I. Who are Transportation Engineers?

Figure 1.1

Listen

Source: http://www.youtube.com/watch?v=xmDjcvpVh2M

1. **Listen to the following video clip and translate the given words and expressions:**

rast stanovništva	
za razliku od	
uključiti	
nadgledanje	
provoditi studiju izvedivosti	
stažist	
studija troškova	
ostvariti karijeru	
isušivanje	
jednadžba	
širenje	

Nature of the Work

Figure 1.2

2. Complete the sentences with missing words:

figure out, congested, commuter, systems, patterns, firms, governmental, equipment, monitor, developing, construction,

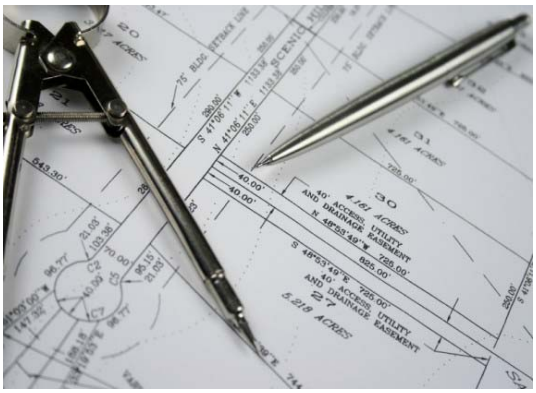


Figure 1.3

Transportation engineers creatively apply scientific principles and technology to the design, _____ and maintenance of highways, airports, and railway and bus_____. They work for _____agencies, for consulting _____that troubleshoot for the government, and for private firms that produce materials and _____used in transportation. With increasing urbanization occurring globally, transportation engineers are in high demand to help _____how to move people and goods safely and efficiently.

Transportation engineers can work in a variety of areas. They can work as traffic engineers and plan new roads or traffic_____, prepare plans for new multi-lane highways, use technology to _____traffic flow and conditions, and create alternative routes to _____traffic corridors. Some transportation engineers work in the railways sector, planning for high-speed rail service and _____commuter routes. Some engineers develop

entire transportation systems, including roads, subways, _____trains, and buses. Engineers also supervise the construction or repair of transportation infrastructure.

Source: http://en.wikipedia.org/wiki/Transport_engineering

Figure 1.2

3. Put the phases of transportation engineer's tasks into the right order:

a) They determine whether the land is in a location suitable for building and how the projects could affect the environment.

b) Part of completing a successful project is to stay within budget.

c) Once these factors have been analysed, transportation engineers compile their findings and share the information with all the agencies involved in building the project.

d) When figuring out a project's feasibility, they must consider the needs of those being served and whether sufficient land exists for the project to be completed.

e) In the initial stage of planning a project, transportation engineers study the costs for doing the project

Complete the article below with the words, prepositions and phrases. Pay attention to the tense of the verb!

out users bid make sure suited how closely meet whether

Some transportation engineers are_____[1] involved in the construction process. They send the project_____[2] to several contractors for bidding, gather the_____[3], and then select the best one. Transportation engineers determine _____[4]available land needs to be filled or treated before building, and they recommend construction methods best _____[5] to the

soil types encountered. During road construction, engineers must _____[6] design plans and highway department standards are fully_____[7]. It is the responsibility of the transportation engineer to make sure that their completed projects are safe for all_____[8].

4. Match the verbs/nouns with corresponding preposition/noun

commuter	corridors
congested	standards
to meet	in
to figure	high demand
involved	trains
stay in	out

5. *Collocations with Do and Make: usually Do* is used for activities *Make* for constructing, building, creating

Use 'make' to express an activity that creates something that you can touch. Use the verb 'do' to express daily activities or jobs. Notice that these are usually activities that produce no physical object.

Do or make?

_____ a project _____food _____ mess

_____ profit _____a research ____ a homework

6. Discuss the following cartoon:

Figure 1.3

II. What is Transportation Engineering about?

Where do Transportation Engineers Work?

Work Environment

Figure 2.1

Transportation engineers may work exclusively in an office setting, though usually they will be required to work at construction sites as well. A transportation engineer should expect to work in all kinds of weather conditions. A 40-hour work week is typical, though overtime is often necessary as deadlines near.

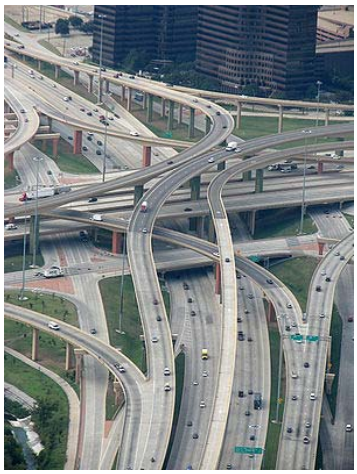


Figure 2.2

Education and Training

Transportation engineers must have a bachelor's degree in civil engineering for entry-level positions. Some employers prefer a graduate degree for certain jobs. Nearly half of those working today hold master's degrees or PhDs, which may be required for research positions. A PhD is necessary for university-level teaching positions.

Prospective transportation engineers should take high school courses in mathematics and science. Courses in computer-aided design are also helpful. Transportation engineers continue their education by reading technical publications and attending seminars and conferences.

1. **On the Job – which verbs would you associate with the following functions?**
   - _____or _____plans for new transportation systems or parts of systems, such as airports, commuter trains, highways, streets, bridges, drainage structures, and roadway lighting.
   - _____the maintenance or repair of transportation systems or system components.
   - _____ environmental impact statements for transportation projects.
   - _____ construction plans, design calculations, or cost estimates to ensure completeness, accuracy, and conformity to engineering standards and practices.
   - _____with contractors, utility companies, or government agencies to discuss plans, specifications, or work schedules.
   - _____the surveying, staking, and laying-out of construction projects.
   - _____ transportation project costs.
   - _____ completed transportation projects to ensure safety or compliance with applicable standards or regulations.
   - _____or _____specific construction project materials to determine compliance with specifications or standards.
   - _____transportation scenarios to evaluate the impacts of activities such as new development or to identify possible solutions to transportation problems.
   - _____in contract bidding, negotiation, or administration.
   - _____ development plans to determine potential traffic impact.

Figure 2.3

Source: http://en.wikipedia.org/wiki/Transport_engineering

2. How would you label Figures 1 – 3?

3. Search in the text above for English equivalents of the following words:

naprezanja	utjecaj okoliša	u skladu sa normama	procjena sigurnosti	ambijent
procjena troškova	komunalna poduzeća	imati stupanj magistra	upravljati	proširenje programa
Izmjene u projektu	nadgledanje	pregledati	u vezi sa sastancima	

4. Which words match the following definitions:

To mark the location or limits of with or as if with stakes	
The starting point for a person with little or no experience, usually at minimum wage or a scale lower than most experienced workers.	
Any organization which provides services to the general public, although it may be privately owned.	
The offering of particular prices for something, esp. at an auction.	

III. Planning and Forecasting in Transportation Engineering

Pair work

Pair work: a journalist presents the profession of transportation engineering to the public. Which kind of questions can be shaped on the basis of the following text?

1. **Create eight questions connected with underlined words:**

The planning aspects of transport engineering relate to urban planning, and involve technical forecasting decisions and political factors. Technical forecasting of passenger travel usually involves an urban transportation planning model, requiring the estimation of trip generation (how many trips for what purpose), trip distribution (destination choice, where is the traveler going), mode choice (what mode is being taken), and route assignment (which streets or routes are being used). More sophisticated forecasting can include other aspects of traveler decisions, including auto ownership, trip chaining (the decision to link individual trips together in a tour) and the choice of residential or business location (known as land use forecasting). Passenger trips are the focus of transport engineering because they often represent the peak of demand on any transportation system.

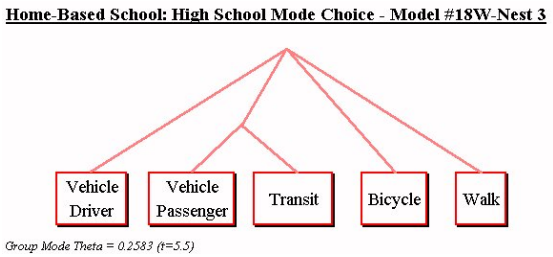


Figure 3.1

A review of descriptions of the scope of various committees indicates that while facility planning and design continue to be the core of the transportation engineering field, such

areas as operations planning, logistics, network analysis, financing, and policy analysis are also important to civil engineers, particularly to those working in highway and urban transportation.

Transportation engineering, as practiced by civil engineers, primarily involves planning, design, construction, maintenance, and operation of transportation facilities. The facilities support air, highway, railroad, pipeline, water, and even space transportation. The design aspects of transport engineering include the sizing of transportation facilities (how many lanes or how much capacity the facility has), determining the materials and thickness used in pavement designing the geometry (vertical and horizontal alignment) of the roadway (or track).

Figure 3.2

Source: http://en.wikipedia.org/wiki/Transport_engineering

5. Connect the sentences:

1. Before any planning occurs	a) create business models to complete accurate forecasts of the future conditions of the system.
2. Operations and management involve	b) information on (1)population, (2)land use, (3)economic activity, (4)transportation facilities and services, (5)travel patterns and volumes, (6)laws and ordinances, (7)regional financial resources, (8)community values and expectations.
3. Newer technologies involve	c) traffic engineering, so that vehicles move smoothly on the road or track.
4. This inventory or database must include	d) an aspect of transport engineering, particularly concerning driver-vehicle interface and user interface of

	road signs, signals, and markings.
5. Human factors are	e) intelligent transportation systems, including advanced traveller information systems (such as variable message signs), advanced traffic control systems (such as ramp meters), and vehicle infrastructure integration.
6. Older techniques include	f) signs, signals, markings, and tolling.
7. These inventories help the engineer	g) the Engineer must take what is known as an inventory of the area or if it is appropriate, the previous system in place.

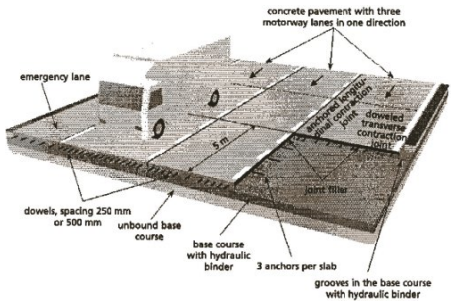


Figure 3.3

6. Which of the above mentioned words match the definitions:

_____ - a body appointed by a legislature to consider the details of proposed legislation.

_____ - a complete list of items such as property, goods in stock or the contents of a building

_____ - charge a toll for the use of a bridge or a road

_____ - the hard surface of a road or street

_____ - a piece of legislation enacted by a municipal authority

7. Find synonyms:

stocktaking _____

fitting _____

sidewalk _____

decree _____

mode of transportation _____

Error

8. Find mistakes in the following sentences:

a) Doing the models for Google Earth presents a unique challenge compared to everyday SketchUp modelling.
b) Transport and his infrastructure are vital to our economic and social well-being.
c) Engineers are caught up in the planning, design, construction, maintenance and operations of public transport.
d) Engineers amplify policy, maximise efficiency and improve safety.
e) Transportation engineers address environmental challenges to reduce pollution and save energy.

9. Match the following words:

1. Median strip	a)razdjelni pojas
2. Carriageway	b) kolnik
3. Ditch	c) drenažni jarak
4. Subbase	d) donji nosivi sloj
5. Base course	e) nosivi sloj
6. Subgrade	f) posteljica

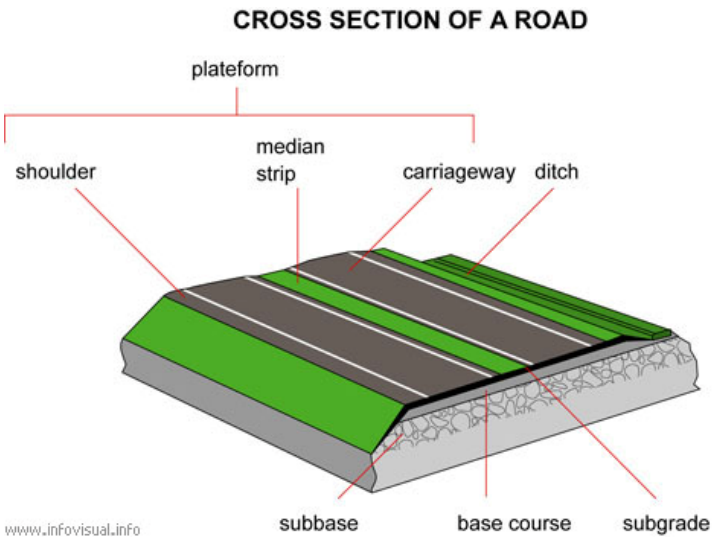


Figure 3.4

10.Translate

1. Istraživanja su pokazala da je izum i razvoj željeznice u Evropi bio jedan od najvažnijih tehničkih izuma s kraja 19 tog stoljeća u SAD-. Bez njega bi BDD bio niži za 7.0% 1890 godine.
2. Željeznički vozni park u sistemima željezničkog prometa ima općenito manju otpornost trenja u usporedbi s vozilima na autoputu, a putnička vozila i kamioni mogu se povezati u dulje vlakove.
3. Inženjeri projektanti, ovlašteni inženjeri, nadzor i revizori sudjeluju u tom natječaju.
4. U terminologiju cesta ulaze :betonirane bankine, raskrižja, nagibi, ugibališta, prelasci u razini, održavanje revizionog okna.
5. Kolnici su napravljeni od prednapregnutog betona. Ispod su kanalizacijske cijevi.
6. Inženjer mora uzeti u obzir nadvišenje okolnog područja, prometne propise, otpornost gazećeg sloja.
7. Geotehničari se bave klizištima, problemima čvrstog stjenovitog tla, sondama i šutom u građevnoj jami. Njihovo područje rada uključuje uzimanje uzoraka, praha, sanacije potpornih zidova i otklanjanja krutog otpada.

CORRECTION WORK

11. a) A graduate student working in Zagrebačke ceste company gave a presentation on his job: help him to improve his grammar and vocabulary in particular :

STRUCTURAL REHABILITATION AND ROAD OPENING IN ROBNI TERMINALI ZAGREB

CLIENT: GRAD ZAGREB

CONTRACTOR: ZAGREBAČKE CESTE

Object: Pavement structure provided for heavy traffic

Figure 3.5

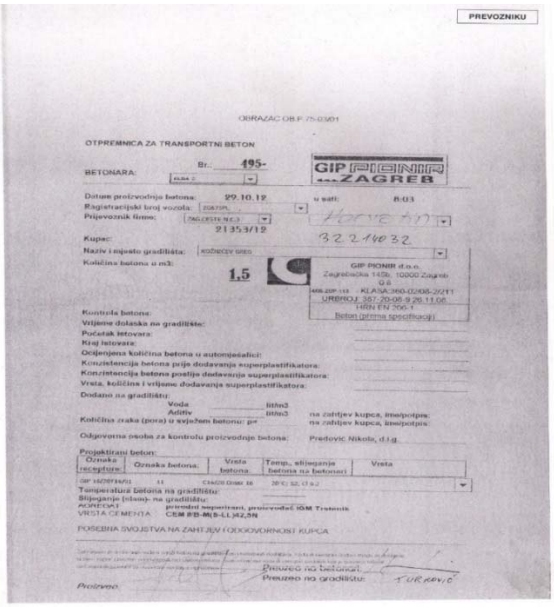
Damage identification:

Degradation of asphalt pavement and foundation soil

Setting hypotheses about the causes of damage:

Flushing of foundation soil and undercutting of asphalt pavement

Example of technical sheet of embedded materials:



PREVOZNIKU

OBRAZAC OB.F.75-03/01

OTPREMNICA ZA TRANSPORTNI BETON

BETONARA: Br. 495-

GIP PIONIR ZAGREB

Datum proizvodnje betona: 29.10.12 u sati: 8:03

Registracijski broj vozila:

Prijevoznik firme:

21353/12

Kupac: 32214032

Naziv i mjesto gradilišta:

Količina betona u m3: 1,5

GIP PIONIR d.o.o.
Zagrebačka 145b, 10000 Zagreb
OIB
MB:ZGP-113 KLASA:360-02/05-20/11
URBROJ: 357-20-08-9-20-11-06
HRN EN 206-1
Beton prema specifikaciji

Kontrola betona:
Vrijeme dolaska na gradilište:
Početak istovara:
Kraj istovara:
Ocijenjena količina betona u automješalici:
Konzistencija betona prije dodavanja superplastifikatora:
Konzistencija betona poslije dodavanja superplastifikatora:
Vrsta, količina i vrijeme dodavanja superplastifikatora:
Dodano na gradilištu:
Voda litri/m3
Aditiv litri/m3
Količina zraka (pora) u svježem betonu: p= na zahtjev kupca, ime/potpis:
na zahtjev kupca, ime/potpis:
Odgovorna osoba za kontrolu proizvodnje betona: Predovic Nikola, d.i.g.

Projektirani beton:

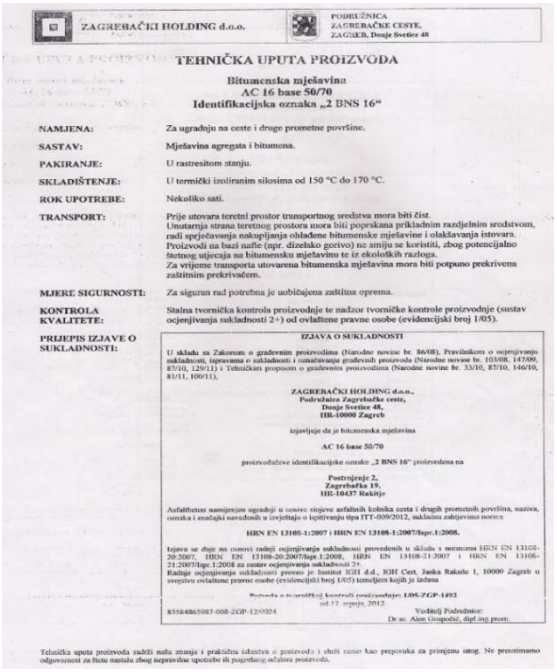
Oznaka recepture	Oznaka betona:	Vrsta betona	Temp., slijeganja betona na betonari	Vrsta
GP 1607/11/01	11	C16/20 Dmax 16	20°C S2, Cl 0,2	

Temperatura betona na gradilištu:
Slijeganje (slump) na gradilištu:
KONTROLU VRSTA CEMENTA provodi ispitni laboratorij, proizvođač IGM Travnik
CEM II/B-M(S-LL)42,5N

POSEBNA SVOJSTVA NA ZAHTJEV I ODGOVORNOST KUPCA

Preuzeo na betonari:
Proizveo: Preuzeo na gradilištu: TURKOVIĆ

Figure 3.6



ZAGREBAČKI HOLDING d.o.o.

PODRUŽNICA ZAGREBAČKE CESTE, ZAGREB, Donje Svetice 48

TEHNIČKA UPUTA PROIZVODA

Bitumenska mješavina
AC 16 base 50/70
Identifikacijska oznaka „2 BNS 16"

NAMJENA: Za ugradnju na ceste i druge prometne površine.

SASTAV: Mješavina agregata i bitumena.

PAKIRANJE: U rastresitom stanju.

SKLADIŠTENJE: U termički izoliranim silosima od 150 °C do 170 °C.

ROK UPOTREBE: Nekoliko sati.

TRANSPORT: Prije utovara teretni prostor transportnog sredstva mora biti čist. Unutarnja strana teretnog prostora mora biti poprskana prikladnim razdjelnim sredstvom, radi sprječavanja nakupljanja ohlađene bitumenske mješavine i olakšavanja istovara. Proizvodi na bazi nafte (npr. dizelsko gorivo) ne smiju se koristiti, zbog potencijalno štetnog utjecaja na bitumensku mješavinu te iz ekoloških razloga. Za vrijeme transporta utovarena bitumenska mješavina mora biti potpuno prekrivena zaštitnim prekrivačem.

MJERE SIGURNOSTI: Za siguran rad potrebna je uobičajena zaštitna oprema.

KONTROLA KVALITETE: Stalna tvornička kontrola proizvodnje te nadzor tvorničke kontrole proizvodnje (sustav ocjenjivanja sukladnosti 2+) od ovlaštene pravne osobe (evidencijski broj 1/05).

PRIJEPIS IZJAVE O SUKLADNOSTI:

IZJAVA O SUKLADNOSTI

U skladu sa Zakonom o građevnim proizvodima (Narodne novine br. 86/08), Pravilnikom o ocjenjivanju sukladnosti, ispravama o sukladnosti i označavanju građevnih proizvoda (Narodne novine br. 103/08, 147/09, 87/10, 129/11) i Tehničkim propisom o građevnim proizvodima (Narodne novine br. 33/10, 87/10, 146/10, 81/11, 100/11),

ZAGREBAČKI HOLDING d.o.o.,
Podružnica Zagrebačke ceste,
Donje Svetice 48,
HR-10000 Zagreb

izjavljuje da je bitumenska mješavina

AC 16 base 50/70

proizvođačeve identifikacijske oznake „2 BNS 16" proizvedena na

Postrojenje 2,
Zagrebačka 19,
HR-10437 Rakitje

Asfaltbeton namijenjen ugradnji u nosive slojeve asfaltnih kolnika cesta i drugih prometnih površina, sastava, omjeka i značajki navedenih u izvještaju o ispitivanju tipa ITT-009/2012, sukladna zahtjevima norme

HRN EN 13108-1:2007 i HRN EN 13108-1:2007/Isprc.1:2008.

Izjava se daje na osnovi radnji ocjenjivanja sukladnosti provedenih u skladu s normama HRN EN 13108-20:2007, HRN EN 13108-20:2007/Isprc.1:2008, HRN EN 13108-21:2007 i HRN EN 13108-21:2007/Isprc.1:2008 za sustav ocjenjivanja sukladnosti 2+.
Radnje ocjenjivanja sukladnosti provelo je Institut IGH d.d., IGH Cert, Janka Rakuše 1, 10000 Zagreb u svojstvu ovlaštene pravne osobe (evidencijski broj 1005) temeljem kojih je izdana

Potvrda o tvorničkoj kontroli proizvodnje: 1305-ZGP-1493
od 17. srpnja 2012.

85548465987-008-ZGP-12/0024

Voditelj Podružnice:
Dr.sc. Alen Gospodić, dipl.ing.prom.

Tehnička uputa proizvoda sadrži naša znanja i praktična iskustva o proizvodu i služi samo kao preporuka za primjenu istog. Ne prostimamo odgovornost za štetu nastalu zbog nepravilne upotrebe ili pogrešnog odabira proizvoda.

Figure 3.7

REPAIR

Works on road openings consist of: digging materials from foundation soil or from mound, posted lines.

Figure 3.8

Figure 3.9

b) Translate the parts of the pavement structure given in Figure 3.10:

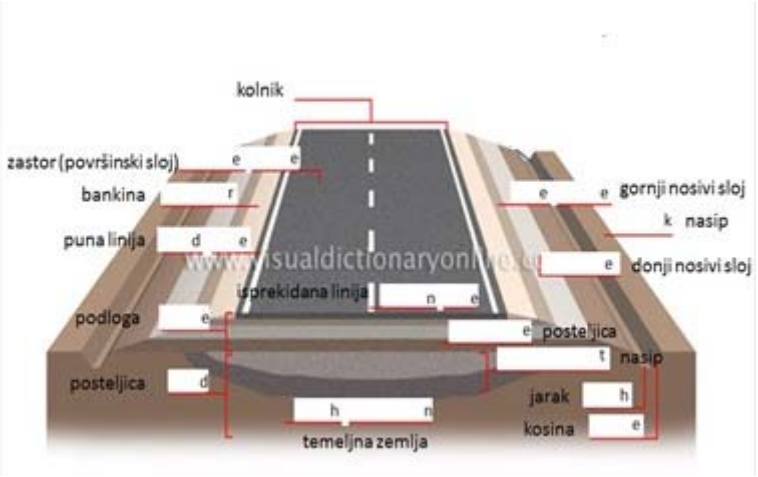


Figure 3.10

IV. What to Do With Pine and Park?

1. Put the jumbled paragraphs into right chronological order:

Figure 4.1

a) A new building, perhaps six or seven stories tall, would frame the intersection beautifully and provide a visual stepping stone to the cluster of skyscrapers that looms south of Pine. It doesn't need to be privately developed. Given the symbolism of its location, this building should serve an important public purpose, perhaps as a library or community centre with social housing above.

b) I have nothing but respect for Kowaluk. She was involved in the 1960s-era protests against a massive superblock development that would have wiped out the entire McGill Ghetto; when the plan was defeated, she helped found a large coop in the east part of the neighbourhood. She also runs the Urban Ecology Centre, which has pioneered a particular blend of urban environmentalism that supports sustainable development, social justice and local heritage. But I must absolutely disagree with her position on the Pine-Park intersection: a building *should* rise at its southeast corner. The rest of the new open space will function best as an extension of the parks north of Pine—and there's no question that it will become just that—but the small square of land south of the intersection would best be turned into a building.

c) Last fall, work finished on one of the better planning decisions Montreal has made over the past couple of decades: the replacement of the labyrinthine interchange at the corner of Pine and Park Aves. with a surface-level intersection.

d) Helen Fotopulos, the Plateau borough mayor, has said that whatever is built at Park and Pine must be "significant." After all, it's the gateway to Montreal's namesake, one of the city's most valuable pieces of public space. But this shouldn't rule out a building. What Pine and Park needs is something bold, innovative—something that will serve its city and its neighbourhood well.

e) Currently, the Plateau Mont-Royal borough is figuring out what to do with it, but residents of the surrounding neighbourhood, Milton Park—better known as the McGill Ghetto—have made it known that they will only tolerate open space. "There are constant rumours that people want to build there," Lucia Kowaluk, president of the Milton Park Citizens Committee, told the Montreal Gazette. "I know two people who work for the city who have told me in the last four months, 'There are going to be buildings there.'"

f) The new junction is elegant, attractively furnished and easy to navigate. It's also empty. Destroying the interchange freed up a lot of space that is currently occupied by loose bits of rock and gravel. It seems clear that the space above Pine Avenue will be turned into park space, which only makes sense since it abuts Mount Royal and Jeanne Mance Park. But there's a more controversial parcel of land south of Pine Avenue. A small part of it is a triangle that stretches west along Pine to Durocher Street; the rest is a square at the southeast corner of Pine and Park. All in all, the land in question covers about 5,000 square metres.

Source: http://www.urbanphoto.net/blog/2007/06/13/what-to-do-with-pine-and-park/

Figure 4.2

Figure 4.3

2. Complete the idioms and phrasal verbs:

To _____ a decision to figure _____ to rule ____ to serve ____

3. List down the antonyms:

Currently _____	resident _____	cluster _____
Loose _____	densely populated_____	rear _____
Borough _____	temporary _____	surface level _____

4. Translate expressions related to urban planning

a)širenje grada	b)nenaseljeno(prazno) područje	c) prometno raskršće	d) slobodna površina (za izgradnju)
e)održiva gradnja	f) zemljišna parcela	g) prilaz gradu (ulaz u grad)	h) etažno vlasništvo

Role-play activity

5. Role play: use the following comments and defend your opinion in a public debate with a city's mayor and authorities:

Patrick says:I agree with your position on this. A park is probably the worst idea for the vacant land south of rue des Pins.

Jane Jobs claimed that parks are vacuums that need to be filled in order to become interesting urban spaces. More parkland does not necessarily mean a better quality of life for residents if that park is poorly located–it could mean the contrary. In this case, it seems obvious that nobody will use a park abutting a busy intersection when there's a larger, more pleasant expanse right across the street. Furthermore, sustainable development (and good urban design) calls for a building on this corner in order to continue offering living alternatives downtown to counter sprawl.

Building a better downtown does not mean turning all empty lots into green space. It means creating a densely populated urban space with strategically-located parks that are interesting, used by citizens, and well-designed.

Denis Duke says:

I couldn't agree more. That empty lot needs to be seen also as half of a block (the block bounded by Pine, Jeanne-Mance, Leo-Pariseau, and Parc). One half is built – the little 1980s-ish condos/apartments on Jeanne-Mance – but its most important half, the half fronting on Montreal's most significant new gateway to both downtown and the mountain, needs something good to be built on it. A ho-hum, or even an interesting park, with the rear facade of some low-rise condos, their barbecues, parked cars, laundry, etc, doesn't really do the space justice.

6. WORD CHECK -Translate

usjek, nasip, krut, kruta kolnička konstrukcija, fleksibilna kolnička konstrukcija, bager jaružalo, utovarivač, mehanika tla, stabilizacija tla

V. AIRPORTS

Listen

1. **Watch and listen to the movie: Moving the J.F. Kennedy Airport -Write down the key words and compose a summary. Unfold your story using the following linking words:**

Consequently, …

Correspondingly, …

For this reason, …

Furthermore, …

In addition to, …

In contrast, …

In this way, …

Moreover, …

Subsequently, …

Similarly, …

As we have seen, …

Accordingly, …

2. **The basics of the airport history are given in the introduction. You have to re-arrange the hints containing some mistakes into a full text :**

location where aircraft such as fixed-wing aircraft, helicopters, and blimps take off and land

Figure 5.1

- first aircraft - flat terrains, meadows possible because the structure was simple and they were light (landing gear had only winged or tailwheel), the plane could approach at any angle if a favorable wind direction provided
- after World War 2 - aircraft with landing gear systems which require constructive traffic areas – airports with the concrete surface
- at first years of aviation traffic intensity wasn´t significant the airports aren´t built up larger objects, small number of employees
- today - at international airports with an intercontinental traffic there are over 10,000 employees and considering the occupied area - small towns

3. Read the definitions of the airport facilities: which definition refers to which figure?

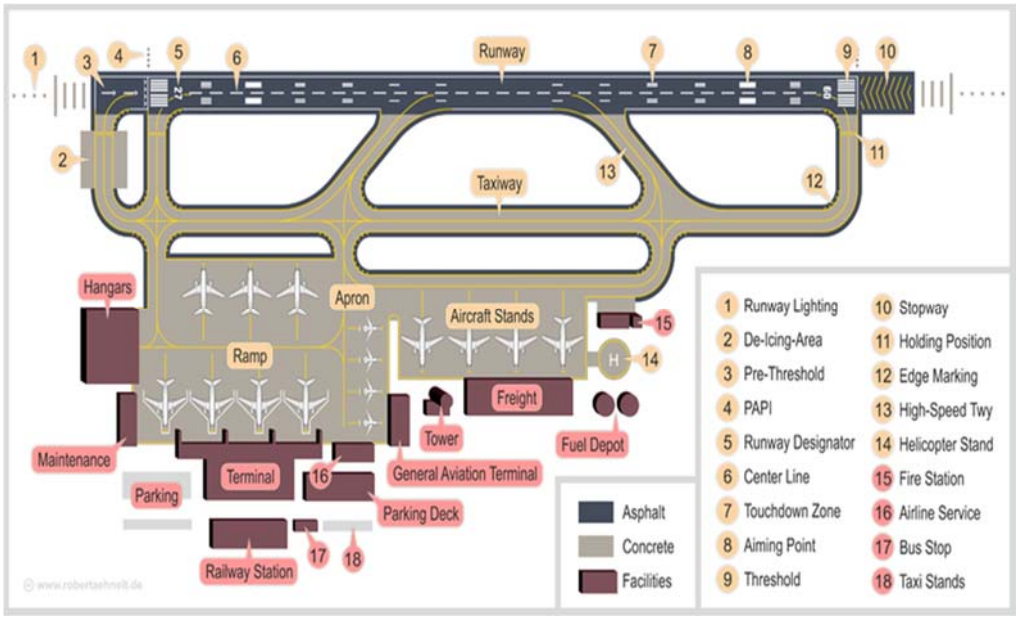


Figure 5.2

1. Runway lighting - a line of lights on an airfield or elsewhere to guide aircraft in taking off or landing

Figure 5.3

Figure 5.4

2. Runway - a defined rectangular area on a land prepared for the landing and take off of aircraft

3. Apron - area intended to accommodate aircraft for the purpose of handling passenger, cargo and mail, for taking fuel, maintenance and repair, as well as for parking

Figure 5.5

4. Aircraft stand - marked area on the apron for aircraft parking

5. *Approach* - imaginary surfaces for safe landing of aircraft

Figure 5.6

6. Holding bay - designated traffic area intended to hold and passing the aircraft and test engine just before take-off, enables efficient movement of aircraft on the ground

7. Shoulder – area along the edge of pavement of the runway prepared to provide a transition between the pavement and the adjacent surface, suitable for landing aircraft

8. Stopway – defined rectangular area on the ground in front of the threshold, at the end of the length available for the run, prepared as a suitable area on which aircraft can be stopped in case of overshooting runway

Figure 5.7

Figure 5.8

Figure 5.9

9. Taxiway – specified path at the airport for the movement of aircraft which is intended to provide a link between certain parts of the airport including the aircraft stand taxilane, apron taxiway and rapid exit taxiway

10.Threshold – the beginning of the runway usable for landing

11. Touchdown zone – part of the runway threshold beyond which an airplane in landing first touch

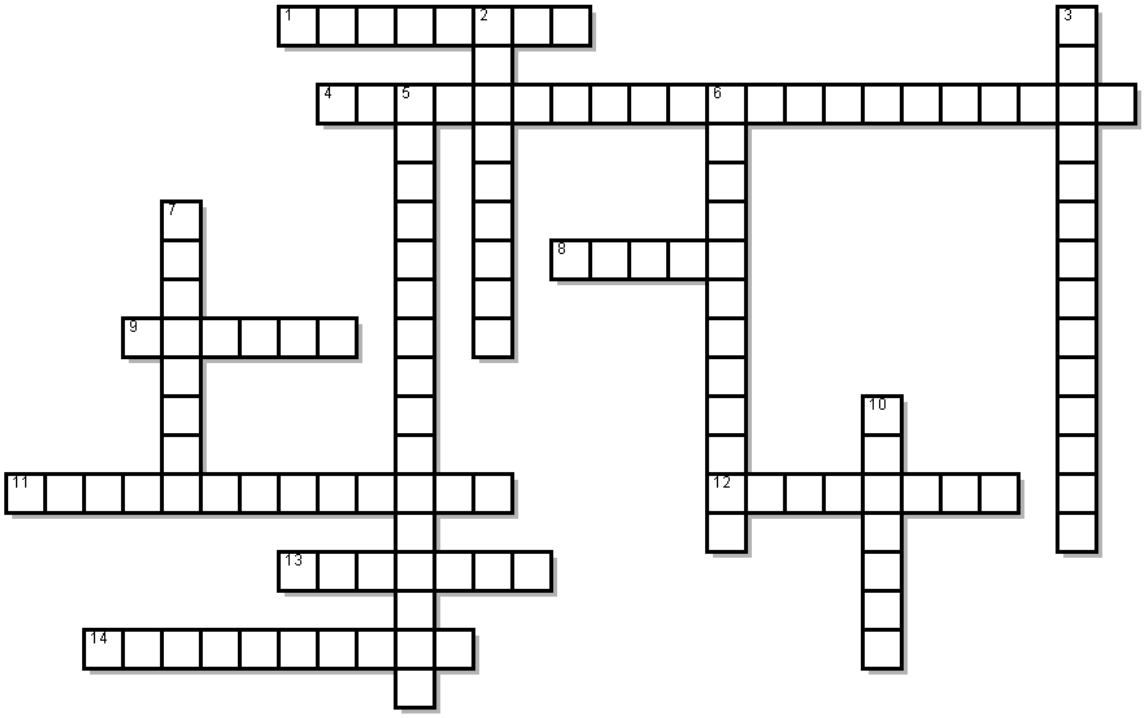
4.WORD SEARCH – Find translation for the words on the bottom

E N A L I X A T D N A T S T F A R C R I A
M M K X W W Y K T N Y Z R Y J M D S D D T
Y A W I X A T T I X E D I P A R H N M Y Y
T H R E S H O L D N Y R V Y D O A Q W Z D
Y S N W B D W N Z D G Y Z R U T D L R J M
A T B R G Z T M W T Z P X L S T M D Y X K
B O M L U T B Y T B B M D T R L D J V V P
G P B X R N Y V A R X E F A P P R O A C H
N W K R T G W R M Y R A L G V A P T Y J B
I A D Q D J R A Z T R G X N P N M Z G R Q
D Y D Q J E B G Y C R J T R D D L B P N B
L D J D T T K B R L Y Y O A J T P T J J L
O K V T Y V T I Y J I N N Y X M D D T M J
H Z E T L X A N J Z T G A T J I A M M Y J
Y L G Y Z G Q G J A D W H B R P W L D D W
M Y P X P Q Y R X N N J N T R L B A Z L D
D X D R P N Z I V U R Q G O I T T L Y D L
T B X M D R W V R M B B N Q T N G X N D L
Y M Y Z P A N P X L K B L X W R G B B J X
T L Z L Y N Z X K P X L J X W M M T T Z X

Uzletno-sletna staza
Pozicija zrakoplova
Prilazna ravnina
Brza izlazna rulna staza
Prag
Povrsina za cekanje
Rame
Svjetla USS
Rulna staza
Zaustavna staza
Precka
Stajanka
Rulna staza na stajanci
Rulna staza do pozicije

5. Solve the crossword:

Airports



ACROSS

1 Precka
4 Rulna staza do pozicije
8 Stajanka
9 Uzletno-sletna staza
11 Pozicija zrakoplova
12 Prilazna ravnina
13 Rulna staza
14 Povrsina za cekanje

DOWN

2 Prag
3 Svjetla USS
5 Brza izlazna rulna staza
6 Rulna staza na stajanci
7 Rame
10 Zaustavna staza

Adapted from: http://en.wikipedia.org/wiki/Airport