

I. Introduction into Construction Management

Introduction into six different fields of study in Civil Engineering.



Listen

Listen and watch the video clip presenting different jobs in civil engineering.

<http://www.youtube.com/watch?v=p1nTeN8SDD4&feature=related>

1. How are various fields of civil engineering called, and what are they associated with?



Figure 1

1. _____ deals with costs, estimates, schedules.
2. _____ is concerned with _____.
3. _____ handles _____.
4. _____ addresses _____.
5. _____ relates to _____.
6. _____ deals with _____.



Figure 2

2. Name the following items the video deals with:

Activities _____

Facilities _____

Plants _____

II. Who Is a Construction Manager?



Figure 3

1. Insert a correct word and mind its grammatical form!

- | | | | | |
|----------------|-------------|--------------|--------------|----------|
| underrate | through | managerial | temper | underway |
| point to | delays | facets | entire | acquired |
| face | variety | obtain | fast | initial |
| purchasing | contractors | considerable | intermediary | complete |
| persuade | blueprint | plumbing | suggest | familiar |
| subcontractors | codes | patience | training | surveys |

Coordinating one aspect of a construction is a difficult task. But coordinating the process, from _____¹ planning and foundation work, _____ the final coat of paint in the last room, takes someone with the _____³ skills of Lee Iacocca, the force of will of General Patton, and the _____⁴ of Job. Being a construction manager demands organization, attention _____⁵ detail, an ability to see the "big picture," and an understanding of all _____⁶ of the construction process, usually _____⁷ through experience. A construction manager is the _____⁸ between his clients and his workers, between the architect and his _____⁹, and between the project and any regulatory personnel. "It's exciting" and "It's hard" were the two comments that cropped up most often in our _____¹⁰. The wide range of

responsibilities that the construction manager _____¹¹ means that he should have a wide _____¹² of skills and knowledge, including basic electrician _____¹³, standard construction techniques,¹⁴ _____ reading, budgeting, and _____¹⁵. The most _____¹⁶ skill a construction fitanager needs is the ability to _____¹⁷ and persuade. He may have _____¹⁸ to convince a client that a last minutechange _____¹⁹ by the architect will mean innumerable _____²⁰ or cost increases, or convince an unmotivated subcontractor to _____²¹ his job as required by a previous agreement."You can always do your job better if you can make other people do their jobs better," said one manager. The ability to motivate and exact good work has to be _____²² with understanding the limits of your workers, and knowing when a change in plans already _____²³ is worth fighting and when it is not. It helps if a construction manager has experienc in _____²⁴ permits and certifications for work; "expediters" who promise to obtain permits _____²⁵ can charge up to \$25,000 for their services, so construction managers _____²⁶ with the process who can trek through local bureaucracies can save their clients a _____²⁷ amount of money. "Take the time to learn your local building _____²⁸" mentioned one construction manager: "Do it at the beginning so that you don't get surprised in the middle of the job." Aside from the high level of stress the day-to-day occupation fosters, the sense of satisfaction among people in the industry is high. Many _____²⁹ the intimate relationships between builder and buyer, between architect and construction crew, and between construction workers and their _____³⁰ as positive experiences. People in this profession work hard, but they are _____ for the large burdens they _____³⁰.

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

2. Label the Figures – associate construction managers’ activities with each Figure.



Fig.1 _____



Fig.2 _____



Fig.3 _____

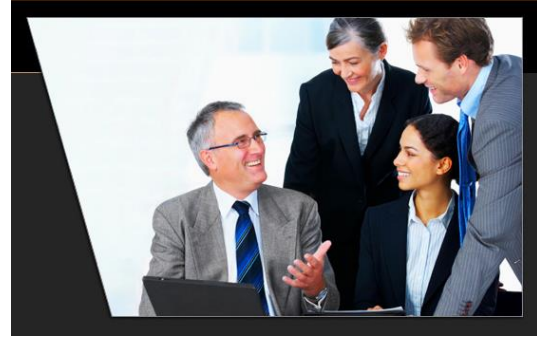


Fig.4 _____



Translate

3. Translate the following questions:

Zašto je voditelj građenja najvažnija osoba u gradnji naselja?

Tko je najvažnija osoba za odobravanje projektne dokumentacije?

Da li je arhitekt osoba koja projektira naselja ili je to možda urbanist u gradskom vijeću? Ili je to Vaš davalac zajma?

Ne mogu točno procijeniti koliko smo planova pregledali i prezentirali našim graditeljima pri natječajima. Neki dolaze do nas sa potvrdama o odobroj građevnoj lokaciji, neki imaju izdane građevinske dozvole – oni su nam najdraži jer imaju plaćene sve pristojbe i namete tako da možemo odmah započeti s gradnjom.



Error

4. Correct the student's homework „How do you become a construction manager“?

First of all I have finished undergratuated study. Then I write my bachler theses and aplly for graduate study. On the end of graduate study I will write master theses.

After finishing my study i will find a company where i will work. My competitions will be managing and running a projects. I will be able to design and working on construction site. I must settlement disputes. I can work on procurement for materials, and leading human resources.

Civil engineers writes offers and proposals. They must estimate the value of project and manage the schedule. They must introduce mason, carpenters, and other craftsman with blueprints of projects. They pay fees for their work.

III. A Day in the Life of a Construction Manager



Listen

1. Listen to the following video clip

<http://www.youtube.com/watch?v=5vStHoQJSvc>

2. Which issues are stressed in the video clip?

3. Which words are collocated with the following ones?

Trades

Run _____

To meet _____

Keep _____

Hold _____

Prepositional phrases

Get _____

Find synonyms for:

Team:

Superintendent

Agreement

Participant in the construction process are: _____, _____, _____

4. Which social skills feature in the movie?

a) _____

b) _____

c) _____



Translate

5. Translate the following expressions:

✚ Prema vremenskom planu

✚ Prije vremenskog plana

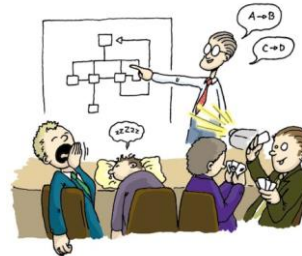
✚ Iza vremenskog plana

- ✚ Preko predviđenog novčanog iznosa
- ✚ Ispod predviđenog novčanog iznosa

6. Name the following actions the project managers deal with in everyday life:



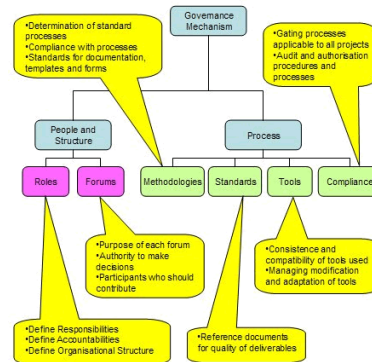
a) _____



b) _____



d) _____



e) _____

7. Explain the difference between:

Schedule – agenda

Construction management – project management

Design – project

Construction – structure

Purchasing – procurement



Listen

8. Listen to the following conversation;list down the words that you have learned in the lesson above!

Source: E. Frendo: English for Construction I, Pearson – Trades, 2013, Track 9

IV. A Massive Construction Project



Figure 1

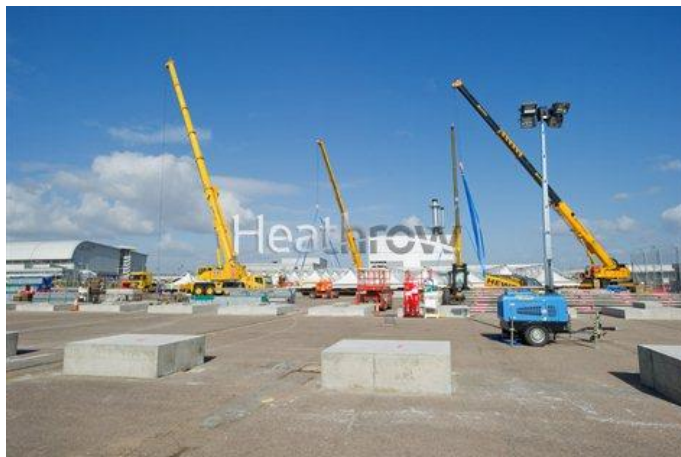


Figure 2



Figure 3

Tony Douglas is redefining how to run massive construction projects

1. Arrange 10 paragraphs of the text into chronological order:

1. Usually, contractors hold a beauty parade, and take on the suppliers who bid lowest. The suppliers rely on problems and delays to bump up the cost. Every time something goes wrong, disputes break out among suppliers and between them and the contractor, work shuts down for weeks on end and a huge slice of the cost ends up in the pockets of lawyers. Once the construction is late, time runs short for the final installation and testing of the electronic systems—which has made so many new airports a nightmare for passengers and staff alike.

2. Big construction projects are always tricky: just look at the mess in Athens, site of Europe's other giant construction project. Airports bring special problems: tricky building techniques, and the need to mesh with other transport links and to install sophisticated electronics to handle passengers and baggage. In Paris, Charles de Gaulle airport's new terminal went hideously wrong.

3. Under the T5 Agreement, BAA carries the risk, putting a precautionary sum into a pot that will be shared out among all its suppliers if the project finishes on time and budget. The site's three largest contractors were simply not large enough to carry all the risk themselves. The effect, says Mr Douglas, has been to change the whole pace and culture of the project, allowing teams of employees from different suppliers to work together and to concentrate on getting things done, not on squabbling.

4. First, BAA is unusual in running the project itself. Mr Douglas insists that outsourcing to a big project-management group such as Bechtel would cost more, not less. Second, as much as possible of the construction—including 60% of all the mechanical and electrical systems—is taking place off-site. This reflects the site's physical constraints: it has only one entry point, through which a 40-foot (12-metre) load must move every 30 seconds for a period of four years. "If you get the choreography wrong, it makes London's motorways on a Friday night look tame," says Mr Douglas. And the site has capacity for no more than two days of inventory. The solution, he says, has been some "car-industry logistics"—a large investment in computing and training that no individual supplier would have made. The consequence has been

fewer people on the site. And factories are safer places to assemble than building sites. T5's project director, Andrew Wolstenholme, boasts that the site has not had a single fatality so far.

5. But the biggest novelty is the T5 Agreement. This is a contract with the project's main suppliers that aims to minimise the conflicts and cost-cuttings that usually plague big building works. The idea draws on "Rethinking Construction", a paper written six years ago by Sir John Egan, BAA's former boss, as part of an attempt by the British government to dig the construction industry out of its poor safety and productivity performance.

6. As one example, he cites the elegant steel air-traffic control tower that is rising 87 metres (285 feet) into the sky above the terminal building. When the first two sections were engineered, they were out by 9mm (0.4 inches). "Normally", says Mr Douglas, "the manufacturers would have blamed the structural engineers, who would have blamed the steel fabricator." At first, they did just that. Then Mr Douglas said, "Guys, this is my problem," and sent them off to find a collective solution.

7. A second demonstration of the contract's power is the installation of the terminal building's roof sections. Before the task began, BAA took the builders up to Yorkshire and spent £4m (\$7m) on a practice run, raising and lowering roof sections half a dozen times (and once in a stiff gale) to make sure that the job ran smoothly. With conventional contracts, argues Mr Douglas, nobody would have invested so much in risk mitigation.

8. If T5 works so well, why isn't BAA building airports elsewhere? A bigger priority, at least for now, is to get permission to build an additional runway at Stansted, London's third airport. But ultimately, success will surely point to a spin-off business that can build other big projects safely and cheaply.

9. To the west of London, crammed between Europe's busiest stretch of motorway and its busiest international airport, is a vast building site. In the midst of a landscape of mud and men rises a vast glass-fronted box that will soon be Britain's largest free-standing building. This is Heathrow airport's fifth terminal, authorised in 2001 after a long and bitter battle with environmentalists, and destined to cater for 30m passengers a year when it opens in March 2008. It will include not just a terminal that will be the equivalent of Europe's fourth-largest airport in its own right, but also new road, rail and underground links.

10. As a result, BAA hopes never to have a Charles de Gaulle on its hands. Passing risk to suppliers chosen by beauty parade, as in Paris, increases the risk of corner-cutting. And, as T5's suppliers are partners who will work on future projects, they have an urge to do a good job. If something goes wrong later, there may be a debate about negligence, but not about which supplier is to blame. The result, says Mr Douglas, is that Swiss Re, a big insurance firm, was willing to insure the T5 project—the first big British construction project it had covered in a decade.

11. The man in charge of this logistical nightmare, Tony Douglas, looks alarmingly young at 41. Unpromisingly, he comes from a commercial, not a construction background. He came to BAA (a privatised firm, formerly known as British Airports Authority, that owns and manages Heathrow and six other British airports) via jobs in the car and the commercial-jet industries. For three years, he ran BAA's supply chain. He took over T5 (as everyone calls it) after the last boss left suddenly. The risks attached to this vast project are so great that BAA has been forced to tackle it in novel ways. If this giant endeavour is not completed on time and on budget, it could take the whole company down.

Source: *The Economist Newspaper*, 2004, <http://www.economist.com/node/2941349>

2. To cut the long story short write the summary of the article 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, ...

3. Find the information to complete the following:

1. The principal problems related to building airports

1. _____
2. _____
3. _____

2. British Airport Authority's options for managing the project

1. _____
2. _____

3. The specific constraints imposed by the nature of the site

1. _____
2. _____

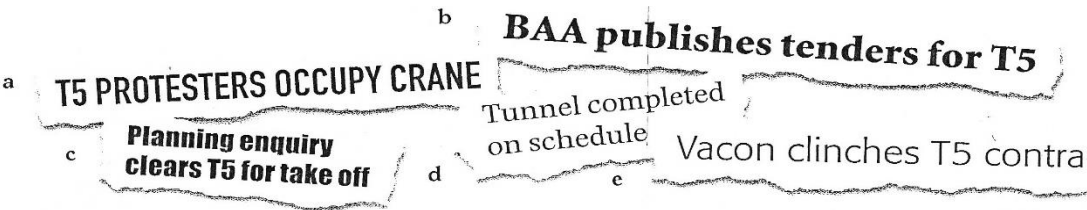
4. The major risks usually involved in managing a project like T5 (para 6)

1. _____

2. _____

3. _____

4. Look at some of the headlines of news reports about the T5 project and put them in chronological order:



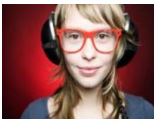
- a) _____
- b) _____
- c) _____
- d) _____
- e) _____
- f) _____



5. Translate into English:

Projekt je složena serija zadataka koji trebaju biti ispunjeni unutar određenog vremena i ograničenih financija. Uspješno vođenje projekta podrazumijeva procjenu i kontrolu resursa, budžeta i rasporeda poslova neophodnih za uspješan završetak. Počevši s podacima o projektu, menadžeri sastavljaju plan koji će omogućiti obavljanje posla na vrijeme i unutar budžeta.

Source: T. Trappe, G. Tullis, Intelligent Business, coursebook, Pearson education Limited 2006, p.15



Listen

<http://www.youtube.com/watch?v=XMGeFvGppSE>

V. A Day in a Project Manager's Life

1. Upon listening to the funny video clip retell the story: is the clip dealing with the project manager's communication with people or is it focused on another aspect? Give your arguments- use as many adjectives as possible in your description!

<http://www.youtube.com/watch?v=XMGeFvGppSE>

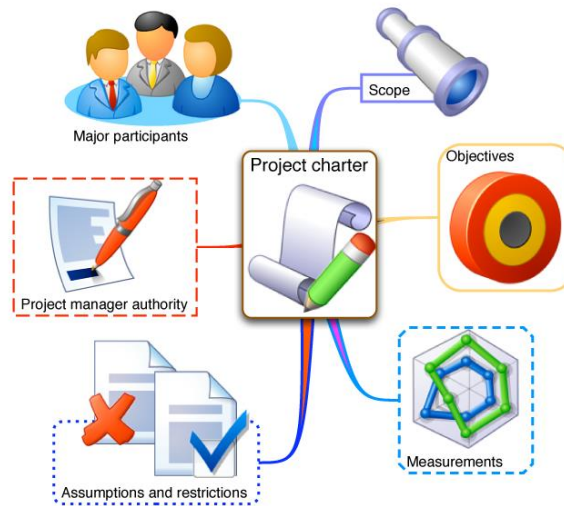


Figure 4

What is a collocation?

A collocation is two or more words that often go together. These combinations just sound "right" to native English speakers, who use them all the time. On the other hand, other combinations may be unnatural and just sound "wrong". Look at these examples:

Natural English...	Unnatural English...
the fast train	the quick train
fast food	quick food
a quick shower	a fast shower
a quick meal	a fast meal



Listen

T. Trappe, G. Tullis, *Intelligent Business*, CD, Unit 2, Pearson education Limited 2006,

2. Listen to the conversation on the construction site: find the words that mean:

započeti izvediv projektna alternativni plan
povelja

raspodjela izvršenje procjena rizika predviđanje primopredaja
resursa poslova troškova projekta

3. Write down what the following words collocate:

intiate	
feasible	
overview	
lay out	
allocate	
forecast	
evaluate	
develop	
on	

5. Read the sentences and find synonyms in the main text A Massive Construction Project for the underlined phrases:

- The company will be in serious difficulties if they don't complete the project within the time schedule and cost estimates. (para 3) e.g. on time and on budget
- British Airport Authority decided against giving the project to an outside supplier. (para 4)
- Contractors generally award contracts to the companies that make the least expensive proposals. (para 6)

- d) Suppliers who are partners have the motivation to provide quality work (para 9)
- e) Getting permission to build an additional runway is a much more important consideration. (para 19)

6. Find the words and phrases that are used to refer to problems and match them with their meanings:

minor errors _____

situations where something is late _____

disagreement over minor details _____

expires, is not sufficient _____

doesn't happen as planned _____

failure to ensure that work is done correctly _____

covering efforts taken to reduce either the probability or consequences of a threat



VI. Why Projects Fail



Listen

Why Projects Fail through the Medium of Dilbert

<http://www.youtube.com/watch?v=52yiQEEdnso>

1. Translate the words while listening to the video clip:

Studija izvedivosti	dohodak	primjena projekta	„kako se
projekt odvija?“	procjena	isporučitelj	postavljanje
pretpostavki	postavljanje standarda		odobrenje



Translate

2. Translate the following text:

10 glavnih razloga zašto projekti propadaju:

1. Nedovoljeno obrazovani i /ili neiskusni sudionici
2. Propusti u postavljanju i upravljanju očekivanjima
3. Loše vodstvo na pojedinom ili na svim nivoima.
4. Nesposobnost da se zahtjevi prepoznaju, dokumentiraju i prate
5. Loši planovi i procesi planiranja
6. Loša procjena napora
7. Kulturno i etičko neslaganje
8. Neslanje između sudionika projektnog tima
9. Neodgovarajuće ili loše korištene metode

10. Neodgovarajuća komunikacija, uključujući praćenje napretka i izvještavanje

3. Watch the video clip and describe construction failures:

<http://www.youtube.com/watch?v=MjGciHtqStg>

What is missing?	What is wrong in the structure?



Translate

4. Here are some opinions explaining the reasons of the construction projects failure. Translate the texts:

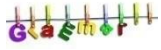
Upravljanje projektima bio bi super posao – ako bi mogli eliminirati ljude koji su uključeni. Osobito ljude koji su iznad voditelja projekta. Menadžment kaže da mi volimo najbolje vježbe upravljanja projektima, ali oni sami ih ne rade i prisiljavaju upravitelje projekata da ih zaobilaze što uzrokuje propadanje projekata.

Ono što ja mislim da je glavni razlog za nauspjeh građevinskih projekata je loše upravljanje. Loše upravljanje može naglo povećati, bilo troškove materijala bilo rada, a izvođač radova će morati snositi dodatne troškove. To je ono što ja mislim da je glavni razlog za nauspjeh bilo kojeg građevinskog projekta.

Upravljanje je uvijek pod novčanim ograničenjem te treba biti oprezan, ali pravovremena odluka može biti od velikog utjecaja za pravilnu identifikaciju rizika i ublažavanje procesa. Imam neuspjelih projekata koje je oživio tim za upravljanje i nadzornici s istog projekta samo

slijedeći jednostavan sustav upozorenja na predstojeća pitanja (izvršnost, kvaliteta i trošak ne donošenja odluka).

Translated from <http://www.corpedgroup.com/resources/pm/20ThingsPM.asp>



Grammar

Active versus passive

Passive voice is formed by using the verb be in correct form plus the past participle. Passive voice can be used in all tenses. The use of modal verbs in passive sentences is very useful for descriptions and instructions, particularly in technical language.

Tense	Active	Passive
Present Simple	Contractor removes existing structures.	Existing structures are removed.
Present Continuous	Contractor is performing excavation work.	Excavation work is being performed.
Past Simple	Contractor laid foundations	Foundations were laid.
Past Continuous	Contractor was pouring concrete for slab.	Concrete was being poured for slab.
Present Perfect	Contractor has prepared <i>formwork</i> for ceiling.	Formwork for ceiling has been prepared.
Going to future	Contractor is going to start brickwork.	Brickwork is going to be started.
Future Simple	Contractor will finish ground floor walls tomorrow.	Ground floor walls will be finished tomorrow.
Modal verbs (shall,)	Contractor must complete	Construction work must be

must, may, etc.)	the construction work by 30 April.	completed by 30 April.
------------------	------------------------------------	------------------------

5. Exercise: Active versus passive

Insert the correct verb form into the description of a cavity wall.

The external walls _____(to make up) of several layers. The load-bearing wall, on the inside, _____(to make) of 240 mm *vertically perforated brickwork*. It _____(to plaster) creating a smooth surface in the interior. The exterior surface of the load-bearing wall _____(to not *render*), but a second *fair-faced brick wall* _____(to place) at a distance in front of it. The *two leaves* _____(to enclose) a partially filled *cavity*. The cavity _____(to consist) of a rear ventilation and insulation, which is fixed to the inner leaf. *Wall ties* _____ (to require) to provide structural stability. They _____(to embed) into the brickwork at regular intervals. Perpend in the exterior leaf _____(to leave open) in order to secure ventilation and control moisture.

Source: S. Heidenreich: *English for Architects and Civil Engineers*, Springer, Vieweg/Teubner, 2008, p.123



Listen

6. Listen and watch:

Interviewing a construction manager:

<http://www.youtube.com/watch?v=vWY2TjDq1z0>

a) **Which prepositions come with the following verbs you hear in the video?**

Get insight _____

BAM construction industry sponsored me _____

I got the job _____ the BAM industry

I came _____ with an idea.

b) Complete the following expressions you heard in the video:

Massively _____ job

Well _____ job

_____ technology

_____ communication

Construction _____

c) Listen once again to the video and put the right word in the gaps:

It is possible for students to spend the third year on a supervised work _____ within a relevant sector of the computer industry.

Indeed anyone who will have a leadership role in an it project will find this course _____.

I did the _____ _____ at the Welsh University.



Role-play Activity

7. Job Fair –Re-play the interview you have just heard

Vocabulary Items:

Placement (internship), beneficial, general manager



Error**8. Correct the summary of the video clip:**

This video is about a boy who graduated on Construction management and now is employed as a sight manager. At this moment he is working on a project of new hospital that is estimated on hundred and thirty million. In this interview he is talking about importance of communication in construction management because on construction site we can meet people that we don't necessarily know. He also took a placement year which helped him a lot to see the core of civil engineering. In that time he did a little bit of everything in each different department. He thinks that the main interesting things in constructing are no typical working day and new technology.

VII. Business Model of Construction Management



The text deals with several parties usually involved in the construction process: an owner, a designer (architect or engineer), the builder (usually called the general contractor) and construction project management company

1. Fill in the gaps, and add one more party in the process: general contractor, design-builder, owner, designer, contractors, design team, builder

Typically the construction industry includes three parties: _____, a _____, _____. Traditionally, there are two contracts between these parties as they work together to plan, design, and construct the project.

The _____ becomes an additional party engaged in the project to act as an adviser to the _____, to which they are contractually tied. The construction manager's role is to provide construction advice to the _____, on the owner's behalf, design advice to the _____, again on the owner's behalf, and other advice as necessary.

Design, bid, build contracts

Design, bid, build describes the prevailing model of construction management in which the _____ is engaged through a tender process after the designs have been completed by the architect or engineer.

Design and build contracts

Many _____ – particularly government agencies – have let out contracts which are known as design-build contracts. In this type of contract, the construction team is known as the design-builder. They are responsible for taking a concept developed by the_____, completing the detailed design, and then, depending on the _____ approval on the design, they can proceed with construction. Virtual Design and Construction technology has enabled much of the ability of _____to maintain tight construction time.

There are two main advantages to using a design-build contract. First, the construction team is motivated to work with the _____ to develop a design with constructability in mind. In that way, it is possible for the team to creatively find ways to reduce construction costs without reducing the function of the final product. The _____ can expect a reduced price due to the increased constructability of the design.

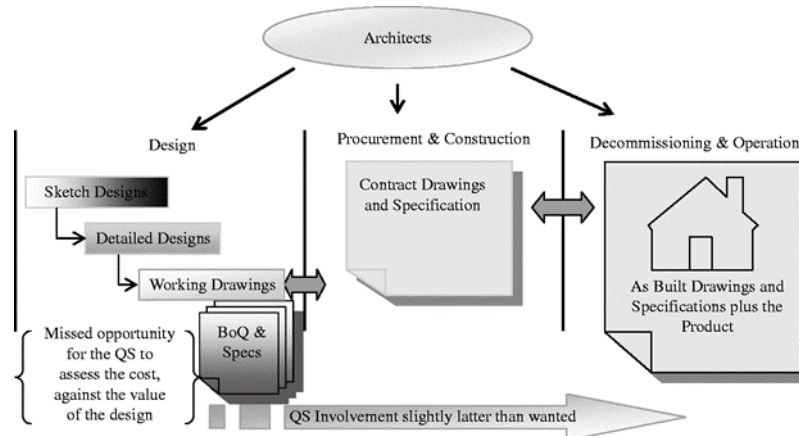


Figure 5

The other major advantage involves the schedule. Many projects are given out with an extremely tight time frame. By letting out the contract as a design-build contract, the _____ is established, and early mobilization and construction activities are able to proceed concurrently with the design. Under a traditional contract, construction cannot begin until after the _____ is finished, the project is bid and awarded, and the team can mobilize. This type of contract can take months off the finish date of a project.

The third major advantage is the design-build _____ will always be working with a fixed budget. The DB contractor utilizes its experience to make sure the design and construction are kept within the budget requirements as set forth by the_____.

The major problem with design-build contracts is the inherent conflict of interest. In a standard contract, the _____ is responsible to the owner to review the work of the _____ to be sure the products and methods meet specifications and codes. The _____ as a construction professional experienced working with many _____ is attuned to picking up design flaws which would go uncaught or unmentioned when _____ is also designer. The _____ may be more likely to get a building that is over-designed in order to increase costs and profits for the _____, or built with lesser grade products to maximize profits. If time is of the essence, design and construction contracts can be awarded separately, with bidding taking place on preliminary plans in a not-to-exceed contract instead of a single firm design-build contract.

Adapted from: http://en.wikipedia.org/wiki/Construction_management#Business_model

2. Which construction management phase belongs to which block?

a) Planning Completion	b) Preconstruction	c) Construction	d) Project
	e) Planning and scheduling	f) Architecture–Engineer	
Site and Building Studies _____	Conceptual Budgeting _____	Architect Selection _____	Cost Analysis _____
Constructability Analysis _____	Scheduling _____	Contractor Prequalification _____	Procurement/Bidding _____
Budget Analysis _____	Contractor Coordination _____	Project Management _____	Supervision _____
Estimating Quality Control Assurance _____	Punch List _____	Systems Start-up and Testing _____	Acceptance and Turnover to Client _____
Close-out Documentation _____	Final Payments _____	Shop drawings _____	Safety and Inspection _____
Project management methodology _____	Work breakdown structure _____	Project network of activities _____	Critical path method (CPM) _____

Resource management

Work inspection ____

Change orders ____

Review payments ____

3d image ____

3. Add the suitable preposition

Advise ____

Attuned ____

Important ____

Relative ____

Depend ____

4. Find the words that mean:

To invite to attend _____

To present for consideration; propose _____

To run a project _____

Behind schedule _____

On budget _____

To design too specifically or to too great an extent _____

To meet _____

5. Give synonyms for the following words and expressions

a) To run a project _____

b) Constraints _____

c) Behind schedule _____

d) Bidding _____

e) Dispute _____

f) Consent _____



Listen

6. Who is a Construction Superintendent?

http://www.youtube.com/watch?v=KY_UOXuankk

7. Join each question to the corresponding paragraph:

1. What is a Construction Team?
2. Why is the Construction Team formed?
3. What aspects do the construction manager's experience and knowledge encompass?
4. What does the Construction Manager do during the Planning and Design Phases?
5. What does the Construction Manager do during the Construction Phase?
6. What qualifications should an Owner consider when selecting a Construction Manager?

a) He will consult with, assist and make recommendations to the Owner and Architect on all aspects of planning for the Project's construction, provide input for life cycle cost studies and energy conservation requirements. He will make budget estimates based on the Owner's program. As working drawings and specifications are completed, he will take competitive bids on the work.

b) Involvement of the Construction Manager during the planning and design provides the Owner with reliable current information about probable costs and schedules, then, the order of long-delivery material items before the total design is completed allows the Owner beneficial use of the Project at the earliest possible date.

c) The members of the group are the Construction Manager, the Architect and the Owner. It is important to the success of the Project that the owner assign to the

group competent personnel with the authority to make timely decisions concerning budget and program.

d) The owner believes that his interest will best be served if he has available to him, from the very conception of a project, the services of a Construction Manager in addition to the services of a competent Architect. These persons will then work together, under the Owner's direction, to develop the best and most economical construction program.

e) He will maintain competent supervisory staff to coordinate and provide general direction of the work and progress of the contractors on the Project. He will observe the work as it is being performed, until final completion and acceptance by the Owner, to assure that the materials furnished and work performed are in accordance with working drawings and specifications. He will schedule and conduct appropriate meetings to review costs.

f) Major considerations will be given to his financial strength, bonding capacity, and ability to assume a financial risk , as well as to his ability to perform projects comparable in design, scope and complexity.



8. Translate

Translate the following text about some issues in building the Channel Tunnel:

U svibnju 1974. godine cijena željezničke mreže narasla je na 375 mil. £. Do takve dramatične promjene došlo je zbog nekoliko stvari kao što su: dodatna postrojenja, infrastruktura, projektiranje, razvoj i briga o zaštiti okoliša. Zbog vrlo visoke nove cijene koja se činila pretjeranom, 6 mjeseci kasnije Wilsonova vlada odustala je od projekta visoko brzinske pruge, usmjerivši se na sporiju i jeftiniju alternativu. Kada je do siječnja 1975. godine već bilo prokopano nekoliko stotina metara tunela sa obje strane kanala, Laburistička vlada odustala je od samog projekta tunela prvenstveno zbog troškova izgradnje. (Velika je vjerojatnost da bi stvarna cijena izgradnje tunela i visoko brzinske pruge značajno premašila najnovije

procjene.) Zbog odustajanja od projekta, investitorima britanskih i francuskih kompanija bilo je potrebno isplatiti kompenzaciju od 250 mil. £.

Translated from: D.R.Myddelton, They Meant Well – Government Project Disasters, Hobart Papers, 2007, p. 140



Error

9. Correct the following sentences; in some sentences there are no mistakes!

Have you bought the blue Chinese antique vase?

I saw rainbow after the rain.

There is no allotted budget for brand-new office equipments.

On January each year, Chinese people celebrate the Spring Festival

We enjoy to swim in the river near our hometown.

My mother in the US said, “move to southwest and take care of your aunt Betty.”

He wore lose shirts when he was overweight.

A man who delivered this box said that it is for you.

We boarded the plane after waiting for a hour.

I did good on the test.

10. Insert the preposition:

I'm all ____ helping out the poor when in need. (U KORIST)

She was a fearless woman who acted _____ her health. (BEZ OBZIRA NA)

VIII. Profile of an Engineer – Amy Seba



Figure 6

1. Devide the following text into small entities regarding Amy's a) education, b) travelling, c) leisure time. Match each of these sections with appropriate titles such as School days, A day in the life, etc

My job is with a consulting engineering company called Arup. I am in the Project Management group, but currently I am involved with the Civils / Infrastructure group.

I went to a girls school and studied Maths, Physics, English and French A-levels. I chose civil engineering because I enjoyed the logical side to physics and maths at school and I was keen to do a vocational degree.

The journey so far I am discovering that engineering is such a flexible job, so I can turn it into the career that I want. I have worked for the government helping the National Health Service make operational efficiencies. I have worked with the London underground helping the public travel. I have worked on re-designing Kings Cross station. Currently I am working out gas and electricity demands for a regeneration of a city. This range of experience is very exciting for a two and a half year career. All my work is project based so I am always moving around. In just over two years at Arup I have been based in four different offices around London, some with the client and some with Arup.

I work with the Infrastructure group; which has a large age range, but I am lucky there are lots of people my age. The great thing about Arup is that every year our firm recruits about 100-150 graduates, so there is always someone to have lunch or to swap work stories with.

The best thing about engineering is that it is a service to the public. I love that in civil engineering everything is so tangible and at such a large scale. I know that the day when I can stand and look at a structure and say "I helped build this" will make me incredibly proud and make all the years of study at school and university worthwhile! I work on the client side of the project management group at ARUP, checking that contractors are doing what they are supposed to be doing and ensuring that the client is getting exactly what they want. My work ranges from walking around site and compiling risk registers to working on contracts, explaining work to the client and liaising with the local community. For example, for the project I am working on in central London one of my roles is to keep all the neighbours of the project informed about its different stages. I see engineering as a service to the public and so it is important to maintain good relations.

I love running; I have completed one London Marathon and am planning to run again this year. I also play the Cello in a band; we play gigs in bars in London. I was lucky to go travelling between university and work and spent most of my time in India, which I really enjoyed. It has helped me focus on the importance of what I do in the UK and set it in a global perspective. It has helped me understand that those responsible for building in the developed world must take account of the needs of the future. I hope to use my civil engineering experience abroad at some point in my career.

My view on the future of civil engineering. Sustainability and the use of sustainable objects in all senses needs to become a household topic of conversation. I want to show that civil engineering can be the promoter of this and the civil engineers can help lead the way in turning our country into a sustainable environment. I recommend Civil Engineering to anyone seeking a range of opportunities, whether they are male or female. I believe that a great engineer, needs to respect and appreciate of all team members and to have an even balance of women and men within the team is vital.

I see an engineering team as being a jigsaw puzzle to make the finished picture you need different pieces from different backgrounds.

<http://upgrade.ice.org.uk/getattachment/fa051dbb-001f-4198-ba97-a95e87a9c359/Amy-Sebba-Profile.aspx>

Amy's Life In Brief**2. Arrange in the Table:**

Who	hobbies	vocation	where	professional focus	big picture

**Role-play activity**

- 3. Reshape the text as the conversation between a journalist and an engineer, e.g.**

Adapted from: <http://www.realworldmagazine.com/amy-sebba-arup-civil-engineer/>

- 4. What is wrong in the following drawing?**

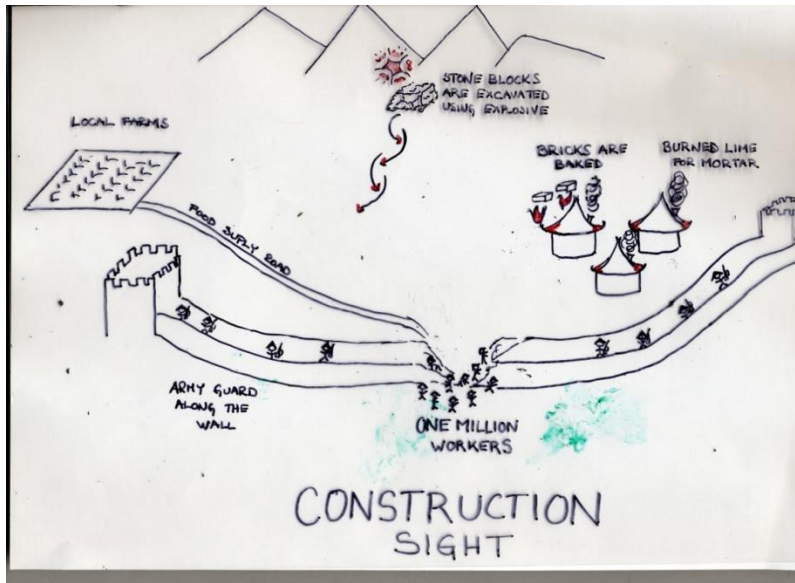


Figure 7

5. Give your comment on each of the illustrations in the following cartoons:a)

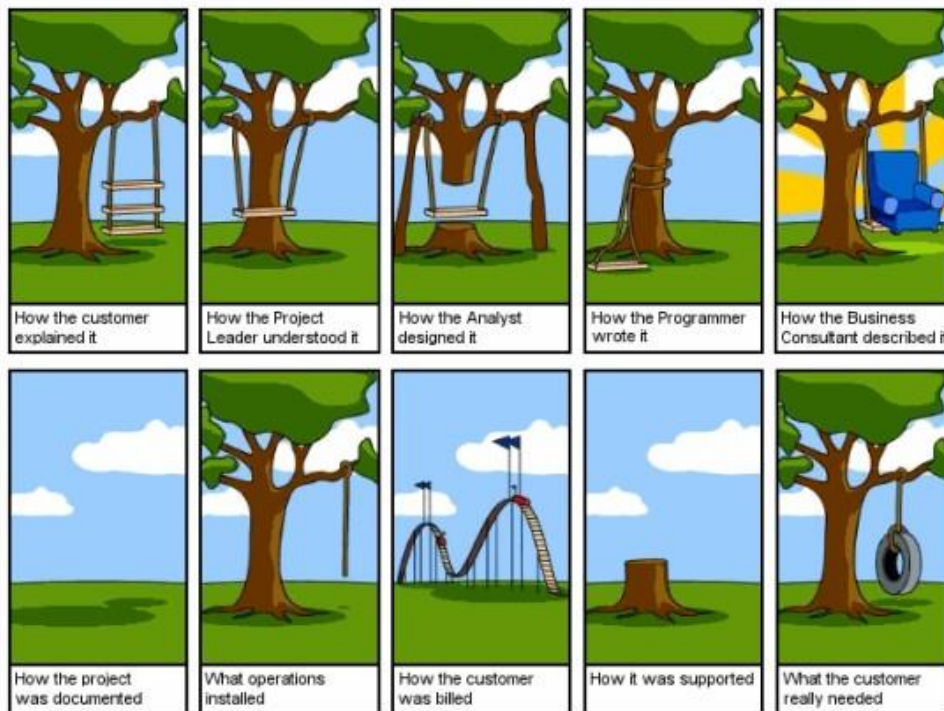


Figure 8

Source: <http://julian101.com/wp-content/uploads/2011/02/image.png>

6. What are the issues in the following cartoon?



"We've decided to add forty floors."

Figure 9

Source: http://www.cartoonstock.com/directory/c/civil_engineering.asp



Listen

7. Listen to the story in Croatian language: sum up the text in English and revise the rules of the tense shifting from direct into indirect speech!

Putnik u balonu

Putnik u balonu sa vrućim zrakom je izgubio orijentaciju. Spustio je balon niže i ugledao jednu ženu na tlu. Spustio se još niže i pozvao ženu: -"Oprostite, možete li mi pomoći? Obećao sam jednom prijatelju da ću se naći sa njim, ali ne znam gdje se nalazim." Žena mu odgovara: - "Nalazite se u balonu, otprilike 10 met. iznad zemlje, 49 stupnjeva 28 minuta i 11 sekundi širine, te 8 stupnjeva, 28 minuta i 58 sekundi dužine." - "Vi ste sigurno inženjerka" - kaže čovjek u balonu. - "Jesam", potvrdi žena, "ali kako to znate?" - "Pa, sve što ste mi rekli je tehnički korektno, ali nemam pojma što da radim sa tim informacijama, a činjenica je da još uvijek ne znam gde sam. Otvoreno govoreći, niste mi bili od prevelike pomoći, samo ste mi produžili putovanje." Žena mu na to odgovori: "Vi sigurno radite u menadžmentu !"

"Da", odgovara čovjek iz balona "ali kako to Vi znate??" "Tja", odgovara žena "niti znate gdje ste, niti kuda idete. Dospjeli ste na visoku poziciju prije svega „ napuhavajući“ vlastitu važnost. Dali ste obećanje prijatelju, a da nemate pojma kako ćete ga održati, a očekujete od ljudi ispod vas da riješe vaš problem. Činjenica je da ste sada u istoj izgubljenoj poziciji kao i prije našeg susreta, ali sada nekako ispadne kao da sam ja kriva za to!"



Grammar – Tense Change

As a rule when you report something someone has said you go back a tense: (the tense on the left changes to the tense on the right):

Direct speech

Present simple

She said, "It's cold."

Present continuous

She said, "I'm teaching English online."

Present perfect simple

She said, "I've been on the web since 1999."

Present perfect continuous

She said, "I've been teaching English for seven years."

Past simple

She said, "I taught online yesterday."

Past continuous

She said, "I was teaching earlier."

Past perfect

She said, "The lesson had already started when he arrived."

Past perfect continuous

She said, "I'd already been teaching for five minutes."

Indirect speech

Past simple

› She said it was cold.

Past continuous

› She said she was teaching English online.

Past perfect simple

› She said she had been on the web since 1999.

Past perfect continuous

› She said she had been teaching English for seven years.

Past perfect

› She said she had taught online yesterday.

Past perfect continuous

› She said she had been teaching earlier.

Past perfect

› NO CHANGE - She said the lesson had already started when he arrived.

Past perfect continuous

› NO CHANGE - She said she'd already been teaching for five minutes.

You can use the present tense in reported speech if you want to say that something is still true i.e. my name has always been and will always be Lynne so:-

Direct speech

Indirect speech

She said her name was Lynne.

"My name is Lynne", she said. or

She said her name is Lynne.

You can also use the present tense if you are talking about a future event.

Direct speech (exact quote)

"Next week's lesson is on reported speech", she said.

Indirect speech (not exact)

She said next week's lesson will be on reported speech.

Time change

If the reported sentence contains an expression of time, you must change it to fit in with the time of reporting.

For example we need to change words like *here* and *yesterday* if they have different meanings at the time and place of reporting.

Now

"Today's lesson is on presentations."

+ 24 hours - Indirect speech

She said yesterday's lesson was on presentations.

or

She said yesterday's lesson would be on presentations.

Source: <http://www.studyandexam.com/indirect-speech-for-tense.html>



Error

8. Correct the following composition– pay attention to the word order:

I can't exactly remember when was it that I first decided to become a dentist. I just know that I have always wanted to be in the field of health care. My friends ask me why did I want to be a dentist, and I tell them that "There's nothing more beautiful than a healthy smile." Also, dentists have more regular hours than doctors. I can't imagine what did people

do before the dentistry profession came along. People must have had terrible breath and missing teeth as they aged. Kissing was probably just for the young!

In fact, no one knows exactly who was the first dentist. In the old days, people used to go to the barber shop to get a tooth pulled. The only pain killer was a shot of whiskey. Can you imagine what was that like? One minute the barber was cutting hair and the next minute he was pulling a tooth out. It must not have been a very sterile place to do oral surgery.

Dentistry has progressed a lot. Now, patients receive much better care. I'm always glad to see my patients return with a big, white smile. What's that? Did you want to say something? I can't understand what are you're saying.

9. Discuss the following cartoon. What is the origin of the title „civil engineer“?



Figure 10

References: <http://www.constructionplace.com/glossary.asp>

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