



City of Grand Island

Tuesday, August 23, 2011

Council Session

Item I3

**#2011-225 - Approving the Wayside Horn Agreement between the
Union Pacific Railroad Company and the City of Grand Island**

Staff Contact: John Collins, Public Works Director

Council Agenda Memo

From: Scott Griepenstroh, Public Works Project Manager

Meeting: August 23, 2011

Subject: Approving the Wayside Horn Agreement between the Union Pacific Railroad Company and the City of Grand Island

Item #'s: I-3

Presenter(s): John Collins, Public Works Director
Scott Griepenstroh, Public Works Project Manager

Background

The purpose of the Grand Island Quiet Zone Improvement Project, Phase I is to construct improvements at the Union Pacific Railroad (UPRR) crossings at Oak Street, Pine Street, Walnut Street and Elm Street so that train horns will not need to be activated for these crossings. "Silent" crossings will be created at Oak Street and Pine Street by constructing concrete medians and concrete curb to narrow the streets at the crossing approaches. Walnut Street will have a Wayside Horn System installed and concrete curb will be constructed to narrow the street. The crossing at Elm Street will be closed after improvements are completed at the other crossings.

Discussion

Prior to commencing with construction of the Wayside Horn System at the Walnut Street Crossing, the City of Grand Island is required to enter into the Wayside Horn agreement with UPRR. The agreement stipulates responsibilities and obligations of the City with respect to the work associated with engineering, design, construction, installation, interconnectivity, operation, and maintenance of the Wayside Horn System and the Quiet Zone Improvement Project.

The City shall install, own and maintain the Wayside Horn System and all parts and components thereof and any interconnecting cables provided for interconnection and all confirmation indicators at the crossing. The City will also be responsible for all costs associated with the installation, maintenance and testing of the interconnection equipment with the Railroad's crossing signal system.

The City will require its Contractor to execute and comply with the Right of Entry Agreement, Exhibit B, and to abide by the insurance coverage requirements. The City is required to maintain RR Protective Liability Insurance for installation, operations and maintenance of the Wayside Horn System as per Exhibit F to the Wayside Horn Agreement.

Public Works is currently acquiring permits from UPRR for installation of conduit under the railroad tracks for cable for the Wayside Horn System.

The City's consultant, Felsburg, Holt and Ullevig, recently completed the plans and specifications for the Grand Island Quiet Zones Improvement Project. Public Works is currently seeking bids for construction. Construction is planned for completion in late spring of 2012.

Alternatives

It appears that the Council has the following alternatives concerning the issue at hand. The Council may:

1. Move to approve
2. Refer the issue to a Committee
3. Postpone the issue to future date
4. Take no action on the issue

Recommendation

City Administration recommends Council approve the resolution authorizing the Mayor to sign the Wayside Horn Agreement between the Union Pacific Railroad Company and the City of Grand Island.

Sample Motion

Move to approve the resolution.

WAYSIDE HORN AGREEMENT

BETWEEN THE

UNION PACIFIC RAILROAD COMPANY

AND THE

CITY OF GRAND ISLAND

COVERING

THE CONSTRUCTION, MAINTENANCE & OPERATION OF A
WAYSIDE HORN SYSTEM FOR THE EXISTING WALNUT STREET
AT-GRADE PUBLIC ROAD CROSSING

AT

MILE POST 146.95 – KEARNEY SUBDIVISION
DOT NO.: 817-622M

IN

GRAND ISLAND,
HALL COUNTY,
NEBRASKA

UPRR Folder No.: 2574-79

UPRR Audit No.: 1055559

WAYSIDE HORN AGREEMENT

THIS AGREEMENT, for good and valuable consideration, the receipt of which is hereby acknowledged, is made and entered into effective this _____ day of _____, 2011, by and between **UNION PACIFIC RAILROAD COMPANY**, a Delaware corporation (hereinafter, the "Railroad") and the **CITY OF GRAND ISLAND**, a Nebraska municipal corporation (hereinafter, the "City").

The City has requested the Railroad's cooperation in connection with the implementation of a Wayside Horn System (hereinafter, "WHS," as defined more fully below), for the grade crossing at the Walnut Street at-grade public road crossing, (DOT No. 817-622M), at Railroad Mile Post 146.95 on the Kearney Subdivision in Grand Island, Hall County, Nebraska, as shown on the Railroad Location Print marked Exhibit A, and as detailed on the Detailed Plans collectively marked Exhibit A-1, each attached hereto and hereby made a part hereof. Hereinafter, any work associated with engineering, design, construction, installation, interconnection, operation, or maintenance concerning the WHS is called "the Work" and the WHS project is called "the Project." The Railroad is willing to cooperate with the City in facilitating the Project, and the Railroad is providing certain goods and services to the City, upon the terms and conditions hereinafter set forth.

NOW, THEREFORE, in consideration of the premises and of the promises and conditions hereinafter set forth, the parties hereto agree as follows.

AGREEMENT:

1. The City's Sole Financial Responsibility for the Work and Project.

- a. The City shall be solely financially responsible for all labor and materials for the preparation by Railroad of estimates, engineering, design, construction, installation, maintenance, operation, interconnects, for interconnect costs, for all costs of flagging provided by the Railroad, and for all other costs and expenses referred to herein associated with the Work or the Project or required to facilitate, implement, maintain, and operate the WHS that comprises the Project, including without limitation as set out more fully below. "WHS" as used herein includes the system and any and all parts or components thereof or associated therewith, including without limitation, the horn, utility poles, the horn confirmation signal, the advance confirmation indicators and systems, control cables, interconnect cables, circuitry, and power supply for each installation.
- b. The City shall pay the Railroad for and fully reimburse the Railroad for, and shall be responsible for, any and all costs or expenses incurred by the Railroad in connection with the Work and this Project, including without limitation as set out more fully elsewhere herein.

2. Other Responsibilities and Obligations of the City with Respect to the Work and the Project.

- a. (1) The City shall install, own, and maintain, at its sole expense, the WHS and all parts and components thereof and any interconnecting cables provided for interconnection and all applicable advance confirmation indicators and systems at each crossing.
 - (2) The City shall comply with all applicable law in respect to the Work and the Project, including, but not limited to, 49 CFR Part 222. The City shall comply with all FRA regulations and requirements with respect to the WHS.
 - (3) The City shall be responsible for ensuring the reliable operation and proper functioning of the WHS after installation.
- b. The City shall endeavor to place all WHS components, including without limitation utility poles and power supplies, at locations within the City's existing street rights-of-way. The proposed locations are identified in **Exhibit A** and **Exhibit A-1** hereto. The Railroad's approval of these locations is provided by its execution of this Agreement. If the City desires to change placement of the WHS in any respect, the City shall apply to the Railroad for approval (if the change is a location still within the City's existing street right-of-way) or a license (if the change is to a location outside of the City's existing street right-of-way). The Railroad may issue approvals or licenses on application, subject to reasonable terms and conditions, provided that no existing or planned facilities of the Railroad, in the judgment of the Railroad, shall be adversely impacted by such placement.
- c. (1) The City in conducting any Work or activities in, around, or regarding the WHS or Railroad tracks, crossings, bungalows, crossing protection, or other facilities, whether directly or through contractors or subcontractors, shall ensure compliance in all respects with such rules and requirements of the Railroad referred to more specifically herein or in Exhibits or attachments hereto, or that the Railroad may later provide to the City.
- (2) If the City directly, but not through its contractors or their subcontractors, wishes to perform Work on the City's existing street rights-of-way on or over Railroad property, it may do so through its employees without being required to obtain an approved Right of Entry Agreement, as required by Section 2.c.(3) hereof, but in any event still shall be required to obtain the flagging protection described in the Right of Entry Agreement for any activity within twenty-five (25) feet from the center of the Railroad's nearest track and to comply with Sections 2.c.(1), (6), and (7) hereof, and shall comply with the terms of the provision for Protection of Subsurface Facilities on Railroad Property, in accordance with **Exhibit C** hereto, and shall comply with any other rules and requirements of the Railroad referred to more specifically herein or in Exhibits or attachments hereto, or that the Railroad may later provide to the City. Flagging will not be required, however, when the City under this Section 2.c.(2) is performing routine maintenance behind the crossing arms.
- (3) Under no circumstances will the City enter onto the Railroad's property in an area that is outside of the City's existing street right-of-way without first executing the Right of Entry Agreement, **Exhibit B** hereto (hereinafter, REA). In no circumstances will the City's contractors or their subcontractors enter onto the Railroad's property (including without limitation Railroad property located within the City's existing street rights-of-

way) without first executing the REA. In all cases, the Railroad's written approval of the REA must be obtained for it to be effective. The City acknowledges that it understands the terms, provisions, and requirements of the REA. The City shall ensure that its contractors and their subcontractors understand the REA. Furthermore, the City shall be responsible for its contractors' and subcontractors' compliance with the REA, and such contractors and subcontractors shall provide the Railroad with a certificate issued by the applicable insurance carriers providing the insurance coverage for their activities as required in the REA.

(4) Prior to initiating any Work to remedy an urgent public safety concern under this Agreement, the City shall notify the Railroad's Risk Management Control Center at 1-888-877-7267.

(5) The parties intend that they and the City's contractors and subcontractors shall cooperate to assure that REA's are timely and expeditiously submitted and that all conditions thereof are satisfied. Upon satisfaction of all conditions, Railroad will exercise reasonable efforts to approve such REA's within thirty (30) days.

(6) The City shall ensure that persons performing any Work by, for, or on behalf of the City on Railroad property (whether within or outside the City's existing street rights-of way) shall undergo and complete the training required by the Railroad which the Railroad will identify to the City, and by the FRA, including without limitation that for roadway worker protection set out at "contractororientation.com," or other approved training.

(7) The City shall protect underground systems in connection with its Work, the Project, and the WHS, in accordance with **Exhibit C** hereto, Protection of Subsurface Facilities on Railroad Property, and shall require its contractors and subcontractors to agree to do so.

d. Costs and expenses associated with or resulting from any relocation of the WHS, including without limitation any such relocation work that results from track alignment changes, new track construction, signal upgrades, or from any work implemented in the discretion of the Railroad, or resulting from the Railroad's business needs or the requirements of an administrative agency, shall be at the City's sole cost and expense. The Railroad shall provide reasonable prior notification of such relocation or other work.

e. The City shall prevent any interference (whether by induction, leakage of electricity, or otherwise) by or of the WHS with the operation or function of the Railroad's signals, communication lines, or any other installation or facility. If the WHS causes interference, the Railroad, in its sole discretion, may require the City, at its sole expense, to immediately take such remedial action as may be necessary to eliminate such interference.

f. The City shall maintain all vegetation at or near the WHS sites, to ensure that vegetation does not interfere with the performance or visibility of the WHS.

3. The Railroad's Work.

a. The Railroad, at the City's sole expense, shall provide the interconnect from the crossing signal control systems in the Railroad's signal cabin to activate the WHS at each installation, and all Work associated therewith, including preliminary design, engineering, and cost estimates relative to the interconnect. If modified, changed, or additional Railroad signal activation circuitry is required at a crossing to properly activate the WHS and the

signalization at the crossing, in accordance with 49 CFR Part 222, the Railroad will install such circuitry, at the sole expense of the City.

- b. The Railroad will install, own, and maintain, at the City's expense, all components within the Railroad's signal crossing cabin necessary for the interconnection, including without limitation relays, wiring, and terminal connections. The Railroad will not install, own, or maintain the interconnect cable provided by the City.
- c. The Railroad shall have absolutely no obligation, nor any right whatsoever, to install, provide circuitry to, test, or maintain any of the WHS components other than the interconnect.
- d. The Railroad has no duty to maintain the WHS or to monitor its function, safety, or state of repair.
- e. In no event shall the Railroad be responsible for the monitoring of the City's duties or obligations under FRA or other rules or regulations or under this Agreement.

4. Payments by the City to the Railroad.

- a. The City has agreed to pay the Railroad in accordance with the Preliminary Engineering Agreement attached hereto as **Exhibit D** for the Railroad's design services. The sum owed to Railroad thereunder is included in the **Exhibit E** Estimate described in Section 4.b, and this debt will be fully satisfied on the City's payment of the Estimate in full.

- b. (1) Within thirty (30) days after receiving the fully executed Agreement, the City shall pay the Railroad \$29,086.00, the amount set out in the Exhibit E Estimate. The Exhibit E Estimate is the estimated total cost for the Railroad's part of the Work, which includes the Cost Estimate Fee, engineering, design, construction and installation of the WHS interconnect or other circuitry or other facilities, or other Work as the City may have directed, in accordance with Section 3 above. If Railroad determines that the actual cost of the Work will likely exceed the Exhibit E Estimate, Railroad may submit supplemental invoices for the projected or actual additional costs. In such event, City within sixty (60) days shall notify the Railroad as to whether it agrees to pay the supplemental invoice amounts. If it does, then the writing evidencing that agreement shall become part of this Agreement, and all Work performed in connection with the supplemental invoice shall be performed pursuant to this Agreement.

- (2) If the City fails to pay the Exhibit E Estimate as required above, or if the City fails to notify the Railroad within sixty (60) days that it agrees to pay the supplemental invoice amount, or notifies the Railroad that it does not agree to pay the supplemental invoice, then this shall constitute a material breach under Section 9 hereof.

- (3) If the Railroad has overestimated the cost for such Work, and the actual cost is less than what the City pays, then the Railroad shall, within one hundred and twenty (120) days of completion of the Project, refund overpayment.

- c. The City agrees to each year pay the Railroad an annual maintenance fee of one hundred and twenty dollars (\$120.00) per crossing to cover the Railroad's cost of inspecting and testing the WHS interconnect equipment contemplated by this Agreement located within the Railroad's signal bungalows. The Railroad will invoice the City for such fee. If it becomes necessary to repair or replace any of the WHS interconnect equipment within the Railroad's

signal bungalows or perform other Work in connection thereto, the Railroad will separately invoice the City for such cost.

d. Railroad will provide flagging services at City's sole expense, and invoice City for these services.

e. All payments other than those described in Subsection 4a, to be made by the City to Railroad, shall be made within forty-five (45) days after submittal of the Railroad's invoices. Interest on any overdue amounts shall be at prime plus two percent, unless a lesser rate is required by state law.

f. The Railroad, for the period of twelve (12) months after completion of the Work, will maintain all books, papers, accounting records and other documentation relating to costs incurred under this Agreement and will make such materials available to the City or its duly authorized representatives for review and inspection at its offices, on reasonable prior notice and during regular business hours.

5. Effect of Lapse of City's Fiscal Year.

If the City's governing body does not on or before _____ of each fiscal year appropriate funds by approving a budget for the next succeeding fiscal year for payment of the insurance premiums that will be due for the insurance policies referred to in Section 7c, and that funds the payment of all Railroad invoices that have been submitted but that become due the next succeeding fiscal year, this Agreement immediately and automatically shall terminate at 12:00 midnight on _____ of the current fiscal year. However, all obligations of the City which accrued prior to termination for this reason shall continue to be due and payable and the City shall not be relieved from its obligations with respect thereto. All obligations of the Railroad with respect to this Agreement shall terminate effective as of the date of termination under this Section.

6. Sounding of Locomotive Horns.

The Railroad's rights and duties regarding the sounding of the locomotive horns at the subject WHS crossings shall be as set out in 49 CFR Part 222, and by other applicable law. Nothing contained in this Agreement shall be construed to alter such rights and duties.

7. Liability, Insurance, and Indemnity.

a. Cooperation in Defense.

City and Railroad agree that they will cooperate as necessary in defense of any claim, demand, investigation or litigation arising out of or related to this Agreement, the Work, the Project, or the WHS.

b. Definition of Losses.

The term "Losses" shall include all damages, costs, expenses, attorneys fees, other fees, or liabilities of any nature whatsoever, in any way related to or arising out of, any actual or alleged violation of law, order, or regulation; damage to any property, the environment or to natural resources; bodily injury or death of any person; or the breach of any contract.

c. Insurance.

(1) Subject to the conditions stated below and in Exhibit F hereto, with the assistance of Railroad the City has procured, and will pay for and will maintain in force insurance protection acceptable to the Railroad, and issued by insurers acceptable to the Railroad, which is adequate to insure against risks and Losses associated with or arising out of the Work, the Project, or the WHS, and any liabilities associated therewith. The insurance shall be of the type and amount and shall conform to the conditions and specifications set out more fully in **Exhibit F** hereto. Railroad is the Named Insured under such policy (hereinafter, "the Policy").

(2) To facilitate the availability of the required insurance Policy to the City, the Railroad has paid certain funds to the carrier for the initial policy year. The City shall pay for its portion of the premiums for the Policy required in Exhibit F, its payment for the first year not to exceed approximately \$1,700.00 per crossing. The City shall continue to pay for its portion of the Policy premiums for subsequent years for the term of this Agreement unless (a) Railroad elects at its sole discretion not to continue with the insurance required under this Section 7c or (b) the City's payment for premiums on a per crossing basis for any Policy year is more than ten percent greater than the prior year's payment and Railroad elects not to be responsible for the incremental difference above the ten percent increase in the payment for that year. In the case of alternative (a) Railroad timely will notify City if it has elected not to continue with the insurance requirements of this Section 7c, in which case City will have no further obligation to provide insurance under this Section 7c. In the case of alternative (b) Railroad may elect to pay the incremental difference for that year, or, if it elects not to, then the City will have no further obligation to provide insurance under this Section 7c.

(3) Railroad will be responsible for payment of the \$1,000,000 per occurrence self insured retention identified in Exhibit F, paragraph B. The parties acknowledge this obligation includes not only liability costs but also defense costs for the Railroad and expenses, up to the \$1,000,000 limit.

(4) The City, no later than _____ of each fiscal year, shall notify the Railroad if it fails to approve a budget for the payment of insurance premiums for the policies to be in force for the next succeeding fiscal year, as required by Section 5. The City, on or before the date Work is undertaken under this Agreement, and on or before thirty (30) days in advance of each renewal date of such insurance policies required hereunder, shall provide to the Railroad proof of the payment for the premiums.

d. INDEMNITY OBLIGATIONS OF THE CITY.

(1) TO THE EXTENT PERMITTED BY LAW, AND SUBJECT TO SECTION 7(d)(2) BELOW, THE CITY SHALL FULLY INDEMNIFY AND HOLD THE RAILROAD HARMLESS, AND DEFEND THE RAILROAD AGAINST ANY AND ALL LIABILITY, CLAIMS, SUITS, DEMANDS, AND LOSSES ARISING FROM THE CITY'S OWN ACTS OR OMISSIONS OR FAULT RELATING TO OR ARISING OUT OF THIS AGREEMENT, THE WORK, THE PROJECT, OR THE WHS.

(2) NOTHING CONTAINED IN THIS SECTION OR ANY OTHER PART OF THIS AGREEMENT SHALL BE CONSTRUED TO CONSTITUTE AN AGREEMENT OR OBLIGATION OF THE CITY TO INDEMNIFY THE RAILROAD AGAINST

LIABILITY OR LOSSES ARISING FROM THE RAILROAD'S OWN ACTS OR OMISSIONS OR FAULT.

- (3) If the Railroad notifies the City of a claim for indemnification, the City shall respond in writing within thirty (30) days, unequivocally accepting the Railroad's demand and undertaking to indemnify the Railroad, or, if the City rejects the demand, the City shall state specifically the grounds for rejection.

8. ENFORCEABILITY AND CHOICE OF LAW.

THIS AGREEMENT SHALL BE GOVERNED, CONSTRUED AND ENFORCED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEBRASKA. LITIGATION TO ENFORCE, OR ARISING OUT OF, OR RELATED TO OR CONNECTED WITH THIS AGREEMENT SHALL BE INSTITUTED AND MAINTAINED SOLELY BEFORE THE STATE OF NEBRASKA DISTRICT COURT FOR HALL COUNTY, NEBRASKA.

9. Term of Agreement and Termination.

This Agreement shall be in force and effect until terminated pursuant to this Section 9 or until it otherwise is terminated in accordance with law.

- a. This Agreement immediately and automatically shall terminate on the date of the occurrence of any of the following events:

- (1) The City's governing body does not act in accordance with Section 5.

- (2) The FRA rescinds or materially amends the regulations pertaining to wayside horns, currently promulgated at 49 CFR Part 222.

- (3) The FRA issues an order or regulation which prohibits or imposes significant restrictions on the use of the WHS or the FRA issues any ruling which requires the use of locomotive horns at a crossing where a WHS is located

- b. This Agreement immediately and automatically shall terminate if the City is in material breach of any express or implied term of or obligation of Sections 7c or 7d of this Agreement or Exhibit F to this Agreement, the Railroad notifies the City of the breach, and the City fails to fully cure such breach within thirty (30) days after notice is given. Such termination shall be effective at 12:01 a.m. of the 31st day after notice. A "material breach" under this Section 9. b. exists, without limitation, if the following occurs:

- (1) The City fails or refuses to provide the notices required under, or to procure, pay for, or maintain insurance, or to provide certificates of insurance and proof of payment of premiums in accordance with Section 7c or Exhibit F hereto, or the City otherwise is in breach of any provision of Section 7c or Exhibit F, or is in breach of any obligation the City owes under the policies of insurance required hereunder.

- (2) The City fails or refuses to undertake the defense of or to indemnify the Railroad upon written demand by the Railroad or to fully defend and indemnify the Railroad, when it is required to do so under Section 7d.

- c. This Agreement immediately and automatically shall terminate if either party is in material breach of any express or implied term or obligation of this Agreement other than those described in Section 9b, the other party notifies the breaching party of the breach, and the breaching party fails to fully cure such breach within sixty (60) days after notice is given.

The termination shall be effective at 12:01 a.m. of the 61st day after notice. A “material breach” under this Section 9c also exists, without limitation, if the following occurs:

- (1) The City fails or refuses to comply with FRA regulations, including, but not limited to, 49 CFR Part 222 or any amendments thereto.
- (2) The City fails or refuses to pay any design fees or maintenance costs or other fees or other charges or other payments due Railroad under this Agreement, or fails to provide notice, including as set out in Section 4b.
- (3) The City fails or refuses to comply with the terms or conditions of Section 2 or **Exhibits B or C** to this Agreement (or the appendices thereto).
- d. Upon termination, the City shall promptly deactivate the WHS and the Railroad shall instruct its engineers to resume sounding the locomotive horns at the crossings in accordance with the Railroad’s operating rules. If the reason for termination is associated with an FRA ruling, the City may retain the deactivated WHS and its components in place for a period not to exceed two (2) years pending efforts by the City to obtain regulatory approval from the FRA. If the City fails to obtain such regulatory approval or reversal of an FRA decision within said period, the City promptly shall remove the WHS and its components from all crossings at its sole cost and expense.
- e. Termination shall not excuse the City from fully complying with all obligations and satisfying all liabilities and making all payments that have accrued prior to the termination date.

10. Binding Effect.

The covenants hereof shall inure to and bind each party’s successors and assigns; provided no right of the City shall be transferred or assigned, either voluntarily or involuntarily, except by express written agreement acceptable to the Railroad.

11. Evidence of Authority.

The City, when returning this executed Agreement to the Railroad, shall cause it to be accompanied by such Order, Resolution or Ordinance of the governing body of the City, passed and approved as by law prescribed, and duly certified, evidencing the authority of the person executing this Agreement on behalf of the City with the power so to do.

12. Entire Agreement, Rules of Construction, and Severability.

This Agreement shall be construed without regard to who drafted or initiated the drafting of all or any provisions of this Agreement. Each of the parties is sophisticated in the matters at issue here, and each relies on its own expertise and its own officers’, managers’ and attorneys’ advice. Neither relies on any representations by the other party or on the other party’s expertise or advice in entering into this Agreement. This Agreement includes all Exhibits hereto, and is the entire agreement between the parties. It supersedes all prior communications, understandings, and agreements, whether oral or written. Amendments to this Agreement must be in writing and signed by both parties. In the event any portion of this Agreement is deemed void or unenforceable, this will not void or render unenforceable any other provision hereof, and the voided or unenforceable portion shall be deemed severed from the rest of this Agreement and the remaining Agreement shall continue to be enforceable.

13. Notices.

Any notice due hereunder, and each communication concerning matters within the scope of Sections 4, 5, 7 and 9 and Exhibits B, C, and F hereto (together with their appendices), shall be made in writing and shall be effective when and on the date and time served on or received by the receiving party personally or by express delivery or certified U.S. mail (return receipt requested). Such notices and communications shall be addressed to the following persons, at the following addresses, or at such other address as the parties may from time to time direct in writing:

Railroad:

Union Pacific Railroad Company
ATTN: Assistant Vice President Engineering – Design
1400 Douglas Street, Mail Stop 0910
Omaha, Nebraska 68179-0910
Facsimile: (402) 501-0324

With copies to:

Union Pacific Railroad Company
ATTN: Senior Manager Contracts
1400 Douglas Street, Mail Stop 1690
Omaha, Nebraska 68179-1690

City:

City of Grand Island
ATTN: Scott M. Griepenstroh
PIO Box 1968
Grand Island, Nebraska 68802-1968
Facsimile: (308) 385-5488

Personal service and notice will be deemed to have occurred or been given upon receipt. Notices and communications only sent by U.S. Mail will be deemed to have occurred and been given not later than five (5) days after deposit with the United States Postal Service, unless actual receipt occurs before then.



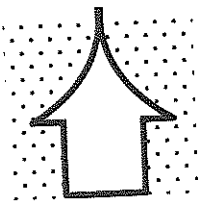
IN WITNESS WHEREOF, the parties hereto have duly executed this Agreement as of the date and year first hereinabove written above.

UNION PACIFIC RAILROAD COMPANY
(Federal Tax ID #94-6001323)

By _____

PAUL G. FARRELL
Senior Manager Contracts

CITY OF GRAND ISLAND



ATTEST:

By _____

Name: _____

Title: _____

By _____

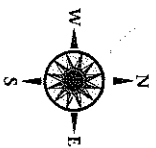
Name: _____

Title: _____

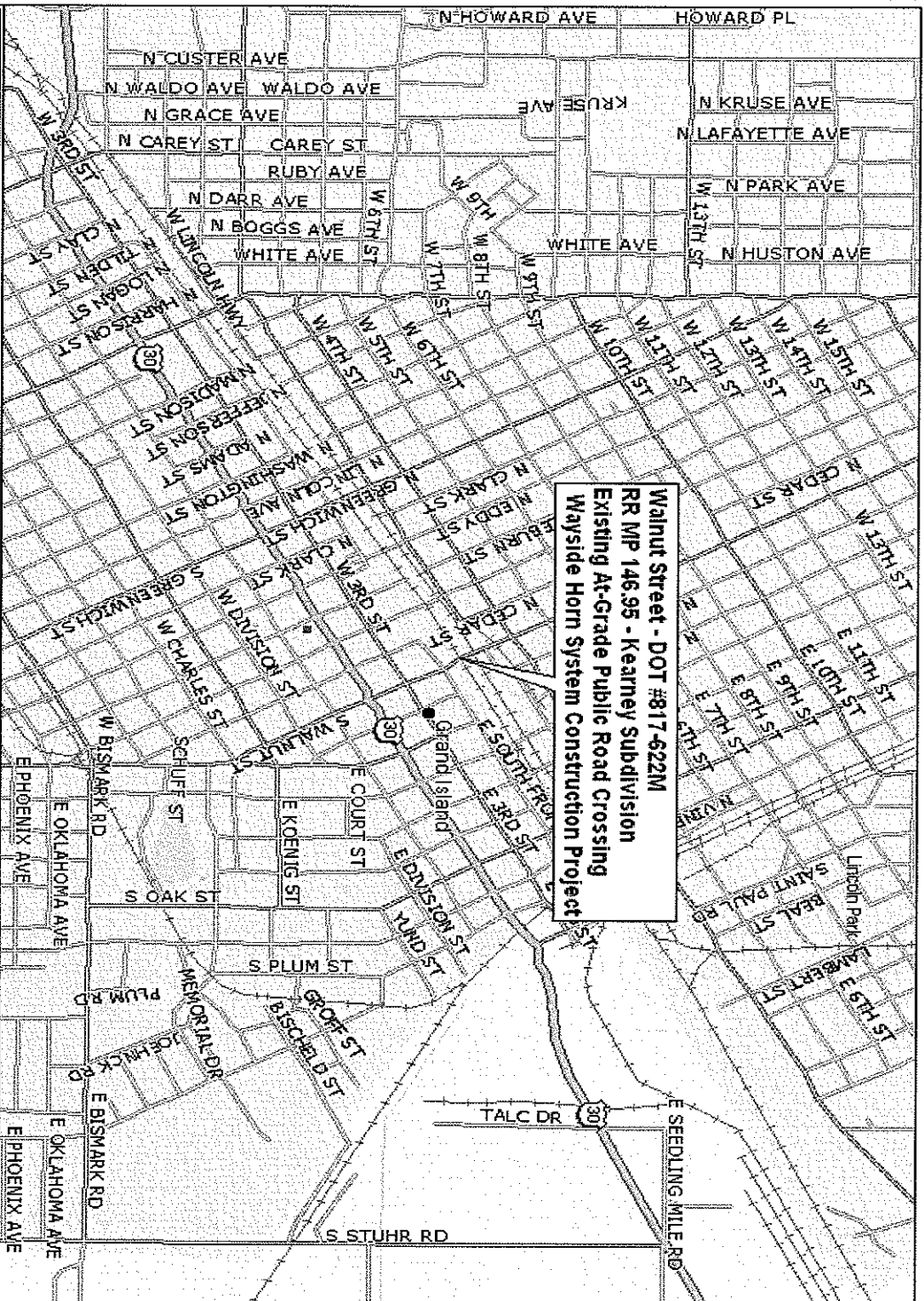
EXHIBIT A

To Wayside Horn Agreement

Cover Sheet for the
Railroad Location Print



RAILROAD LOCATION PRINT OF EXISTING AT-GRADE PUBLIC ROAD CROSSING WAYSIDE HORN CONSTRUCTION PROJECT

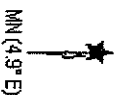


DELORME

Data use subject to license.

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www.delorme.com



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Data Zoom 13-0

RAILROAD WORK TO BE PERFORMED:

1. Install crossing signal interconnections for automated horn systems,

EXHIBIT "A"

UNION PACIFIC RAILROAD COMPANY

KEARNEY SUBDIVISION

MILE POST 146.95

GPS: N 40° 55.5473', W 96° 20.6519'

GRAND ISLAND, HALL CO., NE.

Railroad Location Print of an existing at-grade public road crossing wayside horn system construction project with the
CITY OF GRAND ISLAND.

Folder No. 2574-79

Date: May 27, 2011

WARNING

IN ALL OCCASIONS, U.P. COMMUNICATIONS DEPARTMENT MUST BE CONTACTED IN ADVANCE OF ANY WORK TO DETERMINE EXISTENCE AND LOCATION OF FIBER OPTIC CABLE.
PHONE: 1-(800) 336-9193

EXHIBIT A-1

To Wayside Horn Agreement

Cover Sheet for the
Detailed Prints

GENERAL NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE CITY OF GRAND ISLAND, NEBRASKA STANDARD SPECIFICATIONS.
2. THE LOCATIONS OF ALL AERIAL AND UNDERGROUND UTILITY FACILITIES MAY NOT BE INDICATED IN THESE PLANS. UNDERGROUND UTILITIES, WHETHER INDICATED OR NOT, WILL BE LOCATED AND FLAGGED BY THE UTILITIES AT THE REQUEST OF THE CONTRACTOR. NO EXCAVATION WILL BE PERMITTED IN THE AREA OF UNDERGROUND UTILITIES UNTIL ALL SUCH FACILITIES HAVE BEEN LOCATED AND IDENTIFIED TO THE SATISFACTION OF ALL PARTIES AND THEN ONLY WITH EXTREME CARE TO AVOID ANY POSSIBILITY OF DAMAGE TO THE UTILITY FACILITY.
3. THE CONTRACTOR SHALL DISPOSE OF ALL UNSUITABLE MATERIALS ENCOUNTERED IN THE REMOVAL AND GRADING OPERATIONS OFF THE PROJECT SITE, INCLUDING CONCRETE, ASPHALT, OIL, MUD, BRICK, ROCK, ETC. NO UNSUITABLE MATERIAL, AS DETERMINED BY THE ENGINEER, SHALL BE USED FOR BACKFILLING OR EMBANKMENT CONSTRUCTION. THE COST FOR DISPOSAL OF UNSUITABLE MATERIAL SHALL BE SUBSIDIARY TO THE PROJECT.
4. THE CONTRACTOR SHALL FURNISH AND MAINTAIN ALL NECESSARY BARRICADES, WARNING SIGNS, LIGHTS AND FLAGMEN PER NDDOT STANDARD PLAN NO. 320-RS AND 321-RS. THE CONTRACTOR SHALL MAINTAIN A MINIMUM OF ONE LANE OF TRAFFIC AT ALL TIMES.
5. A DIAMOND EDGE SAW BLADE SHALL BE USED FOR CUTTING ALL REQUIRED CONSTRUCTION AND LONGITUDINAL PAVEMENT JOINTS. ALL SAW CUTS REQUIRED SHALL BE SUBSIDIARY TO ITEMS FOR WHICH DIRECT PAYMENT IS MADE.
6. ALL SAW CUTTING OF EXISTING PAVEMENT DRIVEWAYS, SIDEWALKS, ETC. SHALL BE SUBSIDIARY TO ITEMS FOR WHICH DIRECT PAYMENT IS MADE.
7. ALL SIGNS SHALL CONFORM TO THE 2009 MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES AND THE 2005 NDDOT MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES SUPPLEMENT.
8. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROTECT ALL EXISTING UTILITIES PAVEMENT AND OTHER IMPROVEMENTS NOT SCHEDULED FOR REMOVAL OR OUTSIDE CONSTRUCTION LIMITS. ANY DAMAGE TO THE EXISTING UTILITIES AND/OR PAVED STREETS CAUSED BY CONSTRUCTION OPERATIONS SHALL BE REPAIRED BY THE CONTRACTOR AT NO ADDITIONAL COST TO THE OWNER.
9. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR EROSION CONTROL. THE CONTRACTOR SHALL MAINTAIN ALL EXISTING STREETS OPEN TO TRAFFIC AND THEY SHALL BE CLEAN AND FREE OF SILT AND MUD AT ALL TIMES. ALL DISTURBED AREAS SHALL BE SEEDED ONCE FINAL GRADE HAS BEEN ESTABLISHED.
10. THE CONTRACTOR SHALL LIMIT ALL CONSTRUCTION ACTIVITIES TO THOSE AREAS WITHIN THE EXISTING ROAD RIGHT-OF-WAY AND WITHIN THE ESTABLISHED EASEMENT TO CROSS THE RAILROAD RIGHT-OF-WAY. ANY DISTURBANCES BEYOND THESE LIMITS SHALL BE RESTORED TO THE ORIGINAL CONDITION BY THE CONTRACTOR AT THE CONTRACTOR'S EXPENSE. CONSTRUCTION ACTIVITIES IN ADDITION TO NORMAL CONSTRUCTION PROCEDURE SHALL INCLUDE THE PARKING OF VEHICLES OR EQUIPMENT, DISPOSAL OF LITTER, AND ANY OTHER ACTION WHICH WOULD ALTER THE EXISTING CONDITIONS. THE CONTRACTOR SHALL NOT DISTURB THE TRACK OR CROSSING IN ANY WAY DURING CONSTRUCTION.
11. THE CONTRACTOR SHALL BE SAFETY TRAINED IN UPRR SAFETY THROUGH WWW.BRAILSAFE.COM/COM AND SHALL HAVE VALID CONTRACTOR ORIENTATION RAILSAFE SYSTEM BADGES ON EACH INDIVIDUAL PRIOR TO ENTERING THE RAILROAD RIGHT-OF-WAY.
12. THE CONTRACTOR SHALL NOT AT ANY TIME, LOCATE OR PARK ANY CONSTRUCTION EQUIPMENT MATERIALS OR PERSONNEL WITHIN 25 FEET OF THE TRACKS, WITHIN THE RAILROAD SIGNAL GATE ARM, OR IN THE AREA OF THE SIGNAL GATES SUCH THAT THE GATES CANNOT MAINTAIN THEIR FULL HORIZONTAL POSITION DURING PASSAGE OF A TRAIN. IF THE CONTRACTOR CONDUCTS ANY OF THESE ACTIVITIES, IT SHALL BE AT THE SOLE RISK AND LIABILITY OF THE CONTRACTOR.
13. THE CONTRACTOR SHALL NOTIFY THE UPRR RAILROAD MASTER A MINIMUM OF 30 CALENDAR DAYS IN ADVANCE OF START OF CONSTRUCTION. THE CONTRACTOR SHALL IDENTIFY CONSTRUCTION ACTIVITIES AND SCHEDULE FOR THE RAILROAD MASTER. IF, IN THE OPINION OF THE UPRR RAILROAD MASTER, CONSTRUCTION ACTIVITIES NECESSITATE A UPRR FLAGGER, THE CONTRACTOR SHALL REQUEST FLAGGING SERVICE FROM UPRR IN ACCORDANCE WITH THE CONSTRUCTION SCHEDULE. INVOICE FOR UPRR FLAGGING SERVICES, IF NECESSARY, SHALL BE SENT DIRECTLY TO THE CITY'S PROJECT MANAGER. THE CONTRACTOR SHALL GIVE THE UPRR RAILROAD MASTER FIVE (5) WORKING DAYS ADVANCE NOTICE WHEN THE FLAGGER WILL NO LONGER BE NEEDED TO BE IN COMPLIANCE WITH THE UPRR REQUIREMENTS.
14. CURB TO BE PLACED IN FRONT OF RAILROAD GATES SHALL BE A MINIMUM OF 4.25' MEASURED FROM FACE OF CURB TO CENTER OF BASE OF RAILROAD GATE PER MTD.

GRAND ISLAND QUIET ZONE IMPROVEMENTS

GRAND ISLAND, NEBRASKA

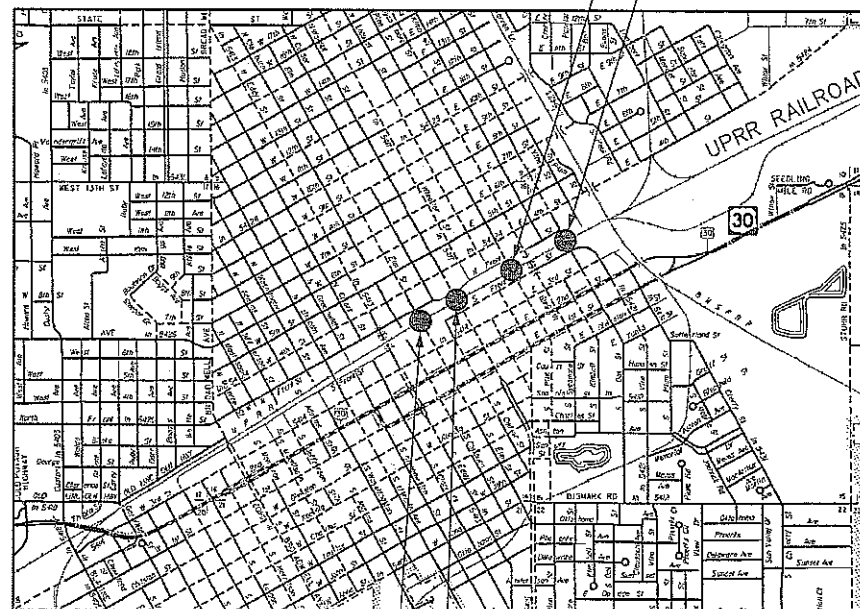
QUIET ZONE CROSSING IMPROVEMENTS

UPRR RAILROAD AND OAK STREET

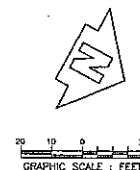
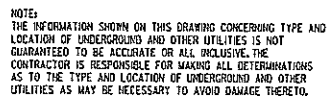
UPRR RAILROAD AND PINE STREET

UPRR RAILROAD AND WALNUT STREET

UPRR RAILROAD AND ELM STREET



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PROJECT NO.	08-142
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GRAND ISLAND QUIET ZONE IMPROVEMENTS
GRAND ISLAND, NEBRASKA
WALNUT STREET
REMOVAL



DESIGNED: FHU
CHECKED: FHU
REVISIONS:

SHEET:

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DATE: 01/17/11

PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE



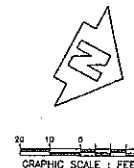
NOTE:
THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ALL DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THEREOF.

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
PT-1	9883.59	9699.98	*	BACK OF CURB
PT-2	9894.16	9699.96	*	BACK OF SIDEWALK
PT-3	9955.35	9650.28	*	BACK OF CURB
PT-4	10111.36	9565.22	*	BACK OF CURB
PT-5	10175.44	9541.13	*	BACK OF CURB
PT-6	10182.77	9553.51	*	BACK OF SIDEWALK
PT-7	10154.59	9555.38	*	BACK OF SIDEWALK
PT-8	10148.83	9499.47	*	BACK OF CURB
PT-9	10112.39	9519.00	*	BACK OF SIDEWALK
PT-10	10090.27	9542.86	*	BACK OF CURB

* MATCH EXISTING CROSS SLOPE AND ELEVATION OF THE EXISTING PAVEMENT

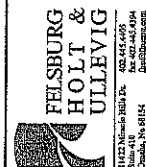
** ITEMS ARE SHOWN FOR INFORMATION ONLY. DIRECT PAYMENT WILL BE MADE UNDER THE ITEM "WAYSIDE HORN AND CONFORMATION SIGNAL INSTALLATION" AND PAID FOR AS 1 EACH

POINT	NORTHING	EASTING	ELEVATION	DESCRIPTION
PT-11	9942.49	9619.81	*	BACK OF CURB
PT-12	9859.17	9655.21	*	BACK OF CURB
PT-13	9867.51	9638.61	*	BACK OF SIDEWALK
PT-14	9893.61	9633.97	*	BACK OF SIDEWALK
PT-15	9987.99	9741.12	*	2' R.P. 8" VERTICAL CURB
PT-16	10046.11	9848.41	*	2' R.P. 8" VERTICAL CURB



PROJECT NO.
08-142

GRAND ISLAND QUIET ZONE IMPROVEMENTS
GRAND ISLAND, NEBRASKA
WALNUT STREET
CONSTRUCTION



DESIGNED: FHU
CHECKED: FHU
REVISIONS:

SHEET:

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DATE: 01/17/11

Index of Revisions

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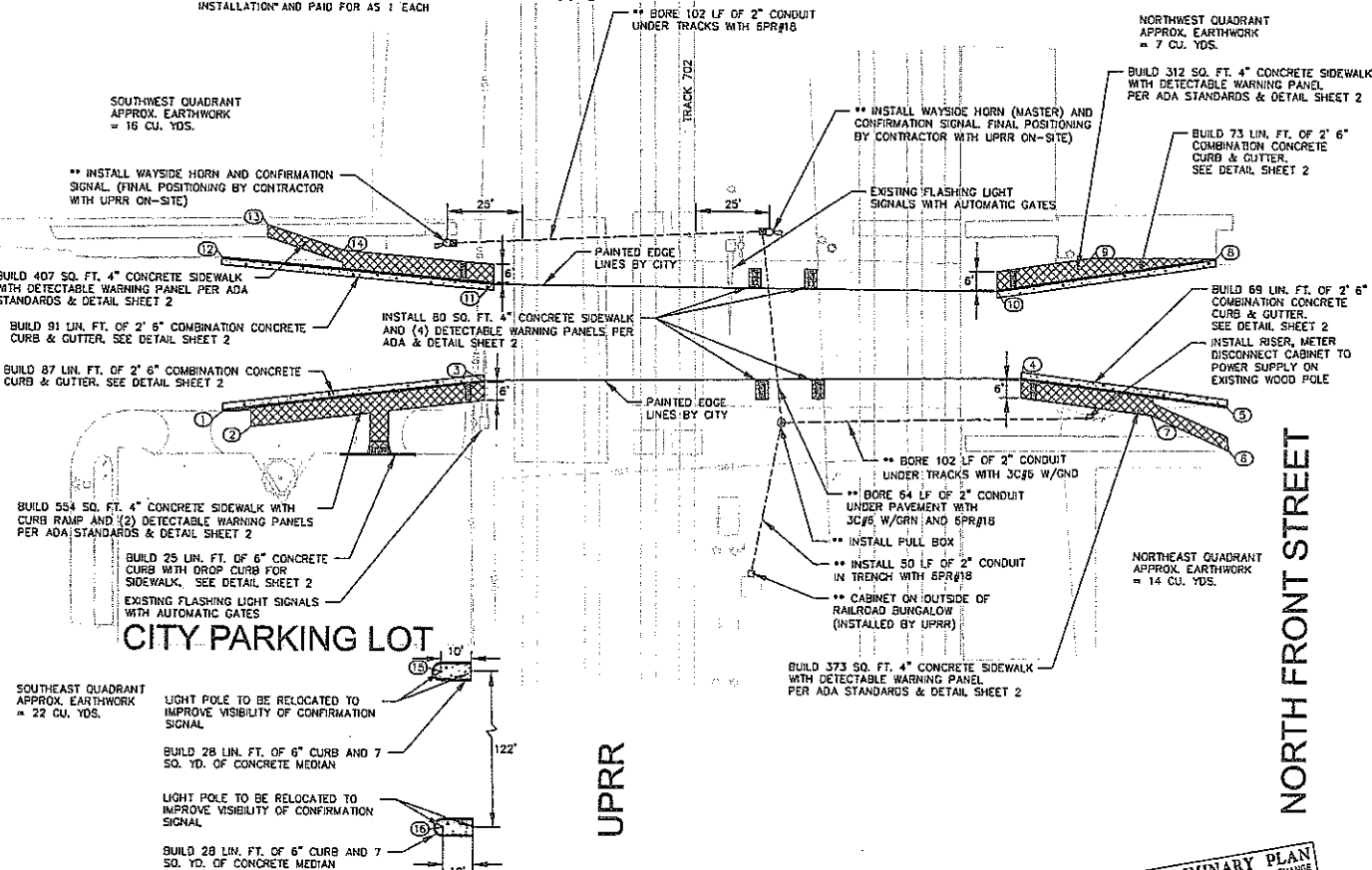
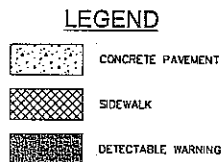
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WALNUT STREET

SOUTH FRONT STREET

UPRR

NORTH FRONT STREET



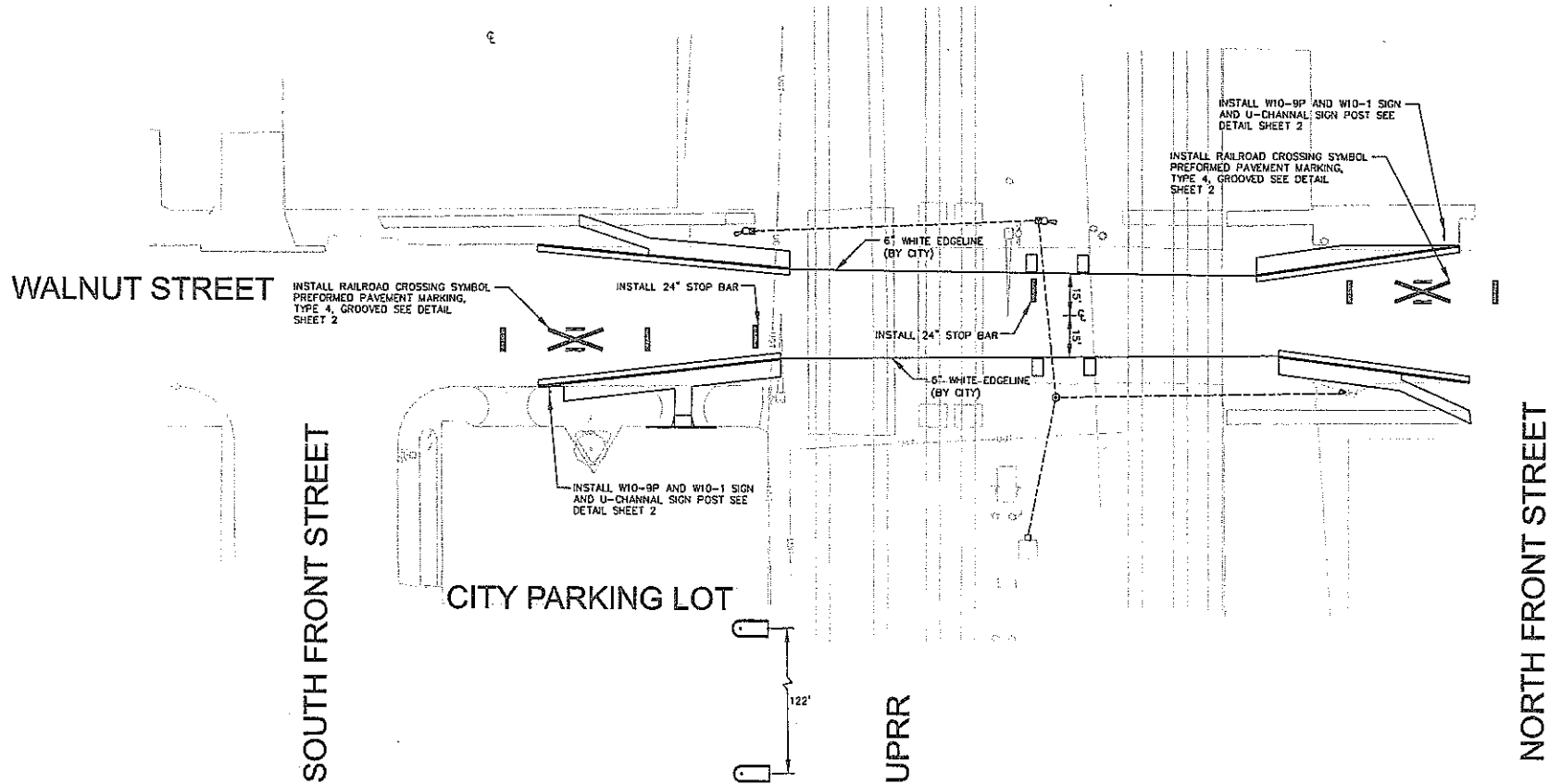
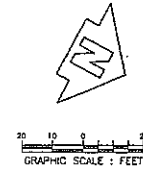
PRELIMINARY PLAN
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NOTE:
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PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE

PROJECT NO.
08-142

GRAND ISLAND QUIET ZONE IMPROVEMENTS
GRAND ISLAND, NEBRASKA
WALNUT STREET
PAVEMENT MARKINGS



DESIGNED: FHU
CHECKED: FHU
REVISIONS:

SHEET:

14

DATE: 01/17/11



NOTES:
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CHANNELIZATION DEVICES

THE FUNCTION OF CHANNELIZATION DEVICES IS TO WARN DRIVERS OF CONDITIONS CREATED BY WORK ACTIVITIES IN OR NEAR THE TRAVELED WAY, TO PROTECT WORKERS IN THE TEMPORARY TRAFFIC CONTROL ZONE, AND TO GUIDE DRIVERS AND PEDESTRIANS SAFELY. CHANNELIZATION DEVICES INCLUDE BUT ARE NOT LIMITED TO CONES, TUBULAR MARKERS, VERTICAL PANELS, DRUMS, BARRICADES, TEMPORARY RAISED BARRIERS, AND BARRIERS.

DEVICES USED FOR CHANNELIZATION SHOULD PROVIDE FOR SMOOTH AND GRADUAL TRAFFIC MOVEMENT FROM THE LANE TO AVOIDANCE, INTO A BYPASS OR DETOUR, OR TO REDUCE THE WIDTH OF THE TRAVELED WAY. THEY MAY ALSO BE USED TO SEPARATE TRAFFIC FROM THE WORK SPACE, PAVEMENT DRAIN-OFFS, PEDESTRIAN PATHS, OR OPPOSING DIRECTIONS OF TRAFFIC.

CHANNELIZATION DEVICES SHOULD BE CONSTRUCTED AND BALLASTED TO PERFORM IN A PREDICTABLE MANNER WHEN SUBJECTED TO STRESS BY A WINDSTORM, IF STRUCK. THE DEVICES SHOULD YIELD OR BREAK AWAY, AND FRAGMENTS OR OTHER DEBRIS FROM THE DEVICES SHOULD NOT PRESENT THE PASSAGE OF TRAFFIC FROM THE DEVICES TO THE TRAVEL LANE.

SPACING OF CHANNELIZATION DEVICES SHOULD NOT EXCEED A DISTANCE IN FEET EQUAL TO THE SPEED WHEN USED FOR THE TRAFFIC CHANNELIZATION, AND A DISTANCE IN FEET OF TWICE THE SPEED WHEN USED FOR TACKLING CHANNELIZATION.

SPACING OF CHANNELIZATION DEVICES	SPACING OF DEVICES
PER HOUR	PER HOUR
25	25 FT
30	30 FT
35	35 FT
40	40 FT
45	45 FT
50	50 FT
55	55 FT
60	60 FT
65	65 FT
70	70 FT
75	75 FT

WARNING LIGHTS ON CHANNELIZATION DEVICES. CONSIDERATION SHOULD BE GIVEN TO FOR ON SHOW LIGHTS, SEVERE WEATHER CONDITIONS, AND USUALLY CONTROLLED ENVIRONMENTS. FLASHING WARNING LIGHTS SHOULD BE PLACED ON CHANNELIZATION DEVICES WHEN STUCK IN OR GROUPS TO WARN A SPOT CONDITION. STEADY-BURN WARNING LIGHTS MAY BE USED ON CHANNELIZATION DEVICES USED IN A SERIES.

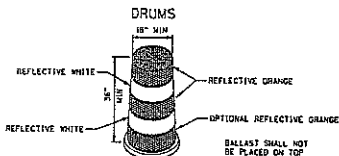
THE RETROREFLECTIVE MATERIAL USED ON CHANNELIZATION DEVICES SHALL HAVE A SMOOTH, SCALD OR SURFACE, MEETING THE REQUIREMENTS OF THE ASTM SPECIFICATION. DESIGN FOR TYPE III SHEETING. THE COEFFICIENT OF RETROREFLECTION OF CHANNELIZATION DEVICES SHALL HAVE THE FOLLOWING MINIMUM BRILLIANCE MEASURED AT 0.2° OBSERVATION ANGLE AND 4° ILLUMINATION ANGLE, CANDLES PER LUX PER SQUARE METER.

COEFFICIENT OF RETROREFLECTION	WHITE	ORANGE	RED	YELLOW
125	20	22.5	15	15

IN ADDITION TO THE MINIMUM COEFFICIENT OF RETROREFLECTION, THE AMERICAN TRAFFIC SERVICE ASSOCIATION (ATSSA) QUALITY STANDARDS FOR WORK ZONE TRAFFIC CONTROL DEVICES MAY BE USED AS A GUIDE. NOTES FOR DETERMINING IF A TRAFFIC CONTROL DEVICE IS ACCEPTABLE, NATIONAL OR UNACCEPTABLE.

THE NAME AND TELEPHONE NUMBER OF THE AGENCY, CONTRACTOR, OR SUPPLIER MAY BE PLACED ON THE CHANNELIZATION DEVICES BACK OR SUPPORT, BUT NOT ON THE DEVICES FACE. THE LETTERS AND NUMBERS SHALL BE A NON-REFLECTIVE COLOR AND NOT OVER 100 SQUARE CENTIMETERS IN TOTAL AREA.

PARTICULAR ATTENTION SHOULD BE GIVEN TO ASSURING THAT CHANNELIZATION DEVICES ARE MAINTAINED AND KEPT CLEAR, VISIBLE, AND PROPERLY POSITIONED AT ALL TIMES. DEVICES SHALL BE REPLACED THAT ARE DAMAGED AND HAVE LOST A SIGNIFICANT AMOUNT OF THEIR RETROREFLECTIVITY AND EFFECTIVENESS.



DESIGN

DRUMS USED FOR TRAFFIC WARNING OR CHANNELIZATION SHALL BE CONSTRUCTED OF LIGHT-DUTY STEEL, PLASTIC, AND RETROREFLECTIVE MATERIALS AND BE A MINIMUM OF 36 INCHES IN HEIGHT AND HAVE AT LEAST A 10 INCHES MINIMUM WIDTH, REGARDLESS OF ORIENTATION. THE PREDOMINANT COLOR OF THE DRUM SHALL BE ORANGE. STEEL DRUMS SHALL BE RIMMED. THE WARNING OR DRUMS SHALL BE HORIZONTAL, CONCENTRICALLY-ALTERNATING ORANGE AND WHITE RETROREFLECTIVE STRIPES 6 INCHES TO 10 INCHES WIDE. EACH DRUM SHALL HAVE A MINIMUM OF 10 ORANGE AND TWO WHITE STRIPES. ALL NON-RETROREFLECTIVE SPACES BETWEEN THE HORIZONTAL ORANGE AND WHITE STRIPES SHALL NOT EXCEED 3 INCHES WIDE. DRUMS SHALL HAVE CLOSED TOPS THAT WILL NOT ALLOW COLLECTION OF DEBRIS OR OTHER DEBRIS.

APPLICATION

DRUMS ARE MOST COMMONLY USED TO CHANNELIZE OR DELINEATE TRAFFIC FLOW BUT MAY ALSO BE USED SIMPLY IN OR GROUPS TO WARN SPECIFIC LOCATIONS. DRUMS ARE MOSTLY VISIBLE AND HAVE GOOD TACTILE VALUE, OVER THE APPEARANCE OF BEING FORMIDABLE OBSTACLES AND, THEREFORE, CONVINCE THE RESPECT OF DRIVERS.

DRUMS SHOULD NOT BE LOCATED WITH SAND, WATER, OR ANY MATERIAL TO AN EXTENT THAT WOULD MAKE THEM HAZARDOUS TO MOTORISTS, PEDESTRIANS, OR WORKERS. WHEN THEY ARE USED IN AREAS SUSCEPTIBLE TO FREEZING, THEY SHOULD HAVE INSULATED HOLES IN THE BOTTOM SO WATER WILL NOT ACCUMULATE AND FREEZE, CAUSING A HAZARD IF STRUCK BY A MOTORIST. BALLAST SHALL NOT BE PLACED ON TOP OF THE DRUM.

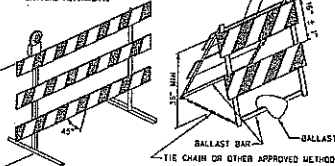
BARRICADES

BARRICADE TYPE	TYPE II	TYPE III
WIDTH OF RAIL	8 INCHES MIN - 12 INCHES MAX	8 INCHES MIN - 12 INCHES MAX
LENGTH OF RAIL	36 INCHES	8 FEET MIN
WIDTH OF STRIPES	6 INCHES	6 INCHES
HEIGHT	30 INCHES	5 FEET
REFLECTIVE SHEETING	TYPE III	TYPE III
NUMBER OF REFLECTORIZED RAIL FACES	4 (TWO EACH DIRECTION)	6 (THREE EACH DIRECTION)

* NOMINAL DIMENSIONS ARE PERMISSIBLE WHEN CONSTRUCTED FROM LUMBER.
** WHEN LATERAL SPACE IS LIMITED, SOME TYPE III BARRICADES WITH A 4 FOOT LENGTH OF RAIL, MAY BE ALLOWED WHEN APPROVED BY THE ENGINEER.

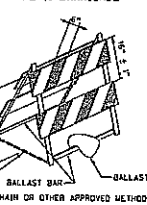
TYPE III BARRICADE

TYPICAL LIGHTING OF FLASHING WARNING LIGHTS. LIGHTS SHALL ALWAYS BE IN VERTICAL ALIGNMENT.



BALLAST SHALL NOT BE PLACED OVER ANY REFLECTIVE DEVICE

TYPE II BARRICADE



DESIGN

A BARRICADE IS A PORTABLE OR FIXED DEVICE HAVING TWO OR THREE WALLS WITH APPROPRIATE WARNING LIGHTS. IT IS USED TO CONTROL TRAFFIC BY CLOSING, RESTRICTING, OR DELINEATING ALL OR A PORTION OF THE RIGHT-OF-WAY.

BARRICADES SHALL BE ONE OF TWO TYPES: TYPE II, OR TYPE III. STRIPES ON BARRICADE RAILS SHALL BE ALTERNATING ORANGE AND WHITE RETROREFLECTIVE STRIPES ISOLATING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS. THE STRIPES SHALL BE 6 INCHES WIDE. THE MINIMUM RAIL LENGTH IS 36 INCHES.

WHERE A BARRICADE EXTENDS ENTIRELY ACROSS A ROADWAY, THE STRIPES SHOULD SLOPE DOWNWARD IN THE DIRECTION TOWARD WHICH TRAFFIC MUST TURN. WHERE BOTH RIGHT AND LEFT TURNS ARE PROVIDED, THE STRIPES MAY SLOPE DOWNWARD IN BOTH DIRECTIONS FROM THE CENTER OF THE BARRICADE OR BARRICADES. WHERE NO TURNS ARE INTRODUCED, THE STRIPES SHOULD SLOPE DOWNWARD TOWARD THE CENTER OF THE BARRICADE OR BARRICADES.

BARRICADES SHALL BE SUPPORTED IN A MANNER THAT WILL ALLOW THEM TO BE SEEN BY THE MOTORIST AND PROVIDE A STABLE SUPPORT NOT EASILY BLOWN OVER BY THE WIND OR TRAFFIC.

BARRICADES ARE LOCATED ADJACENT TO TRAFFIC AND ARE THEREFORE SUBJECT TO IMPACT BY TRAFFIC VEHICLES. BECAUSE OF THEIR VULNERABLE POSITION AND THE HAZARD THEY CREATE, THEY SHOULD BE CONSTRUCTED OF STRENGTHENED MATERIALS AND HAVE NO RUSTY STAIN BRACKING FOR A FRAME DESIGN. TYPE II BARRICADES SHALL BE BUILT WITH LEGS OR SUPPORTS THAT WILL COLLAPSE WHEN THE BARRICADE IS TIPPED OVER OR HAS BEEN LOST DOWN.

ON HIGH-SPEED ROADWAYS OR IN OTHER SITUATIONS WHERE BARRICADES MAY BE SUSCEPTIBLE TO IMPACT BY TRAFFIC, BARRICADES SHOULD BE DESIGNED FOR BALLASTING. BALLASTS MAY BE PLACED ON LOWER PORTS OF THE FRAME OR STAYS TO PROVIDE THE REQUIRED BALLAST BUT SHALL NOT BE PLACED ON TOP OF ANY STRIPPED RAIL. BARRICADES SHALL NOT BE BALLASTED BY HEAVY OBJECTS SUCH AS ROCKS OR DRUMS OF CONCRETE.

ON THE INTERSTATE, FREEWAY AND EXPRESSWAY SYSTEM, TYPE II BARRICADES SHALL NOT BE USED FOR CHANNELIZATION. THE BARRICADE DESIGNER MUST, NOT EXCEED 15 SQUARE INCHES SHALL BE SHOWN ON THE BARRICADE BACK OR SUPPORT, BUT NOT ON ITS FACE.

APPLICATION

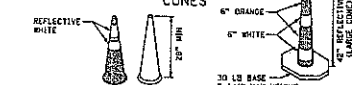
TYPE II BARRICADES ARE INTENDED FOR USE IN SITUATIONS WHERE TRAFFIC IS MAINTAINED THROUGH THE TEMPORARY TRAFFIC CONTROL ZONE. TYPE II BARRICADES ARE USED TO MAINTAIN A SPECIFIC CONDITION, OR THEY MAY BE USED IN A SERIES FOR CHANNELIZING TRAFFIC. TYPE II BARRICADES SHALL BE SUPPLEMENTED WITH A LIGHTING DEVICE UNLESS SPECIFICALLY DELTAED BY THE ENGINEER TO USE SOME BARRICADES WITHOUT LIGHTS.

TYPE III BARRICADES USED AT A ROAD CLOSURE MAY EXTEND COMPLETELY ACROSS A ROADWAY OR FROM CURB TO CURB. WHERE PROVISION IS MADE FOR ACCESS OF ADJACENT AREAS TO TRAFFIC, THE RESPONSIBILITY FOR THE TYPE III BARRICADES SHOULD BE ASSIGNED TO A PERSON TO ENSURE PROPER LOCATION AND USE.

WHERE A HIGHWAY IS LEGALLY CLOSED BUT ACCESS MUST BE ALLOWED FOR LOCAL TRAFFIC, THE TYPE III BARRICADE SHOULD NOT BE EXTENDED COMPLETELY ACROSS A ROADWAY. A SIGN WITH THE APPROPRIATE LEGAL CONCERNING PERMISSIBLE USE BY LOCAL TRAFFIC SHALL BE MAINTAINED.

NORMALLY PERMISSIBLE SIGN MOUNTED ON BARRICADES SHALL BE DIRECTED ABOVE THE BARRICADE. THE SIGN SHOULD BE PLACED IN THE CENTER OF THE BARRICADE OR BARRICADES. IT SHOULD BE POSITIONED SO THAT IT CAN BE SEEN BY TRAFFIC APPROACHING THE BARRICADE FROM BOTH SIDES. THE SIGN SHOULD BE PLACED AT THE END OF THE BARRICADE. DELETED ARROW AND LARGE WARNING ARROW SIGNS SHOULD BE PLACED ON THE FACE OF BARRICADES.

CONES



DESIGN

CONES SHALL BE PREDOMINANTLY ORANGE, FLUORESCENT RED-ORANGE, OR FLUORESCENT YELLOW-ORANGE, NOT LESS THAN 28 INCHES IN HEIGHT, AND SHALL BE MADE OF A MATERIAL THAT CAN BE STRUCK WITHOUT DAMAGING VEHICLES ON IMPACT. CONES WHEN ALLOWED ON THE INTERSTATE, FREEWAY OR EXPRESSWAY SYSTEM SHALL BE A MINIMUM OF 36 INCHES IN HEIGHT.

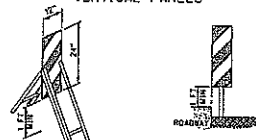
FOR NIGHTTIME USE, CONES SHALL BE RETROREFLECTIVE OR EQUIPPED WITH LIGHTING DEVICES FOR MAXIMUM VISIBILITY. RETROREFLECTIVE OF 28 INCH OR 36 INCH CONES SHALL BE PROVIDED WITH A WHITE BAND 6 INCHES WIDE, NO MORE THAN 1 INCHES TO 4 INCHES FROM THE TOP OF THE CONE, AND AN ANTERIOR 4 INCHES WIDE WHITE BAND A MINIMUM OF 2 INCHES BELOW THE 6 INCHES BAND. LARGE REFLECTIVE CONES SHALL BE PROVIDED WITH FOUR REFLECTIVE BANDS 6 INCHES EACH, ALTERNATING FROM THE TOP, ORANGE, WHITE, ORANGE, WHITE, WITH A 1/2 INCH SEPARATION BETWEEN BANDS, WHEN APPROVED BY THE ENGINEER. LARGE CONES MAY BE USED IN PLACE OF VERTICAL PANELS. LARGE CONES SHALL NOT BE USED IN PLACE OF DRUMS OR TYPE I BARRICADES.

FOR NIGHTTIME USE, CONES SHALL BE RETROREFLECTIVE OR EQUIPPED WITH LIGHTING DEVICES FOR MAXIMUM VISIBILITY. RETROREFLECTIVE OF 28 INCH OR 36 INCH CONES SHALL BE PROVIDED WITH A WHITE BAND 6 INCHES WIDE, NO MORE THAN 1 INCHES TO 4 INCHES FROM THE TOP OF THE CONE, AND AN ANTERIOR 4 INCHES WIDE WHITE BAND A MINIMUM OF 2 INCHES BELOW THE 6 INCHES BAND. LARGE REFLECTIVE CONES SHALL BE PROVIDED WITH FOUR REFLECTIVE BANDS 6 INCHES EACH, ALTERNATING FROM THE TOP, ORANGE, WHITE, ORANGE, WHITE, WITH A 1/2 INCH SEPARATION BETWEEN BANDS, WHEN APPROVED BY THE ENGINEER. LARGE CONES MAY BE USED IN PLACE OF VERTICAL PANELS. LARGE CONES SHALL NOT BE USED IN PLACE OF DRUMS OR TYPE I BARRICADES.

APPLICATION
TRAFFIC CONES ARE USED TO CHANNELIZE TRAFFIC, DIVIDE OPPOSING TRAFFIC LANES, DIVIDE TRAFFIC LANES WHEN TWO OR MORE LANES ARE KEPT OPEN IN THE SAME DIRECTION, AND DELINEATE SHORT-TERM MAINTENANCE AND UTILITY WORK. CONES SHALL NOT BE USED AT NIGHT ON RURAL HIGHWAYS, UNLESS SHOWN ON THE PLAN OR AS APPROVED OR DIRECTED BY THE ENGINEER.

STEPS SHOULD BE TAKEN TO ENSURE THAT CONES WILL NOT BE BLOWN OVER OR DISPLACED BY WIND OR MOVING TRAFFIC. CONES CAN BE DOWNED UP TO 10 INCHES BY THEIR WEIGHT. SOME CONES ARE CONSTRUCTED WITH BATES THAT CAN BE FILLED WITH BALLAST. OTHERS ARE CONSTRUCTED WITH BATES THAT CAN BE FILLED WITH BALLAST. BALLAST SHOULD BE PLACED ON THE CONES AND ON THE BACK TO PROVIDE ADDED STABILITY. BALLAST, HOWEVER, SHOULD NOT PRESENT A HAZARD IF THE CONES ARE INADEQUATELY STUCK.

VERTICAL PANELS



DESIGN

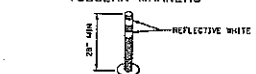
VERTICAL PANELS SHALL BE 12 INCHES WIDE AND AT LEAST 48 INCHES HIGH. THEY SHALL HAVE ORANGE AND WHITE STRIPES, AND BE RETROREFLECTIVE. PANEL STRIPE WIDTHS SHALL BE 6 INCHES, EXCEPT WHERE PANEL HEIGHTS ARE LESS THAN 36 INCHES, THEN 4 INCHES STRIPES MAY BE USED. IF USED FOR TWO-WAY TRAFFIC, BACK-TO-BACK PANELS SHALL BE USED.

WARNING FOR VERTICAL PANELS SHALL BE ALTERNATING ORANGE AND WHITE RETROREFLECTORIZED STRIPES ISOLATING DOWNWARD AT AN ANGLE OF 45 DEGREES IN THE DIRECTION TRAFFIC IS TO PASS.

VERTICAL PANELS SHALL BE MOUNTED UPWARD WITH THE TOP A MINIMUM OF 36 INCHES ABOVE THE ROADWAY. VERTICAL PANELS NOT MOUNTED ABOVE CONCRETE SUPPORTS SHALL HAVE LEGS OR SUPPORTS THAT WILL BREAK AWAY UPON IMPACT.

APPLICATION
VERTICAL PANELS MAY BE USED TO CHANNEL TRAFFIC, DIVIDE OPPOSING LANES OF TRAFFIC, DIVIDE TRAFFIC LANES OR IN PLACE OF BARRICADES WHERE SPACE IS LIMITED. WHEN APPROVED BY THE ENGINEER, VERTICAL PANELS MAY BE POST-MOUNTED ALONG THE SIDE OF THE ROADWAY.

TUBULAR MARKERS



DESIGN

TUBULAR MARKERS SHALL BE PREDOMINANTLY ORANGE, NOT LESS THAN 28 INCHES HIGH, MINIMUM 2 INCHES WIDE, AND HAVE AT LEAST 48 INCHES HIGH. THEY SHALL HAVE ORANGE AND WHITE STRIPES, AND BE RETROREFLECTIVE. TUBULAR MARKERS SHALL BE MADE OF A MATERIAL THAT CAN BE STRUCK WITHOUT DAMAGING IMPACTING VEHICLES.

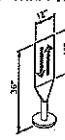
FOR NIGHTTIME USE, TUBULAR MARKERS SHALL BE RETROREFLECTIVE. RETROREFLECTION OF TUBULAR MARKERS SHALL BE PROVIDED BY TWO 3 INCHES WIDE WHITE STRIPES PLACED A MINIMUM OF 7 INCHES FROM THE TOP, WITH A MAXIMUM OF 6 INCHES BETWEEN THE BANDS. THE BASE SHALL NOT BE MORE THAN 12 INCHES OR HIGHER THAN 2 INCHES.

APPLICATION
TUBULAR MARKERS HAVE LESS VISIBLE AREA THAN OTHER DEVICES AND SHOULD BE USED ONLY WHERE SPACE RESTRICTIONS DO NOT ALLOW FOR THE USE OF OTHER MORE VISIBLE DEVICES. THEY MAY BE USED EFFECTIVELY TO DIVIDE OPPOSING LANES OF TRAFFIC OR TO DIVIDE TRAFFIC LANES WHEN TWO OR MORE LANES ARE KEPT OPEN IN THE SAME DIRECTION.

STEPS SHOULD BE TAKEN TO ASSURE THAT TUBULAR MARKERS WILL NOT BE BLOWN OVER OR DISPLACED BY TRAFFIC BY EITHER AFFIXING THEM TO THE PAVEMENT WITH ANCHOR BOLTS OR BY DISPLACING THEM BY EITHER AFFIXING THEM TO THE PAVEMENT WITH ANCHOR BOLTS OR BY DISPLACING THEM BY EITHER AFFIXING THEM TO THE PAVEMENT WITH ANCHOR BOLTS OR BY DISPLACING THEM BY EITHER AFFIXING THEM TO THE PAVEMENT WITH ANCHOR BOLTS.

IF A NON-RETROREFLECTIVE DEVICE IS USED, AND IT IS LOCATED IN A POSITION WHERE IT IS LESS THAN THE MINIMUM FACING TRAFFIC, IT SHALL BE ATTACHED TO THE PAVEMENT TO ENSURE THAT THE WIDTH FACING TRAFFIC MEETS THE MINIMUM REQUIREMENTS.

OPPOSING TRAFFIC LANE DIVIDERS



DESIGN

OPPOSING TRAFFIC LANE DIVIDERS SHALL BE A TWO SIDED UPRIGHT RETROREFLECTORIZED ORANGE PANEL WITH A 12 INCHES WIDE AND 12 INCHES HIGH. THE TOP OF THE PANEL SHALL BE 18 INCHES ABOVE THE PAVEMENT. THE SPACING ON EACH SIDE SHALL BE TWO OPPOSING BLACK ARROWS. THE LANE DIVIDER SHALL BE MADE OF LIGHTWEIGHT MATERIAL THAT WILL YIELD UPON IMPACT BY A VEHICLE. THE LANE DIVIDER BASE SHALL NOT BE MORE THAN 18 INCHES OR HIGHER THAN 2 INCHES. THE BASE SHALL BE ATTACHED TO THE EXISTING SURFACE OF PAVEMENT OR OTHER SUITABLE ADHESIVE, TO ENSURE THAT THE PANEL REMAINS FACING TRAFFIC.

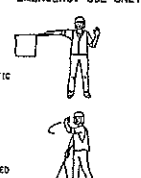
APPLICATION

OPPOSING TRAFFIC LANE DIVIDERS ARE DELINEATION DEVICES USED AS CENTER LANE DIVIDERS TO SEPARATE OPPOSING TRAFFIC ON A TWO-LANE, TWO-WAY OPERATION.

REQUIRED METHOD



EMERGENCY USE ONLY



FLAGGERS



FLAGGER PADDLES

FLAGGER PADDLES SHALL BE A MINIMUM 18 INCH WIDE RECTANGLE WITH LETTERS AT LEAST 6 INCHES HIGH, WITH A 5 FOOT RIGID HANDLE. FLAGS AND PADDLES SHALL NOT BE USED AT THE SAME TIME. IN CIRCUMSTANCES WHERE THE STANDARD SIGN IS NOT AVAILABLE, A RED FLAG MAY BE USED BY FLAGGERS IN ACCORDANCE WITH THE FLAGGERS HANDBOOK, TO IMPROVE EFFECTIVENESS. THE STOP/GO PADDLES MAY BE SUPPLEMENTED BY ONE OR TWO MANUALLY POSITIONED FLASHING WHITE, HIGH-INTENSITY LAMPS.

FLAGGERS

A FLAGGER MUST BE DRESSED FOR SAFETY. TO BE EASILY IDENTIFIED, A FLAGGER MUST WEAR A VEST, SHIRT, OR JACKET, AND A CAP OR HAT THAT IS BRIGHT ORANGE, YELLOW, OR FLUORESCENT. FLAGGERS MUST WEAR OR HAVE ON THEIR PERSON A RED FLAG MAY BE USED BY FLAGGERS IN ACCORDANCE WITH THE FLAGGERS HANDBOOK, TO IMPROVE EFFECTIVENESS. THE STOP/GO PADDLES MAY BE SUPPLEMENTED BY ONE OR TWO MANUALLY POSITIONED FLASHING WHITE, HIGH-INTENSITY LAMPS.

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PROJECT NO.

08-142

GRAND ISLAND QUIET ZONE IMPROVEMENTS
GRAND ISLAND, NEBRASKA
TRAFFIC CONTROL CONST. & MAINT.

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Sioux Falls, SD 57105

DESIGNED: FHU

CHECKED: FHU

REVISIONS:

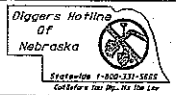
SHEET

DATE: 01/17/11

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STANDARD PLAN NO. 920-R5
TRAFFIC CONTROL
CONSTRUCTION AND MAINTENANCE

SHEET
PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE



NOTE:
THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ALL DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THERETO.

LIGHTING DEVICES

FUNCTION

CONSTRUCTION AND MAINTENANCE ACTIVITIES OFTEN CREATE CONDITIONS ON OR NEAR THE TRAVELED WAY THAT ARE PARTICULARLY HAZARDOUS AT NIGHT. IT IS OFTEN DESIRABLE AND NECESSARY TO SUPPLEMENT THE REFLECTORIZED SIGNS, BARRIERS, AND CHANNELIZING DEVICES WITH LIGHTING DEVICES. STROBE TYPE LIGHTS ARE NOT PERMITTED.

BARRICADE WARNING LIGHTS DESIGN (BATTERY OPERATED)

TYPE "A" LOW INTENSITY FLASHING WARNING LIGHTS ARE MOST COMMONLY MOUNTED ON BARRIERS, ON 4" X 4" SIGNS AND ARE DESIGNED TO WARN THE DRIVER THAT THEY ARE PROCEEDING IN A HAZARDOUS AREA. THESE LIGHTS SHALL NOT BE USED FOR ILLUMINATION, AS A SERIES OF FLASHING LIGHTS IN A ROW WOULD TEND TO OBSCURE THE DESIRED PATH.

TYPE "B" HIGH INTENSITY FLASHING WARNING LIGHTS ARE NORMALLY MOUNTED ON THE ADVANCE WARNING SIGNS. EXTREMELY HAZARDOUS SITE CONDITIONS WITHIN THE CONSTRUCTION AREA MAY REQUIRE THAT THE LIGHTS BE MOUNTED ON TYPE III BARRIERS, SIGNS, OR OTHER SUPPORTS. AS THESE LIGHTS ARE EFFECTIVE IN DAYLIGHT, THEY ARE DESIGNED TO OPERATE 24 HOURS PER DAY.

TYPE "C" STEADY BURN LIGHTS AS USED HEREIN, SHALL MEAN A SERIES OF LOW WATTAGE YELLOW ELECTRIC LIGHTS, WHOSE LIGHTS ARE MOUNTED TO DELINEATE OR MARK THE TRAVELED WAY THROUGH AND AROUND OBSTRUCTIONS IN A CONSTRUCTION MAINTENANCE AREA. THE ILLUMINATION SHALL BE ACCOMPLISHED BY USE OF STEADY BURNING LIGHTS.

FLASHING ARROW PANEL DISPLAYS

AN ARROW PANEL IS A SIGN WITH A HORIZONTAL ELEMENT. THE MATERIAL, CAPABLE OF EITHER FLASHING OR SEQUENTIAL DISPLAY, IS DESIGNED TO PROVIDE ADDITIONAL WARNING AND DIRECTIONAL INFORMATION TO ASSIST IN MERGING AND CONTROLLING TRAFFIC THROUGH OR AROUND A TEMPORARY TRAFFIC CONTROL ZONE. AN ARROW PANEL SHOULD BE USED IN COMBINATION WITH APPROPRIATE SIGNS, BARRIERS, OR OTHER TRAFFIC CONTROL DEVICES.

DESIGN

ARROW PANELS SHALL MEET THE SIZE AND SPECIFICATIONS OF THE RULED FOR TYPE C ARROW DISPLAYS. FLASHING ARROW PANEL SHALL BE RECTANGULAR, OF SOLID APPEARANCE AND FINISHED IN UNREFLECTIVE BLACK. THE PANEL SHALL BE MOUNTED ON A VEHICLE, TRAILER OR OTHER SUITABLE SUPPORT. MINIMUM MOUNTING HEIGHT SHALL BE 7 FEET FROM THE ROAD TO THE TOP OF THE PANEL, EXCEPT ON VEHICLE-MOUNTED PANELS, WHICH SHOULD BE AS HIGH AS PRACTICABLE.

THE FOLLOWING SELECTIONS SHALL BE PROVIDED ON THE ARROW PANEL	
OPERATING MODE	PANEL DISPLAY
FLASHING ARROW	RIGHT SHOWN LEFT OPPOSITE
SEQUENTIAL ARROW	RIGHT SHOWN LEFT OPPOSITE
SEQUENTIAL CHEVRON	RIGHT SHOWN LEFT OPPOSITE
FLASHING DOUBLE ARROW	RIGHT SHOWN LEFT OPPOSITE
FLASHING OR ALTERNATING CAUTION	FLASHING LINE OR FLASHING CORNERS

THE ARROW PANEL SHALL HAVE A MINIMUM SIZE OF 26 INCHES WIDE AND 48 INCHES HIGH. THE MINIMUM LIGHTING DISTANCE SHALL BE 1 MILE. THE PANEL SHALL CONTAIN 25 LAMP ELEMENTS. ARROW PANEL ELEMENTS SHALL BE CAPABLE OF A MINIMUM 50 PERCENT BURNING, AUTOMATICALLY WHEN ARROW LIGHT FAILS DUE TO LOGS.

THE MINIMUM ELEMENT "ON TIME" SHALL BE 50 PERCENT FOR THE FLASHING WIRE AND EQUAL INTERVALS OF 25 PERCENT FOR EACH SEQUENTIAL CHEVRON PHASE. THE FLASHING RATE SHALL BE NO MORE THAN 25 PER SECOND THAN 40 FLASHES PER MINUTE.

APPLICATION

A FLASHING ARROW OR SEQUENTIAL CHEVRON MAY BE USED FOR STATIONARY OR MOVING LANE CLOSURES. AN ARROW DISPLAY IN THE CAUTION MODE SHALL BE USED ONLY FOR SHOULDER WORK, BLOCKING THE SHOULDER, OR BRIDGING THE SHOULDER. ARROW PANEL ELEMENTS SHALL NOT BE USED ON A TWO-LANE TWO-WAY ROADWAY FOR TEMPORARY ONE-LANE OPERATION ON LANE SHIFTS. AN ARROW DISPLAY SHALL NOT BE USED ON A MULTILANE ROADWAY TO LATERALLY SHIFT ALL LINES OF TRAFFIC, BECAUSE UNDESIRABLE LANE CHANGING MAY RESULT.

TRAFFIC SIGNALS

TRAFFIC SIGNALS MAY BE ALLOWED AT CERTAIN CONJUNCTION CROSSINGS WHERE THE VOLUME OF FULL MATERIAL AND THE NUMBER OF EQUIPMENT CROSSINGS PER HOUR IS HIGH. TRAFFIC SIGNALS MAY BE ALLOWED AT CERTAIN BRIDGE CONSTRUCTION SITES WHERE A COMBINATION OF ONE-WAY TRAFFIC AND HIGH TRAFFIC VOLUME WOULD BE BEST SERVED WITH THIS TYPE OF TRAFFIC CONTROL.

ALL TRAFFIC SIGNAL REQUIREMENTS AND METHOD OF INSTALLATION ON THE STATE HIGHWAY SYSTEM SHALL BE IN COMPLIANCE WITH THE RULES AND MUST BE APPROVED BY THE STATE TRAFFIC ENGINEER.

FLOOD LIGHTS

WHEN NIGHTTIME WORK IS REQUIRED, FLOODLIGHTS SHOULD BE USED TO ILLUMINATE PLACER STATIONS, EQUIPMENT CHUCKS, AND OTHER AREAS WHERE EXISTING LIGHT IS NOT ADEQUATE FOR THE WORK TO BE PERFORMED SAFELY.

IN NO CASE SHALL FLOODLIGHTING BE PERMITTED TO CREATE A GLAREING CLINE FOR DRIVERS. THE ADJUSTMENT OF THE FLOODLIGHT PLACEMENT AND DIRECTION OF POTENTIAL GLARE SHOULD BE CHECKED BY DRIVING THROUGH THE PROJECT.

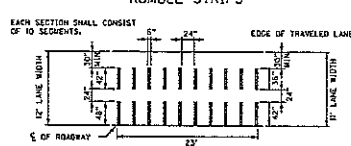
PAVEMENT MARKING

IT IS INTENDED TO THE EXTENT POSSIBLE, THAT MOTORISTS BE PROVIDED WARNINGS WITHIN A WORK AREA CONFORMABLE TO THE WARNINGS NORMALLY MAINTAINED ALONG ADJACENT ROADWAYS, PARTICULARLY AT EITHER END OF THE WORK AREA.

ALL MARKINGS AND DEVICES USED TO DELINEATE VEHICLE AND PEDESTRIAN PATHS SHALL BE CAREFULLY REVIEWED DURING DAYTIME AND NIGHTTIME PERIODS TO AVOID INADEQUATELY LEADING DRIVERS OR PEDESTRIANS FROM THE INTERIOR PATH.

PAVEMENT MARKINGS NO LONGER APPLICABLE SHALL BE REMOVED UNLESS OTHERWISE APPROVED BY THE ENGINEER.

RUMBLE STRIPS



DESIGN

RUMBLE STRIPS MAY BE MADE OF ASPHALT PAVING MATERIAL, EPoxy AND AGGREGATE OR OTHER SUITABLE MATERIAL, WHICH WILL MAINTAIN A DESIRABLE FLEXIBLE EFFECT. THE RUMBLE STRIP SHOULD HAVE AN INSTALLED HEIGHT OF 1/2 INCH. PREFERRED RUMBLE STRIPS MAY BE USED PROVIDED THEY HAVE A MINIMUM 1/2 INCH HEIGHT.

TAPERS

TAPERS ARE CREATED USING A SERIES OF CHANNELIZED DEVICES OR PAVEMENT MARKINGS PLACED TO MOVE TRAFFIC OUT OF OR INTO ITS NORMAL PATH.

MERGING TAPER

A MERGING TAPER REQUIRES THE LONGEST DISTANCE BECAUSE DRIVERS ARE REQUIRED TO MERGE WITH AN ADJACENT LINE OF TRAFFIC AT THE PREVAILING SPEED. THE TAPER SHOULD BE LONG ENOUGH TO ENABLE MERGING DRIVERS TO ADJUST THEIR SPEEDS AND MERGE INTO A SINGLE LANE BEFORE THE END OF THE TRANSITION.

SHIFTING TAPER

A SHIFTING TAPER IS USED WHEN MERGING IS NOT REQUIRED, BUT A LATERAL SHIFT IS NEEDED. APPROPRIATELY ONE-HALF LANE HAS BEEN FORMED TO BE ADEQUATE. WHERE MORE SPACE IS AVAILABLE, IT MAY BE BENEFICIAL TO USE LONGER TAPERS. GUIDANCE FOR CHANGES IN ALIGNMENT MAY ALSO BE ACCOMPLISHED BY USING HORIZONTAL CURVES DESIGNED FOR NORMAL HIGHWAY SPEEDS.

SHOULDER TAPERS

A SHOULDER TAPER MAY BE BENEFICIAL ON HIGH-SPEED ROADWAYS WITH IMPROVED SHOULDER THAT MAY BE NEEDED FOR DIVING LANE WHEN WORK IS OCCURRING IN THE SHOULDER AREAS. IF USED, SHOULDER TAPERS APPROACHING THE ACTIVITY AREA SHOULD HAVE A LENGTH OF ABOUT ONE-TWO LANE.

DOWNSTREAM TAPERS

THE DOWNSTREAM TAPER MAY BE USED IN TERMINATION AREAS TO PROVIDE A SIGNAL, DUE TO THE DRIVER THAT ACCESS IS AVAILABLE TO THE ORIGINAL LANE/PATH THAT WAS CLOSED. WHEN USED, IT SHOULD HAVE A MINIMUM LENGTH OF ABOUT 100 FEET PER LANE, WITH DEVICES SPACED ABOUT 20 FEET APART.

ONE LANE, TWO WAY TAPER

THE ONE-LANE, TWO-WAY TRAFFIC TAPER IS USED IN ADVANCE OF AN ACTIVITY AREA THAT OCCUPIES PART OF A TWO-WAY ROADWAY IN SUCH A WAY THAT A PORTION OF THE ROAD IS USED ALTERNATELY BY TRAFFIC IN EACH DIRECTION. A SHORT TAPER HAVING A MAXIMUM LENGTH OF 100 FEET WITH CHANNELIZED DEVICES AT APPROXIMATELY 20-FOOT SPACINGS SHOULD BE USED TO GUIDE TRAFFIC INTO THE ONE-WAY SECTION.

TAPER LENGTH CRITERIA FOR TEMPORARY TRAFFIC CONTROL ZONES	
TYPE OF TAPER	TAPER LENGTH (FEET)
SHIFTING TAPER	MINIMUM
SHIFTING TAPER	1/2 L. MINIMUM
SHOULDER TAPER	1/3 L. MINIMUM
TWO-WAY TAPER	100 FEET MAXIMUM

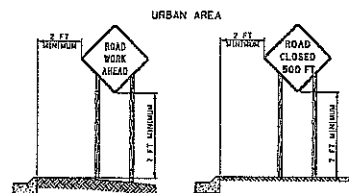
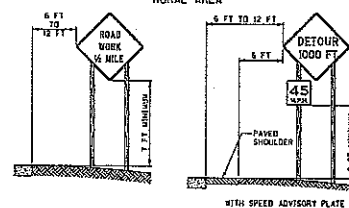
FORMULAS FOR L	
SPEED	FORMULA
40 MPH OR LESS	$L = 2S$
45 MPH OR GREATER	$L = WS$

L = TAPER LENGTH IN FEET
S = WIDTH OF OFFSET IN FEET
W = POSTED SPEED LIMIT PRIOR TO WORK IN MPH

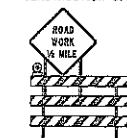
TAPER LENGTH L (FEET)	
SPEED (MPH)	LANE WIDTH
40	36 FT 11 FT 12 FT
45	36 FT 11 FT 12 FT
50	36 FT 11 FT 12 FT
55	36 FT 11 FT 12 FT
60	36 FT 11 FT 12 FT
65	36 FT 11 FT 12 FT
70	36 FT 11 FT 12 FT
75	36 FT 11 FT 12 FT
80	36 FT 11 FT 12 FT
85	36 FT 11 FT 12 FT
90	36 FT 11 FT 12 FT
95	36 FT 11 FT 12 FT
100	36 FT 11 FT 12 FT

ROADSIDE SIGNS

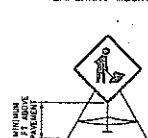
HEIGHT AND LATERAL LOCATION OF SIGNS
RURAL AREA



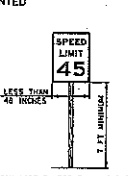
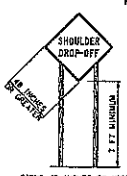
TYPICAL FIRST SIGN AT CONSTRUCTION SITE



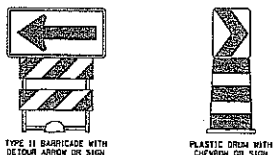
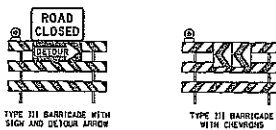
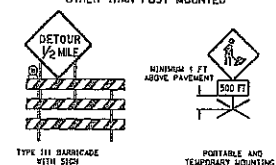
PORTABLE AND TEMPORARY MOUNTING



TYPICAL SIGN MOUNTINGS
POST MOUNTED



TYPICAL SIGN MOUNTINGS
OTHER THAN POST MOUNTED



GENERAL NOTES

- ALL TRAFFIC CONTROL DEVICES SHALL MEET THE APPLICABLE STANDARDS AND SPECIFICATIONS PRESCRIBED IN PART VI OF THE LATEST EDITION OF THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD)" AND THE STATE OF NEBRASKA SUPPLEMENTS TO THE MUTCD.
- TRAFFIC CONTROL PLANS AND DEVICES SHOULD FOLLOW THE PRINCIPLES SET FORTH, BUT MAY DEVIATE FROM THE TYPICAL DRAWINGS TO ALLOW FOR CONDITIONS AND REQUIREMENTS OF THE PROJECT.
- TRAFFIC CONTROL DEVICES SHALL BE INSTALLED SO AS NOT TO OBSTRUCT THE VIEW OF OTHER TRAFFIC CONTROL DEVICES.
- THE ENGINEER SHALL HAVE THE AUTHORITY TO REQUIRE THE USE, AND APPROVE THE LOCATION OF ANY OF THE DEVICES SHOWN IN THESE PLANS.
- UNPROTECTED TEMPORARY AND POST MOUNTED SIGNS SHOULD BE CRASHWORTHY REFER TO THE ROADSIDE DESIGN GUIDE, CHAPTER NINE, FOR ADDITIONAL GUIDANCE.

STANDARD PLAN NO. 920-R5

TRAFFIC CONTROL
CONSTRUCTION AND MAINTENANCE

SHEET 2
PRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGE

PROJECT NO.
08-142

GRAND ISLAND QUIET ZONE IMPROVEMENTS
GRAND ISLAND, NEBRASKA
TRAFFIC CONTROL CONST. & MAINT.

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SHEET:

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DATE: 01/17/11

Index of Revisions

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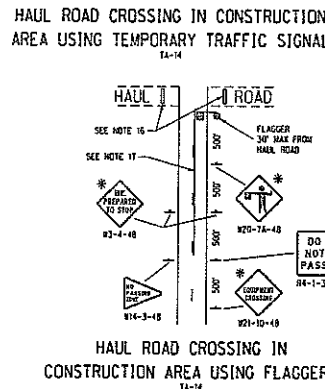
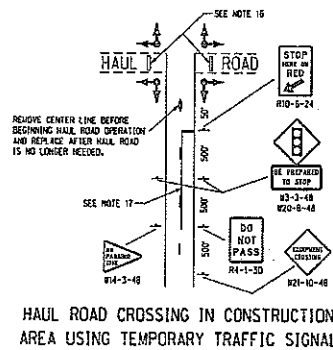
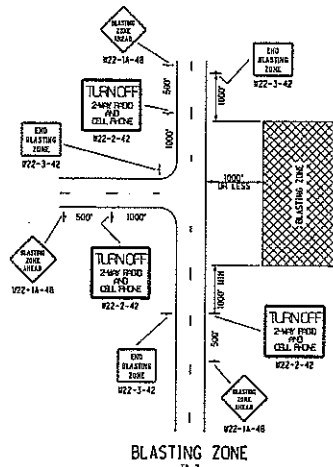
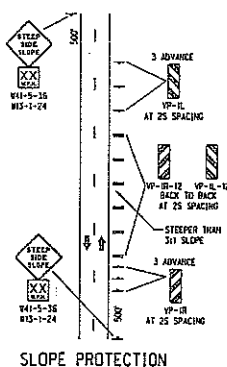
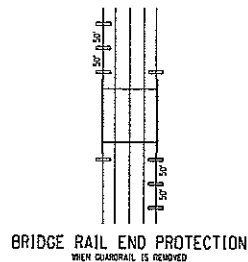
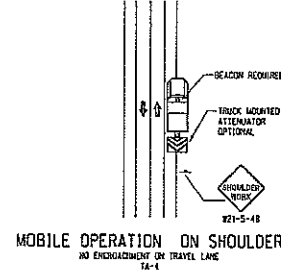
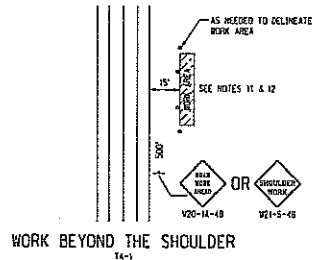
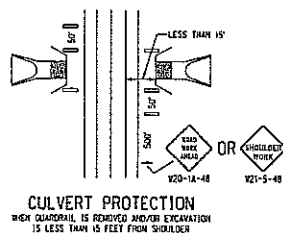
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NOTE:
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LEGEND

- TYPE III BARRICADE
- TYPE II BARRICADE OR REFLECTORIZED PLASTIC DRUM
- SIGN
- FLAGGER
- CON
- CHANGABLE MESSAGE SIGN
- TRAFFIC SIGNAL

NOTES

1. SIGNS SHOWN ARE USUALLY FOR ONE DIRECTION OF TRAVEL ONLY.
2. DESIGNATION OF SPEED SHOWN ON ADVISORY SPEED SIGNS W1-1 SHALL BE DETERMINED BY THE ENGINEER IN ACCORDANCE WITH NOTICE. THE SPEED DESIGNATION SHALL BE AS HIGH AS PRACTICAL AND FEASIBLE.
3. "FLAGGER AHEAD SIGN" SIGN W20-2A1 SHALL BE USED WHEN A FLAGGER IS PRESENT, AND REMOVED WHEN NOT APPLICABLE.
4. ALL SIGNS SHALL BE INSTALLED, MAINTAINED IN A CLEAN CONDITION AND REMOVED BY THE CONTRACTOR EXCEPT SIGNS WHICH SHALL BE INSTALLED AND MAINTAINED BY THE DEPARTMENT OF ROADS OR APPROPRIATE GOVERNMENT AGENCY.
5. W20-1 "ROAD WORK AHEAD 1/2 MILE" SHALL BE USED ON ANY CONSTRUCTION OR MAINTENANCE PROJECT LONGER THAN 2 MILES.
6. WHEN MESSAGE IS NOT PERTINENT, SIGNS SHALL BE TAKEN DOWN, COVERED OR FOLDED. TAPE IS NOT PERMITTED ON THE FACE OF THE SIGN.
7. VEHICLES OR EQUIPMENT SHALL NOT BE PARKED SO AS TO OBSCURE OR DISTRACT FROM TRAFFIC CONTROL DEVICES.
8. ORANGE FLARES MAY BE USED TO CALL ATTENTION TO WARNING SIGNS.
9. DOUBLE END AND REDUCED SPEED ZONE SIGHTING NOT REQUIRED FOR SHORT-DURATION WORK LESS THAN 1/2 WORK DAY.
10. CULVERT, BRIDGE AND SLOPE PROTECTION. EXISTING GUARDRAIL SHOULD REMAIN IN PLACE AS LONG AS PRACTICAL FOR THE PROTECTION IT PROVIDES, AND REINSTALLED AS SOON AS PRACTICAL.
11. TA-1 AND CULVERT PROTECTION SIGHTING IS NOT REQUIRED IF THE WORK SPACE IS 15 FEET OR MORE BEYOND THE EDGE OF THE SHOULDER.
12. TA-1 AND TA-2 FOR SHORT-DURATION OPERATIONS 60 MINUTES OR LESS, ALL SIGNS AND CHANNELIZING DEVICES MAY BE ELIMINATED IF A VEHICLE WITH AN ACTIVATED HIGH-INTENSITY ROTATING, FLASHING, OSCILLATING OR AMBER STROBE LIGHTS ARE USED, AND THE WORK DOES NOT ENCHANGEMENT INTO THE OPEN TRAVEL LANE.
13. TA-3 WHEN PAVED SHOULDERS HAVING A WIDTH OF 8 FEET OR MORE ARE CLOSED, AT LEAST ONE ADVANCE WARNING SIGN SHALL BE USED. IN ADDITION, CHANNELIZING DEVICES SHALL BE USED TO CLOSE THE SHOULDER IN ADVANCE TO DELINEATE THE BEGINNING OF THE WORK SPACE AND DIRECT VEHICULAR TRAFFIC TO REMAIN WITHIN THE TRAVELED WAY.
14. TA-4 VEHICLE HAZARD WARNING SIGNALS SHALL NOT BE USED INSTEAD OF THE VEHICLE'S HIGH-INTENSITY ROTATING, FLASHING OR AMBER STROBE LIGHTS.
15. TA-10 IF THE CROSSING OF VEHICLES ACROSS ACTIVE RAILROAD TRACKS CANNOT BE AVOIDED, A FLAGGER SHALL BE PROVIDED AT THE RAILROAD CROSSING TO PREVENT VEHICLES FROM STOPPING WITHIN THE RAILROAD CROSSING EVEN IF AUTOMATIC WARNING DEVICES ARE IN PLACE.
16. TA-14 WHEN THE HAUL ROAD IS NOT IN USE, TYPE III BARRICADES SHALL BE IN PLACE. THE "FLAGGER", "STOP AHEAD", AND "BE PREPARED TO STOP" SIGNS SHALL BE COVERED OR REMOVED, AND THE TRAFFIC SIGNAL SHALL BE PUT INTO FLASH YELLOW ON THE HIGHWAY, RED ON THE HAUL ROAD.
17. TA-14 THE "NO PASSING" SIGNS AND PAVEMENT MARKINGS ARE NOT REQUIRED IF HAULING OPERATION IS IN EFFECT DURING DAYLIGHT HOURS.
18. A TYPE III BARRICADE IS REQUIRED WHEN THE CHANGABLE MESSAGE IS WITHIN 15' OF THE SHOULDER.
19. BARRIERS ARE REQUIRED WHEN THE CHANGABLE MESSAGE SIGN IS INSTALLED ON OR NEAR A PAVED SHOULDER.
20. APPLICATIONS SHOWN ARE FOR LOCAL SITUATIONS IN PROPOSED CONSTRUCTION ZONES AND DO NOT INCLUDE LEAD SIGNS WHICH ARE INSTALLED AT THE BEGINNING OF THE PROJECT.
21. THE LEAD SIGNS ARE NOT NEEDED IF TWO PROJECTS ARE LESS THAN 1 MILE APART. THE "END CONSTRUCTION" SIGN W20-2B1 SHOULD NOT BE INSTALLED BETWEEN THE PROJECTS.
22. REFER TO STANDARD PLAN NO. 921 FOR GENERAL INFORMATION NOT SHOWN.

STANDARD PLAN NO. 921-R5

TRAFFIC CONTROL
CONSTRUCTION AND MAINTENANCEPRELIMINARY PLAN
NOT FINAL - SUBJECT TO CHANGEPROJECT NO.
08-142GRAND ISLAND QUIET ZONE IMPROVEMENTS
GRAND ISLAND, NEBRASKA
TRAFFIC CONTROL CONST. & MAINT.DESIGNED: FHJ
CHECKED: FHJ
REVISIONS:

SHEET:

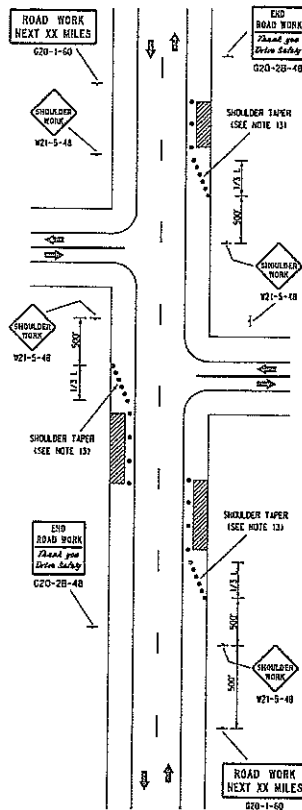
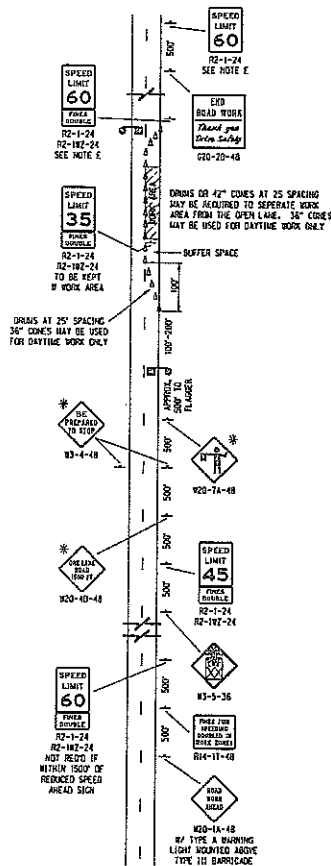
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DATE: 01/17/11

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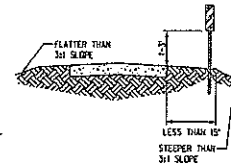
NOTE:
THE INFORMATION SHOWN ON THIS DRAWING CONCERNING TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES IS NOT GUARANTEED TO BE ACCURATE OR ALL INCLUSIVE. THE CONTRACTOR IS RESPONSIBLE FOR MAKING ALL DETERMINATIONS AS TO THE TYPE AND LOCATION OF UNDERGROUND AND OTHER UTILITIES AS MAY BE NECESSARY TO AVOID DAMAGE THEREIN.


 WORK ON SHOULDERS
 1A-3

 LANE CLOSURE
 1A-4

* SIGNS ARE SUBSIDIARY TO THE FLAGGING OPERATION.

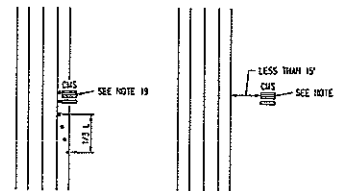
STEEP SLOPE DELINEATION

VERTICAL PANELS SHOULD BE USED FOR AREAS WHERE GUARD RAIL IS REMOVED, OR PROJECT GRADING HAS CREATED A DROP-OFF SLOPE STEEPER THAN 2:1, AND WITHIN 15 FEET OF THE TRAVEL LANE. NOT USED FOR COLLISION OR BRIDGE END PROTECTION. VERTICAL PANEL SPACING MAY BE REDUCED FOR HORIZONTAL CURVES.



WORK ZONE SPEED LIMIT NOTES

- WORK ZONE SPEED LIMITS SHALL NOT BE INSTALLED WITHOUT A SPEED ZONE AUTHORIZATION COMPLETED BY THE DEPARTMENT.
- REDUCED SPEED LIMITS SHOULD BE USED ONLY IN THE SPECIFIC PORTION OF THE WORK ZONE WHERE CONDITIONS OR RESTRICTIVE FEATURES ARE PRESENT. HOWEVER, FREQUENT CHANGES IN THE SPEED LIMIT SHOULD BE AVOIDED. THE REDUCTION OF SPEED SHOULD BE DESIGNED SO VEHICLES CAN SAFELY TRAVEL THROUGH THE WORK ZONE WITH A SPEED LIMIT REDUCTION OF 40 MPH UNLESS OTHERWISE NOTED IN THE PLANS.
- WORK ZONE SPEED LIMITS SHOWN ARE TYPICAL APPLICATIONS ONLY AND ARE NOT TO BE ASSIGNED AS THE SPEED LIMITS REQUIRED FOR THE WORK.
- EXISTING SPEED LIMIT SIGNS SHALL BE REMOVED OR COVERED WHEN A REDUCED WORK ZONE SPEED LIMIT IS IN EFFECT IN THE SAME AREA.
- WORK ZONE SPEED LIMIT SIGNS SHALL BE INSTALLED EVERY MILE THROUGH THE WORK AREA WHEN SPEED ZONE IS REDUCED.
- A SPEED LIMIT SIGN ENDING THE REDUCED SPEED ZONE SHALL BE INSTALLED AT THE END OF EACH ZONE.


 CHANGEABLE MESSAGE
 SIGN PROTECTION

TAPER FORMULA

$$L = S \times W \text{ FOR SPEEDS OF 45 MPH OR MORE.}$$

$$L = \frac{WS^2}{60} \text{ FOR SPEEDS OF 40 MPH OR LESS.}$$

WHERE:

- L = MINIMUM LENGTH OF TAPER,
 S = NUMERICAL VALUE OF POSTED
 SPEED LIMIT PRIOR TO WORK,
 W = WIDTH OF OFFSET LANE WIDTH.

LEGEND

- TYPE III BARRICADE
- TYPE II BARRICADE OR REFLECTORIZED PLASTIC DRUM
- ↑ SIGN
- FLAGGER
- △ CONE
- CHS CHANGEABLE MESSAGE SIGN
- ⚡ TRAFFIC SIGNAL

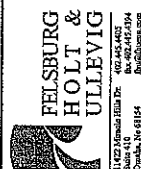
STANDARD PLAN NO. 921-R5
 TRAFFIC CONTROL
 CONSTRUCTION AND MAINTENANCE

SHEET
 PRELIMINARY PLAN
 NOT FINAL - SUBJECT TO CHANGE

PROJECT NO.

08-142

GRAND ISLAND QUIET ZONE IMPROVEMENTS
 GRAND ISLAND, NEBRASKA
 TRAFFIC CONTROL CONST. & MAINT.



DESIGNED: FHU
 CHECKED: FHU
 REVISIONS:

SHEET:

19

DATE: 01/17/11

EXHIBIT B

To Wayside Horn Agreement

Cover Sheet for the

Form of Contractor's Right of Entry Agreement

Folder No.: Folder Number
UPRR Audit No.: Audit Number

CONTRACTOR'S RIGHT OF ENTRY AGREEMENT

THIS AGREEMENT is made and entered into as of the _____ day of _____, 20____, by and between **UNION PACIFIC RAILROAD COMPANY**, a Delaware corporation ("Railroad"); and

(NAME OF CONTRACTOR)
a _____ corporation ("Contractor").
(State of Corporation)

RECITALS:

Contractor has been hired by the *Name of Public Body* ("X") to perform work relating to the Purpose (the "work"), with all or a portion of such work to be performed on property of Railroad in the vicinity of the Railroad's Mile Post Mile Post on the Railroad's Name of Subdivision in or near City, County & State, as such location is in the general location shown on the Railroad Location Print marked **Exhibit A**, and as specified on the Detailed Prints collectively marked **Exhibit A-1**, each attached hereto and hereby made a part hereof, which work is the subject of a contract dated _____ between the Railroad and the X. (Date of Contract)

The Railroad is willing to permit the Contractor to perform the work described above at the location described above subject to the terms and conditions contained in this Agreement.

AGREEMENT:

NOW, THEREFORE, it is mutually agreed by and between Railroad and Contractor, as follows:

ARTICLE 1 - DEFINITION OF CONTRACTOR.

For purposes of this Agreement, all references in this agreement to Contractor shall include Contractor's contractors, subcontractors, officers, agents and employees, and others acting under its or their authority.

ARTICLE 2 - RIGHT GRANTED; PURPOSE.

Railroad hereby grants to Contractor the right, during the term hereinafter stated and upon and subject to each and all of the terms, provisions and conditions herein contained, to enter upon and have ingress to and egress from the property described in the Recitals for the purpose of performing the work described in the Recitals above. The right herein granted to Contractor is

limited to those portions of Railroad's property specifically described herein, or as designated by the Railroad Representative named in Article 4.

ARTICLE 3 - TERMS AND CONDITIONS CONTAINED IN EXHIBITS B, C & D.

The General Terms and Conditions contained in Exhibit B, the Insurance Requirements contained in Exhibit C, and the Minimum Safety Requirements contained in Exhibit D, each attached hereto, are hereby made a part of this Agreement.

ARTICLE 4 - ALL EXPENSES TO BE BORNE BY CONTRACTOR; RAILROAD REPRESENTATIVE.

A. Contractor shall bear any and all costs and expenses associated with any work performed by Contractor, or any costs or expenses incurred by Railroad relating to this Agreement.

B. Contractor shall coordinate all of its work with the following Railroad representative or his or her duly authorized representative (the "Railroad Representative"):

MTM

MSM

C. Contractor, at its own expense, shall adequately police and supervise all work to be performed by Contractor and shall ensure that such work is performed in a safe manner as set forth in Section 7 of Exhibit B. The responsibility of Contractor for safe conduct and adequate policing and supervision of Contractor's work shall not be lessened or otherwise affected by Railroad's approval of plans and specifications involving the work, or by Railroad's collaboration in performance of any work, or by the presence at the work site of a Railroad Representative, or by compliance by Contractor with any requests or recommendations made by Railroad Representative.

ARTICLE 5 - SCHEDULE OF WORK ON A MONTHLY BASIS.

The Contractor, at its expense, shall provide on a monthly basis a detailed schedule of work to the Railroad Representative named in Article 4B above. The reports shall start at the execution of this Agreement and continue until this Agreement is terminated as provided in this Agreement or until the Contractor has completed all work on Railroad's property.

ARTICLE 6 - TERM; TERMINATION.

- A. The grant of right herein made to Contractor shall commence on the date of this Agreement, and continue until _____, unless sooner terminated as herein
(*Expiration Date*)
provided, or at such time as Contractor has completed its work on Railroad's property, whichever is earlier. Contractor agrees to notify the Railroad Representative in writing when it has completed its work on Railroad's property.
- B. This Agreement may be terminated by either party on ten (10) days written notice to the other party.

ARTICLE 7 - CERTIFICATE OF INSURANCE.

A. Before commencing any work, Contractor will provide Railroad with the (i) insurance binders, policies, certificates and endorsements set forth in **Exhibit C** of this Agreement, and (ii) the insurance endorsements obtained by each subcontractor as required under Section 12 of **Exhibit B** of this Agreement.

B. All insurance correspondence, binders, policies, certificates and endorsements shall be sent to:

*Union Pacific Railroad Company
Real Estate Department
1400 Douglas Street, MS 1690
Omaha, NE 68179-1690
UPRR Folder No.: Folder Number*

ARTICLE 8 - DISMISSAL OF CONTRACTOR'S EMPLOYEE.

At the request of Railroad, Contractor shall remove from Railroad's property any employee of Contractor who fails to conform to the instructions of the Railroad Representative in connection with the work on Railroad's property, and any right of Contractor shall be suspended until such removal has occurred. Contractor shall indemnify Railroad against any claims arising from the removal of any such employee from Railroad's property.

ARTICLE 9 - ADMINISTRATIVE FEE.

Upon the execution and delivery of this Agreement, Contractor shall pay to Railroad **FIVE HUNDRED DOLLARS (\$500.00)** as reimbursement for clerical, administrative and handling expenses in connection with the processing of this Agreement.

ARTICLE 10 - CROSSINGS.

No additional vehicular crossings (including temporary haul roads) or pedestrian crossings over Railroad's trackage shall be installed or used by Contractor without the prior written permission of Railroad.

ARTICLE 11 - EXPLOSIVES.

Explosives or other highly flammable substances shall not be stored or used on Railroad's property without the prior written approval of Railroad.



IN WITNESS WHEREOF, the parties hereto have duly executed this agreement in duplicate as of the date first herein written.

UNION PACIFIC RAILROAD COMPANY
(Federal Tax ID #94-6001323)

By: _____

PAUL G. FARRELL
Senior Manager Contracts

(Name of Contractor)

By: _____

Title: _____

EXHIBIT A

Exhibit A will be a print showing the general location of the work site.

EXHIBIT B
TO CONTRACTOR'S RIGHT OF ENTRY AGREEMENT
GENERAL TERMS & CONDITIONS

Section 1. NOTICE OF COMMENCEMENT OF WORK - FLAGGING.

A. Contractor agrees to notify the Railroad Representative at least thirty (30) working days in advance of Contractor commencing its work and at least thirty (30) working days in advance of proposed performance of any work by Contractor in which any person or equipment will be within twenty-five (25) feet of any track, or will be near enough to any track that any equipment extension (such as, but not limited to, a crane boom) will reach to within twenty-five (25) feet of any track. No work of any kind shall be performed, and no person, equipment, machinery, tool(s), material(s), vehicle(s), or thing(s) shall be located, operated, placed, or stored within twenty-five (25) feet of any of Railroad's track(s) at any time, for any reason, unless and until a Railroad flagman is provided to watch for trains. Upon receipt of such thirty (30)-day notice, the Railroad Representative will determine and inform Contractor whether a flagman need be present and whether Contractor needs to implement any special protective or safety measures. If flagging or other special protective or safety measures are performed by Railroad, Railroad will bill Contractor for such expenses incurred by Railroad, unless Railroad and a federal, state or local governmental entity have agreed that Railroad is to bill such expenses to the federal, state or local governmental entity. If Railroad will be sending the bills to Contractor, Contractor shall pay such bills within thirty (30) days of Contractor's receipt of billing. If Railroad performs any flagging, or other special protective or safety measures are performed by Railroad, Contractor agrees that Contractor is not relieved of any of its responsibilities or liabilities set forth in this Agreement.

B. The rate of pay per hour for each flagman will be the prevailing hourly rate in effect for an eight-hour day for the class of flagmen used during regularly assigned hours and overtime in accordance with Labor Agreements and Schedules in effect at the time the work is performed. In addition to the cost of such labor, a composite charge for vacation, holiday, health and welfare, supplemental sickness, Railroad Retirement and unemployment compensation, supplemental pension, Employees Liability and Property Damage and Administration will be included, computed on actual payroll. The composite charge will be the prevailing composite charge in effect at the time the work is performed. One and one-half times the current hourly rate is paid for overtime, Saturdays and Sundays, and two and one-half times current hourly rate for holidays. Wage rates are subject to change, at any time, by law or by agreement between Railroad and its employees, and may be retroactive as a result of negotiations or a ruling of an authorized governmental agency. Additional charges on labor are also subject to change. If the wage rate or additional charges are changed, Contractor (or the governmental entity, as applicable) shall pay on the basis of the new rates and charges.

C. Reimbursement to Railroad will be required covering the full eight-hour day during which any flagman is furnished, unless the flagman can be assigned to other Railroad work during a portion of such day, in which event reimbursement will not be required for the portion of the day during which the flagman is engaged in other Railroad work. Reimbursement will also be required for any day not actually worked by the flagman following the flagman's assignment to work on the project for which Railroad is required to pay the flagman and which could not reasonably be avoided by Railroad by assignment of such flagman to other work, even though Contractor may not be working during such time. When it becomes necessary for Railroad to bulletin and assign an employee to a flagging position in compliance with union collective bargaining agreements, Contractor must provide Railroad a minimum of five (5) days notice prior to the cessation of the need for a flagman. If five (5) days notice of cessation is not given, Contractor will still be required to pay flagging charges for the five (5) day notice period required by union agreement to be given to the employee, even though flagging is not required for that period. An additional thirty (30) days notice must then be given to Railroad if flagging services are needed again after such five day cessation notice has been given to Railroad.

Section 2. LIMITATION AND SUBORDINATION OF RIGHTS GRANTED

A. The foregoing grant of right is subject and subordinate to the prior and continuing right and obligation of the Railroad to use and maintain its entire property including the right and power of Railroad to construct, maintain, repair, renew, use, operate, change, modify or relocate railroad tracks, roadways, signal, communication, fiber optics, or other wirelines, pipelines and other facilities upon, along or across any or all parts of its property, all or any of which may be freely done at any time or times by Railroad without liability to Contractor or to any other party for compensation or damages.

B. The foregoing grant is also subject to all outstanding superior rights (whether recorded or unrecorded and including those in favor of licensees and lessees of Railroad's property, and others) and the right of Railroad to renew and extend the same, and is made without covenant of title or for quiet enjoyment.

Section 3. NO INTERFERENCE WITH OPERATIONS OF RAILROAD AND ITS TENANTS.

A. Contractor shall conduct its operations so as not to interfere with the continuous and uninterrupted use and operation of the railroad tracks and property of Railroad, including without limitation, the operations of Railroad's lessees, licensees or others, unless specifically authorized in advance by the Railroad Representative. Nothing shall be done or permitted to be done by Contractor at any time that would in any manner impair the safety of such operations. When not in use, Contractor's machinery and materials shall be kept at least fifty (50) feet from the centerline of Railroad's nearest track, and there shall be no vehicular crossings of Railroads tracks except at existing open public crossings.

B. Operations of Railroad and work performed by Railroad personnel and delays in the work to be performed by Contractor caused by such railroad operations and work are expected by Contractor, and Contractor agrees that Railroad shall have no liability to Contractor, or any other person or entity for any such delays. The Contractor shall coordinate its activities with those of Railroad and third parties so as to avoid interference with railroad operations. The safe operation of Railroad train movements and other activities by Railroad takes precedence over any work to be performed by Contractor.

Section 4. LIENS.

Contractor shall pay in full all persons who perform labor or provide materials for the work to be performed by Contractor. Contractor shall not create, permit or suffer any mechanic's or materialmen's liens of any kind or nature to be created or enforced against any property of Railroad for any such work performed. Contractor shall indemnify and hold harmless Railroad from and against any and all liens, claims, demands, costs or expenses of whatsoever nature in any way connected with or growing out of such work done, labor performed, or materials furnished. If Contractor fails to promptly cause any lien to be released of record, Railroad may, at its election, discharge the lien or claim of lien at Contractor's expense.

Section 5. PROTECTION OF FIBER OPTIC CABLE SYSTEMS.

A. Fiber optic cable systems may be buried on Railroad's property. Protection of the fiber optic cable systems is of extreme importance since any break could disrupt service to users resulting in business interruption and loss of revenue and profits. Contractor shall telephone Railroad during normal business hours (7:00 a.m. to 9:00 p.m. Central Time, Monday through Friday, except holidays) at 1-800-336-9193 (also a 24-hour, 7-day number for emergency calls) to determine if fiber optic cable is buried anywhere on Railroad's property to be used by Contractor. If it is, Contractor will telephone the telecommunications company(ies) involved, make arrangements for a cable locator and, if applicable, for relocation or other protection of the fiber optic cable. Contractor shall not commence any work until all such protection or relocation (if applicable) has been accomplished.

B. In addition to other indemnity provisions in this Agreement, Contractor shall indemnify, defend and hold Railroad harmless from and against all costs, liability and expense whatsoever (including, without limitation, attorneys' fees, court costs and expenses) arising out of any act or omission of Contractor, its agents and/or employees, that causes or contributes to (1) any damage to or destruction of any telecommunications system on Railroad's property, and/or (2) any injury to or death of any person employed by or on behalf of any telecommunications company, and/or its contractor, agents and/or employees, on Railroad's property. Contractor shall not have or seek recourse against Railroad for any claim or cause of action for alleged loss of profits or revenue or loss of service or other consequential damage to a telecommunication company using Railroad's property or a customer or user of services of the fiber optic cable on Railroad's property.

Section 6. PERMITS - COMPLIANCE WITH LAWS.

In the prosecution of the work covered by this Agreement, Contractor shall secure any and all necessary permits and shall comply with all applicable federal, state and local laws, regulations and enactments affecting the work including, without limitation, all applicable Federal Railroad Administration regulations.

Section 7. SAFETY.

A. Safety of personnel, property, rail operations and the public is of paramount importance in the prosecution of the work performed by Contractor. Contractor shall be responsible for initiating, maintaining and supervising all safety, operations and programs in connection with the work. Contractor shall at a minimum comply with Railroad's safety standards listed in **Exhibit D**, hereto attached, to ensure uniformity with the safety standards followed by Railroad's own forces. As a part of Contractor's safety responsibilities, Contractor shall notify Railroad if Contractor determines that any of Railroad's safety standards are contrary to good safety practices. Contractor shall furnish copies of **Exhibit D** to each of its employees before they enter the job site.



- B. Without limitation of the provisions of paragraph A above, Contractor shall keep the job site free from safety and health hazards and ensure that its employees are competent and adequately trained in all safety and health aspects of the job.
- C. Contractor shall have proper first aid supplies available on the job site so that prompt first aid services may be provided to any person injured on the job site. Contractor shall promptly notify Railroad of any U.S. Occupational Safety and Health Administration reportable injuries. Contractor shall have a nondelegable duty to control its employees while they are on the job site or any other property of Railroad, and to be certain they do not use, be under the influence of, or have in their possession any alcoholic beverage, drug or other substance that may inhibit the safe performance of any work.
- D. If and when requested by Railroad, Contractor shall deliver to Railroad a copy of Contractor's safety plan for conducting the work (the "Safety Plan"). Railroad shall have the right, but not the obligation, to require Contractor to correct any deficiencies in the Safety Plan. The terms of this Agreement shall control if there are any inconsistencies between this Agreement and the Safety Plan.

Section 8. INDEMNITY.

- A. To the extent not prohibited by applicable statute, Contractor shall indemnify, defend and hold harmless Railroad, its affiliates, and its and their officers, agents and employees (individually an "Indemnified Party" or collectively "Indemnified Parties") from and against any and all loss, damage, injury, liability, claim, demand, cost or expense (including, without limitation, attorney's, consultant's and expert's fees, and court costs), fine or penalty (collectively, "Loss") incurred by any person (including, without limitation, any Indemnified Party, Contractor, or any employee of Contractor or of any Indemnified Party) arising out of or in any manner connected with (i) any work performed by Contractor, or (ii) any act or omission of Contractor, its officers, agents or employees, or (iii) any breach of this Agreement by Contractor.
- B. The right to indemnify under this Section 8 shall accrue upon occurrence of the event giving rise to the Loss, and shall apply regardless of any negligence or strict liability of any Indemnified Party, except where the Loss is caused by the sole active negligence of an Indemnified Party as established by the final judgment of a court of competent jurisdiction. The sole active negligence of any Indemnified Party shall not bar the recovery of any other Indemnified Party.
- C. Contractor expressly and specifically assumes potential liability under this Section 8 for claims or actions brought by Contractor's own employees. Contractor waives any immunity it may have under worker's compensation or industrial insurance acts to indemnify the Indemnified Parties under this Section 8. Contractor acknowledges that this waiver was mutually negotiated by the parties hereto.
- D. No court or jury findings in any employee's suit pursuant to any worker's compensation act or the Federal Employers' Liability Act against a party to this Agreement may be relied upon or used by Contractor in any attempt to assert liability against any Indemnified Party.
- E. The provisions of this Section 8 shall survive the completion of any work performed by Contractor or the termination or expiration of this Agreement. In no event shall this Section 8 or any other provision of this Agreement be deemed to limit any liability Contractor may have to any Indemnified Party by statute or under common law.

Section 9. RESTORATION OF PROPERTY.

In the event Railroad authorizes Contractor to take down any fence of Railroad or in any manner move or disturb any of the other property of Railroad in connection with the work to be performed by Contractor, then in that event Contractor shall, as soon as possible and at Contractor's sole expense, restore such fence and other property to the same condition as the same were in before such fence was taken down or such other property was moved or disturbed. Contractor shall remove all of Contractor's tools, equipment, rubbish and other materials from Railroad's property promptly upon completion of the work, restoring Railroad's property to the same state and condition as when Contractor entered thereon.

Section 10. WAIVER OF DEFAULT.

Waiver by Railroad of any breach or default of any condition, covenant or agreement herein contained to be kept, observed and performed by Contractor shall in no way impair the right of Railroad to avail itself of any remedy for any subsequent breach or default.

Section 11. MODIFICATION - ENTIRE AGREEMENT.

No modification of this Agreement shall be effective unless made in writing and signed by Contractor and Railroad. This Agreement and the exhibits attached hereto and made a part hereof constitute the entire understanding between Contractor



any Railroad and cancel and supersede any prior negotiations, understandings or agreements, whether written or oral, with respect to the work to be performed by Contractor.

Section 12. ASSIGNMENT - SUBCONTRACTING.

Contractor shall not assign or subcontract this Agreement, or any interest therein, without the written consent of the Railroad. Contractor shall be responsible for the acts and omissions of all subcontractors. Before Contractor commences any work, the Contractor shall, except to the extent prohibited by law, (1) require each of its subcontractors to include the Contractor as "Additional Insured" in the subcontractor's Commercial General Liability policy and Business Automobile policies with respect to all liabilities arising out of the subcontractor's performance of work on behalf of the Contractor by endorsing these policies with ISO Additional Insured Endorsements CG 20 26, and CA 20 48 (or substitute forms providing equivalent coverage; (2) require each of its subcontractors to endorse their Commercial General Liability Policy with "Contractual Liability Railroads" ISO Form CG 24 17 10 01 (or a substitute form providing equivalent coverage) for the job site; and (3) require each of its subcontractors to endorse their Business Automobile Policy with "Coverage For Certain Operations In Connection With Railroads" ISO Form CA 20 70 10 01 (or a substitute form providing equivalent coverage) for the job site.

EXHIBIT C
TO CONTRACTOR'S RIGHT OF ENTRY AGREEMENT
INSURANCE REQUIREMENTS

Contractor shall, at its sole cost and expense, procure and maintain during the course of the Project and until all Project work on Railroad's property has been completed and the Contractor has removed all equipment and materials from Railroad's property and has cleaned and restored Railroad's property to Railroad's satisfaction, the following insurance coverage:

A. COMMERCIAL GENERAL LIABILITY INSURANCE. Commercial general liability (CGL) with a limit of not less than \$5,000,000 each occurrence and an aggregate limit of not less than \$10,000,000. CGL insurance must be written on ISO occurrence form CG 00 01 12 04 (or a substitute form providing equivalent coverage).

The policy must also contain the following endorsement, which must be stated on the certificate of insurance:

- Contractual Liability Railroads ISO form CG 24 17 10 01 (or a substitute form providing equivalent coverage) showing "Union Pacific Railroad Company Property" as the Designated Job Site.
- Designated Construction Project(s) General Aggregate Limit ISO Form CG 25 03 03 97 (or a substitute form providing equivalent coverage) showing the project on the form schedule.

B. BUSINESS AUTOMOBILE COVERAGE INSURANCE. Business auto coverage written on ISO form CA 00 01 10 01 (or a substitute form providing equivalent liability coverage) with a combined single limit of not less \$5,000,000 for each accident and coverage must include liability arising out of any auto (including owned, hired and non-owned autos).

The policy must contain the following endorsements, which must be stated on the certificate of insurance:

- Coverage For Certain Operations In Connection With Railroads ISO form CA 20 70 10 01 (or a substitute form providing equivalent coverage) showing "Union Pacific Property" as the Designated Job Site.
- Motor Carrier Act Endorsement - Hazardous materials clean up (MCS-90) if required by law.

C. WORKERS' COMPENSATION AND EMPLOYERS' LIABILITY INSURANCE. Coverage must include but not be limited to:

- Contractor's statutory liability under the workers' compensation laws of the state where the work is being performed.
- Employers' Liability (Part B) with limits of at least \$500,000 each accident, \$500,000 disease policy limit \$500,000 each employee.

If Contractor is self-insured, evidence of state approval and excess workers compensation coverage must be provided. Coverage must include liability arising out of the U. S. Longshoremen's and Harbor Workers' Act, the Jones Act, and the Outer Continental Shelf Land Act, if applicable.

The policy must contain the following endorsement, which must be stated on the certificate of insurance:

- Alternate Employer endorsement ISO form WC 00 03 01 A (or a substitute form providing equivalent coverage) showing Railroad in the schedule as the alternate employer (or a substitute form providing equivalent coverage).

D. RAILROAD PROTECTIVE LIABILITY INSURANCE. Contractor must maintain "Railroad Protective Liability" (RPL) insurance written on ISO occurrence form CG 00 35 12 04 (or a substitute form providing equivalent coverage) on behalf of Railroad as named insured, with a limit of not less than \$2,000,000 per occurrence and an aggregate of \$6,000,000. The definition of "JOB LOCATION" and "WORK" on the declaration page of the policy shall refer to this Agreement and shall describe all WORK or OPERATIONS performed under this agreement. Contractor shall provide this Agreement to Contractor's insurance agent(s) and/or broker(s) and Contractor shall instruct such agent(s) and/or broker(s) to procure the insurance coverage required by this Agreement. A BINDER STATING THE POLICY IS IN PLACE MUST BE SUBMITTED TO RAILROAD BEFORE THE WORK MAY COMMENCE AND UNTIL THE ORIGINAL POLICY IS FORWARDED TO UNION PACIFIC RAILROAD.

E. UMBRELLA OR EXCESS INSURANCE. If Contractor utilizes umbrella or excess policies, these policies must "follow form" and afford no less coverage than the primary policy.

F. POLLUTION LIABILITY INSURANCE. Pollution liability coverage must be included when the scope of the work as defined in the Agreement includes installation, temporary storage, or disposal of any "hazardous" material that is injurious in or upon land, the atmosphere, or any watercourses; or may cause bodily injury at any time.

If required, coverage may be provided in separate policy form or by endorsement to Contractors CGL or RPL. In any form coverage must be equivalent to that provided in ISO form CG 24 15 "Limited Pollution Liability Extension Endorsement" or CG 28 31 "Pollution Exclusion Amendment" with limits of at least \$5,000,000 per occurrence and an aggregate limit of \$10,000,000.

If the scope of work as defined in this Agreement includes the disposal of any hazardous or non-hazardous materials from the job site, Contractor must furnish to Railroad evidence of pollution legal liability insurance maintained by the disposal site operator for losses arising from the insured facility accepting the materials, with coverage in minimum amounts of \$1,000,000 per loss, and an annual aggregate of \$2,000,000.

OTHER REQUIREMENTS

G. All policy(ies) required above (except worker's compensation and employers liability) must include Railroad as "Additional Insured" using ISO Additional Insured Endorsements CG 20 26, and CA 20 48 (or substitute forms providing equivalent coverage). The coverage provided to Railroad as additional insured shall, to the extent provided under ISO Additional Insured Endorsement CG 20 26, and CA 20 48 provide coverage for Railroad's negligence whether sole or partial, active or passive, and shall not be limited by Contractor's liability under the indemnity provisions of this Agreement.

H. Punitive damages exclusion, if any, must be deleted (and the deletion indicated on the certificate of insurance), unless the law governing this Agreement prohibits all punitive damages that might arise under this Agreement.

I. Contractor waives all rights of recovery, and its insurers also waive all rights of subrogation of damages against Railroad and its agents, officers, directors and employees. This waiver must be stated on the certificate of insurance.

J. Prior to commencing the work, Contractor shall furnish Railroad with a certificate(s) of insurance, executed by a duly authorized representative of each insurer, showing compliance with the insurance requirements in this Agreement.

K. All insurance policies must be written by a reputable insurance company acceptable to Railroad or with a current Best's Insurance Guide Rating of A- and Class VII or better, and authorized to do business in the state where the work is being performed.

L. The fact that insurance is obtained by Contractor or by Railroad on behalf of Contractor will not be deemed to release or diminish the liability of Contractor, including, without limitation, liability under the indemnity provisions of this Agreement. Damages recoverable by Railroad from Contractor or any third party will not be limited by the amount of the required insurance coverage.

EXHIBIT D

TO CONTRACTOR'S RIGHT OF ENTRY AGREEMENT

MINIMUM SAFETY REQUIREMENTS

The term "employees" as used herein refer to all employees of Contractor as well as all employees of any subcontractor or agent of Contractor.

I. CLOTHING

A. All employees of Contractor will be suitably dressed to perform their duties safely and in a manner that will not interfere with their vision, hearing, or free use of their hands or feet.

Specifically, Contractor's employees must wear:

- (i) Waist-length shirts with sleeves.
- (ii) Trousers that cover the entire leg. If flare-legged trousers are worn, the trouser bottoms must be tied to prevent catching.
- (iii) Footwear that covers their ankles and has a defined heel. Employees working on bridges are required to wear safety-toed footwear that conforms to the American National Standards Institute (ANSI) and FRA footwear requirements.
- B. Employees shall not wear boots (other than work boots), sandals, canvas-type shoes, or other shoes that have thin soles or heels that are higher than normal.
- C. Employees must not wear loose or ragged clothing, neckties, finger rings, or other loose jewelry while operating or working on machinery.

II. PERSONAL PROTECTIVE EQUIPMENT

Contractor shall require its employees to wear personal protective equipment as specified by Railroad rules, regulations, or recommended or requested by the Railroad Representative.

- (i) Hard hat that meets the American National Standard (ANSI) Z89.1 – latest revision. Hard hats should be affixed with Contractor's company logo or name.
- (ii) Eye protection that meets American National Standard (ANSI) for occupational and educational eye and face protection, Z87.1 – latest revision. Additional eye protection must be provided to meet specific job situations such as welding, grinding, etc.
- (iii) Hearing protection, which affords enough attenuation to give protection from noise levels that will be occurring on the job site. Hearing protection, in the form of plugs or muffs, must be worn when employees are within:
 - 100 feet of a locomotive or roadway/work equipment
 - 15 feet of power operated tools
 - 150 feet of jet blowers or pile drivers
 - 150 feet of retarders in use (when within 10 feet, employees must wear dual ear protection – plugs and muffs)
- (iv) Other types of personal protective equipment, such as respirators, fall protection equipment, and face shields, must be worn as recommended or requested by the Railroad Representative.

III. ON TRACK SAFETY

Contractor is responsible for compliance with the Federal Railroad Administration's Roadway Worker Protection regulations – 49CFR214, Subpart C and Railroad's On-Track Safety rules. Under 49CFR214, Subpart C, railroad contractors are responsible for the training of their employees on such regulations. In addition to the instructions contained in Roadway Worker Protection regulations, all employees must:

- (i) Maintain a distance of twenty-five (25) feet to any track unless the Railroad Representative is present to authorize movements.
 - (ii) Wear an orange, reflectorized workwear approved by the Railroad Representative.
 - (iii) Participate in a job briefing that will specify the type of On-Track Safety for the type of work being performed.
- Contractor must take special note of limits of track authority, which tracks may or may not be fouled, and clearing the track. Contractor will also receive special instructions relating to the work zone around machines and minimum distances between machines while working or traveling.

IV. EQUIPMENT

- A. It is the responsibility of Contractor to ensure that all equipment is in a safe condition to operate. If, in the opinion of the Railroad Representative, any of Contractor's equipment is unsafe for use, Contractor shall remove such equipment from Railroad's property. In addition, Contractor must ensure that the operators of all equipment are properly trained and competent in the safe operation of the equipment. In addition, operators must be:
 - Familiar and comply with Railroad's rules on lockout/tagout of equipment.
 - Trained in and comply with the applicable operating rules if operating any hy-rail equipment on-track.
 - Trained in and comply with the applicable air brake rules if operating any equipment that moves rail cars or any other railbound equipment.
- B. All self-propelled equipment must be equipped with a first-aid kit, fire extinguisher, and audible back-up warning device.
- C. Unless otherwise authorized by the Railroad Representative, all equipment must be parked a minimum of twenty-five (25) feet from any track. Before leaving any equipment unattended, the operator must stop the engine and properly secure the equipment against movement.
- D. Cranes must be equipped with three orange cones that will be used to mark the working area of the crane and the minimum clearances to overhead powerlines.

V. GENERAL SAFETY REQUIREMENTS

- A. Contractor shall ensure that all waste is properly disposed of in accordance with applicable federal and state regulations.
- B. Contractor shall ensure that all employees participate in and comply with a job briefing conducted by the Railroad Representative, if applicable. During this briefing, the Railroad Representative will specify safe work procedures, (including On-Track Safety) and the potential hazards of the job. If any employee has any questions or concerns about the work, the employee must voice them during the job briefing. Additional job briefings will be conducted during the work as conditions, work procedures, or personnel change.
- C. All track work performed by Contractor meets the minimum safety requirements established by the Federal Railroad Administration's Track Safety Standards 49CFR213.
- D. All employees comply with the following safety procedures when working around any railroad track:
 - (i) Always be on the alert for moving equipment. Employees must always expect movement on any track, at any time, in either direction.
 - (ii) Do not step or walk on the top of the rail, frog, switches, guard rails, or other track components.
 - (iii) In passing around the ends of standing cars, engines, roadway machines or work equipment, leave at least 20 feet between yourself and the end of the equipment. Do not go between pieces of equipment if the opening is less than one car length (50 feet).
 - (iv) Avoid walking or standing on a track unless so authorized by the employee in charge.
 - (v) Before stepping over or crossing tracks, look in both directions first.
 - (vi) Do not sit on, lie under, or cross between cars except as required in the performance of your duties and only when track and equipment have been protected against movement.
- E. All employees must comply with all federal and state regulations concerning workplace safety.

EXHIBIT C

To Wayside Horn Agreement

Cover Sheet for the
Provision for Protection of Subsurface Facilities
on Railroad Property

EXHIBIT C

TO WAYSIDE HORN AGREEMENT

PROTECTION OF SUBSURFACE FACILITIES ON RAILROAD PROPERTY

- A. Cables, lines, wires, circuits, conduit, pipes and other facilities ("Facilities") may be buried on and under Railroad property, including, without limitation, its rights-of-way, as part of, or associated with, various systems and facilities, including, without limitation, fiber optic systems, railroad traffic control-related systems (e.g., wayside horn, switching, and signal control systems), and utility systems and facilities (e.g., electrical lines, natural gas and water main pipelines and distribution/supply lines, and sewer pipes and lines). Protection of the Facilities is of extreme importance since any break in or damage to the Facilities could, among other things, disrupt service to users, result in business interruption and loss of revenue and profits, result in injury or death to persons and damage to property, cause other economic losses, and/or create safety risks to the public. Accordingly, Licensee shall (1) comply with all one-call and other requirements of the law of the state where the Work is to be performed, (2) exercise due diligence in an effort to determine from the Railroad and all appropriate utilities, telecommunications companies, etc. to determine if Facilities are present in the area that is to be used or occupied by, or that will be accessible to, Licensee in connection with the Work, including, without limitation, by telephoning the Railroad at 1-800-336-9193 (between 6:30 a.m. and 8:00 p.m. Central Time) to determine if Facilities comprising fiber optic systems are buried anywhere at such location(s), (3) contact the Railroad and any party who is determined to be the owner of any such Facilities to make suitable arrangements for the relocation or other protection of the Facilities, (4) refrain from commencing Work on the Railroad's property in the vicinity of any Facilities unless and until such relocation or other protection has been completed, and (5) require its contractors and subcontractors to comply with the commitments set forth in (1) through (4), above. Licensee acknowledges and agrees that the Railroad will not be responsible for the cost to relocate or otherwise protect the Facilities.
- B. In addition to other indemnity provisions in this Agreement, to the extent not prohibited by law, Licensee shall defend, indemnify and hold Railroad harmless from and against all costs, liability, loss and expense whatsoever (including, without limitation, consequential damages, attorneys' fees, court costs, and expenses) arising out of any act or omission of Licensee, its agents, contractors, subcontractors, and/or employees, relating in any way to the Facilities, to the extent all or any of their acts or omissions cause or contribute to (1) any disruption of service to users or damage for business interruption or loss of revenues or profits, (2) any damage to or destruction of any Facilities, (3) any injury or damage to property or injury to or the death of any persons, (4) any other economic loss, (5) any other damage or liability whatsoever, or (6) the assertion or filing of any claim, cause of action, or judgment whatsoever relating to such matters. If this Subsection B should be declared void or unenforceable by a court of competent jurisdiction, it shall be stricken, but the fact that it has been so struck shall not affect the enforceability of Subsection A.

EXHIBIT D

To Wayside Horn Agreement

Cover Sheet for the
Preliminary Engineering Agreement

AGREEMENT FOR PRELIMINARY ENGINEERING SERVICES

THIS AGREEMENT, for good and valuable consideration, the receipt of which is hereby acknowledged, is made and entered into effective this 23rd day of June, 2009, by and between Union Pacific Railroad Company Delaware Corporation (hereinafter, "the Railroad") and the **City of Grand Island**, a Municipal Corporation of the State of Nebraska (hereinafter the "Public Authority").

Now, therefore, in consideration of the premises, and the promises and conditions hereinafter set forth, the parties hereto agree as follows.

1. The Project and the Work.

The Public Authority has stated its intention to proceed initially with a project, as follows, **Grand Island Quiet Zone**, (hereinafter referred to as "the Project"). The Public Authority has requested that the Railroad conduct preliminary engineering services, develop cost estimates and review preliminary layouts in connection with the Project. Any of the Railroad's work (whether performed directly by Railroad or by others they contract with) associated with such services is called the "Work" in this Agreement. The Railroad is agreeable to complying with the Public Authority's request, subject to the terms and conditions of this Agreement.

2. Payment and Deposit for Work.


The Public Authority authorizes the Railroad to proceed with the Work relating to the Project. The Public Authority shall pay and reimburse the Railroad for all actual Cost that Railroad incurs in performing such Work. On the date of execution of this Agreement, the Public Authority tenders to Railroad a deposit in the amount specified by Railroad in its web-posted Deposit Schedule (hereinafter, this is referred to as the "Deposit"). The Railroad will apply the Deposit to the total Cost of the Work. If the Deposit is insufficient to pay for the actual Cost of the Work, Railroad will notify the Public Authority of the estimated or actual shortfall and

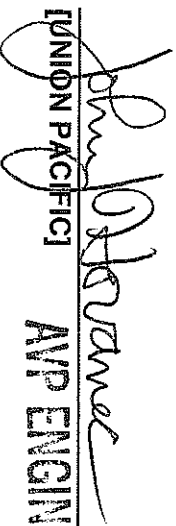
the Public Authority within ten (10) days shall pay that additional amount to the Railroad. Railroad is not required to proceed with the Work until the additional payment for the Work is received. If the Deposit and any additional payment for the Work exceeds the actual Cost of the Work, Railroad will either refund the overage or apply it to the Cost of future Railroad work associated with the Project after the preliminary services are performed, at the Public Authority's election.

3. "Cost" as used herein means all costs and expenses of labor, supplies, and material incurred for or in connection with the Railroad's performance of the Work, including, without limitation, direct and indirect labor additives, delivery charges, and Railroad's additives and overhead, as such are in effect on the date Railroad prepares its estimates or final billing.

4. If the Public Authority elects to go forward with the Project after these preliminary services are performed, Railroad and Public Authority agree to enter into the separate Agreement for the construction of the project and other activities, identified as the [select either

Wayside Horn Agreement or Agreement Regarding Quiet Zone Warning Devices], which is currently posted on Railroad's website.


[PUBLIC AUTHORITY] 6-23-09


[UNION PACIFIC] AVP ENGINEERING

RESOLUTION 2009-143

WHEREAS, the Union Pacific Railroad is performing preliminary engineering services related to the Quiet Zone Improvements; and

WHEREAS, such services shall consist of preliminary engineering services, development of cost estimates, and the review of preliminary layouts in connection with the Quiet Zone Improvement Project; and

WHEREAS, the sum of \$10,000.00 shall be paid to the Union Pacific Railroad (\$5,000.00 each for Walnut Street and Elm Street crossings); and

WHEREAS, an agreement with the Union Pacific Railroad is required to proceed with the preliminary engineering services.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that the agreement with the Union Pacific Railroad for the preliminary engineering services related to the Quiet Zone Improvements is hereby approved.

BE IT FURTHER RESOLVED, that the Mayor is hereby authorized and directed to execute such agreement on behalf of the City Of Grand Island.

BE IT FURTHER RESOLVED, that the sum of \$10,000.00 will be paid to the Union Pacific Railroad for the Walnut Street and Elm Street crossings.

Adopted by the City Council of the City of Grand Island, Nebraska, June 23, 2009.


Margaret Hornady, Mayor

Attest:


RaNaë Edwards, City Clerk

Preliminary Engineering Estimate
Wayside Horn Installation by Grand Island, NE

Project Scope: Install interconnection to existing crossing signals to accommodate proposed wayside horn installation at Walnut Street. Deposit by the City of Grand Island in the amount of \$5,000 per each location as outlined in schedule provided by the Railroad.

Crossing: Public
NE Grand Island
Elm Street
MP 147.08 Kearney Sub.
DOT 817623U

PID: 65767
AWO: 01966
Job:001

<u>DESCRIPTION</u>	<u>TOTAL</u>
PE Deposit by City Check No. 149709	\$5,000

Note: Check is in the amount of \$10,000, with deposit to be divided equally between Walnut and Elm Streets.

Preliminary Engineering Estimate
Wayside Horn Installation by Grand Island, NE

Project Scope: Install interconnection to existing crossing signals to accommodate proposed wayside horn installation at Walnut Street. Deposit by the City of Grand Island in the amount of \$5,000 per each location as outlined in schedule provided by the Railroad.

Crossing: Public
NE Grand Island
Walnut Street
MP 146.95 Kearney Sub.
DOT 817622M

PID: 65766
AWO: 01967
Job:001

<u>DESCRIPTION</u>	<u>TOTAL</u>
PE Deposit by City Check No. 149709	\$5,000

Note: Check is in the amount of \$10,000, with deposit to be divided equally between Walnut and Elm Streets.

EXHIBIT E

To Wayside Horn Agreement

Cover Sheet for the

Railroad Material and Force Account Estimate

DATE: 2011-03-07

ESTIMATE OF MATERIAL AND FORCE ACCOUNT WORK
BY THE
UNION PACIFIC RAILROAD

THIS ESTIMATE GOOD FOR 6 MONTHS EXPIRATION DATE IS 12011-09-05

DESCRIPTION OF WORK:

INSTALL CROSSING SIGNAL INTERCONNECTIONS
FOR AUTOMATED HORN SYSTEMS AT GRAND ISLAND, NE
NORTH WALNUT STREET N.P., 146.95 ON THE
KEARNEY SUBDIVISION DOT# 817622M
WORK TO BE PERFORMED BY CITY WITH EXPENSE AS BELOW
SIGNAL - CITY - 100%
ESTIMATED USING FEDERAL ADDITIVES - 187.52%

PID: 65766 AWO: 01967 MP SUBDIV: 146.95, KEARNEY
SERVICE UNIT: 03 CITY: GRAND ISLAND STATE: NE

DESCRIPTION	QTY	UNIT	LABOR	MATERIAL	RECOLL	UPRR	TOTAL
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ENGINEERING WORK							
ENGINEERING	1609		1609				1609
LABOR ADDITIVE 187.52%	12057		12057				12057
SIG-HWY XNG	4821		4821				4821

TOTAL ENGINEERING	18487		18487				18487
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SIGNAL WORK							
BILL PREP	900		900				900
CONTRACT	134		134				134
LABOR ADDITIVE 187.52%	5151		5151				5151
PERSONAL EXPENSES	1042		1042				1042
SALES TAX	53		53				53
SIGNAL	1847		1340	3187			3187
TRANSF/IB/OS/RCIM CONTR	131		131				131

TOTAL SIGNAL	7898		2700	10598			10598
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TRACK & SURFACE WORK							
ENVIRONMENTAL PERMIT	1		1				1
TOTAL TRACK & SURFACE	1		1				1

LABOR/MATERIAL EXPENSE	26385	2701					
RECOLLECTIBLE/UPRR EXPENSE			29086				
ESTIMATED PROJECT COST				0			29086

THE ABOVE FIGURES ARE ESTIMATES ONLY AND SUBJECT TO FLUCTUATION. IN THE EVENT OF
AN INCREASE OR DECREASE IN THE COST OR QUANTITY OF MATERIAL OR LABOR REQUIRED,
UPRR WILL BILL FOR ACTUAL CONSTRUCTION COSTS AT THE CURRENT EFFECTIVE RATE.

EXHIBIT F

To Wayside Horn Agreement

Cover Sheet for the
Insurance Requirements

EXHIBIT F

TO WAYSIDE HORN AGREEMENT

CONTRACT INSURANCE REQUIREMENTS

The following describes the insurance requirements that are the subject of the Wayside Horn System Agreement Section 7c.

- A. City must maintain Railroad Protective Liability insurance written on ISO occurrence form CG 00 35 07 98 (or a substitute form providing equivalent coverage) (hereinafter, the Policy). The Policy shall have the following particulars set forth in its Declarations or by endorsement.
- The "Named Insured" is Union Pacific Railroad.
 - The "Contractor" is the City of Grand Island.
 - The "Job Location" is Walnut Street at-grade public road crossing, (DOT No. 817-622M), at Railroad Mile Post 146.95 on the Kearney Subdivision in Grand Island, Hall County, Nebraska.
 - The "Work" is "Installation and operation and maintenance of Automated Directional Horn Systems."
- B. Policy will provide limits of not less than \$10,000,000 per occurrence and \$10,000,000 in the annual aggregate with a per occurrence self insured retention not to exceed \$1,000,000.
- C. City shall require its Contractors and subcontractors, as the case may be, to nonetheless maintain the insurance required pursuant to the Right of Entry Agreement, Appendix A, Exhibit C.

RESOLUTION 2011-225

WHEREAS, prior to commencing with construction of the Wayside Horn System at the Walnut Street Crossing the City of Grand Island is required to enter into an agreement with the Union Pacific Railroad; and

WHEREAS, the agreement stipulates responsibilities and obligations of the City with respect to the work associated with engineering, design, construction, installation, interconnectivity, operation and maintenance of the Wayside Horn System and the Quiet Zone Improvement Project; and

WHEREAS, the City shall install, own and maintain the Wayside Horn System and all parts and components thereof, as well as any interconnecting cables provided for interconnection and all confirmation indicators at the crossing, and

WHEREAS, the City will be responsible for all costs associated with the installation, maintenance and testing of the interconnection equipment with the Railroad's crossing signal system; and

WHEREAS, the Council has reviewed the agreement and has determined that it is in its best interest to enter into the agreement in the attached form.

NOW, THEREFORE, BE IT RESOLVED BY THE MAYOR AND COUNCIL OF THE CITY OF GRAND ISLAND, NEBRASKA, that the Mayor is hereby authorized to sign the attached Wayside Horn Agreement between the City of Grand Island and the Union Pacific Railroad Company.

- - -

Adopted by the City Council of the City of Grand Island, Nebraska, August 23, 2011.

Jay Vavricek, Mayor

Attest:

RaNae Edwards, City Clerk

Approved as to Form	☐ _____
August 19, 2011	☐ City Attorney