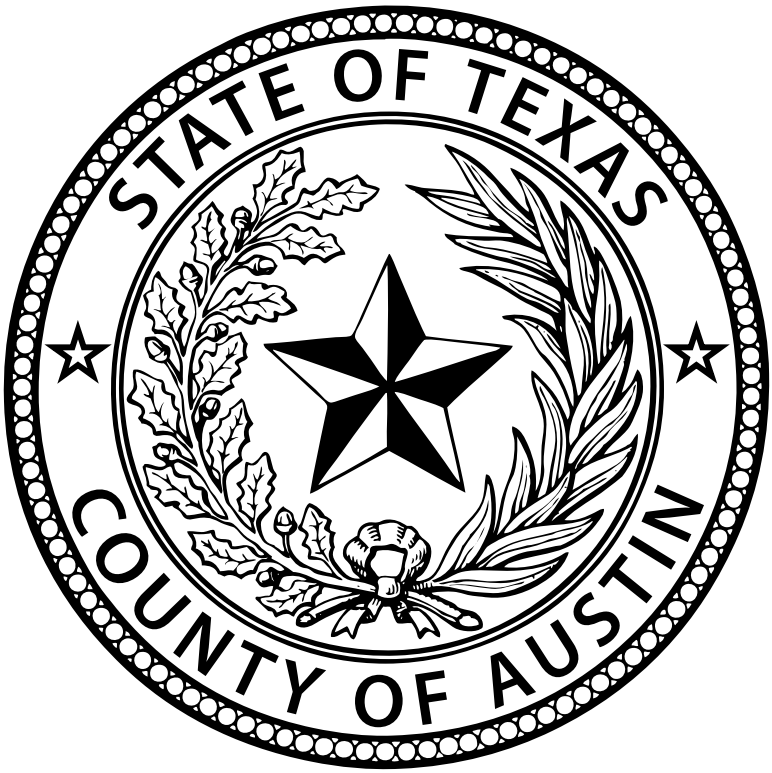
Austin County Subdivision and Development Regulations



VOLUME III
STANDARD CONSTRUCTION DETAILS

TABLE OF CONTENTS

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SECTION I
GENERAL INFORMATION AND ADMINISTRATION

A. OFFICIAL NAME

The official name of these regulations shall be the "**Austin County Subdivision and Development Regulations, Volume III— Standard Construction Details**."

B. AUTHORITY

These regulations are adopted under the authority of the Constitution and Laws of the State of Texas, including but not limited to the Texas Local Government Code, as amended, and any other applicable laws, regulations, and approved orders.

C. APPLICATION & PURPOSE

(1) All developments in Austin County shall provide infrastructure in accordance with the following requirements and design standards.

(2) The purpose of these standards is to provide for the health, safety, and general well-being of the public by assuring that adequate infrastructure is provided in all subdivisions and Commercial Developments, which can be maintained without imposing a burden to taxpayers.

D. EFFECTIVE DATE

(1) These regulations shall become effective _____, unless otherwise indicated. Subsequent amendments and changes are found in the History Section of the regulations.

(2) Plans approved before the effective date shall be subject to the regulations in effect at the time of plan submittal.

(3) At the time of application, all proposed developments/improvements, etc. shall comply with these regulations found within all respective volumes of these regulations.

E. CONSISTENCY WITH OTHER REGULATIONS

(1) These regulations shall be consistent with the adopted Austin County Subdivision and Development Standards (Volume I), and the Drainage Design Manual (Volume II), and any other supplemental land use and community development policies that may be adopted by the Commissioners' Court.

(2) These regulations shall be cumulative of all other orders of Austin County, Texas, and shall repeal any of the provisions of said previous orders.

(3) If a conflict should arise with other applicable orders, the strictest shall apply until an updated order is approved by the County Commissioners' Court or as interpreted by the County Engineer as outlined in Section I (G).

(4) If a permit, plat, or other item requiring approval is issued or approved in error and it violates the current adopted regulations, that permit does not invalidate the established regulations, and that permit, plat, or other item requiring approval shall be voided immediately upon notification.

F. AMENDMENTS

(1) As needed, the Commissioners' Court may amend these regulations to reflect desired changes and updates in policy. Public hearings on all proposed written amendments shall be held by the Commissioners' Court in open session after publication in a newspaper of general circulation for at least fifteen (15) days before the public hearing date.

(2) As an exception, the County Engineer may amend the graphical format, promulgate forms, and provide commentary as required within these regulations to assist in understanding these regulations.

G. INTERPRETATIONS

(1) As needed, the County Engineer shall provide interpretations of these regulations.

(2) Rulings made by the County Engineer are issued on a case-by-case basis and shall not set a precedent for other similar situations.

(3) Should an applicant disagree with the interpretation provided, that decision may be appealed to the Commissioners' Court at the next available meeting, as listed in the latest submittal calendar.

H. ENFORCEMENT

(1) Any person, firm, or corporation who violates any of the provisions of these regulations or who fails to comply with any provision hereof within the Austin County shall be subject to civil or criminal penalties, pursuant to Section 232.005 of the Texas Local Government Code, including enjoining the violation and recover damages to complete construction and/or bring about compliance.

I. SEVERABILITY CLAUSE

If any section, article, paragraph, sentence, clause, phrase, or word of these regulations, or application, thereto any person or circumstances is held invalid or unconstitutional by a Court of competent jurisdiction, such holding shall not affect the validity of the remaining portions of these regulations; and the Commissioners' Court hereby declares it would have passed such remaining portions of these regulations despite such invalidity, which remaining portions shall remain in full force and effect.

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SECTION II
ENGINEERING AND CONSTRUCTION STANDARDS

A. STREET CLASSIFICATION

Below is the summary of the minimum standards for Austin County roads. Should there be any discrepancies, please consult with the County Engineer.

FUNCTIONAL CLASSIFICATION	LOCAL ROADS	MINOR / MAJOR COLLECTORS	PRINCIPAL ARTERIALS	FREEWAYS
Design Speed [1, 2, 4]	20 MPH	35 MPH	55 MPH	See Tx-DOT Roadway Design Manual or the jurisdiction responsible for that freeway/highway.
Number of Lanes [1]	2	2 – 4	3 – 6	
Minimum ROW Width [1, 5, 6]	70 feet	80-100 feet	100 -120 feet	
Minimum Pavement Width (Traveled Way) [1]	28 feet	30 – 44 feet	36 – 48 feet	
Minimum Thickness	6 inches	7 inches	8 inches	
PSI	• If a slip form paver used: Concrete batch design with minimum 3,600 PSI comprehensive strength in 28 days • If hand-poured: Concrete batch design with minimum 4,000 PSI comprehensive strength in 28 days.			
Minimum Width of Shoulders [1]	0 feet	4 feet	4 – 10 feet	
Minimum Centerline Radius	150 feet	500 feet	1,000 feet	
Minimum Radius for Edge of Pavement at Intersections	28 feet	50 feet	75 feet	
Minimum Stopping Sight Distance [1 & 4]	115 feet	250 feet	360 feet	
Minimum Intersection Sight Distance [2]	Refer to AASHTO: A Policy on Geometric Design of Highways & Streets			
Minimum Ditch Side Slopes [5, 6]	4:1	4:1	4:1	

TABLE II -A

Sources:

1. AASHTO: A Policy on Geometric Design of Highways and Streets
2. 2018 International Fire Code
3. TxDOT Roadway Design Manual
4. Additional right-of-way may be needed and will vary to accommodate drainage and slope of the drainage ditch.
5. The entire side ditch shall be totally contained within the ROW or dedicated drainage easement. Metal beam guard fencing normally will
6. not be required. However, it is the responsibility of the Developer and his design engineer to (a) provide embankment heights and side
7. Slopes that would preclude the need for such traffic barriers; or (b) to determine the need for such structures in the interest of public safety.

B. ACCESS

(1) Access to all tracts of land and development projects shall be from a privately maintained County-maintained street/road, a city-maintained road, or a state/federally maintained road or street.

(2) Where applicable, a second point of access shall be required to a street outside the proposed development as outlined in the International Fire Code or as indicated in Section 232.0034 of the Texas Local Government Code.

Minimum Street Requirements: (Adopted 1/22/2024)
All subdivisions with 50 lots or more shall provide a minimum of 2 means of ingress/egress. A boulevard entrance shall count at two, unless that entrance is bisected by a railroad. In such case, that entrance will count as one.

(3) Only one (1) access point (i.e., driveway) shall be allowed per lot or tract of land along roads identified as 80 feet of right-of-way or more on the Master Thoroughfare Plan. If multiple access points are desired on the same lot, it shall meet Tx-DOT's Access Management Standards, Table 2-2 and Section II (A) & (E).

(4) All access drives within County right-of-way located within the interior of subdivisions shall satisfy the following criteria:
   (i) Minimum twelve (12) feet wide; and,
   (ii) Minimum six (6) inches in thickness of concrete and asphalt; and,
   (iii) Meet other County standards for street construction outlined in Section II (C) (4) & (5) below.

(5) New streets shall align with other exiting surrounding streets.

C. STREETS AND CONNECTIVITY

(1) The design and construction of new streets or the extension of existing streets shall be done to facilitate both present and future traffic flow and to provide for adequate stormwater drainage. Projects or developments shall include right-of-way dedications required to comply with the adopted Thoroughfare Plan and shall be built to the standards indicated in Table II-A of this volume and included in the engineering/civil plan review. In addition, acceleration and/or deceleration lanes may be required at the discretion of the County Engineer.
   (i) In all cases, the design engineer shall be cognizant of local drainage and shall plan local streets such that the new street does not create a localized problem for existing development.

(2) The developer shall provide adequate streets.
   (i) The street arrangement, character, extent, width, grade, and location of each shall conform to these regulations and shall relate to existing and planned streets, to topographical conditions, public safety and convenience, and aesthetic relationship to the proposed uses of the land to be served by such streets.

(ii) The street layout shall be devised for the most advantageous development and accessibility for emergency equipment.

(iii) To promote connectivity and traffic safety, streets shall connect and align with other existing streets, as needed, and determined by the County Engineer or Director.

(iv) Development shall be allowed along all public roads officially accepted and maintained by Austin County and Tx-DOT roads and shall occur according to the latest applicable standards in effect at the time of platting or permitting**.**

(v) If the private roads are built to public road standards and inspected by the county, the property may develop as if it were a public road and meet all the requirements set forth in these regulations and as stated in the preceding paragraph.

(vi) Any Owner that gates the entrances to the subdivision shall provide access for emergency responders, per the International Fire Code, Section 506. Gated subdivision roads are not eligible for acceptance into the Austin County road maintenance system.

(3) All streets shall meet the following requirements:

(i) Shall be asphalt with a minimum thickness of six (6) inches and constructed in compliance with the specifications as shown in Section II (A); and,

(1) The Engineering Report shall include a description of the roadways within the community and include information on the roadway cross-section, pavement width and thickness, base thickness, subgrade treatment, material specifications, and other information as required in these Regulations.

(2) Plans and specifications for these improvements shall also be submitted to the County Engineer for approval prior to construction.

(ii) Intersect at an angle of ninety (90) degrees. Where this is not practical, the intersection on the side of the acute angle shall be cut back a minimum of twenty-five (25) feet; and,

(iii) Flared entrances to subdivisions set to the specifications of the County Engineer shall be provided to accommodate access by large trucks; and,

(iv) Provide a minimum spacing of 600 feet (does not apply to internal subdivision streets or roads maintained by other jurisdictions), and new streets shall align with other existing surrounding streets.

(a) New streets that fall below this requirement due to aligning with existing streets may be exempt from this regulation.

(v) Street jogs with centerlines offsets of less than one hundred fifty (150) feet shall be prohibited.

(4) Lots or tracts of land with direct driveway access to roads indicated on the Master Thoroughfare Plan shall not be allowed without meeting one of the following alternatives:

(i) Provide access via a parallel slip street; or,

(ii) Shared access drive and share access easements between multiple lots to be shown on plat or filed instrument and built on-site; or,

(iii) Any other alternative that satisfies the County Engineer that significantly reduces the number of drive cuts.

(5) Dead-end streets may not be allowed unless such streets provide connectivity to future streets on adjacent property. The system of streets designated for the subdivision shall connect with streets already dedicated in adjacent subdivisions.

(i) Where no adjacent connections are proposed, paved streets shall continue to the boundaries of the property or phase so that other developments may connect in the future.

(ii) Where adjoining areas are not subdivided, the arrangement of streets in the subdivision will make provisions for the future projection of streets into such unplatted areas.

(iii) Upon development of such unplatted areas, the new development shall match the street projections to form a continuous street. In no case shall the right-of-way be less than the minimum requirements listed herein.

(6) Temporary turnarounds shall be provided on dead-end expansion streets while future connectivity is made and be built, and designed with a material approved by the County Engineer.

(i) Such turnaround shall be eliminated with the future street connection.

(ii) No lot shall front on a dead-end expansion street or be considered for lot width requirement as a cul-de-sac lot.

(iii) All turnarounds shall meet the same requirements as cul-de-sacs outlined below.

(7) Cul-de-sacs shall provide proper access to all lots and only at the closed end of streets and shall not be allowed at intersections or curves. All cul-de-sacs shall meet the following requirements listed below:

(i) Provide a turnaround right-of-way of at least sixty (60) foot radius (120-foot diameter), or the requirements stated in the International Fire Code; and,

(ii) Have an outside edge of pavement radius of at least forty (40) feet (80-foot diameter), or the requirements stated in the Fire Code; and,

(iii) Shall not exceed one thousand five hundred (1,500) feet in length, measured from the intersection of the closest street intersection to the center of the cul-de-sac. Cul-de-sacs on roads not owned and maintained by the County may be exempt from this length requirement

(8) The County shall not accept any dedication or provide any upkeep or maintenance of any private area, private decorative and/or landscaped entrance(s), squares, islands, or other obstructions to traffic located within the dedicated right-of-way. If these entrances become damaged, unsightly, or a hazard to traffic, at the option of the precinct commissioner, they may be removed, with the County suffering no liability for this removal.

(i) Prior to the placement of items in the right-of-way, a right-of-way encroachment approval is from the Commissioners' Court.

(ii) The County shall not bear any liability or responsibility for the placement of any items in the right-of-way.

(9) All lots in a subdivision shall have an all-weather driveway capable of providing a place to park all vehicles normally at the site. Parking on a county, state, or federal right-of-way or ditches is prohibited.

(10) Austin County shall not be responsible for maintenance of private streets, drives, emergency access easements, recreation areas, and open spaces.

D. ENGINEERING PLANS

(1) Final engineering drawings and specifications for all public facilities (i.e., streets and related improvements, bridges, storm drainage, etc.) to be installed shall be submitted for review prior to the commencement of any plat submittal. The items required for these plans shall be as outlined on the checklist generated by the County Engineer.

(i) Each application submittal and application fee shall allow for up to two (2) resubmittal reviews for a total of three (3) reviews.

(a) If no plans are required, a release letter from the County Engineer is required prior to plat submittal.

(ii) Upon the exhaustion of these reviews, the application shall be deemed denied, and a new application and fees shall be submitted.

(iii) A list showing all requested changes by staff shall be submitted, with each submittal showing how each comment was addressed or changed.

(2) Plan and profile sheets shall be included for each proposed street in the subdivision.

(i) These plan and profile sheets shall show the right-of-way of the street and a portion of the right-of-way of all intersecting streets in the plan portion.

(ii) The plan portion shall show existing ground at left and right, right-of-way, proposed centerline or elevations, drainage ditch elevations, culverts and sizings, and other drainage structures.

(iii) The profile portion shall show the existing grade, proposed road grade, proposed left and right ditch flowline grades, and road crossing pipes.

(3) Any approved engineering plans or related documents shall be effective for one (1) year from the date of approval.
   (i) If construction has not started within one (1) year, the engineering plans shall expire, and a new set is required for review.
   (ii) The new set of plans and documents shall adhere to any new regulations in effect at the time of submittal.

(4) All construction of streets, drainage, and associated infrastructure shall be built according to the engineering/civil plans approved by the County Engineer or designee. Any deviation from the set of approved plans shall require revised updated plans to the County Engineer for review or a variance to Commissioners Court, if applicable, in accordance with adopted regulations at the time of submittal.

E. CULVERTS

(1) A driveway culvert is required for each lot. If a second drive is desired, the property owner shall comply with the driveway spacing requirement (if applicable). A permit shall be obtained for each drive and culvert installed.
   (i) Culvert size shall be determined by the engineer that designed the drainage for the proposed subdivision; however, it shall meet the minimum requirements of the County.

   (ii) The precinct commissioner shall determine the minimum sizing if it is within an existing subdivision and/or located on a county road.

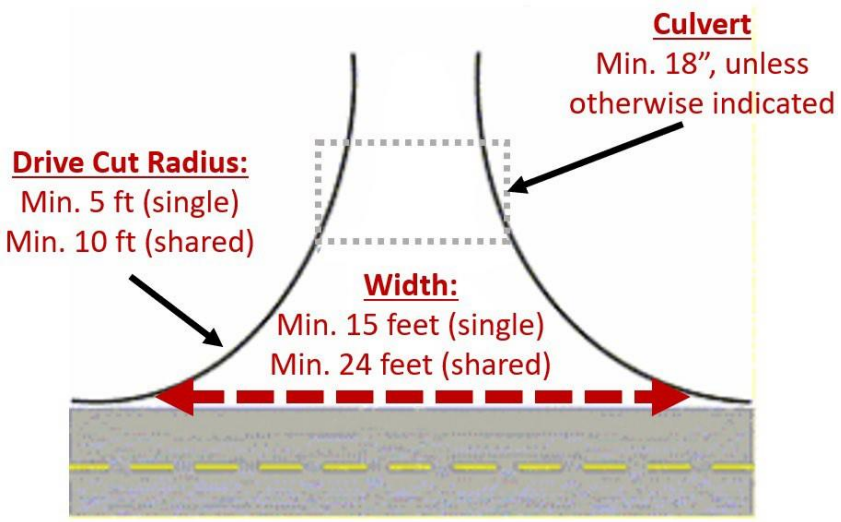
   (iii) Property owners are responsible for ensuring the culverts are installed according to County regulations. Culverts shall be maintained by the homeowners and not the County.

(2) The developer shall install all drainage culverts as designated on the approved construction and drainage plans.

(3) Driveway culverts are required to meet the following minimum standards:
   (i) Shall be constructed of corrugated metal, HDPE or reinforced concrete
      (a) However, concrete culverts, including concrete box culverts, may be allowed in locations that require a culvert that is larger than is practicable for a corrugated metal or HDPE culvert; and,
   (ii) Minimum eighteen (18) inches in diameter per culvert, unless otherwise stated by the precinct commissioner; and,

   (iii) Culverts shall be placed at the edge of the existing road, measured at the street, and have a minimum width of fifteen (15) feet for single drives or a minimum width of 24 feet (12

feet wide each) for shared drives or easements unless otherwise indicated by the County Engineer and/or precinct commissioner.



(iv) The driveway above the culvert shall be constructed such that the driveway is sufficiently below the outside edge of the main road so that the stormwater which exceeds the capacity of the culvert can pass over the culvert without entering the roadway and driveway entrance; and,

(v) Culvert safety end treatments are required for pipes over 30".

(4) Temporary culvert piping shall be in place before the commencement of any construction or development activity on the property to prevent any drainage issues. The temporary culvert piping shall be inspected before the construction begins.

(5) Culvert plans may be required to be signed and sealed by a professional engineer if unusual conditions exist, as determined by the County Engineer or precinct commissioner.

(i) The Engineering Report shall include information on the development and roadway drainage, culverts, conveyances, outfalls, and other information as required to properly convey stormwater within and away from the Development. Plans and specifications for these improvements shall also be submitted to the County Engineer for approval prior to construction.

(ii) A new subdivision, which ties into an existing county road, shall not cause drainage problems to the existing county road.

(6) A final inspection made by the County Engineer, or precinct office shall follow installation to ensure proper type, size, and installation per the drainage plan prepared for the subdivision. See Section IV (F) for additional information.

F. UTILITIES

(1) All utility lines, except those crossing a road, shall be installed in utility easements outside of any current right-of-way, dedicated or prescriptive, and outside of any current or future right-of-way of thoroughfares as shown in the latest approved Master Thoroughfare Plan.

(2) It is the responsibility of the developer and/or utility provider to properly install and/or relocate existing utilities to comply with county or state setback and/or right-of-way.

(3) All utility lines crossing any road shall be installed to at least the minimum requirements shown below, along with other conditions set forth by the utility company and/or as required by statute.

(i) Utility lines crossing a road shall be installed a minimum of twenty-four (24) inches below the ditch line or a minimum of thirty-six (36) inches below the crown line of the road, whichever is greater.

(ii) All lines carrying liquid products shall be encased in steel or schedule 40 PVC for a minimum depth of thirty-six (36) inches below the crown line of the road from ditch line to ditch line.

(4) After roads and streets have been accepted for maintenance by the County, no construction shall be performed or excavations made within the right-of-way without:

(i) Giving the County thirty (30) day notice of such work; and,

(ii) Agreeing to pay the cost of warning signs and other necessary barriers in accordance with the latest Texas Manual on Uniform Traffic Control Devices; and,

(iii) Providing letters of credit or bond in an amount necessary to restore roadways to its condition before work being done; and,

(iv) Providing a letter to the County assuming full liability for any accident that might occur resulting from such construction or opening of the roadway; and,

(v) Emergency repairs may be made without advance notice. However, the utility company shall provide adequate safety protection and will assume full liability for accidents that occur while making emergency repairs.

G. FIRE HYDRANTS

(1) Fire hydrants are required for any development that connects onto a waterline with a minimum size of six (6) inches.

(2) When fire hydrants are installed, they shall be placed as follows and meet the following requirements:

(i) Face the road and be accessible to local fire-fighting vehicles.

(ii) One (1) hydrant shall be located at each street intersection with intermediate hydrants with spacing not exceeding four hundred fifty (450) feet between hydrants.

(3) Fire hydrants shall be as specified by the water company providing service to the development area and shall meet the connection standard established by the closest local fire department.

(4) Operation nuts, hose nozzles, pumper nozzle, and fittings/adapters shall be compatible for use by all local fire-fighting agencies.

(5) Any development that does not have fire hydrants shall adhere to the adopted Austin County Fire Code and Local Government Code for other viable fire suppression options, including storage tank facilities. Maintenance and access to any fire suppression infrastructure shall be by dedication in the platting process.

H. CONSTRUCTION

(1) All installations and work shall be reviewed and inspected by the County Engineer. City personnel shall also be included in the inspection, if located in an extraterritorial jurisdiction (ETJ), according to the adopted interlocal agreement in that area.

(2) All work shall be constructed and finished in accordance with the approved engineering plans as reviewed and approved by the County Engineer.

(3) Any changes made during construction shall require stopping until the design engineer gets approval from the County Engineer.

(4) All development construction shall conform to the requirements of the National Flood Insurance Program, as administered by Austin County.

(5) During any construction phase, a metal dumpster or wooden box shall be placed on the property for debris and proper disposal of construction material.

I. TESTING

(1) All testing required by these regulations to determine conformance to specifications shall be performed by a professional engineer or a testing laboratory licensed by the State of Texas to perform those functions.

(i) The Developer is responsible for coordinating and paying for all inspections, on-site collection, delivery of samples, and any other required testing by the County, to an authorized laboratory for on-site and off-site testing done by the laboratory. Nuclear testing methods acceptable to TxDOT are acceptable to the County.

(ii) All street pavement shall be cored to verify pavement thickness.

(iii) Cores for depth only shall be two (2) inch diameter and shall be taken at intermediate intervals not exceeding three hundred (300) feet.

(iv) Lab reports shall be sent directly to the County Engineer and Inspector upon completion of those reports.

(2) The following tests shall be required:

(i) A subsurface investigation to evaluate subgrade characteristics, stabilization requirements, and pavement section thickness shall be completed; and,

(a) Street, Road, and Structures testing by an authorized laboratory is required as follows: Proctor Determination on each class of soil to be encountered. Density test - one (1) each per five hundred (500) feet of street with retest as necessary (minimum of three (3) tests).

(ii) Pavement materials and mix designs shall be analyzed and evaluated for their suitability for pavement usage; and,

(iii) Materials, engineering testing, and inspection services shall conform to the TxDOT laboratories' recommended scope of services.

(3) A concrete mix design shall be submitted and approved by the County Engineer prior to any placement of concrete.

(4) Inspector shall be notified of concrete placement at least twenty-four (24) hours in advance for steel and form inspection.

(5) A minimum of four (4) test cylinders shall be obtained per one hundred (100) cubic yards of concrete.

(6) Tests shall also include slump, air contents, and temperature of the concrete mixture. Each mix design of concrete placed each day shall also be tested.

(7) Concrete strength shall be tested at least seven (7) days (two cylinders) and twenty-eight (28) days (two cylinders).

(8) Additional cylinders and/or tests may be requested at the Inspector or County Engineer's discretion.

(9) The County reserves the right to perform geotechnical or other pertinent testing activities within the subdivision or development during the performance or maintenance bond period.

J. INSPECTIONS

(1) Austin County shall perform the amount of inspections and testing necessary to ensure compliance with these and other applicable regulations.

(2) Inspection, approval, and acceptance by the Commissioners' Court do not relieve the developer of his responsibility to inspect, test, and construct the work in complete compliance with the and other applicable regulations.

(3) The County Engineer may stop any or all construction as the inspector deems necessary to resolve construction deficiencies and/or discrepancies from the accepted plat or construction plans.

(4) Inspection, approval, and acceptance by the Commissioners' Court shall not constitute a waiver of rights and includes the right to collect for additional work that is determined to be required to comply with these rules and regulations and/or for work unintentionally not completed.

(5) The Developer shall provide the County with a minimum of twenty-four (24) hours' notice prior to any inspection that the County is to perform. Laboratory testing companies to be used by the Developer must be approved by the County.

K. EROSION CONTROL

(1) Seed/sod shall be furnished to establish groundcover over all disturbed areas as an erosion control measure. The contractor shall not wait until the entire project before doing this work. The project shall not be considered for acceptance by the County unless the establishment of 80% groundcover is ensured. Grass sods are required for placement of groundcover within the County right-of-way.

(i) The County Engineer or Department of Development Director may defer the 80% groundcover requirement during the months between June 1 and September 30 or other drought conditions as determined by the official authorities. The groundcover may be installed after this period.

(ii) At the discretion of the County Engineer, the developer/contractors may be required to install additional erosion control measures.

(2) During any and all construction of infrastructure, the developer shall follow proper procedures and guidelines on erosion control set forth by the Texas Commission on Environmental Quality (TCEQ) throughout the construction phase of the project until the final inspection is complete.

(3) Where applicable, inside the extraterritorial jurisdiction (ETJ) of incorporated municipalities and within districts with special stormwater quality control requirements, the development shall conform to the applicable standards of such municipalities or districts or the County standards, whichever are more stringent.

(4) In any case, minimum requirements for temporary and permanent erosion control design for right-of-way and drainage requirements are as follows:

(i) The temporary erosion control plan during construction shall be sufficient to prevent sedimentation of drainage ways, drainage structures, and floodplain areas that could

result in a reduced flow capacity, excessive streambank erosion, erosion around structures, or damage of adjoining property.

(ii) The permanent erosion control plan design shall be sufficient to:

(a) Permanently stabilize all disturbed areas with permanent vegetation, including slopes and embankments.

(b) Prevent erosion from exit velocities at outlets of culverts, bridges, storm sewers, and channels through dissipaters, rip-rap, level spreaders, linings, gabions, etc.

(c) Prevent gullying and scouring of roadside ditches and open channels from excessive tractive force (shear stress) through vegetation, linings, retention blankets, retards, drop structures, etc., both during and after the vegetation re-establishment period.

(d) Protect the integrity of all structural improvements and prevent excessive continuing sedimentation from unstable right-of-way areas into drainage structures, channels, and bar ditches.

L. STREET SIGNS AND TRAFFIC CONTROL DEVICES

(1) Prior to the acceptance of the streets by the County, all street signs and traffic control devices shall conform to the fundamental use and design requirements outlined in the 2009 edition of the Texas Manual on Uniform Traffic Control Devices (TMUTCD).

(2) The developer shall pay for the costs of purchasing and installing street posts and signs at each street intersection and as necessary to provide sufficient wayfinding.

(i) Street signs shall be comprised of nine (9) inch tall blades of six (6) inch high letters.

(ii) Posts and bases shall be perforated square metal tubing.

(iii) All new signs or traffic control devices shall be of a uniform color selected by the precinct commissioners and shall have a distinctive number to represent the precinct number.

(iv) Enhanced or upgraded signs or other traffic control devices above the required minimum shall be considered private decorative signs and be maintained by the homeowners' association or other private entity. The County does not bear responsibility or liability for these decorative signs. Any replacement by County shall be to the required minimum.

(v) All hazardous locations shall be marked by reflecting yellow object markers that conform to TxDOT, Item 658.

(vi) All subdivision streets and drainage structures shall be marked and protected in accordance with the provisions of the Texas Manual on Uniform Traffic Control Devices.

(3) Streets names shall be approved through 911 Addressing/GIS prior to the submission of a plat application. Submitted names shall be reviewed to ensure there is no conflict with the name or similar name, in spelling or sound, of another public road or street within the unincorporated part of the county or nearest city.

(4) Each street sign and shall be in place before final inspection of the subdivision and prior to acceptance of the subdivision by the Commissioners' Court.

(5) If a proposed subdivision borders on a TX-DOT road, the developer shall bring a letter to the County Engineer from TX-DOT approving the tie-in plans and drainage plans that affect the state road.

(6) The installation of speed limit and weight limit signs is the responsibility of the developer and shall be placed at the entrance of each subdivision, neighborhood, or residential area as determined by the precinct commissioner or County Engineer.

(7) The person authorizing the installation of a driveway, culvert, or street connections to any public road is responsible for ensuring that the transition contains no gap, space, or mismatch of the two surfaces.

(i) Also, the transition shall not go past the edge of the existing road pavement, and the transition will be repaired with asphalt unless the two surfaces being connected are concrete, and then concrete will be used. No curbing allowed.

M. COMPLETION OF REQUIRED INFRASTRUCTURE

After completion of and acceptance of the construction by the County, all streets, roads, signs, underground utilities, drainage ditches, erosion control measures, and drainage structures shall be maintained by the developer for two (2) years and have an approved maintenance bond (See Section VII, Volume I for more information). After the two (2) years the developer shall request release of the maintenance bond. At that time the Developer may request the roadways to be accepted for maintenance by the County, the decision to accept roadways as "county maintained" shall be solely at the discretion of the Austin County Commission and based on criteria as not adversely impact on the residents of Austin County as a whole.

N. TRAFFIC IMPACT STUDY

(1) Traffic impact studies may be required at the discretion of the County Engineer to be performed by the developer prior to the platting process for any development proposal that has ten (10) lots or more, at least of ten (10) spaces or greater for a manufactured/mobile home communities or recreational vehicle parks, or any other type of development that expects to significantly increase or impact the capacity and/or safety of the street/road system.

(i) Traffic impact studies shall be required and may apply the findings of that study or similar to the development.

O. PRIVATE ROADS OR GATED SUBDIVISIONS

(1) Platted and/or dedicated roadways (Roads and ROW) are considered privately-owned and maintained until the Austin County Commissioners' Court votes to approve them as county maintained roadways. The homeowners' association or other similar financing mechanism shall maintain them.

(2) A private or gated subdivision (security gates or guard station) shall be considered privately-owned and does not qualify to be approved as county maintained roadways. The homeowners' association or other similar financing mechanism shall maintain them.

(3) Adequate provisions shall be made and approved for entrance for emergency vehicles.

(4) The County shall not pay or be responsible for any portion of the cost, construction to maintenance of a private street, or for any utilities or related facilities located in private streets.

(5) All private streets shall be designated as "private access easements" on plats before acceptance by the County. The term "private access easements" shall be inclusive of alleys if provided.

(6) Any private streets shall be designed and built to the same engineering standards and plans required for public streets and utilities (see Section II (A) for more information).

(7) All required utilities, drainage facilities, and signs placed along private streets shall be installed in accordance with County standards.

(8) Entrances to private streets (not county maintained) shall be marked with a sign (meeting requirements of Subsection J) stating it is a private street and the County does not maintain the street or related improvements.

(9) The subdivision developer, homeowners' association or similar, or property owners shall provide the Local Fire Department with a Knox padlock or Knox box with a key to access the site to be used only in case of an emergency for gated communities.

(10) Current access codes shall always be provided to the County Judges Office for the purpose issuing permits, providing inspections, and investigating complaints.

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SECTION III
WATER AND WASTEWATER STANDARDS

A. LOTS SERVICED BY WATER WELLS

(1) In subdivisions with five (5) or more lots, one (1) water well may be maintained and kept operational either by a subdivision homeowners' association or by the appropriate deed restriction with a four thousand (4,000) gallon or larger storage tank furnished beside the well.

(2) The tank shall be fitted with connections approved by the Local Fire Department.

(3) County fire personnel shall have access to the well and tank for firefighting purposes.

(4) Whenever a developer creates lots without a public water system or without supplying water from an approved source to each lot, the developer or his agents shall notify every purchaser, in writing and an Affidavit to the Public with the following:

(i) There is no approved water supply furnished to this (ese) lot (s); and,

(ii) The purchase of property on a private water supply shall be at the purchaser's own risk and expense; and,

(iii) Austin County bears no responsibility for the availability or lack of availability or the quality of water supplies which are to be developed privately on an individual lot basis.

(5) The restrictive covenants covering lots served by individually-owned water wells shall include provisions covering the sanitary control easement circling the water well as to:

(i) The size of the easement; and,

(ii) Prohibited facilities and activities therein that real or potential pollution hazards to the quality of the water.

(6) Lots in Austin County requiring an individual water well and an on-site sewage disposal system shall be of the size outlined in Section IV (A) (6), Volume I, and follow the requirements outlined in Chapter 232.0032 of the Texas Local Government Code.

B. PUBLIC WATER SYSTEMS

(1) Public water systems, including fire hydrants, shall conform to American Water Works Association (AWWA) specifications as to design, materials, construction, and testing and comply with the rules and regulations of TCEQ.

(2) For all lots proposed to be supplied with water from a public water supply system, the developer shall furnish the Commissioners' Court evidence that the system has received the required approvals from the appropriate State regulatory agencies and that the minimum production of the system shall at least equal the requirements of the regulatory agency for the number of residences projected.

(3) If a public water supply is to be installed, wells must be tested a minimum of thirty-six (36) hours, pumping at the desired gallons per minute rate, to be used for production standards by the State Board of Health. Austin County shall have the right to inspect all phases of public water wells during development.

C. CERTIFICATION THAT ADEQUATE GROUNDWATER IS AVAILABLE FOR THE SUBDIVISION

If groundwater is the source of water supply for the subdivision, the Commissioners' Court requires a statement attached to the plat application, prepared and sealed by a licensed professional engineer registered to practice in Texas, that certifies that adequate groundwater is available for the subdivision, according to the certification form and content as promulgated by the Texas Commission on Environmental Quality.

D. WASTEWATER DISPOSAL FACILITIES

(1) Centralized Sewerage Facilities

(i) The plan for sanitary sewage treatment and/or disposal shall be indicated (e.g., municipal sewer service, privately owned sewage disposal system, or individual on-site sewage facilities).

(ii) An appropriate permit to treat and/or dispose or waste for the ultimate build-out of the development shall have been obtained from TCEQ, and plans and specifications for the proposed wastewater collection and treatment facilities shall have been approved by all entities having jurisdiction over the proposed project, including TCEQ. Evidence of the approvals shall be included in the Engineering Report.

(iii) If wastewater treatment is provided by a political subdivision of the state (city, municipality, utility district, water control and improvement district, nonprofit water supply corporation or an existing investor-owned water supply corporation, etc.), the Developer shall furnish a signed letter of service availability to provide the state's minimum wastewater treatment standard for the proposed development from the utility.

(iv) Wastewater disposal service may be extended into the development to each lot or rental space if the existing wastewater lines are within three hundred (300) feet of the development and there is sufficient wastewater capacity available from the wastewater service provider and allowed to connect.

(v) Where there is no existing entity or owner to build or maintain the proposed wastewater treatment and collection facilities, the Developer may establish an investor-owned utility or a municipal utility district by obtaining a Certificate of Convenience and Necessity (CCN) from TCEQ.

(vi) A site evaluation must be completed for the entire subdivision. The location of each soil analysis and the area that it covers shall be shown on the engineering report. If it is the owner's intent to allow conventional soil absorption systems, representative soil analysis shall be performed by Registered P.E. or Registered Sanitarian.

(2) Whenever an organized disposal system is developed within 300 feet of a lot with an on-site sewage facility, that facility shall be connected to the organized disposal system. In addition, the development and use of an organized disposal system are encouraged, where practicable, to serve the disposal needs of the citizens of Austin County.

(3) On-site Sewage Facilities

(i) The engineering report shall include soil analysis results as required under the Austin County Regulations for On-Site Sewage Facilities.

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SECTION IV
CONSTRUCTION PROCEDURES AND SPECIFICATIONS

A. APPLICABILITY

(1) The driving surface of all subdivision streets shall be asphalt. Rural roadway surface condition cross section may be accepted based on the recommendation in a geotechnical report sealed by a professional engineer. Once presented to the County Engineer for concurrence of the request, an approval or rejection letter will be sent provided responding to the request. If rejected, an appeal may be brought before the Austin County Commissioners' Court for consideration.

(2) The materials, design, specifications, and procedures shall conform to those of the current TxDOT specifications.

(3) All new roads constructed shall be asphalt with a minimum thickness as indicated below and following other requirements spelled out in Table II-A.

STREET ROAD CLASSIFICATION AS INDICATED BY THE MASTER THOROUGHFARE PLAN	MINIMUM PAVEMENT THICKNESS
Local Road or Street	Six (6) inches
Collector Road or Street	Seven (7) inches
Arterial Road or Street or Higher	Eight (8) inches

(4) The County Engineer, or his designee, shall be notified at least twenty- four (24) hours prior to material delivery, laying the base course of a road, or before paving is to be started, to allow the opportunity to visit the site to verify that specifications are being met.

B. PREPARING AND CLEARING THE RIGHT-OF-WAY

(1) The Developer shall clear the right-of-way in a manner conforming to TxDOT, Item 100.

(2) All unstable sub-base or objectionable material shall be removed and replaced with material acceptable to the County.

C. ROADWAY EXCAVATION AND EMBANKMENT

(1) Any roadway excavation necessary to attain conformance with proposed road grades and typical cross-sections shall be done in conformity with TxDOT, Item 110.

(2) In cases where the proposed road grades and cross-sections require the placing of fill material to raise the roadway, such embankment fill shall be constructed in conformity with TxDOT, Item 132.

(3) Completed side slopes shall not be steeper than 4-to-1.

(4) Requirements for slopes in cuts and on fills may be modified if the Developer presents plans designed, signed, and sealed by an engineer, substituting adequate retaining walls, or demonstrates that cuts are in material of adequate stability.

D. SUBGRADE AND PAVEMENT

(1) Summary of information

REQUIREMENT	DESCRIPTION
Pavement Material	Portland cement concrete – for thickness, see Volume III, Section IV (A) (3) & Exhibit F
Strength	A concrete batch design having a minimum 3,600 PSI comprehensive strength in 28 days if a slip form paver is used OR A concrete batch design having a minimum 4,000 PSI comprehensive strength in 28 days if hand-poured.
Sub Base Stabilization	See Volume III, Section IV (D) (2) & Exhibit F
Compacted Cement Stabilization	See Volume III, Section IV (D) (3) & Exhibit F
Rebar	No. 3 spaced at 18 inches on center OR No. 4 spaced at 24 inches on center
Minimum Ditch Side Slopes	4:1

(2) Sub-Base Stabilization.

(i) The sub-base below the 6-inch cement stabilization shall be stabilized using lime treatment. Lime stabilization shall conform to TxDOT, Item 260.

(ii) A lime application rate of thirty-six (36) pounds of lime (8 percent by weight minimum) per square yard of six (6) inch compacted thickness is required unless otherwise indicated by the geotechnical report.

(iii) The optimum percentage shall be verified by an independent testing laboratory prior to construction. Lime treated subgrade shall be compacted to a minimum of ninety-five (95) of Test Method TEX-121-E, Part II. Roadway density testing will be as outlined in Test Method TEX-115-E.

(3) Compacted cement stabilized flexbase shall be required below the concrete surface and shall be a minimum depth of six (6) inches at 4%. Cement stabilization shall comply with TxDOT Item 275 or 276.

(i) In the event inclement weather or other unforeseen circumstances render impractical the spreading of the material during the first 24-hour period, the material shall be scarified and spread as directed by the County Engineer or his designee.

(ii) The material shall be sprinkled, if directed, and shall then be bladed, dragged, and shaped to conform to typical sections as shown on plans

(iii) All areas and "nests" of segregated coarse or fine materials shall be corrected or removed and replaced with well-graded material, as directed by the County Engineer or his designee.

(iv) If the additional binder is considered desirable or necessary after the material is spread and shaped, it shall be furnished and applied in the amount directed by the County Engineer or based on a sealed recommendation by a professional engineer.

(v) Such binder material shall be carefully and evenly incorporated with the material in place by scarifying, harrowing, brooming, or by other approved methods.

(4) The embankment and subgrade materials shall be compacted by suitable type rollers in all cases where required to consolidate fill materials or to attain adequate stability of embankment and subgrade materials.

(5) The County shall require "Density control" method of compaction to attain the 95% compaction of the subgrade. These percentages of compaction shall be required for all road construction. Rolling equipment and construction methods shall conform to TxDOT, Items 210, 211, 212, 213, 214, 215, 216, and 217, inclusive.

(6) Prior to placing pavement, the roadbed shall be shaped to conform to the subgrade section and shall be firm and to the line and grade called for on the plans and shall be free of holes, ruts, and depressions.

(7) Before placing any material, the contractor shall furnish the County Engineer, or his designee, with reports of analysis of the proposed materials made by an approved laboratory. Preliminary approval of a source does not guarantee acceptability or evidence of conformity with these specifications.

(8) It shall be the responsibility of the Contractor to provide the required amount of specified material in each one hundred (100) foot station. Material deposited upon the subgrade shall be spread and shaped the same day unless otherwise directed by County Engineer or his designee.

(9) Construction equipment shall be limited to units not exceeding legal loads.

E. PAVEMENT WIDENING

Before any pavement is placed to widen an existing pavement, the existing pavement shall be cut back two (2) feet to assure an adequate subgrade and pavement joint, as per TxDOT Specifications.

F. CULVERTS AND STRUCTURES

(1) Concrete, wherever mentioned in these regulations, shall be Class A concrete as defined in TxDOT, Item 421 except for machine-laid curb, which shall be Class C concrete.

(2) Concrete materials, placement methods, placement temperatures, curing, etc., shall be in accordance with TxDOT, Items 420 and 421.

(3) Pipe culverts shall be of corrugated metal pipe or reinforced concrete pipe and shall conform to TxDOT, Items 460, 461, 462, or 464.

(4) Manholes and inlets shall conform to TxDOT, Items 465, and Frames, Grates, Rings, and Covers shall conform to TxDOT, Item 471.

(5) When concrete box culverts are constructed, materials and installation shall be in accordance with TxDOT, Item 462.

(6) Headwalls and wing walls shall conform to TxDOT, Item 466, and Safety End Treatments shall conform to TxDOT, Item 467.

(7) Where metal or concrete pipe culverts are installed, concrete headwalls or four (4) inches of reinforced concrete riprap shall be built at the inlet and outlet and shall conform to TxDOT Item 466.

(8) Headwalls, on other than driveways, shall have a slope corresponding to the embankment but not exceeding a 4-to-1 slope. The minimum pipe culvert size shall be eighteen (18) inches.

(9) In high embankments, structures need not be carried to the toe of the slope if wing walls and adequate parapet headwalls are provided with an adequate apron. For outlet velocities exceeding eight (8) feet per second, an energy dissipater must be installed. Designs of wing walls and parapets must be submitted for approval.

(10) Property owners constructing a private driveway intersecting a public road or street shall contact the County Engineer or the Precinct Commissioner for the proper culvert size. The culvert shall be constructed/installed in the flow line of the ditch.

G. RESERVED

H. STREET AND ROAD PLANS

(1) Typical cross-sections showing the proposed pavement width, type, thickness, and crown, and the proposed curb type and sidewalk (if any), and relation to curbs and property lines shall be submitted for approval.

(2) This information shall be given for each of the different types of streets in the subdivision. Construction details shall be submitted for approval for all drainage structures, including dimensions, reinforcing, and components such as grates and manhole covers.

(3) For each drainage structure, submit for approval a complete cross-section, showing flow line elevations, roadway, fill over structure, and inlet/outlet configuration.

(4) Alignment of each street and drainage easement shall be shown, including the following:
- (i) a beginning and ending station;
- (ii) each deflection angle of the center-line and the station of the point of intersection;
- (iii) the station of the point of curvature and the point of tangency of each curve;
- (iv) the station and angle of intersection of each intersection with another street or drainage easement;
- (v) the station and radius of each curb return;
- (vi) the location of adjacent right-of-way lines;
- (vii) the location and limits of sidewalks and curbs of each street; the location of each drainage structure;
- (viii) the location and size of all storm sewers;
- (ix) the location, description, and elevation of Bench Marks;
- (x) the top of curb grade at each curb return;
- (xi) the center-line grade at each end and at grade changes along drainage ditches;
- (xii) the gradient of each tangent grade and the location and length of each vertical curve;
- (xiii) the direction of storm drainage flow at each intersection;
- (xiv) and the flow line elevation of each storm sewer at each point of change of grade, at each end, and at intervening gradients.

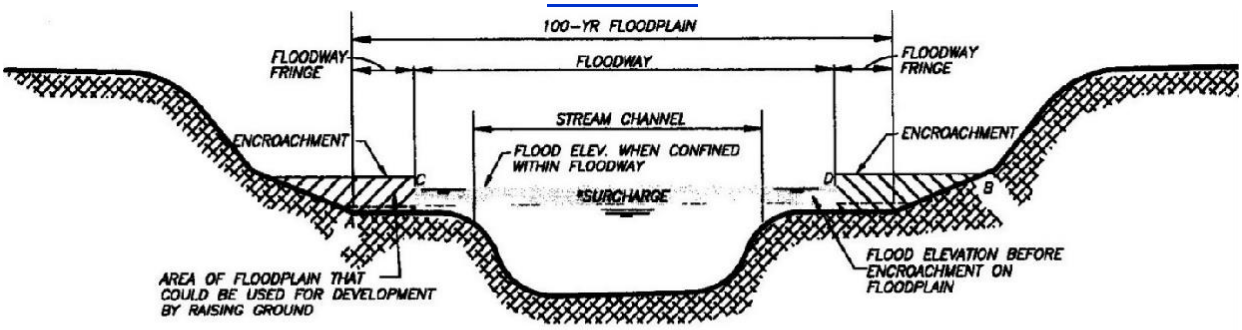
(5) The profiles of streets and drainage ditches shall show the natural ground at adjacent property lines and the proposed centerline.

(6) Plan and profile drawings shall include the scale, north arrow, and date and shall be drawn to scales of one inch equals fifty (50) feet (1"=50") horizontally, and one inch equals five (5) feet (1"=5') vertically.

(7) All street plans and profiles shall bear the signature and seal of a Registered Professional Engineer.

(8) All exhibits listed below are only meant to supplement the written regulations. If there is any conflict between the regulations and the exhibits, the written text shall apply. Any interpretations shall be based on Section I (G) of this Volume.

EXHIBIT A

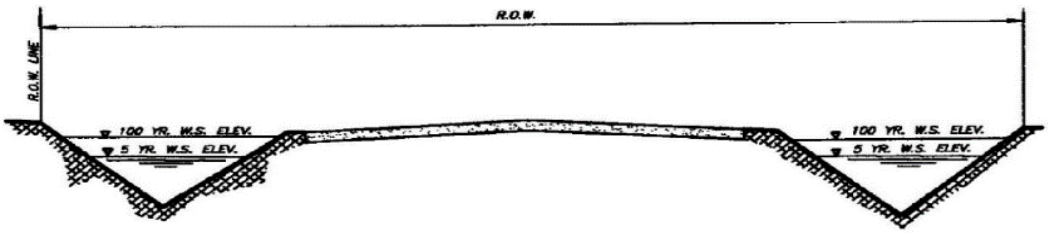


LINE A–B IS FLOOD ELEV. BEFORE ENCROACHMENT
LINE C–D IS FLOOD ELEV. AFTER ENCROACHMENT

NOT TO SCALE

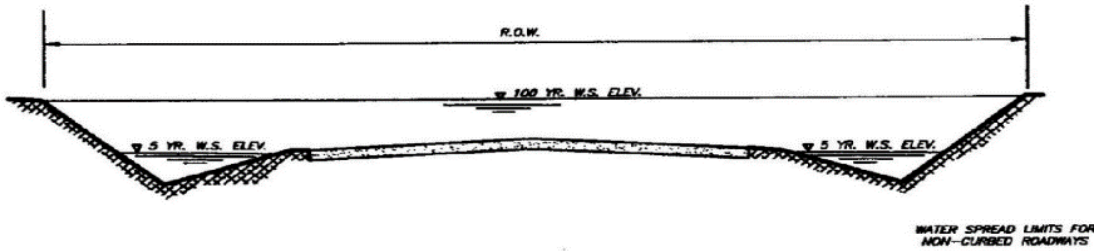
* SURCHARGE SHALL NOT EXCEED 1.0 FEET

EXHIBIT B



CASE I – ROADWAY ABOVE R.O.W. GRADE

NOT TO SCALE

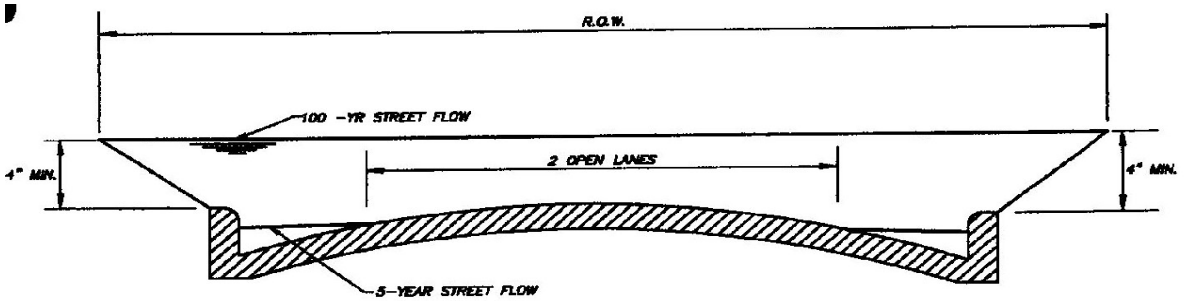


CASE II – ROADWAY BELOW R.O.W. GRADE

NOT TO SCALE

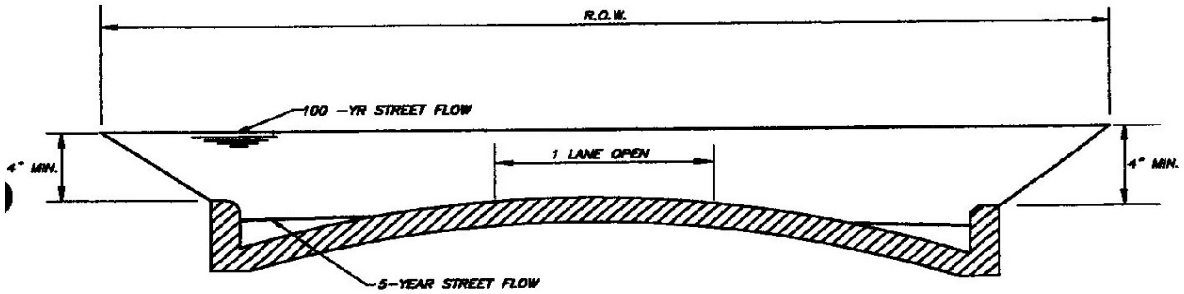
WATER SPREAD LIMITS FOR NON-CURBED ROADWAYS

EXHIBIT C



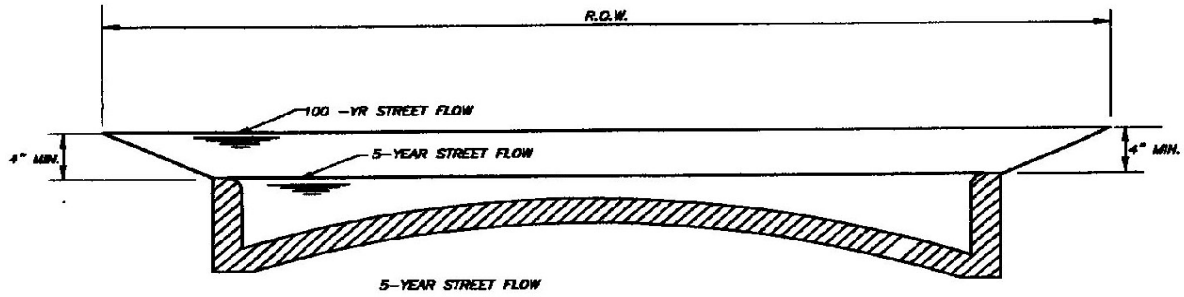
COLLECTOR OR SECONDARY THROUGHFARE

NOT TO SCALE



MINOR ARTERIAL OR PRIMARY THORUGHFARE

NOT TO SCALE

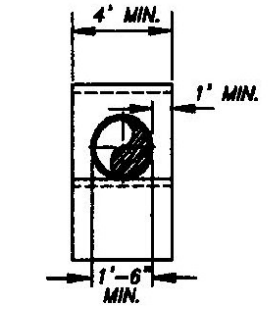


LOCAL

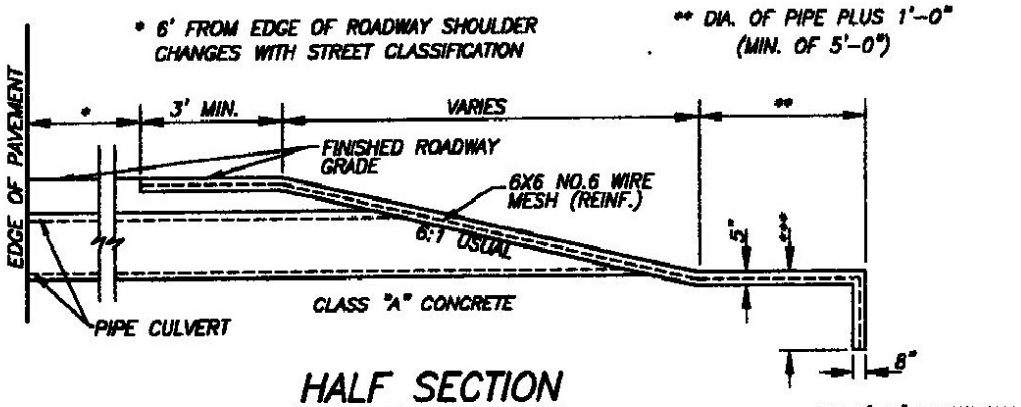
NOT TO SCALE

MAXIMUM WATER SPREAD LIMITS FOR MAJOR AND MINOR STORMS

EXHIBIT D



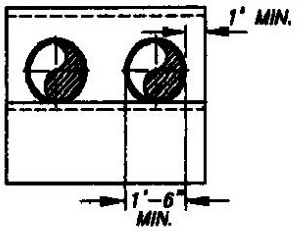
END VIEW
NOT TO SCALE



HALF SECTION
NOT TO SCALE

NOTE: CAST IN PLACE OR PRE-CAST

IN CASES WHERE A CULVERT WITH ITS HEADWALLS WOULD EXTEND OUTSIDE THE NORMAL RIGHT-OF-WAY, THE DEVELOPER SHALL DEDICATE SUCH ADDITIONAL DRAINAGE EASEMENT OR RIGHT-OF-WAY AS REQUIRED TO PROVIDE NORMAL ACCESS AND AGRESS.



END VIEW
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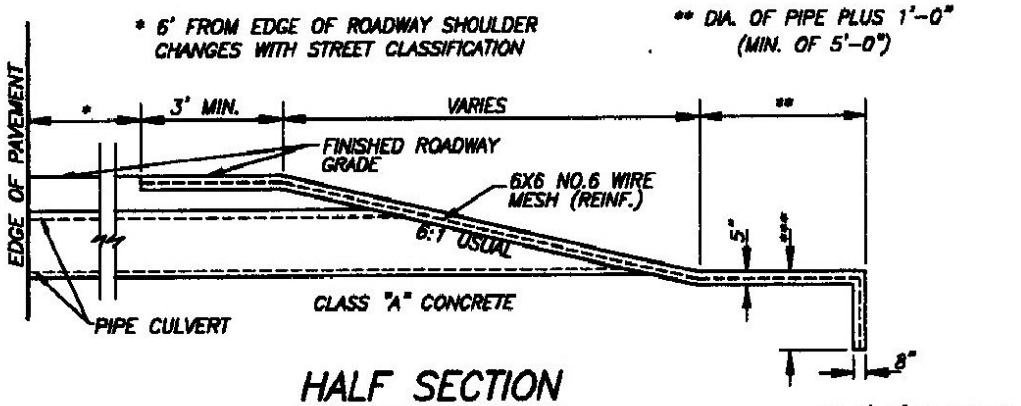


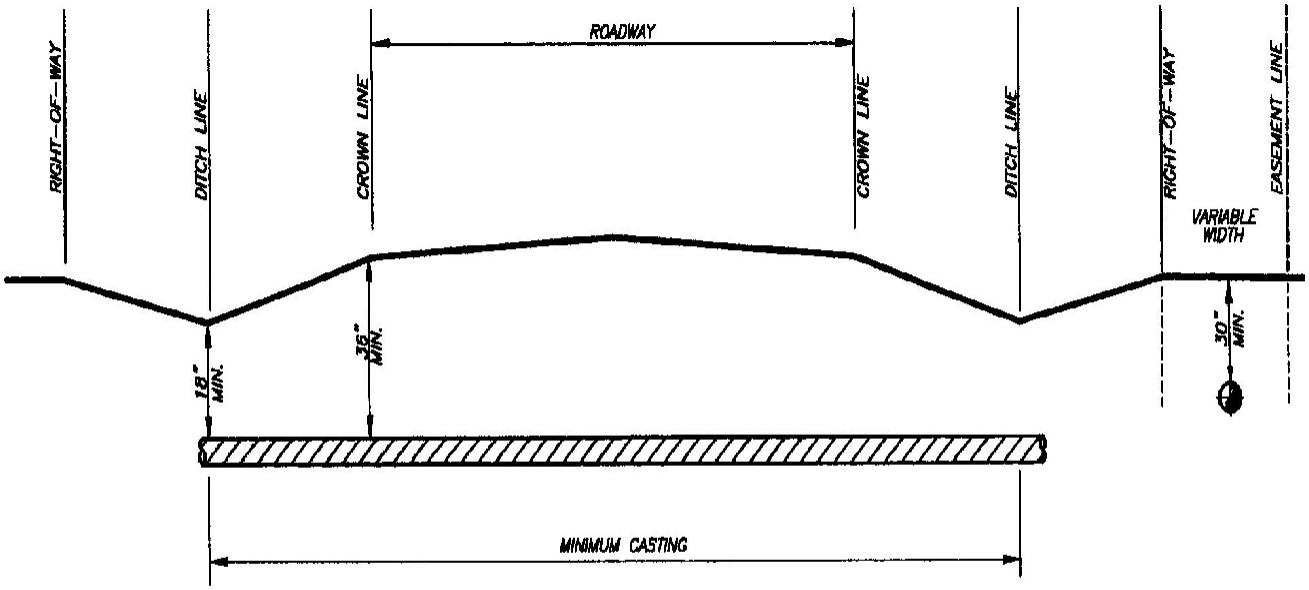
HALF SECTION
NOT TO SCALE

NOTE: CAST IN PLACE OR PRE-CAST

IN CASES WHERE A CULVERT WITH ITS HEADWALLS WOULD EXTEND OUTSIDE THE NORMAL RIGHT-OF-WAY, THE DEVELOPER SHALL DEDICATE SUCH ADDITIONAL DRAINAGE EASEMENT OR RIGHT-OF-WAY AS REQUIRED TO PROVIDE NORMAL ACCESS AND AGRESS.

MULTIPLE PIPE INSTALLATION
NOT TO SCALE

EXHIBIT E

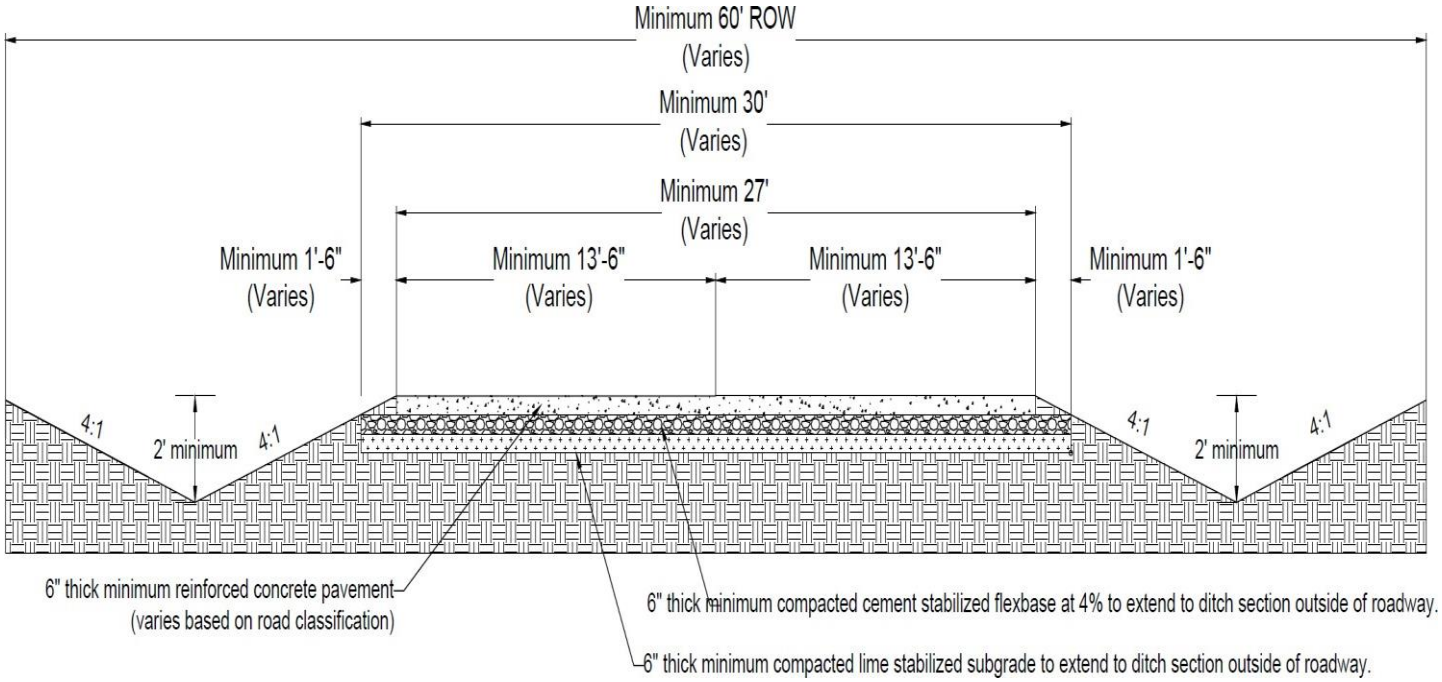


ATTACHMENT "A"

UTILITY LINE CROSSING

NOT TO SCALE

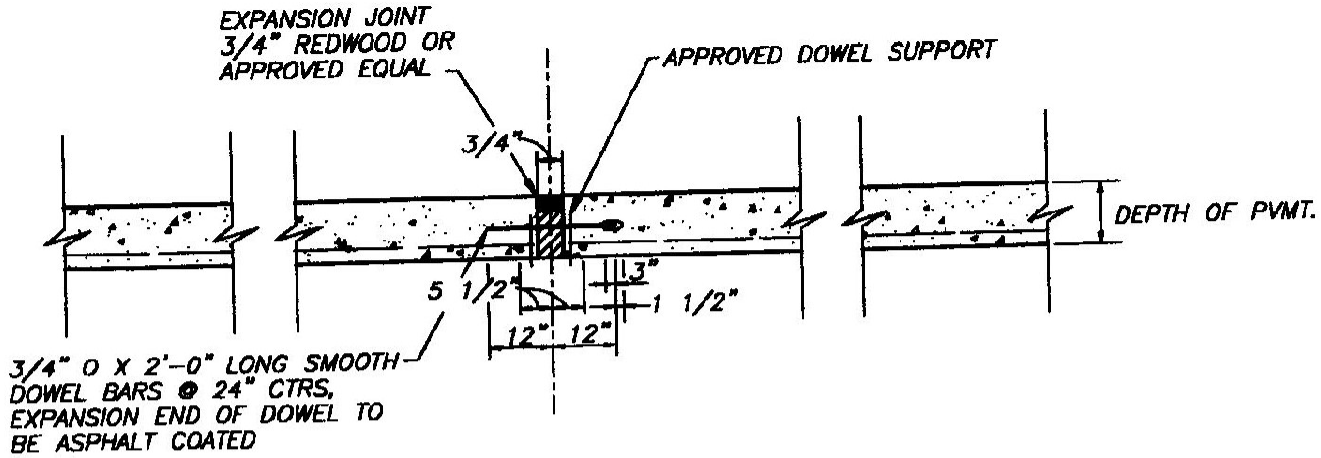
EXHIBIT F



General Notes:

1) 6" thick minimum reinforced concrete pavement (varies based on road classification)
2) Minimum compressive strength varies based on method of placing concrete. (3600psi @ 28 days - slip form, 4000psi @ 28 days - hand pour)
3) Reinforcing for concrete shall be No. 3 bars @ 18" O.C.E.W or No. 4 bars @ 24" O.C.E.W.
4) Mix design submittal is required prior to placing concrete
5) 6" lime stabilized subgrade compacted to 95% standard proctor density unless otherwise indicated in the geotechnical report.
6) Crown road bed to provide a 1% minimum slope from the crown to the edge of pavement.
7) See Quality Growth Initiatives Volume III - Section IV (D) for other information.

EXHIBIT G

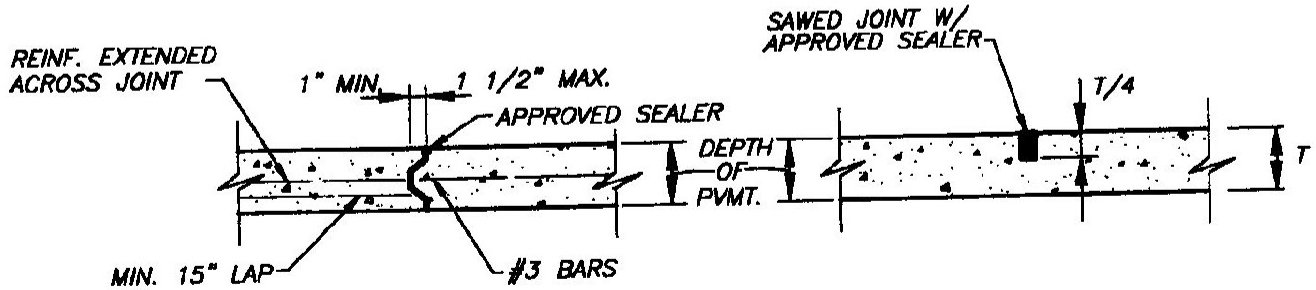


SLEEVE FOR DOWELS SHALL HAVE AN INSIDE DIAMETER OF 1/16" GREATER THAN THAT OF DOWELL & BE OF QUALITY & DESIGN AS TO PROVIDE FREE MOVEMENT OF THE DOWEL BAR.

EXPANSION JOINT

NOT TO SCALE

NOTE: PROVIDE EXPANSION JOINTS AT STREET INTERSECTIONS AND AT 600' MAXIMUM SPACING ALONG STREETS. NO JOINT SHALL FALL IN A DRIVEWAY APPROACH.



CONSTRUCTION JOINT

NOT TO SCALE

SAWED JOINT

NOT TO SCALE
(20' TYP. SPACING)

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APPENDIX A
HISTORY OF AMENDMENTS

DATE	MINUTE ORDER	BRIEF SUMMARY