar hincobolant peret interior
- 8 Umplutură din piatră, compactată
- 9 Umplere umplutură compactată manual
 - CT - Cota teren
 - CR - Cota rădăci cană
 - CS - Cota aspirație
 - CI - Cota de izolare

NOTE: Trench supporting will be executed according to present standards in force thus to be assured the holding conditions, stability and safety in execution.

Implementing Agency:	MINISTRY OF EUROPEAN INTEGRATION (MINISTERUL INTEGRARII EUROPENE)		
Contractor	J/V EDRASIS C. PSALIDAS S.A. - J&P AVAX S.A.		
Project (Project)	REHABILITATION OF THE NORTHERN BUCHAREST SUBURBAN AREA. WATER SUPPLY AND SEWERAGE WORKS AMELIORAREA ZONEI SUBURBANE NORD A MUNICIPIULUI BUCURESTI. ALIMENTARE CU APA SI CANALIZARE		
Designer (Projectant)	ROMAIR CONSULTING LTD		
Drawn (General): No. 1/04 (Contract no. contract)	Idoru, Radu ENACHE	Drawn (Scale): AS 1:100	Date (Drawn November 2008)
Checked (checked): Drawing title (in demand)	J/V EDRASIS C. PSALIDAS S.A. - J&P AVAX S.A. Ing. Gheorghe G. GOCULEA		Date (Check November 2008)
		Scale (Scale): 1:50	No. 1/04 CV - 26



18/03/2006 14:52



18/06/2005 10:50

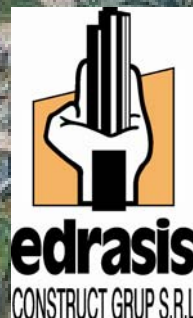
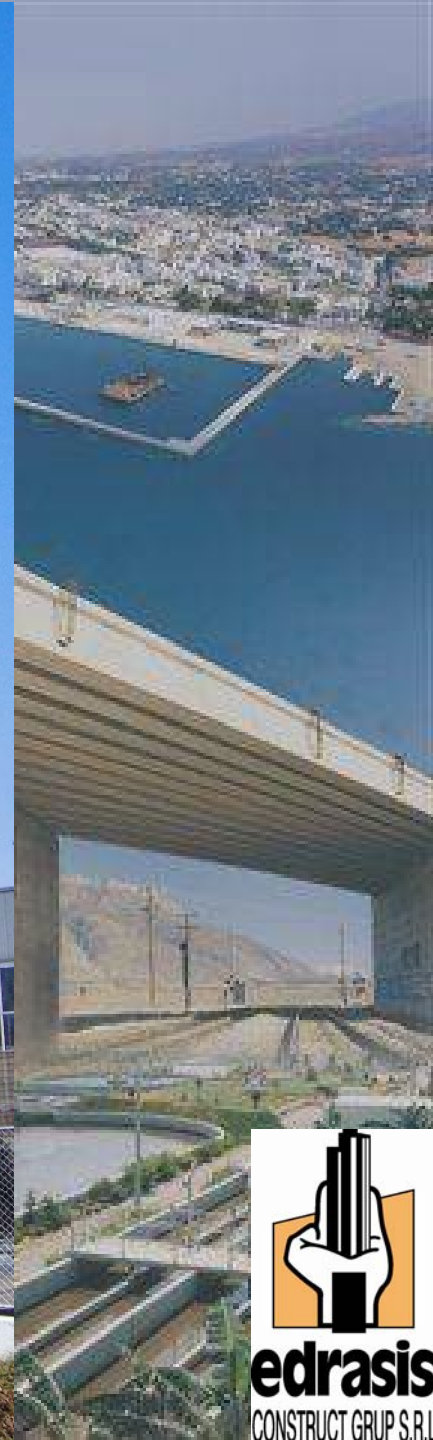


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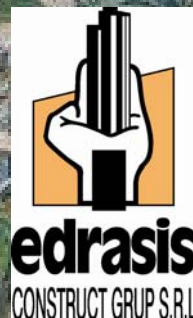
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21/07/2006 11:21



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24 11 2006



ΜΙΚΡΟΣΗΡΑΓΓΑ ΒΟΑΝΣΑ Ø2400/2900mm

▲ Ιδιαιτερότητες και Τεχνικές Δυσκολίες

- Η ροή του αγωγού σε βάθος 6-8m από την επιφάνεια
- Η σύνδεση με τον έναν από τους δύο συνδετήριους αγωγούς έπρεπε να γίνει κάτω ακριβώς από δρόμο βαριάς κυκλοφορίας

▲ Μέθοδος Κατασκευής Μικροσηρράγγων Boanca Ø2400/2900mm

- Μηχάνημα σημειακής κοπής με ασπίδα εντός προκατασκευασμένου σωλήνα (*open face shield*)
- Κυκλικά πηγάδια εισόδου με διάμετρο 7,5m. Αλληλοτεμνόμενοι πάσσαλοι για την εκσκαφή και την αντιστήριξη των φρεατίων



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© 2006
Google

Pointer 44°27'35.61" N 26°02'19.96" E elev 281 ft

Streaming 100%

Elev alt 3601 ft

SANTIER IN LUCRU

OBIECTIV: REFACERI SI COMPLETARI IN
SISTEMUL DE CANALIZARE
AL MUN. BUCURESTI
- FINALIZAREA LEGATURII INTRE
CANALUL COLECTOR B SI
COLECTORUL BOANCA, PENTRU
PRELUAREA DEBITELOR
PLUVIALE SUPLIMENTARE

BENEFICIAR: PRIMARIA MUN. BUCURESTI
Directia de Utilitati Publice
B-dul Regina Elisabeta nr.47, Sector 5,
tel.: 3055530



PROIECTANT: S.C. METROUL S.A. Bucuresti
Str. Gutenberg nr. 3 bis, Sector 5
tel.: 3151175



ANTREP. GEN.: S.C. EDRASIS C. PSALLIDAS S.A.
GRECIA SUCURSALA ROMANIA
B-dul Libertatii nr. 8, Bloc 115, Ap. 15,
Tel/Fax: 311.83.65 / 311.83.63



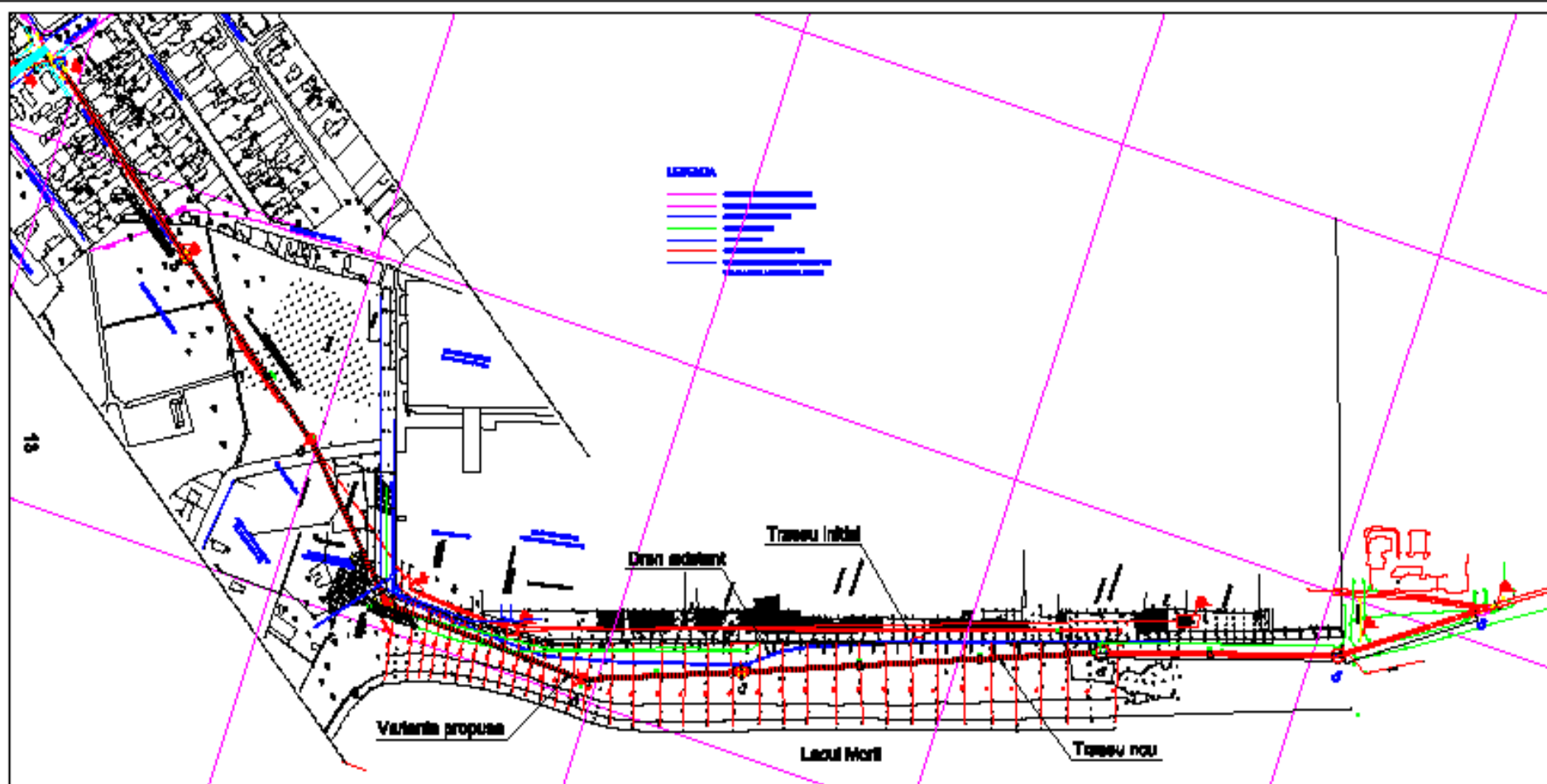
AUTORIZ. DE CONSTR. Nr.: **204/13.04.2006**

ELIBERATA DE PRIMARIA MUN. BUCURESTI

TERMEN DE EXECUTIE: 18 LUNI

DATA INCEPERII CONSTRUCTIEI: 15.05.2006

DATA FINALIZARII CONSTRUCTIEI: 14.12.2007



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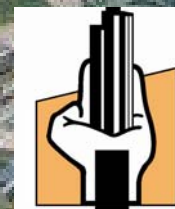








27-Mar-09



edrasis
CONSTRUCT GRUP S.R.L.



edrasis
C. PSALLIDAS S.A.

**specialist
contractors**

tel : 0040213118365-6
fax : 0040213118363





EDRASIS

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▲ Συμπεράσματα

- ✓ Επιτυχής διάνοιξη μικροσηράγγων στη Ρουμανία σε δύσκολες γεωτεχνικές συνθήκες και σε περιοχές με ιδιαίτερα προβλήματα και βαριά κυκλοφορία
- ✓ Η επιτυχής εφαρμογή της μεθόδου οδηγεί στην ευρεία εφαρμογή της για έναν σημαντικό αριθμό έργων υποδομής που προγραμματίζονται για το επόμενο διάστημα
- ✓ Οι σοβαρές και αξιόπιστες Ελληνικές κατασκευαστικές εταιρείες που ολοκληρώνουν τα έργα στο εξωτερικό με συνέπεια και ποιότητα, διερύνουν τους ορίζοντες και το πεδίο δράσης της Ελληνικής Κατασκευαστικής Βιομηχανίας

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MULTUMESC MULT!!!
ΕΥΧΑΡΙΣΤΩ ΠΟΛΥ!!!
THANK YOU!!!

27-Mar-09