UNIVERSITAS
GADJAH MADA
Evaluasi Retak memanjang pada PCI-Girder pada saat Transfer Gaya Prategang
Aulia Akbar Massaid Harianto, Angga Fajar Setiawan, S.T., M.Eng., Ph.D.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

DAFTAR PUSTAKA

AASHTO. (2014). AASHTO LRFD Bridge Design Specifications (7th ed.). American Association of State Highway and Transportation Officials.

ACI Committee 308. (2016). Guide to External Curing of Concrete (ACI 308R-16). American Concrete Institute.

ACI Committee 318. (2019). Building Code Requirements for Structural Concrete (ACI 318-19) and Commentary. American Concrete Institute.

Bathe, K. J. (2006). Finite Element Procedures. Klaus-Jürgen Bathe.

BSN. (2011). SNI 2493:2011: Tata Cara Pembuatan dan Perawatan Benda Uji Beton di Laboratorium. Badan Standardisasi Nasional.

BSN. (2015). SNI 8074:2015: Sistem Perekat Berbasis Epoksi untuk Beton. Badan Standardisasi Nasional.

BSN. (2019). SNI 2847:2019: Persyaratan Beton Struktural untuk Bangunan Gedung dan Penjelasan. Badan Standardisasi Nasional.

Budiadi, A. (2008). Desain Praktis Beton Prategang. Penerbit Andi.

Burns, N. H. (2014). Prestressed Concrete: Analysis and Design. McGraw-Hill.

Buyukozturk, O., Bakhoum, M. M., & Beattie, S. M. (1990). Shear behavior of joints in precast concrete segmental bridges. Journal of Structural Engineering, 116(12), 3380–3401.

Chen, W.-F., & Duan, L. (2024). Bridge Engineering Handbook: Superstructure Design (2nd ed.). CRC Press.

Chen, W. F., & Han, D. J. (2007). Plasticity for structural engineers. J. Ross Publishing.

Cook, R. D., Malkus, D. S., Plesha, M. E., & Witt, R. J. (2002). Concepts and Applications of Finite Element Analysis (4th ed.). John Wiley & Sons.

Darojatun, R., & Nuranita, C. (2024). Evaluasi keretakan pada gelagar beton prategang tipe PCI. Jurnal Teknik Sipil, 21(1), 45–58.

Dassault Systèmes Simulia Corp. (2015). Abaqus Analysis User's Manual, Version 6.14. Dassault Systèmes.

UNIVERSITAS
GADJAH MADA
Evaluasi Retak memanjang pada PCI-Girder pada saat Transfer Gaya Prategang
Aulia Akbar Massaid Harianto, Angga Fajar Setiawan, S.T., M.Eng., Ph.D.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Direktorat Jenderal Bina Marga. (2011). Manual Perencanaan Struktur Beton Pratekan untuk Jembatan. Kementerian Pekerjaan Umum.

Dolan, C. W., & Hamilton, H. R. (2019). Prestressed Concrete: A Fundamental Approach (6th ed.). Pearson.

Federal Highway Administration (FHWA). (2003). Precast Prestressed Concrete Bridge Girder Guidelines. U.S. Department of Transportation.

Fernando, A., Gunawan, A., & Santosa, B. (2023). Pengaruh metode curing terhadap kuat tekan beton pada kondisi lingkungan tropis. Jurnal Teknik Sipil dan Lingkungan, 8(2), 112–125.

Galik, W., Kalina, L., & Mašek, J. (2024). Lateral instability of prestressed precast concrete girders during lifting and handling. Engineering Structures, 301, 117325.

Gilbert, R. I., Mickleborough, N. C., & Ranzi, G. (n.d.). Design of Prestressed Concrete to AS 3600-2009. CRC Press.

Harries, K. A., Deschenes, D. J., & Barth, K. E. (2024). Longitudinal cracking in prestressed concrete bridge girder flanges: Mechanisms and prevention. PCI Journal, 69(2), 58–75.

He, Z., Liu, Z., & Wang, C. (2024). Inelastic strain development in prestressed concrete sections under overloaded prestressing. Construction and Building Materials, 418, 135421.

Herbudiman, B., Cahyono, R. D., & Fadilah, M. (2025). Efisiensi desain jembatan beton prategang tipe PC-I: kajian variasi dimensi penampang dan jumlah tendon. Jurnal Infrastruktur, 11(1), 23–36.

Hibbeler, R. C. (2020). Mechanics of Materials (10th ed.). Pearson.

Japan International Cooperation Agency (JICA). (2019). Guidelines for Quality Control of Prestressed Concrete Girder Production. JICA.

Johnson, K. L. (1985). Contact Mechanics. Cambridge University Press.

Kannel, J., French, C., & Stolarski, H. (1997). Release methodology of strands to reduce end cracking in pretensioned concrete girders. PCI Journal, 42(1), 42–54.

Katz, A., Rossi, D., & Shapiro, M. (2009). Calibration of hydraulic jacks for prestress applications. Journal of Bridge Engineering, 14(3), 201–210.

UNIVERSITAS
GADJAH MADA
Evaluasi Retak memanjang pada PCI-Girder pada saat Transfer Gaya Prategang
Aulia Akbar Massaid Harianto, Angga Fajar Setiawan, S.T., M.Eng., Ph.D.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Khatab, M., Ismail, M., & Ahmed, A. (2021). Structural behavior of repaired cracked reinforced concrete beams using epoxy injection technique. Construction and Building Materials, 280, 122537.

Kim, Y. J., Sung, H., & Kang, J. (2022). Effect of interface surface quality on shear transfer in precast concrete joints. Cement and Concrete Composites, 128, 104432.

Lin, T. Y., & Yoda, T. (2017). Structural Analysis (5th ed.). Wiley.

Liu, Z., Zhao, Y., & Chen, G. (2024). Numerical investigation of cracks at girder ends of prefabricated post-tensioned prestressed concrete I-girders. Engineering Structures, 298, 117065.

Lou, T., Lopes, S. M. R., & Lopes, A. V. (2014). Numerical analysis of prestressed concrete beams using a thermal load analogy. Computers & Structures, 144, 25–35.

Maher, M., Bhide, S., & McDonald, D. (2012). Precast/Prestressed Concrete Girder Cracking During Handling, Transportation, and Erection. Precast/Prestressed Concrete Institute (PCI).

Mak, S. L., & Lees, J. M. (2022). Bond-splitting mechanism and tensile force transfer in reinforced concrete. Journal of Structural Engineering, 148(4), 04022014.

Mander, J. B., Priestley, M. J. N., & Park, R. (1988). Theoretical stress-strain model for confined concrete. Journal of Structural Engineering, 114(8), 1804–1826.

Mehta, P. K., & Monteiro, P. J. M. (2014). Concrete: Microstructure, Properties, and Materials (4th ed.). McGraw-Hill.

Nawy, E. G. (2010). Prestressed Concrete: A Fundamental Approach (5th ed.). Pearson Prentice Hall.

Neville, A. M. (2011). Properties of Concrete (5th ed.). Pearson.

Ni, X., Zhou, Y., & Lu, X. (2023). Tension force transfer mechanism in confined reinforced concrete elements under axial compression. Structural Engineering and Mechanics, 86(3), 345–360.

Ontario Ministry of Transportation. (2023). Prestressed Concrete Girder Guidelines. Ministry of Transportation Ontario.

OpenStax. (2020). Calculus Volume 2. OpenStax.

UNIVERSITAS
GADJAH MADA
Evaluasi Retak memanjang pada PCI-Girder pada saat Transfer Gaya Prategang
Aulia Akbar Massaid Harianto, Angga Fajar Setiawan, S.T., M.Eng., Ph.D.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Park, R., & Paulay, T. (1975). Reinforced Concrete Structures. John Wiley & Sons.

Persson, B. (1999). Poisson's ratio of high-performance concrete. Cement and Concrete Research, 29(10), 1647–1653.

Raju, N. K. (1986). Prestressed Concrete (3rd ed.). Tata McGraw-Hill.

Razvi, S., & Saatcioglu, M. (1999). Confinement model for high-strength concrete. Journal of Structural Engineering, 125(3), 281–289.

Rossi, M., Schiavi, A., & Germak, A. (2025). Uncertainty analysis in hydraulic jack calibration for prestressing operations. Measurement, 220, 113367.

Saatcioglu, M., & Razvi, S. R. (1992). Strength and ductility of confined concrete. Journal of Structural Engineering, 118(6), 1590–1607.

Shen, X., Liu, Y., & Wang, Z. (2025). Curing control for precast segmental concrete bridges for high-speed railways: Early-age cracking risk assessment. Construction and Building Materials, 410, 134203.

Skrzypczak, I. (2023). Quality inspection methodology for precast concrete elements: Defect identification and classification. Materials, 16(5), 1978.

Soetoyo. (2002). Beton Prategang. Institut Teknologi Bandung.

Stone, W. C., & Breen, J. E. (1984). Design of post-tensioned girder anchorage zones. PCI Journal, 29(2), 64–109.

Tadros, M. K., Einea, A., & Ma, Z. (2010). Longitudinal Cracking in Precast, Prestressed Concrete Girder Webs and Flanges. PCI Research Report.

Timoshenko, S. P., & Goodier, J. N. (1970). Theory of Elasticity (3rd ed.). McGraw-Hill.

Tran, T. M. (2022). Spatial variability of concrete compressive strength in existing structures: Assessment and implications for design. Structural Safety, 99, 102257.

Triwiyono, A. (2003). Beton Prategang. Universitas Gadjah Mada.

Wu, H., Liu, J., & Chen, W. (2022). Interface pressure distribution and local damage in precast segmental concrete structures. Engineering Fracture Mechanics, 261, 108245.

UNIVERSITAS
GADJAH MADA
Evaluasi Retak memanjang pada PCI-Girder pada saat Transfer Gaya Prategang
Aulia Akbar Massaid Harianto, Angga Fajar Setiawan, S.T., M.Eng., Ph.D.
Universitas Gadjah Mada, 2026 | Diunduh dari http://etd.repository.ugm.ac.id/

Yehia, S., Farrag, S., & Aziz, M. (2019). Mechanical integrity and durability of epoxy-repaired prestressed concrete girders. Construction and Building Materials, 210, 702–715.

Yuan, Y., Liu, X., & Zhang, M. (2023). Tensile behavior of concrete: Comparative assessment of direct, splitting, and flexural tests. Cement and Concrete Composites, 138, 105003.

Zhang, H., Li, W., & Huang, Y. (2023). Longitudinal crack propagation in concrete elements with geometric discontinuities under compressive loading. Engineering Fracture Mechanics, 285, 109278.

Zienkiewicz, O. C., Taylor, R. L., & Zhu, J. Z. (2013). The Finite Element Method: Its Basis and Fundamentals (7th ed.). Butterworth-Heinemann.

Zingg, D. W. (1999). Computational Fluid Dynamics: Convergence, Mesh Independence, and Error Analysis. University of Toronto.