

Item #7:
Village President Rodriguez
B. IL Route 22 – West Of IL Route 83 - Update

Illinois Route 22
Quentin Road to IL Route 83
P-91-284-00

**Recommended Improvement Plan – Final Modifications
Presentation to Village of Long Grove Board**

Executive Summary

- A Public Information Meeting was held in November of 2009, and comments were received. The Village's primary comments were to further minimize the amount of property acquisition, primarily in Village scenic corridor easements, and also to further minimize the number and extent of retaining walls.
- IDOT has adjusted the proposed design based on public and Village comments and has prepared a revised plan that balances the aesthetic concerns of the Village with IDOT's need to provide a safe and efficient roadway improvement.
- The plan as it is presented now represents the pre-final recommended improvement plan. There are select locations at which IDOT is requesting Village input. Once received, IDOT will finalize the recommended improvement plan with internal reviews, complete drainage studies, complete the environmental and design reports, and conclude the Phase I Engineering stage of the improvement project.
- With respect to temporary or permanent easements, there are several locations at which they will be unavoidable in scenic corridor easements for several reasons.
- With respect to retaining walls, there are several locations at which IDOT has been able to remove retaining walls from the proposed plan by further adjusting the roadway alignment, profile and cross-section. There remain several locations within Long Grove at which walls cannot be removed from the plans for environmental reasons.
- There are also several walls remaining in the proposed plan whose function is solely to prevent or minimize temporary or permanent acquisition in scenic corridor easements. Removal of these "optional" walls from the plans can be accommodated if the Village is agreeable to a certain degree of additional temporary or permanent easements within the scenic corridor easements.
- There are 12 retaining walls proposed within the Village, totaling 5,500 feet in length. Seven of the twelve, totaling 3,400 feet in length, are considered "optional".
- There are several safety and aesthetic benefits of grading into the scenic corridor easements versus constructing the optional retaining walls.
- **IDOT requests that the Village state its preference for or against each individual retaining wall that is considered "optional".**
- Attachment A contains additional details on the above points. Attachment B is a roll-out plan view on aerial. Attachment C is a matrix summarizing the property impacts of the retaining walls. Attachment D is a collection of colorized perspective views illustrating a typical section containing an optional retaining wall.

Attachment A – Additional Details

Illinois Route 22
Quentin Road to IL Route 83
P-91-284-00

**Recommended Improvement Plan – Final Modifications
Presentation to Village of Long Grove Board**

Attachment A – Additional Details

- A Public Information Meeting was held in November of 2009. Comments were received from residents and local agencies. IDOT has spent the past several months adjusting the proposed design and has prepared a revised recommended plan that addresses the comments received. The revised plan balances the aesthetic concerns of the Village with IDOT's need to provide a safe and efficient roadway improvement.
- The primary comments from the Village of Long Grove were to minimize the amount of property acquisition, primarily in Village scenic corridor easements (SCE's), and also to minimize the number and extent of retaining walls. This was a considerable challenge. A reduction in retaining walls inherently results in additional encroachment into scenic corridor easements. Conversely, minimizing impacts in the scenic corridor easements necessitates the construction of retaining walls.
- The plan as it is presented now represents the pre-final recommended improvement plan. There are a number of specific locations at which IDOT is requesting Village input. Once received, IDOT will finalize the recommended improvement plan with internal reviews, complete drainage studies, complete the environmental and design reports, and conclude the Phase I Engineering stage of the improvement project.
- Attachment B is a roll-out aerial plan view exhibit. Following is an overview. Details are explained later.
 - The plan view shows the improvement limits within the Village of Long Grove, from east of Salem Lake Drive to IL Route 83.
 - The proposed pavement is shown in grey, and pavement markings are shown in yellow and white.
 - The existing roadway centerline is shown as a thin black line.
 - The previously proposed roadway centerline as presented at the November 2009 Public Meeting is shown in black, and includes roadway stationing.
 - The red centerline shown in some locations illustrates the proposed alignment shifts that have been made to help address the Village's comments.
 - The orange dashed line is the existing roadway right-of-way line.
 - The brown hatched line shows Village scenic corridor easements.
 - Proposed easements and right-of-way are shown as black dashed lines. Some are temporary and some are permanent. They are labeled as such.
 - Proposed retaining walls are shown as thick black or red lines. The black retaining walls are required, and the red retaining walls are optional. An explanation of the optional walls will be provided later.
 - Easements that would be required if the optional walls were not installed are shown as blue dashed lines. Some are temporary, some are permanent. These will also be discussed later.

Temporary and Permanent Easements

- With respect to temporary or permanent easements, there are several locations at which they will be unavoidable in scenic corridor easements. These are shown on the exhibit as black dashed lines outside of the existing right-of-way. They are labeled either “T/E” for “temporary easement”, or “P/E” for “permanent easement.”
 - Temporary Easements will be required in select locations for one or more of the following reasons:
 - Re-establishment of driveways and cross-streets.
 - Grading to meet the existing ground.
 - Construction area around major box culverts.
 - Space behind retaining walls for construction (ten feet minimum).
 - Permanent Easements will be required in select locations for one or more of the following reasons:
 - Placement and maintenance of traffic signal equipment.
 - Maintenance area around major box culverts.
 - Construction and maintenance of drainage swales. Some of these Permanent Easements could possibly be only Temporary Easements if the Village agrees to maintain swales that collect non-roadway runoff.
 - Compensatory storage to account for fill in floodplains (none in SCE's).
 - Roadway elements in extremely constrained sections (none in SCE's).
 - Areas where retaining wall ends are tapered for sight distance at drives and cross-streets.

Retaining Walls

- There are several locations within Long Grove at which walls cannot be removed from the plans, such as adjacent to high-quality wetlands, at floodplains and stream crossings, and to protect existing buildings. These are shown on the aerial exhibit as thick black lines.
- There are some locations at which walls have been added since the public meeting due to the need to provide room for construction, drainage swales and utility relocations. Other walls have been added to preserve existing berm heights.
- Finally, there are several locations at which IDOT has been able to remove retaining walls from the proposed plan that was shown at the public meeting. This was accomplished by shifting the proposed centerline of the roadway, raising or lowering the proposed profile of the roadway, and by shifting the lateral placement of the retaining walls adjacent to the roadway. This was a lengthy, iterative process that has reached the point of diminishing returns.
- In addition to the retaining walls required for wetland and floodplain protection, several walls remain within the proposed plan whose function is solely to prevent or minimize temporary or permanent acquisition in scenic corridor easements. Removal of these “optional” walls from the plans can be accommodated if the Village is agreeable to a certain degree of additional temporary or permanent easements within the scenic corridor easements.
- There are 12 retaining walls proposed within the Village. Seven of the twelve are considered “optional”. See the Table, provided as Attachment C, for a summary of property impacts with and without the optional retaining walls.

Rendered Typical Section Exhibits

- Attachment D includes rendered typical section exhibits that show a sample location where an optional retaining wall is proposed, to illustrate the future conditions with and without the optional wall. Optional Wall #15 is shown as an example. The viewpoint is near Oak Creek Lane at Sta. 119+00, looking east.
 - Exhibit D-1 shows existing conditions, "View 1".
 - Exhibit D-2 shows the proposed conditions from "View 1", with the optional retaining wall. This wall will require a concrete Jersey-style barrier as shown, two feet from the edge of pavement, similar to those found on IL Route 22 in Lincolnshire. The actual retaining wall is located behind this barrier wall. Note that most barriers and retaining walls will require end protection in the form of an impact attenuator (shown) or guardrail.
 - Exhibit D-3 shows the proposed conditions from "View 1", without the optional retaining wall. Due to the constraints of the scenic corridor easement, there is no room for tree replacement.
 - Exhibit D-4 shows the proposed conditions from "View 1", without the wall, however this condition assumes that the Village allows IDOT to plant replacement trees within the scenic corridor easement.
 - Exhibits D-5 through D-8 show the same area as viewed from a point on Oak Creek Lane. The back of the concrete barrier wall is shown. Below is the actual retaining wall. A decorative concrete form liner could be used on this back face of the retaining wall.
 - Exhibit D-9 shows "View 3", the proposed conditions with the optional retaining wall, a bit further east on IL Route 22. It shows the concrete Jersey-style barrier from a motorist's perspective.

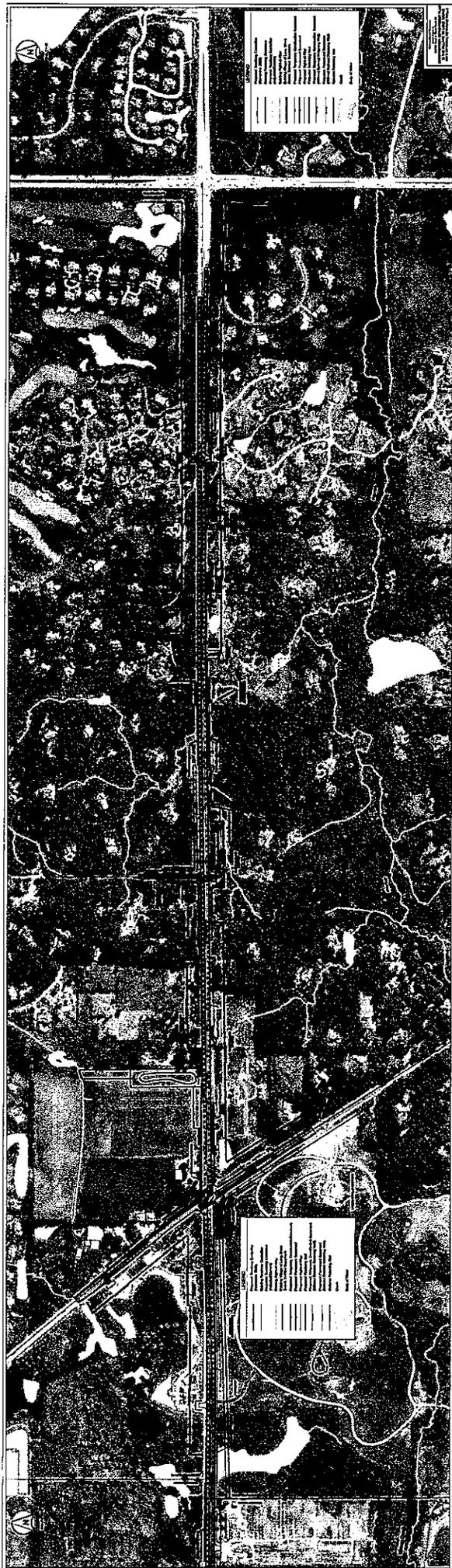
Benefits of Grading in SCE vs. Constructing a Retaining Wall

- Aesthetics - Grading results in a natural landscaped appearance vs. retaining walls and required end protection elements. As the retaining wall ages, appearance declines. The area between the back of curb and the wall can be difficult to maintain, and may trap loose trash.
- Safety – Retaining walls, Jersey barriers, and end sections are roadside hazards. Jersey barriers at the face of curb provide no refuge area for stranded motorists or bicyclists, and can inhibit snow removal efforts. Retaining walls near driveways and cross-streets can be sight distance hazards.
- No roadway appurtenances would be in the SCE. The ground would be restored.
- Invasive trees can be removed and signature trees can be planted. IDOT's landscape architect can meet with Village staff this summer to develop a concept plan.
- In a number of the areas with optional retaining walls, only temporary easements would be required during construction. This is especially true if the Village agrees to maintain swales behind the wall that collect non-roadway runoff.
- Utility poles may stay within the existing roadway right-of-way.

Summary

Twelve retaining walls totaling 5,500 feet in length are proposed along the IL Route 22 project within the Village. Seven of these walls, totaling 3,200 feet in length, are considered optional. The optional walls protect a total of only four trees whose species are listed on the Village's protected tree list. At four of the seven optional retaining walls, temporary and/or permanent easements will be required anyway if a retaining wall is constructed. **IDOT requests that the Village state its preference for or against each individual retaining wall that is considered "optional".**

Attachment B – Plan View Exhibit on Aerial Photo



Attachment C – Retaining Walls in the Village of Long Grove

PROPOSED RETAINING WALLS IN LONG GROVE

June 16, 2010

Ref. No.	Optional	Wall Location		Length (feet)	Section Type ⁽¹⁾	Offset from back of curb	Height Range ⁽²⁾		Reason for Wall	SCE Impacts With Optional Wall	SCE Impacts If Optional Wall Removed	Approx. No. Trees Saved w/Retaining Wall ⁽³⁾	
		Roadway	Station/ Side				Roadway Side	Opposite Side					
9	No	IL 22	87+00 S	350	Fill	17.5'	3.5'	8'	Limit fill in Heron Creek Forest Preserve pond	-	-	-	
10	No	IL 22	109+00 N	250	Cut	10'	4' to 7'	3.5'	Preserve residential buildings.	-	-	-	
11	Yes	IL 22	112+00 S	350	Fill	10'	3.5'	5' to 8'	T/E required in SCE to construct wall.	P/E required in SCE for drainage swale construction and maintenance. ⁽⁴⁾	0/5	-	
15	Yes	IL 22	121+00 S	400	Fill	at face of curb to 10'	3.5'	5' to 6'	T/E required in SCE to construct wall. P/E required in SCE to accommodate end of wall.	P/E required in SCE for drainage swale construction and maintenance. ⁽⁴⁾	0/1	-	
16	Yes	IL 22/ N. Krueger	130+00 N	650	Cut	at face of curb (IL 22) to 18' (NK)	3.5' (IL 22) to 13' (NK)	3.5'	No additional T/E or P/E required.	T/E required in SCE to grade up to existing ground.	4/34	-	
18.1	Yes	IL 22	133+00 S	100	Fill	10'	3.5'	9'	Prevent encroachment in SCE.	T/E required in SCE to grade down to existing ground.	0/4	-	
19	No	IL 22	137+00 S	200	Fill	10'	3.5'	8' to 10'	Prevent impacts to creek.	-	-	-	
20	No	IL 22	144+00 S	800	Fill	10'	3.5'	8' to 14'	Minimize impacts to ADID wetlands, floodplain, floodway, Willowbrook Drain, Orchid Preserve.	-	-	-	
21	No	IL 22	144+00 N	500	Fill	10'	3.5'	8' to 10'	Minimize impacts to ADID wetlands, floodplain, floodway, Willowbrook Drain.	-	-	-	
22.1	No & (Yes)	IL 22	153+00 S	200 & (300)	Cut	7'	8' to 10'	3.5'	Prevent encroachment in SCE, preserve existing berm heights & (maintain separation from pond).	No T/E or P/E required in SCE.	T/E required in SCE to grade up to existing ground. Berm reduced by up to 1.5 feet.	0/14	-
23	Yes	IL 22	162+00 S	350	Cut/Fill	7'	3.5' to 8'	3.5' to 8'	Limit encroachment in SCE, preserve existing berm heights.	T/E required in SCE to construct wall. P/E required in SCE to accommodate end of wall.	T/E required in SCE to grade up to existing ground. Berm reduced by about 1.5 feet. P/E req'd in SCE for swale const. and maint. ⁽⁴⁾	0/5	-
24	Yes	IL 22	170+00 S	1,050	Cut/Fill	at face of curb to 7'	3.5' to 9'	3.5' to 8'	Limit encroachment in SCE, preserve existing berm heights.	T/E required in SCE to construct wall.	T/E required in SCE to grade up to existing ground. Berm reduced by up to 2 feet. P/E req'd in SCE for swale const. and maint. ⁽⁴⁾	0/49	-
Totals				Total	Optional								4/112
				5,500	3,200								

Notes

T/E = Temporary Construction Easement

P/E = Permanent Easement

SCE = Scenic Corridor Easement

⁽¹⁾ "Fill" indicates that the wall is retaining the roadway. "Cut" indicates that the wall is retaining the adjacent land.

⁽²⁾ Height Range is expressed as viewed from both the roadway side, and from the opposite side. All heights include a 3.5' extension for pedestrian, bicyclist, and/or vehicle safety.

⁽³⁾ (Number of Trees on Village's Protected Species List)(Total Trees). Replacement trees can be planted in scenic corridor easements in some cases if permitted by Village.

⁽⁴⁾ Permanent Easements in the Scenic Corridor Easements may be able to be Temporary Easements if the Village agrees to maintain the swale.

Attachment D – Colorized Typical Section Perspective Views



Illinois Department of Transportation
Illinois Route 22
Quentin Road to Illinois Route 83
EXISTING CONDITIONS
View 1

Date: 06/16/2010
Exhibit D-1



Illinois Department of Transportation
Illinois Route 22
Quentin Road to Illinois Route 83
**PROPOSED IMPROVEMENT
WITH RETAINING WALL**
View 1

Date: 06/16/2010
Exhibit D-2



Illinois Department of Transportation
Illinois Route 22
Quentin Road to Illinois Route 83
**PROPOSED IMPROVEMENT
WITHOUT RETAINING WALL**
View 1
Date: 06/16/2010
Exhibit D-3



Illinois Department of Transportation
Illinois Route 22
Quentin Road to Illinois Route 83
**PROPOSED IMPROVEMENT
WITHOUT RETAINING WALL***
View 1
Date: 06/16/2010

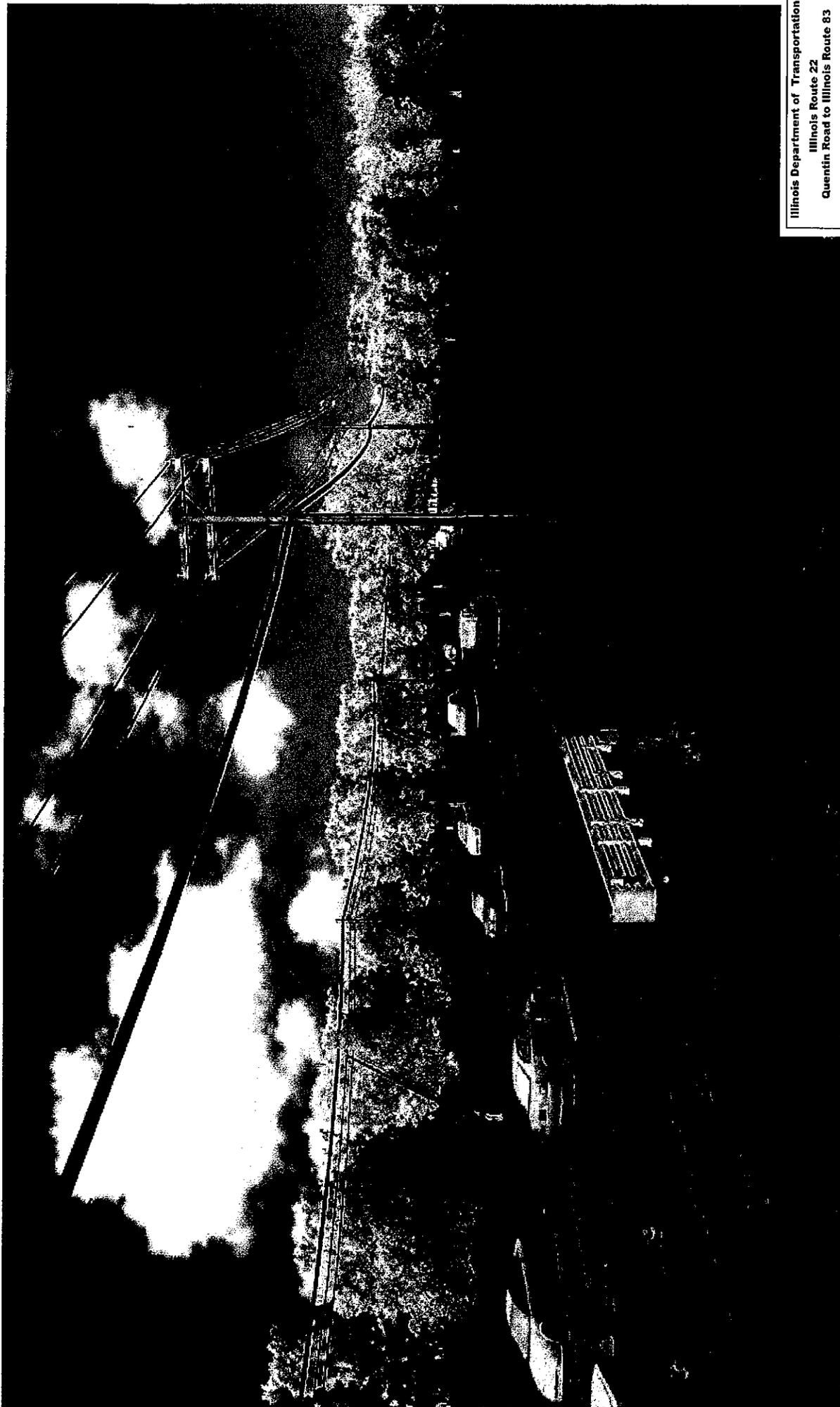
Exhibit D-4

* With tree replantment in
Scenic Corridor Easement

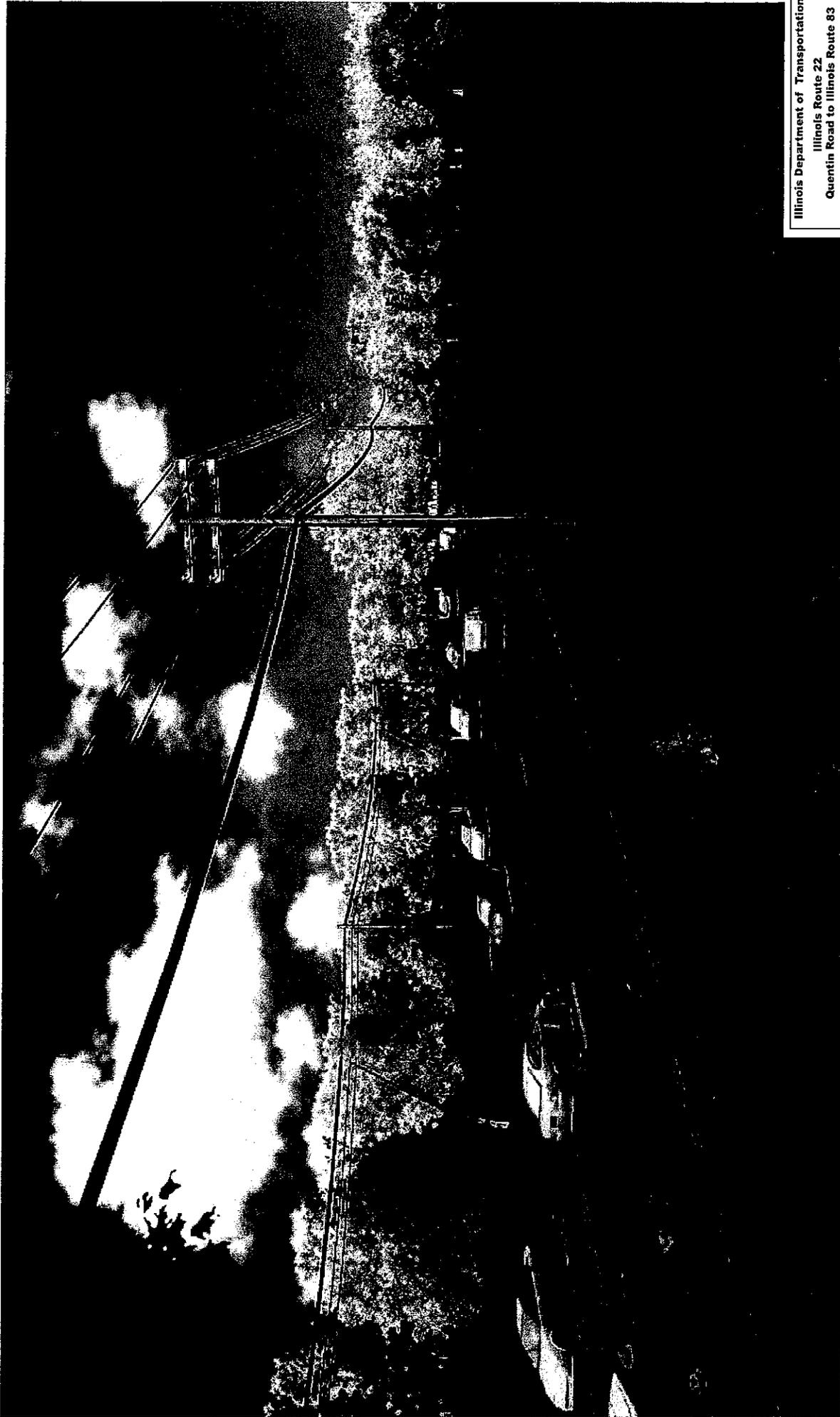


Illinois Department of Transportation
Illinois Route 22
Quentin Road to Illinois Route 83
EXISTING CONDITIONS
View 2

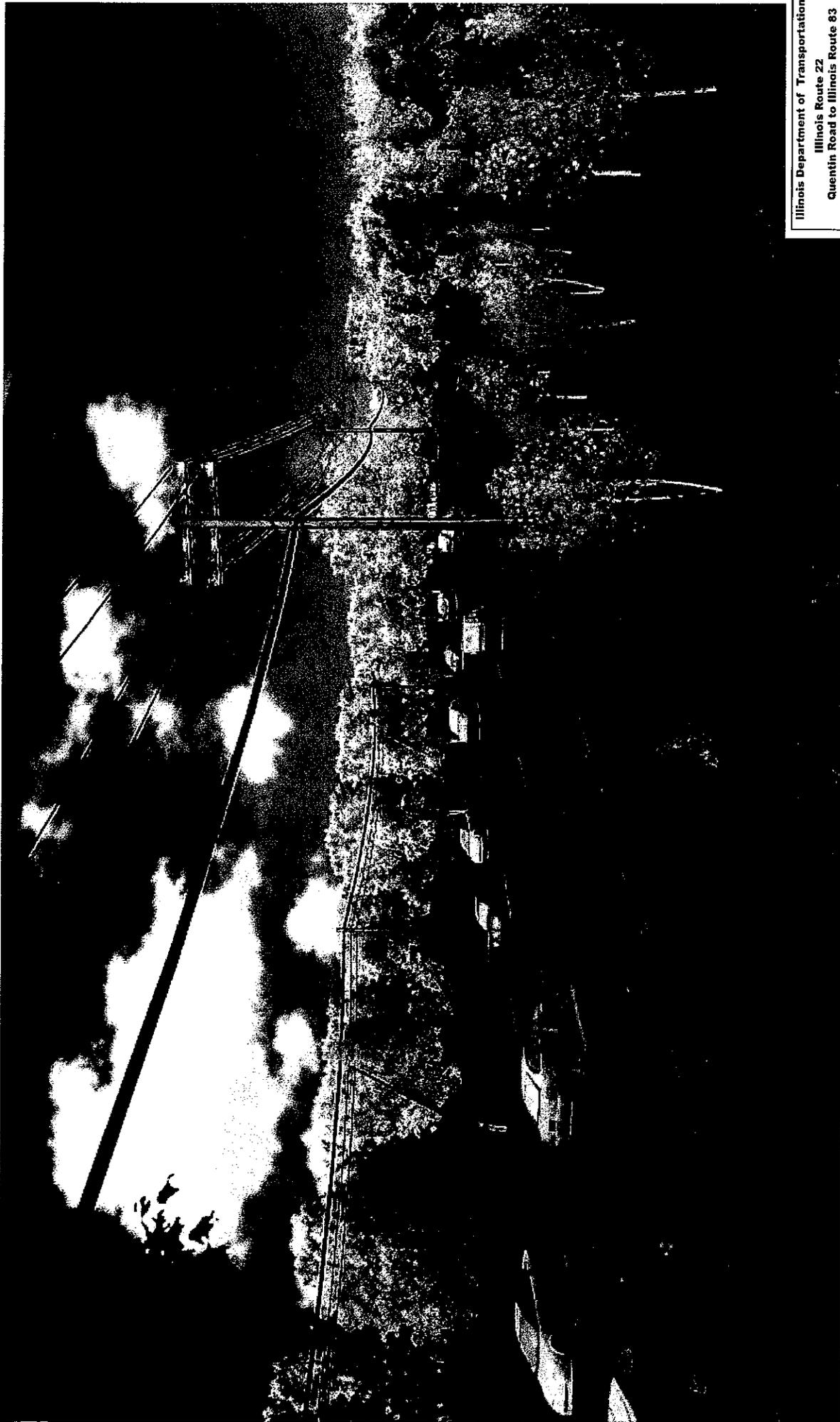
Date: 06/16/2010
Exhibit D-5



Illinois Department of Transportation
Illinois Route 23
Quentin Road to Illinois Route 83
**PROPOSED IMPROVEMENT
WITH RETAINING WALL**
View 2
Date: 06/16/2010
Exhibit D-6



Illinois Department of Transportation
Illinois Route 22
Quentin Road to Illinois Route 83
**PROPOSED IMPROVEMENT
WITHOUT RETAINING WALL**
View 2
Date: 05/16/2010
Exhibit D-7



Illinois Department of Transportation
Illinois Route 22
Quentin Road to Illinois Route 83
**PROPOSED IMPROVEMENT
WITHOUT RETAINING WALL ***
View 2
Date: 06/16/2010
Exhibit D-8

* With tree replacement in
Scenic Corridor Easement



Illinois Department of Transportation
Illinois Route 22
Quentin Road to Illinois Route 83
**PROPOSED IMPROVEMENT
WITH RETAINING WALL**
View 3
Date: 06/16/2010
Exhibit D-9