

TECHNICAL SPECIFICATIONS
DIVISION 1
GENERAL REQUIREMENTS

Section 01100**SUMMARY OF WORK****1.0 GENERAL****1.01 SECTION INCLUDES**

- A A summary of the Work to be performed under this Contract, work by Owner, Owner furnished products, Work sequence, future Work, Contractor's use of Premises, and Owner occupancy.

1.02 WORK COVERED BY CONTRACT DOCUMENTS

- A Work of the Contract is for the construction of: [provide narrative description of the work to be performed]

1.03 WORK BY OWNER

- A [provide narrative description if required or delete paragraph]

1.04 OWNER FURNISHED PRODUCTS

- A [provide narrative description if required or delete paragraph]

1.05 WORK SEQUENCE

- A [provide narrative description of specific work sequence if required or delete]

- B Contractor to submit project schedule to Engineer & Owner for approval as specified in Section 01350 – Submittals.

- C Contractor shall coordinate the Work with the Engineer and Owner as specified in Section 01310 - Coordination and Meetings.

1.06 FUTURE WORK

- A [provide narrative description if required or delete paragraph]

1.07 CONTRACTOR'S USE OF PREMISES

- A Comply with procedures for access to the site and Contractor's use of rights-of-way as specified in Section 01140 - Contractor's Use of Premises.

- B Contractor shall be responsible for all utilities required for construction.

1.08 OWNER OCCUPANCY

- A Cooperate with the Owner to minimize conflict, and to facilitate the Owner's operations. Coordinate Contractor's activities with Engineer.
- B Schedule Work to accommodate this requirement.

2.0 PRODUCTS - Not Used

3.0 EXECUTION - Not Used

END OF SECTION

Section 01140

CONTRACTOR'S USE OF PREMISES

1.1 GENERAL

1.2 SECTION INCLUDES

- A General use of the Project Site including properties inside and outside of the limits of construction, work affecting roads, ramps, streets and driveways and notification to adjacent occupants.

- B References to Technical Specifications:
 - 1 Section 01350 – Submittals
 - 2 Section 01730 – Cutting & Patching
 - 3 Section 01555 – Traffic Control & Regulation
 - 4 Section 01562 – Waste Material Disposal
 - 5 Section 01720 – Field Surveying
 - 6 Section 02980 – Pavement Repair
 - 7 Section 02770 – Curbs, Curb & Gutter, & Headers
 - 8 Section 02255 – Bedding, Backfill, & Embankment Materials
 - 9 Section 02922 – Sodding
 - 10 Section 02921 – Hydromulch Seeding

1.3 SUBMITTALS

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.

1.4 LIMITS OF CONSTRUCTION

- A Confine access, operations, and storage areas to limits of construction as shown on the Plans provided by Owner as stipulated in Section 00700 – General Conditions of Agreement; trespassing on abutting lands or other lands in the area is not allowed.

- B Contractor may make arrangements, at Contractor's cost, for temporary use of private properties, in which case Contractor and Contractor's surety shall indemnify and hold harmless the Owner against claims or demands arising from such use of properties outside of the limits of construction.
 - 1. Improvements to private properties made for the Contractor's use must be removed upon completion of the Work.
 - a. No fill material may be placed in temporary work areas or on adjacent private properties without the written permission of the Engineer or the issuance of a Fill Permit by the City of Baytown or other governing entity.

- C Restrict total length which materials may be distributed along the route of the construction at any one time to 1,000 linear feet unless otherwise approved by Engineer.

1.5 PROPERTIES OUTSIDE OF LIMITS OF CONSTRUCTION

- A If Contractor's means and methods require the acquisition of Temporary Construction Easements or any access to private property not already included in the above, such access and documentation along with any costs involved shall be the responsibility of the Contractor.
- B Altering the condition of properties adjacent to and along the limits of construction will not be permitted unless authorized by the Engineer and property owner(s) as noted above.
- C Means, methods, techniques, sequences, or procedures which will result in damage to properties or improvements in the vicinity outside of the limits of construction will not be permitted without temporary or permanent easements as determined by the Engineer.
- D Any damage to properties outside of the limits of construction shall be repaired or replaced to the satisfaction of the Engineer and at no cost to the Owner.
- E Contractor shall protect or replace all property corners, monuments or other demarcations disturbed, damaged or lost as a result of his activities. The replacement of these devices shall be properly documented to the satisfaction of the City by a Registered Public Land Surveyor with copies delivered to the Owner or private property owner.

1.6 USE OF SITE

- A Obtain approvals of governing authorities prior to impeding or closing public roads or streets. Do not close consecutive intersections simultaneously.
- B Notify Engineer 48 hours prior to closing a street or a street crossing. Permits for street closures are required in advance and are the responsibility of the Contractor.
- C Maintain access for emergency vehicles including access to fire hydrants.
- D Avoid obstructing drainage ditches or inlets; when obstruction is unavoidable due to requirements of the Work, provide grading and temporary drainage structures to maintain unimpeded flow.
- E Locate and protect private lawn sprinkler systems which may exist on rights-of-ways within the Project Site. Repair or replace damaged systems to condition equal to or better than that existing at start of the Work.
- F When required by the Work, cutting, patching, and fitting of Work to existing facilities, accommodating installation or connection of Work with existing facilities, or uncovering Work for access, inspection, or testing shall be performed in accordance with Section 01730 – Cutting & Patching.
- G Fires are not permitted on the Project Site.

1.7 NOTIFICATION TO ADJACENT OCCUPANTS

- A Notify individual occupants in areas to be affected by the Work of the proposed construction and time schedule. Notification shall be 24 hours, 72 hours and 2 weeks prior to work being performed within 200 feet of the homes or businesses.
- B Include in notification names and telephone numbers of two representatives for resident contact, who will be available on 24-hour call. Include precautions which will be taken to protect private property and identify potential access or utility inconvenience or disruption.
- C Submit proposed notification to Engineer for approval. Consideration shall be given to the ethnicity of the neighborhood where English is not the dominant language. Notice shall be in an understandable language.

1.8 EXCAVATION IN STREETS AND DRIVEWAYS

- A Avoid hindering or needlessly inconveniencing public travel on a street or any intersecting alley or street for more than two blocks at any one time, except by permission of the Engineer.
- B Obtain the Engineer's approval when the nature of the Work requires closing of an entire street. Permits required for street closure are the Contractor's responsibility. Avoid unnecessary inconvenience to abutting property owners.
- C Remove surplus materials and debris and open 1000 feet or less for public use as work in that block is complete.
- D Acceptance of any portion of the Work will not be based on return of street to public use.
- E Avoid obstructing driveways or entrances to private property.
- F Provide temporary crossing or complete the excavation and backfill in one continuous operation to minimize the duration of obstruction when excavation is required across drives or entrances.
- G Provide barricades and signs in accordance with Section 01555 – Traffic Control & Regulation.

1.9 CLEAN-UP

- A Maintain Project Site in a neat and orderly manner.
- B Perform daily clean-up in and around construction zone of dirt, debris, scrap materials, other disposable items.
- C Leave streets, driveways, and sidewalks broom-clean or its equivalent at the end of each work day.
- D Promptly remove barriers, signs, and components of other control systems that are no

longer being utilized.

- E Dispose of waste and excess materials in accordance with requirements of Section 01562 – Waste Material Disposal.

1.10 RESTORATION

- A Restore damaged permanent facilities to pre-construction conditions unless replacement or abandonment of facilities is indicated on the Plans.
- B Repair/Replace removed or damaged pavement in accordance with Section 02980 – Pavement Repair and removed or damaged curbs, gutters, and headers in accordance with Section 02770 – Curbs, Curb & Gutter, & Headers. Repair/Replace with like materials to match existing style, lines, grades, etc., unless otherwise directed by Engineer.
- C Repair turf areas which become damaged by Contractor's operations at no additional cost to Owner.
- D Level with bank sand or topsoil, conforming to Section 02255 – Bedding, Backfill, & Embankment Materials, as approved by the Engineer.
- E Provide sodding in areas of residential land use over the surface of ground disturbed during construction and not paved, or not designated to be paved, in accordance with Section 02922 – Sodding. Use only blocks sodding; do not use spot sodding or sprigging.
- F Provide hydromulch seeding in areas of commercial, industrial or undeveloped land use over the surface of ground disturbed during construction and not paved, or not designated to be paved, in accordance with Section 02921 – Hydromulch Seeding.
- G Water and level newly sodded areas with adjoining turf using steel wheel rollers appropriate for sodding

2.0 PRODUCTS - Not Used

3.0 EXECUTION - Not Used

END OF SECTION

Section 01200

MEASUREMENT AND PAYMENT PROCEDURES

1.0 GENERAL

1.01 SECTION INCLUDES

- A Procedures for measurement and payment of Work.
- B Conditions for nonconformance assessment and nonpayment for rejected products.
- C References to Technical Specifications: See Bid Proposal Sheet
- D Reference Standards:
 - 1. Concrete Reinforcing Steel Institute (CRSI)
 - 2. American Institute of Steel Construction (AISC)

1.02 AUTHORITY

- A Units and methods delineated in this Section are intended to complement the criteria of the Technical Specifications and Section 00300 – Bid Proposal.
- B In the event of conflict, the unit specified for Bid Items in Section 00300 – Bid Proposal shall govern.
- C Measurements and quantities submitted by the Contractor will be verified by the Engineer.
- D Contractor shall provide necessary equipment, workers, and survey personnel as required by Engineer to verify quantities.

1.03 UNIT QUANTITIES SPECIFIED

- A Quantity and measurement estimates stated in Section 00300 – Bid Proposal are for contract purposes only. Quantities and measurements supplied or placed in the Work, authorized and verified by Engineer shall determine payment as stated in Section 00700 – General Conditions of Agreement.
- B If the actual Work requires greater or lesser quantities than those quantities indicated in Section 00300 – Bid Proposal, provide the required quantities at the unit prices contracted except as otherwise stated in Section 00700 – General Conditions of Agreement or in executed Change Order.

1.04 MEASUREMENT OF QUANTITIES

- A Measurement by Weight: Reinforcing steel, rolled or formed steel or other metal shapes will be measured by CRSI or AISC Manual of Steel Construction weights. Welded assemblies will be measured by CRSI or AISC Manual of Steel Construction or scale weights.

- B Measurement by Volume:
 - 1. Stockpiles: Measured by cubic dimension using mean length, width, and height or thickness.
 - 2. Excavation and Embankment Materials: Measured by cubic dimension using the average end area method.
- C Measurement by Area: Measured by square dimension using mean length and width or radius.
- D Linear Measurement: Measured by linear dimension, at the item centerline or mean chord.
- E Stipulated Price Measurement: By unit designated in the agreement.
- F Other: Items measured by weight, volume, area, or lineal means or combination, as appropriate, as a completed item or unit of the Work.

1.05 PAYMENT

- A Payment includes full compensation for all required supervision, labor, products, tools, equipment, plant, transportation, services, and incidentals; and erection, application or installation of an item of the Work; and Contractor's overhead and profit. The price bid shall include the total cost for required Work. Claims for payment as Unit Price Work not specifically covered in Section 00300 – Bid Proposal will not be accepted.
- B Progress Payments for Unit Price Work will be based on the Engineer's observations and evaluations of quantities incorporated in the Work multiplied by the unit price.
- C Progress Payments for Lump Sum Work will be based on the Engineer's observations and evaluations of the percentage of quantities included in the schedule of values incorporated in the Work.
- D Final Payment for Work governed by unit prices will be made on the basis of the actual measurements and quantities determined by Engineer multiplied by the unit price for Work which is incorporated in or made necessary by the Work.

1.06 NONCONFORMANCE ASSESSMENT

- A Remove and replace the Work, or portions of the Work, not conforming to the Contract Documents.
- B If, in the opinion of the Engineer, it is not practical to remove and replace the Work, the Engineer will direct one of the following remedies:
 - 1. The nonconforming Work will remain as is, but the unit price will be adjusted to a lower price at the discretion of the Engineer.
 - 2. The nonconforming Work will be modified as authorized by the Engineer, and the unit price will be adjusted to a lower price at the discretion of the Engineer, if the modified Work is deemed to be less suitable than originally specified.

- C Individual Technical Specifications may modify these options or may identify a specific formula or percentage price reduction.
- D The authority of the Engineer to assess the nonconforming Work and identify payment adjustment is final.

1.07 NONPAYMENT FOR REJECTED PRODUCTS

- A Payment will not be made for any of the following:
 - 1. Products wasted or disposed of in a manner that is not acceptable to Engineer.
 - 2. Products determined as nonconforming before or after placement.
 - 3. Products not completely unloaded from transporting vehicle.
 - 4. Products placed beyond the lines and levels of the required Work.
 - 5. Products remaining on hand after completion of the Work, unless specified otherwise.
 - 6. Loading, hauling, and disposing of rejected products.

2.0 PRODUCTS - Not Used

3.0 EXECUTION - Not Used

END OF SECTION

Section 01290**CHANGE ORDER PROCEDURES****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Procedures for processing Change Orders, including:
 - 1. Assignment of a responsible individual for approval and communication of changes in the Work;
 - 2. Documentation of change in Contract Price and Contract Time;
 - 3. Change procedures, using proposals and construction contract modifications, Work Change Directive, Stipulated Price Change Order, Unit Price Change Order, Time and Materials Change Order;
 - 4. Execution of Change Orders;
 - 5. Correlation of Contractor Submittals.

- B References to Technical Specifications:
 - 1. Section 01350 – Submittals
 - 2. Section 01760 – Project Record Documents

- C Other References:
 - 1. Rental Rate Blue Book for Construction Equipment (Data Quest Blue Book). Rental Rate is defined as the full unadjusted base rental rate for the appropriate item of construction equipment.

1.02 SUBMITTALS

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.

1.03 RESPONSIBLE INDIVIDUAL

- A Contractor shall provide a letter indicating the name and address of the individual authorized to execute change documents, and who shall also be responsible for informing others in Contractor's employ and Subcontractors of changes to the Work. The information shall be provided at the Preconstruction Conference.

1.04 DOCUMENTATION OF CHANGE IN CONTRACT PRICE AND CONTRACT TIME

- A Provide full information required for identification and evaluation of proposed changes, and to substantiate costs of proposed changes in the Work.

- B Contractor shall document each Proposal for Change in cost or time with sufficient data to allow for its evaluation.

- C Proposal for Change shall include, as a minimum, the following information as applicable:
1. Original Quantities of items in Section 00300 – Bid Proposal with additions, reductions, deletions, and substitutions.
 2. When Work items were not included in Section 00300 – Bid Proposal, Contractor shall provide unit prices for the new items, with supporting information as required by the Engineer.
 3. Justification for any change in Contract Time.
 4. Additional data upon request.
- D For changes in the Work performed on a time-and-material basis, the following additional information may be required:
1. Quantities and description of products and equipment.
 2. Taxes, insurance and bonds.
 3. Overhead and profit as noted in Section 00700 – General Conditions of Agreement, 7.03 “Extra Work”.
 4. Dates and times work was performed, and by whom.
 5. Time records and certified copies of applicable payrolls.
 6. Invoices and receipts for products, rented equipment, and subcontracts, similarly documented.
- E Rented equipment will be paid to the Contractor by actual invoice cost for the duration of time required to complete the extra work. If the extra work comprises only a portion of the rental invoice where the equipment would otherwise be on the site, the Contractor shall compute the hourly equipment rate by dividing the actual monthly invoice by 176. (One day equals 8 hours and one week equals 40 hours.) Operating costs shall not exceed the estimated operating costs given for the item of equipment in the Blue Book.
- F For changes in the work performed on a time-and-materials basis using Contractor-owned equipment, compute rates with the Blue Book as follows:
1. Multiply the appropriate Rental Rate by an adjustment factor of 70 percent plus the full rate shown for operating costs. The Rental Rate utilized shall be the lowest cost combination of hourly, daily, weekly or monthly rates. Use 150 percent of the Rental Rate for double shifts (one extra shift per day) and 200 percent of the Rental Rate for more than two shifts per day. No other rate adjustments shall apply.
 2. Standby rates shall be 50 percent of the appropriate Rental Rate shown in the Blue Book. Operating costs will not be allowed.

1.05 CHANGE PROCEDURES

- A Changes to Contract Price or Contract Time can only be made by issuance of a Change Order. Issuance of a Work Change Directive or written acceptance by the Engineer of changes will be formalized into Change Orders. All such changes will be in accordance with the requirements of Section 00700 – General Conditions of Agreement, 7.01 “Change Orders”.

- B The Engineer will advise Contractor of Minor Changes in the Work not involving an adjustment to Contract Price or Contract Time as authorized by Section 00700 – General Conditions of Agreement, 7.02 “Minor Changes”, by issuing supplemental instructions.
- C Contractor may request clarification of Plans, Technical Specifications or Contract Documents or other information. Response by the Engineer to a Request for Information does not authorize the Contractor to perform tasks outside the scope of the Work. All changes must be authorized as described in this Section.

1.06 PROPOSALS FOR CHANGE AND CONTRACT MODIFICATION

- A The Engineer may issue a - Request for Proposal, which includes a detailed description of a proposed change with supplementary or revised Plans and Technical Specifications. The Engineer may also request a proposal in the response to a Request for Information. Contractor will prepare and submit its Proposal for Change within 7 days or as specified in the request.
- B The Contractor may propose an unsolicited change by submitting a Proposal for Change to the Engineer describing the proposed change and its full effect on the Work, with a statement describing the reason for the change and the effect on the Contract Price and Contract Time including full documentation.

1.07 WORK CHANGE DIRECTIVE

- A Engineer may issue a signed Work Change Directive instructing the Contractor to proceed with a change in the Work, for subsequent inclusion in a Change Order.
- B The document will describe changes in the Work and will designate a method of determining any change in Contract Price or Contract Time.
- C Contractor shall proceed promptly to execute the changes in the Work in accordance with the Work Change Directive.

1.08 STIPULATED PRICE CHANGE ORDER

- A A Stipulated Price Change Order will be based on an accepted Proposal for Change including the Contractor's lump sum price quotation.

1.09 UNIT PRICE CHANGE ORDER

- A Where Unit Prices for the affected items of the Work are included in Section 00300 - Bid Proposal, the Unit Price Change Order will be based on unit prices as originally bid, subject to provisions of Section 00700 – General Conditions of Agreement.
- B Where unit prices of the Work are not pre-determined in Section 00300 – Bid Proposal, Work Change Directive or accepted Proposal for Change will specify the unit prices to be used.

1.10 TIME-AND-MATERIAL CHANGE ORDER

- A Contractor shall provide an itemized account and supporting data after completion of change, within time limits indicated for claims in Section 00700 – General Conditions of Agreement.
- B Engineer will determine the change allowable in Contract Price and Contract Time as provided in Section 00700 – General Conditions of Agreement.
- C Contractor shall maintain detailed records of work done on time-and-material basis as specified in this Section, 1.04 “Documentation of Change in Contract Price and Contract Time”.
- D Contractor shall provide full information required for evaluation of changes, and shall substantiate costs for changes in the Work.

1.11 EXECUTION OF CHANGE DOCUMENTATION

- A Engineer will issue Change Orders, Work Change Directives, or accepted Proposals for Change for signatures of parties named in Section 00500 – Standard Form of Agreement.

1.12 CORRELATION OF CONTRACTOR SUBMITTALS

- A For Stipulated Price Contracts, Contractor shall promptly revise Schedule of Values and Application for Payment forms to record each authorized Change Order as a separate line item and adjust the Contract Price.
- B For Unit Price Contracts, the next monthly Application for Payment of the Work after acceptance of a Change Order will be revised to include any new items not previously included and the appropriate unit rates.
- C Contractor shall promptly revise progress schedules to reflect any change in Contract Time, and shall revise schedules to adjust time for other items of work affected by the change, and resubmit for review.
- D Contractor shall promptly enter changes to the on-site and record copies of the Plans, Technical Specifications or Contract Documents as required in Section 01760 – Project Record Documents.

2.0 PRODUCTS - Not Used**3.0 EXECUTION - Not Used**

END OF SECTION

Section 01310**COORDINATION AND MEETINGS****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Section includes general coordination including Preconstruction Conference, Site Mobilization Conference, and Progress Meetings.
- B References to Technical Specifications:
 - 1. Section 01100 – Summary of Work

1.02 RELATED DOCUMENTS

- A Coordination is required throughout the documents. Refer to all of the Contract Documents and coordinate as necessary.

1.03 ENGINEER AND REPRESENTATIVES

- A The Engineer may act directly or through designated representatives as defined in Section 00700 – General Conditions of Agreement, 1.01 “Owner, Contractor, and Engineer”, and as identified by name at the Preconstruction Conference.

1.04 CONTRACTOR COORDINATION

- A Coordinate scheduling, submittals, and work of the various Technical Specifications to assure efficient and orderly sequence of installation of interdependent construction elements.
- B Coordinate completion and clean-up of the Work for Substantial Completion and for portions of the Work designated for Owner's partial occupancy.
- C Coordinate access to Project Site for correction of nonconforming work to minimize disruption of Owner's activities where Owner is in partial occupancy.

1.05 PRECONSTRUCTION CONFERENCE

- A Engineer will schedule a Preconstruction Conference.
- B Attendance Required: Engineer's representatives, Consultants, Contractor, and major Subcontractors.
- C Agenda:
 - 1. Distribution of Contract Documents.
 - 2. Designation of personnel representing the parties to the Contract, and the Consultant.
 - 3. Review of insurance.

4. Discussion of formats proposed by the Contractor for Schedule of Values, and Construction Schedule.
5. Discussion of required Submittals, including, but not limited to, Work Plans, Traffic Control Plans, Safety Programs, Construction Photographs.
6. Procedures and processing of Shop Drawings and other submittals, substitutions, Applications for Payment, Requests for Information, Request for Proposal, Change Orders, and Contract Closeout.
7. Scheduling of the Work and coordination with other contractors.
8. Review of Subcontractors.
9. Appropriate agenda items listed in this Section, 1.06 "Site Mobilization Conference", when Preconstruction Conference and Site Mobilization Conference are combined.
10. Procedures for testing.
11. Procedures for maintaining Project Record Documents.
12. Designation of the individual authorized to execute change documents and their responsibilities.
13. Discussion of requirements of a Trench Safety Program.

1.06 SITE MOBILIZATION CONFERENCE

- A When required by Section 01100 – Summary of Work, Engineer will schedule a Site Mobilization Conference at the Project Site prior to Contractor occupancy.
- B Attendance Required: Engineer representatives, Consultants, Contractor's Superintendent, and major Subcontractors.
- C Agenda:
1. Use of premises by Owner and Contractor
 2. Safety and first aid procedures
 3. Construction controls provided by Owner
 4. Temporary utilities
 5. Survey and layout
 6. Security and housekeeping procedures

1.07 PROGRESS MEETINGS

- A Progress Meetings shall be held at Project Site or other location as designated by the Engineer. Meeting shall be held at monthly intervals, or more frequent intervals if directed by Engineer.
- B Attendance Required: Job superintendent, major Subcontractors and suppliers, Engineer representatives, and Consultants as appropriate to agenda topics for each meeting.
- C Engineer or City's representative will make arrangements for meetings, and recording minutes.
- D Engineer or City's representative will prepare the agenda and preside at meetings.

- E Contractor shall provide required information and be prepared to discuss each agenda item.

- F Agenda:
 - 1. Review minutes of previous meeting.
 - 2. Review of Construction Schedule, Applications for Payment, payroll and compliance submittals.
 - 3. Field observations, problems, and decisions.
 - 4. Identification of problems which impede planned progress.
 - 5. Review of Submittal Schedule and status of submittals.
 - 6. Review status of Requests for Information, Requests for Proposal.
 - 7. Review status of Change Orders.
 - 8. Review of off-site fabrication and delivery schedules.
 - 9. Maintenance of updates to Construction Schedule.
 - 10. Corrective measures to regain projected schedules.
 - 11. Planned progress during succeeding work period.
 - 12. Coordination of projected progress.
 - 13. Maintenance of quality and work standards.
 - 14. Effect of proposed changes on Construction Schedule and coordination.
 - 15. Other items relating to the Work.

2.0 PRODUCTS - Not Used

3.0 EXECUTION - Not Used

END OF SECTION

Section 01350**SUBMITTALS****1.0 GENERAL**

This Section contains general lists of Submittals and Technical Specifications that may be required for the Work. When Submittals are required elsewhere in these Technical Specifications, refer to this Section for Submittal requirements and procedures.

1.01 SECTION INCLUDES

- A Submittal procedures for:
 - 1. Schedule of Values
 - 2. Construction Schedules
 - 3. Shop Drawings, Product Data, and Samples
 - 4. Operations and Maintenance Data
 - 5. Manufacturer's Certificates
 - 6. Construction Photographs
 - 7. Project Record Documents
 - 8. Design Mixes

- B References to the following Technical Specifications:
 - 1. Section 01310 – Coordination & Meetings
 - 2. Section 01630 – Product Options & Substitutions
 - 3. Section 01100 – Summary of Work
 - 4. Section 01380 – Construction Photographs
 - 5. Section 01760 – Project Record Documents
 - 6. Section 02530 – Gravity Sanitary Sewers

1.02 SUBMITTAL PROCEDURES

- A Scheduling and Handling
 - 1. Schedule Submittals well in advance of the need for material or equipment for construction. Allow time to make delivery of material or equipment after Submittal is approved.
 - 2. Develop a Submittal Schedule that allows sufficient time for initial review, correction, resubmission and final review of all submittals. The Engineer will review and return submittals to the Contractor as expeditiously as possible but the amount of time required for review will vary depending on the complexity and quantity of data submitted. In no case will a Submittal Schedule be acceptable which allows less than 30 days for initial review by the Engineer. This time for review shall in no way be justification for delays or additional compensation to the Contractor.
 - 3. The Engineer's review of submittals covers conformity to the Plans, Technical Specifications, and dimensions which affect the layout. The Contractor is responsible for quantity determination. The Contractor is responsible for any errors, omissions or deviations from the Contract requirements; review of

submittals in no way relieve the Contractor from his obligation to furnish required items according to the Plans and Technical Specifications.

4. Submit 5 copies of documents unless otherwise specified in this Section or by individual Technical Specifications.
5. Revise and resubmit submittals as required. Identify all changes made since previous submittal.
6. The Contractor shall assume the risk for material or equipment which is fabricated or delivered prior to approval. No material or equipment shall be incorporated into the Work or included in Applications for Payment until approval has been obtained in the specified manner.

B Transmittal Form and Numbering

1. Transmit each submittal to the Engineer with a transmittal form.
2. Sequentially number each transmittal form beginning with the number 1. Re-Submittals shall use the original number with an alphabetic suffix (i.e., 2A for first Re-Submittal of Submittal 2 or 15C for third Re-Submittal of Submittal 15). Each submittal shall only contain one type of work, material, or equipment. Mixed submittals will not be accepted.
3. Identify variations from requirements of Contract Documents and identify product or system limitations.
4. For submittal numbering of video tapes, see this Section, 1.10 "Video".

C Contractor's Certification

1. Each submittal shall contain a statement or stamp signed by the Contractor, certifying that the items have been reviewed in detail and are correct and in accordance with Contract Documents, except as noted by any requested variance.

1.03 SCHEDULE OF VALUES

- A** Submit a Schedule of Values at least 10 days prior to the first Application for Payment. A Schedule of Values shall be provided for each of the items indicated as Lump Sum (LS) in Section 00300 – Bid Proposal for which the Contractor requests to receive Progress Payments.
- B** Schedule of Values shall be provided electronically in typewritten format such as Microsoft Excel or other spreadsheet format. Use the Table of Contents of this Project Manual as a format for listing costs of Work by Section.
- C** Round off figures for each listed item to the nearest \$100.00 except for the value of one item, if necessary, to make the total price for all items listed in the Schedule of Values equal to the applicable Lump Sum in Section 00300 – Bid Proposal.
- D** For Unit Price Contracts, items should include a proportional share of Contractor's overhead and profit, such that the total of all items listed in the Schedule of Values equals the Contract amount. For Stipulated Price Contracts, Mobilization, Bonds, and Insurance may be listed as separate items in the Schedule of Values.

- E For Lump Sum equipment items, where Submittals for Testing, Adjusting, and Balancing Reports in conjunction with Operation and Maintenance Data are required, include a separate item for equipment Operation and Maintenance Data Submittals and a separate item for Submittals of equipment Testing, Adjusting, and Balancing Reports, each valued at five (5) percent of the Lump Sum.
- F Revise the Schedule of Values and resubmit for items affected by contract modifications, Change Orders, and Work Change Directives. Submit revised Schedule of Values 10 days prior to the first Application for Payment after the changes are approved by the Engineer.

1.04 CONSTRUCTION SCHEDULES

- A Submit Construction Schedules for the Work in accordance with the requirements of this Section. The Construction Schedule Submittal shall be, at a minimum, a bar chart, (computer generated or prepared manually) and a narrative report. The critical path for construction shall be clearly identified.
- B During the Preconstruction Meeting, as noted in Section 01310 - Coordination and Meetings, the Contractor shall provide a sample of the format to be used for the Construction Schedule Submittal. The format is subject to approval by the Engineer. Review of the Submittal will be provided within 7 days of the Submittal of the sample.
- C Within 7 days of the receipt of approval of the Contractor's format, or 14 days of the Notice to Proceed, whichever is later, the Contractor shall submit a proposed Construction Schedule for review. The Construction Schedule Submittal shall meet the following requirements:
 - 1. The Construction Schedule shall usually include a total of at least 20 but not more than 50 activities. Fewer activities may be accepted, if approved by the Engineer.
 - 2. For Projects with work at different physical locations, each location should be indicated separately within the Construction Schedule.
 - 3. For projects with multiple crafts or significant subcontractor components, these elements should be indicated separately within the Construction Schedule.
 - 4. For Projects with multiple types of tasks within the scope, these types of work should be indicated separately within the Construction Schedule.
 - 5. For Projects with significant major equipment items or materials worth over 25 percent of the Total Contract Price, the Construction Schedule shall indicate dates when these items are to be purchased, when they are to be delivered, and when installed.
 - 6. For Projects where operating plants are involved, each period of work which will require the shutdown of any process or operation shall be identified in the Construction Schedule and must be agreed to by the Engineer prior to starting work in the area.
 - 7. A Billing Schedule (tabulation of the estimated monthly billings) for the Work shall be prepared and submitted by the Contractor with the first Construction Schedule. This information is not required in the monthly updates, unless significant changes in Work require re-submittal of the Construction Schedule for review. The total for each month and a cumulative total will be indicated.

These monthly forecasts are only for planning purposes of the Engineer. Monthly payments for actual work completed will be made by the Engineer in accordance with Section 00700 - General Conditions of Agreement.

- D The Contractor must receive approval of the Engineer for the Construction Schedule and Billing Schedule prior to the first monthly Application for Payment. No payment will be made until these are accepted.
- E Upon written request from the Engineer, the Contractor shall revise and submit for approval all or any part of the Construction Schedule to reflect changed conditions in the Work or deviations made from the original plan and schedule.
- F The Contractor's Construction Schedule shall thereafter be updated with the Actual Start and Actual Finish Dates, Percent Complete, and Remaining Duration of each Activity and submitted monthly. The date to be used in updating the monthly Construction Schedule shall be the same Date as is used in the monthly Application for Payment. This monthly update of the Construction Schedule shall be required before the monthly Application for Payment will be processed for payment.
- G The narrative Construction Schedule Report shall include a description of changes made to the Construction Schedule; Activities Added to the Construction Schedule; Activities Deleted from the Construction Schedule; any other changes made to the Construction Schedule other than the addition of Actual Start Dates and Actual Finish Dates and Remaining Durations.

1.05 SHOP DRAWINGS, PRODUCT DATA, AND SAMPLES

- A Shop Drawings
 1. Submit Shop Drawings for review as required by the Technical Specifications.
 2. Contractor's Certification, as described in this Section, 1.02 "Submittal Procedures" shall be placed on each Shop Drawing.
 3. The Shop Drawing shall accurately and distinctly present the following:
 - a. Field and erection dimensions clearly identified as such.
 - b. Arrangement and section views.
 - c. Relation to adjacent materials or structure including complete information for making connections between work under this Contract and work under other contracts.
 - d. Kinds of materials and finishes.
 - e. Parts list and descriptions.
 - f. Assembly Shop Drawings of equipment components and accessories showing their respective positions and relationships to the complete equipment package.
 - g. Where necessary for clarity, identify details by reference to sheet numbers and detail numbers, schedule or room numbers as shown on the Plans.
 4. Shop Drawing Drawings shall be to scale, and shall be a true representation of the specific equipment or item to be furnished.

- B Product Data**
1. Submit Product Data for review when required in individual Technical Specifications.
 2. Contractor's Certification, as described in this Section, 1.02 "Submittal Procedures" shall be placed on each data item submitted.
 3. Mark each copy to identify applicable products, models, options to be used in this Project. Supplement manufacturers' standard data to provide information unique to this Project, where required by the Technical Specification.
 4. For products specified only by reference standard, submit manufacturer, trade name, model or catalog designation, and applicable reference standard.
 5. For Approved Products, those designated in the Technical Specifications followed by the words "or approved equal", submit manufacturer, trade name, model or catalog designation, and applicable reference standard.
 6. For products proposed as alternates to Approved Products, refer to Section 01630 - Product Options and Substitutions, 1.04 "Selection Options" and 1.07 "Substitution Procedures".
 7. For products that are neither Pre-Approved, Approved, specified only by reference standard, nor proposed as alternates; submit product description, trade name, manufacturer, and supplier. Contractor shall provide additional information upon written request by Engineer or Owner.
- C Samples**
1. Submit samples for review as required by the Technical Specification.
 2. Contractor's Certification, as described in this Section, 1.02 "Submittal Procedures", shall be placed on each sample or a firmly attached sheet of paper.
 3. Submit the number of samples specified in the Technical Specification; one of which will be retained by the Engineer.
 4. Reviewed samples which may be used in the Work are identified in the Technical Specifications.

1.06 OPERATIONS AND MAINTENANCE DATA

- A** When specified in Technical Specification, submit manufacturers' printed instructions for delivery, storage, assembly, installation, start-up, operation, adjusting, finishing, and maintenance.
- B** Contractor's Certification, as described in this Section. 1.02 "Submittal Procedures", shall be placed on front page of each document.
- C** Identify conflicts between manufacturers' instructions and Contract Documents.

1.07 MANUFACTURER'S CERTIFICATES

- A** When specified in Technical Specification, submit manufacturers' certificate of compliance for review by Engineer.
- B** Contractor's Certification, as described in this Section, 1.02 "Submittal Procedures", shall be placed on front page of the certificate.

- C Submit supporting reference data, affidavits, and certifications as appropriate.
- D Manufacturer's Certificates may be recent or previous test results on material or product, but must be acceptable to Engineer.

1.08 CONSTRUCTION PHOTOGRAPHS

- A Submit photographs in accordance with Section 01380 – Construction Photographs.
 - 1. Prints: Prepare 2 prints of each view and submit 1 print directly to the City's Representative within 7 days of taking photographs. One print shall be retained by the Contractor and made available at all times for reference on the job site.
- B PRECONSTRUCTION PHOTOGRAPHS:
 - 1. Prior to the commencement of any construction, take digital color photographs on the entire route of the project
 - 2. Photographs: digital photographs are acceptable, and must be clear, in focus and clearly labeled.
 - 3. The photographs shall show:
 - a. Date photographs were taken
 - b. Location of the photograph, house number and street name. (This information may be shown on a chalk board in the photograph by a label on the mountings.)
 - 4. Photographs should show the condition of the following
 - a. Existing conditions, building facilities
 - b. Esplanades and boulevards
 - c. Yards (near, side and far side of street)
 - d. Housewalk, sidewalk and driveway; curb
 - e. Area between walk and curb
 - 1) Particular features (yard lights, shrubs, fences, trees, etc.)
 - 2) Landscaping and decorative features.
- C POST CONSTRUCTION PHOTOGRAPHS
 - 1. On completion of construction, provide photographs of any public or private property which has been repaired or restored and any damage which is or may be the subject of complaints.

1.09 PROJECT RECORD DOCUMENTS

- A Submit Project Record Documents in accordance with Section 01760– Project Record Documents.

1.10 VIDEO

- A Submit television video in digital format as required in individual Technical Specifications.
- B Transmittal forms for video disks shall be numbered sequentially beginning with T01, T02, T03, etc.

1.11 DESIGN MIXES

- A When specified, submit design mixes for review.
- B Contractor's Certification, as described in this Section, 1.02 "Submittal Procedures", shall be placed on front page of each design mix.
- C Mark each design mix to identify proportions, gradations, and additives for each class and type of design mix submitted. Include applicable test results on samples for each mix.
- D Maintain a copy of approved design mixes at mixing plant.

2.0 PRODUCTS - Not Used**3.0 EXECUTION - Not Used**

END OF SECTION

Section 01380

CONSTRUCTION PHOTOGRAPHS

1.0 GENERAL

1.01 SECTION INCLUDES

- A Requirements for construction photographs and submittals.
- B References Technical Specifications:
 - 1. Section 01100 – Summary of Work
 - 2. Section 01350 – Submittals

1.02 MEASUREMENT AND PAYMENT

- A Unless indicated as a Bid Item, no separate payment will be made for Construction Photographs under this Section. Include cost in Bid Items for installed Work.

1.03 SUBMITTALS

- A When required by Section 01100 – Summary of Work, submit photographs in accordance applicable provisions of this Section.
- B Make Submittals required by this and related Sections under the provisions of Section 01350 – Submittals.
- C Prepare clear digital photos of each view and submit in digital format directly to the Project Manager within seven (7) days of taking photographs. One (1) print shall be retained by the Contractor in the field office at the Project Site and available at all times for reference.
- D When requested by the Project Manager, the Contractor shall submit extra digital photographs, for distribution directly to designated parties who will pay the costs for the extra digital copies directly to the photographer.
- E When required by individual Sections, submit photographs taken prior to start of the Work to show original Project Site conditions.
- F When required by Contract Documents, submit photographs with Application for Payment.
- G When required by individual Sections, submit photographs taken following completion of the Work to show the condition in which the Project Site will be left.
- H With each submittal, include photographic negatives in protective envelopes, identified by Project Name, Contractor, and date photographs were taken.

1.04 QUALITY ASSURANCE

- A Contractor shall be responsible for the timely execution of the photographs, their vantage point, direction of shot, and quality.

2.0 PRODUCTS**2.01 PHOTOGRAPHS**

- A Photographs shall be digital quality and shall be submitted on a USB drive.
- B The photographs shall show on a non-elective chalkboard or white board, readable in the photograph:
1. Job number.
 2. Date and time photographs were taken.
 3. Location of the photograph, house number and street, along with the project number.
 4. Alternatively, the digital photos can be labeled and submitted in PDF format.
- C Indicate the condition of the following:
1. Esplanades and boulevards.
 2. Yards (near side and far side of street).
 3. House-walk and sidewalk.
 4. Curb.
 5. Area between walk and curb.
 6. Particular features (yard lights, shrubs, fence, trees, etc.).
 7. Date shall be on negative.
 8. Provide notation of vantage point marked for location and direction of shot on a key plan of the Project Site.
- D Sufficient number of photographs shall be taken to show the existence or non-existence of cracked concrete and the condition of trees, shrubs and grass.
- E Identify each photograph with an applied label or rubber stamp on the back with the following information:
1. Name of the Project.
 2. Name and address of the photographer (if a professional photographer is used).
 3. Name of the Contractor.
 4. Date the photograph was taken.
 5. Photographs to be in plastic pockets and bound in three -ring notebook for easy access and viewing.

3.0 EXECUTION**3.01 PRECONSTRUCTION PHOTOGRAPHS**

- A Prior to the commencement of the Work, take photographs of the entire route of the Project Site.

3.02 POST-CONSTRUCTION PHOTOGRAPHS

- A Following the completion of the Work, take photographs from corresponding vantage points and direction of shots.

3.03 PROGRESS PHOTOGRAPHS

- A Take photographs at intervals, coinciding with the cutoff date associated with each Application for Payment and submit on a USB drive with monthly Application for Payment.
- B Select the vantage points for each shot each month to best show the status of construction and progress since the last photographs were taken. Take not less than two (2) angles from the same vantage point creating a time-lapsed sequence.
- C Follow direction when given by the Project Manager in selecting vantagepoints.

END OF SECTION

Section 01420**REFERENCED STANDARDS****1.0 GENERAL****1.01 SECTION INCLUDES**

- A General quality assurance as related to Reference Standards and a list of references.
- B References to Technical Specifications: None

1.02 QUALITY ASSURANCE

- A For Products or workmanship specified by association, trade, or Federal Standards comply with requirements of the standard, except when more rigid requirements are specified or are required by applicable codes.
- B Conform to reference standard by date of issue current on the date as stated in Section 00700 – General Conditions of Agreement.
- C Request clarification from Engineer before proceeding should specified reference standards conflict with Contract Documents.

1.03 SCHEDULE OF REFERENCES

- AASHTO American Association of State Highway and Transportation Officials
444 North Capitol Street, N.W.
Washington, DC 20001
- ACI American Concrete Institute
P.O. Box 19150
Reford Station
Detroit, MI 48219-0150
- AGC Associated General Contractors of America
1957 E Street, N.W.
Washington, DC 20006
- AI Asphalt Institute
Asphalt Institute Building
College Park, MD 20740
- AITC American Institute of Timber Construction
333 W. Hampden Avenue
Englewood, CO 80110

AISC	American Institute of Steel Construction 400 North Michigan Avenue, Eighth Floor Chicago, IL 60611
AISI	American Iron and Steel Institute 1000 16th Street, N.W. Washington, DC 20036
ASME	American Society of Mechanical Engineers 345 East 47th Street New York, NY 10017
ANSI	American National Standards Institute 1430 Broadway New York, NY 10018
APA	American Plywood Association Box 11700 Tacoma, WA 98411
API	American Petroleum Institute 1220 L Street, N.W. Washington, DC 20005
AREA	American Railway Engineering Association 50 F Street, N.W. Washington, DC 20001
ASTM	American Society for Testing and Materials 1916 Race Street Philadelphia, PA 19103
AWPA	American Wood-Preservers' Association 7735 Old Georgetown Road Bethesda, MD 20014
AWS	American Welding Society P.O. Box 35104 Miami, FL 33135
AWWA	American Water Works Association 6666 West Quincy Avenue Denver, CO 80235

CLFMI	Chain Link Fence Manufacturers Institute 1101 Connecticut Avenue, N.W. Washington, DC 20036
CRD	U.S.A. Corps of Engineers Code of Ordinances City of Baytown 2401 Market Street Baytown, TX 77520
CRSI	Concrete Reinforcing Steel Institute 933 Plum Grove Road Schaumburg, IL 60173-4758
EJMA	Expansion Joint Manufacturers Association 707 Westchester Avenue White Plains, NY 10604
FDA	U.S. Food and Drug Administration 5600 Fisher Lane Rockville, MD 20857-0001
FS	Federal Standardization Documents General Services Administration, Specifications Unit (WFSIS) 7th and D Street S.W. Washington, DC 20406
ICEA	Insulated Cable Engineer Association P.O. Box 440 S. Yarmouth, MA 02664
IEEE	Institute of Electrical and Electronics Engineers 445 Hoes Lane P.O. Box 1331 Piscataway, NJ 0855-1331
MIL	Military Specifications General Services Administration, Specifications Unit (WFSIS) 7th and D Street S.W. Washington, DC 20406
NACE	National Association of Corrosion Engineers P. O. Box 986 Katy, TX 77450

NEMA	National Electrical Manufacturers' Association 2101 L Street, N.W., Suite 300 Washington, DC 20037
NFPA	National Fire Protection Association Batterymarch Park, P.O. Box 9101 Quincy, MA 02269-9101
OSHA	Occupational Safety Health Administration U.S. Department of Labor, Government Printing Office Washington, DC 20402
PCA	Portland Cement Association 5420 Old Orchard Road Skokie, IL 60077-1083
PCI	Prestressed Concrete Institute 201 North Wacker Drive Chicago, IL 60606
SDI	Steel Deck Institute Box 9506 Canton, OH 44711
SSPC	Steel Structures Painting Council 4400 Fifth Avenue Pittsburgh, PA 15213
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality P. O. Box 13087 Austin, TX 78711-3087
TxDOT	Texas Department of Transportation 125 East 11th Street Austin, TX 78701-2483
Texas MUTCD	Texas Manual on Uniform Traffic Control Devices (2003 Adoption) (published by Texas Department of Transportation)
UL	Underwriters' Laboratories, Inc. 333 Pfingston Road Northbrook, IL 60062
UNI-BELL	UNI-BELL Pipe Association 2655 Villa Creek Drive, Suite 155

Dallas, TX 75234

WRI Wire Reinforcement Institute
942 Main Street – Suite 300
Hartford, CT 06103

WWD/PI Water Well Drillers and Pump Installers Advisory Council
Texas Department of Licensing and Regulation
P.O. Box 12157
Austin, TX 78711

2.0 PRODUCTS - Not Used

3.0 EXECUTION - Not Used

END OF SECTION

Section 01430

CONTRACTOR'S QUALITY CONTROL

1.0 GENERAL

1.01 SECTION INCLUDES

- A Quality assurance and control of installation and manufacturer's field services and reports.
- B References to Technical Specifications:
 - 1. Section 01350 – Submittals

1.02 SUBMITTALS

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.

1.03 QUALITY ASSURANCE/CONTROL OF INSTALLATION

- A Monitor quality control over suppliers, manufacturers, products, services, site conditions, and workmanship, to produce the Work of specified quality at no additional cost to the Owner.
- B Comply fully with manufacturers' installation instructions, including each step in sequence.
- C Request clarification from Project Manager before proceeding should manufacturers' instructions conflict with Contract Documents.
- D Comply with specified Standards as minimum requirements for the Work except when more stringent tolerances, codes, or specified requirements indicate higher standards or more precise workmanship.
- E Perform work by persons qualified to produce the specified level of workmanship.
- F Obtain copies of Standards and maintain at Project Site when required by individual Technical Specifications.

1.04 MANUFACTURERS' FIELD SERVICES AND REPORTS

- A When specified in individual Technical Specifications, provide material or product suppliers' or manufacturers' technical representative to observe site conditions, conditions of surfaces and installation, quality of workmanship, start-up of equipment, operator training, test, adjust, and balance of equipment as applicable, and to initiate operation, as required. Conform to minimum time requirements for start-up operations and operator training if defined in Technical Specifications.

- B At the Project Manager's request, submit qualifications of manufacturer's representative to Project Manager fifteen (15) days in advance of required representative's services. The representative shall be subject to approval of Project Manager.

- C Manufacturer's representative shall report observations and site decisions or instructions given to applicators or installers that are supplemental or contrary to manufacturers' written instructions. Submit report within one (1) day of observation to Project Manager for review.

2.0 PRODUCTS - Not Used

3.0 EXECUTION - Not Used

END OF SECTION

Section 01440**OBSERVATION SERVICES****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Observation services and references.
- B References to Technical Specifications:
 - 1. Section 01450 – Testing Laboratory Services

1.02 MEASUREMENT AND PAYMENT

- A Unless indicated as a Bid Item, no separate payment will be made for Work performed under this Section. Include cost in Bid Items for which this Work is a component.

1.03 INSPECTION

- A Project Manager will appoint an Observer as a representative of the Owner to oversee inspections, tests, and other services specified in individual Technical Specifications.
- B Alternately, Project Manager may appoint, employ, and pay an independent firm to provide additional observation or construction management services as indicated in Section 01450 – Testing Laboratory Services.
- C Reports will be submitted by the independent firm to Project Manager, Engineer, and Contractor, indicating observations and results of tests and indicating compliance or non-compliance with Contract Documents.
- D Contractor shall assist and cooperate with the Observer; furnish samples of materials, design mix, equipment, tools, and storage.
- E Contractor shall notify Project Manager 24 hours prior to expected time for operations requiring services. Notify Engineer and independent firm when noted.
- F Contractor shall sign and acknowledge report for Observer.

2.0 PRODUCTS - Not Used**3.0 EXECUTION - Not Used**

END OF SECTION

Section 01450**TESTING LABORATORY SERVICES****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Testing Laboratory Services and Contractor responsibilities related to those services.
- B References to Technical Specifications:
 - 1. Section 01350 – Submittals
- C Referenced Standards:
 - 1. American Society for Testing and Materials (ASTM)
 - a. ASTM D 3740, “Practice for Evaluation of Agencies Engaged in Testing and/or Inspection of Soil and Rock as Used in Engineering Design and Construction”
 - b. ASTM E 329, “Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction”

1.02 SELECTION AND PAYMENT

- A Owner will select, employ, and pay for services of an independent testing laboratory to perform inspection and testing identified in individual Technical Specifications.
- B Employment of testing laboratory shall not relieve Contractor of obligation to perform work in accordance with requirements of Contract Documents.
- C Owner or designated representative shall schedule and monitor testing as required to provide timely results and to avoid delay to the Work.
- D Contractor shall be responsible for paying for services of commercial testing laboratory, with prior approval of Owner, to perform the following:
 - 1. Pipe diameter deflection tests on all flexible and semi-rigid sanitary sewer collection system pipe installation
 - 2. Laboratory services required to establish mix design proposed for use for Portland cement concrete, asphaltic concrete mixtures and other material mixes requiring control by testing laboratory when required because of change in source of materials or other conditions not caused by Owner.
 - 3. Tests required to establish optimum moisture of earth and base materials and to determine required compactive effort to meet density requirements.
 - 4. Cores to test for thickness.
 - 5. Testing and inspection performed for the Contractor’s convenience.
 - 6. Retesting and repetitions of laboratory services when initial tests indicate work does not comply with requirements of Contract Documents.

1.03 LABORATORY REPORTS

- A The Engineer will receive 1 copy, the Project Manager will receive 2 copies, and the Contractor will receive 2 copies of Laboratory Reports from the testing laboratory. One of the Contractor's copies shall remain at the Project Site for duration of Project. Test results which indicate non-conformance shall be transmitted immediately via fax from the testing laboratory to the Contractor and Project Manager.

1.04 LIMITS ON TESTING LABORATORY AUTHORITY

- A Laboratory may not release, revoke, alter, or enlarge on requirements of Contract Documents.
- B Laboratory may not approve or accept any portion of the Work.
- C Laboratory may not assume any duties of Contractor.
- D Laboratory has no authority to stop the Work.

1.05 CONTRACTOR RESPONSIBILITIES

- A Notify Project Manager and laboratory 24 hours prior to expected time for operations requiring inspection and testing services. Notify Engineer if specification section requires the presence of the Engineer.
- B Cooperate with laboratory personnel in collecting samples to be tested or collected on Project Site.
- C Provide access to the Work and to manufacturer's facilities.
- D Provide samples to laboratory in advance of their intended use to allow thorough examination and testing.
- E Provide incidental labor and facilities for access to the Work to be tested; to obtain and handle samples at the site or at source of products to be tested; and to facilitate tests and inspections including storage and curing of test samples.
- F Arrange with laboratory and pay for:
1. Retesting required for failed tests.
 2. Retesting for nonconforming Work.
 3. Additional sampling and tests requested by Contractor for his own purposes.

2.0 PRODUCTS - Not Used**3.0 EXECUTION**

3.01 CONDUCTING TESTING

- A Laboratory sampling and testing shall conform to ASTM D 3740 and ASTM E 329, as well as other test standards specified in individual Technical Specifications.

END OF SECTION

Section 01500

TEMPORARY FACILITIES AND CONTROLS

1.0 GENERAL

1.01 SECTION INCLUDES

A Temporary facilities and the necessary controls for the Work including utilities, telephone, sanitary facilities, field office, storage sheds and building, safety requirements, first aid equipment, fire protection, security measures, protection of the Work and property, access roads and parking, environmental controls, disposal of trash, debris, and excavated material, pest and rodent control, water runoff and erosion control.

B References to Technical Specifications:

Section 00200 – Instructions to Bidders

Section 01100 – Summary of Work

Section 01350 – Submittals

Section 01566 – Source Controls for Erosion & Sedimentation

Section 01100 – Summary of Work

Section 01600 – Material & Equipment

Section 01570 – Trench Safety System

Section 01555 – Traffic Control & Regulation

Section 01720 – Field Surveying

Section 01563 – Tree & Plant Protection

Section 01564 – Control of Ground Water & Surface Water

Section 13730- Computer Equipment

C Referenced Standards:

Occupational Safety and Health Administration (OSHA)

National Fire Protection Association (NFPA)

Code of Ordinances, City of Baytown, Texas

D Definitions:

Underground Structures - sewer, water, gas, and other piping, and manholes, chambers, electrical and signal conduits, tunnels, and other existing subsurface installations located within or adjacent to the limits of the Work.

Surface Structures – existing buildings, structures and other constructed installations above the ground surface. Included with such structures are their foundations or any extension below the surface. Surface structures include, but are

not limited to buildings, tanks, walls, bridges, roads, dams, channels, open drainage, piping, poles, wires, posts, signs, markers, curbs, walks, guard cables, fencing, and other facilities that are visible above the ground surface.

1.02 MEASUREMENT AND PAYMENT

- A Unless indicated as a Bid Item, no separate payment will be made for Work performed under this Section. Include cost in Bid Items for which this Work is a component.

1.03 SUBMITTALS

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.

1.04 CONTRACTOR'S RESPONSIBILITY

- A The facilities and controls specified in this Section are considered minimum for the Work. The Contractor may provide additional facilities and controls for the proper execution of the Work and to meet Contractor's responsibilities for protection of persons and property.
- B Comply with applicable requirements specified in other Technical Specifications. Maintain and operate temporary facilities and systems to assure continuous service. Modify and extend systems as Work progress requires. Completely remove temporary materials and equipment when their use is no longer required. Restore existing facilities used for temporary services to specified or to original condition.

1.05 TEMPORARY UTILITIES

- A Temporary Service
Make arrangements with utility service companies for such temporary services as are necessary to construct the work and manage the site.
Abide by rules and regulations of the utility service companies or authorities having jurisdiction.
Be responsible for utility service costs until the Work is Substantially Complete. Included are fuel, power, light, heat, and other utility services necessary for execution, completion, testing, and initial operation of the Work.
- B Water
Provide water required for and in connection with Work to be performed and for specified tests of piping, equipment, devices, or for other use as required for proper completion of the Work.

For water to be drawn from public water supply, obtain special permit or license and meter from the proper City officials. For facilities under construction, establish a water/sewer billing account with City's Utility Billing Department. A deposit based on rates established by latest ordinance will be required.

For water drawn from fire hydrants, apply for and receive a construction water meter from City' Public Works Department. Identify specific location for construction water meter installation. Once installed, water meter may not be moved without notification of Public Works Department. Install backflow preventer on fire hydrant supply if not included in City provided meter.

Provide and maintain an adequate supply of potable water for domestic consumption by Contractor personnel.

C Electricity and Lighting

1 Provide temporary electric power service in Contractor's name, as required for the prosecution of the Work, including testing of Work. Provide power for lighting, operation of the Contractor's equipment, or for any other use by Contractor or as necessary to maintain any of Owner's on-going operations as may continue on the site during any scheduled shutdown. Minimum lighting level shall be 5 foot-candles for open areas; 10 foot-candles for stairs and shops.

2 Provide permanent electric power service, in the Contractor's name, to the work or site as and when required by the schedule of the work to achieve Substantial Completion or Partial Substantial Completion. Contractor to establish service billing in its name and transfer service and billing to the Owner upon acceptance of the work as Substantially Complete and suitable for beneficial occupancy by the Owner.

D Natural Gas

Provide and pay for natural gas service to the work as and when required by the schedule to achieve Substantial Completion. Contractor to establish service billing in its name and transfer service and billing to the Owner upon acceptance of the work as Substantially Complete and suitable for beneficial occupancy by the Owner.

E Temporary Heat and Ventilation

Provide temporary heat as necessary for protection or completion of the Work.

Provide temporary heat and ventilation to assure safe working conditions; maintain enclosed areas at a minimum of 50 degrees F.

F Telephone

Provide emergency telephone service at the Project Site for use by Contractor personnel and others performing work or furnishing services.

G Sanitary Facilities

Provide and maintain sanitary facilities for persons on the Project Site, in compliance with federal, state, and local regulations. Locate toilets on the Project Site near the work and secluded from view insofar as possible. Keep toilets clean and supplied throughout the course of the Work.

Enforce the use of sanitary facilities by construction personnel at the Project Site. Such facilities shall be enclosed. Pit-type toilets will not be permitted. No discharge will be allowed from these facilities. Collect and store sewage and waste so as not to cause a nuisance or health problem; have sewage and waste hauled off-site and properly disposed in accordance with local regulations.

Control areas where sanitary facilities are located in conformance with Section 01566 – Source Controls for Erosion & Sedimentation.

1.06 FIELD OFFICE

- A **Provision of a Field Office and other specific temporary facilities as required in paragraph B below UNLESS otherwise stated in Section 00800 - Special Conditions of the Agreement, or Section 01100 – Summary of Work.** Provide for transportation, move-in, set-up, tie-down and, when project is complete, removal and move-out. The Contractor shall confirm location of office and other temporary facilities with Owner's Representative at Pre-Construction Meeting prior to delivery and set up. Location of temporary facilities shall be approved by the Owner's Representative by way of the submittal process.
- B. At a minimum, the Contractor's field office shall provide for, contain or serve to: provide a secured space for project administrative operations, periodic progress meetings, on-site storage for project files and plans, office space for CONTRACTOR's field supervisory personnel and provide a separate securable office space for OWNER's Representative including: meeting table and chairs, a single two drawer filing cabinet, a built-in drawing table and plan holders. Provide electric lighting and HVAC to the mobile office.
1. Field Office shall provide for, at a minimum, a high speed internet connection for use by Owner's Representative or Construction Manager as controlled by Paragraph A above.

1.07 STORAGE OF MATERIALS

- A Provide for storage of materials under the provisions of Section 01600 – Material & Equipment.

1.08 SAFETY REQUIREMENTS

- A Contractor shall prepare, submit and follow a Safety Program that complies with federal, state, and local safety codes, statutes, and practices. Include in the Safety Program documented response to excavation, embankment, and trench safety requirements as specified in Section 01570 – Trench Safety System.
- B Conduct operations in strict accord with applicable federal, state and local safety codes and statutes and with good construction practice. The Contractor is fully

responsible and obligated to establish and maintain procedures for safety of all work, personnel and equipment involved in the Work.

- C Observe and comply with Texas Occupational Safety Act (Art. 5182a, V.C.S.) and with all safety and health standards promulgated by Secretary of Labor under Section 107 of Contract Work Hours and Standards Act, published in OSHA Standards - 29 CFR, Part 1926, and adopted by Secretary of Labor under the Williams-Steiger Occupational Safety and Health Act of 1970, and to any other legislation enacted for safety and health of Contractor employees. Such safety and health standards apply to subcontractors and their employees as well as to the Contractor and its employees.
- D Observance of and compliance with the regulations shall be solely and without qualification the responsibility of the Contractor without reliance or superintendence of or direction by the Engineer or the Engineer's representative. Immediately advise the Engineer of investigation or inspection by Federal Safety and Health inspectors of the Contractor or subcontractor's work or place of work on the Project Site under this Contract, and after such investigation or inspection, advise the Engineer of the results. Submit one copy of accident reports to Engineer within ten (10) days of occurrence.
- E Protect areas occupied by workmen using the best available devices for detection of lethal and combustible gases. Test such devices frequently to assure their functional capability. Constantly observe infiltration of liquids into the Work area for visual or odor evidence of contamination. Take immediate and appropriate steps to seal off entry of contaminated liquids to the Work area.
- F Safety measures, including but not limited to safety personnel, first-aid equipment, ventilating equipment and safety equipment, in the Plans and Technical Specifications are obligations of the Contractor.
- G Maintain required coordination with the local Police and Fire Departments during the entire period covered by the Contract.

1.09 FIRST AID EQUIPMENT

- A Provide a first aid kit throughout the construction period. List telephone numbers for physicians, hospitals, and ambulance services in each first aid kit.
- B Have at least one person thoroughly trained in first aid procedures present on the Project Site whenever work is in progress.

1.10 FIRE PROTECTION

- A Fire Protection Standards.
Conform to specified fire protection and prevention requirements as well as those that may be established by Federal, State, or local governmental agencies.

- B. Comply with all applicable provisions of NFPA Standard No. 241, Safeguarding Building Construction and Demolition Operations.
- Provide portable fire extinguishers, rated not less than 2A or 5B in accordance with NFPA Standard No. 10, Portable Fire Extinguishers, for each temporary building, and for every 3000 square feet of floor area of facilities under construction.
- Locate portable fire extinguishers within 50 feet maximum from any point on the Project Site.
- C. Fire Prevention and Safety Measures.
- Prohibit smoking in hazardous areas. Post suitable warning signs in areas that are continuously or intermittently hazardous.
- Use metal safety containers for storage and handling of flammable and combustible liquids.
- Do not store flammable or combustible liquids in or near stairways or exits.
- Maintain clear exits from all points within a structure.

1.11 SECURITY MEASURES

- A. Protect all materials, equipment, and property associated with the Work from loss, theft, damage, and vandalism. Contractor's duty to protect property includes Owner's property.
- B. If existing fencing or barriers are breached or removed for purposes of construction, provide and maintain temporary security fencing equal to existing as approved by Owner's Representative.

1.12 PROTECTION OF PUBLIC UTILITIES

- A. Prevent damage to existing public utilities during construction. These utilities are shown on the Plans at their approximate locations. Give owners of these utilities at least 48 hours notice before commencing Work in the area, for locating the utilities during construction, and for making adjustments or relocation of the utilities when they conflict with the proposed Work.

1.13 PROTECTION OF PEOPLE AND PROPERTY

- A. Preventive Actions.
- Take precautions, provide programs, and take actions necessary to protect the Work and public and private property from damage.
- Take action to prevent damage, injury or loss, including, but not limited to, the following:
- a. Store apparatus, materials, supplies, and equipment in an orderly, safe manner that will not unduly interfere with progress of the Work or the Work of any other contractor, any utility service company, or the Owner's operations.

- b. Provide suitable storage for materials that are subject to damage by exposure to weather, theft, breakage, or otherwise.
- c. Place upon the Work or any part thereof only such loads as are consistent with the safety of that portion of the Work.
- d. Frequently clean up refuse, rubbish, scrap materials, and debris caused by construction operations, keeping the Work safe and orderly.
- e. Provide safe barricades and guard rails around openings, for scaffolding, for temporary stairs and ramps, around excavations, elevated walkways, and other hazardous areas.

Obtain written consent from proper parties before entering or occupying with workers, tools, materials or equipment, privately owned land except on easements provided for construction.

Assume full responsibility for the preservation of public and private property on or adjacent to the site. If any direct or indirect damage is done by or on account of any act, omission, neglect, or misconduct in execution of the Work by the Contractor, it shall be restored by the Contractor to a condition equal to or better than that existing before the damage was done.

B Barricades and Warning Signals.

Where Work is performed on or adjacent to any roadway, right-of-way, or public place, furnish and erect barricades, fences, lights, warning signs, and danger signals; provide watchmen; and take other precautionary measures for the protection of persons or property and protection of the Work. Conform to Section 01555 – Traffic Control & Regulation.

C Preserving Control Points

Maintain permanent benchmarks, public or private elevation or property demarcation and control monumentation, or other reference points. Unless otherwise directed in writing, replace at no cost to the Owner, those monuments, property corners or other permanent demarcations that are damaged or destroyed in accordance with Section 01720 – Field Surveying.

D Tree and Plant Protection.

Protect trees, shrubs, lawns, outside of grading limits and within the grading limits as designated on the Plans, and in accordance with requirements of Section 01563 – Tree & Plant Protection.

E Protection of Underground and Surface Structures

Known underground structures, including water, sewer, electric, and telephone services are shown on the Plans in accordance with the best information available, but is not guaranteed to be correct or complete. Contractor is responsible for making Locate Calls.

Explore ahead of trenching and excavation work and uncover obstructing underground structures sufficiently to determine their location, to prevent damage

to them and to prevent interruption of utility services. Restore to original condition damages to underground structure at no additional cost to the Owner.

Immediately notify the agency or company owning any existing utility which is damaged, broken, or disturbed. Obtain approval from the Engineer and agency for any repairs or relocations, either temporary or permanent.

Necessary changes in location of the Work may be made by the Engineer to avoid unanticipated underground structures.

If permanent relocation of an underground structure or other subsurface installations is required and not otherwise provided for in the Contract Documents, the Engineer will direct Contractor in writing to perform the Work, which shall be paid for under the provisions for changes in the Contract Price as described in Section 00700 – General Conditions of Agreement.

Support in place and protect from direct or indirect injury to underground and surface structures located within or adjacent to the limits of the Work. Install such supports carefully and as required by the party owning or controlling such structure. Before installing structure supports, Contractor shall satisfy the Engineer that the methods and procedures to be used have been approved by the owner of the structure.

Avoid moving or in any way changing the property of public utilities or private service corporations without prior written consent of a responsible official of that service or public utility. Representatives of these utilities reserve the right to enter within the limits of this project for the purpose of maintaining their properties, or of making such changes or repairs to their property that may be considered necessary by performance of this Contract.

Notify the owners and/or operators of utilities and pipelines of the nature of construction operations to be performed and the date or dates on which those operations will be performed. When construction operations are required in the immediate vicinity of existing structures, pipelines, or utilities, give a minimum of five (5) working days advance notice. Probe and flag the location of underground utilities prior to commencement of excavation. Keep flags in place until construction operations reach and uncover the utility.

Assume risks attending the presence or proximity of underground and surface structures within or adjacent to the limits to the Work including but not limited to damage and expense for direct or indirect injury caused by the Work to any structure. Immediately repair damage caused, to the satisfaction of the owner of the damaged structure.

1.14 PROTECTION OF THE WORK

Provide protection of installed products to prevent damage from subsequent operations.

Remove protection facilities when no longer needed, prior to completion of the Work.

Control traffic to prevent damage to equipment, materials, and surfaces.

1.15 ROADS AND PARKING

- A Prevent interference with traffic and Owner operations on existing roads.
- B Minimize use of existing streets and driveways by construction traffic.
- C Control traffic to prevent damage to equipment, materials, and surfaces.
- D Construct and maintain temporary detours, ramps, and roads to provide for normal public traffic flow when use of public roads or streets is closed by necessities of the Work.
- E Provide mats or other means to prevent overloading or damage to existing roadways from tracked equipment or exceptionally large or heavy trucks or equipment
- F Designate temporary parking areas to accommodate construction personnel. When site space is not adequate, provide additional off-site parking. Locate as approved by Engineer.
- G Do not allow heavy vehicles or construction equipment unnecessarily in existing parking areas.

1.16 ENVIRONMENTAL CONTROLS

- A Provide and maintain methods, equipment, and temporary construction as necessary for controls over environmental conditions at the construction site and adjacent areas.
- B Comply with statutes, regulations, and ordinances which relate to the proposed Work for the prevention of environmental pollution and preservation of natural resources, including but not limited to the National Environmental Policy Act of 1969, PL 91-190, Executive Order 11514.
- C Provide, install and maintain storm water runoff control including but not limited to temporary entrance, silt fencing, etc. as specified in Contract Documents.
- D Recognize and adhere to the environmental requirements of the Project. Disturbed areas shall be strictly limited to boundaries established by the Contract Documents. Burning of rubbish, debris or waste materials is not permitted.

1.17 POLLUTION CONTROL

- A Provide methods, means, and facilities required to prevent contamination of soil, water or atmosphere by discharge of noxious substances from construction operations.
- B Provide equipment and personnel to perform emergency measures required to contain any spillage, and to remove contaminated soils or liquids. Excavate and

dispose of any contaminated earth off-site, and replace with suitable compacted fill and topsoil.

- C Take special measures to prevent harmful substances from entering receiving streams or storm water conveyance systems in conformance with TPDES requirements and Section 01566 – Source Controls for Erosion & Sedimentation.
- D Provide systems for control of atmospheric pollutants.
Prevent toxic concentrations of chemicals.
Prevent harmful dispersal of pollutants into the atmosphere.
- E Use equipment during construction that conforms to current federal, state, and local laws and regulations.

1.18 PEST AND RODENT CONTROL

- A Provide rodent and pest control as necessary to prevent infestation of Project Site.
- B Employ methods and use materials which will not adversely affect conditions at the Project Site or adjoining properties.

1.19 NOISE CONTROL

- A Provide vehicles, equipment, and construction activities that minimize noise to the greatest degree practicable. Noise levels shall conform to OSHA Standards - 29 CFR and in no case will noise levels be permitted which create a nuisance in the surrounding neighborhoods.
- B Conduct construction operations during daylight hours from 7:30 a.m. to 6:00 p.m. except as approved by Engineer.

C Comply with Chapter 19 NOISE, Codes of Ordinances, City of Baytown, Texas.

1.20 DUST CONTROL

- A Control objectionable dust caused by operation of vehicles and equipment under the provisions of Section 01566 – Source Controls for Erosion & Sedimentation.

1.21 WATER RUNOFF AND EROSION CONTROL

- A Provide methods to control surface water, runoff, subsurface water, and water pumped from excavations and structures to prevent damage to the Work, the Project Site, or adjoining properties in accordance with Section 01564 – Control of Ground Water & Surface Water and Section 01566 – Source Controls for Erosion & Sedimentation.
- B Inspect earthwork periodically to detect any evidence of the start of erosion. Apply corrective measures as required to control erosion.

2.0 PRODUCTS - Not Used

3.0 EXECUTION - Not Used

END OF SECTION

Section 01505**MOBILIZATION****1.0 GENERAL****1.1 SECTION INCLUDES**

A Mobilization of construction equipment and facilities onto the Work.

B Referenced Standards:

1. Texas Department of Transportation (TxDOT)
2. Texas Manual on Uniform Traffic Control Devices (Texas MUTCD)

1.2 MEASUREMENT AND PAYMENT

A. Payment for Mobilization is on a Lump Sum basis and shall not exceed three percent (3%) of the total bid price.

B. Payment for 50% of the Mobilization lump sum bid item may be included in the first monthly Application for Payment. Payment is subject to the receipt and approval by Engineer of the following items, as applicable:

1. Schedule of Values (Section 01350 – Submittals)
2. Trench Safety Program (Section 01570 – Trench Safety System)
3. Construction Schedule (Section 01350 – Submittals)
4. Pre-construction Photographs (Section 01380 – Construction Photographs)
5. Installation and acceptance of Project Identification Sign(s) (Section 01580 – Project Identification Signs)
6. Installation and acceptance of Field Office (Section 01500 – Temporary Facilities and Controls)
7. Installation and acceptance of TPDES requirements (Section 01565 - TPDES Requirements)

C. Payment for 25% of the Mobilization lump sum bid item may be included in the second monthly Application for Payment. Payment is subject to the receipt and approval by Engineer of the following items, as applicable:

1. Installation of High Speed Internet Access (Section 01500 – Temporary Facilities and Controls)

D. Payment for 15% of the Mobilization lump sum bid item may be included in the third monthly Application for Payment.

E. Payment for the remaining 10% of the Mobilization lump sum bid item may be included in the fourth monthly Application for Payment.

F. For contracts with duration of less than 120 days, payment for the remaining 50% of the Mobilization lump sum bid item may be included in the second monthly Application for Payment. Payment is subject to the receipt and approval by Engineer of the items listed in B. and C. above, as applicable.

- G. Mobilization payments will be subject to Retainage as stipulated in Section 00700 General Conditions of Agreement.

2.0 PRODUCTS

2.1 PROJECT IDENTIFICATION SIGNS

- A. Provide specified number of project identification sign(s) per Section 01580. The name, address and contact information of the general contractor for the project shall be shown on the sign per Section 01580 and the attached exhibit.

3.0 EXECUTION

3.1 PLACEMENT OF PROJECT IDENTIFICATION SIGNS

- A. Place a Project Identification Sign as described in Section 01580, part 1.03,D visible to passing traffic or as directed by Engineer.

END OF SECTION

Section 01550**STABILIZED CONSTRUCTION EXITS****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Installation of erosion and sediment control for Stabilized Construction Exits used during construction and until final development of the Project site.
- B References to Technical Specifications:
 - 1. Section 01350 – Submittals
 - 2. Section 01562 – Waste Material Disposal
 - 3. Section 01565 – TPDES Requirements
 - 4. Section 01566 – Source Controls for Erosion & Sedimentation
- C Referenced Standards:
 - 1. American Society of Testing and Materials (ASTM)
 - a. ASTM D 4632, “Standard Test Method for Grab Breaking Load and Elongation of Geotextiles”

1.02 MEASUREMENT AND PAYMENT

- A Unless indicated as a Bid Item, no separate payment will be made for Work performed under this Section. Include cost in Bid Items for which this Work is a component.

1.03 SUBMITTALS

- A Make Submittals required in this Section under the provisions of Section 01350 – Submittals.
- B Manufacturer’s catalog sheets and other product data on Geotextile fabric.
- C Sieve analysis of aggregates conforming to requirements in this Section, 2.02 “Course Aggregates”.

2.0 PRODUCTS**2.01 GEOTEXTILE FABRIC**

- A Provide woven or non-woven geotextile fabric made of either polypropylene, polyethylene, ethylene, or polyamide material.
- B By ASTM D 4632, geotextile fabric shall have a minimum grab strength of 270 psi any principal direction, and the equivalent opening size between 50 and 140.
- C Both the geotextile and threads shall be resistant to chemical attack, mildew, and rot and shall contain ultraviolet ray inhibitors and stabilizers to provide a minimum of 6 months of expected usable life at a temperature range of 0°F to 120°F.

- D Representative Manufacturers: Mirafi, Inc., Or-Equal.

2.02 COARSE AGGREGATES

- A Coarse aggregate shall consist of crushed stone, gravel, concrete, crushed blast furnace slag, or a combination of these materials. Aggregate shall be composed of clean, hard, durable materials free from adherent coatings, salt, alkali, dirt, clay, loam, shale, soft or flaky materials, or organic and injurious matter.
- B Course aggregates shall be open graded with a size 3” to 6”.

3.0 EXECUTION

3.01 PREPARATION AND INSTALLATION

- A The Contractor shall provide stabilized construction exits at the construction, staging, parking, storage, and disposal areas to keep the street clean of mud carried by construction vehicle and equipment. Such erosion and sediment controls shall be constructed in accordance with the requirements shown on the Plans and specified in this Section.
- B Erosion and sediment control measures shall be in place prior to the start of any Work that exposes the soil, other than as specifically directed by the Engineer to allow soil testing and surveying.
- C Maintain existing erosion and sediment control systems located within the Project Site until acceptance of the Work or until directed by the Engineer to remove and discard the existing system. Maintenance shall be performed routinely to remove soil build up or, as required by the Engineer.
- D Regularly inspect and repair or replace components of stabilized construction exits. Unless otherwise directed, maintain them until the Work is accepted by the Owner. Remove stabilized construction exits promptly when directed by the Engineer. Discard removed materials in accordance with Section 01562 – Waste Material Disposal.
- E Equipment and vehicles shall be prohibited by the Contractor from maneuvering on areas outside of dedicated rights-of-way and easements for construction. Damage caused by construction traffic to erosion and sediment control systems, including vegetative systems shall be repaired immediately.
- F Conduct all construction operations under this Contract in conformance with the erosion control practices described in the Section 01566 - Source Controls for Erosion & Sedimentation and Section 01565 TPDES Requirements.

3.02 CONSTRUCTION METHODS

- A Provide stabilized access roads, subdivision roads, parking areas, and other on-site vehicle transportation routes where shown on Plans.

- B Provide stabilized construction exits, and truck washing areas when approved by Engineer, of the sizes and locations where shown on Plans or as specified in this Section.
- C Vehicles leaving construction areas shall have their tires cleaned to remove sediment prior to entrance onto public right-of-way. When washing is needed to remove sediment, Contractor shall construct a truck washing area. Truck washing shall be done on stabilized areas which drain into a drainage system protected by erosion and sediment control measures.
- D Details for Stabilized Construction Exits are shown on the Plans. Construction of all other stabilized areas shall be to the same requirements. Roadway width shall be at least 14 feet for one-way traffic and 20 feet for two-way traffic and shall be sufficient for all ingress and egress. Furnish and place geotextile fabric as a permeable separator to prevent mixing of coarse aggregate with underlying soil. Exposure of geotextile fabric to the elements between laydown and cover shall be a maximum of 14 days to minimize damage potential.
- E Roads and parking areas shall be graded to provide sufficient drainage away from stabilized areas. Use sandbags, gravel, boards, or similar methods to prevent sediment from entering public right-of-way, receiving stream or storm water conveyance system.
- F The stabilized areas shall be inspected and maintained daily. Provide periodic top dressing with additional coarse aggregates to maintain the required depth. Repair and clean out damaged control measures used to trap sediment. All sediment spilled, dropped, washed, or tracked onto public right-of-way shall be removed immediately.
- G The length of the stabilized area shall be as shown on the Plans, but not less than 50 feet. The thickness shall not be less than 8 inches. The width shall not be less than full width of all points of ingress or egress.
- H Stabilization for other areas shall have the same coarse aggregate, thickness, and width requirements as the stabilized construction exit, except where shown otherwise on the Plans.
- I Stabilized area may be widened or lengthened to accommodate truck washing area when authorized by Engineer.
- J Alternative methods of construction may be utilized when shown on Plans, or when approved by the Engineer.

END OF SECTION

Section 01554**STREET SIGNS****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Materials, hardware and installation of Traffic Signs.
- B References to Technical Specifications:
 - 1. Section 01350 – Submittals
 - 2. Section 01140 – Contractor’s Use of Premises
- C Referenced Standards:
 - 1. Texas Manual on Uniform Traffic Control Devices (Texas MUTCD)

1.02 MEASUREMENT AND PAYMENT

- A Signs installed or replaced will be measured by the each sign. Signs refurbished will be measured by each sign.
- B Payment for installation of traffic signs will be on the basis of each sign installed.
- C The price is full compensation for furnishing and installing new signs and hardware. Cost of associated posts, footings, and miscellaneous mounting hardware will not be paid for directly but is to be included in the unit price bid for installation of each traffic sign.
- D Non-standard signs installed or replaced will be measured by the square foot of the sign face. Non-standard signs shall not be installed without prior approval from the City

1.03 SUBMITTALS

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.
- B Contractor shall submit a list of intended suppliers and products to be used for all signs, posts, and associated hardware. City reserves the right to request actual product samples prior to approval.

2.0 PRODUCTS**2.01 MATERIALS**

- A Comply with Texas MUTCD regulations.

- B The following ASTM Standards and documents, of the issue in effect on the date of Invitation for Bid, form a part of this specification to the extent herein.
1. ASTM B 209 Specification for Aluminum and Aluminum Alloy Sheet and Plate.
 2. ASTM D 523 Standard Method for Test for Specular Gloss
 3. ASTM D 4956 Standard Specification for Retro reflective Sheeting for Traffic Control.
 4. ASTM E 284 Standard Definitions of Terms Relating to Appearance of Materials.
 5. ASTM E 308 Computing the Colors of Objects by Using the CIE System
 6. ASTM E 810 Standard Test Method for Coefficient of Retro reflection of Retro reflective Sheeting.
 7. ASTM E 1164 Standard Practice for Obtaining Spectrophotometric Data for Object-Color Evaluation.
- C Substrate (Sign Blanks) – This shall be aluminum alloy 5052-R38. The thickness of sign shall be 0.125 inch with $\frac{3}{4}$ " radius corner.
1. Metal working – The aluminum shall be free of burrs and pits on both sides, including edges and holes, and shall be made ready for applications of sheeting.
 2. Surface preparation – The aluminum shall be thoroughly cleaned and degreased with solvent and alkaline emulsions cleaner by immersion, spray, or vapor degreasing and dried prior to application of the gold chromate sheeting coat. The aluminum shall be new and corrosion-free with holes drilled or punched, corners round to radii $\frac{3}{4}$ " and all edges smoothed prior to application of sheeting. The heavy or medium chromate coating shall conform in color and corrosion resistance to that imparted by the Alodine 1200F treatment.
 3. Size – The dimension of substrate application for regulatory, warning, and guide signs shall be as specified by the Engineer and as shown on the plans.
- D Sign Face (Background, Legends, Symbols, and Colors) – These shall be in accordance with the Standard Highway Signs Designs (SHSD) for Texas and with the Texas Manual of Uniform Traffic Control Devices (TMUTCD)
1. Street Name shall be constructed from Avery Dennison OL – 2007 Green Electronic Cuttable Film, using Highway B Series Font, 6" Upper/ Lower case, 3" Suffix for St., Dr., Ave. designations. Signs shall have a $\frac{1}{2}$ " White Border.
 - a. Tolerance for Horizontal Alignment - Letters, numerals and symbols shall be horizontally aligned to a tolerance of 1/16 inch.
 - b. Tolerance for Vertical Alignment – Letters, numerals, and symbols shall be vertically aligned to a tolerance of 1/16 inch on each letter in each line.
 2. All sign blanks shall be covered with Avery Dennison T – 7500 White Vinyl reflective sheeting.
 3. Signs requiring "No Outlet" or "Dead End" designations shall be constructed from Avery Dennison Black PC – 500 – 190 – O Vinyl, 2 $\frac{1}{4}$ "

upper case lettering. Arrow shall be 1 ¼" x 4 ¼" Long, overlaid with Avery Dennison OL – 2001 Yellow electronic Cuttable Film 5 ½" x 8".

- E Street Name Sign shall have a ¾" x ¾" City of Baytown dating sticker indicating the month and year of manufacture of each sign. Dating sticker shall be applied to the White Reflective Vinyl, covered by the Green EC film in the manufacturing process.
- F Avery Dennison is the approved manufacturer of vinyls for the City of Baytown. Any substitutions will require submission of sample materials and specifications sheets to the City Of Baytown Traffic Operations manager prior to use. Any and all components are to be match components. Uses of non-matching components are prohibited.
- G Sign Posts - Steel post shall conform to the standard specification for hot rolled carbon sheet steel, structural quality, ASTM designation A570, Grade 50. Average minimum yield strength after cold forming is 60,000 psi.
1. The location, height, size and the foundation of the sign post shall conform to the City's standard detail.
 2. The signs shall be installed using RPB412F – 12" Round Post Cap and RPB412F – 12" Cross Piece Brackets. Posts caps shall be attached to sign post using 5/16" Carriage Bolts and 5/16" Tuff Nuts. Signs are to be attached to brackets using same.
- H Warranty - The Contractor shall warrant the materials and workmanship of each sign in accordance with the maximum limits of material warranties extended by manufacturers of raw materials, subject to the conditions they specify. The retro-reflective sheeting will be considered unsatisfactory if it has deteriorated due to natural causes to the extent that: (1) the sign is ineffective for its intended purpose when viewed from a moving vehicle under normal day and night driving conditions; or (2) the coefficient of retro-reflection is less than the minimum specified for that sheeting. When sign failure occurs prior to the minimum years indicated and an inspection demonstrates that the failure is caused by materials warranted to contractor to endure at least that long, the sign will be replaced or repaired free of materials charges. When failure occurs and inspection demonstrates that such failure is due to poor workmanship, the sign will be replaced or repaired at Contractor's expense, including shipping charges.

3.0 EXECUTION

3.01 EQUIPMENT

The contractor shall provide machinery, tools, and equipment necessary for proper execution of the work.

3.02 CONSTRUCTION

- A Construction shall be high quality with no visible defects in the finished product.

Fabrication shall be in accordance with these specifications. Street name signs shall always be supplied and installed at each project intersection whether signs previously existed at the location or not.

- B The removal of existing signs shall be coordinated with the Traffic Operations Section of the Public Works Department (281-652-1900) and arrangements made for a convenient time to deliver City signs and poles. All salvaged traffic signs shall be delivered to the Traffic Operations Center located at 2123 Market Street, Baytown. All deliveries to the Traffic Operations Center requires a minimum notice of two (2) working days prior to returning or delivering any sign and/or sign related material.

3.03 RESPONSIBILITIES

- A The contractor is responsible for providing and supplying aluminum traffic signs covered with retro-reflective sheeting, applying standard legends (or special legends if shown in the plans) to the covered sign blanks, galvanized steel sign poles, pole anchors, all hardware for installing the signs and poles, and for installing traffic signs, poles and anchors as shown in the plans or call for in the contract documents, complete and ready for field installations.

3.04 CLEAN-UP AND RESTORATION

- A Perform clean-up and restoration in and around construction zone in accordance with Section 01140 – Contractor’s Use of Premises.
- B Remove equipment and devices when no longer required.
- C Repair damage caused by installation.

END OF SECTION

Section 01555**TRAFFIC CONTROL AND REGULATION****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Requirements for traffic control plans, signs, signals, control devices, flares, lights and traffic signals, as well as construction parking control, designated haul routes and bridging of trenches and excavations.
- B Requirements for and qualifications of Flaggers.
- C References to Technical Specifications:
 - 1. Section 01350 – Submittals
 - 2. Section 01140 – Contractor’s Use of Premises
- D Referenced Standards:
 - 1. Texas Manual on Uniform Traffic Control Devices (Texas MUTCD)

1.02 MEASUREMENT AND PAYMENT

- A Traffic Control and Regulation. Measurement is on a Lump Sum basis for Traffic Control and Regulation, including submittal of a traffic control plan if different from the one provided on the Plans, provision of traffic control devices, and provision of equipment and personnel as necessary to protect the Work and the public. The amount invoiced shall be determined based on the Schedule of Values submitted for traffic control and regulation.
- B Flaggers. Measurement is on a Lump Sum basis for Flaggers as required for the Work. The amount invoiced shall be determined based on the Schedule of Values submitted for Flaggers.

1.03 SUBMITTALS

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.
- B A Traffic Control Plan responsive to the Texas MUTCD and sealed by a Registered Professional Engineer is incorporated into the Plans. If the Contractor proposes to implement traffic control different than the plan provided, he shall submit a Traffic Control Plan in conformance with Texas MUTCD for approval of the Engineer.
- C For both the Traffic Control Plan and Flaggers’ use, submit Schedules of Values within 30 days following the Notice to Proceed.
- D Each week submit a daily log for Flaggers listing name, badge number, time start, time finish, and hours worked.

1.04 FLAGGERS

A Unless otherwise specified, use only Flaggers who are off-duty, regularly employed, uniformed Peace Officers.

B Flaggers are required at the following locations:

1. Where multi-lane vehicular traffic must be diverted into single-lane vehicular traffic.
2. Where vehicular traffic must change lanes abruptly.
3. Where construction equipment either enters or crosses vehicular traffic lanes and walks.
4. Where construction equipment may intermittently encroach on vehicular traffic lanes and unprotected walks and cross-walks.
5. Where construction activities might affect public safety and convenience.
6. Where traffic regulation is needed due to rerouting of vehicular traffic around the work site.
7. When requested by Owner.

C The use of Flaggers is for the purpose of assisting in the regulation of traffic flow and movement, and does not in any way relieve the contractor of full responsibility for taking such other steps and provide such other Flaggers or personnel as the Contractor may deem necessary to protect the work and the public, and does not in any way relieve the Contractor of his responsibility for any damage for which he would otherwise be liable.

Flaggers shall be used and maintained at such points for such periods of time as may be required to provide for the public safety and convenience of travel.

2.0 PRODUCTS**2.01 SIGNS, SIGNALS, AND DEVICES**

A Comply with Texas MUTCD regulations.

B Traffic Cones and Drums, Flares and Lights: As approved by agencies having jurisdiction.

3.0 EXECUTION**3.01 PUBLIC ROADS**

A Abide by laws and regulations of governing authorities when using public roads. If the Contractor's work requires that public roads be temporarily impeded or closed, approvals shall be obtained from governing authorities and permits paid for before starting any work. Coordinate activities with the Engineer.

B Contractor shall maintain at all times a 10-foot-wide all-weather lane adjacent to work areas which shall be kept free of construction equipment and debris and shall be for the use of emergency vehicles, or as otherwise provided in the Traffic Control Plan.

- C Contractor shall not obstruct the normal flow of traffic from 7:00 a.m. to 9:00 a.m. and 4:00 p.m. to 6:00 p.m. on designated major arterials or as directed by the Engineer.
- D Contractor shall maintain local driveway access to residential and commercial properties adjacent to work areas at all times.
- E Cleanliness of Surrounding Streets:
 - 1. Keep streets used for entering or leaving the job area free of excavated material, debris, and any foreign material resulting from construction operations. Leave the area broom-clean or its equivalent at the end of the work day.
- F Control vehicular parking to prevent interference with public traffic and parking, and access by emergency vehicles.
- G Monitor parking of construction personnel's vehicles in existing facilities. Maintain vehicular access to and through parking areas.
- H Prevent parking on or adjacent to access roads or in non-designated areas.

3.02 FLARES AND LIGHTS

- A Provide flares and lights during hours of low visibility to delineate traffic lanes and to guide traffic.

3.03 HAUL ROUTES

- A Utilize haul routes designated by Owner or shown on the Plans for construction traffic.
- B Confine construction traffic to designate hauls routes.
- C Provide traffic control at critical areas of haul routes to regulate traffic and minimize interference with public traffic.
- D Contractor shall be responsible for any damage caused by vehicles utilizing haul routes.

3.04 TRAFFIC SIGNS AND SIGNALS

- A Install traffic control devices at approaches to the site and on site, at crossroads, detours, parking areas, and elsewhere as needed to direct construction and affected public traffic.
- B Relocate traffic signs and control devices as Work progresses to maintain effective traffic control.

3.05 BRIDGING TRENCHES AND EXCAVATIONS

- A Whenever necessary, bridge trenches and excavation to permit an unobstructed flow of traffic.

- B Secure bridging against displacement by using adjustable cleats, angles, bolts or other devices whenever bridge is installed:
 - 1. On an existing bus route;
 - 2. When more than five percent of daily traffic is comprised of commercial or truck traffic;
 - 3. When more than two separate plates are used for the bridge; or
 - 4. When bridge is to be used for more than five consecutive days.
- C Install bridging to operate with minimum noise.
- D Adequately shore the trench or excavation to support bridge and traffic.
- E Extend steel plates used for bridging a minimum of one foot beyond edges of trench or excavation. Use temporary paving materials (premix) to feather edges of plates to minimize wheel impact on secured bridging.
- F Use steel plates of sufficient thickness to support H-20 loading, truck or lane, that produces maximum stress.

3.06 CLEAN-UP AND RESTORATION

- A Perform clean-up and restoration in and around construction zone in accordance with Section 01140 – Contractor’s Use of Premises.
- B Remove equipment and devices when no longer required.
- C Repair damage caused by installation.
- D Remove post settings to a depth of 2 feet.

END OF SECTION

Section 01560**FILTER FABRIC FENCE****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Installation of filter fabric fence to control erosion and contain sediments and pollutants from overland flow. Filter fabric fence is not for use in channelized flow areas. Filter fabric fence may be reinforced.
- B References to Technical Specifications:
 - 1. Section 01200 – Measurement & Payment Procedures
 - 2. Section 01350 – Submittals
 - 3. Section 01562 – Waste Material Disposal
 - 4. Section 01566 – Source Controls for Erosion & Sedimentation
- C Referenced Standards:
 - 1. American Society for Testing and Materials (ASTM)
 - a. ASTM D 3786, “Standard Test Method for Hydraulic Bursting strength of Textile Fabrics”
 - b. ASTM D 4632, “Standard Test Method for Grab Breaking Load and Elongation of Geotextiles”

1.02 MEASUREMENT AND PAYMENT

- A Filter fabric fence will be measured by the linear foot between the limits of the beginning and ending of wooden stakes.
- B Payment for filter fabric fence will include and be full compensation for all labor, equipment, materials, supervision, and all incidental expenses for construction of these items, complete in place, including, but not limited to protection of trees, maintenance requirements, repair and replacement of damaged sections, removal of sediment deposits, and removal of erosion and sediment control systems at the end of construction.
- C Refer to Section 01200 – Measurement & Payment Procedures.

1.03 SUBMITTALS

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.
- B Manufacturer’s catalog sheets and other Product Data on geotextile fabric.

2.0 PRODUCTS**2.01 FILTER FABRIC**

- A Provide woven or nonwoven geotextile filter fabric made of either polypropylene, polyethylene, ethylene, or polyamide material.
- B By ASTM D 4632, geotextile fabric shall have grab strength of 100 psi in any principal direction; a Mullen burst strength exceeding 200psi by ASTM - D3786, and the equivalent opening size between 50 and 140.
- C Filter fabric shall contain ultraviolet inhibitors and stabilizers to provide a minimum of 6 months of expected usable construction life at a temperature range of 0 degrees F to 120 degrees F.
- D Representative Manufacturer: Mirafi, Inc., or equal.

3.0 EXECUTION**3.01 PREPARATION AND INSTALLATION**

- A Provide erosion and sediment control systems at the locations shown on Plans. Such systems shall be of the type indicated and shall be constructed in accordance with the requirements shown on the Plans and specified in this Section.
- B Erosion and sediment control measures shall be in place prior to the start of any Work that exposes the soil, other than as specifically directed by the Engineer to allow soil testing and surveying.
- C Regularly inspect and repair or replace damaged components of filter fabric fence as specified in this Section, 3.02F. Unless otherwise directed, maintain the erosion and sediment control systems until the Work is accepted by the Owner. Remove erosion and sediment control systems promptly when directed by the Engineer. Discard removed materials in accordance with Section 01562 – Waste Material Disposal.
- D Conduct all construction operations under this Contract in conformance with the erosion control practices described in Section 01566 – Source Controls for Erosion & Sedimentation.

3.02 CONSTRUCTION METHODS

- A Provide filter fabric fence systems in accordance with the Plan detail for Filter fabric fence. Filter fabric fence shall be installed in such a manner that surface runoff will percolate through the system in sheet flow fashion and allow sediment to be retained and accumulated.
- B Attach the filter fabric to 2-inch by 2-inch wooden stakes spaced a maximum of 3 feet apart and embedded a minimum of 8 inches. If filter fabric is factory preassembled

with support netting, then maximum spacing allowable is 8 feet. Install wooden stakes at a slight angle toward the source of anticipated runoff.

- C Trench in the toe of the filter fabric fence with a spade or mechanical trencher as shown on the Plans. Lay filter fabric along the edges of the trench. Backfill and compact trench.
- D Filter fabric fence shall have a minimum height of 18 inches and a maximum height of 36 inches above natural ground.
- E Provide the filter fabric in continuous rolls and cut to the length of the fence to minimize the use of joints. When joints are necessary, splice the Fabric together only at a support post with a minimum 6-inch overlap and seal securely.
- F Inspect filter fabric fence systems after each rainfall, daily during periods of prolonged rainfall, and at a minimum once each week. Repair or replace damaged sections immediately. Remove sediment deposits when silt reaches a depth one-third the height of the fence or 6 inches, whichever is less.

END OF SECTION

Section 01561**REINFORCED FILTER FABRIC BARRIER****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Installation of reinforced filter fabric barrier to control erosion and contain sediments and pollutants in channelized flow areas.
- B References to Technical Specifications:
 - 1. Section 01200 – Measurement & Payment Procedures
 - 2. Section 01350 – Submittals
 - 3. Section 01566 – Source Controls for Erosion & Sedimentation
- C Referenced Standards:
 - 1. American Society for Testing and Materials (ASTM)
 - a. ASTM D 3786, “Standard Test Method for Hydraulic Bursting strength of Textile Fabrics”
 - b. ASTM D 4632, Standard Test Method for Grab Breaking Load and Elongation of Geotextiles”

1.02 MEASUREMENT AND PAYMENT

- A Measurement for reinforced filter fabric barrier is on a linear foot basis between the limits of the beginning and ending fence posts, measured, accepted, and complete in place.
- B Payment for filter fabric barrier will include and be full compensation for all labor, equipment, materials, supervision, and incidental expenses for construction of these items, complete in place, including, but not limited to protection of trees, maintenance requirements, repair and replacement of damaged sections, removal of sediment deposits, and removal of erosion and sediment control systems at the end of construction..
- C Refer to Section 01200 – Measurement & Payment Procedures.

1.03 SUBMITTALS

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.
- B Manufacturer’s catalog sheets and other product data on geotextile fabric.

2.0 PRODUCTS**2.01 FILTER FABRIC**

- A Provide woven or nonwoven geotextile filter fabric made of either polypropylene, polyethylene, ethylene, or polyamide material.
- B By ASTM - D4632, geotextile fabric shall have a grab strength of 100 psi in any principal direction, a Mullen burst strength exceeding 200 psi by ASTM - D3786, and the equivalent opening size between 50 and 140.
- C Filter fabric shall contain ultraviolet inhibitors and stabilizers to provide a minimum of 6 months of expected usable construction life at a temperature range of 0 degrees F to 120 degrees F.
- D Representative Manufacturer: Mirafi, Inc., or equal.

2.02 FILTER FABRIC REINFORCEMENT

- A Provide woven galvanized steel wire fence with minimum thickness of 14 gauge and a maximum mesh spacing of 6 inches.
- B Welded wire shall be galvanized, 2-inch by 4-inch, welded wire fabric, 12 ½ gauge.

2.03 EXECUTION**2.04 PREPARATION**

- A Provide erosion and sediment control systems at the locations shown on Plans. Such systems shall be of the type indicated and shall be constructed in accordance with the requirements shown on the Plans and specified in this Section.
- B Erosion and sediment control measures shall be in place prior to the start of any Work that exposes the soil, other than as specifically directed by the Engineer to allow soil testing and surveying.
- C Regularly inspect and repair or replace damaged components of filter fabric barrier. Unless otherwise directed, maintain the erosion and sediment control systems until the Work is accepted by the Owner. Remove erosion and sediment control systems promptly when directed by the Engineer. Discard removed materials in accordance with Section 01562 – Waste Material Disposal.
- D Conduct all construction operations under this Contract in conformance with the erosion control practices described in Section 01566 – Source Controls for Erosion & Sedimentation.

2.05 INSTALLATION

- A Install reinforced filter fabric barriers for erosion and sediment control used during construction and until the final development of the Project Site. Reinforced filter fabric barriers are used to retain sedimentation in channelized flow areas.
- B Provide reinforced filter fabric barrier in accordance with the Plan detail for Reinforced Filter Fabric Barrier. Reinforced filter fabric barrier systems shall be installed in such a manner that runoff will percolate through the system and allow sediment to be retained and accumulated.
- C Trench in the toe of the reinforced filter fabric barrier with a spade or mechanical trencher as shown on the Plans. Lay filter fabric along the edges of the trench. Backfill and compact trench.
- D Reinforced filter fabric barrier shall have a height of 18 inches.
- E Securely fasten the filter fabric to the wire with tie wires.
- F Provide the filter fabric in continuous rolls and cut to the length of the fence to minimize the use of joints. When joints are necessary, splice the fabric together only at a support post with a minimum 6-inch overlap and seal securely.
- G Inspect the reinforced filter fabric barrier systems after each rainfall, daily during periods of prolonged rainfall, and at a minimum once each week. Repair or replace damaged sections immediately. Remove sediment deposits when silt reaches a depth one-third the height of the barrier or 6 inches, whichever is less.

END OF SECTION

Section 01562**WASTE MATERIAL DISPOSAL****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Disposal of waste material and salvageable material.
- B References to Technical Specifications:
 - 1. Section 01350 – Submittals
 - 2. Section 01566 – Source Controls for Erosion & Sedimentation
 - 3. Section 01600 – Materials & Equipment

1.02 MEASUREMENT AND PAYMENT

- A Unless indicated as a Bid Item, no separate payment will be made for Work performed under this Section. Include cost in Bid Items for which this Work is a component.

1.03 SUBMITTALS

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.
- B Obtain and submit applicable permits for proposed disposal sites.
- C Submit a Waste Material Disposal Plan.
- D Submit a copy of written permission from property owners, along with a description of the property, prior to disposal of excess material adjacent to the Project Site. Submit a written and signed release from property owner upon completion of disposal work. **City of Baytown requires individual fill placement permits for all fill placed within the City limits.**

1.04 WASTE MATERIAL DISPOSAL PLAN

- A Contractor shall formulate and implement a plan for the collection and disposal of waste materials on the Project Site which includes the following information:
 - 1. Schedule for collection and inspection.
 - 2. Location of trash and waste receptacles.
 - 3. Provisions for liquid waste and potential water pollutants material.
- B The plan shall comply with applicable federal, state, and local health and safety regulations and Section 01566 – Source Controls for Erosion & Sedimentation.

2.0 PRODUCTS - Not Used

3.0 EXECUTION**3.01 SALVAGEABLE MATERIAL**

- A Excavated material: When indicated on Plans, load, haul, and deposit excavated material at a location or locations outside the limits of Project Site.
- B Base, surface, and bedding material: Deliver gravel, asphaltic, or other base and surfacing material designated for salvage to the location designated by the Engineer.
- C Pipe culvert: Deliver culverts designated for salvage to Owner's storage area.
- D Other salvageable materials: Conform to requirements of individual Technical Specifications.
- E Coordinate delivery of salvageable material with Engineer.
- F When temporary, on-site storage of salvaged materials is required, comply with applicable provisions of Section 01600 – Materials & Equipment.

3.02 SEDIMENT DISPOSAL

- A Remove sediment deposits and dispose of them at the designated spoil site for the Project. If a spoil site is not designated on the Plans, dispose of sediment off site at a location not in or adjacent to a stream or floodplain.
- B Off-site disposal is the responsibility of the Contractor.
- C Sediment to be placed at the Project Site should be spread evenly throughout the designated area, compacted and stabilized. Sediment shall not be allowed to flush into a stream or drainage way.
- D If sediment has been contaminated, it shall be disposed of in accordance with existing federal, state, and local rules and regulations.

3.03 EXCESS MATERIAL, WASTE, AND EQUIPMENT

- A Vegetation, rubble, broken concrete, debris, asphaltic concrete pavement, excess soil, and other materials not designated for salvage, shall become the property of Contractor and shall be removed from the Project Site and legally disposed of.
- B Dispose of removed equipment, materials, waste and debris in a manner conforming to applicable laws and regulations
- C Excess soil may be deposited on private property adjacent to the Project Site when written permission is obtained from property owner under the provisions of this Section, 1.03D.

- D Verify the flood plain status of any proposed disposal site. Do not dispose of excavated materials in an area designated as within the 100-year Flood Hazard Area.
- E Waste materials shall be removed from the site on a daily basis, such that the site is maintained in a neat and orderly condition.
- F No materials shall be disposed in a manner to damage the Owner in any way.

END OF SECTION

Section 01563**TREE AND PLANT PROTECTION****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Tree and plant protection.
- B References to Technical Specifications: None

1.02 MEASUREMENT AND PAYMENT

- A Unless indicated as a Bid Item, no separate payment will be made for Work performed under this Section. Include cost in Bid Items for which this Work is a component.

1.03 PROJECT CONDITIONS

- A Preserve and protect existing trees and plants to remain from foliage, branch, trunk, or root damage that could result from construction operations.
- B Prevent following types of damage:
 1. Compaction of root zone by foot or vehicular traffic, or material storage.
 2. Trunk damage from equipment operations, material storage, or from nailing or bolting.
 3. Trunk and branch damage caused by ropes or guy wires or machine impacts.
 4. Root poisoning from spilled solvents, gasoline, paint, and other noxious materials.
 5. Branch damage due to improper pruning or trimming.
 6. Damage from lack of water due to:
 - a. Cutting or altering natural water migration patterns near root zones.
 - b. Failure to provide adequate watering.
 7. Damage from alteration of soil pH factor caused by depositing lime, concrete, plaster, or other base materials near roots.
 8. Cutting feeder of roots or roots larger than 1-1/2 inches in diameter.

1.04 DAMAGE ASSESSMENT

- A When trees, other than those designated for removal, are destroyed or badly damaged as a result of construction operations, remove and replace with same size, species, and variety up to and including 8 inches in trunk diameter. Trees larger than 8 inches in diameter shall be replaced with an 8-inch diameter tree of the same species and variety and total contract amount will be reduced by an amount determined from the following International Shade Tree Conference formula: $0.7854 \times D^2 \times \10.00 where D is diameter in inches of tree or shrub trunk measured 12 inches above grade.
- B All necessary tree replacements shall be as approved by Engineer/Urban Forester.

2.0 PRODUCTS

2.01 MATERIALS

- A Asphalt paint: Emulsified asphalt or other adhesive, elastic, antiseptic coating formulated for horticultural use on cut or injured plant tissue, free from kerosene and coal creosote.
- B Burlap: Suitable for use as tree wrapping.
- C Fertilizer: Liquid containing 20 percent nitrogen, 10 percent phosphorus, and 5 percent potash.
- D Temporary Barrier Fence: Plastic, bright orange color for visibility, 48 inches in height, 8.5 pounds weight minimum.

3.0 EXECUTION

3.01 PROTECTION AND MAINTENANCE OF EXISTING TREES AND SHRUBS

- A Except for trees and shrubs shown on Plans to be removed, all trees and shrubs within the Project Site area are to remain and be protected from damage.
- B For designated trees to be removed, perform the following:
 - 1. Stake right-of-way limits and identify any tree of diameter greater than 4 inches which is to be removed. Mark trees prior to felling with an X in orange paint, clearly visible, on the trunk, and at eye level.
 - 2. After marking trees give a minimum of 48-hours notice in writing to the Engineer of intent to begin felling operations.
 - 3. Trees whose trunks are only partially in the right-of-way shall be protected and preserved as described below.
- C For trees or shrubs to remain, perform the following:
 - 1. Trim trees and shrubs only as necessary.
 - a. Trees and shrubs requiring pruning for construction should also be pruned for balance as well as to maintain proper form and branching habit.
 - b. Cut limbs at branch collar. No stubs should remain on trees. Branch cuts should not gouge outer layer of tree structure or trunk.
 - 2. Use extreme care to prevent excessive damage to root systems.
 - a. Roots in construction areas will be cut smoothly with a trencher before excavation begins. Do not allow ripping of roots with a backhoe or other equipment.
 - b. Temporarily cover exposed roots with wet burlap to prevent roots from drying out.
 - c. Cover exposed roots with soil as soon as possible.
 - 3. Prevent damage or compaction of root zone (area inside dripline) by construction activities.
 - a. Do not allow scarring of trunks or limbs by equipment or other means.

- b. Do not store construction materials, vehicles, or excavated material inside dripline of trees.
- c. Do not pour liquid materials inside dripline.
- 4. Water and fertilize trees and shrubs that will remain to maintain their health during construction period.
 - a. Supplemental watering of landscaping during construction should be done once a week in months receiving average rainfall and twice a week in months receiving below average rainfall.
 - b. This watering shall consist of saturating soils at least 6 to 8 inches beneath surface.
- 5. Water areas currently being served by private sprinkler systems while systems are temporarily taken out of service to maintain health of existing landscapes.
- 6. At option of the Contractor and with the Engineer's permission, trees and shrubs to remain may be temporarily transplanted and returned to original positions under supervision of professional horticulturist.

3.02 PROTECTIVE CONTROLS

- A Protection of trees or shrubs in open area:
 - 1. Install steel drive-in fence posts in protective circle, approximately 8 feet on center, at the dripline of the leaf canopy of trees or 2 ft. around shrubs.
 - 2. Drive steel drive-in fence posts 3 feet minimum into ground, leaving 5 feet minimum above ground.
 - 3. For trees or shrubs in paved areas, use moveable posts constructed from concrete-filled steel pipe 2-1/2 inches minimum in diameter mounted in rubber auto tires filled with concrete.
 - 4. Mount plastic temporary barrier safety fence on posts.

- B Timber-wrap protection for trees in close proximity of moving or mechanical equipment and construction work:
 - 1. Wrap trunk with layer of burlap.
 - 2. Install 2 x 4's or 2 x 6's (5-foot to 6-foot lengths) vertically, spaced 3 inches to 5 inches apart around circumference of tree trunk.
 - 3. Tie in place with 12 to 9 gage steel wire.

3.03 MAINTENANCE OF NEWLY PLANTED TREES

- A Water newly planted trees adequately to maintain and support healthy plants at the time of planting.
- B The Contractor guarantees that trees planted for this Work shall remain alive and healthy at least until the end of a one-year warranty period.
 - 1. Within four weeks of notice from Owner, Contractor shall replace, at his expense, any dead trees or any trees that in the opinion of Owner, have become unhealthy or unsightly or have lost their natural shape as a result of additional growth, improper pruning or maintenance, or weather conditions.

2. When tree must be replaced, the guarantee period for that tree shall begin on date of replacement of tree, subject to the Owner's inspection, for no less than one year.
3. Straighten leaning trees and bear entire cost.
4. Dispose of trees rejected at any time by Engineer at Contractor's expense.

END OF SECTION

Section 01564

CONTROL OF GROUND WATER AND SURFACE WATER

1.0 GENERAL

1.01 SECTION INCLUDES

- A Dewatering, depressurizing, draining, and maintaining trench and structure excavations and foundation beds in dry and stable condition.
- B Protecting work against surface runoff and rising floodwaters.
- C Disposing of removed water.
- D References to Technical Specifications:
 - 1. Section 01200 – Measurement & Payment Procedures
 - 2. Section 01350 – Submittals
 - 3. Section 01570 – Trench Safety Systems
 - 4. Section 01565 – TPDES Requirements
 - 5. Section 01566 – Source Controls for Erosion & Sedimentation
- E Referenced Standards:
 - 1. Occupational Safety and Health Administration (OSHA)
 - 2. Texas Commission on Environmental Quality (TCEQ)
 - 3. Code of Ordinances, City of Baytown, Texas
 - 4. Water Well Drillers and Pump Installers Advisory Council (WWD/PI)
- F Definitions:
 - 1. Ground Water Control Systems - installations external to the excavation such as well points, eductors, or deep wells. Ground water control includes dewatering and depressurization.
 - a. Dewatering - lowering the water table and intercepting seepage which would otherwise emerge from slopes or bottoms of excavations and disposing of removed water. The intent of dewatering is to increase stability of excavated slopes; prevent dislocation of material from slopes or bottoms of excavations; reduce lateral loads on sheeting and bracing; improve excavating and hauling characteristics of excavated material; prevent failure or heaving of the bottom of excavations; and to provide suitable conditions for placement of backfill materials and construction of structures and other installations.
 - b. Depressurization - reduction in piezometric pressure within strata not controlled by dewatering alone, as required to prevent failure or heaving of excavation bottom.
 - 2. Surface Water Control - diversion and drainage of surface water runoff and rain water away from the excavation.
 - 3. Excavation Drainage - keeping excavations free of surface and seepage water.

1.02 MEASUREMENT AND PAYMENT

- A Measurement for and control of ground water for open cut pipe excavations shall be on a linear foot basis and shall not exceed the length of open cut pipe installation in the area requiring ground water control.
- B Unless indicated as a Bid Item, no separate payment will be made for control of ground water for any condition(s) other than those described in this Section, 1.02A. No separate payment will be made for control of surface water. Include the cost to control non-pipe excavation ground water and surface water in price for Work requiring such controls.
- C Refer to Section 01200 – Measurement & Payment Procedures.

1.03 SUBMITTALS

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.
- B Submit a Ground Water and Surface Water Control Plan for review by the Engineer prior to start of any field work. The plan shall be signed by a Professional Engineer registered in the State of Texas. The plan shall include the following:
 - 1. Results of subsurface investigation and description of the extent and characteristics of water bearing layers subject to ground water control.
 - 2. Names of equipment suppliers and installation subcontractors.
 - 3. A description of proposed ground water control systems indicating arrangement, location, depth and capacities of system components, installation details and criteria, and operation and maintenance procedures.
 - 4. A description of proposed monitoring and control system indicating depths and locations of piezometers and monitoring wells, monitoring installation details and criteria, type of equipment and instrumentation with pertinent data and characteristics.
 - 5. A description of proposed filters including types, sizes, capacities and manufacturer's application recommendations.
 - 6. Design calculations demonstrating adequacy of proposed systems for intended applications. Define potential area of influence of ground water control operation near contaminated areas.
 - 7. Operating requirements, including piezometric control elevations for dewatering and depressurization.
 - 8. Excavation drainage methods including typical drainage layers, sump pump application and other necessary means.
 - 9. Surface water control and drainage installations.
 - 10. Proposed methods and locations for disposing of removed water.
- C Submit the following records upon completed initial installation:
 - 1. Installation and development reports for well points, eductors, and deep wells.

2. Installation reports and baseline readings for piezometers and monitoring wells.
 3. Baseline analytical test data of water from monitoring wells.
 4. Initial flow rates.
- D Submit the following records on a weekly basis during operations:
1. Records of flow rates and piezometric elevations obtained during monitoring of dewatering and depressurization. Refer to this Section, 3.02 “Requirements for Eductor, Well Points, or Deep Wells”.
 2. Maintenance records for ground water control installations, piezometers, and monitoring wells.
- E Submit the following records at end of the Work. Decommissioning (abandonment) reports for monitoring wells and piezometers installed by other during the design phase and left for Contractor's monitoring and use.

1.04 PERFORMANCE REQUIREMENTS

- A Conduct subsurface investigations to identify groundwater conditions and to provide parameters for design, installation, and operation of groundwater control systems.
- B Design a ground water control system, compatible with the requirements of OSHA Standards - 29 CFR, Part 1926, and Section 01570 - Trench Safety Systems of these Technical Specifications, to produce the following results:
1. Effectively reduce the hydrostatic pressure affecting excavations.
 2. Develop a substantially dry and stable subgrade for subsequent construction operations.
 3. Preclude damage to adjacent properties, buildings, structures, utilities, installed facilities, and other work.
 4. Prevent the loss of fines, seepage, boils, quick condition, or softening of the foundation strata.
 5. Maintain stability of sides and bottom of excavations.
- C Ground water control systems may include single-stage or multiple-stage well point systems, eductor and ejector-type systems, deep wells, or combinations of these equipment types.
- D Provide drainage of seepage water and surface water, as well as water from any other source entering the excavation. Excavation drainage may include placement of drainage materials, such as crushed stone and filter fabric, together with sump pumping.
- E Provide ditches, berms, pumps and other methods necessary to divert and drain surface water from excavation and other work areas.
- F Locate ground water control and drainage systems so as not to interfere with utilities, construction operations, adjacent properties, or adjacent water wells.

- G Assume sole responsibility for ground water control systems and for any loss or damage resulting from partial or complete failure of protective measures and any settlement or resultant damage caused by the ground water control operations. Modify ground water control systems or operations if they cause or threaten to cause damage to new construction, existing site improvements, adjacent property, or adjacent water wells, or affect potentially contaminated areas. Repair damage caused by ground water control systems or resulting from failure of the system to protect property as required.
- H Provide an adequate number of piezometers installed at the proper locations and depths as required providing meaningful observations of the conditions affecting the excavation, adjacent structures, and water wells.
- I Provide environmental monitoring wells installed at the proper locations and depths as required to provide adequate observations of hydrostatic conditions and possible contaminant transport from contamination sources into the work area or into the ground water control system.
- J Decommission piezometers and monitoring wells installed during design phase studies and left for Contractors monitoring and use.

1.05 ENVIRONMENTAL REQUIREMENTS

- A Comply with requirements of agencies having jurisdiction.
- B Comply with TCEQ regulations and WWD/PI Advisory Council for development, drilling, and abandonment of wells used in dewatering system.
- C Obtain permit from TCEQ under the Texas Pollutant Discharge Elimination System (TPDES), for storm water discharge from construction sites. Refer to Section 01565 – TPDES, 3.02 “Certification Requirements”.
- D Obtain all necessary permits from agencies with control over the use of groundwater and matters affecting well installation, water discharge, and use of existing storm drains and natural water sources. Because the review and permitting process may be lengthy, take early action to pursue and submit for the required approvals.
- E Monitor ground water discharge for contamination while performing pumping in the vicinity of potentially contaminated sites.
- F Implement control of ground and surface water under the provisions of Section 01566 – Source Controls for Erosion & Sedimentation.

2.0 PRODUCTS

2.01 EQUIPMENT AND MATERIALS

- A Equipment and materials are at the option of Contractor as necessary to achieve desired results for dewatering. Selected equipment and materials are subject to review

of the Engineer through Submittals required in Section 01350 – Submittals, 1.06 “Operations and Maintenance Data”.

- B Eductors, well points, or deep wells, where used, must be furnished, installed and operated by an experienced contractor regularly engaged in ground water control system design, installation, and operation.
- C Equipment and instrumentation for monitoring and control of the ground water control system includes piezometers and monitoring wells, and devices, such as flow meters, for observing and recording flow rates.
- D All equipment must be in good repair and operating order.
- E Sufficient standby equipment and materials shall be kept available to ensure continuous operation, where required.

3.0 EXECUTION

3.01 GROUND WATER CONTROL

- A Perform a subsurface investigation by borings as necessary to identify water bearing layers, piezometric pressures, and soil parameters for design and installation of ground water control systems. Perform pump tests, if necessary to determine the drawdown characteristics of the water-bearing layers. The results shall be presented in the Ground Water and Surface Water Control Plan. Refer to this Section, 1.03B.
- B Provide labor, material, equipment, techniques and methods to lower, control and handle ground water in a manner compatible with construction methods and site conditions. Monitor effectiveness of the installed system and its effect on adjacent property.
- C Install, operate, and maintain ground water control systems in accordance with the Plan. Notify Engineer in writing of any changes made to accommodate field conditions and changes to the Work. Provide revised drawings and calculations with such notification.
- D Provide for continuous system operation, including nights, weekends, and holidays. Arrange for appropriate backup if electrical power is primary energy source for dewatering system.
- E Monitor operations to verify that the system lowers ground water piezometric levels at a rate required to maintain a dry excavation resulting in a stable subgrade for prosecution of subsequent operations.
- F Where hydrostatic pressures in confined water bearing layers exist below excavation, depressurize those zones to eliminate risk of uplift or other instability of excavation or installed works. Allowable piezometric elevations shall be defined in the Plan.

- G Maintain water level below subgrade elevation. Do not allow levels to rise until foundation concrete has achieved design strength.
- H During backfilling, dewatering may be reduced to maintain water level a minimum of 5 feet below prevailing level of backfill. However, do not allow that water level to result in uplift pressures in excess of 80 percent of downward pressure produced by weight of structure or backfill in place. Do not allow water levels to rise into cement stabilized sand until at least 48 hour after placement.
- I Provide a uniform diameter for each pipe drain run constructed for dewatering. Remove pipe drain when it has served its purpose. If removal of pipe is impractical, provide grout connections at 50-foot intervals and fill pipe with cement-bentonite grout or cement-sand grout when pipe is removed from service.
- J Extent of construction ground water control for structures with a permanent perforated underground drainage system may be reduced, such as for units designed to withstand hydrostatic uplift pressure. Provide a means of draining the affected portion of underground system, including standby equipment. Maintain drainage system during operations and remove it when no longer required.
- K Remove system upon completion of construction or when dewatering and control of surface or ground water is no longer required.
- L Compact backfill as required by the Contract Documents.

3.02 REQUIREMENTS FOR EDUCTOR, WELL POINTS, OR DEEP WELLS

- A For aboveground piping in ground water control system, include a 12-inch minimum length of clear, transparent piping between every eductor well or well point and discharge header so that discharge from each installation can be visually monitored.
- B Install sufficient piezometers or monitoring wells to show that all trench or shaft excavations in water bearing materials are predrained prior to excavation. Provide separate piezometers for monitoring of dewatering and for monitoring of depressurization. Install piezometers and monitoring wells for tunneling as appropriate for Contractor's selected method of work.
- C Install piezometers or monitoring wells not less than one week in advance of beginning the associated excavation.
- D Dewatering may be omitted for portions of underdrains or other excavations, but only where auger borings and piezometers or monitoring wells show that soil is predrained by an existing system such that the criteria of the Ground Water and Surface Water Control Plan are satisfied.

- E Replace installations that produce noticeable amounts of sediments after development.
- F Provide additional ground water control installations or change the methods in the event that the installations according to the Ground Water and Surface Water Control Plan do not provide satisfactory results based on the performance criteria defined by the Plan and by this Section. Submit a revised Plan according to this Section, 1.03A.
- G Mechanical dewatering equipment shall comply with Chapter 19 NOISE, Code of Ordinances, City of Baytown, Texas.

3.03 EXCAVATION DRAINAGE

- A Contractor may use excavation drainage methods if necessary to achieve well drained, stable trench conditions. The excavation drainage may consist of the following methods or combination of methods:
 - 1. Sump pumping in combination with:
 - a. Layer of crushed stone and filter fabric.
 - b. Sand and gravel drains.
 - 2. Wells for ground water control.
- B Use sump pumping and a drainage layer, as defined in ASTM D 2321, placed on the foundation beneath pipe bedding or thickened bedding layer of Class I material.

3.04 MAINTENANCE AND OBSERVATION

- A Conduct daily maintenance and observation of piezometers or monitoring wells while the ground water control installations or excavation drainage are operating in an area. Keep system in good operating condition.
- B Replace damaged and destroyed piezometers or monitoring wells with new piezometers or wells as necessary to meet observation schedule.
- C Cut off piezometers or monitoring wells in excavation areas where piping is exposed, only as necessary to perform observation as excavation proceeds. Continue to maintain and make observations, as specified.
- D Remove and grout piezometers inside or outside the excavation area when ground water control operations are complete. Remove and grout monitoring wells when directed by the Engineer.

3.05 MONITORING AND RECORDING

- A Monitor and record average flow rate of operation for each deep well, or for each wellpoint or eductor header used in dewatering system. Also monitor and record water level and ground water recovery. These records shall be obtained daily until steady conditions are achieved and twice weekly thereafter.

- B Observe and record elevation of water level daily as long as ground water control system is in operation, and weekly thereafter until the Work is completed or piezometers or wells are removed, except when Engineer determines that more frequent monitoring and recording are required. Comply with Engineer's direction for increased monitoring and recording and take measures as necessary to ensure effective dewatering for intended purpose.

3.06 SURFACE WATER CONTROL

- A Intercept surface water and divert it away from excavations through use of dikes, ditches, curb walls, pipes, sumps or other approved means. The requirement includes temporary works required to protect adjoining properties from surface drainage caused by construction operations.
- B Divert surface water and seepage water into sumps and pump it into drainage channels or storm drains, when approved by agencies having jurisdiction. Provide settling basins when required by such agencies.
- C Provide additional surface water control measures or change the methods in the event that the measures according to the Ground Water and Surface Water Control Plan do not provide satisfactory results based on the performance criteria defined by the Plan and by this Section. Submit a revised Plan according to this Section, 1.03B.

END OF SECTION

Section 01565**TPDES REQUIREMENTS****1.0 GENERAL**

- A As used herein and in conjunction with TPDES General Permit No. TXR150000, the term OPERATOR refers to the CONTRACTOR.

1.02 SECTION INCLUDES

- A Description of the required documentation to be prepared, signed and submitted by the Contractor before conducting construction operations, in accordance with the terms and conditions of the Texas Pollutant Discharge Elimination System (TPDES) General Permit as issued March 5, 2003, re-issued March 5, 2013, and re-issued March 5, 2018, by the Texas Commission on Environmental Quality under the provisions of Section 402 of the Clean Water Act and Section 26.040 of the Texas Water Code.
- B Contractor's responsibility for implementation, maintenance, and inspection of storm water pollution prevention control measures including, but not limited to, erosion and sediment controls, storm water management plans, waste collection and disposal, off-site vehicle tracking, and other practices shown on the Plans or specified elsewhere in this or other Technical Specifications. This Specification provides guidelines and Best Management Practices (BMP's) information for the Contractor to use in adhering to all local, state and federal environmental regulations with respect to storm water pollution prevention during construction activity.
- C References to Technical Specifications:
1. Section 01350 – Submittals
 2. Section 01310 – Coordination & Meetings
 3. Section 01770 – Contract Closeout
- D Referenced Standards:
1. Texas Commission on Environmental Quality (TCEQ)
- E Other References:
1. Storm Water Pollution Prevention Plan (SWPPP) found in Appendix A of these Technical Specifications.

1.03 MEASUREMENT AND PAYMENT

- A Unless indicated as a Bid Item, no separate payment will be made for Work performed under this Section. Include cost in Bid Items for which this Work is a component.

1.04 SUBMITTALS

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.

2.0 PRODUCTS - Not Used**3.0 EXECUTION****3.01 REQUIRED NOTICES**

- A The Contractor shall complete, sign, and date the Contractor's Notice of Intent (NOI) attached in Appendix A. The signed copy of the Contractor's NOI shall be returned to the TCEQ. It is contractor's responsibility to pay for any fees associated with the permit. Submission of the NOI is required by both the Owner and the Contractor before construction operations start.
- B Upon completion of construction and acceptance of the Work by the Owner, the Contractor shall complete, sign, and date the Contractor's Notice of Termination (NOT) attached in Appendix A.

3.02 CERTIFICATION REQUIREMENTS

- A On the Operator's Information form attached in Appendix A, the Contractor shall complete name, address, and telephone number for the Contractor; the names of persons or firms responsible for maintenance and inspection of erosion and sediment control measures and all Subcontractors.
- B The Contractor and Subcontractors named in the Contractor's Information form shall read, sign, and date the Contractor's/Subcontractor's Certification form, attached in Appendix A.
- C The persons or firms responsible for maintenance and inspection of erosion and sediment control measures shall read, sign, and date the Contractor's Inspection and Maintenance Certification form, attached in Appendix A.
- D The Contractor's Information form and all certification forms shall be submitted to the Owner before beginning construction.
- E Contractor shall review implementation of the SWPPP in a meeting with the Owner and Engineer prior to start of construction in accordance with Section 01310 – Coordination & Meetings.

3.03 RETENTION OF RECORDS

- A The Contractor shall keep a copy of the SWPPP at the Project Site or at the Contractor's office from the date that it became effective to the date the Work is accepted by the Owner.
- B At Contract Closeout, the Contractor shall submit to the Owner all TPDES forms and certifications, as well as a copy of the SWPPP, in accordance with Section 01770 – Contract Closeout. The SWPPP records and data will be retained by Owner for a period of 3 years from the date the Work is accepted by the Owner.

3.04 POSTING OF NOTICES

- A The following notices shall be posted from the date that this SWPPP goes into effect until the date the Work is accepted by the Owner:
1. Copies of the Notices of Intent submitted by the Owner and Contractor and a brief Description of Construction Activity being conducted at the Project Site, as given in Article 1 of the SWPPP, shall be posted at the Project Site or at Contractor's office in a prominent place for public viewing.
 2. Notice to drivers of equipment and vehicles, instructing them to stop, check, and clean tires of debris and mud before driving onto traffic lanes. Post such notices at every stabilized construction exit area.
 3. In an easily visible location on Project Site, post a notice of waste disposal procedures.
 4. Notice of hazardous material handling and emergency procedures shall be posted with the NOI on Project Site. Keep copies of Material Safety Data Sheets at a location on Project Site that is known to all personnel.
 5. Keep a copy of each signed certification at the Project Site or at Contractor's office.

APPENDIX A FOLLOWS THIS SECTION

END OF SECTION

Section 01565

**TPDES REQUIREMENTS
(APPENDIX A)**

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TCEQ General Permit

NOI TCEQ Form 20022

TCEQ Form – 20134

NOC TCEQ Form – 20023

Site Notice Forms



General Permit to Discharge Under the Texas Pollutant Discharge Elimination System

Stormwater Discharges Associated with Construction Activities TXR150000

Effective March 5, 2018

Texas Commission on Environmental Quality

P.O. Box 13087, Austin, Texas 78711-3087



GENERAL PERMIT TO DISCHARGE UNDER THE TEXAS POLLUTANT DISCHARGE ELIMINATION SYSTEM

under provisions of
Section 402 of the Clean Water Act
and Chapter 26 of the Texas Water Code

This permit supersedes and replaces
TPDES General Permit No. TXR150000, issued March 5, 2013

Construction sites that discharge stormwater associated with construction activity
located in the state of Texas

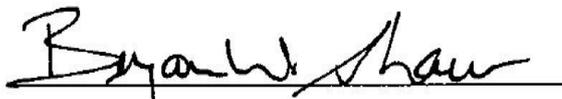
may discharge to surface water in the state

only according to monitoring requirements and other conditions set forth in this general permit, as well as the rules of the Texas Commission on Environmental Quality (TCEQ or Commission), the laws of the State of Texas, and other orders of the Commission of the TCEQ. The issuance of this general permit does not grant to the permittee the right to use private or public property for conveyance of stormwater and certain non-stormwater discharges along the discharge route. This includes property belonging to but not limited to any individual, partnership, corporation or other entity. Neither does this general permit authorize any invasion of personal rights nor any violation of federal, state, or local laws or regulations. It is the responsibility of the permittee to acquire property rights as may be necessary to use the discharge route.

This general permit and the authorization contained herein shall expire at midnight, five years from the permit effective date.

EFFECTIVE DATE: March 5, 2018

ISSUED DATE: 2-8-18


For the Commission

**TPDES GENERAL PERMIT NUMBER TXR150000 RELATING TO
STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION
ACTIVITIES**

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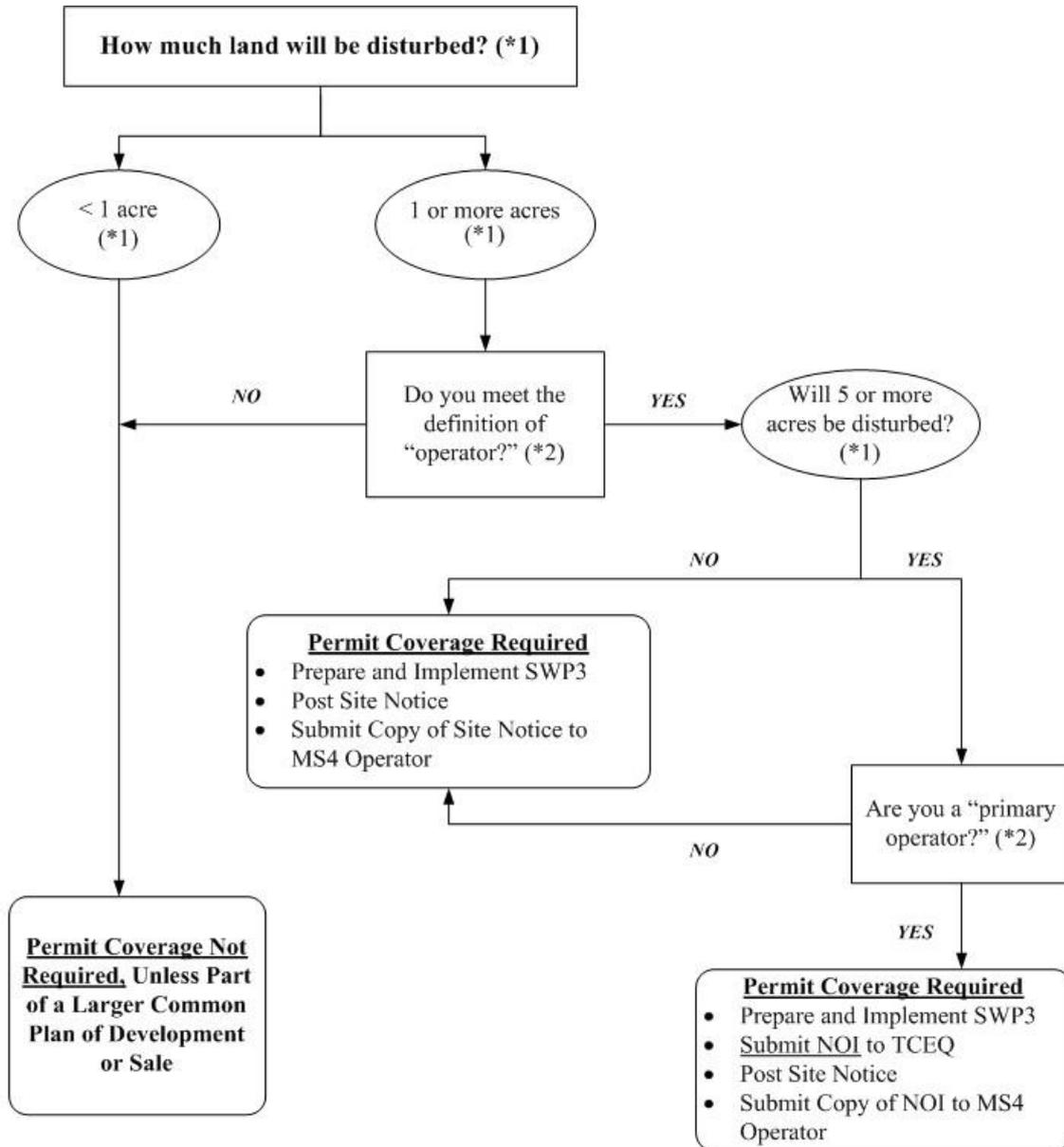
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Part I. Flow Chart and Definitions

Section A. Flow Chart to Determine Whether Coverage is Required

When calculating the acreage of land area disturbed, include the disturbed land-area of all construction and construction support activities.



(*1) To determine the size of the construction project, use the size of the entire area to be disturbed, and include the size of the larger common plan of development or sale, if the project is part of a larger project (refer to Part I.B., "Definitions," for an explanation of "common plan of development or sale").

(*2) Refer to the definitions for "operator," "primary operator," and "secondary operator" in Part I., Section B. of this permit.

Section B. Definitions

Arid Areas - Areas with an average annual rainfall of 0 to 10 inches.

Best Management Practices (BMPs) - Schedules of activities, prohibitions of practices, maintenance procedures, structural controls, local ordinances, and other management practices to prevent or reduce the discharge of pollutants. BMPs also include treatment requirements, operating procedures, and practices to control construction site runoff, spills or leaks, waste disposal, or drainage from raw material storage areas.

Commencement of Construction - The initial disturbance of soils associated with clearing, grading, or excavation activities, as well as other construction-related activities (e.g., stockpiling of fill material, demolition).

Common Plan of Development - A construction activity that is completed in separate stages, separate phases, or in combination with other construction activities. A common plan of development (also known as a “common plan of development or sale”) is identified by the documentation for the construction project that identifies the scope of the project, and may include plats, blueprints, marketing plans, contracts, building permits, a public notice or hearing, zoning requests, or other similar documentation and activities. A common plan of development does not necessarily include all construction projects within the jurisdiction of a public entity (e.g., a city or university). Construction of roads or buildings in different parts of the jurisdiction would be considered separate “common plans,” with only the interconnected parts of a project being considered part of a “common plan” (e.g., a building and its associated parking lot and driveways, airport runway and associated taxiways, a building complex, etc.). Where discrete construction projects occur within a larger common plan of development or sale but are located ¼ mile or more apart, and the area between the projects is not being disturbed, each individual project can be treated as a separate plan of development or sale, provided that any interconnecting road, pipeline or utility project that is part of the same “common plan” is not included in the area to be disturbed.

Construction Activity - Includes soil disturbance activities, including clearing, grading, excavating, construction-related activity (e.g., stockpiling of fill material, demolition), and construction support activity. This does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (e.g., the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities). Regulated construction activity is defined in terms of small and large construction activity.

Construction Support Activity – A construction-related activity that specifically supports construction activity, which can involve earth disturbance or pollutant-generating activities of its own, and can include, but are not limited to, activities associated with concrete or asphalt batch plants, rock crushers, equipment staging or storage areas, chemical storage areas, material storage areas, material borrow areas, and excavated material disposal areas. Construction support activity must only directly support the construction activity authorized under this general permit.

Dewatering – The act of draining rainwater or groundwater from building foundations, vaults, and trenches.

Discharge – For the purposes of this permit, the drainage, release, or disposal of pollutants in stormwater and certain non-stormwater from areas where soil disturbing activities (e.g., clearing, grading, excavation, stockpiling of fill material, and demolition), construction materials or equipment storage or maintenance (e.g., fill piles, borrow area, concrete truck wash out, fueling), or other industrial stormwater directly related to the construction process (e.g., concrete or asphalt batch plants) are located.

Drought-Stricken Area – For the purposes of this permit, an area in which the National Oceanic and Atmospheric Administration’s U.S. Seasonal Drought Outlook indicates for the period during which the construction will occur that any of the following conditions are

likely: (1) “Drought to persist or intensify”, (2) “Drought ongoing, some improvement”, (3) “Drought likely to improve, impacts ease”, or (4) “Drought development likely”. See http://www.epc.ncep.noaa.gov/products/expert_assessment/seasonal_drought.html.

Edwards Aquifer - As defined under Texas Administrative Code (TAC) § 213.3 of this title (relating to the Edwards Aquifer), that portion of an arcuate belt of porous, water-bearing, predominantly carbonate rocks known as the Edwards and Associated Limestones in the Balcones Fault Zone trending from west to east to northeast in Kinney, Uvalde, Medina, Bexar, Comal, Hays, Travis, and Williamson Counties; and composed of the Salmon Peak Limestone, McKnight Formation, West Nueces Formation, Devil’s River Limestone, Person Formation, Kainer Formation, Edwards Formation, and Georgetown Formation. The permeable aquifer units generally overlie the less-permeable Glen Rose Formation to the south, overlie the less-permeable Comanche Peak and Walnut Formations north of the Colorado River, and underlie the less-permeable Del Rio Clay regionally.

Edwards Aquifer Recharge Zone - Generally, that area where the stratigraphic units constituting the Edwards Aquifer crop out, including the outcrops of other geologic formations in proximity to the Edwards Aquifer, where caves, sinkholes, faults, fractures, or other permeable features would create a potential for recharge of surface waters into the Edwards Aquifer. The recharge zone is identified as that area designated as such on official maps located in the offices of the Texas Commission on Environmental Quality (TCEQ) and the appropriate regional office. The Edwards Aquifer Map Viewer, located at http://www.tceq.texas.gov/compliance/field_ops/eapp/mapdisclaimer.html, can be used to determine where the recharge zone is located.

Edwards Aquifer Contributing Zone - The area or watershed where runoff from precipitation flows downgradient to the recharge zone of the Edwards Aquifer. The contributing zone is located upstream (upgradient) and generally north and northwest of the recharge zone for the following counties: all areas within Kinney County, except the area within the watershed draining to Segment No. 2304 of the Rio Grande Basin; all areas within Uvalde, Medina, Bexar, and Comal Counties; all areas within Hays and Travis Counties, except the area within the watersheds draining to the Colorado River above a point 1.3 miles upstream from Tom Miller Dam, Lake Austin at the confluence of Barrow Brook Cove, Segment No. 1403 of the Colorado River Basin; and all areas within Williamson County, except the area within the watersheds draining to the Lampasas River above the dam at Stillhouse Hollow reservoir, Segment No. 1216 of the Brazos River Basin. The contributing zone is illustrated on the Edwards Aquifer map viewer at http://www.tceq.texas.gov/compliance/field_ops/eapp/mapdisclaimer.html.

Effluent Limitations Guideline (ELG) – Defined in 40 Code of Federal Regulations (CFR) § 122.2 as a regulation published by the Administrator under § 304(b) of the Clean Water Act (CWA) to adopt or revise effluent limitations.

Facility or Activity – For the purpose of this permit, referring to a construction site, the location of construction activity, or a construction support activity that is regulated under this general permit, including all contiguous land and fixtures (for example, ponds and materials stockpiles), structures, or appurtenances used at a construction site or industrial site.

Final Stabilization - A construction site status where any of the following conditions are met:

- (a) All soil disturbing activities at the site have been completed and a uniform (that is, evenly distributed, without large bare areas) perennial vegetative cover with a density of at least 70% of the native background vegetative cover for the area has been established on all unpaved areas and areas not covered by permanent structures, or equivalent permanent stabilization measures (such as the use of riprap, gabions, or geotextiles) have been employed.

- (b) For individual lots in a residential construction site by either:
- (1) the homebuilder completing final stabilization as specified in condition (a) above; or
 - (2) the homebuilder establishing temporary stabilization for an individual lot prior to the time of transfer of the ownership of the home to the buyer and after informing the homeowner of the need for, and benefits of, final stabilization. If temporary stabilization is not feasible, then the homebuilder may fulfill this requirement by retaining perimeter controls or BMPs, and informing the homeowner of the need for removal of temporary controls and the establishment of final stabilization. Fulfillment of this requirement must be documented in the homebuilder's stormwater pollution prevention plan (SWP3).
- (c) For construction activities on land used for agricultural purposes (such as pipelines across crop or range land), final stabilization may be accomplished by returning the disturbed land to its preconstruction agricultural use. Areas disturbed that were not previously used for agricultural activities, such as buffer strips immediately adjacent to surface water and areas that are not being returned to their preconstruction agricultural use must meet the final stabilization conditions of condition (a) above.
- (d) In arid, semi-arid, and drought-stricken areas only, all soil disturbing activities at the site have been completed and both of the following criteria have been met:
- (1) Temporary erosion control measures (for example, degradable rolled erosion control product) are selected, designed, and installed along with an appropriate seed base to provide erosion control for at least three years without active maintenance by the operator, and
 - (2) The temporary erosion control measures are selected, designed, and installed to achieve 70% of the native background vegetative coverage within three years.

Hyperchlorination of Waterlines – Treatment of potable water lines or tanks with chlorine for disinfection purposes, typically following repair or partial replacement of the waterline or tank, and subsequently flushing the contents.

Impaired Water - A surface water body that is identified as impaired on the latest approved CWA §303(d) List or waters with an EPA-approved or established total maximum daily load (TMDL) that are found on the latest EPA approved *Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d)*, which lists the category 4 and 5 water bodies.

Indian Country Land – All land within the limits of any Indian reservation under the jurisdiction of the United States government, notwithstanding the issuance of any patent, and, including rights-of-way running through the reservation; (2) all dependent Indian communities with the borders of the United States whether within the originally or subsequently acquired territory thereof, and whether within or without the limits of a state; and (3) all Indian allotments, the Indian titles to which have not been extinguished, including rights-of-way running through the same. (40 CFR §122.2)

Indian Tribe - Any Indian Tribe, band, group, or community recognized by the Secretary of the Interior and exercising governmental authority over a Federal Indian Reservation (40 CFR §122.2).

Infeasible –Not technologically possible, or not economically practicable and achievable in light of best industry practices. (40 CFR §450.11(b)).

Large Construction Activity - Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than five (5) acres of land. Large construction activity also includes the disturbance of less than five (5) acres of total

land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than five (5) acres of land. Large construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (for example, the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities.)

Linear Project – Includes the construction of roads, bridges, conduits, substructures, pipelines, sewer lines, towers, poles, cables, wires, connectors, switching, regulating and transforming equipment and associated ancillary facilities in a long, narrow area.

Low Rainfall Erosivity Waiver (LREW) - A written submission to the executive director from an operator of a construction site that is considered as small construction activity under the permit, which qualifies for a waiver from the requirements for small construction activities, only during the period of time when the calculated rainfall erosivity factor is less than five (5).

Minimize - To reduce or eliminate to the extent achievable using stormwater controls that are technologically available and economically practicable and achievable in light of best industry practices.

Municipal Separate Storm Sewer System (MS4) - A separate storm sewer system owned or operated by the United States, a state, city, town, county, district, association, or other public body (created by or pursuant to state law) having jurisdiction over the disposal of sewage, industrial wastes, stormwater, or other wastes, including special districts under state law such as a sewer district, flood control or drainage district, or similar entity, or an Indian tribe or an authorized Indian tribal organization, that discharges to surface water in the state.

Notice of Change (NOC) – Written notification to the executive director from a discharger authorized under this permit, providing changes to information that was previously provided to the agency in a notice of intent form.

Notice of Intent (NOI) - A written submission to the executive director from an applicant requesting coverage under this general permit.

Notice of Termination (NOT) - A written submission to the executive director from a discharger authorized under this general permit requesting termination of coverage.

Operator - The person or persons associated with a large or small construction activity that is either a primary or secondary operator as defined below:

Primary Operator – the person or persons associated with construction activity that meets either of the following two criteria:

- (a) the person or persons have on-site operational control over construction plans and specifications, including the ability to make modifications to those plans and specifications; or
- (b) the person or persons have day-to-day operational control of those activities at a construction site that are necessary to ensure compliance with a Storm Water Pollution Prevention Plan (SWP3) for the site or other permit conditions (for example, they are authorized to direct workers at a site to carry out activities required by the SWP3 or comply with other permit conditions).

Secondary Operator – The person or entity, often the property owner, whose operational control is limited to:

- (a) the employment of other operators, such as a general contractor, to perform or supervise construction activities; or

- (b) the ability to approve or disapprove changes to construction plans and specifications, but who does not have day-to-day on-site operational control over construction activities at the site.

Secondary operators must either prepare their own SWP3 or participate in a shared SWP3 that covers the areas of the construction site, where they have control over the construction plans and specifications.

If there is not a primary operator at the construction site, then the secondary operator is defined as the primary operator and must comply with the requirements for primary operators.

Outfall - For the purpose of this permit, a point source at the point where stormwater runoff associated with construction activity discharges to surface water in the state and does not include open conveyances connecting two municipal separate storm sewers, or pipes, tunnels, or other conveyances that connect segments of the same stream or other water of the U.S. and are used to convey waters of the U.S.

Permittee - An operator authorized under this general permit. The authorization may be gained through submission of a notice of intent, by waiver, or by meeting the requirements for automatic coverage to discharge stormwater runoff and certain non-stormwater discharges from construction activity.

Point Source - Any discernible, confined, and discrete conveyance, including but not limited to, any pipe, ditch, channel, tunnel, conduit, well, discrete fissure, container, rolling stock concentrated animal feeding operation, landfill leachate collection system, vessel or other floating craft from which pollutants are, or may be, discharged. This term does not include return flows from irrigated agriculture or agricultural stormwater runoff (40 CFR §122.2).

Pollutant - Dredged spoil, solid waste, incinerator residue, sewage, garbage, sewage sludge, filter backwash, munitions, chemical wastes, biological materials, radioactive materials, heat, wrecked or discarded equipment, rock, sand, cellar dirt, and industrial, municipal, and agricultural waste discharged into any surface water in the state. The term "pollutant" does not include tail water or runoff water from irrigation or rainwater runoff from cultivated or uncultivated rangeland, pastureland, and farmland. For the purpose of this permit, the term "pollutant" includes sediment.

Pollution - The alteration of the physical, thermal, chemical, or biological quality of, or the contamination of, any surface water in the state that renders the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property or to public health, safety, or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose (Texas Water Code (TWC) §26.001(14)).

Rainfall Erosivity Factor (R factor) - the total annual erosive potential that is due to climatic effects, and is part of the Revised Universal Soil Loss Equation (RUSLE).

Receiving Water - A "Water of the United States" as defined in 40 CFR §122.2 or a surface water in the state into which the regulated stormwater discharges.

Semiarid Areas - areas with an average annual rainfall of 10 to 20 inches.

Separate Storm Sewer System - A conveyance or system of conveyances (including roads with drainage systems, streets, catch basins, curbs, gutters, ditches, man-made channels, or storm drains), designed or used for collecting or conveying stormwater; that is not a combined sewer, and that is not part of a publicly owned treatment works (POTW).

Small Construction Activity - Construction activities including clearing, grading, and excavating that result in land disturbance of equal to or greater than one (1) acre and less than five (5) acres of land. Small construction activity also includes the disturbance of less than one (1) acre of total land area that is part of a larger common plan of development or sale if the larger common plan will ultimately disturb equal to or greater than one (1) and

less than five (5) acres of land. Small construction activity does not include routine maintenance that is performed to maintain the original line and grade, hydraulic capacity, or original purpose of the site (for example, the routine grading of existing dirt roads, asphalt overlays of existing roads, the routine clearing of existing right-of-ways, and similar maintenance activities).

Steep Slopes – Where a state, Tribe, local government, or industry technical manual (e.g. stormwater BMP manual) has defined what is to be considered a “steep slope”, this permit’s definition automatically adopts that definition. Where no such definition exists, steep slopes are automatically defined as those that are 15 percent or greater in grade.

Stormwater (or Stormwater Runoff) - Rainfall runoff, snow melt runoff, and surface runoff and drainage.

Stormwater Associated with Construction Activity - Stormwater runoff, as defined above, from a construction activity.

Structural Control (or Practice) - A pollution prevention practice that requires the construction of a device, or the use of a device, to reduce or prevent pollution in stormwater runoff. Structural controls and practices may include but are not limited to: silt fences, earthen dikes, drainage swales, sediment traps, check dams, subsurface drains, storm drain inlet protection, rock outlet protection, reinforced soil retaining systems, gabions, and temporary or permanent sediment basins.

Surface Water in the State - Lakes, bays, ponds, impounding reservoirs, springs, rivers, streams, creeks, estuaries, wetlands, marshes, inlets, canals, the Gulf of Mexico inside the territorial limits of the state (from the mean high water mark (MHW) out 10.36 miles into the Gulf), and all other bodies of surface water, natural or artificial, inland or coastal, fresh or salt, navigable or non-navigable, and including the beds and banks of all water-courses and bodies of surface water, that are wholly or partially inside or bordering the state or subject to the jurisdiction of the state; except that waters in treatment systems which are authorized by state or federal law, regulation, or permit, and which are created for the purpose of waste treatment are not considered to be water in the state.

Temporary Stabilization - A condition where exposed soils or disturbed areas are provided a protective cover or other structural control to prevent the migration of pollutants. Temporary stabilization may include temporary seeding, geotextiles, mulches, and other techniques to reduce or eliminate erosion until either permanent stabilization can be achieved or until further construction activities take place.

Thawing Conditions – for the purposes of this permit, thawing conditions are expected based on the historical likelihood of two or more days with daytime temperatures greater than 32 F. This date can be determined by looking at historical weather data.

Note: The estimation of thawing conditions is for planning purposes only. During construction, the permittee will be required to conduct site inspections based upon actual conditions (i.e., if thawing conditions occur sooner than expected, the permittee will be required to conduct inspections at the regular frequency).

Total Maximum Daily Load (TMDL) - The total amount of a pollutant that a water body can assimilate and still meet the Texas Surface Water Quality Standards.

Turbidity – A condition of water quality characterized by the presence of suspended solids and/or organic material.

Waters of the United States - Waters of the United States or waters of the U.S. means:

- (a) all waters which are currently used, were used in the past, or may be susceptible to use in interstate or foreign commerce, including all waters which are subject to the ebb and flow of the tide;
- (b) all interstate waters, including interstate wetlands;

- (c) all other waters such as intrastate lakes, rivers, streams (including intermittent streams), mudflats, sandflats, wetlands, sloughs, prairie potholes, wet meadows, playa lakes, or natural ponds that the use, degradation, or destruction of which would affect or could affect interstate or foreign commerce including any such waters:
 - (1) which are or could be used by interstate or foreign travelers for recreational or other purposes;
 - (2) from which fish or shellfish are or could be taken and sold in interstate or foreign commerce; or
 - (3) which are used or could be used for industrial purposes by industries in interstate commerce;
- (d) all impoundments of waters otherwise defined as waters of the United States under this definition;
- (e) tributaries of waters identified in paragraphs (a) through (d) of this definition;
- (f) the territorial sea; and
- (g) wetlands adjacent to waters (other than waters that are themselves wetlands) identified in paragraphs (a) through (f) of this definition.

Waste treatment systems, including treatment ponds or lagoons designed to meet the requirements of CWA are not waters of the U.S. This exclusion applies only to manmade bodies of water which neither were originally created in waters of the U.S. (such as disposal area in wetlands) nor resulted from the impoundment of waters of the U.S. Waters of the U.S. do not include prior converted cropland. Notwithstanding the determination of an area's status as prior converted cropland by any other federal agency, for the purposes of the CWA, the final authority regarding CWA jurisdiction remains with EPA.

Part II. Permit Applicability and Coverage

Section A. Discharges Eligible for Authorization

1. Stormwater Associated with Construction Activity

Discharges of stormwater runoff and certain non-stormwater discharges from small and large construction activities may be authorized under this general permit.

2. Discharges of Stormwater Associated with Construction Support Activities

Discharges of stormwater runoff and certain non-stormwater discharges from construction support activities as defined in Part I.B of this general permit may be authorized, provided that the following conditions are met:

- (a) the construction support activities are located within one (1) mile from the boundary of the construction site where the construction activity authorized under the permit is being conducted that requires the support of these activities;
- (b) an SWP₃ is developed for the permitted construction site according to the provisions in Part III.F of this general permit, and includes appropriate controls and measures to reduce erosion and the discharge of pollutants in stormwater runoff according to the provisions in Part III.G of this general permit;
- (c) the activities are directly related to the construction site;
- (d) the activities are not a commercial operation, nor serve other unrelated construction projects; and
- (e) the activities do not continue to operate beyond the completion of the construction activity at the project it supports.

Construction support activities that operate outside the terms provided in (a) through (e) above must obtain authorization under a separate Texas Pollutant Discharge Elimination System (TPDES) permit, which may include the TPDES Multi Sector General Permit (MSGP), TXR050000 (related to stormwater discharges associated with industrial activity), an alternative general permit (if available), or an individual water quality permit.

3. Non-Stormwater Discharges

The following non-stormwater discharges from sites authorized under this general permit are also eligible for authorization under this general permit:

- (a) discharges from fire-fighting activities (fire-fighting activities do not include washing of trucks, run-off water from training activities, test water from fire suppression systems, or similar activities);
- (b) uncontaminated fire hydrant flushings (excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life), which include flushings from systems that utilize potable water, surface water, or groundwater that does not contain additional pollutants (uncontaminated fire hydrant flushings do not include systems utilizing reclaimed wastewater as a source water);
- (c) water from the routine external washing of vehicles, the external portion of buildings or structures, and pavement, where detergents and soaps are not used, where spills or leaks of toxic or hazardous materials have not occurred (unless spilled materials have been removed; and if local state, or federal regulations are applicable, the materials are removed according to those regulations), and where the purpose is to remove mud, dirt, or dust;

- (d) uncontaminated water used to control dust;
- (e) potable water sources, including waterline flushings, but excluding discharges of hyperchlorinated water, unless the water is first dechlorinated and discharges are not expected to adversely affect aquatic life;
- (f) uncontaminated air conditioning condensate;
- (g) uncontaminated ground water or spring water, including foundation or footing drains where flows are not contaminated with industrial materials such as solvents; and
- (h) lawn watering and similar irrigation drainage.

4. Other Permitted Discharges

Any discharge authorized under a separate National Pollutant Discharge Elimination System (NPDES), TPDES, or TCEQ permit may be combined with discharges authorized by this general permit, provided those discharges comply with the associated permit.

Section B. Concrete Truck Wash Out

The wash out of concrete trucks at regulated construction sites must be performed in accordance with the requirements of Part V of this general permit.

Section C. Limitations on Permit Coverage

1. Post Construction Discharges

Discharges that occur after construction activities have been completed, and after the construction site and any supporting activity site have undergone final stabilization, are not eligible for coverage under this general permit. Discharges originating from the sites are not authorized under this general permit following the submission of the notice of termination (NOT) or removal of the appropriate site notice, as applicable, for the regulated construction activity.

2. Prohibition of Non-Stormwater Discharges

Except as otherwise provided in Part II.A of this general permit, only discharges that are composed entirely of stormwater associated with construction activity may be authorized under this general permit.

3. Compliance with Water Quality Standards

Discharges to surface water in the state that would cause, have the reasonable potential to cause, or contribute to a violation of water quality standards or that would fail to protect and maintain existing designated uses of surface water in the state are not eligible for coverage under this general permit. The executive director may require an application for an individual permit or alternative general permit (see Parts II.H.2 and 3.) to authorize discharges to surface water in the state if the executive director determines that any activity will cause, has the reasonable potential to cause, or contribute to a violation of water quality standards or is found to cause, has the reasonable potential to cause, or contribute to, the impairment of a designated use. The executive director may also require an application for an individual permit considering factors described in Part II.H.3 of this general permit.

4. Impaired Receiving Waters and Total Maximum Daily Load (TMDL) Requirements

The permittee shall determine whether the authorized discharge is to an impaired water body on the latest EPA-approved CWA Section 303(d) List or waters with an EPA-approved or established TMDL that are found on the latest EPA-approved *Texas*

Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d), which lists the category 4 and 5 water bodies.

New sources or new discharges of the pollutants of concern to impaired waters are not authorized by this permit unless otherwise allowable under 30 TAC Chapter 305 and applicable state law. Impaired waters are those that do not meet applicable water quality standard(s) and are listed as category 4 or 5 in the current version of the *Texas Integrated Report of Surface Water Quality*, and waterbodies listed on the CWA § 303(d) list. Pollutants of concern are those for which the water body is listed as impaired.

Discharges of the pollutants of concern to impaired water bodies for which there is a TMDL are not eligible for coverage under this general permit unless they are consistent with the approved TMDL. Permittees must incorporate the conditions and requirements applicable to their discharges into their SWP3, in order to be eligible for coverage under this general permit. For consistency with the construction stormwater-related items in an approved TMDL, the SWP3 must be consistent with any applicable condition, goal, or requirement in the TMDL, TMDL Implementation Plan (I-Plan), or as otherwise directed by the executive director.

5. Discharges to the Edwards Aquifer Recharge or Contributing Zone

Discharges cannot be authorized by this general permit where prohibited by 30 TAC Chapter 213 (relating to Edwards Aquifer). In addition, commencement of construction (i.e., the initial disturbance of soils associated with clearing, grading, or excavating activities, as well as other construction-related activities such as stockpiling of fill material and demolition) at a site regulated under 30 TAC Chapter 213, may not begin until the appropriate Edwards Aquifer Protection Plan (EAPP) has been approved by the TCEQ's Edwards Aquifer Protection Program.

- (a) For new discharges located within the Edwards Aquifer Recharge Zone, or within that area upstream from the recharge zone and defined as the Contributing Zone (CZ), operators must meet all applicable requirements of, and operate according to, 30 TAC Chapter 213 (Edwards Aquifer Rule) in addition to the provisions and requirements of this general permit.
- (b) For existing discharges located within the Edwards Aquifer Recharge Zone, the requirements of the agency-approved Water Pollution Abatement Plan (WPAP) under the Edwards Aquifer Rule is in addition to the requirements of this general permit. BMPs and maintenance schedules for structural stormwater controls, for example, may be required as a provision of the rule. All applicable requirements of the Edwards Aquifer Rule for reductions of suspended solids in stormwater runoff are in addition to the requirements in this general permit for this pollutant.
- (c) For discharges located within ten stream miles upstream of the Edwards Aquifer recharge zone, applicants shall also submit a copy of the NOI to the appropriate TCEQ regional office.

Counties: **Comal, Bexar, Medina, Uvalde, and Kinney**

Contact: TCEQ Water Program Manager
San Antonio Regional Office
14250 Judson Road
San Antonio, Texas 78233-4480
(210) 490-3096

Counties: **Williamson, Travis, and Hays**

Contact: TCEQ Water Program Manager
Austin Regional Office
12100 Park 35 Circle

Room 179, Building A
Austin, Texas 78753
(512) 339-2929

6. Discharges to Specific Watersheds and Water Quality Areas

Discharges otherwise eligible for coverage cannot be authorized by this general permit where prohibited by 30 TAC Chapter 311 (relating to Watershed Protection) for water quality areas and watersheds.

7. Protection of Streams and Watersheds by Other Governmental Entities

This general permit does not limit the authority or ability of federal, other state, or local governmental entities from placing additional or more stringent requirements on construction activities or discharges from construction activities. For example, this permit does not limit the authority of a home-rule municipality provided by Texas Local Government Code §401.002.

8. Indian Country Lands

Stormwater runoff from construction activities occurring on Indian Country lands are not under the authority of the TCEQ and are not eligible for coverage under this general permit. If discharges of stormwater require authorization under federal NPDES regulations, authority for these discharges must be obtained from the U.S. Environmental Protection Agency (EPA).

9. Oil and Gas Production and Transportation

Stormwater runoff from construction activities associated with the exploration, development, or production of oil or gas or geothermal resources, including transportation of crude oil or natural gas by pipeline, are not under the authority of the TCEQ and are not eligible for coverage under this general permit. Authorization for stormwater discharges from construction activities that are associated with production of oil or gas or geothermal resources, including transportation of crude oil or natural gas by pipeline must be obtained, as required, from the U.S. EPA or the Texas Railroad Commission, as applicable. Discharge of stormwater related to construction activity, from a facility that stores both refined products intended for off-site use and crude oil in aboveground storage tanks, is regulated by the TCEQ and is eligible for coverage under this general permit.

10. Stormwater Discharges from Agricultural Activities

Stormwater discharges from agricultural activities that are not point source discharges of stormwater are not subject to TPDES permit requirements. These activities may include clearing and cultivating ground for crops, construction of fences to contain livestock, construction of stock ponds, and other similar agricultural activities. Discharges of stormwater runoff associated with the construction of facilities that are subject to TPDES regulations, such as the construction of concentrated animal feeding operations, would be point sources regulated under this general permit.

11. Endangered Species Act

Discharges that would adversely affect a listed endangered or threatened aquatic or aquatic-dependent species or its critical habitat are not authorized by this permit, unless the requirements of the Endangered Species Act are satisfied. Federal requirements related to endangered species apply to all TPDES permitted discharges and site-specific controls may be required to ensure that protection of endangered or threatened species is achieved. If a permittee has concerns over potential impacts to listed species, the permittee may contact TCEQ for additional information.

12. Other

Nothing in Part II of the general permit is intended to negate any person's ability to assert *force majeure* (act of God, war, strike, riot, or other catastrophe) defenses found in 30 TAC §70.7.

Section D. Deadlines for Obtaining Authorization to Discharge

1. Large Construction Activities

- (a) New Construction - Discharges from sites where the commencement of construction activity occurs on or after the effective date of this general permit must be authorized, either under this general permit or a separate TPDES permit, prior to the commencement of those construction activities.
- (b) Ongoing Construction - Operators of large construction activities continuing to operate after the effective date of this permit, and authorized under the TPDES Construction General Permit TXR150000 (effective on March 5, 2013), must submit an NOI to renew authorization or a NOT to terminate coverage under this general permit within 90 days of the effective date of this general permit. During this interim or grace period, as a requirement of this TPDES permit, the operator must continue to meet the conditions and requirements of the 2013 TPDES general permit.

2. Small Construction Activities

- (a) New Construction - Discharges from sites where the commencement of construction activity occurs on or after the effective date of this general permit must be authorized, either under this general permit or a separate TPDES permit, prior to the commencement of those construction activities.
- (b) Ongoing Construction - Discharges from ongoing small construction activities that commenced prior to the effective date of this general permit, and that do not meet the conditions to qualify for termination of this permit as described in Part II.F of this general permit, must meet the requirements to be authorized, either under this general permit or a separate TPDES permit, within 90 days of the effective date of this general permit. During this interim period, as a requirement of this TPDES permit, the operator must continue to meet the conditions and requirements of the 2013 TPDES Construction General Permit.

Section E. Obtaining Authorization to Discharge1. Automatic Authorization for Small Construction Activities with Low Potential for Erosion:

Operators of small construction activity, as defined in Part I.B of this general permit, shall not submit an NOI for coverage, unless otherwise required by the executive director.

Operators of small construction activities, which occur in certain counties and during periods of low potential for erosion that do not meet the conditions of the waiver described in Part II.G of this general permit, may be automatically authorized under this general permit if all the following conditions are met.

- (a) the construction activity occurs in a county and during the corresponding date range(s) listed in Appendix A;
- (b) the construction activity is initiated and completed, including either final or temporary stabilization of all disturbed areas, within the time frame identified in Appendix A for the location of the construction site;

- (c) all temporary stabilization is adequately maintained to effectively reduce or prohibit erosion, permanent stabilization activities have been initiated, and a condition of final stabilization is completed no later than 30 days following the end date of the time frame identified in Appendix A for the location of the construction site;
- (d) the permittee signs a completed TCEQ small construction site notice for low potential for erosion, including the certification statement;
- (e) a signed and certified copy of the small construction site notice for low potential for erosion is posted at the construction site in a location where it is readily available for viewing by the general public, local, state, and federal authorities prior to commencing construction activities, and maintained in that location until completion of the construction activity;

NOTE: Posted site notices may have a redacted signature as long as there is an original signed and certified site notice, with a viewable signature, located on-site and available for review by any applicable regulatory authority.

- (f) a copy of the signed and certified small construction site notice for low potential for erosion is provided to the operator of any MS4 receiving the discharge at least two days prior to commencement of construction activities;
- (g) discharges of stormwater runoff or other non-stormwater discharges from any supporting concrete batch plant or asphalt batch plant is separately authorized under an individual TPDES permit, another TPDES general permit, or under an individual TCEQ permit where stormwater and non-stormwater is disposed of by evaporation or irrigation (discharges are adjacent to water in the state); and
- (h) any non-stormwater discharges are either authorized under a separate permit or authorization, are not considered by TCEQ to be a wastewater, or are captured and routed for disposal at a publicly operated treatment works or licensed waste disposal facility.

If all of the conditions in (a) – (h) above are met, then the operator(s) of small construction activities with low potential for erosion are not required to develop a SWP3.

If an operator is conducting small construction activities and any of the above conditions (a) – (h) are not met, the operator cannot declare coverage under the automatic authorization for small construction activities with low potential for erosion and must meet the requirements for automatic authorization (all other) small construction activities, described below in Part II.E.2.

For small construction activities that occur during a period with a low potential for erosion, where automatic authorization under this section is not available, an operator may apply for and obtain a waiver from permitting (Low Rainfall Erosivity Waiver – LREW), as described in Part II.G of this general permit. Waivers from coverage under the LREW do not allow for any discharges of non-stormwater and the operator must ensure that discharges on non-stormwater are either authorized under a separate permit or authorization.

2. Automatic Authorization for Small Construction Activities:

Operators of small construction activities as defined in Part I.B of this general permit shall not submit an NOI for coverage, unless otherwise required by the executive director.

Operators of small construction activities, as defined in Part I.B of this general permit or as defined but who do not meet in the conditions and requirements located in Part II.E.1 above, may be automatically authorized for small construction activities, provided that they meet all of the following conditions:

- (a) develop a SWP3 according to the provisions of this general permit, that covers either the entire site or all portions of the site for which the applicant is the operator, and implement the SWP3 prior to commencing construction activities;
- (b) all operators of regulated small construction activities must post a copy of a signed and certified Small Construction site notice, the notice must be posted at the construction site in a location where it is safely and readily available for viewing by the general public, local, state, and federal authorities, at least two days prior to commencing construction activity, and maintain the notice in that location until completion of the construction activity (for linear construction activities, e.g. pipeline or highway, the site notice must be placed in a publicly accessible location near where construction is actively underway; notice for these linear sites may be relocated, as necessary, along the length of the project, and the notice must be safely and readily available for viewing by the general public; local, state, and federal authorities);
- (c) operators must maintain a posted site notice at the construction site until final stabilization has been achieved; and

NOTE: Posted site notices may have a redacted signature as long as there is an original signed and certified Small Construction site notice, with a viewable signature, located on-site and available for review by an applicable regulatory authority.

- (d) provide a copy of the signed and certified construction site notice to the operator of any municipal separate storm sewer system (MS4) receiving the discharge at least two days prior to commencement of construction activities.

As described in Part I.B of this general permit, large construction activities include those that will disturb less than five (5) acres of land, but that are part of a larger common plan of development or sale that will ultimately disturb five (5) or more acres of land, and must meet the requirements of Part II.E.3. below.

3. Authorization for Large Construction Activities:

Operators of large construction activities that qualify for coverage under this general permit must meet all of the following conditions:

- (a) develop a SWP3 according to the provisions of this general permit that covers either the entire site or all portions of the site where the applicant is the operator. The SWP3 must be developed and implemented prior to obtaining coverage and prior to commencing construction activities;
- (b) primary operators of large construction activities must submit an NOI prior to commencing construction activity at a construction site. A completed NOI must be submitted to TCEQ electronically using the online e-Permits system on TCEQ's website. Operators with an electronic reporting waiver must submit a completed NOI to TCEQ at least seven (7) days prior to commencing construction activity to obtain provisional coverage seven (7) days from the postmark date for delivery to the TCEQ. An authorization is no longer provisional when the executive director finds the NOI is administratively complete and an authorization number is issued to the permittee for the construction site indicated on the NOI.

If an additional primary operator is added after the initial NOI is submitted, the additional primary operator must meet the same requirements for existing primary operator(s), as indicated above.

If the primary operator changes due to responsibility at the site being transferred from one primary operator to another after the initial NOI is submitted, the new primary operator must submit a paper NOI or an electronic NOI at least ten (10)

days prior to assuming operational control of a construction site and commencing construction activity.

Operators that submit NOIs electronically must use the online e-Permits system available through the TCEQ website.

- (c) all operators of large construction activities must post a site notice in accordance with Part III.D.2 of this permit. The site notice must be located where it is safely and readily available for viewing by the general public, local, state, and federal authorities prior to commencing construction activities, and must be maintained in that location until completion of the construction activity (for linear construction activities, e.g. pipeline or highway, the site notice must be placed in a publicly accessible location near where construction is actively underway; notice for these linear sites may be relocated, as necessary, along the length of the project, and the notice must be safely and readily available for viewing by the general public, local, state, and federal authorities);
- (d) two days prior to commencing construction activities, all primary operators must:
 - i. provide a copy of the signed NOI to the operator of any MS4 receiving the discharge and to any secondary construction operator, and
 - ii. list in the SWP3 the names and addresses of all MS4 operators receiving a copy;
- (e) all persons meeting the definition of “secondary operator” in Part I of this permit are hereby notified that they are regulated under this general permit, but are not required to submit an NOI, provided that a primary operator at the site has submitted an NOI, or prior to commencement of construction activities, a primary operator is required to submit an NOI and the secondary operator has provided notification to the operator(s) of the need to obtain coverage (with records of notification available upon request). Any secondary operator notified under this provision may alternatively submit an NOI under this general permit, may seek coverage under an alternative TPDES individual permit, or may seek coverage under an alternative TPDES general permit if available; and
- (f) all secondary operators of large construction activities must post a copy of the signed and certified Secondary Operator construction site notice and provide a copy of the signed and certified site notice to the operator of any MS4 receiving the discharge at least two days prior to the commencement construction activities.

NOTE: Posted site notices may have a redacted signature as long as there is an original signed and certified Secondary Operator construction site notice, with a viewable signature, located on-site and available for review by an applicable regulatory authority.

Effective September 1, 2018, applicants must submit an NOI using the online e-Permits system available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge.

4. Waivers for Small Construction Activities:

Operators of certain small construction activities may obtain a waiver from coverage under this general permit, if applicable. The requirements are outlined in Part II.G below.

5. Effective Date of Coverage

- (a) Operators of small construction activities as described in either Part II.E.1 or II.E.2 above are authorized immediately following compliance with the applicable conditions of Part II.E.1 or II.E.2. Secondary operators of large construction

activities as described in Part II.E.3 above are authorized immediately following compliance with the applicable conditions in Part II.E.3. For activities located in areas regulated by 30 TAC Chapter 213, related to the Edwards Aquifer, this authorization to discharge is separate from the requirements of the operator's responsibilities under that rule. Construction may not commence for sites regulated under 30 TAC Chapter 213 until all applicable requirements of that rule are met.

- (b) Primary operators of large construction activities as described in Part II.E.3 above that electronically submit an NOI are authorized immediately following confirmation of receipt of the electronic form by the TCEQ, unless otherwise notified by the executive director. Operators with an electronic reporting waiver are provisionally authorized seven (7) days from the date that a completed paper NOI is postmarked for delivery to the TCEQ, unless otherwise notified by the executive director. An authorization is no longer provisional when the executive director finds the NOI is administratively complete and an authorization number is issued to the permittee for the construction site indicated on the NOI.

For construction activities located in areas regulated by 30 TAC Chapter 213, related to the Edwards Aquifer, this authorization to discharge is separate from the requirements of the operator's responsibilities under that rule. Construction activities may not commence for sites regulated under 30 TAC Chapter 213 until all applicable requirements of that rule are met.

- (c) Operators are not prohibited from submitting late NOIs or posting late notices to obtain authorization under this general permit. The TCEQ reserves the right to take appropriate enforcement action for any unpermitted activities that may have occurred between the time construction commenced and authorization was obtained.
- (d) If operators that submitted NOIs have active authorizations for construction activities that are ongoing when the term of the current general permit expires and a new general permit is issued, a 90-day interim (grace) period is granted to provide coverage that is administratively continued until operators with active authorizations can obtain coverage under the newly issued CGP. The 90-day grace period starts on the effective date of the newly issued CGP. Deadlines for obtaining coverage for operators of small and large construction are provided in Part II.D.1 and 2 above.

6. Notice of Change (NOC)

If relevant information provided in the NOI changes, the operator that has submitted the NOI must submit an NOC to TCEQ at least fourteen (14) days before the change occurs, if possible. Where a 14-day advance notice is not possible, the operator must submit an NOC to TCEQ within 14-days of discovery of the change. If the operator becomes aware that it failed to submit any relevant facts or submitted incorrect information in an NOI, the correct information must be submitted to TCEQ in an NOC within 14 days after discovery. The NOC shall be submitted on a form provided by the executive director, or by letter if an NOC form is not available. A copy of the NOC form or letter must also be placed in the SWP3 and provided to the operator of any MS4 receiving the discharge. A list that includes the names and addresses of all MS4 operators receiving a copy of the NOC (or NOC letter) must be included in the SWP3.

Information on an NOC may include, but is not limited to, the following: a change in the description of the construction project; an increase in the number of acres disturbed (for increases of one or more acres); or the name of the operator (where the name of the operator has changed).

A transfer of operational control from one operator to another, including a transfer of the ownership of a company. Coverage under this general permit is not transferable

from one operator to another or one company to another, and may not be included in an NOC.

A transfer of ownership of a company may include, but is not limited to, the following: changes to the structure of a company, such as changing from a partnership to a corporation or changing corporation types, so that the filing number (or charter number) that is on record with the Texas Secretary of State must be changed.

An NOC is not required for notifying TCEQ of a decrease in the number of acres disturbed. This information must be included in the SWP3 and retained on site.

Effective September 1, 2018, applicants must submit an NOC using the online e-Permits system available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge.

7. Signatory Requirement for NOI Forms, Notice of Termination (NOT) Forms, NOC Letters, and Construction Site Notices

NOI forms, NOT forms, NOC letters, and Construction Site Notices that require a signature must be signed according to 30 TAC § 305.44 (relating to Signatories for Applications).

8. Contents of the NOI

The NOI form shall require, at a minimum, the following information:

- (a) the TPDES CGP authorization number for existing authorizations under this general permit, where the operator submits an NOI to renew coverage within 90 days of the effective date of this general permit;
- (b) the name, address, and telephone number of the operator filing the NOI for permit coverage;
- (c) the name (or other identifier), address, county, and latitude/longitude of the construction project or site;
- (d) the number of acres that will be disturbed by the applicant;
- (e) confirmation that the project or site will not be located on Indian Country lands;
- (f) confirmation that a SWP3 has been developed in accordance with this general permit, that it will be implemented prior to commencement of construction activities, and that it is compliant with any applicable local sediment and erosion control plans; for multiple operators who prepare a shared SWP3, the confirmation for an operator may be limited to its obligations under the SWP3 provided all obligations are confirmed by at least one operator;
- (g) name of the receiving water(s);
- (h) the classified segment number for each classified segment that receives discharges from the regulated construction activity (if the discharge is not directly to a classified segment, then the classified segment number of the first classified segment that those discharges reach); and
- (i) the name of all surface waters receiving discharges from the regulated construction activity that are on the latest EPA-approved CWA § 303(d) List of impaired waters or Texas Integrated Report of Surface Water Quality for CWA Sections 305(b) and 303(d) as not meeting applicable state water quality standards.

Section F. Terminating Coverage

1. Notice of Termination (NOT) Required

Each operator that has submitted an NOI for authorization of large construction activities under this general permit must apply to terminate that authorization following the conditions described in this section of the general permit.

Authorization of large construction must be terminated by submitting an NOT on a paper form to TCEQ supplied by the executive director or electronically via the online e-Permits system available through the TCEQ website. Authorization to discharge under this general permit terminates at midnight on the day a paper NOT is postmarked for delivery to the TCEQ or immediately following confirmation of the receipt of the NOT submitted electronically by the TCEQ. Compliance with the conditions and requirements of this permit is required until an NOT is submitted.

Effective September 1, 2018, applicants must submit an NOT using the online e-Permits system available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge.

The NOT must be submitted to TCEQ, and a copy of the NOT provided to the operator of any MS4 receiving the discharge (with a list in the SWP3 of the names and addresses of all MS4 operators receiving a copy), within 30 days after any of the following conditions are met:

- (a) final stabilization has been achieved on all portions of the site that are the responsibility of the operator;
- (b) a transfer of operational control has occurred (See Section II.F.4 below); or
- (c) the operator has obtained alternative authorization under an individual TPDES permit or alternative TPDES general permit.

2. Minimum Contents of the NOT

The NOT form shall require, at a minimum, the following information:

- (a) if authorization for construction activity was granted following submission of an NOI, the permittee's site-specific TPDES authorization number for a specific construction site;
- (b) an indication of whether final stabilization has been achieved at the site and a NOT has been submitted or if the permittee is simply no longer an operator at the site;
- (c) the name, address, and telephone number of the permittee submitting the NOT;
- (d) the name (or other identifier), address, county, and location (latitude/longitude) of the construction project or site; and
- (e) a signed certification that either all stormwater discharges requiring authorization under this general permit will no longer occur, or that the applicant is no longer the operator of the facility or construction site, and that all temporary structural erosion controls have either been removed, will be removed on a schedule defined in the SWP3, or have been transferred to a new operator if the new operator has applied for permit coverage. Erosion controls that are designed to remain in place for an indefinite period, such as mulches and fiber mats, are not required to be removed or scheduled for removal.

3. Termination of Coverage for Small Construction Sites and for Secondary Operators at Large Construction Sites
 - (a) Each operator that has obtained automatic authorization for small construction or is a secondary operator for large construction must perform the following when terminating coverage under the permit:
 - i. remove the site notice;
 - ii. complete the applicable portion of the site notice related to removal of the site notice; and
 - iii. submit a copy of the completed site notice to the operator of any MS4 receiving the discharge (or provide alternative notification as allowed by the MS4 operator, with documentation of such notification included in the SWP3).
 - (b) The activities described in Part II.F.3.(a) above must be completed by the operator within 30 days of meeting any of the following conditions:
 - i. final stabilization has been achieved on all portions of the site that are the responsibility of the operator;
 - ii. a transfer of day-to-day operational control over activities necessary to ensure compliance with the SWP3 and other permit conditions has occurred (See Section II.F.4. below); or
 - iii. the operator has obtained alternative authorization under an individual or general TPDES permit.

Authorization to discharge under this general permit terminates immediately upon removal of the applicable site notice. Compliance with the conditions and requirements of this permit is required until the site notice is removed.

4. Transfer of Day-to-Day Operational Control

- (a) When the primary operator of a large construction activity changes or operational control over activities necessary to ensure compliance with the SWP3 and other permit conditions is transferred to another primary operator, the original operator must do the following:
 - i. submit an NOT within ten (10) days prior to the date that responsibility for operations terminates, and the new operator must submit an NOI at least ten (10) days prior to the transfer of operational control, in accordance with condition (c) below; and
 - ii. submit a copy of the NOT from the primary operator terminating its coverage under the permit and its operational control of the construction site and submit a copy of the NOI from the new primary operator to the operator of any MS4 receiving the discharge in accordance with Part II.F.1 above.
- (b) For transfer of operational control, operators of small construction activities and secondary operators of large construction activities who are not required to submit an NOI must do the following:
 - i. the existing operator must remove the original site notice, and the new operator must post the required site notice prior to the transfer of operational control, in accordance with the conditions in Part II.F.4.(c) i or ii below; and
 - ii. a copy of the site notice, which must be completed and provided to the operator of any MS4 receiving the discharge, in accordance with Part II.F.3 above.
- (c) Each operator is responsible for determining its role as an operator as defined in Part I.B and obtaining authorization under the permit, as described above in Part

II.E. 1 – 3. Where authorization has been obtained by submitting an NOI for coverage under this general permit, permit coverage is not transferable from one operator to another. A transfer of operational control can include changes to the structure of a company, such as changing from a partnership to a corporation, or changing to a different corporation type such that a different filing (or charter) number is established with the Texas Secretary of State. A transfer of operational control can also occur when one of the following criteria is met, as applicable:

- i. Another operator has assumed control over all areas of the site that do not meet the definition for final stabilization;
- ii. all silt fences and other temporary erosion controls have either been removed, scheduled for removal as defined in the SWP3, or transferred to a new operator, provided that the original permitted operator has attempted to notify the new operator in writing of the requirement to obtain permit coverage. Records of this notification (or attempt at notification) shall be retained by the operator transferring operational control to another operator in accordance with Part VI of this permit. Erosion controls that are designed to remain in place for an indefinite period, such as mulches and fiber mats, are not required to be removed or scheduled for removal; or
- iii. a homebuilder has purchased one or more lots from an operator who obtained coverage under this general permit for a common plan of development or sale. The homebuilder is considered a new operator and shall comply with the requirements of this permit. Under these circumstances, the homebuilder is only responsible for compliance with the general permit requirements as they apply to the lot(s) it has operational control over in a larger common plan of development, and the original operator remains responsible for common controls or discharges, and must amend its SWP3 to remove the lot(s) transferred to the homebuilder.

Section G. Waivers from Coverage

The executive director may waive the otherwise applicable requirements of this general permit for stormwater discharges from small construction activities under the terms and conditions described in this section.

1. Waiver Applicability and Coverage

Operators of small construction activities may apply for and receive a waiver from the requirements to obtain authorization under this general permit, when the calculated rainfall erosivity (R) factor for the entire period of the construction project is less than five (5).

The operator must submit either a signed paper Low Rainfall Erosivity Waiver (LREW) certification form to the TCEQ, supplied by the executive director, or complete the form electronically via the online e-Permits system available through the TCEQ website. The form is a certification by the operator that the small construction activity will commence and be completed within a period when the value of the calculated R factor is less than five (5).

The paper LREW certification form must be postmarked for delivery to the TCEQ at least seven (7) days before construction activity begins or, if submitted electronically, construction may begin at any time following the receipt of written confirmation from TCEQ that a complete electronic application was submitted and acknowledged.

This waiver from coverage does not apply to any non-stormwater discharges, including what is allowed under this permit. The operator must insure that all non-stormwater discharges are either authorized under a separate permit or authorization, or are captured and routed to an authorized treatment facility for disposal.

Effective September 1, 2018, applicants must submit an LREW using the online e-Permits system available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge.

2. Steps to Obtaining a Waiver

The construction site operator may calculate the R factor to request a waiver using the following steps:

- (a) Estimate the construction start date and the construction end date. The construction end date is the date that final stabilization will be achieved.
- (b) Find the appropriate Erosivity Index (EI) zone in Appendix B of this permit.
- (c) Find the EI percentage for the project period by adding the results for each period of the project using the table provided in Appendix D of this permit, in EPA Fact Sheet 2.1, or in USDA Handbook 703, by subtracting the start value from the end value to find the percent EI for the site.
- (d) Refer to the Isoerodent Map (Appendix C of this permit) and interpolate the annual isoerodent value for the proposed construction location.
- (e) Multiply the percent value obtained in Step (c) above by the annual isoerodent value obtained in Step (d). This is the R factor for the proposed project. If the value is less than 5, then a waiver may be obtained. If the value is five (5) or more, then a waiver may not be obtained, and the operator must obtain coverage under Part II.E.2. of this permit.

Alternatively, the operator may calculate a site-specific R factor utilizing the following online calculator: <http://ei.tamu.edu/index.html>, or using another available resource.

A copy of the LREW certification form is not required to be posted at the small construction site.

3. Effective Date of a LREW

Unless otherwise notified by the executive director, operators of small construction activities seeking coverage under a LREW are provisionally waived from the otherwise applicable requirements of this general permit seven (7) days from the date that a completed paper LREW certification form is postmarked for delivery to TCEQ, or immediately upon receiving confirmation of approval of an electronic submittal, made via the online e-Permits system available through the TCEQ website.

Effective September 1, 2018, applicants seeking coverage under a LREW must submit an application for a LREW using the online e-Permits system available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge.

4. Activities Extending Beyond the LREW Period

If a construction activity extends beyond the approved waiver period due to circumstances beyond the control of the operator, the operator must either:

- (a) recalculate the R factor using the original start date and a new projected ending date, and if the R factor is still under five (5), submit a new waiver certification form at least two (2) days before the end of the original waiver period; or
- (b) obtain authorization under this general permit according to the requirements for automatic authorization for small construction activities in Part II.E.2 of this permit, prior to the end of the approved LREW period.

Section H. Alternative TPDES Permit Coverage

1. Individual Permit Alternative

Any discharge eligible for coverage under this general permit may alternatively be authorized under an individual TPDES permit according to 30 TAC §305 (relating to Consolidated Permits). Applications for individual permit coverage must be submitted at least three hundred and thirty (330) days prior to commencement of construction activities to ensure timely authorization. Existing coverage under this general permit should not be terminated until an individual permit is issued and in effect.

2. Alternative Authorizations for Certain Discharges

Certain discharges eligible for authorization under this general permit may alternatively be authorized under a separate general permit according to 30 TAC Chapter 205 (relating to General Permits for Waste Discharges), as applicable.

3. Individual Permit Required

The executive director may require an operator of a construction site, otherwise eligible for authorization under this general permit, to apply for an individual TPDES permit in the following circumstances:

- (a) the conditions of an approved TMDL or TMDL I-Plan on the receiving water;
- (b) the activity being determined to cause, has a reasonable potential to cause, or contribute to a violation of water quality standards or being found to cause, or contribute to, the loss of a designated use of surface water in the state; and
- (c) any other consideration defined in 30 TAC Chapter 205 (relating to General Permits for Waste Discharges) including 30 TAC Chapter 205.4(c)(3)(D), which allows the commission to deny authorization under the general permit and require an individual permit if a discharger has been determined by the executive director to have been out of compliance with any rule, order, or permit of the commission, including non-payment of fees assessed by the executive director.

A discharger with a TCEQ compliance history rating of “unsatisfactory” is ineligible for coverage under this general permit. In that case, 30 TAC § 60.3 requires the executive director to deny or suspend an authorization to discharge under a general permit. However, per TWC § 26.040(h), a discharger is entitled to a hearing before the commission prior to having an authorization denied or suspended for having an “unsatisfactory” compliance history.

Denial of authorization to discharge under this general permit or suspension of a permittee’s authorization under this general permit for reasons other than compliance history shall be done according to commission rules in 30 TAC Chapter 205 (relating to General Permits for Waste Discharges).

4. Alternative Discharge Authorization

Any discharge eligible for authorization under this general permit may alternatively be authorized under a separate general permit according to 30 TAC Chapter 205 (relating to General Permits for Waste Discharges), if applicable.

Section I. Permit Expiration

1. This general permit is effective for a term not to exceed five (5) years. All active discharge authorizations expire on the date provided on page one (1) of this permit. Following public notice and comment, as provided by 30 TAC §205.3 (relating to Public Notice, Public Meetings, and Public Comment), the commission may amend,

revoke, cancel, or renew this general permit. All authorizations that are active at the time the permit term expires will be administratively continued as indicated in Part II.I.2 below and in Part II.D.1(b) and D.2(b) of this permit.

2. If the executive director publishes a notice of the intent to renew or amend this general permit before the expiration date, the permit will remain in effect for existing, authorized discharges until the commission takes final action on the permit. Upon issuance of a renewed or amended permit, permittees may be required to submit an NOI within 90 days following the effective date of the renewed or amended permit, unless that permit provides for an alternative method for obtaining authorization.
3. If the commission does not propose to reissue this general permit within 90 days before the expiration date, permittees shall apply for authorization under an individual permit or an alternative general permit. If the application for an individual permit is submitted before the expiration date, authorization under this expiring general permit remains in effect until the issuance or denial of an individual permit. No new NOIs will be accepted nor new authorizations honored under the general permit after the expiration date.

Part III. Stormwater Pollution Prevention Plans (SWP3)

All regulated construction site operators shall prepare an SWP3, prior to submittal of an NOI, to address discharges authorized under Parts II.E.2 and II.E.3 of this general permit that will reach Waters of the U.S. This includes discharges to MS4s and privately owned separate storm sewer systems that drain into surface water in the state or Waters of the U.S.

Individual operators at a site may develop separate SWP3s that cover only their portion of the project, provided reference is made to the other operators at the site. Where there is more than one SWP3 for a site, operators must coordinate to ensure that BMPs and controls are consistent and do not negate or impair the effectiveness of each other. Regardless of whether a single comprehensive SWP3 is developed or separate SWP3s are developed for each operator, it is the responsibility of each operator to ensure compliance with the terms and conditions of this general permit in the areas of the construction site where that operator has control over construction plans and specifications or day-to-day operations.

An SWP3 must describe the implementation of practices that will be used to minimize to the extent practicable the discharge of pollutants in stormwater associated with construction activity and non-stormwater discharges described in Part II.A.3, in compliance with the terms and conditions of this permit.

An SWP3 must also identify any potential sources of pollution that have been determined to cause, have a reasonable potential to cause, or contribute to a violation of water quality standards or have been found to cause or contribute to the loss of a designated use of surface water in the state from discharges of stormwater from construction activities and construction support activities. Where potential sources of these pollutants are present at a construction site, the SWP3 must also contain a description of the management practices that will be used to prevent these pollutants from being discharged into surface water in the state or Waters of the U.S.

NOTE: Construction support activities can also include vehicle repair areas, fueling areas, etc. that are present at a construction site solely for the support construction activities and are only used by operators at the construction site.

The SWP3 is intended to serve as a road map for how the construction operator will comply with the effluent limits and other conditions of this permit and does not establish the effluent limits that apply to the construction site's discharges. These limits are established in Part III.G of the permit.

Section A. Shared SWP3 Development

For more effective coordination of BMPs and opportunities for cost sharing, a cooperative effort by the different operators at a site is encouraged. Operators of small and large construction activities must independently obtain authorization under this permit, but may work together with other regulated operators at the construction site to prepare and implement a single, comprehensive SWP3, which can be shared by some or all operators, for the construction activities that each of the operators are performing at the entire construction site.

1. The SWP3 must include the following:
 - (a) for small construction activities – the name of each operator that participates in the shared SWP3;
 - (b) for large construction activities - the name of each operator that participates in the shared SWP3, the general permit authorization numbers of each operator (or the date that the NOI was submitted to TCEQ by each operator that has not received an authorization number for coverage under this permit); and
 - (c) for large and small construction activities - the signature of each operator participating in the shared SWP3.
2. The SWP3 must clearly indicate which operator is responsible for satisfying each shared requirement of the SWP3. If the responsibility for satisfying a requirement is not described in the plan, then each permittee is entirely responsible for meeting the requirement within the boundaries of the construction site where they perform construction activities. The SWP3 must clearly describe responsibilities for meeting each requirement in shared or common areas.
3. The SWP3 may provide that one operator is responsible for preparation of a SWP3 in compliance with the CGP, and another operator is responsible for implementation of the SWP3 at the project site.

Section B. Responsibilities of Operators

1. Secondary Operators and Primary Operators with Control Over Construction Plans and Specifications

All secondary operators and primary operators with control over construction plans and specifications shall:

 - (a) ensure the project specifications allow or provide that adequate BMPs are developed to meet the requirements of Part III of this general permit;
 - (b) ensure that the SWP3 indicates the areas of the project where they have control over project specifications, including the ability to make modifications in specifications;
 - (c) ensure that all other operators affected by modifications in project specifications are notified in a timely manner so that those operators may modify their BMPs as necessary to remain compliant with the conditions of this general permit; and
 - (d) ensure that the SWP3 for portions of the project where they are operators indicates the name and site-specific TPDES authorization number(s) for operators with the day-to-day operational control over those activities necessary to ensure compliance with the SWP3 and other permit conditions. If a primary operator has not been authorized or has abandoned the site, the secondary operator is considered to be the responsible party and must obtain authorization

as a primary operator under the permit, until the authority for day-to-day operational control is transferred to another primary operator. The new primary operator must update or develop a new SWP3 that will reflect the transfer of operational control and include any additional updates to the SWP3 to meet requirements of the permit.

2. Primary Operators with Day-to-Day Operational Control

Primary operators with day-to-day operational control of those activities at a project that are necessary to ensure compliance with an SWP3 and other permit conditions must ensure that the SWP3 accomplishes the following requirements:

- (a) meets the requirements of this general permit for those portions of the project where they are operators;
- (b) identifies the parties responsible for implementation of BMPs described in the SWP3;
- (c) indicates areas of the project where they have operational control over day-to-day activities; and
- (d) the name and site-specific TPDES authorization number of the parties with control over project specifications, including the ability to make modifications in specifications for areas where they have operational control over day-to-day activities.

Section C. Deadlines for SWP3 Preparation, Implementation, and Compliance

The SWP3 must be prepared prior to obtaining authorization under this general permit, and implemented prior to commencing construction activities that result in soil disturbance. The SWP3 must be prepared so that it provides for compliance with the terms and conditions of this general permit.

Section D. Plan Review and Making Plans Available

1. The SWP3 must be retained on-site at the construction site or, if the site is inactive or does not have an on-site location to store the plan, a notice must be posted describing the location of the SWP3. The SWP3 must be made readily available at the time of an on-site inspection to: the executive director; a federal, state, or local agency approving sediment and erosion plans, grading plans, or stormwater management plans; local government officials; and the operator of a municipal separate storm sewer receiving discharges from the site. If the SWP3 is retained off-site, then it shall be made available as soon as reasonably possible. In most instances, it is reasonable that the SWP3 shall be made available within 24 hours of the request.
2. Operators with authorization for construction activity under this general permit must post a TCEQ site notice at the construction site at a place readily available for viewing by the general public, and local, state, and federal authorities.
 - (a) Primary and secondary operators of large construction activities must each post a TCEQ construction site notice, respective to their role as an operator at the construction site, as required above and according to requirements in Part II.E.3 of this general permit.
 - (b) Primary and secondary operators of small construction activities must post the TCEQ site notice as required in Part III.D.2.(a) above and for the specific type of small construction described in Part II.E.1 and 2 of the permit.
 - (c) If the construction project is a linear construction project, such as a pipeline or highway, the notices must be placed in a publicly accessible location near where construction is actively underway. Site notices for small and large construction

activities at these linear construction sites may be located, as necessary, along the length of the project, but must still be readily available for viewing by the general public; local, state, and federal authorities; and contain the following information:

- i. the site-specific TPDES authorization number for the project if assigned;
 - ii. the operator name, contact name, and contact phone number;
 - iii. a brief description of the project; and
 - iv. the location of the SWP₃.
3. This permit does not provide the general public with any right to trespass on a construction site for any reason, including inspection of a site; nor does this permit require that permittees allow members of the general public access to a construction site.

Section E. Revisions and Updates to SWP₃s

The permittee must revise or update the SWP₃ within seven days of when any of the following occurs:

1. a change in design, construction, operation, or maintenance that has a significant effect on the discharge of pollutants and that has not been previously addressed in the SWP₃;
2. changing site conditions based on updated plans and specifications, new operators, new areas of responsibility, and changes in BMPs; or
3. results of inspections or investigations by construction site personnel authorized by the permittee, operators of a municipal separate storm sewer system receiving the discharge, authorized TCEQ personnel, or a federal, state or local agency approving sediment and erosion plans indicate the SWP₃ is proving ineffective in eliminating or significantly minimizing pollutants in discharges authorized under this general permit.

Section F. Contents of SWP₃

The SWP₃ must be developed and implemented by primary operators of small and large construction activities and include, at a minimum, the information described in this section and must comply with the construction and development effluent guidelines in Part III, Section G of the general permit.

1. A site or project description, which includes the following information:
 - (a) a description of the nature of the construction activity;
 - (b) a list of potential pollutants and their sources;
 - (c) a description of the intended schedule or sequence of activities that will disturb soils for major portions of the site, including estimated start dates and duration of activities;
 - (d) the total number of acres of the entire property and the total number of acres where construction activities will occur, including areas where construction support activities (defined in Part I.B of this general permit) occur;
 - (e) data describing the soil or the quality of any discharge from the site;
 - (f) a map showing the general location of the site (e.g. a portion of a city or county map);
 - (g) a detailed site map (or maps) indicating the following:

- i. drainage patterns and approximate slopes anticipated after major grading activities;
- ii. areas where soil disturbance will occur;
- iii. locations of all controls and buffers, either planned or in place;
- iv. locations where temporary or permanent stabilization practices are expected to be used;
- v. locations of construction support activities, including those located off-site;
- vi. surface waters (including wetlands) either at, adjacent, or in close proximity to the site, and also indicate whether those waters are impaired;
- vii. locations where stormwater discharges from the site directly to a surface water body or a municipal separate storm sewer system;
- viii. vehicle wash areas; and
- ix. designated points on the site where vehicles will exit onto paved roads (for instance, this applies to construction transition from unstable dirt areas to exterior paved roads).

Where the amount of information required to be included on the map would result in a single map being difficult to read and interpret, the operator shall develop a series of maps that collectively include the required information.

- (h) the location and description of support activities authorized under the permittee's NOI, including asphalt plants, concrete plants, and other activities providing support to the construction site that is authorized under this general permit;
 - (i) the name of receiving waters at or near the site that may be disturbed or that may receive discharges from disturbed areas of the project;
 - (j) a copy of this TPDES general permit;
 - (k) the NOI and the acknowledgement of provisional and non-provisional authorization for primary operators of large construction sites, and the site notice for small construction sites and for secondary operators of large construction sites;
 - (l) stormwater and allowable non-stormwater discharge locations, including storm drain inlets on site and in the immediate vicinity of the construction site where construction support activities will occur; and
 - (m) locations of all pollutant-generating activities at the construction site and where construction support activities will occur, such as the following: Paving operations; concrete, paint and stucco washout and water disposal; solid waste storage and disposal; and dewatering operations.
2. A description of the BMPs that will be used to minimize pollution in runoff.

The description must identify the general timing or sequence for implementation. At a minimum, the description must include the following components:

- (a) General Requirements
 - i. Erosion and sediment controls must be designed to retain sediment on-site to the extent practicable with consideration for local topography, soil type, and rainfall.
 - ii. Control measures must be properly selected, installed, and maintained according to the manufacturer's or designer's specifications.

- iii. Controls must be developed to minimize the offsite transport of litter, construction debris, and construction materials.

(b) Erosion Control and Stabilization Practices

The SWP3 must include a description of temporary and permanent erosion control and stabilization practices for the construction site, where small or large construction activity will occur. The erosion control and stabilization practices selected by the permittee must be compliant with the requirements for sediment and erosion control, located in Part III.G of this permit. The description of the SWP3 must also include a schedule of when the practices will be implemented. Site plans must ensure that existing vegetation at the construction site is preserved where it is possible.

- i. Erosion control and stabilization practices may include but are not limited to: establishment of temporary or permanent vegetation, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of existing trees and vegetation, slope texturing, temporary velocity dissipation devices, flow diversion mechanisms, and other similar measures.
- ii. The following records must be maintained and either attached to or referenced in the SWP3, and made readily available upon request to the parties listed in Part III.D.1 of this general permit:
 - (A) the dates when major grading activities occur;
 - (B) the dates when construction activities temporarily or permanently cease on a portion of the site; and
 - (C) the dates when stabilization measures are initiated.
- iii. Erosion control and stabilization measures must be initiated immediately in portions of the site where construction activities have temporarily ceased and will not resume for a period exceeding 14 calendar days. Stabilization measures that provide a protective cover must be initiated immediately in portions of the site where construction activities have permanently ceased. The term “immediately” is used to define the deadline for initiating stabilization measures. In the context of this requirement, “immediately” means as soon as practicable, but no later than the end of the next work day, following the day when the earth-disturbing activities have temporarily or permanently ceased. Except as provided in (A) through (D) below, these measures must be completed as soon as practicable, but no more than 14 calendar days after the initiation of soil stabilization measures:
 - (A) Where the immediate initiation of vegetative stabilization measures after construction activity has temporarily or permanently ceased due to frozen conditions, non-vegetative controls must be implemented until thawing conditions (as defined in Part I.B of this general permit) are present, and vegetative stabilization measures can be initiated as soon as practicable.
 - (B) In arid areas, semi-arid areas, or drought-stricken areas, as they are defined in Part I.B of this general permit, where the immediate initiation of vegetative stabilization measures after construction activity has temporarily or permanently ceased or is precluded by arid conditions, other types of erosion control and stabilization measures must be initiated at the site as soon as practicable. Where vegetative controls are infeasible due to arid conditions, and within 14 calendar days of a temporary or permanent cessation of construction activity in any portion of the site, the operator shall immediately install non-

vegetative erosion controls in areas of the construction site where construction activity is complete or has ceased. If non-vegetative controls are infeasible, the operator shall install temporary sediment controls as required in Part III.F.2.(b).iii.(C) below.

- (C) In areas where non-vegetative controls are infeasible, the operator may alternatively utilize temporary perimeter controls. The operator must document in the SWP3 the reason why stabilization measures are not feasible, and must demonstrate that the perimeter controls will retain sediment on site to the extent practicable. The operator must continue to inspect the BMPs at the frequencies established in Part III.F.7.(c) for unstabilized sites.
- (D) The requirement for permittees to initiate stabilization is triggered as soon as it is known with reasonable certainty that construction activity at the site or in certain areas of the site will be stopped for 14 or more additional calendar days. If the initiation or completion of vegetative stabilization is prevented by circumstances beyond the control of the permittee, the permittee must employ and implement alternative stabilization measures immediately. When conditions at the site changes that would allow for vegetative stabilization, then the permittee must initiate or complete vegetative stabilization as soon as practicable.

- iv. Final stabilization must be achieved prior to termination of permit coverage.
- v. TCEQ does not expect that temporary or permanent stabilization measures to be applied to areas that are intended to be left un-vegetated or unstabilized following construction (e.g., dirt access roads, utility pole pads, areas being used for storage of vehicles, equipment, or materials).

(c) Sediment Control Practices

The SWP3 must include a description of any sediment control practices used to remove eroded soils from stormwater runoff, including the general timing or sequence for implementation of controls.

i. Sites With Drainage Areas of Ten or More Acres

(A) Sedimentation Basin(s)

- (1) A sedimentation basin is required, where feasible, for a common drainage location that serves an area with ten (10) or more acres disturbed at one time. A sedimentation basin may be temporary or permanent, and must provide sufficient storage to contain a calculated volume of runoff from a 2-year, 24-hour storm from each disturbed acre drained. When calculating the volume of runoff from a 2-year, 24-hour storm event, it is not required to include the flows from offsite areas and flow from onsite areas that are either undisturbed or have already undergone permanent stabilization, if these flows are diverted around both the disturbed areas of the site and the sediment basin. Capacity calculations shall be included in the SWP3.
- (2) Where rainfall data is not available or a calculation cannot be performed, the sedimentation basin must provide at least 3,600 cubic feet of storage per acre drained until final stabilization of the site.

- (a) Permittees shall minimize, to the extent practicable, the off-site vehicle tracking of sediments and the generation of dust. The SWP3 shall include a description of controls utilized to accomplish this requirement.
 - (b) The SWP3 must include a description of construction and waste materials expected to be stored on-site and a description of controls to minimize pollutants from these materials.
 - (c) The SWP3 must include a description of potential pollutant sources in discharges of stormwater from all areas of the construction site where construction activity, including construction support activities, will be located, and a description of controls and measures that will be implemented at those sites to minimize pollutant discharges.
 - (d) Permittees shall place velocity dissipation devices at discharge locations and along the length of any outfall channel (i.e., runoff conveyance) to provide a non-erosive flow velocity from the structure to a water course, so that the natural physical and biological characteristics and functions are maintained and protected.
 - (e) Permittees shall design and utilize appropriate controls to minimize the offsite transport of suspended sediments and other pollutants if it is necessary to pump or channel standing water from the site.
 - (f) Permittees shall ensure that all other required controls and BMPs comply with all of the requirements of Part III.G of this general permit.
 - (g) For demolition of any structure with at least 10,000 square feet of floor space that was built or renovated before January 1, 1980, and the receiving waterbody is impaired for polychlorinated biphenyls (PCBs):
 - i. Implement controls to minimize the exposure of PCB-containing building materials, including paint, caulk, and pre-1980 fluorescent lighting fixtures to precipitation and to stormwater; and
 - ii. Ensure that disposal of such materials is performed in compliance with applicable state, federal, and local laws.
5. Documentation of Compliance with Approved State and Local Plans
- (a) Permittees must ensure that the SWP3 is consistent with requirements specified in applicable sediment and erosion site plans or site permits, or stormwater management site plans or site permits approved by federal, state, or local officials.
 - (b) SWP3s must be updated as necessary to remain consistent with any changes applicable to protecting surface water resources in sediment erosion site plans or site permits, or stormwater management site plans or site permits approved by state or local official for which the permittee receives written notice.
 - (c) If the permittee is required to prepare a separate management plan, including but not limited to a WPAP or Contributing Zone Plan in accordance with 30 TAC Chapter 213 (related to the Edwards Aquifer), then a copy of that plan must be either included in the SWP3 or made readily available upon request to authorized personnel of the TCEQ. The permittee shall maintain a copy of the approval letter for the plan in its SWP3.
6. Maintenance Requirements
- (a) All protective measures identified in the SWP3 must be maintained in effective operating condition. If, through inspections or other means, as soon as the permittee determines that BMPs are not operating effectively, then the permittee shall perform maintenance as necessary to maintain the continued effectiveness

of stormwater controls, and prior to the next rain event if feasible. If maintenance prior to the next anticipated storm event is impracticable, the reason shall be documented in the SWP3 and maintenance must be scheduled and accomplished as soon as practicable. Erosion and sediment controls that have been intentionally disabled, run-over, removed, or otherwise rendered ineffective must be replaced or corrected immediately upon discovery.

- (b) If periodic inspections or other information indicates a control has been used incorrectly, is performing inadequately, or is damaged, then the operator shall replace or modify the control as soon as practicable after making the discovery.
- (c) Sediment must be removed from sediment traps and sedimentation ponds no later than the time that design capacity has been reduced by 50%. For perimeter controls such as silt fences, berms, etc., the trapped sediment must be removed before it reaches 50% of the above-ground height.
- (d) If sediment escapes the site, accumulations must be removed at a frequency that minimizes off-site impacts, and prior to the next rain event, if feasible. If the permittee does not own or operate the off-site conveyance, then the permittee shall work with the owner or operator of the property to remove the sediment.

7. Inspections of Controls

- (a) Personnel provided by the permittee must inspect disturbed areas (cleared, graded, or excavated) of the construction site that do not meet the requirements of final stabilization in this general permit, all locations where stabilization measures have been implemented, areas of construction support activity covered under this permit, stormwater controls (including pollution prevention controls) for evidence of, or the potential for, the discharge of pollutants, areas where stormwater typically flows within the construction site, and points of discharge from the construction site.

- i. Personnel conducting these inspections must be knowledgeable of this general permit, the construction activities at the site, and the SWP3 for the site.
- ii. Personnel conducting these inspections are not required to have signatory authority for inspection reports under 30 TAC §305.128.

(b) Requirements for Inspections

- i. Inspect all stormwater controls (including sediment and erosion control measures identified in the SWP3) to ensure that they are installed properly, appear to be operational, and minimizing pollutants in discharges, as intended.
- ii. Identify locations on the construction site where new or modified stormwater controls are necessary.
- iii. Check for signs of visible erosion and sedimentation that can be attributed to the points of discharge where discharges leave the construction site or discharge into any surface water in the state flowing within or adjacent to the construction site.
- iv. Identify any incidents of noncompliance observed during the inspection.
- v. Inspect locations where vehicles enter or exit the site for evidence of off-site sediment tracking.
- vi. If an inspection is performed when discharges from the construction site are occurring: identify all discharge points at the site, observe and document the visual quality of the discharge (i.e., color, odor, floating, settled, or

suspended solids, foam, oil sheen, and other such indicators of pollutants in stormwater).

- vii. Complete any necessary maintenance needed, based on the results of the inspection and in accordance with the requirements listed in Part III.F.6 above.

(c) Inspection frequencies:

- i. Inspections of construction sites must be conducted at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater, unless as otherwise provided below in Part III.F.7.(c).ii – v below.
- ii. Inspection frequencies must be conducted at least once every month in areas of the construction site that meet final stabilization or have been temporarily stabilized.
- iii. Inspection frequencies for construction sites, where runoff is unlikely due to the occurrence of frozen conditions at the site, must be conducted at least once every month until thawing conditions begin to occur (See definitions for thawing conditions in Part I.B). The SWP3 must also contain a record of the approximate beginning and ending dates of when frozen conditions occurred at the site, which resulted in inspections being conducted monthly, while those conditions persisted, instead of at the interval of once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.
- iv. In arid, semi-arid, or drought-stricken areas, inspections must be conducted at least once every month and within 24 hours after the end of a storm event of 0.5 inches or greater. The SWP3 must also contain a record of the total rainfall measured, as well as the approximate beginning and ending dates of when drought conditions occurred at the site, which resulted in inspections being conducted monthly, while those conditions persisted, instead of at the interval of once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater.
- v. As an alternative to the inspection schedule in Part III.F.7.(c).i above, the SWP3 may be developed to require that these inspections will occur at least once every seven (7) calendar days. If this alternative schedule is developed, then the inspection must occur regardless of whether or not there has been a rainfall event since the previous inspection.
- vi. The inspection procedures described in Part III.F.7.(c).i – v above can be performed at the frequencies and under the applicable conditions indicated for each schedule option, provided that the SWP3 reflects the current schedule and that any changes to the schedule are made in accordance with the following provisions: the inspection frequency schedule can only be changed a maximum of one time each month; the schedule change must be implemented at the beginning of a calendar month; and the reason for the schedule change documented in the SWP3 (e.g., end of “dry” season and beginning of “wet” season).

(d) Utility line installation, pipeline construction, and other examples of long, narrow, linear construction activities may provide inspection personnel with limited access to the areas described in Part III.F.7.(a) above.

- i. Inspection of linear construction sites could require the use of vehicles that could compromise areas of temporary or permanent stabilization, cause

additional disturbance of soils, and result in the increase the potential for erosion. In these circumstances, controls must be inspected at least once every 14 calendar days and within 24 hours of the end of a storm event of 0.5 inches or greater, but representative inspections may be performed.

- ii. For representative inspections, personnel must inspect controls along the construction site for 0.25 mile above and below each access point where a roadway, undisturbed right-of-way, or other similar feature intersects the construction site and allows access to the areas described in Part III.F.7.(a) above. The conditions of the controls along each inspected 0.25 mile portion may be considered as representative of the condition of controls along that reach extending from the end of the 0.25 mile portion to either the end of the next 0.25 mile inspected portion, or to the end of the project, whichever occurs first.

As an alternative to the inspection schedule described in Part III.F.7.(c).i above, the SWP3 may be developed to require that these inspections will occur at least once every seven (7) calendar days. If this alternative schedule is developed, the inspection must occur regardless of whether or not there has been a rainfall event since the previous inspection.

- iii. The SWP3 for a linear construction site must reflect the current inspection schedule. Any changes to the inspection schedule must be made in accordance with the following provisions:
 - (A) the schedule may be changed a maximum of one time each month;
 - (B) the schedule change must be implemented at the beginning of a calendar month, and
 - (C) the reason for the schedule change must be documented in the SWP3 (e.g., end of “dry” season and beginning of “wet” season).
- (e) In the event of flooding or other uncontrollable situations which prohibit access to the inspection sites, inspections must be conducted as soon as access is practicable.
- (f) Inspection Reports
 - i. A report summarizing the scope of any inspection must be completed within 24-hours following the inspection. The report must also include the date(s) of the inspection and major observations relating to the implementation of the SWP3. Major observations in the report must include: the locations of where erosion and discharges of sediment or other pollutants from the site have occurred; locations of BMPs that need to be maintained; locations of BMPs that failed to operate as designed or proved inadequate for a particular location; and locations where additional BMPs are needed.
 - ii. Actions taken as a result of inspections must be described within, and retained as a part of, the SWP3. Reports must identify any incidents of non-compliance. Where a report does not identify any incidents of non-compliance, the report must contain a certification that the facility or site is in compliance with the SWP3 and this permit. The report must be retained as part of the SWP3 and signed by the person and in the manner required by 30 TAC §305.128 (relating to Signatories to Reports).
 - iii. The names and qualifications of personnel making the inspections for the permittee may be documented once in the SWP3 rather than being included in each report.
- (g) The SWP3 must be modified based on the results of inspections, as necessary, to better control pollutants in runoff. Revisions to the SWP3 must be completed

within seven (7) calendar days following the inspection. If existing BMPs are modified or if additional BMPs are necessary, an implementation schedule must be described in the SWP3 and wherever possible those changes implemented before the next storm event. If implementation before the next anticipated storm event is impracticable, these changes must be implemented as soon as practicable.

8. The SWP3 must identify and ensure the implementation of appropriate pollution prevention measures for all eligible non-stormwater components of the discharge, as listed in Part II.A.3 of this permit.
9. The SWP3 must include the information required in Part III.B of this general permit.
10. The SWP3 must include pollution prevention procedures that comply with Part III.G.4 of this general permit.

Section G. Erosion and Sediment Control Requirements Applicable to All Sites

Except as provided in 40 CFR §§125.30-125.32, any discharge regulated under this general permit, with the exception of sites that obtained waivers based on low rainfall erosivity, must achieve, at a minimum, the following effluent limitations representing the degree of effluent reduction attainable by application of the best practicable control technology currently available (BPT).

1. *Erosion and sediment controls.* Design, install, and maintain effective erosion controls and sediment controls to minimize the discharge of pollutants. At a minimum, such controls must be designed, installed, and maintained to:
 - (a) Control stormwater volume and velocity within the site to minimize soil erosion in order to minimize pollutant discharges;
 - (b) Control stormwater discharges, including both peak flowrates and total stormwater volume, to minimize channel and streambank erosion and scour in the immediate vicinity of discharge point(s);
 - (c) Minimize the amount of soil exposed during construction activity;
 - (d) Minimize the disturbance of steep slopes;
 - (e) Minimize sediment discharges from the site. The design, installation, and maintenance of erosion and sediment controls must address factors such as the amount, frequency, intensity and duration of precipitation, the nature of resulting stormwater runoff, and soil characteristics, including the range of soil particle sizes expected to be present on the site;
 - (f) If earth disturbance activities are located in close proximity to a surface water in the state, provide and maintain appropriate natural buffers if feasible and as necessary, around surface water in the state, depending on site-specific topography, sensitivity, and proximity to water bodies. Direct stormwater to vegetated areas and maximize stormwater infiltration to reduce pollutant discharges, unless infeasible. If providing buffers is infeasible, the permittee shall document the reason that natural buffers are infeasible and shall implement additional erosion and sediment controls to reduce sediment load;
 - (g) Preserve native topsoil at the site, unless the intended function of a specific area of the site dictates that the topsoil be disturbed or removed, or it is infeasible; and
 - (h) Minimize soil compaction. In areas of the construction site where final vegetative stabilization will occur or where infiltration practices will be installed,
 - i. restrict vehicle and equipment use to avoid soil compaction; or

- ii. prior to seeding or planting areas of exposed soil that have been compacted, use techniques that condition the soils to support vegetative growth, if necessary and feasible;

Minimizing soil compaction is not required where the intended function of a specific area of the site dictates that it be compacted.

- (i) TCEQ does not consider stormwater control features (e.g., stormwater conveyance channels, storm drain inlets, sediment basins) to constitute “surface water” for the purposes of triggering the buffer requirement in Part III.G.1.(f) above.
2. *Soil stabilization.* Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating, or other earth disturbing activities have permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding 14 calendar days. In the context of this requirement, “immediately” means as soon as practicable, but no later than the end of the next work day, following the day when the earth-disturbing activities have temporarily or permanently ceased. Temporary stabilization must be completed no more than 14 calendar days after initiation of soil stabilization measures, and final stabilization must be achieved prior to termination of permit coverage. In arid, semi-arid, and drought-stricken areas where initiating vegetative stabilization measures immediately is infeasible, alternative non-vegetative stabilization measures must be employed as soon as practicable. Refer to Part III.F.2.(b) for complete erosion control and stabilization practice requirements. In limited circumstances, stabilization may not be required if the intended function of a specific area of the site necessitates that it remain disturbed.
 3. *Dewatering.* Discharges from dewatering activities, including discharges from dewatering of trenches and excavations, are prohibited, unless managed by appropriate controls.
 4. *Pollution prevention measures.* Design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented, and maintained to:
 - (a) Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, and other wash waters. Wash waters must be treated in a sediment basin or alternative control that provides equivalent or better treatment prior to discharge;
 - (b) Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site to precipitation and to stormwater;
 - (c) Minimize the exposure of waste materials by closing waste container lids at the end of the work day. For waste containers that do not have lids, where the container itself is not sufficiently secure enough to prevent the discharge of pollutants absent a cover and could leak, the permittee must provide either a cover (e.g., a tarp, plastic sheeting, temporary roof) to minimize exposure of wastes to precipitation, or a similarly effective means designed to minimize the discharge of pollutants (e.g., secondary containment); and
 - (d) Minimize the discharge of pollutants from spills and leaks, and implement chemical spill and leak prevention and response procedures.
 5. *Prohibited discharges.* The following discharges are prohibited:

- (a) Wastewater from wash out of concrete, unless managed by an appropriate control;
 - (b) Wastewater from wash out and cleanout of stucco, paint, form release oils, curing compounds and other construction materials;
 - (c) Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance;
 - (d) Soaps or solvents used in vehicle and equipment washing; and
 - (e) Toxic or hazardous substances from a spill or other release.
6. *Surface outlets.* When discharging from basins and impoundments, utilize outlet structures that withdraw water from the surface, unless infeasible.

Part IV. Stormwater Runoff from Concrete Batch Plants

Discharges of stormwater runoff from concrete batch plants present at regulated construction sites and operated as a construction support activity may be authorized under the provisions of this general permit, provided that the following requirements are met for concrete batch plant(s) authorized under this permit. Only the discharges of stormwater runoff and non-stormwater from concrete batch plants that meet the requirements of a construction support activity can be authorized under this permit (see the requirements for “Non-Stormwater Discharges” in Part II.A.3 and “Discharges of Stormwater Associated with Construction Support Activity” in Part II.A.2).

If discharges of stormwater runoff or non-stormwater from concrete batch plants are not authorized under this general permit, then discharges must be authorized under an alternative general permit or individual permit [see the requirement in Part II.A.2.(c)].

This permit does not authorize the discharge or land disposal of any wastewater from concrete batch plants at regulated construction sites. Authorization for these wastes must be obtained under an individual permit or an alternative general permit.

Section A. Benchmark Sampling Requirements

1. Operators of concrete batch plants authorized under this general permit shall sample the stormwater runoff from the concrete batch plants according to the requirements of this section of this general permit, and must conduct evaluations on the effectiveness of the SWP3 based on the following benchmark monitoring values:

Table 1. Benchmark Parameters

Benchmark Parameter	Benchmark Value	Sampling Frequency	Sample Type
Oil and Grease (*1)	15 mg/L	1/quarter (*2) (*3)	Grab (*4)
Total Suspended Solids (*1)	50 mg/L	1/quarter (*2) (*3)	Grab (*4)
pH	6.0 – 9.0 Standard Units	1/quarter (*2) (*3)	Grab (*4)
Total Iron(*1)	1.3 mg/L	1/quarter (*2) (*3)	Grab (*4)

(*1) All analytical results for these parameters must be obtained from a laboratory that is accredited based on rules located in 30 TAC §25.4 (a) or through the National Environmental Laboratory Accreditation Program (NELAP). Analysis must be performed using sufficiently sensitive methods for analysis that comply with the rules located in 40 CFR §136.1(c) and 40 CFR §122.44(i)(1)(iv).

- (*2) When discharge occurs. Sampling is required within the first 30 minutes of discharge. If it is not practicable to take the sample, or to complete the sampling, within the first 30 minutes, sampling must be completed within the first hour of discharge. If sampling is not completed within the first 30 minutes of discharge, the reason must be documented and attached to all required reports and records of the sampling activity.
- (*3) Sampling must be conducted at least once during each of the following periods. The first sample must be collected during the first full quarter that a stormwater discharge occurs from a concrete batch plant authorized under this general permit.

January through March

April through June

July through September

October through December

For projects lasting less than one full quarter, a minimum of one sample shall be collected, provided that a stormwater discharge occurred at least once following submission of the NOI or following the date that automatic authorization was obtained under Section II.E.2, and prior to terminating coverage.

- (*4) A grab sample shall be collected from the stormwater discharge resulting from a storm event that is at least 0.1 inches of measured precipitation that occurs at least 72 hours from the previously measurable storm event. The sample shall be collected downstream of the concrete batch plant, and where the discharge exits any BMPs utilized to handle the runoff from the batch plant, prior to commingling with any other water authorized under this general permit.
2. The permittee must compare the results of sample analyses to the benchmark values above, and must include this comparison in the overall assessment of the SWP3's effectiveness. Analytical results that exceed a benchmark value are not a violation of this permit, as these values are not numeric effluent limitations. Results of analyses are indicators that modifications of the SWP3 should be assessed and may be necessary to protect water quality. The operator must investigate the cause for each exceedance and must document the results of this investigation in the SWP3 by the end of the quarter following the sampling event.

The operator's investigation must identify the following:

- (a) any additional potential sources of pollution, such as spills that might have occurred;
- (b) necessary revisions to good housekeeping measures that are part of the SWP3;
- (c) additional BMPs, including a schedule to install or implement the BMPs; and
- (d) other parts of the SWP3 that may require revisions in order to meet the goal of the benchmark values.

Background concentrations of specific pollutants may also be considered during the investigation. If the operator is able to relate the cause of the exceedance to background concentrations, then subsequent exceedances of benchmark values for that pollutant may be resolved by referencing earlier findings in the SWP3. Background concentrations may be identified by laboratory analyses of samples of stormwater run-on to the permitted facility, by laboratory analyses of samples of stormwater run-off from adjacent non-industrial areas, or by identifying the pollutant is a naturally occurring material in soils at the site.

Section B. Best Management Practices (BMPs) and SWP3 Requirements

Minimum SWP3 Requirements – The following are required in addition to other SWP3 requirements listed in this general permit, which include, but are not limited to the applicable requirements located in Part III.F.7 of this general permit, as follows:

1. Description of Potential Pollutant Sources - The SWP3 must provide a description of potential sources (activities and materials) that can cause, have a reasonable potential to cause or contribute to a violation of water quality standards or have been found to cause, or contribute to, the loss of a designated use of surface water in the state in stormwater discharges associated with concrete batch plants authorized under this permit. The SWP3 must describe the implementation of practices that will be used to minimize to the extent practicable the discharge of pollutants in stormwater discharges associated with industrial activity and non-stormwater discharges (described in Part II.A.3 of this general permit), in compliance with the terms and conditions of this general permit, including the protection of water quality, and must ensure the implementation of these practices.

The following must be developed, at a minimum, in support of developing this description:

- (a) Drainage – The site map must include the following information:
 - i. the location of all outfalls for stormwater discharges associated with concrete batch plants that are authorized under this permit;
 - ii. a depiction of the drainage area and the direction of flow to the outfall(s);
 - iii. structural controls used within the drainage area(s);
 - iv. the locations of the following areas associated with concrete batch plants that are exposed to precipitation: vehicle and equipment maintenance activities (including fueling, repair, and storage areas for vehicles and equipment scheduled for maintenance); areas used for the treatment, storage, or disposal of wastes; liquid storage tanks; material processing and storage areas; and loading and unloading areas; and
 - v. the locations of the following: any bag house or other dust control device(s); recycle/sedimentation pond, clarifier or other device used for the treatment of facility wastewater (including the areas that drain to the treatment device); areas with significant materials; and areas where major spills or leaks have occurred.
 - (b) Inventory of Exposed Materials – A list of materials handled at the concrete batch plant that may be exposed to stormwater and that have a potential to affect the quality of stormwater discharges associated with concrete batch plants that are authorized under this general permit.
 - (c) Spills and Leaks - A list of significant spills and leaks of toxic or hazardous pollutants that occurred in areas exposed to stormwater and that drain to stormwater outfalls associated with concrete batch plants authorized under this general permit must be developed, maintained, and updated as needed.
 - (d) Sampling Data - A summary of existing stormwater discharge sampling data must be maintained, if available.
2. Measures and Controls - The SWP3 must include a description of management controls to regulate pollutants identified in the SWP3's "Description of Potential Pollutant Sources" from Part IV.B.1 of this permit, and a schedule for implementation of the measures and controls. This must include, at a minimum:

- (a) Good Housekeeping - Good housekeeping measures must be developed and implemented in the area(s) associated with concrete batch plants.
- i. Operators must prevent or minimize the discharge of spilled cement, aggregate (including sand or gravel), settled dust, or other significant materials from paved portions of the site that are exposed to stormwater. Measures used to minimize the presence of these materials may include regular sweeping or other equivalent practices. These practices must be conducted at a frequency that is determined based on consideration of the amount of industrial activity occurring in the area and frequency of precipitation, and shall occur at least once per week when cement or aggregate is being handled or otherwise processed in the area.
 - ii. Operators must prevent the exposure of fine granular solids, such as cement, to stormwater. Where practicable, these materials must be stored in enclosed silos, hoppers or buildings, in covered areas, or under covering.
- (b) Spill Prevention and Response Procedures - Areas where potential spills that can contribute pollutants to stormwater runoff, and the drainage areas from these locations, must be identified in the SWP3. Where appropriate, the SWP3 must specify material handling procedures, storage requirements, and use of equipment. Procedures for cleaning up spills must be identified in the SWP3 and made available to the appropriate personnel.
- (c) Inspections - Qualified facility personnel (i.e., a person or persons with knowledge of this general permit, the concrete batch plant, and the SWP3 related to the concrete batch plant(s) for the site) must be identified to inspect designated equipment and areas of the facility specified in the SWP3. Personnel conducting these inspections are not required to have signatory authority for inspection reports under 30 TAC §305.128. Inspections of facilities in operation must be performed once every seven days. Inspections of facilities that are not in operation must be performed at a minimum of once per month. The current inspection frequency being implemented at the facility must be recorded in the SWP3. The inspection must take place while the facility is in operation and must, at a minimum, include all areas that are exposed to stormwater at the site, including material handling areas, above ground storage tanks, hoppers or silos, dust collection/containment systems, truck wash down and equipment cleaning areas. Follow-up procedures must be used to ensure that appropriate actions are taken in response to the inspections. Records of inspections must be maintained and be made readily available for inspection upon request.
- (d) Employee Training - An employee training program must be developed to educate personnel responsible for implementing any component of the SWP3, or personnel otherwise responsible for stormwater pollution prevention, with the provisions of the SWP3. The frequency of training must be documented in the SWP3, and at a minimum, must consist of one training prior to the initiation of operation of the concrete batch plant.
- (e) Record Keeping and Internal Reporting Procedures - A description of spills and similar incidents, plus additional information that is obtained regarding the quality and quantity of stormwater discharges, must be included in the SWP3. Inspection and maintenance activities must be documented and records of those inspection and maintenance activities must be incorporated in the SWP3.
- (f) Management of Runoff - The SWP3 shall contain a narrative consideration for reducing the volume of runoff from concrete batch plants by diverting runoff or otherwise managing runoff, including use of infiltration, detention ponds, retention ponds, or reusing of runoff.

3. Comprehensive Compliance Evaluation – At least once per year, one or more qualified personnel (i.e., a person or persons with knowledge of this general permit, the concrete batch plant, and the SWP3 related to the concrete batch plant(s) for the site) shall conduct a compliance evaluation of the plant. The evaluation must include the following.
 - (a) Visual examination of all areas draining stormwater associated with regulated concrete batch plants for evidence of, or the potential for, pollutants entering the drainage system. These include, but are not limited to: cleaning areas, material handling areas, above ground storage tanks, hoppers or silos, dust collection/containment systems, and truck wash down and equipment cleaning areas. Measures implemented to reduce pollutants in runoff (including structural controls and implementation of management practices) must be evaluated to determine if they are effective and if they are implemented in accordance with the terms of this permit and with the permittee's SWP3. The operator shall conduct a visual inspection of equipment needed to implement the SWP3, such as spill response equipment.
 - (b) Based on the results of the evaluation, the following must be revised as appropriate within two weeks of the evaluation: the description of potential pollutant sources identified in the SWP3 (as required in Part IV.B.1, "Description of Potential Pollutant Sources"); and pollution prevention measures and controls identified in the SWP3 (as required in Part IV.B.2, "Measures and Controls"). The revisions may include a schedule for implementing the necessary changes.
 - (c) The permittee shall prepare and include in the SWP3 a report summarizing the scope of the evaluation, the personnel making the evaluation, the date(s) of the evaluation, major observations relating to the implementation of the SWP3, and actions taken in response to the findings of the evaluation. The report must identify any incidents of noncompliance. Where the report does not identify incidences of noncompliance, the report must contain a statement that the evaluation did not identify any incidence(s), and the report must be signed according to 30 TAC §305.128, relating to Signatories to Reports.
 - (d) The Comprehensive Compliance Evaluation may substitute for one of the required inspections delineated in Part IV.B.2.(c) of this general permit.

Section C. Prohibition of Wastewater Discharges

Wastewater discharges associated with concrete production including wastewater disposal by land application are not authorized under this general permit. These wastewater discharges must be authorized under an alternative TCEQ water quality permit or otherwise disposed of in an authorized manner. Discharges of concrete truck wash out at construction sites may be authorized if conducted in accordance with the requirements of Part V of this general permit.

Part V. Concrete Truck Wash Out Requirements

This general permit authorizes the land disposal of wash out from concrete trucks at construction sites regulated under this general permit, provided the following requirements are met. Any discharge of concrete production waste water to surface water in the state must be authorized under a separate TCEQ general permit or individual permit.

- A.** Discharge of concrete truck wash out water to surface water in the state, including discharge to storm sewers, is prohibited by this general permit.
- B.** Concrete truck wash out water shall be disposed in areas at the construction site where structural controls have been established to prevent discharge to surfacewater

in the state, or to areas that have a minimal slope that allow infiltration and filtering of wash out water to prevent discharge to surface water in the state. Structural controls may consist of temporary berms, temporary shallow pits, temporary storage tanks with slow rate release, or other reasonable measures to prevent runoff from the construction site.

- C. Wash out of concrete trucks during rainfall events shall be minimized. The discharge of concrete truck wash out water is prohibited at all times, and the operator shall insure that its BMPs are sufficient to prevent the discharge of concrete truck wash out as the result of rainfall or stormwater runoff.
- D. The disposal of wash out water from concrete trucks, made under authorization of this general permit must not cause or contribute to groundwater contamination.
- E. If a SWP3 is required to be implemented, the SWP3 shall include concrete wash out areas on the associated site map.

Part VI. Retention of Records

The permittee must retain the following records for a minimum period of three (3) years from the date that a NOT is submitted as required in Part II.F.1 and 2 of this permit. For activities in which an NOT is not required, records shall be retained for a minimum period of three (3) years from the date that the operator terminates coverage under Section II.F.3 of this permit. Records include:

- A. A copy of the SWP3;
- B. All reports and actions required by this permit, including a copy of the construction site notice;
- C. All data used to complete the NOI, if an NOI is required for coverage under this general permit; and
- D. All records of submittal of forms submitted to the operator of any MS4 receiving the discharge and to the secondary operator of a large construction site, if applicable.

Part VII. Standard Permit Conditions

- A. The permittee has a duty to comply with all permit conditions. Failure to comply with any permit condition is a violation of the permit and statutes under which it was issued (CWA and TWC), and is grounds for enforcement action, for terminating, revoking and reissuance, or modification, or denying coverage under this general permit, or for requiring a discharger to apply for and obtain an individual TPDES permit, based on rules located in TWC §23.086, 30 TAC §305.66 and 40 CFR §122.41 (a).
- B. Authorization under this general permit may be modified, suspended, revoked and reissued, terminated or otherwise suspended for cause, based on rules located in TWC §23.086, 30 TAC §305.66 and 40 CFR §122.41(f). Filing a notice of planned changes or anticipated non-compliance by the permittee does not stay any permit condition. The permittee must furnish to the executive director, upon request and within a reasonable time, any information necessary for the executive director to determine whether cause exists for modifying, revoking and reissuing, terminating or, otherwise suspending authorization under this permit, based on rules located in TWC §23.086, 30 TAC §305.66 and 40 CFR §122.41 (h). Additionally, the permittee must provide to the executive director, upon request, copies of all records that the permittee is required to maintain as a condition of this general permit.
- C. It is not a defense for a discharger in an enforcement action that it would have been necessary to halt or reduce the permitted activity to maintain compliance with the permit conditions.

- D.** Inspection and entry shall be allowed under TWC Chapters 26-28, Texas Health and Safety Code §§361.032-361.033 and 361.037, and 40 CFR §122.41(i). The statement in TWC §26.014 that commission entry of a facility shall occur according to an establishment's rules and regulations concerning safety, internal security, and fire protection is not grounds for denial or restriction of entry to any part of the facility or site, but merely describes the commission's duty to observe appropriate rules and regulations during an inspection.
- E.** The discharger is subject to administrative, civil, and criminal penalties, as applicable, under TWC Chapter 7 for violations including but not limited to the following:
1. negligently or knowingly violating the federal CWA §§301, 302, 306, 307, 308, 318, or 405, or any condition or limitation implementing any sections in a permit issued under CWA §402, or any requirement imposed in a pretreatment program approved under CWA §§402(a)(3) or 402(b)(8);
 2. knowingly making any false statement, representation, or certification in any record or other document submitted or required to be maintained under a permit, including monitoring reports or reports of compliance or noncompliance; and
 3. knowingly violating CWA §303 and placing another person in imminent danger of death or serious bodily injury.
- F.** All reports and other information requested by the executive director must be signed by the person and in the manner required by 30 TAC §305.128 (relating to Signatories to Reports).
- G.** Authorization under this general permit does not convey property or water rights of any sort and does not grant any exclusive privilege.
- H.** The permittee shall take all reasonable steps to minimize or prevent any discharge in violation of this permit that has a reasonable likelihood of adversely affecting human health or the environment.
- I.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) that are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems that are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
- J.** The permittee shall comply with the monitoring and reporting requirements in 40 CFR §122.41(j) and (l), as applicable.
- K.** Analysis must be performed using sufficiently sensitive methods for analysis that comply with the rules located in 40 CFR §136.1(c) and 40 CFR §122.44(i)(1)(iv).

Part VIII. Fees

- A.** A fee of must be submitted along with the NOI:
1. \$325 if submitting a paper NOI, or
 2. \$225 if submitting an NOI electronically.
- B.** Fees are due upon submission of the NOI. An NOI will not be declared administratively complete unless the associated fee has been paid in full.
- C.** No separate annual fees will be assessed for this general permit. The Water Quality Annual Fee has been incorporated into the NOI fees as described above.

- D.** Effective September 1, 2018, applicants seeking coverage under an NOI or LREW must submit their application using the online e-Permits system available through the TCEQ website, or request and obtain a waiver from electronic reporting from the TCEQ. Waivers from electronic reporting are not transferrable and expire on the same date as the authorization to discharge.

Appendix A: Automatic Authorization

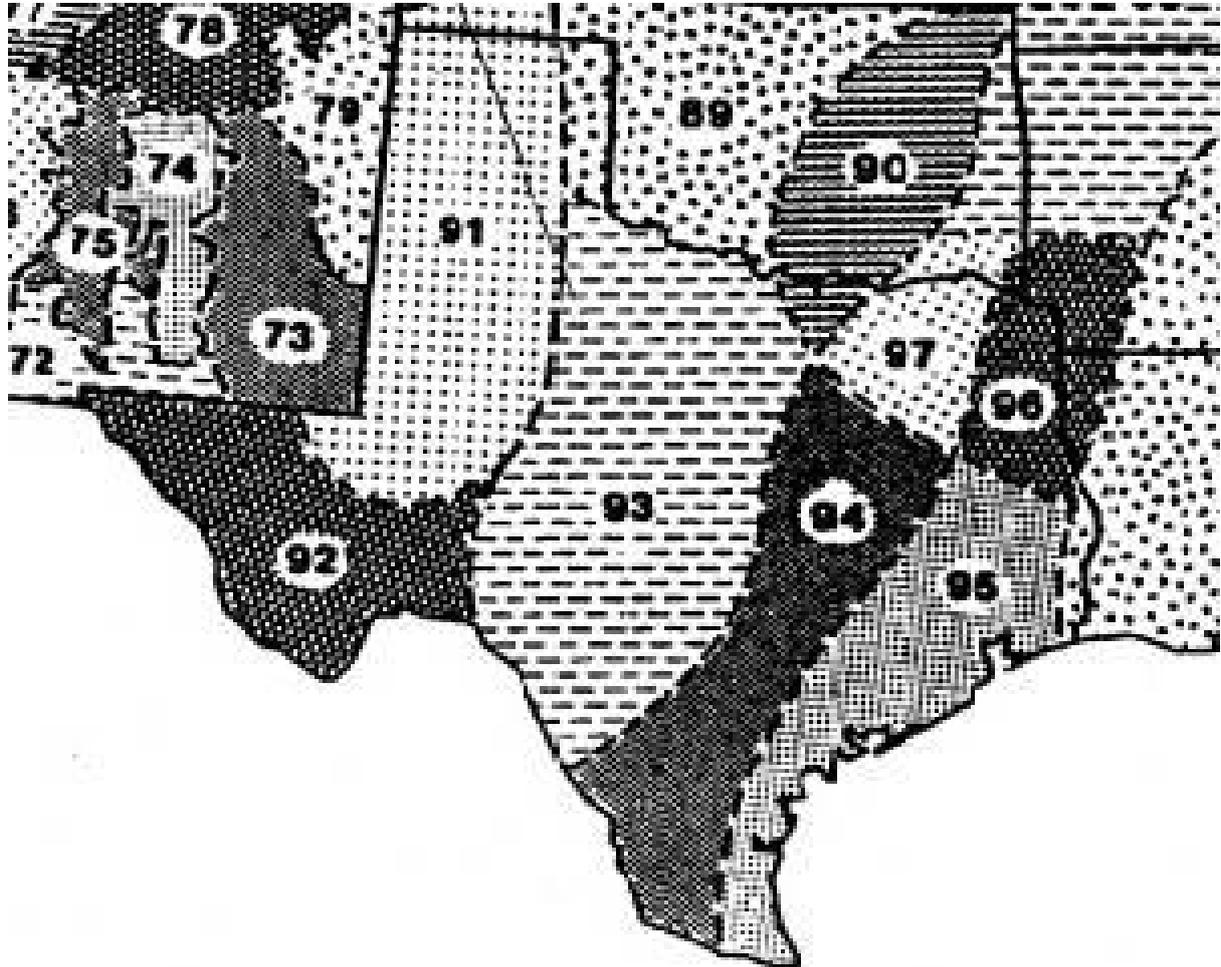
Periods of Low Erosion Potential by County – Eligible Date Ranges

Andrews: Nov. 15 - Apr. 30	Ector: Nov. 15 - Apr. 30
Archer: Dec. 15 - Feb. 14	Edwards: Dec. 15 - Feb. 14
Armstrong: Nov. 15 - Apr. 30	El Paso: Jan. 1 - Jul. 14, or May 15 - Jul. 31, or Jun. 1 - Aug. 14, or Jun. 15 - Sept. 14, or Jul. 1 - Oct. 14, or Jul. 15 - Oct. 31, or Aug. 1 - Apr. 30, or Aug. 15 - May 14, or Sept. 1 - May 30, or Oct. 1 - Jun. 14, or Nov. 1 - Jun. 30, or Nov. 15 - Jul. 14
Bailey: Nov. 1 - Apr. 30, or Nov. 15 - May 14	Fisher: Dec. 15 - Feb. 14
Baylor: Dec. 15 - Feb. 14	Floyd: Nov. 15 - Apr. 30
Borden: Nov. 15 - Apr. 30	Foard: Dec. 15 - Feb. 14
Brewster: Nov. 15 - Apr. 30	Gaines: Nov. 15 - Apr. 30
Briscoe: Nov. 15 - Apr. 30	Garza: Nov. 15 - Apr. 30
Brown: Dec. 15 - Feb. 14	Glasscock: Nov. 15 - Apr. 30
Callahan: Dec. 15 - Feb. 14	Hale: Nov. 15 - Apr. 30
Carson: Nov. 15 - Apr. 30	Hall: Feb. 1 - Mar. 30
Castro: Nov. 15 - Apr. 30	Hansford: Nov. 15 - Apr. 30
Childress: Dec. 15 - Feb. 14	Hardeman: Dec. 15 - Feb. 14
Cochran: Nov. 1 - Apr. 30, or Nov. 15 - May 14	Hartley: Nov. 15 - Apr. 30
Coke: Dec. 15 - Feb. 14	Haskell: Dec. 15 - Feb. 14
Coleman: Dec. 15 - Feb. 14	Hockley: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30
Collingsworth: Jan. 1 - Mar. 30, or Dec. 1 - Feb. 28	Howard: Nov. 15 - Apr. 30
Concho: Dec. 15 - Feb. 14	Hudspeth: Nov. 1 - May 14
Cottle: Dec. 15 - Feb. 14	Hutchinson: Nov. 15 - Apr. 30
Crane: Nov. 15 - Apr. 30	Irion: Dec. 15 - Feb. 14
Crockett: Nov. 15 - Jan. 14, or Feb. 1 - Mar. 30	Jeff Davis: Nov. 1 - Apr. 30 or Nov. 15 - May 14
Crosby: Nov. 15 - Apr. 30	Jones: Dec. 15 - Feb. 14
Culberson: Nov. 1 - May 14	Kent: Nov. 15 - Jan. 14 or Feb. 1 - Mar. 30
Dallam: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30	Kerr: Dec. 15 - Feb. 14
Dawson: Nov. 15 - Apr. 30	Kimble: Dec. 15 - Feb. 14
Deaf Smith: Nov. 15 - Apr. 30	King: Dec. 15 - Feb. 14
Dickens: Nov. 15 - Jan. 14, or Feb. 1 - Mar. 30	Kinney: Dec. 15 - Feb. 14
Dimmit: Dec. 15 - Feb. 14	Knox: Dec. 15 - Feb. 14
Donley: Jan. 1 - Mar. 30, or Dec. 1 - Feb. 28	Lamb: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30
Eastland: Dec. 15 - Feb. 14	

Loving: Nov. 1 - Apr. 30, or Nov. 15 - May 14
Lubbock: Nov. 15 - Apr. 30
Lynn: Nov. 15 - Apr. 30
Martin: Nov. 15 - Apr. 30
Mason: Dec. 15 - Feb. 14
Maverick: Dec. 15 - Feb. 14
McCulloch: Dec. 15 - Feb. 14
Menard: Dec. 15 - Feb. 14
Midland: Nov. 15 - Apr. 30
Mitchell: Nov. 15 - Apr. 30
Moore: Nov. 15 - Apr. 30
Motley: Nov. 15 - Jan. 14, or Feb. 1 - Mar. 30
Nolan: Dec. 15 - Feb. 14
Oldham: Nov. 15 - Apr. 30
Parmer: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30
Pecos: Nov. 15 - Apr. 30
Potter: Nov. 15 - Apr. 30
Presidio: Nov. 1 - Apr. 30, or Nov. 15 - May 14
Randall: Nov. 15 - Apr. 30
Reagan: Nov. 15 - Apr. 30
Real: Dec. 15 - Feb. 14
Reeves: Nov. 1 - Apr. 30, or Nov. 15 - May 14
Runnels: Dec. 15 - Feb. 14
Schleicher: Dec. 15 - Feb. 14

Scurry: Nov. 15 - Apr. 30
Shackelford: Dec. 15 - Feb. 14
Sherman: Nov. 15 - Apr. 30
Stephens: Dec. 15 - Feb. 14
Sterling: Nov. 15 - Apr. 30
Stonewall: Dec. 15 - Feb. 14
Sutton: Dec. 15 - Feb. 14
Swisher: Nov. 15 - Apr. 30
Taylor: Dec. 15 - Feb. 14
Terrell: Nov. 15 - Apr. 30
Terry: Nov. 15 - Apr. 30
Throckmorton: Dec. 15 - Feb. 14
Tom Green: Dec. 15 - Feb. 14
Upton: Nov. 15 - Apr. 30
Uvalde: Dec. 15 - Feb. 14
Val Verde: Nov. 15 - Jan. 14, or Feb. 1 - Mar. 30
Ward: Nov. 1 - Apr. 14, or Nov. 15 - Apr. 30
Wichita: Dec. 15 - Feb. 14
Wilbarger: Dec. 15 - Feb. 14
Winkler: Nov. 1 - Apr. 30, or Nov. 15 - May 14
Yoakum: Nov. 1 - Apr. 30, or Nov. 15 - May 14
Young: Dec. 15 - Feb. 14
Wheeler: Jan. 1 - Mar. 30, or Dec. 1 - Feb. 28
Zavala: Dec. 15 - Feb. 14

Appendix B: Erosivity Index (EI) Zones in Texas



Adapted from Chapter 2 of USDA Agriculture Handbook 703: "Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)," U.S. Department of Agriculture, Agricultural Research Service

Appendix C: Isoerodent Map

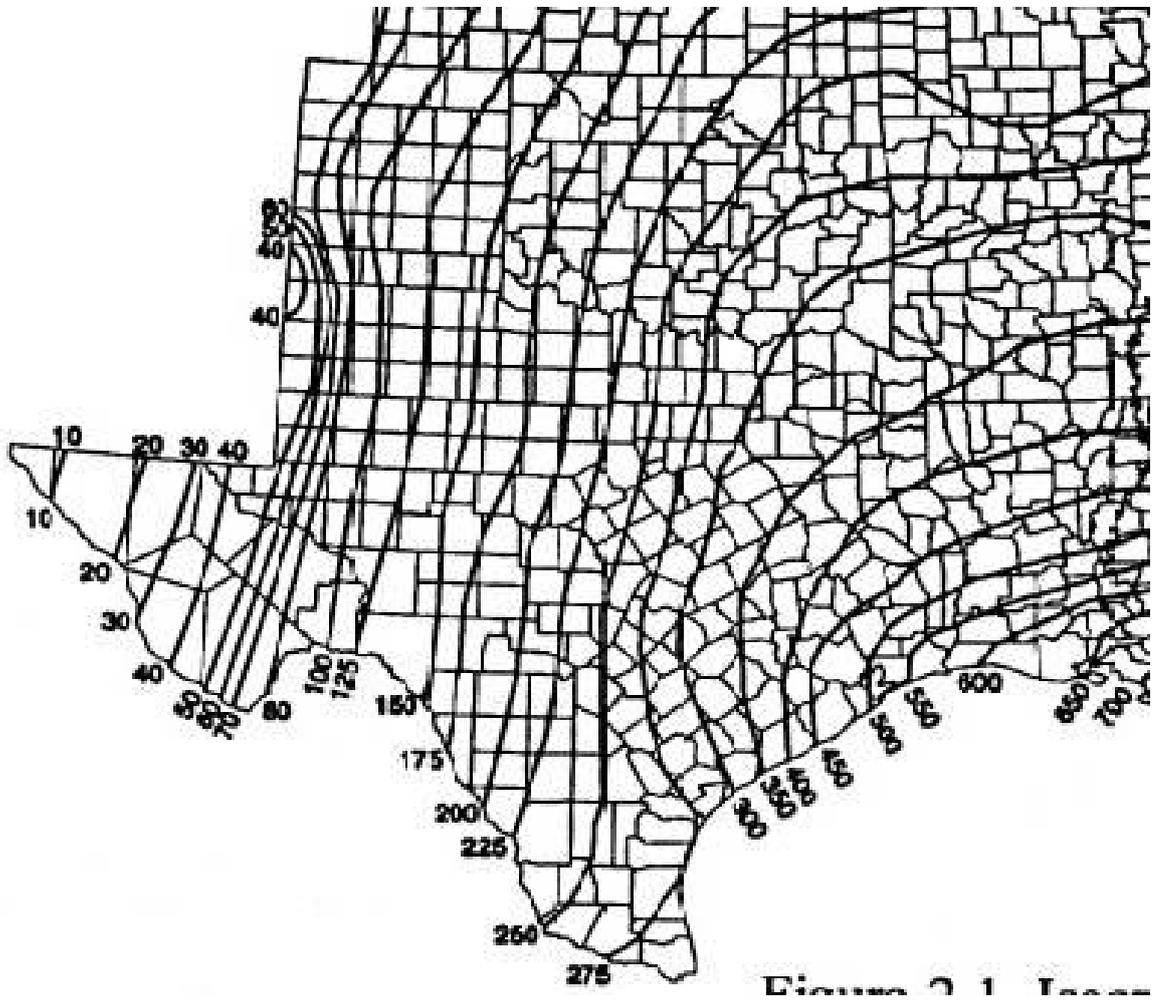


Figure 2.1 Isoerodent

Adapted from Chapter 2 of USDA Agriculture Handbook 703: "Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)," U.S. Department of Agriculture, Agricultural Research Service

Appendix D: Erosivity Indices for EI Zones in Texas

Periods:

EI #	1/1	1/16	1/31	2/15	3/1	3/16	3/31	4/15	4/30	5/15	5/30	6/14	6/29	7/14	7/29	8/13	8/28	9/12	9/27	10/12	10/27	11/11	11/26	12/11	12/31
89	0	1	1	2	3	4	7	2	8	27	38	48	55	62	69	76	83	90	94	97	98	99	100	100	100
90	0	1	2	3	4	6	8	13	21	29	37	46	54	60	65	69	74	81	87	92	95	97	98	99	100
91	0	0	0	0	1	1	1	2	6	16	29	39	46	53	60	67	74	81	88	95	99	99	100	100	100
92	0	0	0	0	1	1	1	2	6	16	29	39	46	53	60	67	74	81	88	95	99	99	100	100	100
93	0	1	1	2	3	4	6	8	13	25	40	49	56	62	67	72	76	80	85	91	97	98	99	99	100
94	0	1	2	4	6	8	10	15	21	29	38	47	53	57	61	65	70	76	83	88	91	94	96	98	100
95	0	1	3	5	7	9	11	14	18	27	35	41	46	51	57	62	68	73	79	84	89	93	96	98	100
96	0	2	4	6	9	12	17	23	30	37	43	49	54	58	62	66	70	74	78	82	86	90	94	97	100
97	0	1	3	5	7	10	14	20	28	37	48	56	61	64	68	72	77	81	86	89	92	95	98	99	100
106	0	3	6	9	13	17	21	27	33	38	44	49	55	61	67	71	75	78	81	84	86	90	94	97	100

* Each period begins on the date listed in the table above and lasts until the day before the following period. The final period begins on December 11 and ends on December 31.

Table adapted from Chapter 2 of USDA Agriculture Handbook 703: "Predicting Soil Erosion by Water: A Guide to Conservation Planning With the Revised Universal Soil Loss Equation (RUSLE)," U.S. Department of Agriculture, Agricultural Research Service



Notice of Intent (NOI) for an Authorization for Stormwater Discharges Associated with Construction Activity under TPDES General Permit TXR150000

IMPORTANT INFORMATION

Please read and use the General Information and Instructions prior to filling out each question in the NOI form.

Use the NOI Checklist to ensure all required information is completed correctly. Incomplete applications delay approval or result in automatic denial.

Once processed your permit authorization can be viewed by entering the following link into your internet browser: http://www2.tceq.texas.gov/wq_dpa/index.cfm or you can contact TCEQ Stormwater Processing Center at 512-239-3700.

ePERMITS

Effective September 1, 2018, this paper form must be submitted to TCEQ with a completed electronic reporting waiver form (TCEQ-20754).

To submit an NOI electronically, enter the following web address into your internet browser and follow the instructions: <https://www3.tceq.texas.gov/steers/index.cfm>

APPLICATION FEE AND PAYMENT

The application fee for submitting a paper NOI is \$325. The application fee for electronic submittal of a NOI through the TCEQ ePermits system (STEERS) is \$225.

Payment of the application fee can be submitted by mail or through the TCEQ ePay system. The payment and the NOI must be mailed to separate addresses. To access the TCEQ ePay system enter the following web address into your internet browser: <http://www.tceq.texas.gov/epay>.

Provide your payment information for verification of payment:

- If payment was mailed to TCEQ, provide the following:
 - Check/Money Order Number: [REDACTED]
 - Name printed on Check: [REDACTED]
- If payment was made via ePay, provide the following:
 - Voucher Number: [REDACTED]
 - A copy of the payment voucher is attached to this paper NOI form.

RENEWAL (This portion of the NOI is not applicable after June 3, 2018)

Is this NOI for a renewal of an existing authorization? Yes No

If Yes, provide the authorization number here: TXR15

NOTE: If an authorization number is not provided, a new number will be assigned.

SECTION 1. OPERATOR (APPLICANT)

a) If the applicant is currently a customer with TCEQ, what is the Customer Number (CN) issued to this entity? CN

(Refer to Section 1.a) of the Instructions)

b) What is the Legal Name of the entity (applicant) applying for this permit? (The legal name must be spelled exactly as filed with the Texas Secretary of State, County, or in the legal document forming the entity.)

c) What is the contact information for the Operator (Responsible Authority)?

Prefix (Mr. Ms. Miss):

First and Last Name: Suffix:

Title: Credentials:

Phone Number: Fax Number:

E-mail:

Mailing Address:

City, State, and Zip Code:

Mailing Information if outside USA:

Territory:

Country Code: Postal Code:

d) Indicate the type of customer:

Individual

Federal Government

Limited Partnership

County Government

General Partnership

State Government

Trust

City Government

Sole Proprietorship (D.B.A.)

Other Government

Corporation

Other:

Estate

e) Is the applicant an independent operator? Yes No

(If a governmental entity, a subsidiary, or part of a larger corporation, check No.)

f) Number of Employees. Select the range applicable to your company.

0-20

251-500

21-100

501 or higher

101-250

g) Customer Business Tax and Filing Numbers: (Required for Corporations and Limited Partnerships. Not Required for Individuals, Government, or Sole Proprietors.)

State Franchise Tax ID Number:

Federal Tax ID:

Texas Secretary of State Charter (filing) Number:

DUNS Number (if known):

SECTION 2. APPLICATION CONTACT

Is the application contact the same as the applicant identified above?

Yes, go to Section 3

No, complete this section

Prefix (Mr. Ms. Miss):

First and Last Name: Suffix:

Title: Credential:

Organization Name:

Phone Number: Fax Number:

E-mail:

Mailing Address:

Internal Routing (Mail Code, Etc.):

City, State, and Zip Code:

Mailing information if outside USA:

Territory:

Country Code: Postal Code:

SECTION 3. REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE

a) If this is an existing permitted site, what is the Regulated Entity Number (RN) issued to this site? RN

(Refer to Section 3.a) of the Instructions)

- b) Name of project or site (the name known by the community where it's located): [REDACTED]
- c) In your own words, briefly describe the type of construction occurring at the regulated site (residential, industrial, commercial, or other): [REDACTED]
- d) County or Counties (if located in more than one): [REDACTED]
- e) Latitude: [REDACTED] Longitude: [REDACTED]
- f) Site Address/Location

If the site has a physical address such as 12100 Park 35 Circle, Austin, TX78753, complete Section A.

If the site does not have a physical address, provide a location description in Section B. Example: located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1.

Section A:

Street Number and Name: [REDACTED]

City, State, and Zip Code: [REDACTED]

Section B:

Location Description: [REDACTED]

City (or city nearest to) where the site is located: [REDACTED]

Zip Code where the site is located: [REDACTED]

SECTION 4. GENERAL CHARACTERISTICS

- a) Is the project or site located on Indian Country Lands?
 - Yes, do not submit this form. You must obtain authorization through EPA Region 6.
 - No
- b) Is your construction activity associated with a facility that, when completed, would be associated with the exploration, development, or production of oil or gas or geothermal resources?
 - Yes. Note: The construction stormwater runoff may be under jurisdiction of the Railroad Commission of Texas and may need to obtain authorization through EPA Region 6.
 - No
- c) What is the Primary Standard Industrial Classification (SIC) Code that best describes the construction activity being conducted at the site? [REDACTED]
- d) What is the Secondary SIC Code(s), if applicable? [REDACTED]
- e) What is the total number of acres to be disturbed? [REDACTED]
- f) Is the project part of a larger common plan of development or sale?

Yes

No. The total number of acres disturbed, provided in e) above, must be 5 or more. If the total number of acres disturbed is less than 5, do not submit this form. See the requirements in the general permit for small construction sites.

g) What is the estimated start date of the project? [REDACTED]

h) What is the estimated end date of the project? [REDACTED]

i) Will concrete truck washout be performed at the site? Yes No

j) What is the name of the first water body(ies) to receive the stormwater runoff or potential runoff from the site? [REDACTED]

k) What is the segment number(s) of the classified water body(ies) that the discharge will eventually reach? [REDACTED]

l) Is the discharge into a Municipal Separate Storm Sewer System (MS4)?

Yes No

If Yes, provide the name of the MS4 operator: [REDACTED]

Note: The general permit requires you to send a copy of this NOI form to the MS4 operator.

m) Is the discharge or potential discharge from the site within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer, as defined in 30 TAC Chapter 213?

Yes, complete the certification below.

No, go to Section 5

I certify that the copy of the TCEQ-approved Plan required by the Edwards Aquifer Rule (30 TAC Chapter 213) that is included or referenced in the Stormwater Pollution Prevention Plan will be implemented. Yes

SECTION 5. NOI CERTIFICATION

a) I certify that I have obtained a copy and understand the terms and conditions of the Construction General Permit (TXR150000). Yes

b) I certify that the full legal name of the entity applying for this permit has been provided and is legally authorized to do business in Texas. Yes

c) I understand that a Notice of Termination (NOT) must be submitted when this authorization is no longer needed. Yes

d) I certify that a Stormwater Pollution Prevention Plan has been developed, will be implemented prior to construction and to the best of my knowledge and belief is compliant with any applicable local sediment and erosion control plans, as required in the Construction General Permit (TXR150000). Yes

Note: For multiple operators who prepare a shared SWP3, the confirmation of an operator may be limited to its obligations under the SWP3, provided all obligations are confirmed by at least one operator.

SECTION 6. APPLICANT CERTIFICATION SIGNATURE

Operator Signatory Name: [REDACTED]

Operator Signatory Title: [REDACTED]

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under 30 Texas Administrative Code §305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signature (use blue ink): _____ Date: _____

NOTICE OF INTENT CHECKLIST (TXR150000)

Did you complete everything? Use this checklist to be sure!

Are you ready to mail your form to TCEQ? Go to the General Information Section of the Instructions for mailing addresses.

Confirm each item (or applicable item) in this form is complete. This checklist is for use by the applicant to ensure a complete application is being submitted. Missing information may result in denial of coverage under the general permit. (See NOI process description in the General Information and Instructions.)

APPLICATION FEE

If paying by check:

- Check was mailed separately to the TCEQs Cashier's Office. (See Instructions for Cashier's address and Application address.)
- Check number and name on check is provided in this application.

If using ePay:

- The voucher number is provided in this application and a copy of the voucher is attached.

RENEWAL

- If this application is for renewal of an existing authorization, the authorization number is provided.

OPERATOR INFORMATION

- Customer Number (CN) issued by TCEQ Central Registry
- Legal name as filed to do business in Texas. (Call TX SOS 512-463-5555 to verify.)
- Name and title of responsible authority signing the application.
- Phone number and e-mail address
- Mailing address is complete & verifiable with USPS. www.usps.com
- Type of operator (entity type). Is applicant an independent operator?
- Number of employees.
- For corporations or limited partnerships - Tax ID and SOS filing numbers.
- Application contact and address is complete & verifiable with USPS. <http://www.usps.com>

REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE

- Regulated Entity Number (RN) (if site is already regulated by TCEQ)
- Site/project name and construction activity description
- County
- Latitude and longitude <http://www.tceq.texas.gov/gis/sqmaview.html>

- Site Address/Location. Do not use a rural route or post office box.

GENERAL CHARACTERISTICS

- Indian Country Lands -the facility is not on Indian Country Lands.
- Construction activity related to facility associated to oil, gas, or geothermal resources
- Primary SIC Code that best describes the construction activity being conducted at the site.
www.osha.gov/oshstats/sicser.html
- Estimated starting and ending dates of the project.
- Confirmation of concrete truck washout.
- Acres disturbed is provided and qualifies for coverage through a NOI.
- Common plan of development or sale.
- Receiving water body or water bodies.
- Segment number or numbers.
- MS4 operator.
- Edwards Aquifer rule.

CERTIFICATION

- Certification statements have been checked indicating Yes.
- Signature meets 30 Texas Administrative Code (TAC) §305.44 and is original.

Instructions for Notice of Intent (NOI) for Stormwater Discharges Associated with Construction Activity under TPDES General Permit(TXR150000)

GENERAL INFORMATION

Where to Send the Notice of Intent (NOI):

By Regular Mail:

TCEQ
Stormwater Processing Center (MC228)
P.O. Box 13087
Austin, Texas 78711-3087

By Overnight or Express Mail:

TCEQ
Stormwater Processing Center (MC228)
12100 Park 35 Circle
Austin, TX

Application Fee:

The application fee of \$325 is required to be paid at the time the NOI is submitted. Failure to submit payment at the time the application is filed will cause delays in acknowledgment or denial of coverage under the general permit. Payment of the fee may be made by check or money order, payable to TCEQ, or through EPAY (electronic payment through the web).

Mailed Payments:

Use the attached General Permit Payment Submittal Form. The application fee is submitted to a different address than the NOI. Read the General Permit Payment Submittal Form for further instructions, including the address to send the payment.

ePAY Electronic Payment: <http://www.tceq.texas.gov/epay>

When making the payment you must select Water Quality, and then select the fee category "General Permit Construction Storm Water Discharge NOI Application". You must include a copy of the payment voucher with your NOI. Your NOI will not be considered complete without the payment voucher.

TCEQ Contact List:

Application – status and form questions:	512-239-3700, swpermit@tceq.texas.gov
Technical questions:	512-239-4671, swgp@tceq.texas.gov
Environmental Law Division:	512-239-0600
Records Management - obtain copies of forms:	512-239-0900
Reports from databases (as available):	512-239-DATA (3282)
Cashier's office:	512-239-0357 or 512-239-0187

Notice of Intent Process:

When your NOI is received by the program, the form will be processed as follows:

- **Administrative Review:** Each item on the form will be reviewed for a complete response. In addition, the operator's legal name must be verified with Texas Secretary of State as valid and active (if applicable). The address(es) on the form must be verified with the US Postal service as receiving regular mail delivery. Do not give an overnight/express mailing address.

- Notice of Deficiency: If an item is incomplete or not verifiable as indicated above, a notice of deficiency (NOD) will be mailed to the operator. The operator will have 30 days to respond to the NOD. The response will be reviewed for completeness.
- Acknowledgment of Coverage: An Acknowledgment Certificate will be mailed to the operator. This certificate acknowledges coverage under the general permit.

or

Denial of Coverage: If the operator fails to respond to the NOD or the response is inadequate, coverage under the general permit may be denied. If coverage is denied, the operator will be notified.

General Permit (Your Permit)

For NOIs submitted electronically through ePermits, provisional coverage under the general permit begins immediately following confirmation of receipt of the NOI form by the TCEQ.

For paper NOIs, provisional coverage under the general permit begins 7 days after a completed NOI is postmarked for delivery to the TCEQ.

You should have a copy of your general permit when submitting your application. You may view and print your permit for which you are seeking coverage, on the TCEQ web site <http://www.tceq.texas.gov>. Search using keyword TXR150000.

Change in Operator

An authorization under the general permit is not transferable. If the operator of the regulated project or site changes, the present permittee must submit a Notice of Termination and the new operator must submit a Notice of Intent. The NOT and NOI must be submitted no later than 10 days prior to the change in Operator status.

TCEQ Central Registry Core Data Form

The Core Data Form has been incorporated into this form. Do not send a Core Data Form to TCEQ. After final acknowledgment of coverage under the general permit, the program will assign a Customer Number and Regulated Entity Number, if one has not already been assigned to this customer or site.

For existing customers and sites, you can find the Customer Number and Regulated Entity Number by entering the following web address into your internet browser: <http://www15.tceq.texas.gov/crpub/> or you can contact the TCEQ Stormwater Processing Center at 512-239-3700 for assistance. On the website, you can search by your permit number, the Regulated Entity (RN) number, or the Customer Number (CN). If you do not know these numbers, you can select "Advanced Search" to search by permittee name, site address, etc.

The Customer (Permittee) is responsible for providing consistent information to the TCEQ, and for updating all CN and RN data for all authorizations as changes occur. For this permit, a Notice of Change form must be submitted to the program area.

INSTRUCTIONS FOR FILLING OUT THE NOI FORM

Renewal of General Permit. Dischargers holding active authorizations under the expired General Permit are required to submit a NOI to continue coverage. The existing permit number is required. If the permit number is not provided or has been terminated, expired, or denied, a new permit number will be issued.

Section 1. OPERATOR (APPLICANT)

a) Customer Number (CN)

TCEQ's Central Registry will assign each customer a number that begins with CN, followed by nine digits. This is not a permit number, registration number, or license number.

If the applicant is an existing TCEQ customer, the Customer Number is available at the following website: <http://www15.tceq.texas.gov/crpub/>. If the applicant is not an existing TCEQ customer, leave the space for CN blank.

b) Legal Name of Applicant

Provide the current legal name of the applicant. The name must be provided exactly as filed with the Texas Secretary of State (SOS), or on other legal documents forming the entity, as filed in the county. You may contact the SOS at 512-463-5555, for more information related to filing in Texas. If filed in the county, provide a copy of the legal documents showing the legal name.

c) Contact Information for the Applicant (Responsible Authority)

Provide information for the person signing the application in the Certification section. This person is also referred to as the Responsible Authority.

Provide a complete mailing address for receiving mail from the TCEQ. The mailing address must be recognized by the US Postal Service. You may verify the address on the following website: <https://tools.usps.com/go/ZipLookupAction!input.action>.

The phone number should provide contact to the applicant.

The fax number and e-mail address are optional and should correspond to the applicant.

d) Type of Customer (Entity Type)

Check only one box that identifies the type of entity. Use the descriptions below to identify the appropriate entity type. Note that the selected entity type also indicates the name that must be provided as an applicant for an authorization.

Individual

An individual is a customer who has not established a business, but conducts an activity that needs to be regulated by the TCEQ.

Partnership

A customer that is established as a partnership as defined by the Texas Secretary of State Office (TX SOS). If the customer is a 'General Partnership' or 'Joint Venture' filed in the county (not filed with TX SOS), the legal name of each partner forming the 'General Partnership' or 'Joint Venture' must be provided. Each 'legal entity' must apply as a co-applicant.

Trust or Estate

A trust and an estate are fiduciary relationships governing the trustee/executor with respect to the trust/estate property.

Sole Proprietorship (DBA)

A sole proprietorship is a customer that is owned by only one person and has not been incorporated. This business may:

1. be under the person's name
2. have its own name (doing business as or DBA)
3. have any number of employees.

If the customer is a Sole Proprietorship or DBA, the 'legal name' of the individual business 'owner' must be provided. The DBA name is not recognized as the 'legal name' of the entity. The DBA name may be used for the site name (regulated entity).

Corporation

A customer that meets all of these conditions:

1. is a legally incorporated entity under the laws of any state or country
2. is recognized as a corporation by the Texas Secretary of State
3. has proper operating authority to operate in Texas

The corporation's 'legal name' as filed with the Texas Secretary of State must be provided as applicant. An 'assumed' name of a corporation is not recognized as the 'legal name' of the entity.

Government

Federal, state, county, or city government (as appropriate)

The customer is either an agency of one of these levels of government or the governmental body itself. The government agency's 'legal name' must be provided as the applicant. A department name or other description of the organization is not recognized as the 'legal name'.

Other

This may include a utility district, water district, tribal government, college district, council of governments, or river authority. Provide the specific type of government.

e) Independent Entity

Check No if this customer is a subsidiary, part of a larger company, or is a governmental entity. Otherwise, check Yes.

f) Number of Employees

Check one box to show the number of employees for this customer's entire company, at all locations. This is not necessarily the number of employees at the site named in the application.

g) Customer Business Tax and Filing Numbers

These are required for Corporations and Limited Partnerships. These are not required for Individuals, Government, and Sole Proprietors.

State Franchise Tax ID Number

Corporations and limited liability companies that operate in Texas are issued a franchise tax identification number. If this customer is a corporation or limited liability company, enter the Tax ID number.

Federal Tax ID

All businesses, except for some small sole proprietors, individuals, or general partnerships should have a federal taxpayer identification number (TIN). Enter this number here. Use no prefixes, dashes, or hyphens. Sole proprietors, individuals, or general partnerships do not need to provide a federal tax ID.

TX SOS Charter (filing) Number

Corporations and Limited Partnerships required to register with the Texas Secretary of State are issued a charter or filing number. You may obtain further information by calling SOS at 512-463-5555.

DUNS Number

Most businesses have a DUNS (Data Universal Numbering System) number issued by Dun and Bradstreet Corp. If this customer has one, enter it here.

Section 2. APPLICATION CONTACT

Provide the name and contact information for the person that TCEQ can contact for additional information regarding this application.

Section 3. REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE

a) Regulated Entity Number (RN)

The RN is issued by TCEQ's Central Registry to sites where an activity is regulated by TCEQ. This is not a permit number, registration number, or license number. Search TCEQ's Central Registry to see if the site has an assigned RN at <http://www15.tceq.texas.gov/crpub/>. If this regulated entity has not been assigned an RN, leave this space blank.

If the site of your business is part of a larger business site, an RN may already be assigned for the larger site. Use the RN assigned for the larger site.

If the site is found, provide the assigned RN and provide the information for the site to be authorized through this application. The site information for this authorization may vary from the larger site information.

An example is a chemical plant where a unit is owned or operated by a separate corporation that is accessible by the same physical address of your unit or facility. Other examples include industrial parks identified by one common address but different corporations have control of defined areas within the site. In both cases, an RN would be assigned for the physical address location and the permitted sites would be identified separately under the same RN.

b) Name of the Project or Site

Provide the name of the site or project as known by the public in the area where the site is located. The name you provide on this application will be used in the TCEQ Central Registry as the Regulated Entity name.

c) Description of Activity Regulated

In your own words, briefly describe the primary business that you are doing that requires this authorization. Do not repeat the SIC Code description.

d) County

Provide the name of the county where the site or project is located. If the site or project is located in more than one county, provide the county names as secondary.

e) Latitude and Longitude

Enter the latitude and longitude of the site in degrees, minutes, and seconds or decimal form. For help obtaining the latitude and longitude, go to:

<http://www.tceq.texas.gov/gis/sqmaview.html>.

f) Site Address/Location

If a site has an address that includes a street number and street name, enter the complete address for the site in Section A. If the physical address is not recognized as a USPS delivery address, you may need to validate the address with your local police (911 service) or through an online map site used to locate a site. Please confirm this to be a complete and valid address. Do not use a rural route or post office box for a site location.

If a site does not have an address that includes a street number and street name, provide a complete written location description in Section B. For example: "The site is located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1."

Provide the city (or nearest city) and zip code of the site location.

Section 4. GENERAL CHARACTERISTICS

a) Indian Country Lands

If your site is located on Indian Country Lands, the TCEQ does not have authority to process your application. You must obtain authorization through EPA Region 6, Dallas. Do not submit this form to TCEQ.

b) Construction activity associated with facility associated with exploration, development, or production of oil, gas, or geothermal resources

If your activity is associated with oil and gas exploration, development, or production, you may be under jurisdiction of the Railroad Commission of Texas (RRC) and may need to obtain authorization from EPA Region 6.

Construction activities associated with a facility related to oil, gas or geothermal resources may include the construction of a well site; treatment or storage facility; underground hydrocarbon or natural gas storage facility; reclamation plant; gas processing facility; compressor station; terminal facility where crude oil is stored prior to refining and at which refined products are stored solely for use at the facility; a

carbon dioxide geologic storage facility; and a gathering, transmission, or distribution pipeline that will transport crude oil or natural gas, including natural gas liquids, prior to refining of such oil or the use of the natural gas in any manufacturing process or as a residential or industrial fuel.

Where required by federal law, discharges of stormwater associated with construction activities under the RRC's jurisdiction must be authorized by the EPA and the RRC, as applicable. Activities under RRC jurisdiction include construction of a facility that, when completed, would be associated with the exploration, development, or production of oil or gas or geothermal resources, such as a well site; treatment or storage facility; underground hydrocarbon or natural gas storage facility; reclamation plant; gas processing facility; compressor station; terminal facility where crude oil is stored prior to refining and at which refined products are stored solely for use at the facility; a carbon dioxide geologic storage facility under the jurisdiction of the RRC; and a gathering, transmission, or distribution pipeline that will transport crude oil or natural gas, including natural gas liquids, prior to refining of such oil or the use of the natural gas in any manufacturing process or as a residential or industrial fuel. The RRC also has jurisdiction over stormwater from land disturbance associated with a site survey that is conducted prior to construction of a facility that would be regulated by the RRC. Under 33 U.S.C. §1342(l)(2) and §1362(24), EPA cannot require a permit for discharges of stormwater from field activities or operations associated with {oil and gas} exploration, production, processing, or treatment operations, or transmission facilities, including activities necessary to prepare a site for drilling and for the movement and placement of drilling equipment, whether or not such field activities or operations may be considered to be construction activities unless the discharge is contaminated by contact with any overburden, raw material, intermediate product, finished product, byproduct, or waste product located on the site of the facility. Under §3.8 of this title (relating to Water Protection), the RRC prohibits operators from causing or allowing pollution of surface or subsurface water. Operators are encouraged to implement and maintain best management practices (BMPs) to minimize discharges of pollutants, including sediment, in stormwater during construction activities to help ensure protection of surface water quality during storm events.

For more information about the jurisdictions of the RRC and the TCEQ, read the Memorandum of Understanding (MOU) between the RRC and TCEQ at 16 Texas Administrative Code, Part 1, Chapter 3, Rule 3.30, by entering the following link into an internet browser:

[http://texreg.sos.state.tx.us/public/readtac\\$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=30](http://texreg.sos.state.tx.us/public/readtac$ext.TacPage?sl=R&app=9&p_dir=&p_rloc=&p_tloc=&p_ploc=&pg=1&p_tac=&ti=16&pt=1&ch=3&rl=30) or contact the TCEQ Stormwater Team at 512-239-4671 for additional information.

c) Primary Standard Industrial Classification (SIC) Code

Provide the SIC Code that best describes the construction activity being conducted at this site.

Common SIC Codes related to construction activities include:

- 1521 - Construction of Single Family Homes
- 1522 - Construction of Residential Buildings Other than Single Family Homes
- 1541 - Construction of Industrial Buildings and Warehouses

- 1542 - Construction of Non-residential Buildings, other than Industrial Buildings and Warehouses
- 1611 - Highway and Street Construction, except Highway Construction
- 1622 - Bridge, Tunnel, and Elevated Highway Construction
- 1623 - Water, Sewer, Pipeline and Communications, and Power Line Construction

For help with SIC Codes, enter the following link into your internet browser: <http://www.osha.gov/pls/imis/sicsearch.html> or you can contact the TCEQ Small Business and Local Government Assistance Section at 800-447-2827 for assistance.

d) Secondary SIC Code

Secondary SIC Code(s) may be provided. Leave this blank if not applicable. For help with SIC Codes, enter the following link into your internet browser: <http://www.osha.gov/pls/imis/sicsearch.html> or you can contact the TCEQ Small Business and Environmental Assistance Section at 800-447-2827 for assistance.

e) Total Number of Acres Disturbed

Provide the approximate number of acres that the construction site will disturb. Construction activities that disturb less than one acre, unless they are part of a larger common plan that disturbs more than one acre, do not require permit coverage. Construction activities that disturb between one and five acres, unless they are part of a common plan that disturbs more than five acres, do not require submission of an NOI. Therefore, the estimated area of land disturbed should not be less than five, unless the project is part of a larger common plan that disturbs five or more acres. Disturbed means any clearing, grading, excavating, or other similar activities.

If you have any questions about this item, please contact the stormwater technical staff by phone at 512-239-4671 or by email at swgp@tceq.texas.gov.

f) Common Plan of Development

Construction activities that disturb less than five acres do not require submission of an NOI unless they are part of a common plan of development or for sale where the area disturbed is five or more acres. Therefore, the estimated area of land disturbed should not be less than five, unless the project is part of a larger common plan that disturbs five or more acres. Disturbed means any clearing, grading, excavating, or other similar activities.

For more information on what a common plan of development is, refer to the definition of “Common Plan of Development” in the Definitions section of the general permit or enter the following link into your internet browser:

www.tceq.texas.gov/permitting/stormwater/common_plan_of_development_steps.html

For further information, go to the TCEQ stormwater construction webpage enter the following link into your internet browser: www.tceq.texas.gov/goto/construction and search for “Additional Guidance and Quick Links”. If you have any further questions about the Common Plan of Development you can contact the TCEQ Stormwater Team at 512-239-4671 or the TCEQ Small Business and Environmental Assistance at 800-447-2827.

g) Estimated Start Date of the Project

This is the date that any construction activity or construction support activity is initiated at the site. If renewing the permit provide the original start date of when construction activity for this project began.

h) Estimated End Date of the Project

This is the date that any construction activity or construction support activity will end and final stabilization will be achieved at the site.

i) Will concrete truck washout be performed at the site?

Indicate if you expect that operators of concrete trucks will washout concrete trucks at the construction site.

j) Identify the water body(s) receiving stormwater runoff

The stormwater may be discharged directly to a receiving stream or through a MS4 from your site. It eventually reaches a receiving water body such as a local stream or lake, possibly via a drainage ditch. You must provide the name of the water body that receives the discharge from the site (a local stream or lake).

If your site has more than one outfall you need to include the name of the first water body for each outfall, if they are different.

k) Identify the segment number(s) of the classified waterbody(s)

Identify the classified segment number(s) receiving a discharge directly or indirectly. Enter the following link into your internet browser to find the segment number of the classified water body where stormwater will flow from the site:

www.tceq.texas.gov/waterquality/monitoring/viewer.html or by contacting the TCEQ Water Quality Division at (512) 239-4671 for assistance.

You may also find the segment number in TCEQ publication GI-316 by entering the following link into your internet browser: www.tceq.texas.gov/publications/gi/gi-316 or by contacting the TCEQ Water Quality Division at (512) 239-4671 for assistance.

If the discharge is into an unclassified receiving water and then crosses state lines prior to entering a classified segment, select the appropriate watershed:

- 0100 (Canadian River Basin)
- 0200 (Red River Basin)
- 0300 (Sulfur River Basin)
- 0400 (Cypress Creek Basin)
- 0500 (Sabine River Basin)

Call the Water Quality Assessments section at 512-239-4671 for further assistance.

l) Discharge into MS4 - Identify the MS4 Operator

The discharge may initially be into a municipal separate storm sewer system (MS4). If the stormwater discharge is into an MS4, provide the name of the entity that operates the MS4 where the stormwater discharges. An MS4 operator is often a city, town, county, or utility district, but possibly can be another form of government. Please note that the Construction General Permit requires the Operator to supply the MS4 with a

copy of the NOI submitted to TCEQ. For assistance, you may call the technical staff at 512-239-4671.

m) Discharges to the Edwards Aquifer Recharge Zone and Certification

The general permit requires the approved Contributing Zone Plan or Water Pollution Abatement Plan to be included or referenced as a part of the Stormwater Pollution Prevention Plan.

See maps on the TCEQ website to determine if the site is located within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer by entering the following link into an internet browser: www.tceq.texas.gov/field/eapp/viewer.html or by contacting the TCEQ Water Quality Division at 512-239-4671 for assistance.

If the discharge or potential discharge is within the Recharge Zone, Contributing Zone, or Contributing Zone within the Transition Zone of the Edwards Aquifer, a site-specific authorization approved by the Executive Director under the Edwards Aquifer Protection Program (30 TAC Chapter 213) is required before construction can begin.

For questions regarding the Edwards Aquifer Protection Program, contact the appropriate TCEQ Regional Office. For projects in Hays, Travis and Williamson Counties: Austin Regional Office, 12100 Park 35 Circle, Austin, TX 78753, 512-339-2929. For Projects in Bexar, Comal, Kinney, Medina and Uvalde Counties: TCEQ San Antonio Regional Office, 14250 Judson Rd., San Antonio, TX 78233-4480, 210-490-3096.

Section 5. NOI CERTIFICATION

Note: Failure to indicate Yes to all of the certification items may result in denial of coverage under the general permit.

a) Certification of Understanding the Terms and Conditions of Construction General Permit (TXR150000)

Provisional coverage under the Construction General Permit (TXR150000) begins 7 days after the completed paper NOI is postmarked for delivery to the TCEQ. Electronic applications submitted through ePermits have immediate provisional coverage. You must obtain a copy and read the Construction General Permit before submitting your application. You may view and print the Construction General Permit for which you are seeking coverage at the TCEQ web site by entering the following link into an internet browser: www.tceq.texas.gov/goto/construction or you may contact the TCEQ Stormwater processing Center at 512-239-3700 for assistance.

b) Certification of Legal Name

The full legal name of the applicant as authorized to do business in Texas is required. The name must be provided exactly as filed with the Texas Secretary of State (SOS), or on other legal documents forming the entity, that is filed in the county where doing business. You may contact the SOS at 512-463 5555, for more information related to filing in Texas.

c) Understanding of Notice of Termination

A permittee shall terminate coverage under the Construction General Permit through the submittal of a NOT when the operator of the facility changes, final stabilization has

been reached, the discharge becomes authorized under an individual permit, or the construction activity never began at this site.

d) Certification of Stormwater Pollution Prevention Plan

The SWP3 identifies the areas and activities that could produce contaminated runoff at your site and then tells how you will ensure that this contamination is mitigated. For example, in describing your mitigation measures, your site's plan might identify the devices that collect and filter stormwater, tell how those devices are to be maintained, and tell how frequently that maintenance is to be carried out. You must develop this plan in accordance with the TCEQ general permit requirements. This plan must be developed and implemented before you complete this NOI. The SWP3 must be available for a TCEQ investigator to review onrequest.

Section 6. APPLICANT CERTIFICATION SIGNATURE

The certification must bear an original signature of a person meeting the signatory requirements specified under 30 Texas Administrative Code (TAC) §305.44.

If you are a corporation:

The regulation that controls who may sign an NOI or similar form is 30 Texas Administrative Code §305.44(a)(1) (see below). According to this code provision, any corporate representative may sign an NOI or similar form so long as the authority to sign such a document has been delegated to that person in accordance with corporate procedures. By signing the NOI or similar form, you are certifying that such authority has been delegated to you. The TCEQ may request documentation evidencing such authority.

If you are a municipality or other government entity:

The regulation that controls who may sign an NOI or similar form is 30 Texas Administrative Code §305.44(a)(3) (see below). According to this code provision, only a ranking elected official or principal executive officer may sign an NOI or similar form. Persons such as the City Mayor or County Commissioner will be considered ranking elected officials. In order to identify the principal executive officer of your government entity, it may be beneficial to consult your city charter, county or city ordinances, or the Texas statute(s) under which your government entity was formed. An NOI or similar document that is signed by a government official who is not a ranking elected official or principal executive officer does not conform to §305.44(a)(3). The signatory requirement may not be delegated to a government representative other than those identified in the regulation. By signing the NOI or similar form, you are certifying that you are either a ranking elected official or principal executive officer as required by the administrative code. Documentation demonstrating your position as a ranking elected official or principal executive officer may be requested by the TCEQ.

If you have any questions or need additional information concerning the signatory requirements discussed above, please contact the TCEQ's Environmental Law Division at 512-239-0600.

§305.44. Signatories to Applications

(a) All applications shall be signed as follows.

(1) For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the

corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

(2) For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively.

(3) For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or a ranking elected official. For purposes of this paragraph, a principal executive officer of a federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., regional administrator of the EPA).

Texas Commission on Environmental Quality General Permit Payment Submittal Form

Use this form to submit your Application Fee only if you are mailing your payment.

Instructions:

- Complete items 1 through 5 below:
- Staple your check in the space provided at the bottom of this document.
- Do not mail this form with your NOI form.
- Do not mail this form to the same address as your NOI.

Mail this form and your check to either of the following:

By Regular U.S. Mail

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, TX 78711-3088

By Overnight or Express Mail

Texas Commission on Environmental Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, TX 78753

Fee Code: GPA General Permit: TXR150000

1. Check or Money Order No:
2. Amount of Check/Money Order:
3. Date of Check or Money Order:
4. Name on Check or Money Order:
5. NOI Information:

If the check is for more than one NOI, list each Project or Site (RE) Name and Physical Address exactly as provided on the NOI. Do not submit a copy of the NOI with this form, as it could cause duplicate permit application entries!

If there is not enough space on the form to list all of the projects or sites the authorization will cover, then attach a list of the additional sites.

Project/Site (RE) Name:

Project/Site (RE) Physical Address:

Staple the check or money order to this form in this space.

Texas Commission on Environmental Quality General Permit Payment Submittal Form

Use this form to submit your Application Fee only if you are mailing your payment.

- Complete items 1 through 5 below:
- Staple your check in the space provided at the bottom of this document.
- Do not mail this form with your NOI form.
- Do not mail this form to the same address as your NOI.

Mail this form and your check to:

BY REGULAR U.S. MAIL

Texas Commission on Environmental
Quality
Financial Administration Division
Cashier's Office, MC-214
P.O. Box 13088
Austin, TX 78711-3088

BY OVERNIGHT/EXPRESS MAIL

Texas Commission on Environmental
Quality
Financial Administration Division
Cashier's Office, MC-214
12100 Park 35 Circle
Austin, TX 78753

Fee Code: GPA	General Permit:	TXG920000
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1. Check / Money Order No: YY
2. Amount of Check/Money Order: _____
3. Date of Check or Money Order: _____
4. Name on Check or Money Order: _____

5. NOI INFORMATION

If the check is for more than one NOI, list each Project/Site (RE) Name and Physical Address exactly as provided on the NOI. **DO NOT SUBMIT A COPY OF THE NOI WITH THIS FORM AS IT COULD CAUSE DUPLICATE PERMIT ENTRIES.**

See Attached List of Sites (If more space is needed, you may attach a list.)

Project/Site (RE) Name: _____

Project/Site (RE) Physical Address:

yyuy

Staple Check in This Space



TCEQ Office Use Only
Permit No:
CN:
RN:
Region:

Notice of Termination (NOT) for Authorizations under TPDES General Permit TXR150000

IMPORTANT INFORMATION:

Please read and use the General Information and Instructions prior to filling out each question in the form.

Effective September 1, 2018, this paper form must be submitted to TCEQ with a completed electronic reporting waiver form (TCEQ-20754).

ePermits: This form is available on our online permitting system.
Sign up for online permitting at: <https://www3.tceq.texas.gov/steers/>

What is the permit number to be terminated?

TXR15 [redacted] TXRCW [redacted]

Section 1. OPERATOR (Permittee)

a) What is the Customer Number(CN) issued to this entity?

CN [redacted]

b) What is the Legal Name of the current permittee?

[redacted]

c) Provide the contact information for the Operator (Responsible Authority).

Prefix (Mr. Ms. or Miss): [redacted]

First and Last Name: [redacted] Suffix: [redacted]

Title: [redacted] Credentials: [redacted]

Phone Number: [redacted] Fax Number: [redacted]

Email: [redacted]

Mailing Address: [redacted]

City, State, and Zip Code: [redacted]

Country Mailing Information, if outside USA: [redacted]

Section 2. APPLICATION CONTACT

This is the person TCEQ will contact if additional information is needed regarding this application.

Is the application contact the same as the permittee identified above?

Yes, go to Section 3.

No, complete section below

Prefix (Mr. Ms. or Miss): [redacted]
First and Last Name: [redacted] Suffix: [redacted]
Title: [redacted] Credentials: [redacted]
Phone Number: [redacted] Fax Number: [redacted]
Email: [redacted]
Mailing Address: [redacted]
City, State, and Zip Code: [redacted]
Country Mailing Information, if outside USA: [redacted]

Section 3. REGULATED ENTITY (RE) INFORMATION ON PROJECT OR SITE

- a) TCEQ issued RE Reference Number (RN): RN [redacted]
- b) Name of project or site as known by the local community: [redacted]
- c) County, or counties if more than 1: [redacted]
- d) Latitude: [redacted] Longitude: [redacted]
- e) Site Address/Location:
If the site has a physical address such as 12100 Park 35 Circle, Austin, TX 78753, complete Section 3A.
If the site does not have a physical address, provide a location description in Section 3B. Example: located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1.

Section 3A: Physical Address of Project or Site:

Street Number and Name: [redacted]
City, State, and Zip Code: [redacted]

Section 3B: Site Location Description:

Location description: [redacted]
[redacted]
City where the site is located or, if not in a city, what is the nearest city: [redacted]
Zip Code where the site is located: [redacted]

Section 4. REASON FOR TERMINATION

Check the reason for termination:

- Final stabilization has been achieved on all portions of the site that are the responsibility of the Operator and all silt fences and other temporary erosion controls have been removed, or scheduled for removal as defined in the SWP3.
- Another permitted Operator has assumed control over all areas of the site that have not been finally stabilized, and temporary erosion controls that have been identified in the SWP3 have been transferred to the new Operator.

- The discharge is now authorized under an alternate TPDES permit.
- The activity never began at this site that is regulated under the general permit.

Section 5. CERTIFICATION

Signatory Name: _____

Signatory Title: _____

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

I further certify that I am authorized under 30 Texas Administrative Code §305.44 to sign and submit this document, and can provide documentation in proof of such authorization upon request.

Signature (use blue ink): _____ Date: _____

Instructions for Notice of Termination (NOT) for Authorizations under TPDES General Permit TXR150000

GENERAL INFORMATION

Where to Send the Notice of Termination (NOT):

BY REGULAR U.S. MAIL:
Texas Commission on Environmental Quality
Stormwater Processing Center (MC-228)
P.O. Box 13087
Austin, Texas 78711-3087

BY OVERNIGHT/EXPRESS MAIL:
Texas Commission on Environmental Quality
Stormwater Processing Center (MC-228)
12100 Park 35 Circle
Austin, TX 78753

TCEQ Contact List:

Application status and form questions:	512-239-3700, swpermit@tceq.texas.gov
Technical questions:	512-239-4671, swgp@tceq.texas.gov
Environmental Law Division:	512-239-0600
Records Management - obtain copies of forms:	512-239-0900
Reports from databases (as available):	512-239-DATA (3282)
Cashier's office:	512-239-0357 or 512-239-0187

Notice of Termination Process:

A Notice of Termination is effective on the date postmarked for delivery to TCEQ.

When your NOT is received by the program, the form will be processed as follows:

- 1) Administrative Review: The form will be reviewed to confirm the following:
 - the permit number is provided;
 - the permit is active and has been approved;
 - the entity terminating the permit is the current permittee;
 - the site information matches the original permit record; and
 - the form has the required original signature with title and date.
- 2) Notice of Deficiency: If an item is incomplete or not verifiable as indicated above, a phone call will be made to the applicant to clear the deficiency. A letter will not be sent to the permittee if unable to process the form.
- 3) Confirmation of Termination: A Notice of Termination Confirmation letter will be mailed to the operator.

Change in Operator:

An authorization under the general permit is not transferable. If the operator of the regulated entity changes, the present permittee must submit a Notice of Termination and the new operator must submit a Notice of Intent. The NOT and NOI must be submitted not later than 10 days prior to the change in Operator status.

INSTRUCTIONS FOR FILLING OUT THE FORM

The majority of permit information related to the current operator and regulated entity are available at the following website: http://www2.tceq.texas.gov/wq_dpa/index.cfm.

Section 1. Operator (Current Permittee):

- a) Customer Number (CN)
TCEQ's Central Registry assigns each customer a number that begins with CN, followed by nine digits. This is not a permit number, registration number, or license number. The Customer Number, for the current permittee, is available at the following website: http://www2.tceq.texas.gov/wq_dpa/index.cfm.

- b) Legal Name of Operator
The operator must be the same entity as previously submitted on the original Notice of Intent for the permit number provided. The current operator name, as provided on the current authorization, is available at the following website: http://www2.tceq.texas.gov/wq_dpa/index.cfm.

- c) Contact Information for the Operator (Responsible Authority)
Provide information for person signing the NOT application in the Certification section. This person is also referred to as the Responsible Authority.

Provide a complete mailing address for receiving mail from the TCEQ. Update the address if different than previously submitted for the Notice of Intent or Notice of Change. The mailing address must be recognized by the US Postal Service. You may verify the address on the following website: <https://tools.usps.com/go/ZipLookupAction!input.action>.

The phone number should provide contact to the operator.

The fax number and e-mail address are optional and should correspond to the operator.

Section 2. Application Contact:

Provide the name, title and contact information of the person that TCEQ can contact for additional information regarding this application.

Section 3. Regulated Entity (RE) Information on Project or Site:

- a) Regulated Entity Reference Number (RN)
A number issued by TCEQ's Central Registry to sites where an activity regulated by TCEQ. This is not a permit number, registration number, or license number. The Regulated Entity Reference Number is available at the following website: http://www2.tceq.texas.gov/wq_dpa/index.cfm.
- b) Name of the Project or Site
Provide the name of the site as known by the public in the area where the site is located.
- c) County
Identify the county or counties in which the regulated entity is located.
- d) Latitude and Longitude
Enter the latitude and longitude of the site in degrees, minutes, and seconds or decimal form. The latitude and longitude as provided on the current authorization is available at the following website: http://www2.tceq.texas.gov/wq_dpa/index.cfm.
- e) Site/Project (RE) Physical Address/Location Information
The physical address/location information, as provided on the current authorization, is available at the following website: http://www2.tceq.texas.gov/wq_dpa/index.cfm.

Section 3A. If a site has an address that includes a street number and street name, enter the complete address for the site. If the physical address is not recognized as a USPS delivery address, you may need to validate the address with your local police (911 service) or through an online map site used to locate the site. Please confirm this to be a complete and valid address. Do not use a rural route or post office box for a site location.

Section 3B. If a site does not have an address that includes a street number and street name, provide a complete written location description. For example: "The site is located on the north side of FM 123, 2 miles west of the intersection of FM 123 and Highway 1."

Provide the city (or nearest city) and Zip Code of the facility location.

Section 4. Reason for Termination:

The Notice of Termination form is only for use to terminate the authorization (permit). The Permittee must indicate the specific reason for terminating by checking one of the options. If the reason is not listed then provide an attachment that explains the reason for termination.

Please read your general permit carefully to determine when to terminate your permit. Permits will not be reactivated after submitting a termination form. The termination is effective on the date postmarked for delivery to TCEQ.

Section 5. Certification:

The certification must bear an original signature of a person meeting the signatory requirements specified under 30 Texas Administrative Code §305.44.

IF YOU ARE A CORPORATION:

The regulation that controls who may sign an application form is 30 Texas Administrative Code §305.44(a), which is provided below. According to this code provision, any corporate representative may sign an NOI or similar form so long as the authority to sign such a document has been delegated to that person in accordance with corporate procedures. By signing the NOI or similar form, you are certifying that such authority has been delegated to you. The TCEQ may request documentation evidencing such authority.

IF YOU ARE A MUNICIPALITY OR OTHER GOVERNMENT ENTITY:

The regulation that controls who may sign an NOI or similar form is 30 Texas Administrative Code §305.44(a), which is provided below. According to this code provision, only a ranking elected official or principal executive officer may sign an NOI or similar form. Persons such as the City Mayor or County Commissioner will be considered ranking elected officials. In order to identify the principal executive officer of your government entity, it may be beneficial to consult your city charter, county or city ordinances, or the Texas statutes under which your government entity was formed. An NOI or similar document that is signed by a government official who is not a ranking elected official or principal executive officer does not conform to §305.44(a) (3). The signatory requirement may not be delegated to a government representative other than those identified in the regulation. By signing the NOI or similar form, you are certifying that you are either a ranking elected official or principal executive officer as required by the administrative code. Documentation demonstrating your position as a ranking elected official or principal executive officer may be requested by the TCEQ.

If you have any questions or need additional information concerning the signatory requirements discussed above, please contact the Texas Commission on Environmental Quality's Environmental Law Division at 512-239-0600.

30 Texas Administrative Code §305.44. Signatories to Applications

(a) All applications shall be signed as follows.

(1) For a corporation, the application shall be signed by a responsible corporate officer. For purposes of this paragraph, a responsible corporate officer means a president, secretary, treasurer, or vice-president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation; or the manager of one or more manufacturing, production, or operating facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures. Corporate procedures governing authority to sign permit or post-closure order applications may provide for assignment or delegation to applicable corporate positions rather than to specific individuals.

(2) For a partnership or sole proprietorship, the application shall be signed by a general partner or the proprietor, respectively.

(3) For a municipality, state, federal, or other public agency, the application shall be signed by either a principal executive officer or a ranking elected official. For purposes of this paragraph, a principal executive officer of a federal agency includes the chief executive officer of the agency, or a senior executive officer having responsibility for the overall operations of a principal geographic unit of the agency (e.g., regional administrator of the EPA).



LARGE CONSTRUCTION SITE NOTICE

FOR THE
Texas Commission on Environmental Quality (TCEQ)
Stormwater Program
TPDES GENERAL PERMIT TXR150000

“PRIMARY OPERATOR” NOTICE

This notice applies to construction sites operating under Part II.E.3. of the TPDES General Permit Number TXR150000 for discharges of stormwater runoff from construction sites equal to or greater than five acres, including the larger common plan of development. The information on this notice is required in Part III.D.2. of the general permit. Additional information regarding the TCEQ stormwater permit program may be found on the internet at:

http://www.tceq.state.tx.us/nav/permits/wq_construction.html

Site-Specific TPDES Authorization Number:	
Operator Name:	
Contact Name and Phone Number:	
Project Description: <i>Physical address or description of the site's location, and estimated start date and projected end date, or date that disturbed soils will be stabilized.</i>	
Location of Stormwater Pollution Prevention Plan:	



LARGE CONSTRUCTION SITE NOTICE

FOR THE

Texas Commission on Environmental Quality (TCEQ)
Stormwater Program

TPDES GENERAL PERMIT TXR150000

“SECONDARY OPERATOR” NOTICE

This notice applies to secondary operators of construction sites operating under Part II.E.3. of the TPDES General Permit Number TXR150000 for discharges of stormwater runoff from construction sites equal to or greater than five acres, including the larger common plan of development. The information on this notice is required in Part III.D.2. of the general permit. Additional information regarding the TCEQ stormwater permit program may be found on the internet at:

http://www.tceq.state.tx.us/nav/permits/wq_construction.html

Site-Specific TPDES Authorization Number:	
Operator Name:	
Contact Name and Phone Number:	
Project Description: <i>Physical address or description of the site's location, and estimated start date and projected end date, or date that disturbed soils will be stabilized.</i>	
Location of Stormwater Pollution Prevention Plan (SWP3):	

For Large Construction Activities Authorized Under Part II.E.3. (Obtaining Authorization to Discharge) the following certification must be completed:

I _____ (Typed or Printed Name Person Completing This Certification) certify under penalty of law that I have read and understand the eligibility requirements for claiming an authorization under Part II.E.3. of TPDES General Permit TXR150000 and agree to comply with the terms of this permit. A stormwater pollution prevention plan has been developed and will be implemented prior to construction, according to permit requirements. A copy of this signed notice is supplied to the operator of the MS4 if discharges enter an MS4. I am aware there are significant penalties for providing false information or for conducting unauthorized discharges, including the possibility of fine and imprisonment for knowing violations.

Signature and Title _____ Date _____

_____ Date Notice Removed

_____ MS4 operator notified per Part II.F.3.



SMALL CONSTRUCTION SITE NOTICE

FOR THE
Texas Commission on Environmental Quality (TCEQ)
Stormwater Program
TPDES GENERAL PERMIT TXR150000

The following information is posted in compliance with **Part II.E.2.** of the TCEQ General Permit Number TXR150000 for discharges of stormwater runoff from small construction sites. Additional information regarding the TCEQ stormwater permit program may be found on the internet at:

http://www.tceq.state.tx.us/nav/permits/wq_construction.html

Operator Name:	
Contact Name and Phone Number:	
Project Description: <i>Physical address or description of the site's location, estimated start date and projected end date, or date that disturbed soils will be stabilized</i>	
Location of Stormwater Pollution Prevention Plan:	

For Small Construction Activities Authorized Under Part II.E.2. (Obtaining Authorization to Discharge) the following certification must be completed:

I _____ (Typed or Printed Name Person Completing This Certification) certify under penalty of law that I have read and understand the eligibility requirements for claiming an authorization under Part II.E.2. of TPDES General Permit TXR150000 and agree to comply with the terms of this permit. A stormwater pollution prevention plan has been developed and will be implemented prior to construction, according to permit requirements. A copy of this signed notice is supplied to the operator of the MS4 if discharges enter an MS4. I am aware there are significant penalties for providing false information or for conducting unauthorized discharges, including the possibility of fine and imprisonment for knowing violations.

Signature and Title _____ Date _____

_____ Date Notice Removed

_____ MS4 operator notified per Part II.F.3.

Section 01566

SOURCE CONTROLS FOR EROSION AND SEDIMENTATION

1.0 GENERAL

1.01 SECTION INCLUDES

- A Descriptions of measures and practices, in response to TPDES General Permit TXR 150000, which shall be used on the Work to eliminate or significantly minimize pollutants in discharges into Surface Water in the State by controlling erosion and sediments at their source.
- B References to Technical Specifications:
 - 1. Section 01550 – Stabilized Construction Exit
 - 2. Section 01562 – Waste Material Disposal
 - 3. Section 01500 – Temporary Facilities and Controls
- C Definitions:
 - 1. Potential Water Pollutant - any substance that could potentially alter the physical, thermal, chemical, or biological quality of the Surface Water in the State, rendering the water harmful, detrimental, or injurious to humans, animal life, vegetation, or property, or to public health, safety or welfare, or impairs the usefulness or the public enjoyment of the water for any lawful or reasonable purpose.

1.02 MEASUREMENT AND PAYMENT

- A Unless indicated as a Bid Item, no separate payment will be made for Work performed under this Section. Include cost in Bid Items for which this Work is a component.

2.0 PRODUCTS - Not Used

3.0 EXECUTION

3.01 PREPARATION AND INSTALLATION

- A Contractor shall conduct all construction operations under this Contract in conformance with the erosion control practices described in the Plans and this Technical Specification.
- B Erosion and sediment control measures shall be in place prior to the start of any Work that exposes the soil, other than as specifically directed by the Engineer to allow soil testing and surveying.
- C The Contractor shall install, maintain, and inspect erosion and sediment control measures and practices that operate effectively and as specified in the Plans and in this or other Technical Specifications.

- D Equipment and vehicles shall be prohibited by the Contractor from maneuvering on areas outside of the limits of construction or dedicated rights-of-way and easements. Damage caused by construction traffic to erosion and sediment control systems shall be repaired immediately by the Contractor.
- E The Contractor shall be responsible for collecting, storing, hauling, and disposing of spoil, silt, waste materials, and contaminated material resulting from erosion and sediment control measures as specified in this or other Technical Specifications and in compliance with applicable federal, state, and local rules and regulations.

3.02 EXPOSED SOIL

- A When soil is exposed as a result of clearing, grading, excavating, stockpiling, or other soil disturbing activities, the Contractor shall implement measures to effectively control erosion and prevent the escape of sediments from the Project Site.
- B Control measures may include the following practices:
 - 1. Preserve existing vegetation to the extent possible.
 - 2. Construct drainage swales, berms, or sediment basins.
 - 3. Maintain grades to minimize the velocity of sheet flow over disturbed areas and promote evaporation and infiltration of storm water directly into the ground.
 - 4. Install filter fabric fences or barriers, sediment traps, seepage basins, gabions, or storm drain inlet protection devices.
 - 5. Utilize vegetative buffer strips, mulching, or riprap
- C When the placement of topsoil, bank sand, or other soil material is specified, after an area has been brought to grade and immediately prior to placement, loosen the subgrade discing or by scarifying to a depth of at least 2 inches to permit bonding to the subsoil.
- D When all soil disturbing activities have been completed, establish a perennial vegetative cover on all areas that are not paved, covered by permanent structures, or otherwise permanently stabilized.

3.03 DUST CONTROL

- A Implement control measures to minimize dust creation and movement on construction sites and roads and to prevent airborne sediment from reaching receiving streams or storm water conveyance systems, to reduce on-site and off-site damage, to prevent health hazards, and to improve traffic safety.
- B Control blowing dust by using one or more of the following measures:
 - 1. Mulches bound with chemical binders.
 - 2. Temporary vegetative cover.
 - 3. Tillage to roughen surface and bring clods to the surface.
 - 4. Irrigation by water sprinkling.

5. Barriers using solid board fences, burlap fences, crate walls, bales of hay, or similar materials.
- C Implement dust control measures immediately whenever dust can be observed blowing on the Project Site.

3.04 DEMOLITION AREAS

- A Demolition activities which create large amounts of dust with significant concentrations of heavy metals or other potential water pollutants shall use methods described in this Section, 3.03 “Dust Control”, to limit transport of airborne pollutants. However, water or slurry used to control dust contaminated with heavy metals or potential water pollutants shall be retained on the Project Site and shall not be allowed to run directly into watercourses or storm water conveyance systems by the appropriate use of control measures described in this Section. Methods of ultimate disposal of these materials shall be carried out in accordance with applicable local, state, and federal health and safety regulations.

3.05 SEDIMENT TRACKING

- A Minimize off-site tracking of sediments and the generation of dust by construction vehicles, keeping the streets clean of construction debris and mud, by implementing one or more of the following control measures:
1. Restrict all ingress and egress to stabilized construction exits.
 2. Stabilize areas used for staging, parking, storage or disposal.
 3. Stabilize on-site vehicle transportation routes.
 4. Remove mud and other debris, washing if necessary, from vehicles prior to entrance onto public roadways from the Project Site.
 5. Maintain grade to minimize the occurrence of mud on the Project Site.
- B Construct stabilized construction areas under the provisions of Section 01550 – Stabilized Construction Exists.
- C In addition to Stabilized Construction Exits shovel or sweep the pavement to the extent necessary to keep the street clean. Water-hosing or sweeping of debris and mud off of the street into adjacent areas is not allowed.

3.06 EQUIPMENT MAINTENANCE AND REPAIR

- A Control equipment maintenance and repair so that oils, gasoline, grease, solvents, and other potential water pollutants cannot be washed directly into receiving streams or storm water conveyance systems.
- B Control measures may include the following practices:
1. Confine maintenance and repair of construction machinery and equipment to areas specifically designated for that purpose.
 2. Provide these areas with adequate waste disposal receptacles for liquid as well as solid waste.

3. Clean and inspect maintenance and repair areas daily.
4. Stabilize the area with coarse aggregate.
5. Maintain grade to prevent surface water from flowing over the area.
6. Place plastic matting, packed clay, tar paper, or other impervious material to prevent contamination of soil in the area.
7. Isolate areas of contaminated soil or other materials to facilitate proper removal and disposal.

C Where effective control measures are not feasible, equipment shall be taken off-site for maintenance and repair.

3.07 WASTE COLLECTION AND DISPOSAL

- A Conduct operations in conformance with the plan provided in Section 01562 – Waste Material Disposal and utilize such control measures, described in this Section, as may be necessary to eliminate or significantly reduce the discharge of possible water pollutants from the Project Site as a result of waste collection and disposal.
- B Keep receptacles and waste collection areas neat and orderly to the extent possible. Waste shall not be allowed to overflow its container or accumulate from day-to-day. Locate trash collection points where they will least likely be affected by concentrated storm water runoff.

3.08 WASHING AREAS

- A Vehicles such as concrete delivery trucks or dump trucks and other construction equipment shall not be washed at locations where the runoff will flow directly into a watercourse or storm water conveyance system. Preventative measures may include the following practices:
1. Designate special areas for washing vehicles.
 2. Locate these areas where the wash water will spread out and evaporate or infiltrate directly into the ground, or where the runoff can be collected in a temporary holding or seepage basin.
 3. Beneath wash areas construct a gravel or rock base to minimize mud production.
- B Construct washing areas under the provisions of Section 01550 – Stabilized Construction Exists.

3.09 STORAGE AND USAGE OF POTENTIAL WATER POLLUTANTS

- A Store and use potential water pollutants such as pesticides, fertilizers, distillate fuels, lubricants, solvents, cements, paints, acids, caustics, and other toxic substances in accordance with manufacturers' guidelines, Material Safety Data Sheets, and with local, state, and federal regulations.

- B Isolate these substances in areas where they are to be stored, opened or used such that they will not cause pollution of runoff from the Project Site. Preventative measures may include the following practices:
 - 1. Stabilize the area with coarse aggregate.
 - 2. Store containers on raised platforms.
 - 3. Place plastic matting, packed clay, tar paper, or other impervious material to prevent contamination of soil in the area.
 - 4. Provide protective cover or weather proof enclosure.
 - 5. Minimize accidental spillage.
 - 6. Keep containers tightly closed.
 - 7. Periodically inspect containers for leakage.
 - 8. Maintain grade to prevent surface water from flowing over the area.
 - 9. Provide berms, filter fabric fences or barriers, or sediment basins.
 - 10. Designate washing areas for containers and other items that have come in contact with potential water pollutants.

- C Avoid overuse of substances such as pesticides and fertilizers which could produce contaminated runoff.

3.10 SANITARY FACILITIES

- A Provide the Project Site with adequate portable toilets for workers in accordance with Section 01500 – Temporary Facilities and Controls, and applicable health regulations.

- B Control areas where sanitary facilities are located so that sewage or chemicals will not be washed directly into receiving streams or storm water conveyance systems by using one or more of the following measures.
 - 1. Inspect the facilities daily.
 - 2. Service the facilities as often as necessary to maintain cleanliness and prevent overflows.
 - 3. Stabilize the area with coarse aggregate
 - 4. Maintain grade to prevent surface water from flowing over the area

END OF SECTION

Section 01570**TRENCH SAFETY SYSTEM****1.0 GENERAL****1.01 SECTION INCLUDES**

- A. Trench safety system for the construction of trench excavations.
- B. Trench safety system for excavation of utilities, excavation of structures, and embankment which fall under provisions of federal, state, or local excavation safety laws.
- C. References to Technical Specifications:
 - 1. Section 01200 – Measurement & Payment Procedures
 - 2. Section 01350 – Submittals
- D. Referenced Standards:
 - 1. Occupational Safety and Health Administration (OSHA)
- E. Definitions:
 - 1. Trench: A narrow excavation (in relation to its depth) made below the surface of the ground. In general, the depth is greater than the width, but the width of a trench (measured at the bottom) is not greater than 15 feet.
 - 2. Trench safety system requirements apply to larger open excavations if the erection of structures or other installations limits the space between the excavation slope and the installation to dimensions equivalent to a trench as defined.
 - 3. Trench safety systems include both Protective Systems and Shoring Systems but are not limited to sloping, sheeting, trench boxes or trench shields, slide rail systems, sheet piling, cribbing, bracing, shoring, dewatering or diversion of water to provide adequate drainage.

- a. Protective System: A method of protecting employees from cave-ins, from material that could fall or roll from an excavation face or into an excavation, or from the collapse of an adjacent structure.
 - b. Shoring System: A structure, which supports the sides of an excavation, to prevent cave-ins, maintain stable soil conditions, or to prevent movements of the ground affecting adjacent installations or improvements.
 - c. Special Shoring: A shoring system meeting Special Shoring Requirements for locations identified on the Plans.
4. Competent Person- one who is capable of identifying existing and predictable hazards in the surroundings or working conditions which are unsanitary, hazardous, or dangerous to employees, and who has authorization to take prompt corrective measures to eliminate them.

1.02 MEASUREMENT AND PAYMENT

- A. Measurement for trench safety systems used on utility excavations is on a linear foot basis, measured along the centerline of the trench. Payment for trench safety systems includes payment for manholes and other line structures.
- B. Unless indicated in as a Bid Item, no separate payment will be made for shoring systems under this Section. Include cost in Bid Items for trench safety systems.
- C. If shown on the Plans and included in Section 00300 – Bid Proposal as a separate Bid Item, Measurement and Payment for Special Shoring system installation for trench excavation is on a square foot basis, measured and completed in place.
- D. Unless indicated as a Bid Item, no separate payment will be made for trench safety systems used on structural excavations under this Section. Include cost for trench safety system used on structural excavations in applicable structure installation.
- E. Unless indicated as a Bid Item, no separate payment will be made for trench safety systems used on roadway excavation or embankment under this Section. Include cost in applicable Sections.
- F. Refer to Section 01200 – Measurement & Payment Procedures.

1.03 SUBMITTALS

- A. Make Submittals required by this Section under the provisions of Section 01350 – Submittals.
- B. Submit a safety plan specifically for the construction of trench excavation, excavation of utilities, excavation of structures, and embankment which fall under provisions of

federal, state, or local excavation safety laws. Design the Trench Safety Plan to be in accordance with OSHA Standards - 29CFR governing the presence and activities of individuals working in and around trench excavations, and in accordance with any Special Shoring requirements at locations shown on the Plans. Include in the plan, submittal of the contact information for the Competent Person.

- C. Have Shop Drawings for trench safety systems sealed, as required by OSHA, by a Professional Engineer, licensed by the State of Texas, retained and paid by the Contractor.

1.04 REGULATORY REQUIREMENTS

- A. Install and maintain trench safety systems in accordance with the provision of Excavations, Trenching, and Shoring, OSHA Standards–29 CFR, Part 1926, Subpart P, as amended, including Final Rule, published in the Federal Register Vol. 54, No. 209 on Tuesday, October 31, 1989. The sections that are incorporated into these Technical Specifications, by reference, include Standard 1926.650 – 652.
- B. A reproduction of the OSHA Standards – 29 CFR included in Subpart P – “Excavations” from the Federal Register Vol. 54, No. 209 is available upon request to Contractors bidding on the Work. The Owner assumes no responsibility for the accuracy of the reproduction. The Contractor is responsible for obtaining a copy of this section of the Federal Register.
- C. Include in the Trench Safety Program measures that establish compliance with the standard interpretation of the General Duty Clause, Section 5.(a)(1), of the Occupational Safety and Health Act of 1970 – 20 USC 654 which states, “Employers must shore or otherwise protect employees who walk/work at the base of an embankment from possible collapse.”
- D. Legislation that has been enacted by the State of Texas with regard to Trench Safety Systems is hereby incorporated, by reference, into these specifications. Under Texas Statutes, refer to Chapter 756 of the Health and Safety Code, SUBCHAPTER C. TRENCH SAFETY.
- E. Reference materials, if developed for this Work, will be issued by the Engineer along with the Bid Documents, including the following:
 - 1. Geotechnical information obtained for use in design of the trench safety system.
 - 2. Special Shoring Requirements.

1.05 INDEMNIFICATION

- A. Contractor shall indemnify and hold harmless the Owner, its employees, and agents, from any and all damages, costs (including, without limitation, legal fees, court costs, and the cost of investigation), judgments or claims by anyone for injury or death of

persons resulting from the collapse or failure of trenches constructed under this Contract.

- B. Contractor acknowledges and agrees that this indemnity provision provides indemnity for the Owner in case the Owner is negligent either by act or omission in providing for trench safety, including, but not limited to safety program and design reviews, inspections, failures to issue stop work orders, and the hiring of the Contractor.
- C. Review of the safety program by the Engineer will only be in regard to compliance with the Contract Documents and will not constitute approval by the Engineer nor relieve Contractor of obligations under state and federal trench safety laws.

2.0 PRODUCTS - Not Used

3.0 EXECUTION

3.01 INSTALLATION

- A. Install and maintain trench safety systems in accordance with provisions of OSHA Standards – 29 CFR.
- B. Specially designed trench safety systems shall be installed in accordance with the Contractor’s trench excavation safety program for the locations and conditions identified in the program.
- C. Install Special Shoring at the locations shown on the Plans.
- D. Obtain verification from a Competent Person, defined in this Section and as identified in the Contractor’s Trench Safety Program, that trench boxes and other pre-manufactured systems are certified for the actual installation conditions.

3.02 INSPECTION

- A. Conduct daily inspections by Contractor or Contractor's independently retained consultant, of the trench safety systems to ensure that the installed systems and operations meet OSHA Standards – 29 CFR and other personnel protection regulations requirements.
- B. If evidence of possible cave-ins or slides is apparent, immediately stop work in the trench and move personnel to safe locations until necessary precautions have been taken to safeguard personnel.
- C. Maintain a permanent record of daily inspections.

3.03 FIELD QUALITY CONTROL

- A. Verify specific applicability of the selected or specially designed trench safety systems to each field condition encountered on the Work.

END OF SECTION

Section 01580**PROJECT IDENTIFICATION SIGNS****1.0 GENERAL****1.01 SECTION INCLUDES**

- A. Project identification sign description.
- B. Installation.
- C. Maintenance and removal.

1.02 UNIT PRICES

- A. No separate payment will be made for design, fabrication, installation, and maintenance of project identification signs under this Section. Include cost of work performed under this Section in the pay item for Section 01505 - Mobilization.
- B. If changes to project identification signs are requested by the City Engineer to keep them current, payment will be made by change order.
- C. Skid-mounted signs shall be relocated as directed by the City Engineer at no additional cost to the City. Post-mounted signs shall be relocated once, if directed in writing by the City Engineer, at no additional cost to the City. If a post-mounted sign is relocated more than once at the written direction of the City Engineer, payment will be made by change order.

1.03 SYSTEM DESCRIPTION

- A. Sign Construction: Project identification signs shall be constructed of new materials and painted new for the project. Construct post-mounted signs as shown on Construction Sign Details.
- B. Appearance: Project identification signs shall be maintained to present a clean and neat look throughout the project duration.
- C. Sign Manufacturer/Maker: Experienced as a professional sign company.
- D. Sign Placement: Place signs at locations as directed by the City Engineer. The City Engineer will provide sign placement instructions at the Pre-construction Meeting.
 - 1. A linear project is one involving paving, overlay, sewer lines, storm drainage, or water mains that run in the right-of-way over a distance. A

linear project requires a project identification sign at each end of the construction site.

2. Single Site or Building Projects: Provide one project identification sign.

3. Multiple Sites: Provide one project identification sign at each site.

4. Sign Relocation: As work progresses at each site, it may be necessary to move and relocate project identification signs. Relocate signs as directed in writing by the City Engineer.

- E. Alternate Skid-mounted Sign Construction: Post-mounted signs are preferred, but skid-mounted signs are allowed, especially for projects with noncontiguous locations where work progresses from one location to another. The skid structure shall be designed so that the sign will withstand a 60-mile-per-hour wind load directly to the face or back of the sign. Use stakes, straps, or ballast. Approval of the use of skid-mounted signs shall not release the Contractor from responsibility of maintaining a project identification sign on the project site and shall not make the City responsible for the security of such signs.

1.04 SUBMITTALS

- A. Submit shop drawings under provisions of Section 01350 - Submittal Procedures.
- B. Show content, layout, lettering style, lettering size, and colors. Make sign and lettering to scale, clearly indicating condensed lettering, if used.

2.0 PRODUCTS

2.01 SIGN MATERIALS

- A. Structure and Framing: All sign materials shall be new.
1. 48" x 60" x 0.010 Aluminum Sign Blank
 2. 3M 3930 HIP White Reflective Sheeting
 3. 3M 1175C Blue Electro Cut Film
 4. Sign Layout Design in Attachment
 5. Font: Clear View Hwy 1-B
- B. Paint and Primers: If required, use white paint used to prime surfaces and to resist weathering shall be an industrial grade, fast-drying, oil-based paint with gloss finish. Paint structural and framing members white on all sides and edges to resist weathering. Paint sign and sign header material white on all sides and edges to resist weathering. Paint all sign surfaces with this weather-protective paint prior to adding any sign paint or adhesive applications.

- C. Colors:
Follow criteria established by attached Exhibit

3.0 EXECUTION

3.01 INSTALLATION

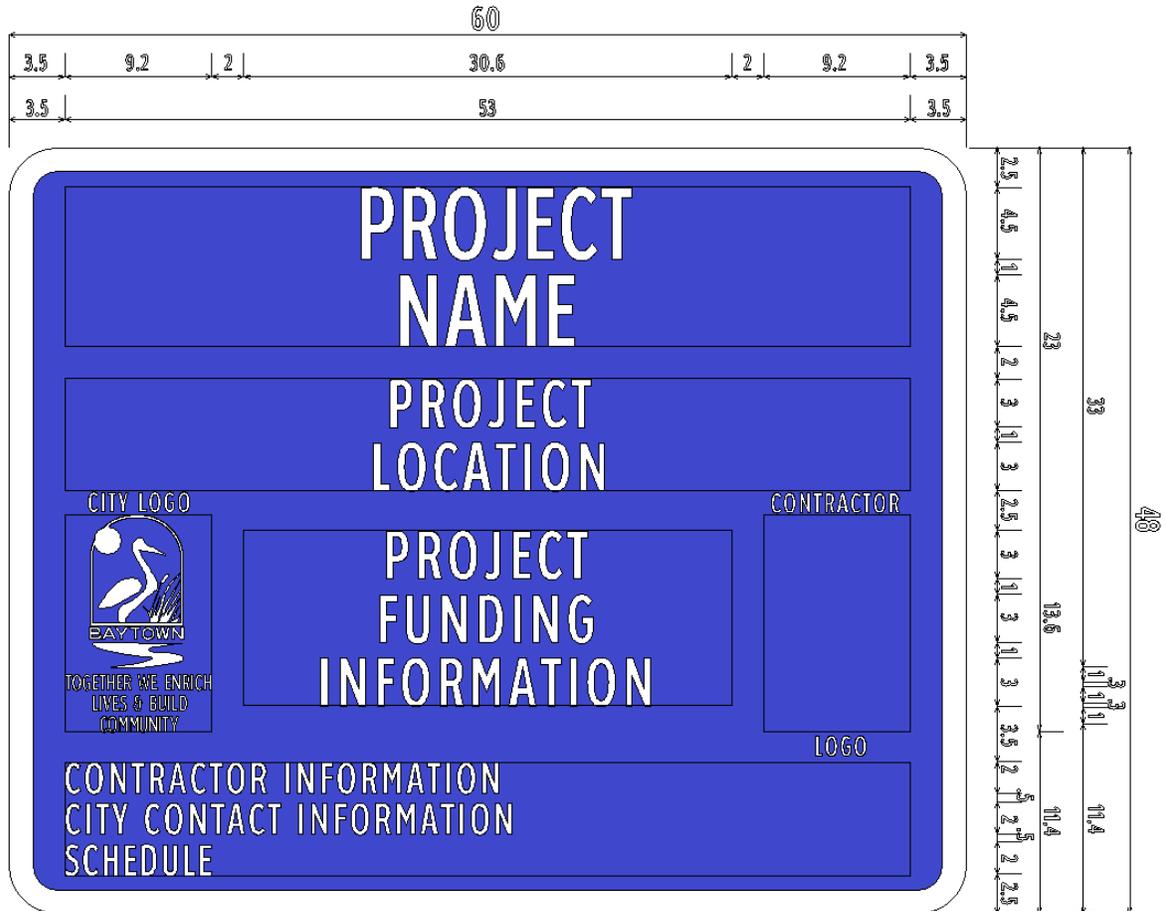
- A. Install project identification signs within 10 calendar days after Date of Commencement.
- B. Erect signs where designated by the City Engineer at the Pre-construction Meeting or as described in part 1.03 of this Section. Position the sign in such a manner as to be fully visible and readable to the general public.
- C. **Sign Mounting and Installation Materials:**
1. Sign Base: 2" x 2" x 3', 12 Ga. Galvanized, Perforated Telespar Sign Post
 2. Sign Posts: 1 3/4" x 1 3/4" x 12', 14 Ga. Galvanized, Perforated Telespar Sign Post
 3. Rivets: Part # DRAS3878-06-W 3/8" Aluminum Shell/Steel Drive Pin Rivet w/ Washer
- D. Erect sign level and plumb.
- E. Erect sign so that the top edge of the sign, is no higher than 6 feet above existing grade.

3.02 MAINTENANCE AND REMOVAL

- A. Keep signs and supports clean. Repair deterioration and damage.
- B. Remove signs, framing, supports, and foundations to a depth of 2 feet upon completion of Project. Restore the area to a condition equal to or better than before construction.

END OF SECTION

**PROJECT IDENTIFICATION SIGN
EXHIBIT**



Section 01600

MATERIAL AND EQUIPMENT

1.0 GENERAL

1.01 SECTION INCLUDES

- A Requirements for transportation, delivery, handling, and storage of materials and equipment.
- B References to Technical Specifications:
 - 1. Section 01566 – Source Controls for Erosion & Sedimentation

1.02 MEASUREMENT AND PAYMENT

- A Unless indicated as a Bid Item, no separate payment will be made for Work performed under this Section. Include cost in Bid Items for which this work is a component.

1.03 PRODUCTS

- A Products: Means material, equipment, or systems forming the Work. Does not include machinery and equipment used for preparation, fabrication, conveying and erection of the Work. Products may also include existing materials or components designated for reuse.
- B Do not reuse materials and equipment, designated to be removed, except as specified by the Contract Documents.
- C Provide equipment and components from the fewest number of manufacturers as is practical, in order to simplify spare parts inventory and to allow for maximum interchangeability of components. For multiple components of the same size, type or application, use the same make and model of component throughout the Work.

1.04 TRANSPORTATION

- A Make arrangements for transportation, delivery, and handling of equipment and materials required for timely completion of the Work.
- B Transport and handle products in accordance with instructions.
- C Consign and address shipping documents to the proper party giving name of Project, street number, and City. Shipments shall be delivered to the Contractor.

1.05 DELIVERY

- A Arrange deliveries of products to accommodate the Construction Schedule and in ample time to facilitate inspection prior to installation. Avoid deliveries that cause lengthy storage or overburden of limited storage space.

- B Coordinate deliveries to avoid conflict with Work and conditions at the Project Site and to accommodate the following:
 - 1. Work of other contractors or the Owner.
 - 2. Limitations of storage space.
 - 3. Availability of equipment and personnel for handling products.
 - 4. Owner's use of premises.
- C Have products delivered to the Project Site in manufacturer's original, unopened, labeled containers.
- D Immediately upon delivery, inspect shipment to assure:
 - 1. Product complies with requirements of Contract Documents.
 - 2. Quantities are correct.
 - 3. Containers and packages are intact; labels are legible.
 - 4. Products are properly protected and undamaged.

1.06 PRODUCT HANDLING

- A Coordinate the off-loading of materials and equipment delivered to the Project Site. If necessary to move stored materials and equipment during construction, Contractor shall relocate materials and equipment at no additional cost to the Owner.
- B Provide equipment and personnel necessary to handle products, including those provided by the Owner, by methods to prevent damage to products or packaging.
- C Provide additional protection during handling as necessary to prevent breaking, scraping, marring, or otherwise damaging products or surrounding areas.
- D Handle products by methods to prevent over bending or overstressing.
- E Lift heavy components only at designated lifting points.
- F Handle materials and equipment in accordance with Manufacturer's recommendations.
- G Do not drop, roll, or skid products off delivery vehicles. Hand carry or use suitable materials handling equipment.

1.07 STORAGE OF MATERIAL

- A Store and protect materials in accordance with manufacturer's recommendations and requirements of these Technical Specifications. Control storage of potential water pollutants in conformance with Section 01566 – Source Controls for Erosion & Sedimentation.
- B Make necessary provisions for safe storage of materials and equipment. Place loose soil materials, and materials to be incorporated into the Work to prevent damage to any part of the Work or existing facilities and to maintain free access at all times to all parts of the Work and to utility service company installations in the vicinity of the Work.

- C Keep materials and equipment neatly and compactly stored in locations that will cause a minimum of inconvenience to other contractors, public travel, adjoining owners, tenants, and occupants. Arrange storage in a manner to provide easy access for inspection.
- D Provide adequately ventilated, watertight storage facilities with floor above ground level for materials and equipment susceptible to weather damage.
- E Restrict storage to areas available on the construction site for storage of material and equipment as shown on Plans or approved by the Project Manager.
- F Provide off-site storage and protection when on-site storage is not adequate.
- G Do not use lawns, grass plots, or other private property for storage purposes without written permission of the owner or other person in possession or control of such premises. Damage to lawns, sidewalks, streets or other improvements shall be repaired or replaced to the satisfaction of the Project Manager.
- H Protect stored materials and equipment against loss or damage.
- I Store materials in manufacturers' unopened containers.
- J Materials delivered and stored along the line of the Work shall be no closer than 3 feet to any fire hydrant. Public and private drives and street crossings shall be kept open.
- K The total length which materials may be distributed along the route of construction at any one time is 1000 lineal feet, unless otherwise approved in writing by the Project Manager.

2.0 PRODUCTS - Not Used

3.0 EXECUTION - Not Used

END OF SECTION

Section 01630**PRODUCT OPTIONS AND SUBSTITUTIONS****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Options for making product or process selections.
- B Procedures for proposing equivalent construction products or processes, including pre-approved, and approved products or processes
- C References to Technical Specifications:
 - 1. Section 01350 – Submittals

1.02 SUBMITTALS

- A Make Submittals required by this and related Sections under the provisions of Section 01350 – Submittals.

1.03 DEFINITIONS

- A **Product:** Means, materials, equipment, or systems incorporated into the Work. Product does not include machinery and equipment used for production, fabrication, conveying, and erection of the Work. Products may also include existing materials or components designated for re-use.
- B **Process:** Any proprietary system or method for installing system components resulting in an integral, functioning part of the Work. For this Section, the word Product includes Processes.

1.04 SELECTION OPTIONS

- A **Pre-approved Products:** Products of certain manufacturers or suppliers are designated in the Technical Specifications as “pre-approved”. Products of other manufacturers or suppliers will not be acceptable under this Contract and will not be considered under the submittal process for approving alternate products.
- B **Approved Products:** Products of certain manufacturers or suppliers designated in the Technical Specifications followed by the words "or approved equal". Approval of alternate products not listed in the Technical Specifications may be obtained through provisions of this Section and Section 01350 – Submittals. The procedure for approval of alternate products is not applicable to Pre-approved Products.
- C **Product Compatibility:** To the maximum extent possible, provide products that are of the same type or function from a single manufacturer, make, or source. Where more than one choice is available as a Contractor's option, select a product which is compatible with other products already selected, specified, or in use by the Owner.

1.05 CONTRACTOR'S RESPONSIBILITY

- A Furnish information the Engineer deems necessary to judge equivalency of the alternate product.
- B Pay for laboratory testing as well as any other review or examination cost needed to establish the equivalency between products which enables the Engineer to make such a judgment.
- C If the Engineer determines that an alternate product is not equivalent to that named in the Technical Specifications, the Contractor shall furnish one of the specified products.

1.06 ENGINEER'S REVIEW

- A Alternate products may be used only if approved in writing by the Engineer. The Engineer's determination regarding acceptance of a proposed alternate product is final.
- B Alternate products will be accepted if the product is judged by the Engineer to be equivalent to the specified product or to offer substantial benefit to the Owner.
- C The Owner retains the right to accept any product deemed advantageous to the Owner, and similarly, to reject any product deemed not beneficial to the Owner.

1.07 SUBSTITUTION PROCEDURE

- A Collect and assemble technical information applicable to the proposed product to aid in determining equivalency as related to the Approved Product specified.
- B Submit a written request for a product to be considered as an alternate product along with the product information within fourteen (14) days after the Effective Date of the Agreement.
- C After the submittal period has expired, requests for alternate products will be considered only when a specified product becomes unavailable because of conditions beyond the Contractor's control.
- D Submit 5 copies of each request for alternate product approval. Include the following information:**
 - 1. Complete data substantiating compliance of proposed substitution with Contract Documents.
 - 2. For products:
 - a. Product identification, including manufacturer's name and address.
 - b. Manufacturer's literature with product description, performance and test data, and reference standards.
 - c. Samples, as applicable.
 - d. Name and address of similar projects on which product was used and date of installation. Include the name of the Owner, Architect/Engineer, and installing contractor.

3. For construction methods:
 - a. Detailed description of proposed method.
 - b. Shop Drawings illustrating methods.
4. Itemized comparison of proposed substitution with product or method specified.
5. Data relating to changes in Construction Schedule
6. Relationship to separate contracts, if any.
7. Accurate cost data on proposed substitution in comparison with product or method specified.
8. Other information requested by the Engineer.

E Approved alternate products will be subject to the same review process as the specified product would have been for Shop Drawings, Product Data, and Samples.

2.0 PRODUCTS - Not Used

3.0 EXECUTION - Not Used

END OF SECTION

Section 01720

FIELD SURVEYING

1.0 GENERAL

1.01 SECTION INCLUDES

- A Requirements for surveyors and surveys.
- B Procedures pertaining to survey control points and reference points.
- C References to Technical Specifications:
 - 1. Section 01350 – Submittals
 - 2. Section 01760 – Project Record Documents

1.02 MEASUREMENT AND PAYMENT

- A Unless indicated as a Bid Item, no separate payment will be made for Work performed under this Section. Include cost in Bid Items for which this Work is a component.

1.03 QUALITY CONTROL

- A Conform to State of Texas laws for surveys requiring licensed surveyors. Employ a land surveyor acceptable to Engineer.

1.04 SUBMITTALS

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.
- B Submit to Engineer the name, address, and telephone number of Surveyor before starting survey work.
- C Submit documentation verifying accuracy of survey work on request.

1.05 PROJECT RECORD DOCUMENTS

- A Maintain a complete and accurate log of control and survey work as it progresses.
- B Submit Record Documents under provisions of Section 01760 – Project Record Documents.

1.06 EXAMINATION

- A Verify locations of survey control points prior to starting Work.
- B Notify Engineer immediately of any discrepancies discovered.

1.07 SURVEY REFERENCE POINTS

- A Control datum for survey is that established by Owner-provided survey and indicated on Plans.
- B Locate and protect survey control points, including property corners, prior to starting site work. Use caution to preserve permanent reference points during construction.
- C The Contractor shall not reset; nor cause to be reset, lost, disturbed, or damaged; control points. Promptly notify Engineer of disturbance or damage to any control point(s).
- D Notify Engineer 48 hours in advance of need for relocation of reference points due to changes in grades or other reasons.
- E Report promptly to Engineer the loss or destruction of any reference point.
- F Any re-staking of control points lost, disturbed, or damaged by Contractor's operations will be provided by Owner at Contractor's expense.
- G Employ a Registered Public Land Surveyor to reset any missing, disturbed, or damaged monumentation.

1.08 SURVEY REQUIREMENTS

- A Utilize recognized engineering survey practices.
- B Establish a minimum of two permanent bench marks on Project Site, referenced to established control points. Record locations, with horizontal and vertical data, on Project Record Documents.
- C Establish and record in survey notes elevations, lines and levels to provide quantities required for Measurement and Payment and to provide appropriate controls for the Work. Locate and lay out by instrumentation and similar appropriate means:
 - 1. Site improvements including pavements; stakes for grading; fill and topsoil placement; utility locations, slopes, and invert elevations.
 - 2. Grid or axis for structures.
 - 3. Monumental Baseline.
- D Verify periodically layouts by same means.

2.0 PRODUCTS - Not Used**3.0 EXECUTION - Not Used**

END OF SECTION

Section 01750**STARTING SYSTEMS****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Starting systems.
- B Demonstration and instructions.
- C Testing, adjusting, and balancing.
- D References to Technical specifications:
 - 1. Section 01350 – Submittals
 - 2. Section 01430 – Contractor’s Quality Control

1.02 MEASUREMENT AND PAYMENT

- A Unless indicated as a Bid Item, no separate payment will be made for Work performed under this Section. Include cost in Bid Items for which this Work is a component.

1.03 SUBMITTALS

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.
- B Submit a written report that equipment or system has been properly installed and is functioning correctly.

2.0 PRODUCTS - Not Used**3.0 EXECUTION****3.01 PREPARATION**

- A Contractor shall conduct all start-up operations under this Contract in conformance with Section 01430 – Contractor’s Quality Control.
- B Coordinate schedule for start-up of various equipment and systems.
- C **Notify Engineer 7 days prior to startup of each item.**
- D Verify that each piece of equipment or system has been checked for proper lubrication, drive rotation, belt tension, control sequence, or other conditions which may cause damage.
- E Verify that tests, meter readings, and specified electrical characteristics agree with those required by the equipment or system manufacturer.

- F Verify wiring and support components for equipment are complete and tested.
- G Execute start-up under Contractor's supervision in accordance with manufacturer's instructions.
- H When specified in individual specification sections, require manufacturer to provide authorized representative to be present at site to inspect, check and approve equipment or system installation prior to and during start-up, and to supervise placing equipment or system in operation.

3.02 DEMONSTRATION AND INSTRUCTIONS

- A Demonstrate operation and maintenance of products to Owner two weeks minimum prior to date of Substantial Completion.
- B Utilize operation and maintenance manuals as basis for instruction. Review contents of manual with Owner in detail to explain all aspects of operation and maintenance.
- C Demonstrate start-up, operation, control, adjustment, trouble-shooting, servicing, maintenance, and shutdown of each item of equipment at agreed-upon times, at equipment location.
- D Prepare and insert additional data in operations and maintenance manuals when need for additional data becomes apparent during instruction.

3.03 TESTING, ADJUSTING, AND BALANCING

- A Contractor shall start, test, adjust, balance, and provide reports on all installed equipment as provided for in this section.
- B Owner may also appoint, employ, and pay for services of an independent firm to perform testing, adjusting, and balancing. Reports will be submitted by the independent firm to the Owner indicating observations and results of the tests and indicating compliance or non-compliance with specified requirements and with the requirements of the Contract Documents.
- C Owner's employment of an independent firm shall not relieve the Contractor's responsibility under this section.

END OF SECTION

Section 01760**PROJECT RECORD DOCUMENTS****1.0 GENERAL****1.01 SECTION INCLUDES**

- A Maintenance and Submittal of Record Documents and Samples.
- B References to Technical Specifications:
 - 1. Section 01350 – Submittals
 - 2. Section 01770 – Contract Closeout

1.02 MEASUREMENT AND PAYMENT

- A Unless indicated as a Bid Item, no separate payment will be made for Work performed under this Section. Include cost in Bid Items for which this Work is a component.

1.03 SUBMITTALS

- A Make Submittals required by this and related Sections under the provisions of Section 01350 – Submittals.

1.04 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A Maintain one copy of Record Documents at the Project Site in accordance with Section 00700 – General Conditions of Agreement, 3.02 “Keeping Plans and Specifications Accessible”.
- B Store Record Documents and Samples in field office if a field office is required by Contract Documents, or in a secure location. Provide files, racks, and secure storage for Record Documents and Samples.
- C Label each document "PROJECT RECORD" in neat, large, printed letters.
- D Maintain Record Documents in a clean, dry, and legible condition. Do not use Record Documents for construction purposes.
- E Keep Record Documents and Samples available for inspection by Engineer.

1.05 RECORDING

- A Record information concurrently with construction progress. Do not conceal any work until required information is recorded.
- B Plans, Change Orders, and Shop Drawings: Legibly mark each item to record all actual construction, or "as built" conditions, including:
 - 1. Measured horizontal locations and elevations of underground utilities and

- appurtenances, referenced to permanent surface improvements.
 - 2. Elevations of underground utilities referenced to bench marks utilized for the Work.
 - 3. Field changes of dimension and detail.
 - 4. Changes made by modifications.
 - 5. Details not on original Plans.
 - 6. References to related Shop Drawings and Modifications.
- C Record information with a red pen or pencil on a set of drawings indicated as the Record Document Set, provided by Engineer.

2.0 PRODUCTS - Not Used

3.0 EXECUTION

- A Deliver Record Documents and Samples to Owner in accordance with Section 01770–Contract Closeout.

END OF SECTION

Section 01770

CONTRACT CLOSEOUT

1.0 GENERAL

1.01 SECTION INCLUDES

- A Closeout procedures including final submittals such as operation and maintenance data, warranties, and spare parts and maintenance materials.
- B References to Technical Specifications:
 - 1. Section 01350 – Submittals
 - 2. Section 01760 – Project Record Documents

1.02 MEASUREMENT AND PAYMENT

- A Unless indicated as a Bid Item, no separate payment will be made for Work performed under this Section. Include cost in Bid Items for which this Work is a component.

1.03 SUBMITTALS

- A Make Submittals required by this Section under the provisions of Section 01350 – Submittals.

1.04 CLOSEOUT PROCEDURES

- A Comply with Section 00700 – General Conditions of Agreement regarding Final Completion and Final Payment when Work is complete and ready for Engineer's final inspection.
- B Provide Record Documents under provisions of Section 01760 – Project Record Documents.
- C Complete or correct items on punch list, with no new items added. Any new items will be addressed during warranty period.
- D The Owner will occupy portions of the Work as specified in Section 00700 – General Conditions of Agreement.
- E Contractor shall request Final Inspection at least two weeks prior to Final Acceptance.

1.05 FINAL CLEANING

- A Execute final cleaning prior to final inspection.
- B Clean debris from drainage systems.
- C Clean Project Site; sweep paved areas, rake clean landscaped surfaces.

- D Remove waste and surplus materials, rubbish, and temporary construction facilities from the Project Site following the final test of utilities and completion of the Work.

1.06 OPERATION AND MAINTENANCE DATA

- A Submit Operations and Maintenance data under provisions of Section 01350 – Submittals.

1.07 WARRANTIES

- A Provide one original of each warranty from Subcontractors, Suppliers, and Manufacturers.
- B Provide Table of Contents and assemble warranties in 3-ring/D binder with durable plastic cover.
- C Submit warranties prior to Final Application for Payment.
 - 1. Warranties shall commence in accordance with the requirements of Section 00700 – General Conditions of Agreement, 1.09 “Substantially Completed”.

2.0 PRODUCTS - Not Used

3.0 EXECUTION- Contractor shall diligently pursue completion of the items and activities contained in the Contract Close Out and Project Record Document sections of the project manual. Notwithstanding any performance of warranty work, the work of Contract Closeout shall be complete within thirty (30) days of the date of Final Completion and Acceptance of the work.

END OF SECTION