

Marx, Joshua A NWK

From: Harrenstein, John, CMO [John.Harrenstein@jocogov.org]
Sent: Monday, October 01, 2007 2:13 PM
To: Marx, Joshua A NWK
Cc: Duletski, Bernice, CMO; Press, Mike, CMO; Greeley, Paul, PLN
Subject: Johnson County Government Re-submittal - 404 permit comments, BNSF Intermodal Facility

Attachments: 404 Permit Cover Letter 10-1-07.pdf; Report Cover Sunflower Page 10-1-07.doc;
RevisedFinal 404 Permit Report 10-1-07.doc



404 Permit Cover Letter 10-1-0...
Report Cover Sunflower Page 10..
RevisedFinal 404 Permit Report...

Josh,

Attached to this e-mail is the final version of Johnson County Government's public comments regarding BNSF's 404 permit application. Thank you for your assistance and guidance during the process. Please let Bernice Duletski or Paul Greeley know if you have any questions.

John Harrenstein
Management Assistant
Johnson County Manager's Office
913-715-0739

<<404 Permit Cover Letter 10-1-07.pdf>> <<Report Cover Sunflower Page 10-1-07.doc>>
<<RevisedFinal 404 Permit Report 10-1-07.doc>>



County Manager's Office

Johnson County, Kansas

September 28, 2007

Mr. Joshua Marx
Regulatory Project Manager
U.S. Army Corps of Engineers
Kansas City Regulatory Office
700 Federal Building
601 East 12th Street
Kansas City, MO 64106

Dear Mr. Marx,

Attached hereto is the final report submitted on behalf of the staff at Johnson County, Kansas Government, regarding Permit No. 2006-1014 – the proposed BNSF Intermodal Facility near Gardner, Kansas. Please note that the report reflects the findings of County staff and at this time the Board of County Commissioners has not taken any official action regarding this development. While many of the issues identified are significant, we believe that they can either be mitigated or resolved, and we look forward to working with you and BNSF on this proposed project.

Should you have any questions or need clarification on this material, please do not hesitate to contact Bernice Duletski, Assistant County Manager, (913)715-0730 or Paul Greeley, Deputy Director of Planning, (913)715-2205.

Sincerely,

A handwritten signature in black ink, appearing to read "Michael Press", is written over a horizontal line.

Michael Press
County Manager

Attachment

Cc: KDHE

Johnson County, Kansas Government



Final Report 404 Permit Comments

BNSF Intermodal Project

Permit No. 2006-1014

September 28, 2007

**JOHNSON COUNTY GOVERNMENT
STAFF COMMENT ON BNSF 404 PERMIT**

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INTRODUCTION

This report is being submitted on behalf of the staff at Johnson County Kansas Government, regarding Permit No. 2006-1014 – the proposed BNSF Intermodal Facility near Gardner, Kansas. Please note that the report reflects the findings of County staff. At this time the Johnson County, Kansas Board of County Commissioners has not taken any official action regarding this development.

While many of the issues identified in the report are significant, we believe that they can either be mitigated or resolved, and we look forward to working with the Corps and BNSF on this permitting process. Please also be aware, that Johnson County does not collect an excise fee or impact fees on development to pay for infrastructure needed to support development. Instead, as set forth in the County’s adequate infrastructure regulations, the County has consistently required private development to design and install the needed infrastructure improvements.

To facilitate the review of this report, staff’s comments have been divided into seven (VII) categories that directly relate to the duties and responsibilities of the commenting County agencies. The departments that participated in commenting are Environmental, Planning, Public Works (roads and stormwater), Transit, Wastewater, and the Park and Recreation District.

I. LAND USE

1.0 – Current Zoning: The BNSF property and the surrounding unincorporated areas are currently zoned Rural (RUR), which allows for agricultural and related uses and single-family residences on a minimum of 10-acre lots. Railroad right-of-way, including a strip of land with tracks and auxiliary facilities for track operations are permitted uses in the RUR district. Railroad operations including passenger stations, freight terminals, switching and classification yards, repair shops, round houses, powerhouses, interlocking towers, and fueling, sanding, and watering stations are not permitted uses in the RUR District.

Any new non-railroad related development, including private non-agricultural use or residential use on a less than 10-acre lot will require a separate rezoning application, review, and approval by Johnson County, unless the property is annexed into a city.

1.1 – Current Land Use/Features: The BNSF property and the surrounding unincorporated area currently are in predominantly agricultural or very low density rural residential uses. Exceptions to this are: a salvage yard on U.S. Highway 56; the KCPL electrical peaking units near 191st and Dillie Road; the city of Edgerton; the city of Gardner; I-35 and U.S. Highway 56.

Structures or features of a historic or cultural value include: 1) Lanesfield School, museum, and trails near 191st and Dillie Road; 2) Trails Divide Park at 183rd and U.S. Highway 56; and 3) the Johnson County Mildale Farm and Big Bull Creek Park complex at 199th and U.S. Highway 56.

1.2 – Johnson County Rural Comprehensive Plan: The *Johnson County Rural Comprehensive Plan* (Plan), updated in 2004, designates the BNSF property and most of the surrounding unincorporated area as “Rural Traditional Policy Area.” The purpose of this designation is to

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maintain and support the area for continued farming and agricultural production with only very low levels of non-farming-related residential development due to the limited availability of public infrastructure and services to support it. Non-agricultural related development that is incompatible or may interfere with agricultural operations in the Rural Traditional Policy Area is discouraged (Plan). Intended uses include: 1) Agricultural and related uses, (On-site sales of agricultural products as permitted by County regulations), 2) Very low-density single-family residence, 3) existing legal nonconforming residences on lots less than 10 acres, and 4) Accessory uses as permitted by County regulations.

According to the Plan, Because of its generally remote location and the limited availability of public facilities over the next 20 years, the Rural Traditional Policy Area is expected to remain relatively unchanged and predominately agricultural and open space with a continued very low-density rural population. County services and private utilities are expected to maintain the levels of service now provided and will be upgraded only if there is a significant need to do so. Infrastructure improvements used as an incentive for new development are not anticipated.

Central sanitary sewers for this area are not planned for the foreseeable future and only limited central water service is available at this time. The existing network of gravel roads, along with a few paved roads, are adequate to serve the existing and anticipated low-density rural population as well as farming needs within this area. These rural roads will be improved only when there is a significant need to do so. Generally, the major road upgrades in this area will be limited to Type II or III routes as identified in CARNP.

In the Rural Traditional Policy Area, only limited non-farm residential development that is consistent with rural character is anticipated. Residential development in the Rural Traditional Policy Area should not unnecessarily remove productive agricultural land or interfere with farming operations. Most of the area will continue to be primarily served by individual wells, on-site septic systems, and accessed by gravel roads. The County will maintain the current level of services by providing basic, on-going maintenance.

- The development review policies for the Rural Traditional Policy Area are:
 1. Conforms with the Goals and Policies in the Land Use Plan and the Policy Area Map contained in the Plan.
 2. Uses design techniques where necessary to protect existing agricultural uses from incompatible development.
 3. Meets the criteria of the County Zoning and Subdivision Regulations, particularly the “Minimum Infrastructure Requirements.”
 4. Does not require major infrastructure upgrades by either the developer or the County, in predominantly agricultural areas, where the infrastructure upgrade would be an incentive for new large-scale subdivisions.

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5. Maintains and is compatible with the existing surrounding or nearby residential and agricultural land uses and to the extent reasonable, protects open space systems, wildlife habitats, riparian areas, and scenic views.
 6. Encourages clustered subdivisions that conserve open space, wildlife habitat or agricultural uses or that support voluntary efforts to retain such lands if residential development is to occur near agricultural lands.
 7. Interconnects as well as blends with surrounding open spaces and natural areas.
 8. Buffers existing development through extensive screening, landscaping, and large setbacks for new construction.
 9. Reinforces the rural character through low-density residential development or new design techniques, such as clustering, if allowed.
- The Plan contains policies to retain, to the extent feasible, the “rural character” now found throughout most of the unincorporated area. Future development should respect this objective as well as mitigate adverse impacts (lights, noise, and appearance).
 - The Plan also includes policies to support SMART Growth and sustainable development. There is a need to assure the protection of existing natural and built amenities as well as to assure on-going future development adheres to SMART Growth principles and makes a positive contribution to the appearance and image of the County as well as to the immediate developing area, (e.g. Leed certification, green infrastructure, etc.).
 - The relevant Non-Residential Land Use policies of the Plan include:
 1. Some major land uses, such as major employment centers, public or quasi-public uses, or mineral extraction, may be found to be significantly important to the overall economic vitality of the entire County to such a great extent that, if appropriate sites are not available within cities in the County, the uses may be found to be appropriate at strategic locations within the unincorporated area. Any such development allowed within the unincorporated area must be carefully integrated into the overall, orderly development pattern, and it must be provided with all needed infrastructure in an efficient manner.
 2. Commercial and industrial development is best suited in cities or the New Century AirCenter, or where there is existing commercial/industrial zoning for it and where there is or will be adequate infrastructure to support it (i.e. roads, public sanitary sewer, and public water).
 3. Within the unincorporated area, nonresidential development may be suitable only in those locations where there is adequate infrastructure and where there is an adopted area plan that recommends it.

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4. Direct the clustering of industrial and commercial uses toward strategic intersections, corridors and areas adjacent to such existing uses. Such uses should be unified developments, should be compatible with any adjacent industrial or commercial development, and should be appropriately transitioned from any nearby residential development. Such areas should contain compatible environmental characteristics and adequate infrastructure. An appropriate wastewater disposal system shall be required with a preference for sanitary sewers but alternative systems may be allowed on an interim basis until sanitary sewers reasonably become available and where all other Minimum Infrastructure Requirements of the County's zoning regulations are met.
5. Allowed nonresidential development should protect the environment and be compatible with or buffered to avoid adverse impacts on the surrounding area, particularly residences.
6. Necessary utility equipment (e.g. electrical substations, pump stations, cellular towers) should be designed and directed to locations to prevent or minimize potential adverse impacts (visual, noise, odors, etc.) on nearby residential areas.

1.3 - Anticipated BNSF Intermodal Facility Impacts: The following impacts on infrastructure have not been anticipated or budgeted for in the County's long term plan for the area. The availability of new infrastructure and services to previously undeveloped or un-serviced areas will likely open new opportunities for development, resulting in further new demands for government services and infrastructure. Long and short-term anticipated land use impacts resulting from the impending BNSF Intermodal Facility and its anticipated attendant development include:

1. Construction of the 400-acre Intermodal facility will generate noise, dust, increased large truck traffic, potential safety hazards, and other impacts to travelers and nearby residents.
2. Disruption to existing farming operations and the loss of agricultural lands at rate previously unanticipated in the County's Plan.
3. New demand for industrial and other non-residential or non-agricultural land uses previously unanticipated in the County's Plan.
4. Demand for new sanitary sewer service unanticipated in the County's Plan. The availability of new sanitary sewers to previously undeveloped and un-served areas will likely open new areas for development resulting in further new demands for government services and infrastructure.
5. New demand for more water service unanticipated in the County's Plan. The availability of new water service to previously undeveloped and un-served areas will likely open new areas for development resulting in further new demands for government services and infrastructure.

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6. New demand for more electrical and gas services unanticipated in the County's Plan. The availability of new power service to previously undeveloped and un-served areas will likely open new areas for development resulting in further new demands for government services and infrastructure.
7. New demand for public emergency service (police, fire, and medical) unanticipated in the County's Plan.
8. The most apparent impact of the BNSF operation will be on the local and regional transportation system. The very function of the Intermodal facility will result in the generation of increases in traffic demands on the surrounding Johnson County area and region as well as on the intermodal facility itself. The impact of this increased transportation demand will likely result in the need for:
 - Accelerated upgrading of many existing unincorporated area gravel roads.
 - The need for overpasses in certain locations to assure adequate mobility/connectivity and access for emergency as well as normal traffic.
 - Improvements to I-35 to accommodate projected increased automobile and truck traffic in northern and southern Johnson County as well as throughout the immediate area of the BNSF Intermodal Facility.
 - Improvements to U.S. Highway 56 east and west of the BNSF Intermodal Facility to accommodate projected increased automobile and truck traffic.
 - Accelerated improvements (e.g. widening) to existing paved roads throughout southern Johnson County in response to the BNSF facility and the attendant development anticipated to be generated as a result of the BNSF operations.
9. Installation of infrastructure improvements at a rate and extent previously unanticipated in the County's Plan will require close intergovernmental coordination regarding timing, expense, responsibility and authority/decisionmaking.
10. Changes in area demographics unanticipated in the County's Plan.
 - Increased residential development pressures including demand for increased governmental services and demand for affordable housing.
 - Job growth and attendant increased demand for governmental services.

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II. ENVIRONMENTAL

2.0 - General Environmental Comments: A project of this size presents a significant opportunity to incorporate environmentally sustainable design and operational features which protect natural resources, enhance public health, address citizens' concerns, and reduce operational costs over the life of the project. The County has committed to these values in county funded projects, and would encourage these elements be considered for this development.

2.1 - Air Quality: There is significant potential for operations directly and indirectly associated with the proposed BNSF facility to adversely impact air quality, both locally and regionally. Potential impacts include increased ozone pollution; increased particulate pollution; increased mobile source air toxics emissions; and lead and asbestos pollution.

2.1a - Ozone:

Ozone and Economic Development: The bi-state Kansas City region, including Johnson County, violated the national ambient air quality standard for ozone in June, 2007, and has experienced several additional violations since then, triggering new regulatory controls including mandatory restrictions on on-road heavy-duty diesel truck idling. Should the region fail to reduce ozone, the EPA could redesignate the region to ozone "nonattainment," bringing serious economic development consequences.

Ozone and Public Health: Ozone levels that violate the federal standard pose a significant health risk to the public. The recent ozone violations make it imperative to further reduce volatile organic compound (VOC) and nitrogen oxide (NOx) emissions in the region, particularly from emissions sources, like the BNSF project, located in the southern-most part of the region. This is because these emissions are carried downwind by the prevailing winds and, in the presence of heat and sunlight, can lead to high ozone levels in the most heavily populated parts of the metropolitan area, and at monitoring devices in the northern part of the region.

VOC and NOx Emissions: VOC and NOx emission sources associated with the proposed Gardner BNSF logistics park primarily involve locomotives, rail-related equipment, and on-road and off-road vehicles including lawn equipment. Increases in these ozone precursor emissions would be expected to result from: increased rail operations along with increased use of equipment and vehicles such as gantry cranes and hostler trucks; temporary and permanent street closures and road blockages that could interfere with roadway interconnectivity and may lead to less efficient traffic routes; slower speeds for vehicles traveling on nearby routes due to increased traffic congestion and potential lags in converting narrow gravel roads to wider paved roads; increased truck and automobile traffic on local, arterial and interstate routes from construction, suppliers, warehousing, employees and over-the-road heavy-duty trucks; and increased use of construction and maintenance equipment such as generators and lawn mowers.

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Indirect sources of VOC and NOx emissions from the proposed Gardner project include the off-site generation of electrical power used for on-site buildings, equipment and other fixtures such as exterior lighting.

VOC and NOx Estimates Request: There is not sufficient information available to determine the magnitude of increases in VOC and NOx emissions from the BNSF logistics park and associated activities. As part of the 404 and 401 permit application reviews, KDHE and USACE should ensure that BNSF provides such information so that state and local air quality planners may assess the impact on regional ozone levels. BNSF should provide updates on vehicle and equipment use to verify or revise earlier estimates of the emissions impacts of the proposed facility and associated development.

Reducing VOC and NOx Emissions: Prior to issuance of the permits, we also request specific information about measures that BNSF will implement to minimize VOC and NOx emissions from this project. In particular, we are interested in measures that will decrease emissions from: railway and construction/maintenance vehicles and equipment; over-the-road trucks using the intermodal facility and logistics park; and the generation of electricity for buildings, equipment and other fixtures. Measures we encourage BNSF to consider include: anti-idling technologies and restrictions for diesel vehicles including locomotives and switch engines; emission reduction retrofits on diesel vehicles and equipment including hostler trucks; use of diesel and gasoline powered equipment and vehicles that meet state or federal emission standards; use of vehicles and equipment that run on alternative fuels such as ethanol or electricity (both gasoline/electric and diesel/electric hybrid vehicles are now available); use of energy efficient vehicles, equipment and building; provision of alternative fuels refueling at the intermodal facility and logistics park; installation of Stage II vapor recovery at any gasoline refueling stations at the intermodal facility and logistics park; use of native landscaping to reduce the need for mowing and development/implementation of a site-wide ozone reduction plan that incorporates, among other things, actions to be taken whenever an Ozone Alert! day is forecast.

Truck Lift Growth Rates: BNSF studies project that the number of truck lifts associated with the Gardner intermodal facility will grow by about 5 percent annually. However, it has been reported elsewhere that growth rates at similar intermodal facilities have been considerably higher. In assessing future impact, it would be beneficial if BNSF would reconcile these apparent inconsistencies which could have a significant impact on ozone precursor emissions.

2.1b -Particulates:

Diesel Equipment: Diesel-powered equipment and vehicles are significant sources of fine particulate (PM2.5) emissions which are known to cause health problems for exposed persons with pre-existing respiratory and circulatory problems. Typically, measures that reduce NOx emissions from diesel-powered equipment and vehicles also reduce emissions of PM2.5. To adequately assess these impacts, more information is needed about measures that BNSF will implement to minimize PM2.5 emissions from diesel-

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powered equipment and vehicles, both for employees working on-site at the intermodal facility and logistics park and also for citizens living or working nearby.

Construction Activities: Construction activities can be a significant source of coarse particulates (PM10), particularly dust. Dust can harm vegetation, cause nuisances and is an irritant in humans. To adequately assess these impacts, more specific information is needed about measures that BNSF will implement to minimize PM10 emissions, both for employees working on-site during construction and also for citizens living or working nearby.

PM2.5 & PM10 Emissions: PM2.5 and PM10 emissions should be monitored near the Gardner facility to determine whether the levels might pose a health risk to citizens living or working nearby.

2.1c - Mobile Source Air Toxics: Diesel emissions from equipment and heavy-duty vehicles operating as part of the BNSF intermodal facility and logistics park are expected to increase concentrations of air toxics which could potentially pose a health risk for persons working or living nearby. Air toxic emissions near the Gardner facility should be monitored to determine whether the levels might pose a health risk to citizens living or working nearby.

2.1d - Lead and Asbestos: There may be abandoned buildings on site that contain lead-based paints and/or asbestos. These hazardous pollutants should be properly remediated.

2.2 - Water Quality:

Parks & Wetlands: The proposed facility borders on two parks on the southwest and northeast corners and also will disrupt wetlands in other areas. The parks and wetlands have become important habitat for migrating and resident birds, including shorebirds and waterfowl. These areas should be preserved and protected from any development impacts associated with the proposed facility, or alternatively, should be replaced with comparable habitat nearby.

Chemical Spills: There is potential for chemical spills from storage areas, intermodal container cars and over-the-road freight trucks. Good spill prevention and spill containment procedures are critical. Floor drains inside buildings should be equipped with the appropriate containment equipment to handle chemical spills. Comprehensive hazardous materials emergency response plans and procedures should be developed in conjunction with local emergency response personnel, prior to the opening of the facility.

Herbicides: Railroads have historically applied significant quantities of herbicides along tracks to control vegetation. This practice has resulted in the release of hazardous substances to the environment through run-off. Safer alternatives are now available and in use in other parts of the country. These safer alternatives should be required for use at this facility.

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Railroad tie treatments: Railroad ties are treated with chemicals to make them weather resistant. These chemicals can leach into the environment and contaminate surrounding soils and water bodies. Today, there are safer alternatives available for ties including some made from recycled materials and should be required for use at the facility. Discarded or spare ties need to be stored in a contained area to prevent chemicals from leaching to the environment.

Abandoned Wells/Septic Systems: Much of the proposed site was previously used for farmland where old water and crude oil wells may have been abandoned and never properly plugged. There may be contaminated soils associated with the oil wells. In addition, there may be above-ground and under-ground fuel storage tanks that must be decommissioned. Wells or fuel tanks should be located, properly plugged, and removed, and any contaminated soils remediated.

Similarly, there may be abandoned residential septic systems on the site that must be properly decommissioned as required by the county's Environmental Sanitary Code (or the city's requirements if annexed and the city elects not to adopt the county's Code).

Holding Tanks: Since the proposed site is not yet served by public sewers, it is possible that temporary holding tanks will be necessary prior to the advent of sewers. Holding tanks need to be strictly regulated to prevent pollution as per the county's Environmental Sanitary Code (or the city's requirements if annexed and the city elects not to adopt the county's Code).

2.3 - Solid Waste: Storage containers inside and outside of the facility (and associated warehouses) could harbor vectors such as rats, mice, snakes and mosquitoes. Controls should be incorporated to minimize these problems.

The Johnson County Landfill is expected to close within the next 15 years. Therefore, efforts to reduce solid waste are essential. With the significant expansion of roads, parking lots, and other surfaces needed to accommodate this facility, BNSF should commit to using recycled materials such as glass, utility fly-ash, and tires, to the extent possible. Minimizing the amount of construction waste that must be disposed in a landfill is also strongly recommended. These measures are in use in many other parts of the country.

III. PARKS

3.0 – Mildale Farm: The Johnson County Park and Recreation District recently purchased and improved an approximately 600-acre property known as the Mildale Farm, located at 199th, U.S. Highway 56 and Four Corners Road. The proposed intermodal facility is located adjacent to this park.

3.1 – Big Bull Creek Park (future): This future regional park is located between 199th Street, 215th Street, Sunflower Road and Homestead Road. The future park comprises about 1400 acres. The proposed intermodal facility is located adjacent and to the north of this park.

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3.2 - General Comments: Park District anticipates working with the BNSF in resolving the following issues.

- The BNSF's plans to move a portion of track leading into the intermodal facility close to existing park facilities may have an adverse impact on the park, particularly at the Mildale Farm barn that was recently renovated to accommodate large public gatherings and events. If not adequately mitigated, trains idling within 200 ft. of this barn will adversely affect the overall ambience of the park as well as the attractiveness of this individual facility. The necessary measures should be taken to minimize or eliminate these anticipated adverse affects of noise and odors as well as the overall visual impacts of trains located in such close proximity to the entry to the parks.
- Because of the length of some of the trains (over one-mile) and the nature of the BNSF rail unloading and switching operations, access to the park and more specifically, Mildale Farm, may be blocked at 199th and U.S. Highway 56, the primary and only entrance to the facility. At this time, information has not been provided on how frequent this access may be blocked. This blockage may result in a potential traffic hazard for vehicles on U.S. Highway 56 that want to turn onto 199th Street, as well as restrict park access for emergency and normal park visitor traffic. A possible way to mitigate this potential park access problem and road hazard, would be to reconstruct the intersection of 199th and U.S. Highway 56 to include an overpass so that vehicles would not back-up onto U.S. Highway 56, and continuous access would be available to the park.
- The proposed closure of 191st Street and Four Corners Road near US 56 Highway will limit the public's access to this park. The District should be consulted on the closure of these roads.
- There is significant concern about the quality and quantity of the stormwater runoff from the entire intermodal facility. On-site stormwater management facilities may be needed to mitigate the addition of this large area of impervious surfaces to the area.
- The relocation of the stream will impact stream morphology downstream, possibly causing changes to the streams within the park site. The stream conditions that currently exist are almost pristine in nature and a development of this magnitude will undoubtedly have a negative impact on the streams in the region.
- Consideration should be given to receiving input from the Hillsdale Water Quality Project. Hillsdale Lake is a primary drinking water source for several communities nearby.
- The District owns significant land in the vicinity and has concerns about the possible location of a wastewater treatment plant proposed on the property.
- The District would like to work with BNSF to assess potential impacts to the park from lighting and noise, and develop plans that will mitigate adverse impacts through berming and/or landscaping.

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- The relocation of 9,905 feet of the stream through the site provides an opportunity to mitigate the environmental damage by allowing for a public greenway to co-exist in the modified stream corridor. The City of Gardner and the District could partner to create a significant greenway connection from Gardner to the future Big Bull Creek Park along this corridor.

IV. Road and Infrastructure

4.0 - Road Closings: BNSF proposes to close 183rd Street, 191st Street, and Four Corners Road. These closures may affect the efficiency and interconnectivity of the county road system due to the permanent closing of roads and because increased rail traffic and longer trains will block the remaining open roads for longer time periods. This will lead to service disruptions in the immediate area, and traffic congestion issues on other routes. There will also be a safety issue because emergency vehicles will be required to take lengthy detours due to the road closings or when the roads are blocked by trains. It is imperative that road closings be minimized and overpasses constructed where needed to preserve the safety, efficiency and interconnectivity of the county's road system in this area.

199th Street has been designated in the County's Comprehensive Arterial Road Network Plan (CARNP) as a Type III future Parkway and the the major east/west traffic route in this area. There are already east/west connectivity issues in this area of the County as 215th Street and 207th Street are discontinuous and the County has no plans to open these roads. Closing 191st and 183rd Streets leaves 199th Street as the only remaining east/west connection. It is anticipated that increased trains entering the project site will block 199th Street at US 56 Highway for longer periods of time. With 199th Street planned as a major carrier of traffic, the closing of the adjacent roads may overload 199th Street at this intersection. This will create added congestion and public safety concerns.

Closing Four Corners Road from Highway 56 to 199th Street will leave a gap of 2.5 miles between other north/south routes (Dillie Road and Waverly Road). It is understood that a grade separation is planned for the Intermodal lead tracks on Waverly Road; however no grade separation on the existing North mainline tracks is proposed. Grade separation of both tracks should be considered, because if Waverly Road is blocked on the mainline, a gap of 3.5 miles between the open roads of Gardner and Dillie will be created. Locating the tracks so that both the Mainline and Intermodal Lead tracks are grade separated should be considered.

It is recognized that it will be difficult to keep 183rd Street open between US 56 Highway and Waverly Road. However, an analysis should be done to ensure that future growth and traffic patterns are sustainable with the closing of 183rd Street, and that emergency access is adequate. County staff anticipates the need for overpasses at 191st, 199th, and Four Corners Road.

4.1 - Immediate Infrastructure Improvements: Most of the area roads will experience increases in truck and car traffic directly related to the intermodal project. It is expected that the truck traffic will use the main entrance on 191st but there will be significant increases in attendant traffic during construction, from suppliers, and employees. Existing gravel roads in the

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area will be insufficient for the expected traffic. Existing hard surfaced roads are paved-over gravel roads that are unengineered and have geometric deficiencies, clear zone issues, and lack shoulders. Upgrades will be needed to accommodate the project.

The following comments should be addressed:

- While the BNSF 404 permit indicates off-site roadway improvements for 191st Street east of Four Corners to Gardner road and improvements to Waverly Road from US56 to 191st Street; it does not indicate who will pay for these improvements, to what standard they will be improved, when they will be completed, and if they will be constructed to the County's arterial street standards. The timing of the improvements should be coordinated to support the traffic created by the development.
- It appears that BNSF intends to use the interchange at 191st Street and I-35 as the main highway access for their intermodal facility. Improvements/modifications to the interchange will need to be made as this structure was not designed for traffic volumes that will be immediately generated by the intermodal facility.
- Construction of a new interchange on I-35 at 199th Street is essential for future traffic flow. This location complies with the CARNP plan.
- It is anticipated that some trucks serving the facility will use 199th to go east to Spring Hill or west to Ottawa and Lawrence via US 56 and US 59 highways. 199th is a two-lane paved road without shoulders which is not suitable for large number of trucks. Due to lack of alternate routes for local trucks, it will be difficult to post 199th to restrict trucks, so major reconstruction of 199th should be studied.
- The impact of construction and employee traffic on unimproved county roads needs to be evaluated. Edgerton, Gardner, and I-35 (the metro area connection to this area) will generate traffic on the local roads. BNSF has proposed improvements to portions of 191st Street and Waverly; however the following roads may also need improvements:
 - 183rd east of the site to Gardner,
 - Four Corners Road from the site to 199th Street,
 - 191st from the site to US 56 Highway,
 - Sunflower Road from Edgerton to 191st Street, and
 - Waverly Road from a potential future interchange on 199th Street and I-35 to the proposed improvements at 191st Street.

4.2 - Long Term Infrastructure Improvements: It is anticipated that warehousing and other employment centers will develop in the area. Warehousing that occurs off-site will create the need for improvements on County roads not identified by BNSF's analysis. These issues should be studied and long term solutions provided.

- An improved connection to the north from the project site to K-10 is needed. It is unlikely that trucks will go 7 miles east to K-7 and then go west again to DeSoto,

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Lawrence, and Topeka. Since no good major north-south road exists in western Johnson County, a major connection is needed. The intermodal facility may accelerate the need for a connection between DeSoto and Gardner (K-10 to New Century AirCenter).

- Areas of 175th will need upgrades, including those parts not within the cities.
- 199th was mentioned above, if improvements are not immediately made, they certainly will be needed as the area urbanizes. Most of these improvements would be made under County jurisdiction as it is unlikely that any of 199th will be annexed by Gardner, Spring Hill or Edgerton.

4.3 - Maintenance: These roads will receive high truck traffic counts which will create ongoing maintenance issues that the County is not financially set-up to maintain. The developer should enter into a maintenance agreement to establish a revenue source for the County to maintain these roads.

V. TRANSIT

5.0 – Traffic and Capacity: Traffic delays along the I-35 corridor exist today. Additional truck traffic along this corridor will erode the traffic speed and thus increase commute times and impact air quality. Any increase in travel times will delay commuter express buses routes, and increase Level F failures in the corridor. The capacity of interchanges in the I-35 corridor should be studied to insure the traffic generated by the Intermodal facility can be accommodated.

5.1 – Employee/Employer Transportation Needs: It is recommended that an evaluation of the transportation needs of the employees/employers be completed. Understanding from where employees will commute, what their primary mode of travel will be, and then planning for the appropriate infrastructure to accommodate bus service, bus lanes, transit shelters and pedestrian access to and from the buildings should be a part of the evaluation.

VI. STORMWATER

6.0 - Relocation of the Relatively Permanent Unnamed Tributary: It is preferred that the relatively permanent unnamed tributary to Big Bull Creek not be disturbed. Relocation of 9,905 feet of the stream will cause the removal of existing trees and plants within the riparian buffer zone. The root structure of the existing vegetation which currently provides protection of the stream banks from erosion, will be lost. The existing riparian corridor filters stormwater runoff and provides shade and habitat for wildlife. Even if the relocated channel is re-vegetated with native plants, it will take a number of years for the plants to reach a point where the current level of erosion protection is obtained.

6.1 Relocation of the Non-Relatively Permanent Unnamed Tributaries: There will be both water quality and quantity issues associated with the loss of the 6,606 feet of non-relatively permanent unnamed tributaries to Big Bull Creek. The majority of the streams to be lost are existing permanent grass swales. The grass swales promote infiltration, reduce the velocity of the runoff, and help filter out contaminants. It appears that the plan is to pipe the flows under the

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facility. The piping of the existing streams will reduce infiltration and increase velocities which will have a negative affect downstream. Minimal usage of underground piping is encouraged and the use of open channel stream corridors is promoted. The width of the corridor would vary but should be adequate to provide for stream geomorphology, stream bank stability, preservation of tree canopy, flood control, and maintenance access.

6.2 - Increased Runoff Quantity and Hydrologic Changes due to Impervious Surface: The proposed facility includes a large amount of impervious surface. There is a need to fully analyze downstream conditions to determine if flooding conditions exist and to determine the detention required to improve downstream conditions, or at a minimum, not increase the amount of stormwater runoff from the site over existing levels. The use of detention and retention basins and other best management practices would be encouraged to both reduce runoff and also replace some of the 16.65 acres of open water which will be lost due to the project.

The overall hydrologic changes should be evaluated and best management practices implemented that mimic the full range of hydrologic conditions - in particular, the water quality event should be analyzed and best management practices implemented to protect the downstream channel, habitat and water quality conditions.

6.3 - Native Vegetation Plantings and Maintenance: A native vegetation plan should be provided by the applicant indicating schedules for planting and maintaining of the native species. The plantings should take place after the majority of the construction of the facilities is complete to prevent the loss of plants from rain events which happen during construction and carry silt and other contaminants into the channels and are harmful to the vegetation. A multi-year maintenance plan should be required which will provide for any necessary maintenance to allow the establishment of the native plantings.

6.4 - Stormwater NPDES Phase 2 Requirements: In order to comply with the Johnson County NPDES (National Pollutant Discharge Elimination System) Phase II Permit, the Board of County Commissioners will be passing a post construction ordinance that requires all new developments to capture and treat stormwater runoff before leaving a site. Stormwater runoff from this site may contain high levels of heavy metals from truck tires and brakes, oil, grease, salts, and trash. Best management practices aimed to prevent or remove these pollutants from stormwater runoff will be required to comply with this regulation.

Erosion and sediment control measures during construction will also be required of the applicant per the KDHE general construction permit as well as the Johnson County Erosion & Sediment Control Regulation.

VII. Wastewater

7.0 - Sewer Service and Sewage Pumping: Currently there is no wastewater service available to the area. It will be impractical for Johnson County Wastewater (JCW) to provide such service to the intermodal facility since the downstream end of this property is at the NW corner of 191st and Four Corners Road. For JCW to serve this area, a pump station and force main would need to be constructed to the New Century Air Center (NCAC) plant. Expansion of the existing

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NCAC plant would be needed to accommodate any additional flows. Funding for these improvements have not been planned or budgeted.

Historically, JCW staff has recommended against building or operating temporary package plants due to the poor effluent quality these plants produce, reliability concerns of the plants, and the high cost of operating multiple small plants. Consequently, staff would recommend JCW not get involved in operating such a facility.

7.1 - Sewer Development: The Gardner Intermodal Review Committee recommended that BNSF, working with the County and the City, undertake a study as to how best to serve the area with sanitary sewers. It was recommended that the study address future potential development in the watershed in which the intermodal is located, and along I-35. A new interchange is also proposed that will likely generate additional development, and this should be factored in the study as well. Johnson County would like to participate in the study.

The project proposed will likely exert considerable pressure toward the development of more regionalized sewer service in the watershed. This watershed is already experiencing growth in Spring Hill, and Gardner officials have informed JCW that they will no longer adhere to the city's previous stance of no development east of I-35, and have asked JCW to serve this area. It will be critical to address the watershed in its entirety, not just the BNSF facility and its environs. JCW did conduct a sewer service study for this watershed in 1991, which could be used as a resource in this study.