STATE	PROJECT NO.	YEAR	SHEET NO.	TOTAL SHEETS
KANSAS	448-90510	2011	2	9

GENERAL NOTES

ACCESS:
Contractor is provided with access through the 50' City of Wichita Easement (adjacent to the Kansas and Oklahoma Railroad Right-of-Way line).

Trees within the easement may be cut at the base; roots/bulbs may not be removed as this may damage the waterline.

The Contractor is responsible for protection of the waterline with any work done within the easement. The Contractor has the option of securing access from outside the easement at Contractor's expense. The City supports the Contractor seeking alternative project access, if a revised point of access is mutually beneficial with the landowner. All costs associated with developing an alternative point of access, including tree removal, shall be incidental to the "Site Clearing" bid item.

INSPECTION:
Contact Rich Robinson (316-830-2881) for on-site construction supervision at least 5 working days before construction begins.

CLEANUP:
Contractor required to clear out the trash downstream (between waterline and railroad; the miscellaneous steel that has been erected downstream of the waterline) and dispose of the material off-site, at a location to be approved of by the City of Wichita.

All project waste including any trees, abandoned pipes, excess excavation & etc. shall be disposed of on sites to be provided by the Contractor. These sites shall be approved by the Inspector as to appearance and site location. Locations that, in the opinion of the Inspector, will leave an unsightly appearance will not be approved. All disposal sites must be approved by the Kansas Department of Health and Environment. Material either stockpiled or disposed of in a flood plain would require a Kansas State Board of Agriculture permit. Any material dumped in waters of the United States or Wetlands is subject to U.S. Corps of Engineers permitting regulations. Any material buried or stockpiled beyond approved construction limits would require additional investigations unless buried in a previously approved borrow location.

HORIZONTAL CONTROL:
Horizontal Control is a line established between two H.C.P.'s set in the field, H.C.P. #1 (Sta. 50+00 ℄) and H.C.P. #2 (Sta. 51+61.02 ℄).

PROTECTION OF BENCH MARKS AND HORIZONTAL CONTROL:
Contractor shall be responsible for preserving Bench Marks and Horizontal Control. The Contractor will be required to reestablish any such survey markers which are damaged by the construction operations. Reestablish survey markers at Contractor's expense, by a professionally licensed Kansas Land Surveyor in accordance with state laws.

EROSION CONTROL:
Contractor must implement erosion control methods during construction to prevent unnecessary silt/sediment discharge to downstream properties and/or storm sewer systems. Contractor will install and maintain erosion controls as shown on the plans or as directed by the Engineer. These controls may include: hay bales, silt fences and other controls as approved by the City Engineer's office. Payment for all work and material is included in the respective bid items as shown on the "Erosion Control Plan" sheet.

SEEDING:
All areas disturbed by construction shall be restored by seeding with a mixture in accordance with what is shown on these plans. Restoration of disturbed areas shall include, but not be limited to, topsoil preparation, seeding, fertilizer and mulching. When not in contradiction with these project plans and special provisions, all seeding work shall be in accordance with the City of Wichita Standard Specifications and City of Wichita Administrative Regulation No. AR6.5, which governs cleanup and restoration of replacement following construction. The seed shall be watered with deep soaking for a period of 20 days, starting with the last placement of seed on the project. For information only, the estimated Square Yards of disturbed area to be seeded is 425 S.Y.

All disturbed areas, including but not limited to the access road shall be restored to the original grade elevations and seeded, fertilized and mulched per City and plan specifications.

All disturbed slopes steeper than 6:1 shall be seeded, fertilized and covered with North American Green C125BN or approved equivalent.

The Contractor shall be responsible for installing Erosion Control Blankets (Excelsior - Curlex I, or approved equal), over all seeded areas. All costs associated with permanent seeding and erosion blanket will be paid for through the bid item "Seeding/Mulching/Fertilizing", Lump Sum.

PROPOSED WATERLINE PROTECTION CONSTRUCTION

CLEAR CHANNEL:
Contractor to clear channel within limits of proposed spillway (reinforced concrete placement). This work includes removing trees, brush and vegetation, as well as any soil that is unsuitable for foundation of spillway. Trees must be cut down and ground to an elevation below the proposed riprap. Yanking of the tree will not be allowed as the pulling of roots may damage the waterline. Any tree that must have branches removed shall be trimmed with a sharp instrument/tool that is intended for such use. Consult with Inspector prior to trimming. Knocking branches off with a backhoe or other similar machine is not acceptable. Unsuitable foundation material includes organics and high plasticity clays, fat clays, expansive clays and organic clays. Suitable material is anticipated to be sand. Inspector to approve the suitable foundation material to be left in place.

Dewatering that is necessary for this work must take the water downstream into the channel proper (no off-site erosion).

Excavate as necessary beneath the waterline to ensure (with backfilling) that the waterline will rest on suitable foundation material. In the event that the Inspector agrees the material under the waterline (within the limits of the spillway) needs to be removed, only that material which would result in a waterline span of less than 5' shall be allowed to be excavated at a time, before it is backfilled and further excavation under the pipe commences. The intent is to minimize the unsupported span the waterline will be under at any one time.

All channel work, clearing, excavation and dewatering is included in the bid item, "Site Clearing", Lump Sum.

BACKFILL:
Contractor to backfill within the limits of the proposed spillway from top of suitable existing material to bottom of proposed concrete. Also backfill under waterline as necessary. Below elevation 1315.25 (approximately the midpoint depth of the waterline) backfill with granular material and compact in 8" lifts meeting City of Wichita standard specification 302.3 compaction requirements, paid for as "Fill, Select Granular Backfill". Granular backfill shall meet KDOT specification 1107.2.d. material requirements. Above elevation 1315.25, backfill with sand and compact in 8" lifts meeting City of Wichita standard specification 302.3 compaction requirements. However, perform no compaction within a 1:1 slope of the midpoint of the waterline (see details) to avoid pressure which may damage the existing waterline. Both the compacted and noncompacted portion of sand fill is paid for as "Fill, Sand (Flushed & Vibrated)". Sand shall meet City of Wichita specification 801.2.d) material requirements. Place a filter fabric between the granular and sand layers to prevent sand migration. GeoTextile Fabric is subsidiary to other bid items. For information only, approximate quantity of GeoTextile Fabric is 25 S.Y.

RIPRAP (REINFORCED CONCRETE)(8"):
Construct Riprap in accordance with KDOT Specification 829, "Riprap". Toewalls, Dissipator, Counterforts, reinforcing steel and welded wire mesh reinforcing are included in the bid item, "Riprap (Reinforced Concrete)(8")". The bid quantity shown on the plans is a plan area, with no allowance made for vertical slope, dissipators, etc. and shall be considered full payment for all Riprap work described. No deduction was made for the metal saddle in the Riprap quantity.

SADDLE:
Provide a "saddle" notch in the spillway as detailed in the plans. Saddle plates shall be either stainless steel or aluminum. Stainless steel plates shall conform to ASTM A240 Type 304. Aluminum plates shall conform to ASTM B209 5083-H321, 5086-H116 or 5456-H116, or ASTM B221 6061-T651 or 6061-T6. Use ASTM F593 Alloy Groups 1, 2 or 3 stainless steel bolts with stainless steel plates; with aluminum plates, use ASTM F593 Alloy Groups 1, 2 or 3 stainless steel bolts OR coated AASHTO M 164 (ASTM A325) high-strength steel bolts. All material, fabrication, welds, placement and work associated with the construction of the saddle is paid for in the bid item, "Saddle (Metal)", Lump Sum.

Provide Shop Drawings to Engineer, 4 weeks before fabrication of Saddle. Shop Drawings shall indicate proposed method of welding studs to plate, as well as any proposed bending or welding necessary for the fabrication of the plate itself. No work may commence on the fabrication of the Saddle until the Shop Drawings are approved.

GRADING:
Grade area in the immediate vicinity of the reinforced concrete to provide a smooth transition to the slopes of the spillway. Maximum grade in the immediate vicinity is 3:1. Material and labor for this work is paid for as "Site Restoration", Lump Sum. Grade area to drain.

Seed Drainage ways and other projects	
COMMON NAME	RATE (PLS lbs/acre)
GRASSES	
Smoothe Brome	75
K-31 Fescue	300
Annual Rye	100
FERTILIZER	
10-20-10	350

Seed 475 PLS (pure live seed) lb per acre

Over seed Drainage ways	
COMMON NAME	RATE (PLS lbs/acre)
GRASSES	
Smoothe Brome	30
K-31 Fescue	20
FERTILIZER	
16-8-8	300

Over seed 50 PLS (pure live seed) lb per acre

SEEDING SPECIFICATIONS:
All disturbed areas not receiving plantings, including right-of-ways, shall be seeded. Permanent seeding shall be accomplished between September and March. Seed planting times & mix specified here govern over the Wichita Standard Specification.

The Seeding process shall include in order:
1. Furnish topsoil
2. Finish grading
3. Prepare seedbed
4. Seed and maintain areas as required.

Seed Bed Preparation:
Roll, scarify, rake and level grade as necessary to obtain true, even lawn surfaces. Loosen soil to a depth of 6" in lawn areas by approved method of scarification and grade to removed ridges and depressions. Remove stones and foreign matter over 2" in diameter from the top 2" of soil. Float lawn areas to approximate finished grades.

Grass and sodded areas shall have fertilizer applied through watering immediately following application at a rate of 350 pounds per acre harrowed into the top 2" of seedbed.

Seeding shall not be performed in windy weather.

Seeding shall be done in two (2) directions at right angles to each other.

Sod shall be a species recommended by an experienced local A.N.A. certified nursery. Sod is to be strongly rooted, weed-disease and pest free and uniform in thickness.

A 3' foot wide strip shall be sodded along walks, roadways, and parking areas to prevent washing and erosion.

Prairie hay shall be applied over seeded areas as mulch. No bare ground shall be visible in the seeded area if proper application is achieved. Thick clumps of hay are not permissible as uniform coverage is expected. Hay shall be applied at a minimum of 4,000 lbs. per acre.

Following initial soil disturbance or redisturbance, permanent or temporary stabilization shall be completed within seven days from the surface of all perimeter slopes and for all other disturbed or graded areas on the project site.

Temporary Seeding on slopes:
Hydroseed/Bonded Fiber Matrix (BFM) with grass seed on slopes greater than 16%. See seeding specs for specific grass seed type. Seeding shall be accomplished immediately after bed preparation. Hydroseed mixture shall be North American Green HydraCM or Stormwater Engineer approved equal. When construction ends between April 1st and September 1st, use a temporary seed of annual rye, unless an alternative is approved by the Stormwater Engineer.

UTILITY OWNERS

TELEPHONE:
AT&T (Transporter)
Attn. Mr. Bob Alley
154 N. Broadway
Wichita, KS 67202
Ph. 316-841-5867

CITY OF WICHITA
JAMES ARMOUR, P.E., CITY ENGINEER

66" WATERLINE
PROTECTION

GENERAL NOTES

PB PARSONS BRINCKERHOFF
Wichita, Kansas

SCALE ——
DATE 8/31/2011
DWG. NO. 35778A

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