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OFFICE OF THE REGISTRAR OF TITLES
HENNEPIN COUNTY, MINNESOTA
CERTIFIED FILED ON

APR 10 2001

REGISTRAR OF TITLES
BY _____ DEPUTY

10625666

3376673

TRANSFER ENTERED
HENNEPIN COUNTY TAXPAYER SERVICES

APR 10 2001

HENNEPIN COUNTY MINN.
BY _____ DEPUTY

easements granted herein are over pt of land in Ctf 1062566

EASEMENT AGREEMENT

(Downtown East LRT Line and Station Site)

THIS EASEMENT is made and granted this 23rd day of March 2001 by and between the **Minneapolis Community Development Agency,** a public body corporate and politic under Minnesota laws (herein called the "Grantor"), and the **Metropolitan Council**, a public corporation and political subdivision of the State of Minnesota (herein called the "Grantee").

WHEREAS, the Grantor is the fee owner of that certain real property located at 701 Fourth Street South and 424 Chicago Avenue in Minneapolis, Hennepin County, Minnesota, and legally described in Exhibit A attached hereto and incorporated herein (herein called the "Burdened Property"); and

WHEREAS, the Grantee is undertaking the Hiawatha LRT Corridor Project in order to construct, maintain, test and operate a light rail transit system in Hennepin County, Minnesota, including the City of Minneapolis (the "LRT Project"); and

WHEREAS, the Grantor acquired the Burdened Property in order to assist the Grantee in the acquisition and development of the LRT Project by providing a location for a downtown LRT Project Line and Station site (the "LRT Line and Station") and transit-oriented development, including a below surface public parking ramp (the "Public Ramp"), a public plaza (the "Plaza") and a commercial/retail building (the "Commercial Development") (collectively, the "Transit Oriented Development"); and

WHEREAS, the Grantee wants to acquire a portion of the Burdened Property for the construction, operation and maintenance of the LRT Line and Station; and

WHEREAS, the Grantor, the Grantee, the City of Minneapolis (the "City"), and the Minnesota Department of Transportation ("MnDOT") intend to enter into a Construction Interface Agreement governing the construction and testing coordination and interface between the LRT Line and Station and the Transit Oriented Development and the Grantor, Grantee and the City intend to enter into an Operations and Maintenance Interface Agreement governing the operations and maintenance coordination and interface between the LRT Line and Station and

the Transit Oriented Development (both agreements to be collectively referred to as the "Interface Agreements");

NOW, THEREFORE, for good and valuable consideration, the sufficiency of which is hereby acknowledged by the parties hereto, the Grantor does hereby grant, quitclaim and convey to the Grantee, its successors and assigns, a permanent easement, a temporary construction easement, a temporary construction staging easement and platform maintenance easements over and across a portion of the Burdened Property as further described in this Easement Agreement and pursuant to the terms and conditions set forth herein:

1. **EASEMENT GRANT.**

For good and valuable consideration as described in Section 2 herein, the Grantor hereby grants, sells and conveys to Grantee, its successors and assigns, the following easements:

(a) "Permanent Easement." An exclusive permanent easement running with the land, over, above and across the Burdened Property and contained within the area described in Section 3(a) herein, together with all hereditaments and appurtenances thereto and together with the right of Structural Support pursuant to Section 5 herein, for the sole purpose of constructing, testing, operating, maintaining, altering, repairing, replacing or removing the LRT Line and Station as a part of the LRT Project;

(b) "Construction Easement." An exclusive temporary construction easement over, above, and across the Burdened Property and contained within the area described in Section 3(b) herein, for the sole purpose of constructing and testing of the LRT Line and Station as part of the LRT Project, said temporary construction easement to start on May 1, 2002, and terminate on December 31, 2004;

(c) "Construction Staging Easement." An exclusive temporary construction staging easement over, above and across the Burdened Property and contained within the area described in Section 3(c) herein, for the sole purpose of a staging area for constructing and testing the Downtown East LRT Line and Station as part of the LRT Project, said temporary construction staging easement to start on May 1, 2002, and terminate on December 31, 2004;

(d) "Platform Maintenance Easements." Non-exclusive maintenance easements over and across the Burdened Property and contained within the areas described in Section 3(d) herein, for the sole purpose of providing access for the maintenance of the LRT Line and Station platform and ramp areas, said maintenance easements consisting of (i) a temporary easement for the maintenance of the northwest platform area; (ii) a permanent easement for the maintenance of the southeast platform area; and (iii) a future easement, party wall agreement or other appropriate permanent right of access for the maintenance of the northwest platform after the construction of the Commercial Development; and

(e) The Permanent Easement, the Construction Easement, the Construction Staging Easement and the Platform Maintenance Easements shall be collectively referred

to as the "LRT Easements," and the total area they comprise as the "LRT Easement Areas."

The Grantee's use and enjoyment of the LRT Easements granted in this Section 1 herein shall be limited to those lawful activities necessary and/or convenient for the construction, testing, operation, maintenance, alteration, repair, replacement and removal of the LRT Line and Station as part of the LRT Project.

2. **EASEMENT PRICE.**

The Grantee hereby pays to the Grantor, the receipt of which is hereby acknowledged, the sum of Five Million Five Hundred Thousand and No/100 Dollars ($5,500,000.00) for the LRT Easements granted herein.

3. **LRT EASEMENT AREAS.**

The LRT Easement Areas shall comprise that area of the Burdened Property as described in Section 3(a), (b), (c) and (d) herein.

(a) Permanent Easement Area. The Permanent Easement Area shall comprise that area of the Burdened Property as described in Section 3(a)(i) and (ii) herein, which description shall also define the horizontal and vertical dimensions of the Permanent Easement Area. The Initial Description is based on the design of the Public Ramp and its estimated location on the Burdened Property. The Initial Description is an approximation of the Permanent Description and shall be subject to the Permanent Description. The Permanent Description will be the "as built" dimensions of the Permanent LRT Easement Area as it will actually be constructed on top of and within the roof structure of the Public Ramp.

(i) Initial Description. The Initial Description of the Permanent Easement Area shall be that 3 dimensional area traversing the Burdened Property in a diagonal angle on top of and within the roof structure of the Public Ramp as noted and depicted on Exhibit B-1 attached hereto and incorporated herein, having a horizontal dimension of 57 feet wide, with a northerly boundary line beginning at a point 25 feet north of the 5th Street South and Park Avenue southwesterly corner property line, then extending southeasterly for a distance of 34 feet, and then running in an easterly direction a diagonal line distance of 395 feet 3 inches, to a point 52 feet 6 inches northwesterly of the 4th Street South and Kirby Puckett Place northeasterly corner property line, with the southerly boundary line being 57 feet from and running parallel to the northerly boundary line, beginning at a point 89 feet 3 inches southeasterly of the 5th Street South and Park Avenue southwesterly corner property line, and running an easterly diagonal line distance of 393 feet to a point 26 feet 1 inch southwesterly of the 4th Street South and Kirby Puckett Place northeasterly corner property line (the "LRT Surface Area"), and having a vertical dimension over the LRT Surface Area beginning at a surface elevation on top of and within

the roof structure of the Public Ramp, approximately 840.43 feet above sea level (the "LRT Surface Elevation"), and rising to a parallel height of 35 feet above the LRT Surface Elevation (the "LRT Ceiling Elevation").

(ii) Permanent Description. Upon completion of construction of the Public Ramp, the Permanent Description shall be made based upon the "as built" dimensions of the LRT Surface Area, LRT Surface Elevation and LRT Ceiling Elevation, and will be described on Exhibit B-3 and depicted on Exhibit B-4, to be attached hereto and incorporated herein.

(iii) Measurement. Measurement of the Permanent Description will be from the cross section of which shall at a minimum be measured from the outside edge of the southbound platform across to the outside edge of the northbound platform and including, where applicable, the Plaza to platform access ramp, containing, but not limited to the following LRT components: tracks, platform and platform surface, light poles, station signs, platform benches, information kiosks, canopy structures, systems components, ticket vending machines, electrical cabinets, telephone kiosks, hose bid, windscreens, overhead contact system poles and wire, fences, railings and rail cars. In the event that the as-built dimensions show minor de minimis encroachments outside of the stated dimensions of the Initial Description, the minor encroachments shall become part of the Permanent Description.

(b) Construction Easement Area. The Construction Easement Area shall comprise that 77 foot wide area of the Burdened Property as noted and depicted on Exhibit B-2 attached hereto and extending 10 feet in width from and running parallel to the northwest boundary line, and extending 10 feet in width from and running parallel to the southeast boundary line of the Permanent LRT Easement Area.

(c) Construction Staging Easement Area. The Construction Staging Easement Area shall comprise that area of the Burdened Property as noted and depicted on Exhibit B-2 attached hereto and located adjacent to and directly to the northwest of the Permanent and Construction Easement Areas.

(d) Platform Maintenance Easement Areas. The Platform Maintenance Easement Areas shall comprise those areas of the Burdened Property as noted and depicted on Exhibit B-1 attached hereto, with (i) the temporary northwest platform maintenance easement area extending 10 feet in width from and running parallel to the northwest boundary line of the Permanent Easement Area; and (ii) the permanent southeast platform maintenance easement area extending 5 feet in width and running parallel to the southeast boundary line of the Permanent Easement Area.

4. **EASEMENT TERM.**

(a) Permanent Easement. The term of the Permanent Easement granted herein shall be from the date of this Agreement and shall continue for so long as the LRT Project or a replacement transit system is operated within the Permanent Easement Area. The Grantee shall not enter, except as provided in Section 15, or take possession of the Permanent Easement Area or begin construction of the LRT Line and Station improvements until May 1, 2002 (the "Easement Entry Date"). Upon such time as the LRT Project or a replacement transit system cease operation within the Permanent LRT Easement Area, or the LRT Line and Station improvements are destroyed, demolished or damaged to such an extent that the improvements cannot or will not be repaired, rebuilt or replaced, then the Permanent Easement granted herein shall cease, terminate and be released, and the Grantee shall have no further use, rights, claims or interest in and to the easement granted herein or to the Permanent Easement Area.

(b) Construction Easement. The Construction Easement granted herein shall begin on the Easement Entry Date and shall terminate on December 31, 2004.

(c) Construction Staging Easement. The Construction Staging Easement granted herein shall begin on the Easement Entry Date and shall terminate on December 31, 2004.

(d) Platform Maintenance Easements. The Platform Maintenance Easements shall begin on January 1, 2005, and shall terminate on the date the Permanent Easement terminates as provided in Section 4(a) herein. The temporary maintenance easement for the northwest platform shall terminate at the time construction of the Office Development begins, at which time a permanent replacement maintenance agreement shall become effective.

5. **STRUCTURAL SUPPORT.**

(a) LRT Easements Support. As of the Easement Entry Date, the Grantor will deliver the LRT Easements with a below surface structural support system built into the Public Ramp capable of supporting the construction, testing, operation, maintenance, repair, replacement or removal of the LRT Line and Station, in accordance with and to the Grantee's specifications as provided in Exhibit C attached hereto (the "Structural Specifications").

(b) Load Limits. During the construction, testing, operation, maintenance, repair, replacement or removal of the LRT Line and Station, the Grantee shall observe and not exceed, the load limit requirements as provided in the Structural Specifications.

(c) Support Maintenance. Both the Grantor and the Grantee represent and warrant that they will, or cause their agents or contractors to, operate and maintain their respective Public Ramp or LRT Line and Station in accordance with the Structural Specifications and that they will not knowingly undertake any actions

that will adversely affect, damage, deteriorate, harm or destroy the Public Ramp structural support system necessary to support the LRT Line and Station.

(d) Support Verification. Prior to the Easement Entry Date, the Grantor will provide to the Grantee written verification that the structural support system built into the Public Ramp has been built to and meets the Structural Specifications. The Grantee may request at reasonable times, but no more than once per year, that the Grantor provide written verification that the structural support system built into the Public Ramp continues to meet the Structural Specifications.

6. **PROXIMITY EFFECTS OF LRT LINE AND STATION.**

(a) Notice and Acknowledgment. The Grantee represents to the Grantor, and the Grantor acknowledges such representation, that the operation of the LRT Line and Station will involve, at times, noise, vibration, drainage, corrosion and stray electrical current effects that could, over time, adversely deteriorate and damage any infrastructure or improvements within close proximity of the LRT Line and Station, including the Public Ramp and the Commercial Development. The Grantee advises the Grantor to undertake mitigating actions in order to protect the Transit Oriented Development from the negative effects of the LRT Line and Station described in this Section 6(a) herein.

(b) Stray Current Mitigation. In order to protect the LRT Line and Station and the Public Ramp from the adverse effects of stray electrical current, the Grantor and the Grantee agree to undertake the following mitigating actions: (i) the Grantee will provide electrically continuous reinforcing steel in the LRT track slab for a distance of 500 feet on both sides of the parking structure to provide a stray electrical current mat at this location; (ii) the Grantor will install a rubberized waterproofing roof membrane over the entire Public Ramp roof; (iii) the Grantee, within the LRT track trench area, will provide protection board on top of the Grantor's waterproofing membrane upon which a dielectric membrane will be placed in accordance with the Isolation Slab details shown in the Hiawatha LRT contract documents titled Sheet 32 of 1382, dated March 30, 2000, prepared by MnDOT, and such protection boards will be placed over the rubberized roof membrane prior to the Grantee's design/build contractor beginning any other work on the LRT station and tracks; (iv) the Grantor will use epoxy coated reinforcing steel in the plaza level and roof of the Public Ramp to mitigate possible stray electrical current effects on the Public Ramp; and (v) the Grantor will provide, at the plaza level and roof of the Public Ramp, full continuity and grounding of all reinforcing steel and post tensioning tendons, or such other method as reasonably determined by the Grantor and the Grantee, to mitigate possible stray electrical current effects.

7. **ENVIRONMENTAL CONDITIONS.**

(a) Notice. As of the date of this Agreement, the Grantor has received no notice or communication from any local, State of Minnesota or federal agency or official

stating that the activities of the Grantor on the Burdened Property may or will be in violation of any local, state or federal environmental law, regulation or review procedure, except as described in the environmental reports listed on Exhibit D attached hereto (the "Environmental Reports"), and that the Grantor is aware of no facts, the existence of which would cause it to be in violation of any local, State of Minnesota or federal environmental law, regulation or review procedure, or which would give any person a valid claim under the Minnesota Environmental Rights Act, except as described in the Environmental Reports. That relative to the Environmental Reports, a petroleum release has been identified on the Burdened Property pursuant to Minnesota Pollution Control Agency ("MPCA") Leak #00013494, and that the Grantor will take the required action to obtain closure from the MPCA regarding MPCA Leak #00013494. That upon such closure, the MCDA shall assist the Grantee to obtain an MPCA "Assurance" letter regarding MPCA Leak #00013494.

(b) Not a Responsible Party. The Grantor shall not hold the Grantee responsible for any environmental conditions pre-existing on the Burdened Property prior to May 1, 2002, and to the extent that any such pre-existing environmental conditions are found on the Burdened Property that will require any response or remedial action, monitoring or reporting requirements under any local, State of Minnesota or federal law, the Grantor shall handle all such matters, and shall have the responsibility to apply for and shall have Grantee named as easement holder beneficiary in any and all no association letters, no action/no further action letters and other environmental regulatory assurances required for or applicable to the Burdened Property. The provisions of this paragraph shall survive the termination of this Agreement.

(c) Limited Indemnification. Grantor shall defend, indemnify and hold harmless, Grantee and its members, employees, agents, successors and assigns from and against all claims, damages, losses and expenses, including but not limited to attorney's fees related to the remediation of MPCA Leak #00013494. This obligation shall not be construed to negate, abridge or otherwise reduce any other right or obligation of indemnity which otherwise would exist between the Grantor and the Grantee. The provisions of this paragraph shall survive the termination of this Agreement. This indemnification shall not be construed as a waiver on the part of either the Grantee or the Grantor of any immunities or limits on liability provided by Minnesota Statutes Chapter 466, or other applicable state or federal law.

8. **DELAY.**

(a) Delay. The Grantor has agreed to provide delivery of the LRT Easement Areas for possession by the Grantee by the Easement Entry Date. The Grantee represents to the Grantor and the Grantor acknowledges such representation, that if the Grantor is unable to deliver possession of the LRT Easement Areas to the Grantee by the Easement Entry Date, that the Grantee and the Grantee's contractors may suffer actual damages because of the Grantor's delay.

(b) Unavoidable Delays. The Easement Entry Date will be extended for delays that are the result of unforeseen or unavoidable events caused by acts of God, unusual or severe weather, fire or casualties, strikes or labor disputes, civil disturbances, war or other causes beyond the control of the Grantor or Grantor's contractors (the "Unavoidable Delays").

(c) Delay Damages. Subject to Unavoidable Delays, if the Grantor fails to deliver possession of the LRT Easement Areas by the Easement Entry Date, the Grantor will reimburse the Grantee for any payments the Grantee is required by law or contract to make to Grantee's contractors that are demonstrated to be solely caused by the failure of the Grantor to deliver possession of the LRT Easement Areas by the Easement Entry Date. The Grantee will affirmatively take all reasonable actions to mitigate any delay damages between the Grantee and Grantee's contractors that may be imposed upon the Grantor pursuant to this Section 8 herein.

(d) The Design Build Contractor ("D/B Contractor") for the LRT Project is under contract to MnDOT. If the D/B Contractor is delayed due to the Grantor's failure to provide Grantee access to the LRT Easement Areas by the Easement Entry Date, the Grantor will reimburse MnDOT for any payments MnDOT is required by law or contract to make to the D/B Contractor that are demonstrated to be solely caused by the failure of the Grantor to deliver possession of the LRT Easement Areas by the Easement Entry Date. Grantor's liability hereunder shall be limited to the extent that MnDOT and the D/B Contractor are unable to reasonably mitigate any delay damages.

9. PUBLIC RAMP EQUIPMENT AND FACILITIES PLACEMENT AND ACCESS.

The Public Ramp will include within or underneath its roof structure multiple conduits for the Grantee to locate and run traction electrification, LRT signals and communications systems, electrical wires, plumbing and drainage required for the operation of the LRT Line and Station. The Grantor will require the City, through the Public Ramp Easement and the Interface Agreements, to construct the conduit and to allow the Grantee permanent access pursuant to the Operations and Maintenance Agreement to the conduit and any other equipment or facilities that Grantee may locate, pursuant to the Construction Interface Agreement, within the Public Ramp, for maintenance and repair.

10. SIDEWALK RESERVATION.

The Grantor is going to grant the City a pedestrian right-of-way over and across the southeast corner of the Burdened Property, including the southeast entry way of the Permanent Easement, within the area as described and depicted in Exhibit B-1, attached hereto. The permanent description will be based on the "as built" location of the pedestrian right-of-way and will be depicted as Exhibit B-4. The Grantor reserves the right to grant the City this pedestrian right-of-way paramount and superior to the LRT Easements.

11. INTERFACE AGREEMENTS.

(a) Construction Interface Agreement. As soon as possible and no later than April 30, 2002, the Parties agree to enter into the Construction Interface Agreement ("Construction Interface Agreement") between themselves and the City and MnDOT which will:

(i) govern the entry upon and use of Grantee's Permanent, Temporary Construction and Temporary Construction Staging LRT Easement Areas by the parties to the Construction Interface Agreement, their employees, agents, contractors, successors and assigns for so long as the LRT Easements are in effect; and

(ii) govern the construction and testing coordination and interface between the LRT Project and the Transit Oriented Development and any other public projects interacting with the LRT Project.

(iii) The executed Construction Interface Agreement will become part of and is hereby incorporated into this Easement Agreement as Exhibit E.

(b) Operations and Maintenance Interface Agreement. As soon as possible and no later than April 30, 2003, the Parties agree to enter into an Operations and Maintenance Interface Agreement ("Operations and Maintenance Interface Agreement") between themselves and the City of Minneapolis which will:

(i) govern the entry upon and use of Grantee's Permanent, Construction, Construction Staging and Platform Maintenance Easement Areas by the parties to the Operations and Maintenance Interface Agreement, their employees, agents, contractors, successors and assigns for so long as the LRT Easements are in effect; and

(ii) govern the operations and maintenance coordination and interface between the LRT Project and the Transit Oriented Development and any other public projects interacting with the LRT Project;

(iii) The executed Operation and Maintenance Interface Agreement will become part of and is hereby incorporated into this Easement Agreement as Exhibit F.

12. GRANTEE USE CONDITIONS.

Upon the Easement Entry Date, the Grantee will have the free use and enjoyment and possession of the LRT Easement Areas, subject to the following conditions:

(a) Costs. The Grantee will be responsible for and pay, when due, all costs, expenses, fees, permits, licenses, utilities, taxes and governmental charges in connection with the construction, operation and maintenance of the LRT Line and Station, and the use and possession of the LRT Easement Areas.

(b) Permits and Approvals. The Grantee will secure, at Grantee's sole cost, all permits, licenses and approvals necessary and required for the Grantee's permitted use and possession of the LRT Easement Areas.

(c) No Liens or Encumbrances. The Grantee, in its use and possession of the LRT Easement Areas, will not permit or grant any security interest in, or create or allow to exist, any liens, charges or encumbrances in or to the LRT Easement Areas.

(d) Applicable Laws. The Grantee will comply with all applicable federal, state and local laws, ordinances and regulations in the Grantee's use and possession of the LRT Easement Areas.

(e) Construction of Improvements. The Grantee will, or cause its contractors to, construct the LRT Line and Station improvements entirely within the LRT Permanent Easement Area, and such improvements will not encroach upon, or overhang, or penetrate or unduly interfere with or into the Burdened Property or the Transit Oriented Development.

(f) Insurance. The Grantee is a self-insured public entity subject to the public entity tort liability limits of Minnesota Statutes, Section 466. The Grantee for the construction and testing of the LRT Line and Station has obtained an Owner Controlled Insurance Program insurance policy, providing commercial general liability and "all-risk" builders risk property coverage for Grantee's use and possession of the LRT Easement Areas. The Grantee will provide the Grantor with a copy of this insurance policy and with respect to this Agreement name the Grantor and the City of Minneapolis as additional insureds under the policy. The Grantor, or its agents or contractors, will provide statutorily required workers compensation insurance for all employees working within the LRT Easement Areas.

(g) Hazardous Waste. The Grantee, in its use and possession of the LRT Easement Areas, will not, nor cause to be, nor allow any other person to, deposit, store, dispose of, place or otherwise locate or allow to be located on or within the LRT Easement Areas, any hazardous substances, hazardous wastes, pollutants or contaminants, including petroleum-based products, as those terms are defined under any federal, State of Minnesota or local statute, ordinance, code or regulation, except such hazardous substances as are ordinarily used in and necessary for the construction, operation and maintenance of the LRT Line and Station, provided that such use is in accordance with all applicable laws and regulations.

13. GRANTOR RESERVATION OF RIGHTS.

The Grantor hereby reserves for itself, its successors and assigns, the following rights within the Easement:

(a) Reciprocal Rights. The Grantor shall have the reciprocal right to the full use and enjoyment of the Permanent Easement Area as a member of the public subject to the ordinary condition and restriction the Grantee may establish for the LRT Easement Areas.

(b) Improvements. Subject to the terms of the Interface Agreements, the Grantor has the right to construct and maintain, within the Permanent Easement Area, certain improvements that are necessary and required to support the Transit Oriented Development, including, but not limited to, HVAC systems, structural columns and supports, and ingress and egress access. Upon the effective date of the Permanent, Temporary Construction and Temporary Construction Staging LRT Easements, Grantor, its employees, agents, contractors, successors and assigns shall have no right to enter upon or use in any way the Grantee's LRT Easements except (a) with the written permission of Grantee or (b) in accordance with the terms and conditions of the Interface Agreements. The construction and maintenance of any Transit Oriented Development improvements within the Permanent Easement Area shall not unduly interfere with or disrupt or impede the Grantee's use and possession of the Permanent Easement Area, or with the construction, operation and maintenance of the LRT Line and Station. In the construction, inspection, maintenance, repair or replacement of any Transit Oriented Development improvements within the Permanent Easement Area, the Grantor, its employees, agents or contractors shall: (i) remove all equipment, materials and other personal property placed upon the Permanent Easement Area; (ii) remove all debris resulting therefrom; and (iii) generally restore any disturbance to the Permanent Easement Area as near to its original condition as possible, except for the permitted improvements constructed or placed thereon.

(c) Air and Below Surface Rights. The Grantor has the right to construct, operate and maintain Transit Oriented Development improvements in those areas of the Burdened Property that lie adjacent to, over, under and around, including air and below surface rights, the Permanent Easement Area, so long as such improvements do not unduly interfere with or disrupt or impede the Grantee's use and possession of the Permanent Easement Area, or the LRT Line and Station and provided that the construction, operation and maintenance of the Transit Oriented Development improvements are in accordance with terms of the Interface Agreements.

(d) Consultation and Notice. Prior to undertaking any construction or maintenance as described in Section 13(a) herein, the Grantor shall consult with the Grantee regarding the construction or maintenance work to be undertaken by the Grantor. The Grantor, its employees, agents, contractors, successors and assigns will have no right to enter upon or use in any way the Permanent Easement Area except (a) with the written permission of Grantee, or (b) in accordance with the terms and conditions of the Interface Agreements.

14. **LIABILITY.**

Each party agrees that it will be responsible for its own acts and the results thereof, to the extent authorized by the law and shall not be responsible for the acts of the other party and the results thereof. Grantor's and Grantee's liability is governed by the provisions of Minnesota Statutes, Chapter 466.

Grantor and Grantee each warrant that they are able to comply with the aforementioned indemnity requirements through an insurance or self-insurance program and have minimum coverage consistent with the liability limits contained in Minnesota Statutes, Chapter 466.

15. **RIGHT OF ENTRY.**

The Grantor hereby grants to the Grantee a right of entry to enter upon the LRT Easement Areas between May 1, 2001, and the Easement Entry Date for the purpose of undertaking site investigation, surveying and engineering analysis. The Grantee shall (i) obtain the Grantor's approval twenty-four (24) hours prior to any entry; (ii) meet the Section 12 conditions, including insurance and indemnification; and (iii) not unduly interfere with, disrupt or impede the Grantor's use and possession of the Burdened Property.

16. **COVENANT OF OWNERSHIP.**

Grantor covenants that it is the Owner of and is in possession of the above-described premises and has the lawful right and authority to convey and grant the easements and right of entry described herein.

17. **MISCELLANEOUS.**

(a) Notices. All notices provided for herein shall be in writing and shall be deemed to have been given when delivered personally or when deposited in the United States mail, registered or certified, postage prepaid, addressed as follows:

If to Grantee, at: Metropolitan Council
230 East Fifth Street
St. Paul, Minnesota 55101-1626
Attention: Regional Administrator

If to Grantor, at: Minneapolis Community Development Agency
105 Fifth Avenue South
Minneapolis, Minnesota 55401-2534
Attention: Executive Director

(b) Governing Law. This Agreement may be construed and enforced according to and governed by the laws of the State of Minnesota.

(c) Counterparts. This Agreement may be executed in any number of counterparts, all of which shall constitute a single agreement, any one of which bearing signatures of all parties shall be deemed an original.

(d) Time. Time is of the essence in the performance of this Agreement.

(e) Entire Agreement. This Agreement contains the entire agreement of the parties hereto on the matters covered herein. No other agreement, statement or promise made by any party or by any employees, officer, or agent of any party hereto that is not in writing and signed by all the parties to this Agreement shall be binding.

(f) Severability. In any term, condition or provision of this Agreement or the application thereof to any person or circumstance shall, to any extent, be held to be invalid or unenforceable, the remainder thereof and the application of such term, provision and condition to persons or circumstances other than those as to whom it shall be held invalid or unenforceable shall not be affected thereby, and this Agreement and all the terms, provisions and conditions hereof shall, in all other respects, continue to be effective and to be complied with to the full extent permitted by law.

(g) No Joint Venture. The relationship between Grantor and Grantee is solely that of Grantor and Grantee and is not, nor shall it be deemed to create, a partnership or joint venture in the Project.

18. **COVENANT RUNNING WITH THE LAND.**

The Permanent Easement granted herein shall run with the land and shall be binding upon and inure to the benefit of the Grantee and the Grantor, and their respective successors and assigns.

[REMAINDER OF PAGE LEFT BLANK]

IN WITNESS WHEREOF, the Grantor and Grantee have caused this Easement Agreement to be duly executed in their respective names as of the date first written above.

GRANTOR:

MINNEAPOLIS COMMUNITY DEVELOPMENT AGENCY

By _____
Its Commissioner

By _____
Its Commissioner

Approved as to form:

_____
Assistant Development Counsel

STATE OF MINNESOTA)
) ss.
COUNTY OF HENNEPIN)

The foregoing instrument was acknowledged before me this 22 day of March 2001 by Jim Niland and Lisa Goodman, Commissioners of the Minneapolis Community Development Agency, a public body corporate and politic under Minnesota law, on behalf of said body corporate and politic.

SUSAN M. GAFFNEY
NOTARY PUBLIC-MINNESOTA
My Commission Expires Jan. 31, 2005

_____
Notary Public

Signature page for Easement Agreement
(Downtown East LRT Line and Station Site)

GRANTEE:

METROPOLITAN COUNCIL

By _____
Chief Financial Officer
for Its Regional Administrator

Approved as to form:

_____
Assistant General Counsel

STATE OF MINNESOTA)
) ss.
COUNTY OF ~~HENNEPIN~~ Ramsey)

The foregoing instrument was acknowledged before me this 22nd day of March 2001 by Beth Widstrom Anderson and _____, the Chief Financial Officer* and _____ of the Metropolitan Council, a public corporation and political subdivision of the State of Minnesota, on behalf of said public corporation.

* For its Regional Administrator

_____
Notary Public

ELIZABETH MARQUARDT
NOTARY PUBLIC-MINNESOTA
MY COMMISSION EXPIRES 1-31-2005

Tax Statements for the Real Property Described in this Instrument should be sent to:

Metropolitan Council
230 East Fifth Street
St. Paul, Minnesota 55101-1626

THIS INSTRUMENT WAS DRAFTED BY:
Minneapolis Community Development Agency (RJA)
105 Fifth Avenue South, Suite 405
Minneapolis, Minnesota 55401-2534

Signature page for Easement Agreement
(Downtown East LRT Line and Station Site)

SCHEDULE OF EXHIBITS

Exhibit A	Legal Description of Burdened Property
Exhibit B-1	Initial Depiction of Permanent Easement
Exhibit B-2	Depiction of Construction Easement and Construction Staging Easement
Exhibit B-3	Permanent Description of Permanent Easement (Future Exhibit)
Exhibit B-4	Permanent Depiction of Permanent Easement (Future Exhibit)
Exhibit C	Structural Specifications
Exhibit D	Environmental Reports
Exhibit E	Construction Interface Agreement (Future Exhibit)
Exhibit F	Operations and Maintenance Interface Agreement (Future Exhibit)

EXHIBIT A TO
EASEMENT AGREEMENT

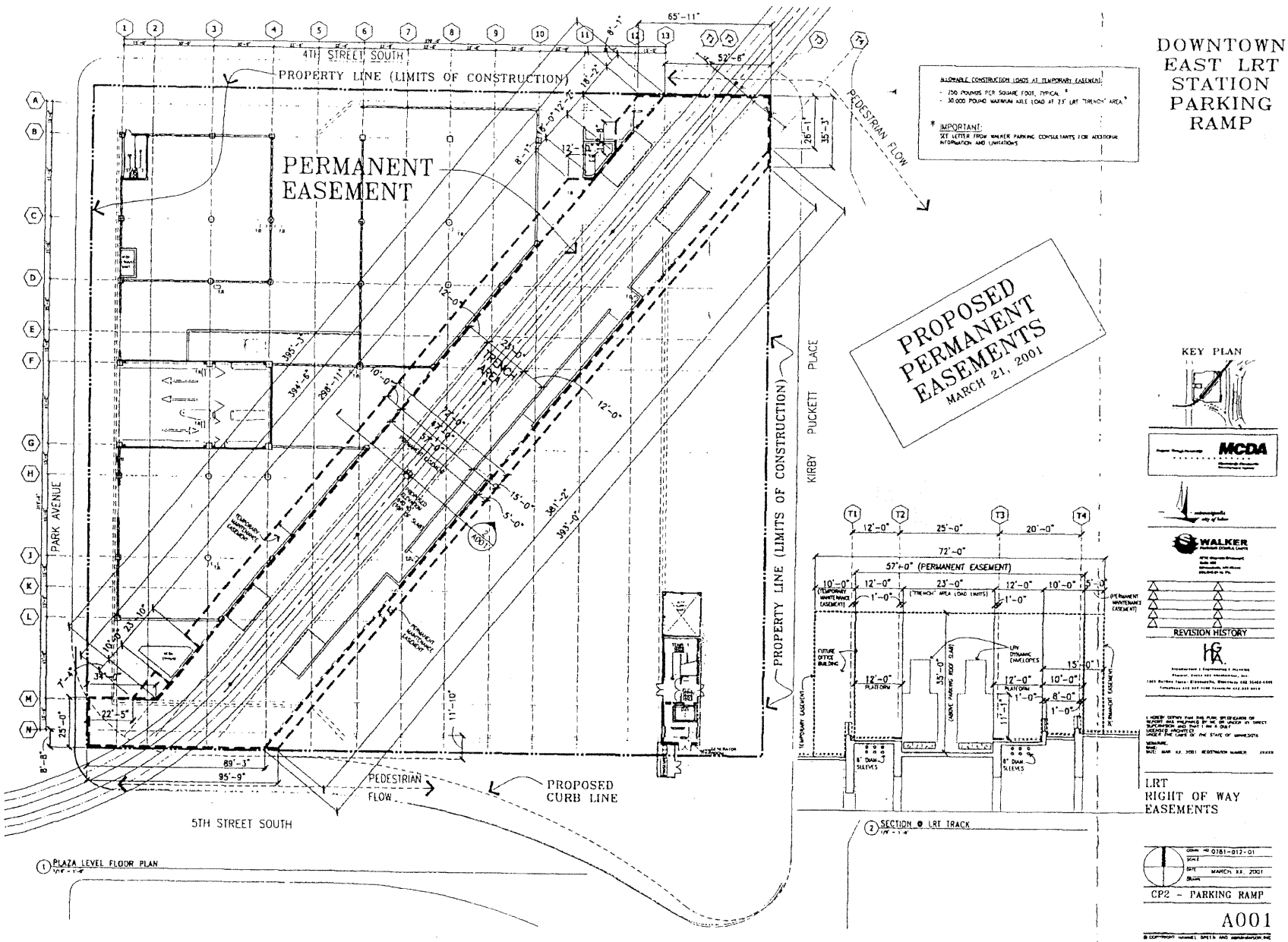
LEGAL DESCRIPTION OF BURDENED PROPERTY

1062566

Lots 1, 2, 3, 4, 5, 6, 7, 8, 9 and 10, Block 73, Town of Minneapolis, and that part of the Southeasterly 6 feet of Seventh Avenue vacated, lying between extensions across said strip of land of the Southwesterly line of said Lot 1 and the Northeasterly line of said Lot 10, according to the recorded plat thereof, and situate in Hennepin County, Minnesota.

Being registered land.

EXHIBIT B-1



1 PLAZA LEVEL FLOOR PLAN

ALLOWABLE CONSTRUCTION LOADS AT TEMPORARY EASEMENT:
- 250 POUNDS PER SQUARE FOOT, TYPICAL *
- 30,000 POUND MAXIMUM AXLE LOAD AT 25' LRT "TRENCH" AREA *

* IMPORTANT:
SEE LETTER FROM WALKER PARKING CONSULTANTS FOR ADDITIONAL INFORMATION AND LIMITATIONS

PROPOSED PERMANENT EASEMENTS
MARCH 21, 2001

2 SECTION @ LRT TRACK

KEY PLAN

MCDA

WALKER

REVISION HISTORY

HGA

LRT RIGHT OF WAY EASEMENTS

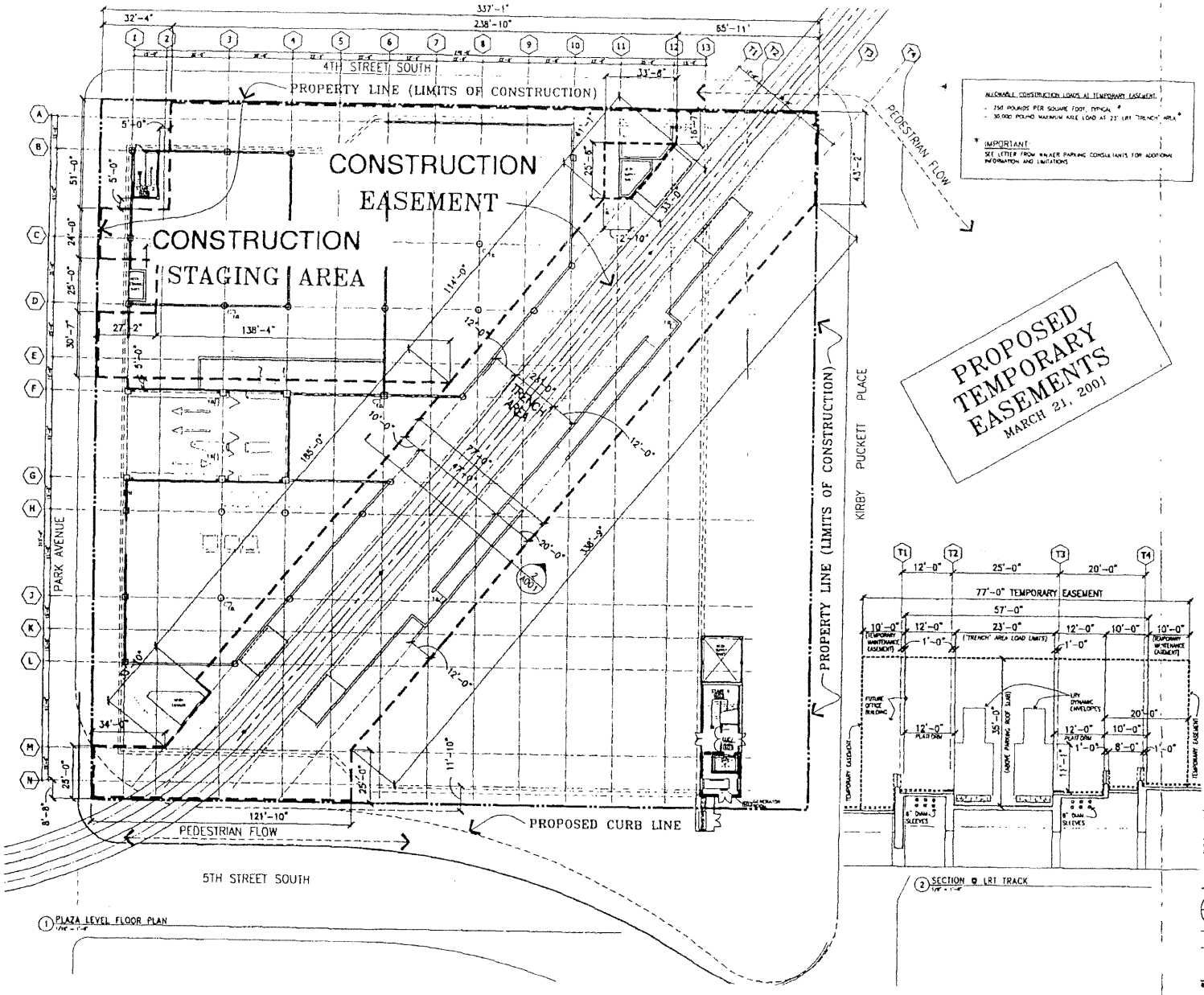
DOWNTOWN EAST LRT STATION PARKING RAMP

CP2 - PARKING RAMP

A001

EXHIBIT B-2

DOWNTOWN EAST LRT STATION PARKING RAMP



1 PLAZA LEVEL FLOOR PLAN

ALLOWABLE CONSTRUCTION LOADS AT TEMPORARY EASEMENT

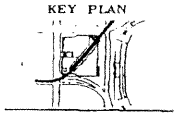
- 250 POUNDS PER SQUARE FOOT, TYPICAL *
- 30,000 POUND MAXIMUM AXLE LOAD AT 23' LRT "TRENCH" AREA *

* IMPORTANT
SEE LETTER FROM WALKER PARKING CONSULTANTS FOR ADDITIONAL INFORMATION AND LIMITATIONS

PROPOSED TEMPORARY EASEMENTS
MARCH 21, 2001

2 SECTION @ LRT TRACK

KEY PLAN



MCDA

WALKER

REVISION HISTORY

HGA

LRT RIGHT OF WAY EASEMENTS

CONF. NO. 0781-012-01
SCALE
DATE MARCH XX, 2001
CP2 - PARKING RAMP

A001

EXHIBIT C

WALKER
PARKING CONSULTANTS

Walker Parking Consultants
5775 Wayzata Boulevard, Suite 425
Minneapolis, MN 55416

Voice: 952.595.9116
Fax: 952.595.9518
www.walkerparking.com

March 21, 2001

Richard Victor
MCDA
Crown Roller Mill, Suite 600
105 – 5th Avenue South
Minneapolis, Minnesota 55401-2538

Re: Downtown East LRT Station Parking Ramp
LRT Design Criteria Conformation
Walker Commission No. 21-2922.10/120

Dear Dick:

The purpose of this letter is to confirm that the design criteria used for the LRT support structure is consistent with criteria provided by the Hiawatha Project Office (HPO). Our design is based on Sections 18.0 through 18.4.1 regarding design codes, manuals, specifications, materials, loads and forces. Sections 18.4.2, 18.5 and 18.6 pertain to other structures.

The design criteria emailed from Jo Lynn Smith on March 13th is consistent with criteria provided early in the design process. A copy of the March 13th design criteria is attached.

We have included a reference to the LRT design criteria on our General Notes Sheet S000. The reference reads as follows:

Paragraph I-B-10:
"LRT design criteria is defined by the Minnesota Department of Transportation - Hiawatha LRT Project, Mn/DOT Agreement No. 80365. See detail 4/S505 for LRV and Maintenance Vehicle load diagrams."

Our Detail 4/S505 shows the loading diagram of the LRT and Maintenance Vehicle loads.

Please call on us if we can be of further assistance or answer any questions.

Sincerely,
WALKER PARKING CONSULTANTS

Darwin Muzzy, P.E.
Project Engineer

Enclosure: email and LRT design criteria
DLM/rgh
cc: Mike Niemeyer – HGA
Bill Sikora - HGA

J:\21-2922.10 East Station LRT\Correspondence\letter032101victor.doc

PART 5

PERFORMANCE AND DESIGN CRITERIA

CONFIGURATION INDEX

18.3.2.4 Dimension Lumber

Wood design stresses shall be base design values for visually graded lumber. Lumber shall be seasoned to 19 percent maximum moisture content at the time of dressing. Lumber species and grade required for design loads shall be clearly indicated on the plans.

18.3.2.5 Concrete Masonry

Hollow Load Bearing Concrete Masonry Units shall conform to ASTM C90.

Hollow Non-Load Bearing Concrete Masonry Units shall conform to ASTM C129.

Solid Load Bearing Masonry Units shall conform to ASTM C145.

Grout for Reinforced and Non-Reinforced Concrete Masonry shall conform to ASTM C476.

18.4 LOADS AND FORCES

Loads for structures shall be in accordance with the previously specified Design Codes, Manuals, and Specifications except as otherwise noted or modified herein.

Load combinations are in accordance with AREMA.

18.4.1 Transportation Structures

The following loads and forces shall be considered when designing structures:

D	=	Dead Load System Wide Equipment Loads
L	=	Live Load Pedestrian Live Loads Miscellaneous Live Loads
I	=	Impact
CF	=	Centrifugal Force Hunting Force
LF	=	Longitudinal Force from Live Load
F	=	Longitudinal Force due to Friction or Shear Resistance at Expansion Bearings
E	=	Earth Pressure
B	=	Buoyancy
W	=	Wind Load on Structure
WL	=	Wind Load on Live Load
S	=	Snow Load
OF	=	Other Forces Rib Shortening

Shrinkage
Creep
Temperature
Settlement of Supports
Derailment
Rail Break
Collision Load
Rail Restraint

18.4.1.1 Dead Load (D)

The dead load shall be computed from the actual weight of the structure and its permanent fixtures.

18.4.1.2 Live Load (L)

Live load shall consist of any non-permanent loads including the weight of machinery, equipment, stored materials, persons, or other moving objects, construction loads, and loads due to maintenance of operations.

LRV design load shall be as prescribed in Figure 18-1 and as noted herein. Figure 18-1 is a schematic diagram that depicts the position and load of each LRV axle. As the vehicle design advances, some modification to this schematic diagram can be expected. The data presented in Figure 18-1 should be used for initial design, recognizing that structural calculations will be required to confirm the adequacy of the final design after the vehicle characteristics are confirmed. In all cases, the combination of train lengths used for structural design shall be the one that produces the most severe conditions on the element being designed. An LRV train may consist of one, two, or three cars.

Maintenance Vehicle design load for LRT structures shall be as prescribed in Figure 18-1 and as noted herein. Figure 18-1 is a schematic diagram that depicts the position and load of each maintenance vehicle axle. For design of structural members subjected to Maintenance Vehicle live loads, the allowable percentage of basic unit stress shall be 125 for service load design, and the AREMA Group 1A load combination shall be used for load factor design.

Highway live loads for structures shall be HS-25.

Pedestrian live loads shall be a uniform load of 150 psf for station platforms, pedestrian ramps, mezzanines and other pedestrian areas.

Service walkways and emergency walkways shall be designed for a uniform load of 85 psf.

Stairways shall be designed for a uniform load of 100 psf or a concentrated load of 300 pounds at each stair tread applied to produce a maximum stress condition, whichever produces the greater stress.

Railings shall be designed in accordance with the provisions stipulated by AASHTO 16th ed. Article 2.7 – Railings.

Floors and all other areas not specified herein shall be designed for a uniform load of 150 psf or a concentrated load of 2000 pounds acting in an area 3 inch square applied to produce a maximum stress condition, whichever produces the greater stress.

Equipment rooms and storage spaces shall be designed for equipment loads or a uniform load of 250 psf, whichever produces the greater stress.

Aerial structures shall be designed for all loads resulting from the method and route to be used for the installation and subsequent removal and replacement of the various items of equipment.

18.4.1.3 Dynamic, Vibratory and Impact Due to LRVs Loading (I)

The standard structural loading shall be increased for dynamic, vibratory, and impact effects for those structures, or parts thereof as follows:

- Superstructures, including steel or concrete supporting columns, steel towers, legs of rigid frames, and generally those portions of the structure which extend down to the main foundation.

- That portion of concrete or steel piles above the ground line, when they are rigidly connected to the superstructure, as in rigid frames and continuous structures.

Items to which dynamic, vibratory, and impact does not apply are as follows:

- Abutments, retaining walls, wall-type piers, and piles, except those described above.

- Foundations and footings.

- Service walks.

- Culverts and other buried structures having a cover of 3 ft. or more.

18.4.1.3.1 Vertical Impact Force (I)

The vertical impact force shall be determined by the provisions of Article 3.8.2 – Impact Formula of AASHTO 16th ed. The impact factor shall be applied to the standard LRV loading (Figure 18-1).

18.4.1.4 Centrifugal Force (CF)

Structures that carry LRV on curves shall be designed for a centrifugal force per AREMA.

18.4.1.4.1 Hunting Force (CF)

Provisions shall be made for a transverse horizontal hunting force equal to 10 percent of the standard LRV loading (Figure 18-1) without impact. This force shall be applied as concentrated loads at the axle locations, acting in either direction transverse to the track through a point at the top of the low rail.

18.4.1.5 Longitudinal Force (LF)

The structures subject to LRV loading shall be designed for longitudinal forces listed herein.

18.4.1.5.1 Acceleration and Deceleration (LF)

Provision shall be made for the longitudinal force (LF) due to train acceleration and deceleration. The magnitude of the longitudinal force shall be computed as follows:

$$LF = 0.046 * W * A$$

Where W = vehicle weight (Figure 18-1)
A = vehicle acceleration or deceleration rate in mph/sec

This force shall be applied to the rails and supporting structure as uniformly distributed load over the length of the train in a horizontal plane at the *top of low rail.* Consideration shall be given to various combinations of acceleration and deceleration forces where more than one track is carried by the structure. The designer is responsible for confirming acceleration and deceleration rates to be used in calculating forces with the vehicle manufacturer. For the design of structural members subjected to an emergency braking force, the allowable percentage of basic unit stress may be increased to 133 for the Group III service load design, and for load factor design the Group III load factor may be reduced to 1.2.

18.4.1.6 Friction or Shear Resistance at Expansion Bearings (F)

Bridge structures shall be designed to accommodate forces due to friction or shear resistance that is generated at expansion bearings.

18.4.1.7 Earth Pressure (E)

All substructure elements shall be proportioned to withstand earth pressure as determined by geotechnical analysis.

In general, the following guidelines shall be adhered to:

- Structures that retain earth and are able to displace sufficiently to develop an active earth failure, shall be designed for active earth pressure due to earth abutting against the structure and load surcharges imposed on abutting earth. When displacement is limited or prevented, higher earth pressures will exist and shall be considered in design. Consideration shall also be given to multi-layered effects where substantial differences in soil properties occur over the depth of the structures.

- Live loads and dead loads from adjacent building foundations shall be considered in computing horizontal pressures.

- Passive earth pressure acting against the front face of a wall shall be neglected when computing the factors of safety for sliding or overturning.

- LRV loading may be assumed as a uniform surcharge load equal to two additional feet of earth.

18.4.1.8 Buoyancy (B)

Structures shall be designed for a buoyancy force as applicable.

18.4.1.9 Wind Load on Structure (W)

All bridges shall be designed for wind load on structure as per AASHTO 16th Ed.

18.4.1.10 Wind Load on Live Load (WL)

The structures subject to LRV loading shall be designed for a wind load of 300 plf that is applied horizontally to the LRV. The load shall be applied *7.5 feet above the top of rail* in a direction perpendicular to the centerline of track.

18.4.1.11 Earthquake Loads (EQ)

Subject to the Designers discretion, earthquake analysis will not be considered to have significant impact on any of the load cases and does not need to be considered for design.

18.4.1.12 Other Loads (OF)

18.4.1.12.1Snow Load (OF)

Structures shall be designed for snow loads as applicable.

18.4.1.12.2Temperature (OF)

Provisions shall be made to design the LRT structures for stresses or movements resulting from temperature variations. Thermal forces that develop due to the

restraint of continuous welded rail, shall be considered as a temperature load. The expected temperature rise and fall shall be taken as follows:

- .....Concrete
  Temperature rise .....35°F
  Temperature fall.....45°F

- .....Steel
  Temperature rise .....60°F
  Temperature fall.....90°F

- .....Rail
  Temperature rise .....TBD
  Temperature fall.....TBD

Thermal forces that develop due to the restraint of continuous welded rail shall be considered as a temperature load. These forces shall be applied in a horizontal plane at the top of the low rail. The temperature range, and the magnitude and direction of the forces shall be determined by the Designer.

18.4.1.12.3Derailment (OF)

The superstructures for LRT aerial structures shall be designed for a vertical derailment load caused by a misdirected LRV, that is oriented with its longitudinal axis parallel to the track, but is transversely positioned a minimum of 1 foot 6 inches to a maximum of 3 feet from the centerline of the track.

The derailment load shall be equivalent to a standard light rail transit vehicle axle load, plus an impact factor of 100 percent. For the derailment condition, a derailment load from two adjacent axles shall be simultaneously applied to the deck. The load from the remaining light rail vehicle axles shall be applied through the rail using a normal impact factor. The derailment load axles should be selected such that they generate the critical loading condition for the structure.

When checking any component of superstructure or substructure that supports two or more tracks, only one train on one track shall be considered to have derailed, the other track(s) being either unloaded or loaded with a stationary train, whichever condition controls structural stability or design of the element under consideration.

When investigating derailment loads the percentage of basic unit stress may be increased to 150 percent. For prestressed concrete members, the steel stress shall not exceed 85 percent of the ultimate tensile strength ($0.85\ f'_s$) and the concrete stress shall not exceed 60 percent of the 28-day compressive strength ($0.60f'_c$). For load factor design, the group load factor may be reduced to 1.1.

18.4.1.12.4Rail Break (OF)

Structures shall be designed to accommodate the temporary loads associated with rail replacement. In addition, the structures shall be capable of adequately maintaining a broken rail with not more than a 2-inch gap at any one rail supported by the structure.

18.4.1.12.5Rail Restraint (OF)

Whenever a continuous welded rail is terminated, provisions must be made to control the longitudinal forces. The designer shall determine the magnitude, directions, and point of application of the forces.

Termination, as used in the above paragraph, means absolute termination. The placement of a turnout or crossover between ends of continuous welded rail does not necessarily result in absolute termination of the rail. The continuous welded rail is not considered to be terminated if some means is provided, under the turnout or crossover, to transmit the above force from the end of one rail to the end of the other.

18.4.1.13 Transit Vehicle Load Distribution

Live load is to be distributed using the provisions stipulated by AREMA Chapter 8 Concrete Structures and Foundations and Chapter 15 Steel Structures.

18.4.2 Buildings and Non-Transportation Structures

The following loads and forces shall be considered when designing structures:

D	=	Dead Load
		System Wide Equipment Loads
L	=	Live Load
		Pedestrian Live Loads
		Miscellaneous Live Loads
E	=	Earth Pressure
B	=	Buoyancy
W	=	Wind Load on Structure
EQ	=	Earthquake
S	=	Snow Load

18.4.2.1 Dead Load (D)

The dead loads consist of the actual weight of the structure including but not limited to walls, floors, partitions, roofs, electrification, safety walks, pipes, conduits, cables, utilities, services, and all other permanent construction fixtures.

The dead load shall be computed from the weights of the material composing the structure and its permanent fixtures. The approximate unit weights of materials normally used in construction are shown below. A specific check should be made as

to the actual weight where a variation might affect the adequacy of the design, or in cases where the construction may vary from normal practice.

Approximately unit weights of construction materials:

Aluminum alloys	175 pcf
Asphalt mastic, bituminous macadam	150 pcf
Ballast, crushed stone	120 pcf
Ceilings, plaster board, unplastered	3 psf
gypsum ceiling tile, 2" unplastered	9 psf
pressed steel	2 psf
Ceramic glazed structural facing, 4"	33 psf
Floors, gypsum floor slab, per inch	5 psf
asphalt mastic	5 psf
ceramic tile, on 1" mortar bed	23 psf
linoleum, ¼"	2 psf
maple, 7/8" on sheathing, 2 "cinder fill, no ceiling	18 psf
oak, 7/8" on sheathing, wood joists as 16" centers, no ceiling	11 psf
Glass	160 pcf
Gravel, sand	120 pcf
Iron, Cast	450 pcf
Partitions, plaster, 2" channel stud metal lath	20 pcf
plaster; 4" channel stud, metal lath	32 psf
hollow plaster; 4" metal lath	22 psf
gypsum block, solid; 3", both side plastered	19 psf
gypsum block, hollow; 5'; both side plastered	22 psf
steel partitions	4 psf
ceramic glazed structure tile, 4"	33 psf
Roofs, roofing, felt, 3 ply, and gravel	5.5 psf
5 ply	6.5 psf
sheathing, ¾" thick	3.5 psf
Steel	490 pcf
Timber, untreated	48 pcf
treated	60 pcf
Walls, brick solid, per in	10 psf
glass, structural, per in	15 psf
windows, frame, glass, sash	8 psf
stone, 4"	55 psf
steel sheet, 14 gauge	3 psf
Concrete, reinforced or prestressed	150 pcf

18.4.2.2 Live Load (L)

Live load shall consist of any non-permanent loads including the weight of machinery, equipment, stored materials, persons, or other moving objects, construction loads, and loads due to maintenance of operations.

Pedestrian live loads shall be a uniform load of 150 psf for station platforms, pedestrian ramps, mezzanines and other pedestrian areas.

Service walkways and emergency walkways shall be designed for a uniform load of 85 psf.

Stairways shall be designed for a uniform load of 100 psf or a concentrated load of 300 pounds at each stair tread applied to produce a maximum stress condition, whichever produces the greater stress.

Floors an all other areas not specified herein shall be designed for a uniform load of 150 psf or a concentrated load of 2000 pounds acting in an area 3 inch square applied to produce a maximum stress condition, whichever produces the greater stress.

Equipment rooms and storage spaces shall be designed for equipment loads or a uniform load of 250 psf, whichever produces the greater stress.

Aerial structures shall be designed for all loads resulting from the method and route to be used for the installation and subsequent removal and replacement of the various items of equipment.

18.4.2.3 Earth Pressure (E)

All substructure elements shall be proportioned to withstand earth pressure as stipulated by the Contractors geotechnical engineer.

In general, the following guidelines shall be adhered to:

- Structures that retain earth and are able to displace sufficiently to develop an active earth failure, shall be designed for active earth pressure due to earth abutting against the structure and load surcharges imposed on abutting earth. When displacement is limited or prevented, at rest earth pressures will exist and shall be considered in design. Consideration shall also be given to multi-layered effects where substantial differences in soil properties occur over the depth of the structures.

- Live loads and dead loads from adjacent building foundations shall be considered in computing horizontal pressures.

- Passive earth pressure acting against the front face of a wall shall be neglected when computing the factors of safety for sliding or overturning.

- LRV loading may be assumed as a uniform surcharge load equal to two additional feet of earth.

18.4.2.4 Buoyancy (B)

Structures shall be designed for a buoyancy force as applicable.

18.4.2.5 Wind Load on Structure (W)

All structures shall be designed for wind as per the Minnesota State Building Code.

18.4.2.6 Earthquake Loads (EQ)

Subject to the Designers discretion, earthquake analysis will not be considered to have significant impact on any of the load cases and does not need to be considered for design.

18.4.2.7 Snow Load (S)

All structures shall be designed for snow loads as per Minnesota State Building Code.

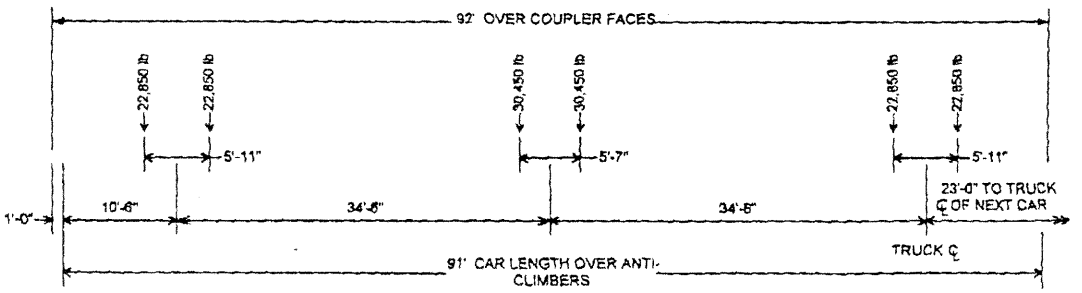
18.5 SPECIAL REQUIREMENTS FOR TRANSPORTATION STRUCTURES

18.5.1.1 Bridge Geometry

Preliminary bridge plans for the new Hiawatha LRT viaduct structures are presented as Indicative Drawings in Contract Documents Part 12. These plans depict a feasible solution and that conveys the general scope of the Work. However, the Contractor is permitted to seek other solutions that would enhance the overall objectives of delivering the Hiawatha LRT Project on time, within budget, and in compliance with quality standards specified by these Contract Documents.

The completed viaducts will be prominent features of the LRT system, and therefore, they must be designed with due regard for aesthetics and compatibility with the surrounding environment. The viaducts should be proportioned as sleek, elegant structures, which is typically achieved by minimizing the number of intermediate piers between bridge abutments.

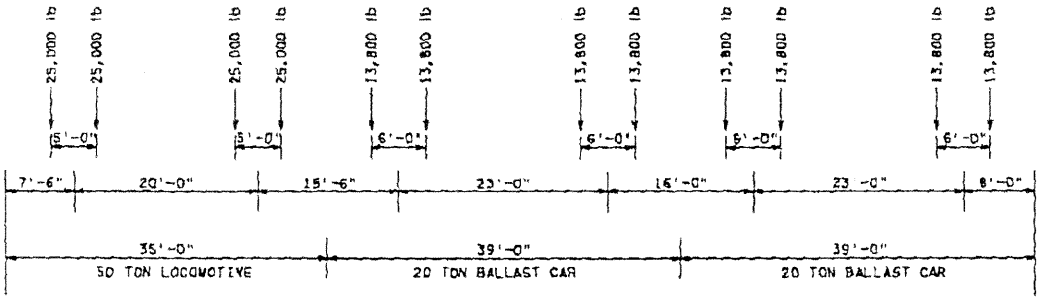
The preliminary layouts are established in the Indicative Drawings. Proposed design span lengths shall generally be similar to or greater than those depicted by the Indicative Drawings. Bridges shall not be split into two or more structures separated by a section of retained fill, but rather shall be one continuous bridge from abutment to abutment. In all cases, the bridge abutments, embankment slopes, and piers shall be located beyond the roadway clear zones. Designs that increase the distance between the roadway clear zone and adjacent substructure elements are preferred. With the exception of the Lake Street crossing, center median piers are permitted, provided that roadway protection is installed in accordance with Part 5 – Chapter 16.4 Street Design. The height of abutments shall be minimized and shall be approximately equal to or less than that depicted by the Indicative Drawings. In general, bridges of greater length and with lesser and shorter retaining walls will be



Light Rail Vehicle Loading Diagram

Notes:

1.) The LRT Train shall consist of either one, two or three cars, which ever produces the maximum load for the element under consideration.
2.) Axle load in pounds.
3.) Loading diagram represents maximum load at each truck in accordance with Figure 8-2.



Maintenance Vehicle Load Diagram

Notes:

1.) The maintenance vehicle shall consist of one locomotive and one, two, three, or four ballast cars; whichever produces the maximum load for the element under consideration.
2.) Axle load in pounds.
3.) Weight of empty ballast car is 15,000 pounds.

HIAWATHA LRT CORRIDOR	FIGURE 18-1
DESIGN CRITERIA	STRUCTURE LOADING DIAGRAM

EXHIBIT D

ENVIRONMENTAL AND ENGINEERING REPORTS (BURDENED PROPERTY)

1. Environmental Assessment
   Blocks 69, 70, 73, 74 and 75
   Twin City Testing
   May 27, 1987
   (Portions of this report that relate to property other than Block 73 were redacted or removed.)

2. Letter update to May 27, 1987 Twin City Testing report
   (Providing information obtained from U.S. EPA.)
   Twin City Testing
   June 9, 1987

3. Notification/Change in Status for Underground Storage Tanks
   Filed with the MPCA by Star Tribune employee Nancy Devine
   Sept. 14, 1995
   (Provides notice that a 1,500-gallon fuel-oil tank was removed from under the plaza.)

4. Phase I Environmental Site Assessment
   Blocks 69, 70, 73, 74, 75
   Dames & Moore
   Sept. 30, 1997, including May 15, 1998 updates
   (Portions of this report that relate to property other than Block 73 were redacted or removed.)

5. Subsurface Exploration/Geotechnical Engineering Analysis for Metrodome LRT Station
   STS Consultants, Ltd.
   July 13, 2000

6. Letter from James McCann, Minnesota Pollution Control Agency, to Greg Anderson
   July 18, 2000

7. Letter from Carolyn V. Wolski to James McCann, Minnesota Pollution Control Agency
   August 11, 2000

8. Phase I Environmental Site Assessment
   Earth Tech, Inc.
   October, 2000

9. Phase II Environmental Site Assessment
   Earth Tech, Inc.
   November, 2000

10. E-mail from James McCann, Minnesota Pollution Control Agency, to Carolyn Wolski
    December 19, 2000