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**Technical Specification for Construction of
Highway Subgrades**

公路路基施工技术规范

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Chief development organization: CCCC First Highway Engineering Co., Ltd.

Approval department: Ministry of Communications of the People's Republic of China

Implementation date: January 1, 2007

Beijing·2006

**Announcement issued by the Ministry of Communications of the people's Republic of China
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**Announcement on issuing "Technical Specification for Construction
of Highway Subgrades" (JTG F10-2006)**

"Technical Specification for Construction of Highway Subgrades" (JTG F10-2006) is now issued and will be implemented since January 1, 2007, the original "Technical Specification for Construction of Highway Subgrades" (JTJ 033-95), "Technical Specification for Design and Construction of Highway Embankment on Soft Ground" (JTJ 017-96), "Technical Specification for Design and Construction for Fly Ash Embankment" (JTJ 016-93), "Specification for Design of Highway Reinforced Earth Engineering" (JTJ 015-91) and "Technical Specification for Construction of Highway Reinforced Earth Engineering" (JTJ 035-91) shall be abolished simultaneously.

This Specification is under the jurisdiction of and interpreted by the Ministry of Communications, and its daily interpretation and administration works are subject to the chief development organization, CCCC First Highway Engineering Co., Ltd. All the relevant organizations are kindly request to sum up and accumulate your experiences in the actual practices during the process of implementing this Specification. The relevant opinions and advice, when necessary, can be posted or passed on to CCCC First Highway Engineering Co., Ltd. (Address: Zhoujiating, Guanzhuang, Chaoyang District, Beijing City, 10024, China, Tel: +86-10-65761831) for further reference.

Notice is hereby given.

The Ministry of Communications of the People's Republic of China (signature)
August 31, 2006

Key words: highway; specification; issuance; announcement

General Office of the Ministry of Communications

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Foreword

"Technical Specification for Construction of Highway Subgrades" (hereafter referred to as "this Specification") is modified according to the requirements of Jiao Gong Lu Fa [2003] No.297 Document issued by the Ministry of Communications - "Notice on Printing the Development and Revision Plan of National Engineering Construction Standards in 2003". On the basis of the extensive investigation and special argumentation, this Specification has comprehensively summed up the construction experience of highway subgrades in recent years, absorbed the mature application achievements of new technology, new process, new facilities and new materials, borrowed ideas from the relevant international standards (codes), and indicated such concepts as safety, economy, environmental protection and sustainable development.

This revised Specification is consisted of 10 chapters: 1. general provisions; 2. terminologies and symbols; 3. preparation of construction; 4. general subgrade construction; 5. subgrade drainage; 6. special subgrade construction; 7. subgrade construction in winter and rainy season; 8. subgrade protection and supporting/retaining; 9. subgrade construction safety and environmental protection; 10. subgrade modification and hand-over acceptance.

This revision mainly highlights the guidelines that shall be complied with and the technical requirements shall be met in the subgrade construction; emphasizes the process requirement of compulsive construction, and process quality control. The primary coverage of this revision is:

1. It covers the construction contents of "Technical Specification for Design and Construction for Fly Ash Embankment" (JTJ016-93), "Technical Specification for Design and Construction of Highway Embankment on Soft Ground" (JTJ017-95) and "Technical Specification for Application of Geosynthetics in Highway" (JTJ019-98).

2. It cancels the lightweight compaction standard, modifies the detection frequency of compaction degree, and it also rises a dedicated compaction standard for wet clay, red clay and moderate-weak expansive soil in the special subgrade construction.

3. This Specification describes no unified provision for the lay-down thickness the placing layer; instead, it requires the lay-down thickness combining with the process conditions and being determined according to the trial pavement section.

4. This revision combines the contents of "4. General rules of subgrade construction", "5. Construction of the earth-fill embankment", "6. Construction of the excavation cutting" and "7. Subgrade compaction" in the original Specification into one "4. General subgrade construction".

5. It supplements subgrade construction contents of EPS block embankment construction, subgrade widening reconstruction, breast wall, side slope anchor, brad support, friction stake, safety and environmental protection, and also enlarges the covering scope.

All relevant organization is kindly request to sum up and accumulate your experiences in actual practices during the process of implementing this Specification. The relevant opinions and advice, when necessary, can be posted or passed on to CCCC First Highway Engineering Co., Ltd. (address: Zhoujiajing, Guanzhuang, Chaoyang District, Beijing City, 10024, China, Tel: +86-10-65761831 and transfer to technical development department) for further reference.

Chief development organization: CCCC First Highway Engineering Co., Ltd.

Participating development organizations: Shaanxi Expressway Construction Group Company

Engineering Quality Supervision Station, Zhejiang Communication Department

Highway Bureau of Communication Department of Sichuan Province

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1. General provisions

1.0.1 This Specification is formulated with a view to improve the technical levels for construction of highway subgrade engineering and to ensure the construction quality.

1.0.2 This Specification is applicable to the construction of newly-built and renovated (extended) subgrade engineering.

1.0.3 The highway subgrade shall meet the strength, stability and durability required by the design.

1.0.4 The construction of highway subgrade must abide by the laws and regulations on national safety production, so as to establish technical safety measures, to promote safety management, to strictly implement the safe operation specification, and therefore, to ensure the safety construction.

1.0.5 The construction of highway subgrade must abide by the laws and regulations of national occupational healthy safety, so as to sound the employees' healthy safety control system and ameliorate the safety conditions of occupational health.

1.0.6 The construction of highway subgrade must abide by relevant laws and regulations on national ecology, environmental protection and land management, so as to protect the geomorphy of the existing vegetation and prevent noise and dust nuisance. Moreover, the construction wastes must be carefully disposed.

1.0.7 The construction of highway subgrade must abide by the laws and regulations on protection of national historical relics; once meeting the cultural relics, the construction shall be ceased immediately, and the site must be well protected and shall be treated carefully together with the organizations all concerned.

1.0.8 Construction management plan shall be prepared before the construction of the highway subgrade.

1.0.9 As for the construction of highway subgrade, new technology, new process, new material and new facilities are encouraged to be adopted while meeting the quality standard.

1.0.10 The subgrade in special road segments should be dynamically constructed.

1.0.11 Not only the requirements stipulated in this Specification, but also those in the current relevant ones of the nation shall be complied with in the construction of highway subgrade.



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