



## Submittal Requirements

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### *Initial Submittal:*

\_\_\_\_\_ 6 review 24"x36" copies of construction plans and 2 copies of the drainage report.

### *Subsequent Submittals:*

\_\_\_\_\_ 2 review 24"x36" copies of construction plans and 1 copy of the revised drainage report.

### *Final Submittal (After Plan Approval):*

\_\_\_\_\_ 4 signed 24"x36" copies (upon completion of the review process) for city records.

\_\_\_\_\_ 1 Mylar copy of construction plan cover sheet for city approval to be returned to the design engineer for reproduction.

\_\_\_\_\_ 2 signed copies of the storm report for city records.

### *Post Construction:*

\_\_\_\_\_ The City of Altoona is to receive Record Drawings (as-built information) as follows: 2-Electronic copies (PDF and TIF); 1-Mylar copy and 7-paper copies.

## Required Information on Construction Plans

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\_\_\_\_\_ Name of Plans.

\_\_\_\_\_ Legal description.

\_\_\_\_\_ Name and Address of recorded owner and developer.

\_\_\_\_\_ Zoning classification of the area.

\_\_\_\_\_ Point of compass, scale, and date.

\_\_\_\_\_ Name and Address of Engineer and/or Land Surveyor.

\_\_\_\_\_ Existing buildings, railroads, underground utilities, and other right-of-way.

\_\_\_\_\_ Location, name, and width of all proposed and existing streets and width of street right-of-way.

\_\_\_\_\_ Proposed and existing contour lines.

\_\_\_\_\_ Building setback lines.

\_\_\_\_\_ Boundaries of the proposed subdivision shall be indicated by a heavy line.

\_\_\_\_\_ Proposed utility service:

\_\_\_\_\_ Source of water supply;

\_\_\_\_\_ Provision for sewage disposal;

\_\_\_\_\_ Provision for storm water drainage.

\_\_\_\_\_ Show locations of cluster mailboxes on utility drawings. Location is to be on side of street where parking is "not allowed" (North & East).

\_\_\_\_\_ Show applicable Altoona Standard Notes.

## Accompanying Material

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\_\_\_\_\_ 2 signed copies of the drainage report that will include a drainage map, storm water conveyance calculations, and detention calculations.

\_\_\_\_\_ A COSESCO Permit Application will need to be submitted and approved before the start of grading operations.

## Construction Requirements

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\_\_\_\_\_ Upon completion of setting all property pins, the Project Engineer shall furnish the City of Altoona a letter stating that all property pins have been set and the date this work was completed.

\_\_\_\_\_ The Owner shall be responsible for obtaining any and all required permits for performing the work.

\_\_\_\_\_ The project engineer is responsible for layout of all utility easements prior to installation of utilities. Staking shall be done with lath and ribbon. Stakes shall be no further apart than 50-feet.

## **Altoona Standard Notes**

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### General Notes:

1. All materials and construction are to be in strict compliance with the “Urban Standard Specifications for Public Improvements” including the latest revisions.
2. It is the contractor’s responsibility to verify the exact location and elevations of all existing utilities and structures and whether additional utilities or structures exist and to protect all existing utilities and structures. Any damage to existing utilities and structures shall be repaired at the contractor’s expense.
3. One week prior to commencing construction the contractor shall notify the City of Altoona by phone at 967-5136, the Owner, and the Engineering Firm, Utility Companies and other appropriate parties.
4. All work shall be completed in strict accordance with applicable O.S.H.A., Codes and standards. Nothing indicated on these drawings shall relieve the contractor from complying with the applicable safety regulations.
5. The contractor shall furnish and place all necessary signs and barricades during construction in accordance with the Manual of Uniform Traffic Control Devices for Streets and Highways. The contractor is responsible for maintaining traffic control for the duration of the project.
6. The contractor shall be responsible for recording “as-built” information for all new construction. Record Drawings shall be maintained by the contractor and kept up to date as the work progresses. The original Record Drawings shall be provided to the Engineer upon completion of construction. The Record Drawing Grading Sheets are to be marked up with “spot” elevations checks. At a minimum, each lot corner and at least one other point on each lot are to be shown. Additional “spot” elevation checks should show all drainage ways, storm water BMPs and any features that differ from the original design. Submit two (2) stand-alone copies of the grading sheets marked up, prior to installation of any private utilities such as Gas, Electrical, Telephone and CATV. The City of Altoona is to receive Record Drawings as follows: 2- Electronic copies (PDF and TIF); 1- Mylar copy and 6- Blue Line or Black Line copies.
7. All fill areas, trench backfill and paving subgrade are to be compacted to a minimum of 95% Standard Proctor with a moisture content between optimum and + 4 %.
8. All debris spilled on public streets or adjacent property shall be promptly removed and properly disposed of by the contractor.
9. The contractor shall notify the City of Altoona if any field tile is encountered or intercepted. The contractor shall either reconnect the field tile or connect to storm sewer. The contractor shall keep a record of all field tile encountered. This information is to be given directly to the City of Altoona and also incorporated into the Record Drawings.
10. The contractor shall protect existing facilities at the site against damage including the following:
  - a. The Contractor shall take precautions to insure that equipment, vehicles, and construction operations do not disturb or damage existing grades, walls, drives, pavement, utilities, plants, lawns, and other facilities.
  - b. Verify locations and depths of all underground utilities prior to excavation and report any conflicts with new work to the Jurisdictional Engineer.

- c. Any damage to existing trees or shrubs branches and root systems to remain and be protected shall be repaired and/or pruned by an experienced tree surgeon or arborist.
- d. Repair, replace, and/or return to original condition any damaged item, without additional compensation.

Erosion Control:

1. The Contractor shall be responsible for accomplishing the required construction work on this project in such a manner as to effectively minimize and control the water pollution, which might be caused by soil erosion from the project. It is intended that these features be maintained in appropriate functional condition from initial construction stages to final completion of project. The contractor shall be responsible for conformance with local, state, and federal soil erosion and siltation controls.
2. The Contractor shall protect adjoining property including public utilities, sanitary and storm drainage systems, and other debris from project site. Repair any damage immediately at no additional cost.
3. The Contractor shall prevent transfer of earth, siltation, or debris to adjoining public or private property from project site. Remove any accumulation of earth or debris immediately, and take remedial actions for prevention.
4. Existing and new intakes shall be filtered during construction.
5. All intakes not specified to be filtered shall be plated or sand bagged to prevent taking water. The fiberglass mesh shall be placed to ensure no filter material will drop into the inlet. In some cases, it may be necessary to set the grate or steel plate over the fiberglass mesh to hold it securely in place. Construct in accordance with Detail type I, II, and III Inlet Filters.
6. Silt fences shall be constructed at locations specified on the plans or as directed by the Jurisdictional Engineer. The silt fences shall be in place prior to site clearing and grading. The bottom of the fence and fabric shall be embedded in the ground a minimum of 6 inches except at locations where fence is located within drainage ways, in which case it shall be embedded a minimum of 12 inches. Construct in accordance with Detail Plate for Silt Fence.
7. If temporary erosion and pollution control measures are required due to the contractor's negligence, carelessness, or failure to install permanent controls as a part of the work as scheduled, and are ordered by the Jurisdictional Engineer, such work shall be performed by the Contractor at own expense.
8. In case of repeated failures on the part of the Contractor to control erosion, pollution, and/or siltation, the Jurisdictional Engineer reserves the right to employ outside assistance or to use his own forces to provide the necessary corrective measures. Such incurred direct costs plus project engineering costs will be charged to the Contractor, and appropriate deductions will be made from the Contractor's monthly progress estimate and final payment.
9. The Contractor shall be responsible to perform cleaning during installation of work and upon completion of work.
10. Remove from the site all excess materials, debris, and equipment.
11. Hose down and/or broom clean all paved surfaces.
12. Repair any damage resulting from erosion control operations.
13. The Contractor shall remove erosion control devices upon approval of Jurisdictional Engineer. The Contractor shall remove all erosion control materials from the site. The Contractor shall perform cleanup operations upon completion of removal.

### Sanitary Sewer Notes

1. All Sanitary sewer services are to be 4-inch and be located at the center of lots (see Urban Standard Specifications for Public Improvements, Division 10; Figure 10000.4). Sanitary sewer services are to be extended to 10-feet inside property line. The contractor shall mark all sanitary sewer services and manholes with metal TEE posts. The top 1-foot of the posts marking services is to be painted green and tape brought up to the surface. Paint posts marking manholes green from top to grade.
2. Sanitary manholes are to be furnished without steps.
3. Sanitary Manhole castings may be adjusted to grade with use of either bituminous joint compound or non-shrink cement grout.
4. Sanitary Manholes are to have a minimum of two (2)-adjusting rings (2-inch thickness each, minimum); total adjustment stack height is to be 12-inches maximum. In some cases total stack height may exceed 12-inches, with 16-inches as an absolute maximum.
5. Video inspection of all new sanitary sewers is required. Each line section is to be its own video and be in Wincan v. 8 or newer, MPEG or WMV formats. If format is other than Wincan v. 8 or newer, demonstrate prior to performing video-inspection, that files can be converted and merged into Wincan v. 8 or newer and that format is acceptable to the City of Altoona. Additionally, video-inspection is to meet all of the requirements specified in SUDAS, Division 4, Section 4060.
6. Sanitary manhole castings shall be Type A unless otherwise noted.
7. Chimney seals are required for all sanitary sewer manholes.
8. Sanitary manhole castings and adjusting rings are to be bolted to top of manhole using four (4) stainless steel or hot dipped galvanized ½-inch threaded rods. For manholes that do not have threaded inserts cast in them, Drill in non-corrosive, threaded expansion type anchors.

### Water Main Notes

1. All water main shall have a minimum cover of 5-1/2-feet over top of pipe. All valves and curb boxes are to be marked with metal TEE posts. Top 1-foot of posts marking services is to be painted blue. Posts marking valves are to be painted blue from top to grade.
2. Services shall be 1-inch copper and be installed as per Section 10; Figure 10000.4 of the Urban Standard Specifications for Public Improvements. Water services are to terminate at curb boxes that are to be located six (6)-feet inside the R.O.W.
3. Contractor shall verify that fire hydrants and curb boxes will not be located in proposed sidewalks.
4. All PVC water mains shall be traced. Tracer wire is to be brought up outside of valve boxes and fed inside through slot cut in valve box just below top. Tracer wire at fire hydrants is to be terminated at post-mounted boxes.
5. All fire hydrants are to be furnished with a factory coat of red paint.
6. All fire hydrants are to be furnished with one pumper nozzle outlet with a 5-inch Storz-type, quick-connect coupling and cap. The caps for the 5-inch Storz couplings shall have external wrenching lugs and a chain attached to the fire hydrant shall retain the cap. The 5-inch Storz nozzles are to be factory installed and integral with the hydrant. Storz-type nozzles and caps shall comply with the dimensional requirements of NFPA 1963 Standard for Fire Hose Connections, specifically chapter 4, non-threaded connections.
7. Use joint deflection in lieu of adding fittings, when possible, when making grade & alignment changes.

### Storm Sewer Notes

1. The contractor shall mark all storm sewer service ends and manholes with metal TEE posts. For services, bring tracer wire to surface. The top 1-foot of the posts marking services is to be painted purple. Paint posts marking storm manholes purple from top to grade.
2. All storm sewer services are to be 2-inch and have a minimum depth of 4-feet. Storm sewer services are to be extended to 10-feet inside property line.
3. Storm Manholes are to be furnished without steps.
4. Storm Manholes are to have a minimum of two (2)-adjusting rings (2-inch thickness each, minimum); total adjustment stack height is to be 12-inches maximum. In some cases total stack height may exceed 12-inches, with 16-inches as an absolute maximum.
5. Storm Manhole castings are not to be bolted to the manhole.
6. Storm Manhole castings may be adjusted to grade with use of either bituminous joint compound or non-shrink cement grout.
7. All PVC storm sewer is to be installed with tracer wire. Tracer wire is to be brought up and terminated above grade at service ends and at connections to storm intakes and manholes.
8. All RCP storm sewer, which has PVC services connected to it, shall be installed with tracer wire. Tracer wire is to be terminated at connections to storm intakes and manholes.
9. All flared end sections are to be furnished with footings and apron guards.
10. Castings for storm drains should have the following imprinted in them: "DO NOT DUMP- DRAINS DIRECTLY TO STREAM" or similar wording.

### PCC Paving Notes:

1. PCC paving is to be performed in accordance with the provisions of SUDAS, Division 7, Section 7010 with the following additions:
2. After September 30th, use a mixture of white pigmented curing compound and linseed oil for curing PCC Pavement.
3. Provide full depth saw cut where new pavement matches existing pavement, if needed. The City of Altoona will determine the need and location of the saw cut. A minimum of one panel of existing pavement may need to be removed and replaced at no cost to the City of Altoona.
4. Sections of curb & gutter and pavement panels that are damaged during construction will be removed and replaced in their entirety. No partial panels or sections will be allowed.
5. All longitudinal and transverse joints in new pavement are to be sawed to a depth of  $T/3 \pm 1/4$ -inch.
6. Contractor is responsible for constructing curb drops in correct locations for pedestrian ramps for sidewalks and trails. Pedestrian ramps and sidewalks are to be constructed to meet all ADA (Americans with Disabilities Act) regulations or they will be replaced at contractor's expense.
7. All pavement median sections that are to receive plantings (turf, trees, etc.) will be over excavated after paving is complete to a depth of 3 feet below top of curb at a distance of 2 feet in from the back of curb and filled to within 6 inches of the top of curb with clean fill dirt. The top 6 inches from back of curb to back of curb shall be clean, black top soil.