811363

SUMMARY

135E

DRAFT ENVIRONMENTAL IMPACT STATEMENT

FROM TH 110 (DAKOTA COUNTY) TO
I-94 NEAR DOWNTOWN ST. PAUL

Prepared by: Twin Cities Metropolitan Council
U.S. Department of Transportation-
Federal Highway Administration
and
Minnesota Department of Transportation

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SUMMARY

CORRIDOR SELECTION PROCESS

Potential corridors were evaluated from a transportation perspective during Phase I of this study. This procedure was based on the premise that potential I-35E corridors, to be valid, must respond to a "high degree" to the federal, state, regional and local transportation goals, objectives and policies.

The "first-level" evaluation considered construction of I-35E as a freeway to full interstate design standards, in terms of established federal, state, metropolitan and local goals and policies. Corridors that met these goals and policies to a "high degree" were recommended for detailed social, economic and environmental analysis and evaluation in this Draft Environmental Impact Statement.

Seven potential I-35E corridors were identified, reflecting the basic routing options for I-35E between the study termini. They are located in Figure 1 and listed below:

a. Pleasant Avenue
b. Shepard Road
c. Lafayette Freeway (Trunk Highway 3)
d. Concord
e. Trunk Highway 61
f. I-494/I-694
g. Short Line/I-94

A set of "first-level" evaluation criteria was developed in response to the goals and policies of the Metropolitan Council's Regional Transportation Policy Plan. The study management team consulted federal, state and metropolitan agencies and local units of government directly affected by issues related to the proposed I-35E. Responses indicated, generally, that the Regional Transportation Policy Plan's goals and policies are appropriate to judge the merits of the seven potential corridors for routing I-35E.

I-35E corridor evaluation criteria for Phase I are listed below:

1. Relative cost to design and construct facility.
2. Degree of truck accessibility within subregions.
3. Degree of interregional truck accessibility between regions.
4. Degree of support provided to land use development of metropolitan significance.
5. Degree of compatibility within one-half mile of the proposed alignment with existing and planned land use development.
6. Extent to which the proposed alignment would limit or discourage through traffic in neighborhoods.
7. Degree to which the proposed alignment would provide a reduced travel time for public and multi-passenger transit from any part of the City of St. Paul, northern Dakota County, and northwestern Dakota County, to the St. Paul Central Business District (CBD).

8. Degree to which the proposed alignment would provide a reduced travel time from any part of rural Dakota County to the St. Paul CBD.
9. Extent of probable design and right-of-way problems in ensuring adequate accessibility to St. Paul CBD and adjacent fringe parking.
10. Degree to which the proposed alignment could efficiently accommodate projected intrastate travel.

A point range of one to five for each criterion listed above was used in the evaluation of the potential I-35E corridors. The better a corridor complied with a specific criterion, the higher the number of points assigned. The final scores were then grouped as "high," "medium" or "low."

Evaluation results were that Pleasant Avenue and Shepard Road had scores in the "high" range, with 66 and 55 points respectively. Lafayette freeway (TH 3) and Short Line/I-94 had "medium range" scores of 42 and 39 respectively. Concord Corridor, Trunk Highway 61 and I-494/694 had "low range" scores of 32, 28 and 24 respectively.

Based on evaluation results, it was concluded that only two of the seven corridors merited more detailed evaluation as part of an EIS. These are the Pleasant Avenue corridor (Alternate A) and the Shepard Road corridor (Alternate B).

These two corridors were expanded into twelve alternatives. All of these twelve alternatives are presently under consideration. Selection of the final alternative will be made only after the public hearing transcript and comments on the Draft EIS have been evaluated.

DESCRIPTION OF THE ALTERNATIVES

A total of twelve alternatives were developed within the two selected corridors. They are presented schematically in Figure 2. Major distinctive features between alternatives include: parkway or freeway designation, direct or indirect connection to I-94, and the relationship to the existing Short Line Road.

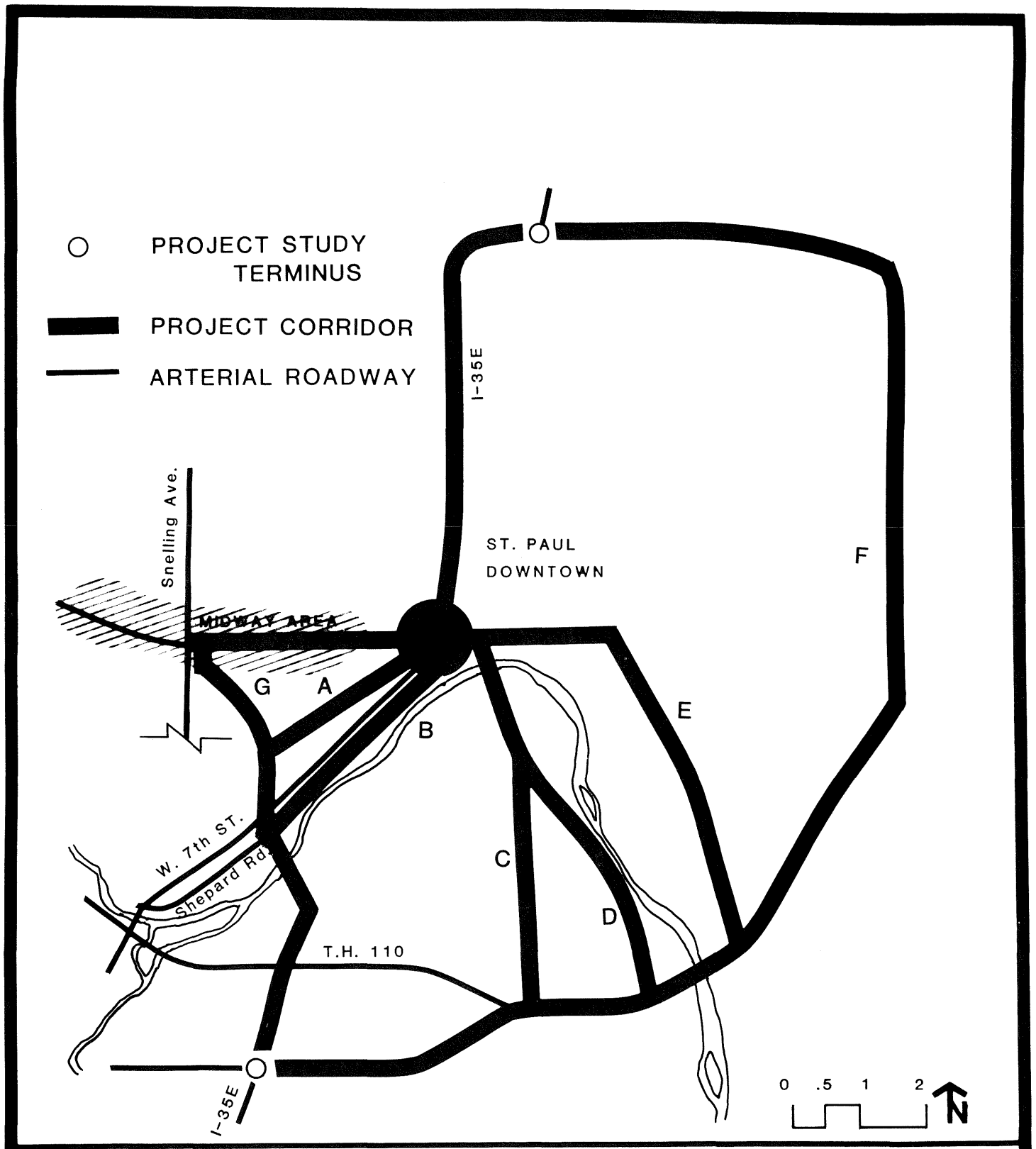
Parkway and Indirect Connection Definitions

The parkway and indirect connection design features are important elements to many of the alternatives. Public input was an important factor in the development of both the definitions. "Parkway" as used in all parkway alternatives in the I-35E Environmental Impact Statement and as illustrated in Figure 3 will be taken to mean:

- A four-lane facility with a raised median, extra lanes provided for merging and diverging where necessary, with complete access control.

- Posted speed lower than 55 mph.

- Trucks prohibited from the facility.



I-35E CORRIDORS IDENTIFIED

(A) Pleasant Avenue
(B) Shepard Road
(C) T.H. 3 - Lafayette Freeway
(D) Concord
(E) T.H. 61
(F) I-494/I-694
(G) Short Line/I-94

FIGURE 1

POTENTIAL I-35E CORRIDORS IDENTIFIED IN PHASE 1

135E

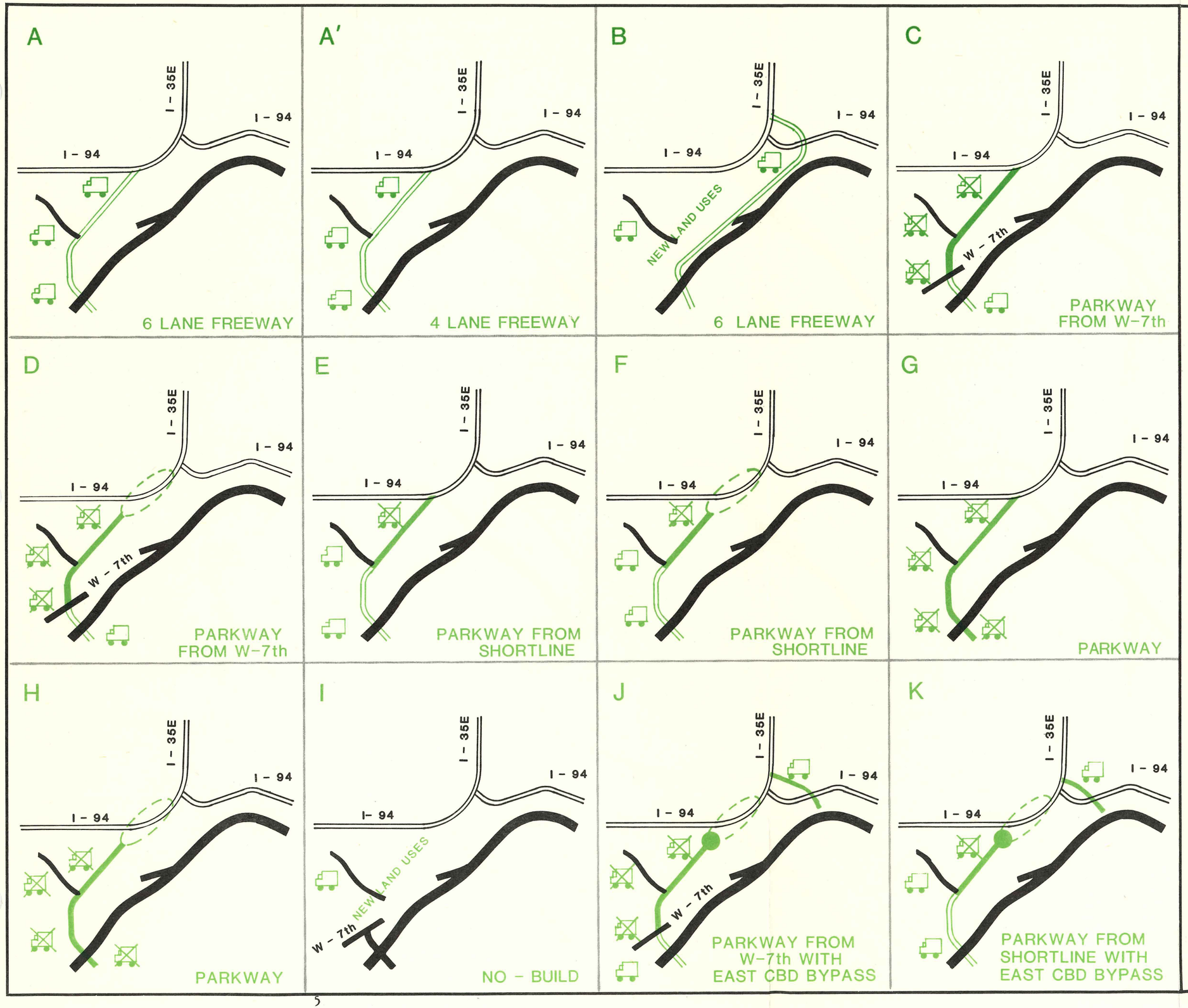


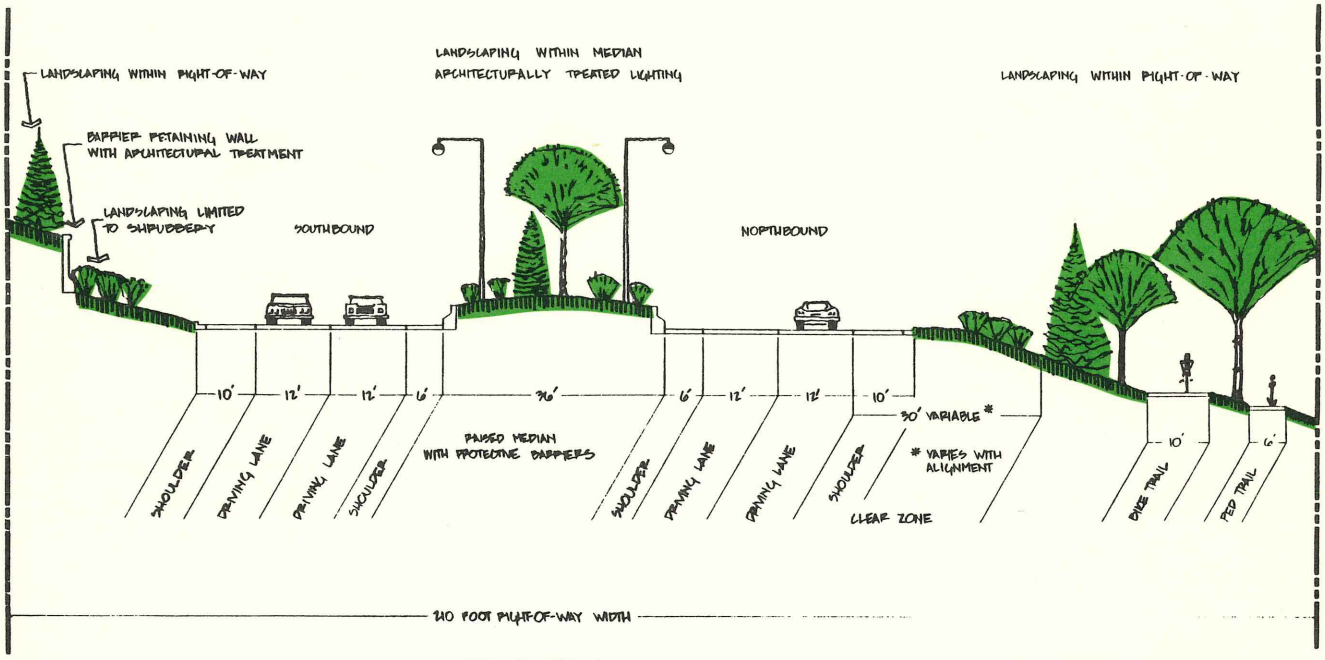
FIGURE 2

I - 35E ALTERNATIVES

- FREEWAY
- PARKWAY OR ARTERIAL
- TRUCKS ALLOWED
- NO TRUCKS
- DIRECT CONNECTION
- INDIRECT CONNECTION
- AT GRADE INTERSECTION

I35E

EXAMPLE CROSS SECTIONS



PARKWAY - Raised Median

STATION 430
Near Crocus Hill Park

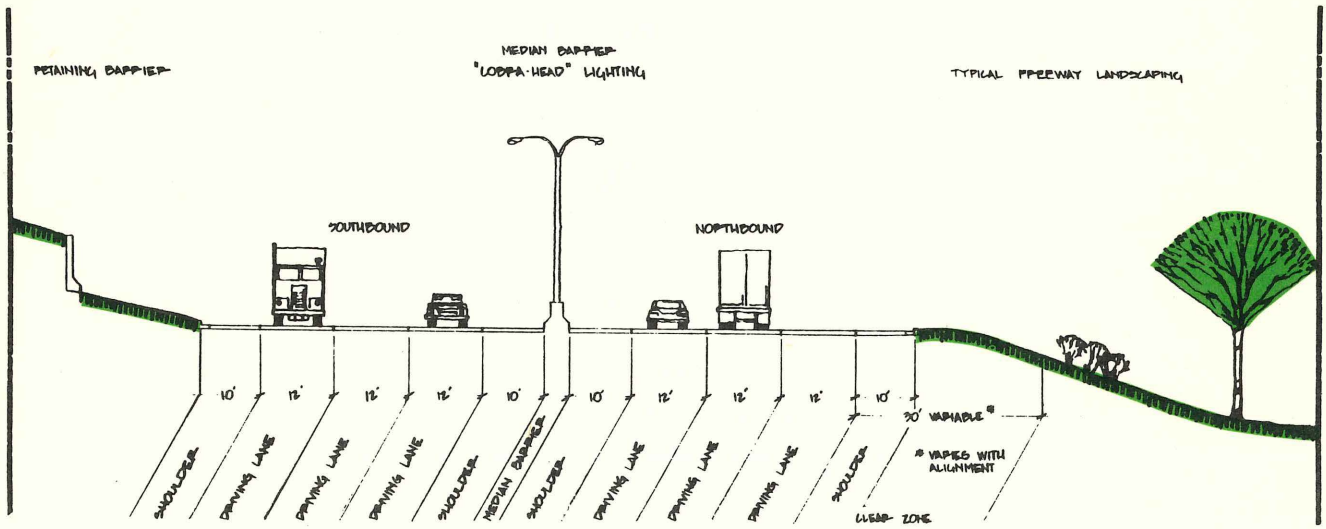


FIGURE 3

FREEWAY - 6 Lane

STATION 430
Near Crocus Hill Park

135E

- Extensive landscaping provided in the median, at the roadside, and in the adjacent right-of-way.

- There will be no at-grade intersections except where indicated in Alternatives J and K. All access points will be interchanges.

An indirect connection included as an element of Alternatives D, F, H, J and K is illustrated in Figure 4, and will be taken to mean:

- Construction of a four-lane facility with no median from the Grand/Ramsey interchange to Fifth and Sixth streets.

- Grade-separated interchanges at Grand/Ramsey and Kellogg.

- Traffic would be routed on Eleventh and Twelfth streets, adjacent to the existing I-94 Common Section. At-grade intersections would be located at: St. Peter, Wabasha, Cedar, Minnesota, Robert and Jackson.

- Access to Eleventh Street east-/northbound would be provided in the area of St. Peter Street by means of a ramp-type roadway. Access to Twelfth Street west-/southbound would be provided in the area of Arch Street by using the existing University Avenue exit ramp. The connection to the new segment of I-35E would be gained by a ramp in the area of Twelfth Street and Wabasha.

- Under alternatives J and K, the Fifth/Sixth Street connector from I-94 would intersect I-35E at grade. This modification was included to further reduce the convenience of using this route for through traffic in the Pleasant Avenue corridor.

A direct connection, by contrast, would merge I-35E directly into the mainlines of existing I-94 and provide exit and entrance ramps at Eleventh and Twelfth streets.

Short Line Road

The scope of the DEIS has been expanded to include impacts on the Short Line Road area, since this roadway will be affected by selection of an I-35E alternate. Short Line Road currently provides automobile access from southwest St. Paul to the Midway area. Trucks are prohibited from the roadway, but it nevertheless is used by some truckers.

Various I-35E alternates propose that trucks also be allowed to use Short Line Road to provide direct access to the Midway area from northern Dakota County and southwest St. Paul. Traffic, air quality and noise analysis were performed for the Short Line Road as part of the DEIS.

East CBD Bypass

In an effort to provide truck service from northern Dakota County to the CBD and beyond, while reducing adverse impacts such as noise,

two alternatives (J and K) include a new East CBD Bypass in conjuction with the existing Shepard Road.

Specific descriptions of the alternatives follow.

Alternate A

A six-lane freeway in the Pleasant Avenue corridor beginning at West Seventh Street. This facility would have a direct connection to I-94. Trucks could use this facility and would be permitted to use Short Line Road. There would be no changes made to Shepard Road.

Alternate A'

A four-lane freeway in the Pleasant Avenue corridor beginning at West Seventh Street with a direct connection with I-94. Trucks would use this facility and Short Line Road. There would be no change in Shepard Road.

Alternate B

A freeway in the Shepard Road corridor beginning at the Lexington Avenue Bridge with a direct connection to I-94. Trucks would use this facility and Short Line Road. There would be no roadway construction in the Pleasant Avenue corridor and therefore no access from I-35E to Short Line Road except by use of location streets. The existing Pleasant Avenue right-of-way would be utilized for housing, parks, trails and a limited amount of business activity.

Alternate C

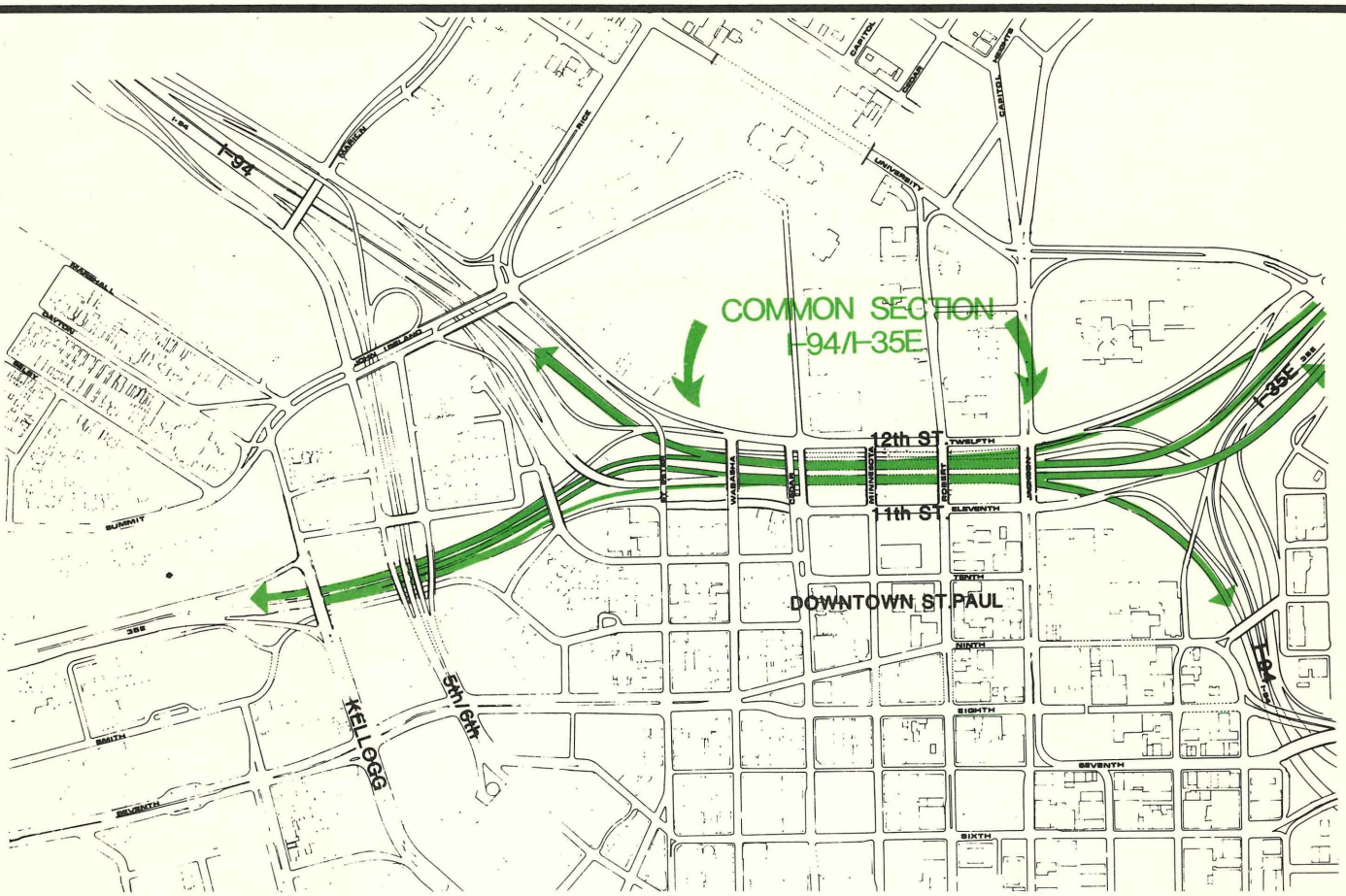
A parkway in the Pleasant Avenue corridor from West Seventh Street to downtown St. Paul with a direct connection to I-94. The roadway would be composed of six lanes from West Seventh to the interchange with Short Line Road and four lanes for the remaining distance. Trucks would be prohibited from this facility and Short Line Road. There would be no change in Shepard Road.

Alternate D

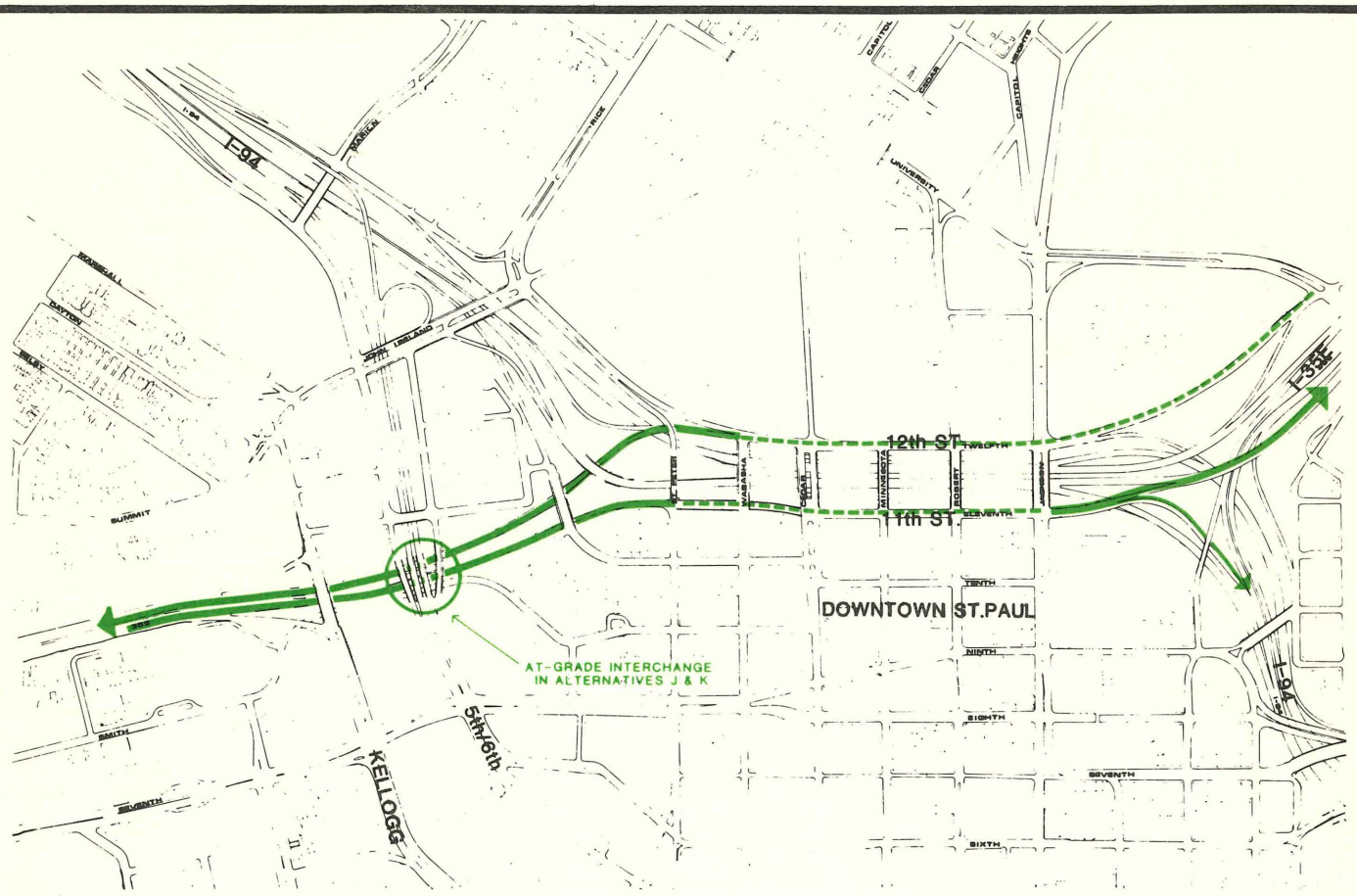
A parkway in the Pleasant Avenue corridor from West Seventh Street to downtown St. Paul, with an indirect connection to I-94. The roadway would be composed of six lanes from West Seventh to the interchange with Short Line Road and four lanes for the remaining distance. Trucks would be prohibited from this facility and Short Line Road. There would be no change in Shepard Road.

Alternate E

A six-lane freeway from West Seventh Street to Short Line Road. A four-lane parkway in the Pleasant Avenue corridor from Short Line Road to downtown St. Paul, with a direct connection to I-94. Trucks would be permitted to use the freeway section of this facility and Short Line Road. There would be no change in Shepard Road.



DIRECT CONNECTION



INDIRECT CONNECTION

FIGURE 4

135E

Alternate F

A six-lane freeway from West Seventh Street to Short Line Road. A four-lane parkway from Short Line Road to downtown St. Paul, with an indirect connection to I-94. Trucks would be permitted on the freeway section of this facility and Short Line Road. There would be no change in Shepard Road.

Alternate G

A parkway from I-494 to downtown St. Paul with a direct connection to I-94. Trucks would be prohibited from this facility and Short Line Road. The section constructed from I-494 to TH 110 would be constructed as planned. Six lanes would be provided from West Seventh to the interchange with Short Line Road. Four lanes would be provided for the remaining distance. There would be no change in Shepard Road.

Alternate H

Parkway from I-494 to downtown St. Paul with an indirect connection at I-94. Trucks would be prohibited from this facility and Short Line Road. The section constructed from I-494 to TH 110 would be constructed as planned. Six lanes would be provided from West Seventh to the interchange with Short Line Road. Four lanes would be provided for the remaining distance. There would be no change in Shepard Road.

Alternate I

"No-Build." Assumes no further construction from West Seventh Street to downtown St. Paul. Use of the Short Line will continue as it is at present. Trucks use the road, even though this is not a truck route. In order to assess no-build impacts, it was necessary to create a land use scenario for the Pleasant Avenue corridor for the "No-Build" and "B" Alternatives. This was developed by the City of St. Paul, Department of Planning and Economic Development. The proposed land uses for the Pleasant Avenue corridor under these alternates include single-family and multi-family residential as well as commercial/office use and passive and active open space. The locations fo these uses are illustrated in Appendix A. Should this corridor not be selected, the previously acquired right-of-way would be available for alternative development. Also included in the evaluation of the "no-build" alternative will be improvements to the I-35E/I-94 Common Section, which will be constructed with or without the St. Paul link of I-35E.

Alternate J

A parkway from West Seventh to downtown St. Paul in the Pleasant Avenue corridor, with an indirect connection to I-94. Trucks would not be able to use Short Line Road. A bypass would be constructed around the St. Paul CBD from Shepard Road to the Arch/Pennsylvania interchange with I-35E.

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Alternate K

A freeway would be built from West Seventh Street to Short Line Road. A parkway would be provided in the Pleasant Avenue corridor from Short Line Road to downtown St. Paul with an indirect connection to I-94. Trucks would be permitted on the freeway and Short Line Road. A CBD bypass would be constructed from Shepard Road to the Arch/Pennsylvania intersection with I-35E.

Transportation System Management (TSM) Alternative

This report contains consideration of TSM measures relating to transportation and energy as they affect all alternatives, including the no-build. In all other impact areas, the TSM alternative impacts are the same as the no-build. TSM measures are official policy of the Metropolitan Council and the City of St. Paul. As such, the system efficiencies that can be achieved by these measures have already been implemented to a major degree. Those remaining capacity improvement possibilities cannot adequately cope with the forecast demands, nor will they cause significant reductions in energy demand.

COSTS

Costs for construction, additional right-of-way, engineering, contingencies and noise abatement are available in Table 1.

TABLE 1
ESTIMATED COSTS FOR I-35E ALTERNATIVES - (1980 DOLLARS)

Alternate	Pleasant Avenue W7th-I-94	Common Section	Shepard Road	East Side CBD Bypass	Total
A	$37,100,000	$14,100,000			$ 51,200,000
A'	34,600,000	14,100,000			48,700,000
B			$238,800,000		238,800,000
C	36,900,000	14,100,000			51,000,000
D	36,400,000				36,400,000
E	36,900,000	14,100,000			51,000,000
F	36,400,000				36,400,000
G	36,900,000	14,100,000			51,000,000
H	36,400,000				36,400,000
I					0
J	31,300,000			19,400,000	50,700,000
K	31,300,000			19,400,000	50,700,000

Notes:

1. A separate programmed project for I-94 is planned which involves replacing the I-94 Sixth Street Bridges and other remodeling to provide three-lane continuity from Louis-Marion through Mounds Boulevard. This project is related to but not dependent upon I-35E alternatives.

2. Shepard Road cost include $177,800,000 for construction, and right-of-way acquisition costs and relocation costs of $27,400,000 and $800,000 respectively. Total includes 3% Preliminary Engineering and 15% Construction Engineering and Contingencies ($6,100,000 and $26,700,000 respectively).

3. No costs for Short Line improvements are included in any of the alternates.

4. No costs for noise abatement are included in any of the alternates.

5. To date, $25,000,000 have been spent on right-of-way and construction in the Pleasant Avenue corridor. Inflating these expenditures to 1980 dollars using the construction cost index, indicates that this expenditure represents about $54,300,000 in 1980.

SIGNIFICANT IMPACTS

Of all the impact areas discussed in the Draft EIS, ten are considered of major significance toward reaching a selected alternative based on five criteria:

1. Impact in an area of major regulatory concern,
2. A major contributor to cost,
3. Major environmental impact or violation of a standard, or
4. Major difference between alternatives.
5. Significant contributor to meeting project needs.

The significant impacts discussed below are presented in their order of appearance in the later sections. They are not presented in an order of value or significance. A matrix of significant impacts is presented in Table 2. The significance of each impact is relative to existing conditions.

Floodplain

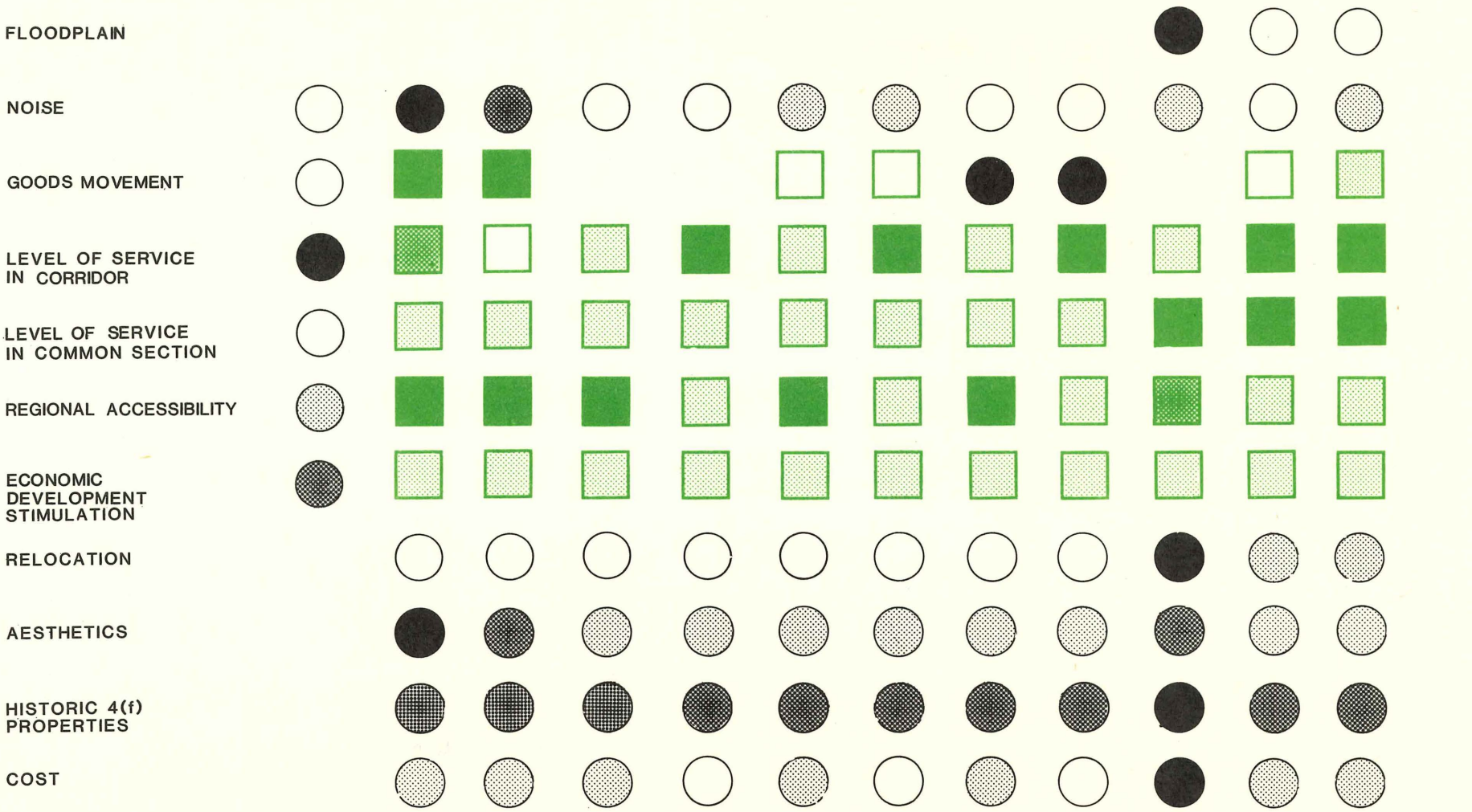
Alternative B would longitudinally encroach upon 370 acres of the Mississippi floodplain. This encroachment is expected to increase scour of the river bottom, aggravating serious problems with the Robert Street Bridge and several utility crossings. The freeway would also require relocation and disruption of navigation courses and docking facilities. Alternative B is probably a significant encroachment under the definition of "significant" in paragraph 4q. of F.H.P.M. 6-7-3-2. Although Alternatives J and K encroach slightly upon the floodplain, they will produce no significant adverse impacts. No other alternative will have any floodplain impacts. Problems with floodplain construction would add major costs to Alternative B, and cannot be entirely mitigated.

Noise

As in any urban transportation project, noise is a major issue. Minnesota's Pollution Control Agency (PCA) has noise standards which are more strict than FHWA noise design levels. Nighttime standards are especially stringent. Noise levels would exceed PCA's daytime standards at some locations and their nighttime standards at all locations, in all alternatives, without abatement. The presence or absence of trucks on various segments makes a significant difference between alternatives for FHWA design levels, but not for the more stringent PCA daytime standards, which are most affected by traffic volume and speed. Mitigation is feasible for meeting PCA daytime standards, using noise barriers, natural relief, roadway depressions and limited architectural modifications. The limitation of daytime noise level increases to 10 dBA or less above existing conditions is feasible with mitigation for all alternatives except for 17 receptors along Alternatives A and A'. Only the alternatives with major parkway segments (Alternates C, D, G, H) can feasibly mitigate nighttime impacts within the corridors to meet PCA's nighttime standard. It does not appear feasible to meet PCA nighttime standards for off

TABLE 2

ALTERNATE	I	A	A[1]	C	D	E	F	G	H	B	J	K
LOCATION	NO BUILD	PLEASANT								SHEPARD	PLEASANT/SHEPARD	
FACILITY		FREEWAY		PARKWAY						FREEWAY	PARKWAY	
CONNECTION		DIRECT		DIRECT	INDIRECT	DIRECT	INDIRECT	DIRECT	INDIRECT	DIRECT	INDIRECT	
PARKWAY				W7TH - CBD		SHORT LINE - CBD		I-494 - CBD			W7TH-CBD	SHORT LINE - CBD



ALL IMPACTS ARE COMPARED TO EXISTING CONDITIONS ---BENEFICIAL IMPACT--- NO IMPACT ---ADVERSE IMPACT---

SIGNIFICANT IMPACTS

BEST — WORST

corridor receptors for any alternative (including no-build), although prohibiting trucks on the Short Line will decrease adverse impact.

Goods Movement

The freeway alternates provide a high level of service for all trucking movements in the corridor, the most important of which is access to the downtown area and the Midway district. Restrictions on goods movement become more severe as the length of the parkway is extended west of the downtown. Alternates G and H which prohibit trucks on I-35E north of I-494 severely retards goods movement to and from St. Paul.

Level of Service

The level of service in the corridor is improved with all alternates except the no-build option. The indirect connection options tend to increase the levels of service on 35E to a greater degree due primarily to the reduced amount of travel assigned to the route. Alternates B, J and K would cause the least amount of congestion in the Common Section of I-94 and I-35E. All build alternatives would be an improvement to the level of service in the Common Section when compared to the no-build. The Common Section is assumed to be rebuilt with any alternate having a direct connection, but does not have to be rebuilt for the indirect connection alternatives. The changes in Common Section levels of service are partially due to reduced volumes, particularly with Alternates B, J and K.

Regional Accessibility

All build alternates are consistent with the Regional Policy Plan for transportation. I-35E is identified as a Principal Arterial in the corridor southwest of the St. Paul downtown area. The alternates having direct connections to I-94 rate higher because they provide direct high level of service between I-35E and other Principal Arterials (I-94) in the Policy Plan network.

Economic Development Stimulation

This is a major positive impact of the proposed project. Because of the similarity of the build alternatives, their impact is indistinguishable from a city or regional perspective. But, any build alternative has major benefits when compared to the No-Build Alternate. These benefits include:

1. Short- and long-term growth for the city center (a major goal of the City of St. Paul and the Metropolitan Council) instead of the gradual shift to competing peripheral centers which is likely to occur with a no-build alternate.

2. Major, planned development in northeast Dakota County, thus creating a greater market for city center merchants.

3. Induced development and urban infilling in a variety of downtown peripheral areas.

Relocation

Since 95 percent of the right-of-way in the Pleasant Avenue corridor was acquired prior to passage of the National Environmental Policy Act, the remaining relocation impacts are much smaller than those of the Shepard Road corridor, involving only five houses. Shepard Road, by contrast, will require relocation of nearly 450 employees, 65 of whom are minority, handicapped or transit dependent; industrial and business facilities and 12 low income homes. Impacts for Alternatives J and K would be similar to those for Pleasant Avenue, with the additional relocation of 10 employees and a small number of industrial facilities. Relocation adds substantially to the cost of Alternative B.

Aesthetics

Views of the road were primary concerns contributing to the determination of the need for this EIS. It is a major difference between the freeway and parkway alternatives. Although both would have grade separated interchanges, landscaping would be much more extensive in the parkway alternatives, reducing visual intrusion and improving visual transition and integration into the neighborhoods. Parkway aesthetic mitigation costs are roughly two to five and a half times those costs for aesthetic treatment on normal urban freeways. Parkway treatment might add $150,000 to $750,000 per mile to construction costs.

Historic/4(f) Properties

Section 4(f) of the Department of Transportation Act of 1966 requires a special effort to avoid use of parklands and historic sites. Another law, Section 106 of the Natural Historic Preservation Act of 1966 requires impact assessment of all sites which are listed, or eligible for inclusion in the Natural Register of Historic Places. With one regional 4(f) recreation property and seven major 4(f)/Section 106 properties as well as seven Section 106 properties indirectly affected, Alternative B has the greatest adverse impacts on these special properties. Pleasant Avenue alternates (A, A', C, D, E, F, G, H, J and K) also impact one 4(f) historic property, directly impact two other Section 106 properties, and indirectly impact one Section 106 property. Thus, all build alternates have major impacts on these special historic and recreational properties.

Costs

Costs range greatly between the proposals, with Alternative B nearly five times the cost of other alternates. This is primarily due to the yet-to-be-acquired right-of-way and construction difficulties associated with floodplain construction and a tight right-of-way. Those alternates with a direct connection and Alternatives J and K with the East CBD Bypass would cost approximately $50 million. Indirectly-connected Pleasant Avenue alternatives would cost $36 million.

AGENCY INVOLVEMENT AND DECISION RESPONSIBILITY

This is a combined Federal and State Enviornmental Impact Statement process. The Federal Highway Administration of the U.S. Department of Transportation requires an EIS for major actions that have potentially significant social, economic and environmental consequences. The FHWA is helping fund this study and will participate, at MnDOT's request, in construction funding.

The Commissioner of the Minnesota Department of Transportation will determine the preferred alternative for the Final EIS.

The Metropolitan Council has two roles. The first is that of a consultant to MnDOT. This responsibility includes public involvement and preparation of the draft and final EIS as required in Minnesota Statutes 1978, Section 161.1245. The second role, completely separate from the consultant role, is the review and Metropolitan Council approval or disapproval of the Final EIS which contains the preferred alternative.

The Commissioner of MnDOT will then consider the Council's action in making the the final selection.

SCHEDULE

Presented below is the expected schedule for the remainder of this process.

Schedule

Preferred Alternative Designated	December 1981
Completion of the Final EIS and Metropolitan Council Approval of Selected Alternate	Spring 1982
Design Approval	Fall 1982
Acquisition of Property	1983
Begin Construction	1984-85
Road Open to Traffic	1987-88