



Agenda
Village of Glen Ellyn
Special Workshop Meeting
Monday, November 16, 2015
6:00 PM
Glen Ellyn Civic Center, Room 301

Village Board Workshop Procedures Statement

Visitors are most welcome to attend all meetings of the Village Board and can find copies of the Agenda on their chairs or online at www.glenellyn.org prior to the meeting. Any individual with a disability requiring a reasonable accommodation in order to participate in a meeting should contact the Village of Glen Ellyn ADA Coordinator, 630-469-5000, at least five (5) business days in advance of the next scheduled meeting. All matters on the Agenda may be discussed, amended, and acted upon.

A. Call to Order

B. Roll Call

C. Pledge of Allegiance

D. Audience Participation

1. Open: Members of the public are welcome to speak to any item *not* specifically listed on tonight's agenda for up to three minutes. For those items which are on tonight's agenda, the public will have the opportunity to comment at the time the item is discussed. In either case, please complete the Audience Participation form and turn it in to the Village Clerk. It is requested that, if possible, one spokesman for a group be appointed to present the views of the entire group. Speakers who are recognized are requested to step to a microphone and state their name, address and the group they are representing prior to addressing the Village Board.

E. Central Business District Pedestrian and Vehicular Over/Under Passes Feasibility Project Assessment: (Professional Engineer Minix)

1. Professional Engineer Bob Minix and HDR Consultants will discuss the Feasibility Project Assessment of the Pedestrian and Vehicular Over/Under Passes in the Central Business District and present their report findings and additional/updated information as a follow-up to their January 2015 presentation.

F. Police Facility Project Update: (Chief Norton)

1. Chief Phil Norton and the Leopardo/Dewberry team will lead the discussion regarding the new Police Facility design, scope, and budget.

G. Other Items

H. Adjournment

I. Ordinances



Glen Ellyn Village Board
535 Duane Street
Glen Ellyn, IL 60137

Meeting: 11/16/15 06:00 PM
Department: Public Works
Department Head: Caroline Conlon
Category: Reminder
Prepared By: Bob Minix

SCHEDULED

AGENDA ITEM (ID # 1994)

DOC ID: 1994

Professional Engineer Bob Minix and HDR Consultants will discuss the Feasibility Project Assessment of the Pedestrian and Vehicular Over/Under Passes in the Central Business District and present their report findings and additional/updated information as a follow-up to their January 2015 presentation.

Background:

In January 2014, the Village Board authorized HDR Engineering, Inc. to conduct feasibility studies of alternatives to surface crossings of the Union Pacific Railroad tracks for both pedestrians and vehicles in the Glen Ellyn Central Business District. In addition, the consultant was to develop concepts to improve pedestrian accommodation at the existing Taylor Avenue underpass. The consultant completed preliminary studies, and prepared a draft report presentation to the Village Board in May 2014. Following the initial Board review, the consultant developed additional alternatives for vehicular crossings as part of a brainstorming committee that included Trustees Ladesic and Elliott, and completed their report, "Feasibility Project Assessment of the Pedestrian and Vehicular Over/Under Passes in the Central Business District". The report includes an Executive Summary and is attached herewith.

On January 12, 2015 a special Board workshop was conducted wherein the consultant team attempted to present their findings, costs, recommendations and implementation timelines. Unfortunately due to time constraints and a variety of technical and scope-of-work questions, HDR was unable to complete their original presentation. As early 2015 marked a transition year for the Board, the continuation of the presentation was deferred to a post-election timeframe; the consultant will be appearing at the November 16 workshop to continue discussions on their findings. To prepare for the workshop, the consultant met with the project committee in late October. The November workshop will feature some new concepts, updated costs, funding source discussions and possible next steps.

Issues:

To refresh and summarize the work and current project status, the scope of the Over / Underpass Feasibility Study was divided into three main components:

- q Evaluate possible corridors and locations for alternatives to vehicular railroad grade crossings in the Central Business District. Locations west of Main Street appear to offer the only opportunities for non-grade crossings in the CBD. Curvilinear alignment options from Glenwood to west of Lorraine were developed in the summer and fall of 2014 to mitigate traffic impacts, minimize land takes, and to dove-tail with future development. While no alternate stands out as superior and thus could be deemed as preferred, **a grade-separation project is considered feasible.** The currently estimated construction cost shown in the December 2014 report is \$21 million for a vehicular grade separation; the consultant is

currently reviewing this cost as some staff feel it is insufficient.

- q Develop and assess alternates to the current pedestrian sidewalk configuration at the Taylor Avenue underpass. The report recommends a new pedestrian underpass located to the east of the existing opening, suitable for a 10-ft wide paved surface between Walnut and Willis. As a result of an application made in August 2014 using the HDR recommended configuration, the Village has been awarded an STP grant to fund 75% of the estimated \$2.4 million construction cost. The Taylor Avenue Pedestrian Underpass project has progressed significantly in 2015 with a Phase I engineer (Benesch) selected. There will be no further discussion of this item by HDR in November.
- q Assess possible configurations and costs for implementation of a pedestrian underpass near the Glen Ellyn train station. Multiple underground alternatives were examined and assessed against criteria such as cost, tunnel length, loss of parking, Prairie Path impacts, multiple user access and travel pattern changes. The Western Alternative, estimated to cost \$6.6 million in the December 2014 report and featuring a spiral ramp on the south side of the railroad tracks, appears to offer the best combination of price and limited impacts, particularly related to parking loss. HDR is currently assessing an overpass / pedestrian bridge option in greater detail and will present a concept plan - including a to-scale rendering - at the November workshop. HDR provided an illustration of this concept to staff following the recent consultant / committee meeting - please see the second attachment.

Next Steps:

Staff is looking for some preliminary direction from the Village Board on whether to fund a Phase I engineering study to further evaluate the impacts of the different alternatives on both projects. If the consensus is to move forward with additional engineering work, we should add the estimated costs to the draft CY16 budget. With respect to the pedestrian underpass, if the Village Board directs staff to proceed with one or more of these options, meetings with UP and Metra should continue to determine their interest in funding assistance for this project. Staff looks forward to getting feedback from the Village Board on these concepts.

ATTACHMENTS:

- HDR Feasibility Study Final Report (PDF)
- Sturtevant Overpass (PDF)



Village of Glen Ellyn

Feasibility Project Assessment of the Pedestrian and Vehicular Over/ Under Passes in the Central Business District

December 2014



Executive Summary

The Village of Glen Ellyn Downtown Business District is bisected by the Union Pacific freight and Metra commuter rail. Train traffic commonly blocks the at-grade crossings within the downtown. Vehicles and pedestrians are often held up resulting in poor circulation within the downtown. The Village is investigating the ability to improve pedestrian and vehicular access across the railroad. Three types of projects were evaluated: 1) improve Taylor Avenue pedestrian access, 2) pedestrian underpass crossing in the vicinity of the train station, and 3) vehicular grade separation between Park Boulevard and Lorraine Avenue.

Taylor Avenue is an existing grade separated crossing. It has limited horizontal clearance under the railroad which limits vehicles to one direction at a time and is controlled by a traffic signal. A very narrow sidewalk exists but is also limited to one direction at a time. The sidewalk is not wide enough for bicyclists to safely pass through. Improvements considered for Taylor Avenue include new tunnel west of roadway, new tunnel east of roadway, improve existing tunnel. A new tunnel to the east of the roadway was selected. The tunnel can be constructed within existing right of way, set back from the roadway to allow future widening, minimizes costs, and can add access to the east side of the Illinois Prairie Path. The tunnel is estimated to cost \$2,400,000 to construct.

In the vicinity of the train station an at-grade crossing is provided to the east at Park Boulevard and to the west at Main Street. An alternative to the existing at-grade crossings is to provide a pedestrian underpass. On the north side of the railroad, underpass access was evaluated east and west of the train station. While each side would result in parking impacts, the west side north of the railroad would have less parking impacts. On the south side of the railroad access was evaluated east, west, and central to the train station. The alternatives looked at long ramps, switchback ramps, and spiral ramps. The alignment of the ramps paralleled the north side of the parking lots, south side of the parking lots, or parallel to Forest Avenue, extending away from the parking lots. The central location with a spiral ramp resulted in the lowest parking impacts. While there are pros and cons to each location, it was generally agreed that it was feasible to place a pedestrian underpass in the vicinity of the train station. The alternatives ranged from \$5.6 million to \$9.8 million to construct.

Vehicular grade separation was initially evaluated at the three existing at-grade locations of Prospect Avenue, Main Street, and Park Boulevard, and as a new crossing location from Lorraine Avenue to Western Avenue. The existing at-grade locations were evaluated as underpasses and the Lorraine – Western connection was an overpass. To provide underpasses and also account for pedestrian accommodations resulted in extensive roadway lowering, inclusion of retaining walls, and property access restrictions. As with the underpasses, an overpass connection from Lorraine Avenue to Western Avenue resulted in raising roadways, inclusion of retaining walls, and property access restrictions. Conversion of the existing at-grade crossings to grade separation were deemed un-feasible; however, other alternatives were brainstormed and further

evaluated. The alternatives were located from Glenwood Avenue to west of Lorraine Avenue. The alignments were curvilinear in nature and included alternative intersection controls such as roundabouts. The alignments were created to minimize impact to traffic flow along Pennsylvania Avenue, minimize property acquisitions, and to complement future land development. As with the pedestrian underpass, while no one alternative was selected as a preferred it was determined that a grade-separation could be feasible. The present day estimated construction cost is approximately \$21 million for the vehicular grade separation.

In addition to determining that there are feasible improvements that can be made at each location it has been further determined that each location would be eligible for funding programs. The programs vary from Surface Transportation, to Congestion Mitigation, to Rail Protection Funds. Each program has differing percentage participations and requirements. The villages has begun coordination toward securing funds for the Taylor Avenue improvement.

Introduction

As stated in the Village's "Eras of Change" the railroad was an early influence on the development of the community. The railroad provided access to the many amenities Glen Ellyn had to offer. Over time, Glen Ellyn has evolved from a resort community to the vibrant suburb it is today. Through time and with other regional influences the strength of downtown has ebbed and flowed. In some regard, the development of the Downtown Business District (Downtown) is closely related to the railroad. While the success of the downtown is not solely related to the windfall derived from the presence of commuter trains, the Union Pacific railroad has had a strong influence on the evolution of, and impacts to the Downtown, for better and for worse.

The Village of Glen Ellyn in recent years has performed a market analysis of the downtown. Responses to the merchant and public surveys indicate that parking is not convenient, the one-way streets are confusing, and the rail crossing is a hindrance. The resulting Downtown Strategic Plan identifies many opportunities and on the converse, challenges. One such challenge is the parking and circulation within the downtown. It is desired to enrich the downtown and one aspect of enrichment is to improve vehicular, parking, and pedestrian access. One way to improve the access is to consider grade separation facilities for pedestrians and vehicles.

The Village of Glen Ellyn wishes to improve pedestrian and vehicular movements within the Downtown. First, there are three existing at-grade rail crossings in the Downtown at Prospect Avenue, Main Street, and Park Boulevard, each have the potential to be developed into a grade-separated vehicular and pedestrian underpass. Second, east of the Downtown, there is a grade-separated crossing of the Union Pacific Railroad at Taylor Avenue. While the underpass itself serves vehicular and pedestrian crossings east of the Downtown, the pedestrian accommodation is insufficient. Third, in the Downtown, improved pedestrian access is desired at the Metra Station, particularly to provide cross access of the rail line.

This Feasibility Study is an early and continuing step toward enabling the Village to implement its Downtown Strategic Plan and reach its long term goals. In the short term, the results of this Feasibility Study will enable Village staff to address frequent resident and customer complaints about downtown congestion caused by a high frequency of passenger and freight train activity through town. This study will evaluate the feasibility to:

- I) Improve the pedestrian crossing at Taylor Avenue
- II) Identify a most suitable location for a pedestrian underpass in the vicinity of the Metra Commuter Rail Station and
- III) Identify a most suitable location for a vehicular grade-separated rail crossing within the Downtown

The following details the purpose and need of each location, the evaluation criteria, a summarization of impacts, and a recommended action. It is important to note that each

location, Taylor Avenue, the Pedestrian Underpass, and the Vehicular Grade Separation are three separate projects that were all evaluated independently of each other.

Taylor Avenue

Taylor Avenue is an existing grade separation where Taylor Avenue is an underpass of the UP tracks. The cross section of the roadway is 10 feet wide with a raised 3 foot sidewalk on the east side. The sidewalk is too narrow, does not meet ADA policy, and does not permit a safe set back from traffic. The narrow cross section only allows for one vehicle to pass through at a time with traffic signal control. The pedestrian approach from the south does not allow a clear sight line through the underpass. The pedestrian way is not controlled by traffic signals, similar to the vehicles. Therefore, opposing conflict occurs for pedestrians and bicyclists. A safer pedestrian underpass is needed at Taylor Avenue.



Figure 1 Taylor Avenue Looking North

The surrounding area is residential with local streets. The Illinois Prairie Path (IPP) is also grade separated from Taylor Avenue and is parallel to the UP. A ramp connection between Taylor Avenue and the IPP is located to the west of Taylor Avenue. Sidewalk exists on the east side of Taylor Avenue and crosses west with a marked crosswalk to the west side of Taylor Avenue.

The following items were taken into consideration for locating the new underpass:

- Minimize changes to railroad structure
The railroad structure has sheet pile that extends approximately 16 feet of east and west of the underpass itself. The location of the path was selected to be outside this area to maintain the current integrity of the rail structure.
- Continuity of existing travel ways
The existing paths/sidewalks are on the east side of Taylor Avenue. Reuse of existing facilities leads to less impacts with utilities.
- Minimize right of way
Due to the angle of Taylor Avenue and the clearance needed between the roadway and the pedestrian way, additional right of way would be needed to be purchased on the west side of Taylor Avenue.
- Consideration of future roadway widening
Based on the alignment of the roadway, the existing roadway configuration and the associated right of way, it appears an easterly widening of the roadway would be the most feasible.

For these reasons, an alignment of the pedestrian underpass is located to the east. Exhibit 1 reflects a plan view of the proposed pedestrian underpass alignment. It is recommended to improve the paved surface to a 10-foot width along Taylor Avenue from the Walnut Avenue north to Willis Street. An estimated cost to construct the Taylor Avenue pedestrian underpass is approximately \$2,400,000.

Other enhancements for future consideration include a ramp connection to the IPP on the east side of Taylor Avenue. This is represented in dotted line on Exhibit 1. Way-finding signing would be beneficial between the IPP and Taylor Avenue. These topics could be addressed in subsequent phases of the project.

Renderings of what the future pedestrian underpass would look like from the users' viewpoint are shown on the next page.

The proposed alignment of the Taylor Avenue pedestrian underpass was presented at a Village Board Workshop on May 19, 2014. At this workshop, the Village Board reviewed the findings and concurred that the alignment was feasible.



Figure 2 Taylor Avenue Looking North at New Pedestrian Underpass



Figure 3 Taylor Avenue Looking South at New Pedestrian Underpass

Pedestrian Underpass

A pedestrian underpass in the vicinity of the Metra commuter station is an important component of the Downtown Strategic Plan. As was previously stated, common complaints about the downtown are the proximity of parking and the ability to cross the tracks when trains are present. The ability to cross the tracks is a problem for all users: commuter, merchant, student, bicyclist, and consumer. A safe and time saving passageway to assist in crossing the tracks would enhance the accessibility to the Downtown and would generate additional trips.

An underpass was evaluated versus an overpass for many reasons. The first being, as shown in the picture below, the railroad has overhead signal controls. The signal controls are at an elevation 23 feet above the rails. The 23 foot elevation permits clearance of the double stacked rail cars. A pedestrian overpass would also need to provide a 23 foot clearance, but because of the overhead signal control would need to be higher. The pedestrian bridge would need to be high enough to also provide clear sight lines of the overhead signal control. The elevation required to pass over the rail would result in longer ramps than for the vertical clearance of an underpass. This elevation is perceived to be obtrusive to the character of the downtown district. For these reasons only underpasses were evaluated.



Figure 4 Pedestrians Waiting for Freight Train at Park Boulevard

The criteria used to identify a reasonable location for the pedestrian underpass include:

- **Ability to Serve Multiple Users**
While the general area considered for a pedestrian underpass is the Metra commuter station, the underpass would be used by multiple users, i.e. bicyclists, students, merchants, and commuters. Therefore, the access should be centrally located and highly visible.
- **Minimize Parking Impacts**
Since the availability and proximity of parking is of concern to the Downtown users, minimizing the number of spaces impacted is an important factor.
- **Travel Pattern Changes**
A travel pattern change could be either a change in space layout resulting in one-way travel or access drive realignments. If vehicular changes are made that deter trips to the Downtown, then the underpass will be perceived as a hindrance versus a benefit.

Five alternatives were evaluated for the pedestrian underpass. Three alternatives are located east of the train station and two alternatives are located west of the train station. The differences between alternatives all occur south of the tracks. The ramp and stair connections on the north side of the tracks were constant for the three alternatives east of the station and constant for the two alternatives west of the station.

The north side connection east of the station is a switchback ramp with access from the tunnel to track level. ADA routes would lead from the track level to the east at Park Boulevard or west around the station to the existing ramp. Stairs are also available to get to both street level and track level. The north-east ramp is shown to be compatible with the future Crescent Avenue parking changes.

The north side connection west of the station is a switchback ramp with access to street level and track level. The ADA route is accommodated via the switchback ramp. Stairs are available leading only to track level. Parking loss and a change in parking layout is associated with the north-west side.

East Alternative A is located between the IPP and the commuter parking lot. The ramp extends from Park Boulevard toward Forest Avenue. Stairs are located near Forest Avenue. This alternative results in a 110-foot long tunnel, a loss of parking, a change in parking layout to one-way westbound with diagonal parking, and modifications to the IPP alignment. Alternative A is shown in Exhibit 2 and is estimated to cost \$8,200,000.

East Alternative B is located in the same general location between the IPP and the commuter parking; however, it includes a switchback ramp encroaching on the commuter parking lot. This alternative has the similar impacts as Alternative A, except it impacts more parking spaces. Alternative B is shown as Exhibit 3 and is estimated to cost \$7,100,000.

East Alternative C is a similar layout of Alternative B, except it is located between the tracks and the commuter parking. The tunnel length is shorter than Alternative B at 65-feet long. This alternative, like A and B, changes the parking layout to one-way with diagonal parking and has more parking impacts. However, it does not change the alignment of the IPP. Alternative C shown as Exhibit 4 and is estimated to cost \$5,600,000.

The West Alternative is a circular ramp located south of the tracks between the commuter lots at Forest Avenue. The West Alternative results in a 75-foot tunnel, a loss of parking spaces, and a change in the location of the exit drives. Parking is retained as parallel parking and the exit drives are retained as one-way out. The West Alternative is shown as Exhibit 5 and is estimated to cost \$6,600,000.

The Forest Avenue Alternative is a switchback ramp north-south along Forest Avenue. This alternative results in a 145-foot tunnel with a kink to pass under the railroad and to pass under the exit drive. This alternative has a loss of parking and alignment changes to the IPP. The Forest Avenue Alternative is shown as Exhibit 6 and is estimated to cost \$9,800,000.

A summary of the impacts of each alternative is provided as Table 1. Generally, all alternatives provide access to all users. All Alternates all have centrally located stairs near the Forest Avenue / Commuter Lot intersection. The ramp entrance, which would be ADA compliant and used by pedestrians and bicyclists, varies with each alternative. Alternate A has the furthest east entrance while the remaining alternate ramp entrances are centrally located near the Forest Avenue / Commuter Lot intersection.

Table 1: DOWNTOWN Pedestrian Underpass Impact Summary

	EAST ALT A	EAST ALT B	EAST ALT C	WEST ALT	FOREST ALT
Parking Loss	22	39	42	7	3
Multiple User Access		X		X	X
Travel Pattern Change	X	X	X	X	
IPP Impact	X	X		X	X
Length of Tunnel	110'	110'	65'	75'	145'
Cost (\$M)	8.2	7.1	5.6	6.6	9.8

Comparing the three key items which are parking impacts, multiple-use access, and travel pattern changes, the Western and Forest Alternatives have the least impact to parking, serve multiple users, and have the least impact to travel pattern change. When adding in the length of tunnel and the associated cost, the Western Alternative is a shorter tunnel and costs less than the Forest Alternative.

Renderings of what the Western Alternative could look like from the user's perspective are shown on the next page.

The five alignments for the pedestrian underpass at the Metra Station were presented at a Village Board Workshop on May 19, 2014. At this workshop, the Village Board reviewed the findings and discussed the merit and functionality of each alternative. One design aspect that was not shown, but was discussed, was the use of elevators instead of ramps. Elevators could save space and minimize impacts to adjacent properties. Elevators are also about the same cost to construct as the ramp with retaining walls. There is a maintenance and upkeep cost to the elevators that would not be associated with the ramps. A key aspect of the pedestrian underpass is the ability for all users: bicyclist, merchant, student, and commuter to use the facility. Bicyclists are not likely to wait for or utilize an elevator. In general there were different design aspects of each alternative that were liked and could be mixed and matched, including the elevator concept, to determine the preferred alternative in subsequent phases of the project. While a specific location was not selected, it was determined that a pedestrian underpass is feasible between Main Street and Park Boulevard.



Figure 5 Western Alternative Looking North along Forest Avenue



Figure 6 Western Alternative Looking East from Parking Lot

DOWNTOWN Grade Separation

To address frequent complaints/requests about downtown congestion in relation to the passenger and freight train activity through the town, the Village Board has asked about the feasibility of road grade separations. Three primary routes within the Downtown were evaluated as railroad underpasses including (from east to west) Park Boulevard, Main Street, and Prospect Avenue. In addition to the three underpass alternatives, a fourth route evaluated is an overpass between Lorraine Street from south of the tracks to Western Avenue on the north side of the tracks. The plan layout of each alternative location: Park Boulevard, Main Street, Prospect Avenue, and Lorraine/Western with the associated summarized impacts as discussed below are provided as Exhibits 7 through 10.



Figure 7 Cars Waiting for Freight Train at Park Boulevard

The criteria used to identify a reasonable location for the roadway grade separation included:

- **Parking Impacts**
Since the availability and proximity of parking is of concern to the Downtown users, minimizing the number of spaces impacted is an important factor.
- **Pedestrian Access**
While the improvement is for the mobility of vehicles, pedestrian access must be maintained to the adjacent properties.

- **Retaining Walls**
It is understood that the roadways will be lowered/raised to go under/over the railroad. Retaining walls will need to be utilized to accommodate the change in roadway elevation and contain the elevation changes within the roadway right of way to minimize impacts to adjacent properties.
- **Community Character / Context**
Will the use of retaining walls and lowered streets change the character of the community?

The key design aspects of the roadway grade separation are:

- The roadway will need to be lowered 18.5 feet to 22.5 feet to go under the railroad. At the Lorraine/Western location the road will need to be raised 23 feet to cross over the railroad.
- To minimize longitudinal impacts, the roadway grade is 7.5%. To meet ADA requirements, the sidewalk grade is 5%. The difference in percentage of grade results in the sidewalk and roadway at the low point, under the railroad, to be at different elevations as reflected in Figure 8

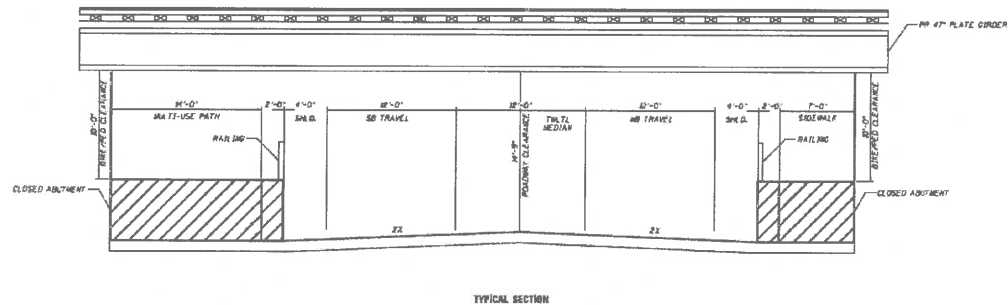


Figure 8 Typical Section for Underpasses

- Each alternative results in tiered sidewalks to maintain street access and building access.
- With each alternative an additional bike bridge is needed to maintain a safe crossing for the IPP.
- The Main Street alternative results in a bridge crossing of Duane Street over Main Street resulting in no access between Duane and Main.
- The extent of pavement impacts range from 3,700 linear feet of pavement to 5,300 linear feet of pavement.
- Each road with a profile adjustment has retaining walls. Retaining walls range in height from 2 feet to 23 feet.
- Many parking lots need to be re-graded with retaining walls on-site to maintain vehicular access.
- Many private driveways are closed and homes lose access.
- The Lorraine/Western alternative results in closure of Western Avenue.

- The Lorraine/Western Alternative appears to have many site redevelopment opportunities; however, the timing of site redevelopment may not coincide with the roadway improvement.

As can be seen with the plan views and the generalized summary of impacts, there are many design and operational considerations associated with the grade separations. The grade separation may provide improved mobility for the vehicular traffic, yet, the intent of improving vehicular mobility is to improve accessibility and enhance the Downtown. The impact of lowering/raising roadways and the associated access impacts does not improve accessibility of the Downtown. The need for tiered sidewalks to provide access down at street level and at store level does not enhance visibility of the Downtown. The character of the community changes with the extent of the retaining walls, lowered streets, and modified parking lots.

The four alternatives for vehicular grade separation were presented at a Village Board Workshop on May 19, 2014. At this workshop, the Village Board reviewed the findings and concurred that the impacts at the Park Boulevard and Main Street crossings were too great to the downtown. Park Boulevard and Main Street are determined to not be feasible. It was decided that the Prospect Avenue and the Lorraine/Western alternatives were viable and a subcommittee was created to evaluate vehicular grade separation alternatives further.

Sub Committee Coordination

A sub-committee of Trustee Elliott and Trustee Ladesic, the Village Engineer, the Village Manager, and HDR met three times: June 20, September 24, and November 19, 2014.

June 2014

At the June meeting the alternatives were reviewed and the likes/dislikes of each discussed. It was once again stated that the Park Boulevard and Main Street alternatives were not feasible because there were too many impacts to the adjacent properties. The focus became west of Main Street. From a general topography standpoint, with Pennsylvania Avenue elevated to the north of the tracks and Hillside Avenue elevated to the south of the tracks, it appeared that an overpass would be viable. The western alignment of Lorrain/Western was also liked in the context that it did not interfere with the operations of the downtown. However, closure of Western Avenue and raising Pennsylvania Avenue was not desired. It was noted how the underpasses previously evaluated had impacts two to three blocks away from the rail crossing. It is desired to keep impacts to a more confined area. It was also noted that there are redevelopment opportunities between Prospect Avenue and Main Street and it would be interesting to see how a grade separation could work with a redevelopment. From these points HDR was asked to provide profiles for the alignments, evaluate other non-traditional alignments for the Lorraine/Western overpass to try to minimize impacts and to evaluate an overpass crossing at Glenwood Avenue.

September 2014

The new overpass alternatives were presented at the September meeting. Overpass Alternative A through Overpass Alternative E are included as Exhibit 11 through Exhibit 15. With these and future alternatives, the impacts were not summarized, but were visually portrayed. The alternatives were evaluated on functionality and implied visual impacts to the surrounding properties.

Alternative A is a curving alignment from Pennsylvania Avenue over the tracks to Duane Street. While Pennsylvania Avenue is elevated above the railroad track, the bridge crossing still needs to be elevated 20+ feet to provide the railroad clearance. A ramp is proposed within the existing roadway of Pennsylvania Avenue. The ramp would utilize much of the existing roadway, thus only allowing westbound through traffic on Pennsylvania Avenue. Eastbound through traffic would follow a diverted route from the intersection of Western Avenue along the bank entrance continuing through to intersect with Prospect Avenue at Crescent Avenue.

Alternative B is a ninety-degree turning alignment beginning at the Prospect Avenue / Crescent Avenue intersection. The ramp would proceed upward toward the Western Avenue intersection following the alignment of the bank driveway. Elevated above Pennsylvania Avenue the alignment turns 90 degrees south to cross the railroad and commuter parking lot. Two-way traffic would be maintained on Pennsylvania Avenue under the overpass structure.

With both Alternative A and B the roadway grade is between 8 and 9%. The pedestrian way which has an allowable maximum grade of 5%, has to be provided on separate alignment from the roadway structure. The pedestrian routes are shown in blue on the Exhibits.

Both Alternative A and B terminate on the south side of the tracks in the same manner. Again, a ramp is located in the center of Duane Street. In this location two-way traffic is maintained with a one-way travel lane on either side of the ramp. The roadway would be widened north and south to accommodate this design.

The Committee liked the general curving alignment but did not like the impacts along Pennsylvania Avenue and Duane Street. The Village suggested keeping the same type of alignment and moving it west of Western Street. The Village further asked to keep Pennsylvania Avenue as the through movement, i.e. not change the routing of traffic, and to keep the Western Avenue intersection open.

Overpass C provided an alignment that started at the Pennsylvania/Western intersection, traversed south and east parallel to the railroad tracks to the Prospect/Crescent Avenue intersection and then turned south over the tracks and aligned with Glenwood Avenue. This alignment results in Glenwood Avenue closed to through traffic and the closure of parking lot driveways. This general alignment was not looked at favorably.

Overpass D is located at Glenwood Avenue. Due to geometric policies with sight distance over the bridge and vertical curve lengths, the intersection of Pennsylvania Avenue would need to be raised to meet the bridge alignment. The profile of this alternative was compared to a recent developers' proposal for the Glenwood / Pennsylvania / Prospect / Crescent block. The bridge would be crossing within the sight lines of the users of the building. This would not be a desirable selling point. It also appeared that the redevelopment site in the northeast quadrant of Hillside Avenue and Glenwood Avenue would not be conducive to access. For these reasons this alternative was not looked at favorably. However, it was requested to see if an underpass would be feasible and work with a developer's access plan.

Overpass E is also located at Glenwood and is different on the south side of the tracks. Instead of continuing on tangent alignment toward Hillside Avenue, the ramps extend east and west toward Main Street and Prospect Avenue. This would allow for a one-way eastbound at-grade segment for through traffic between Prospect Avenue and Main Street. This was not a favorable alternative due to the 28 foot high ramps along Duane Street.

At this meeting HDR indicated that with any new alignment, i.e. Lorraine/Western versus a grade separation at an existing road crossing, it is expected for the railroad to request closure of the nearest at-grade crossing. The closest crossing would be Prospect Avenue.

From the discussions at this meeting HDR was tasked with further evaluating an overpass and underpass at Lorraine/Western, further evaluate an underpass at Prospect Avenue, and evaluate an underpass at Glenwood Avenue.

November 2014

The new alignments were presented in November. The alternatives were labeled Alt 1 through Alt 4 and are included as Exhibit 16 through Exhibit 19.

Alt 1 is an overpass at Lorraine/Western Avenue. This alternative maintains the at-grade intersection of Western Avenue and Pennsylvania Avenue. The intersection is currently three-legged with the bank driveway as the fourth leg. With this alternative it is proposed to create a roundabout at the intersection, shift the west leg of Pennsylvania Avenue northward and create a ramp between Pennsylvania Avenue and the railroad right of way. The alignment curves west and south in the vicinity of Newton Avenue. South of the railroad the alignment meets at the Lorraine/Duane Avenue intersection. Duane Avenue would be closed west of the ramp. In concept, this alignment was well received but the committee members asked if it was possible to further minimize impacts to adjacent properties.

Alt 2 is an underpass at Lorraine/Western. This alternative is different in that the entrance to the ramp is located at the Prospect/Pennsylvania Avenue intersection, again with a roundabout. This alternative provides a better connection to the underpass for the

eastbound traffic. This alignment also brings the impacts back to the east, which is not desired. The village questioned if this underpass concept could be combined with the Alt 1 alignment and combined with an entrance at the Prospect/Crescent Avenue intersection. HDR concurred with the probability of an underpass alignment and the ramp entrance location.

Alt 3 is an underpass at Prospect Avenue. The purpose of the re-evaluation was to compare what the effect of different bridge deck depths would have. It was determined that if the bridge deck depth was two feet less, then the length of impact would be reduced by approximately 50 feet. A discussion was held regarding the maximum grade of the roadway; a steeper grade reduces the length of impact. It was noted that all the alternatives maximize the grade based on policy and known surrounding land elevations. It was discussed as to how these are the same impacts to Alt 4, which is an underpass at Glenwood Avenue.

Alt 4 is similar to Overpass 3 presented in September. As previously noted, if the alignment were to extend south on tangent alignment the impacts would extend to Hillside Avenue. With the alignment as shown, the east/west ramps would be below ground and maintain a one-way eastbound through lane. This alternative takes into consideration access needs for development should the block surrounded by Glenwood / Pennsylvania / Prospect / Crescent be re-developed. The vertical alignment was designed to allow Crescent Avenue to be maintained over Glenwood Avenue. The effect of lowering Glenwood Avenue in a shorter distance than the railroad tracks is that Pennsylvania Avenue would too need to be lowered. Again, this is due to maximum grades, vertical curve lengths, and sight distance requirements.

Many of the alignment requests at this meeting focused around adjustments of where intersections were located or the ability to minimize impacts. HDR then focused the conversation toward the goal of the study which is feasibility. HDR pointed out that the September meeting and the November meeting focused on alignments west of Glenwood Avenue. With the goal of the study to determine feasibility, has the Sub-Committee determined that an alignment located west of Glenwood Avenue could be feasible? It was noted that the process of determining the actual location, the look of it, and the public coordination would occur in the next step of the project. Understanding the next step, the Sub-Committee concurred that an alternative west of Glenwood Avenue could be feasible.

Funding Opportunities

Based on the proposed types of improvements and the intended purpose of the improvements a matrix of potential funding sources was identified. The funding opportunities are listed in Exhibit 20. There are many opportunities for funding. Generally, funding sources can be combined to offset the local match. HDR is able to assist the Village of Glen Ellyn in grant writing and identifying further the best funding scenarios. Since this feasibility study has been initiated, the Village of Glen Ellyn has submitted and been selected for TCM (Transportation Control Measures) funding from

the DuPage County Council of Mayors and Managers. The TCM funding is for construction of the Taylor Street underpass improvement. Additionally, coordination has occurred with the ICC (Illinois Commerce Commission) in which they recommend submitting a GPF (Grade Protection Fund) application for each project.

Summary

A feasibility study was preformed for three different projects in the Village of Glen Ellyn. The three projects are:

1. Taylor Avenue Pedestrian Underpass
2. Pedestrian Underpass
3. Vehicular Grade Separation

The Taylor Avenue Pedestrian Underpass was deemed feasible. An eastern alignment was preferred that will minimize changes to the existing railroad structure, minimize right of way need, maintain route continuity, and will allow for future improvements to Taylor Avenue if desired. The Taylor Avenue Pedestrian Underpass construction is estimated to cost \$2,100,000.

The Pedestrian Underpass was deemed feasible. The Western alignment west of the train station minimizes parking loss, minimizes travel changes, and provides a central location for multiple users. The Forest Avenue Pedestrian Underpass construction is estimated to cost \$7,700,000.

For the Vehicular Grade Separation a particular alignment was not selected but it was determined that a vehicular grade separation is feasible west of Glenwood Avenue. Additional studies and public coordination is needed to determine a preferred alignment. An evaluation of the worse case (most costly) alignment studied construction cost is estimated at \$21,200,000





EXHIBIT 2



EXHIBIT 3

EAST PEDESTRIAN
TUNNEL ALTERNATIVE C



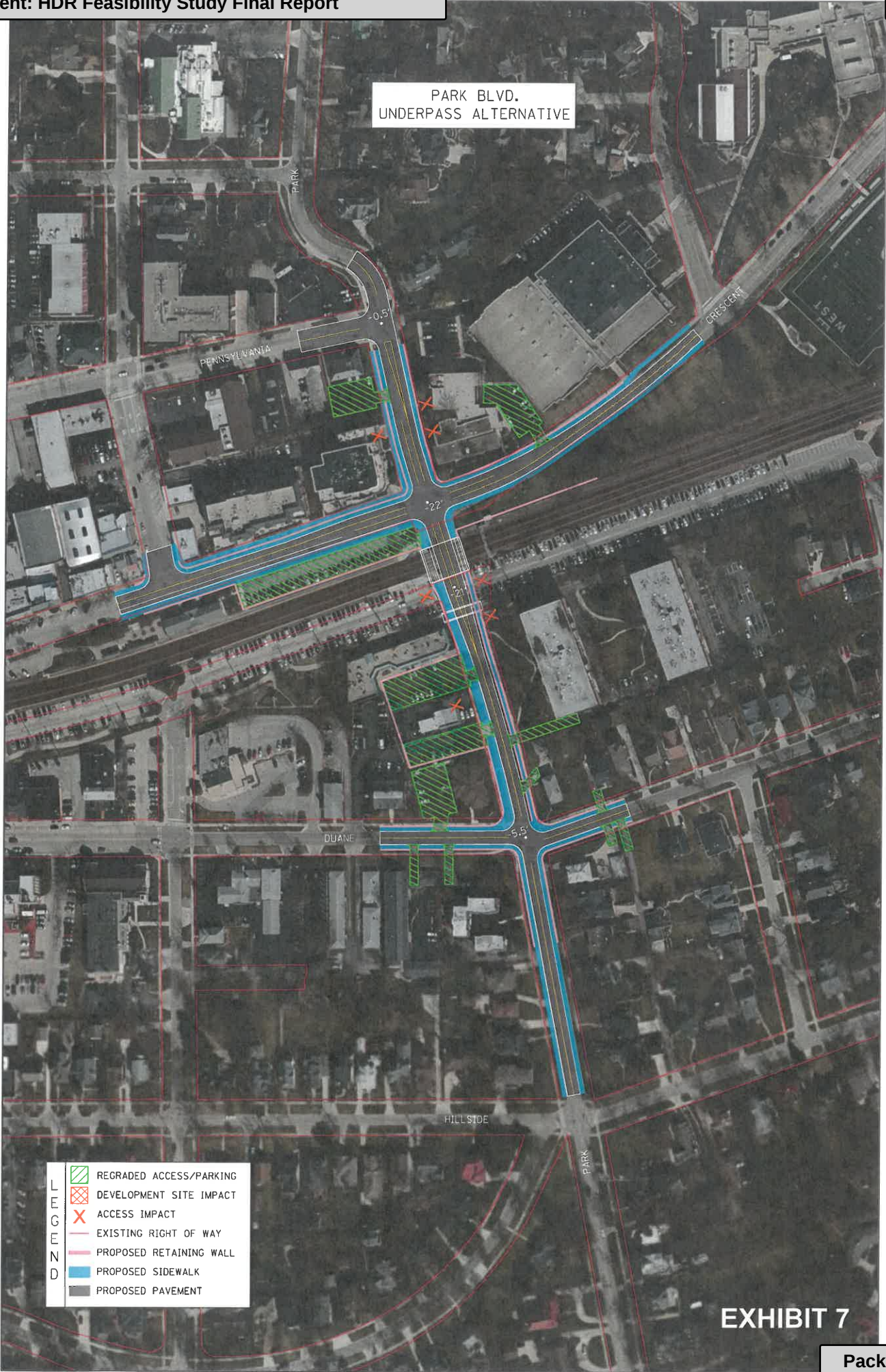
EXHIBIT 4



EXHIBIT 5



EXHIBIT 6



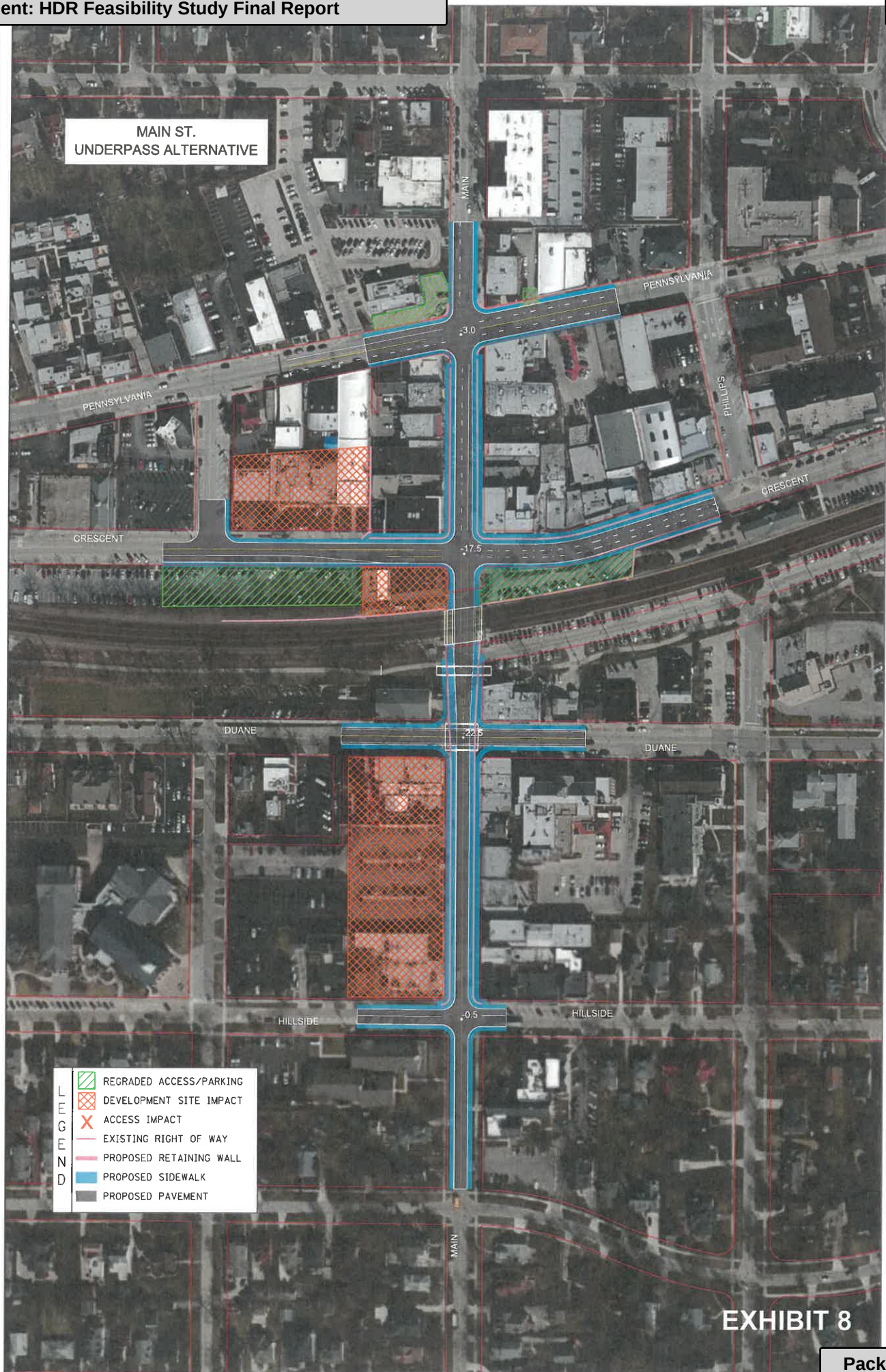


EXHIBIT 8







OVERPASS
ALTERNATIVE A

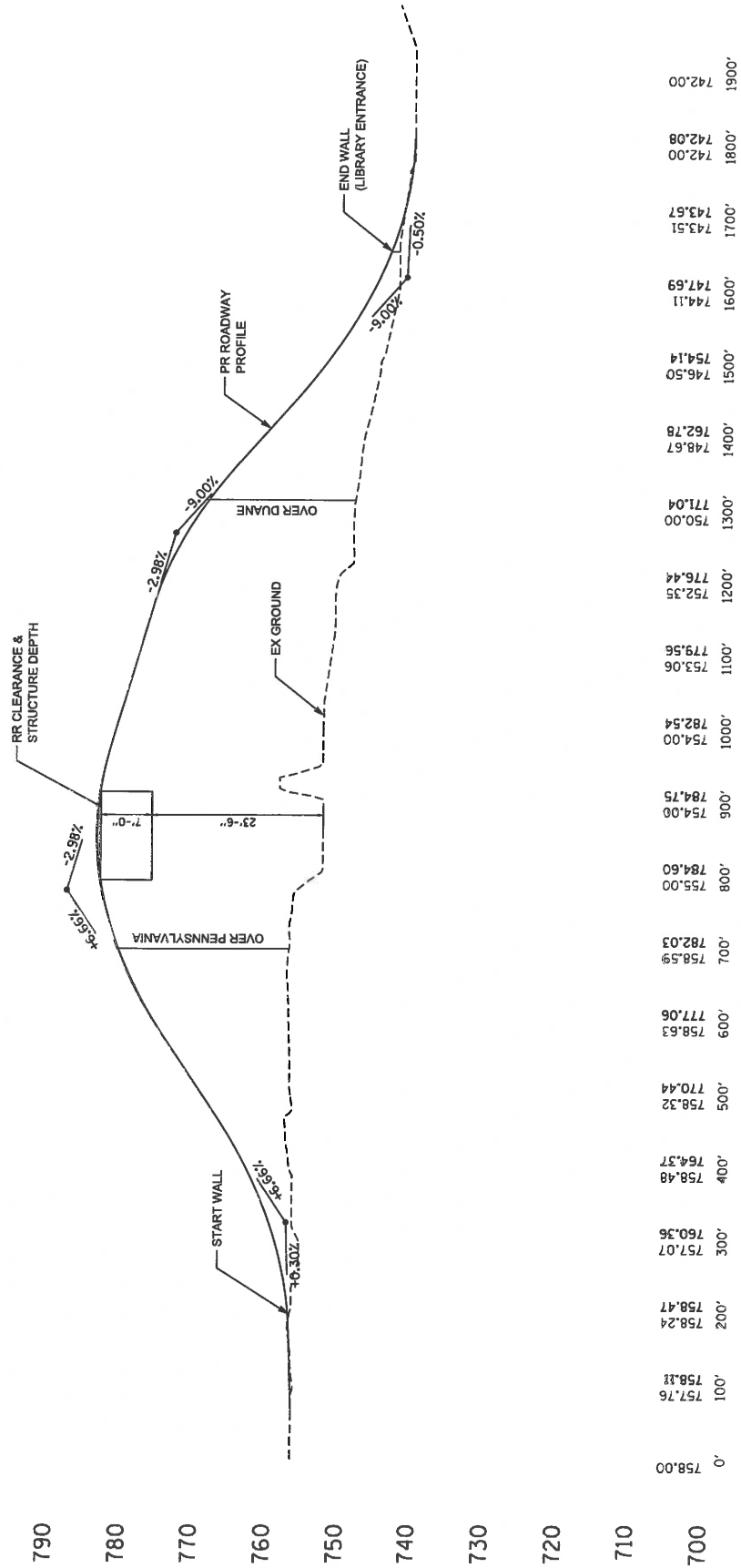


EXHIBIT 11B



OVERPASS
ALTERNATIVE B

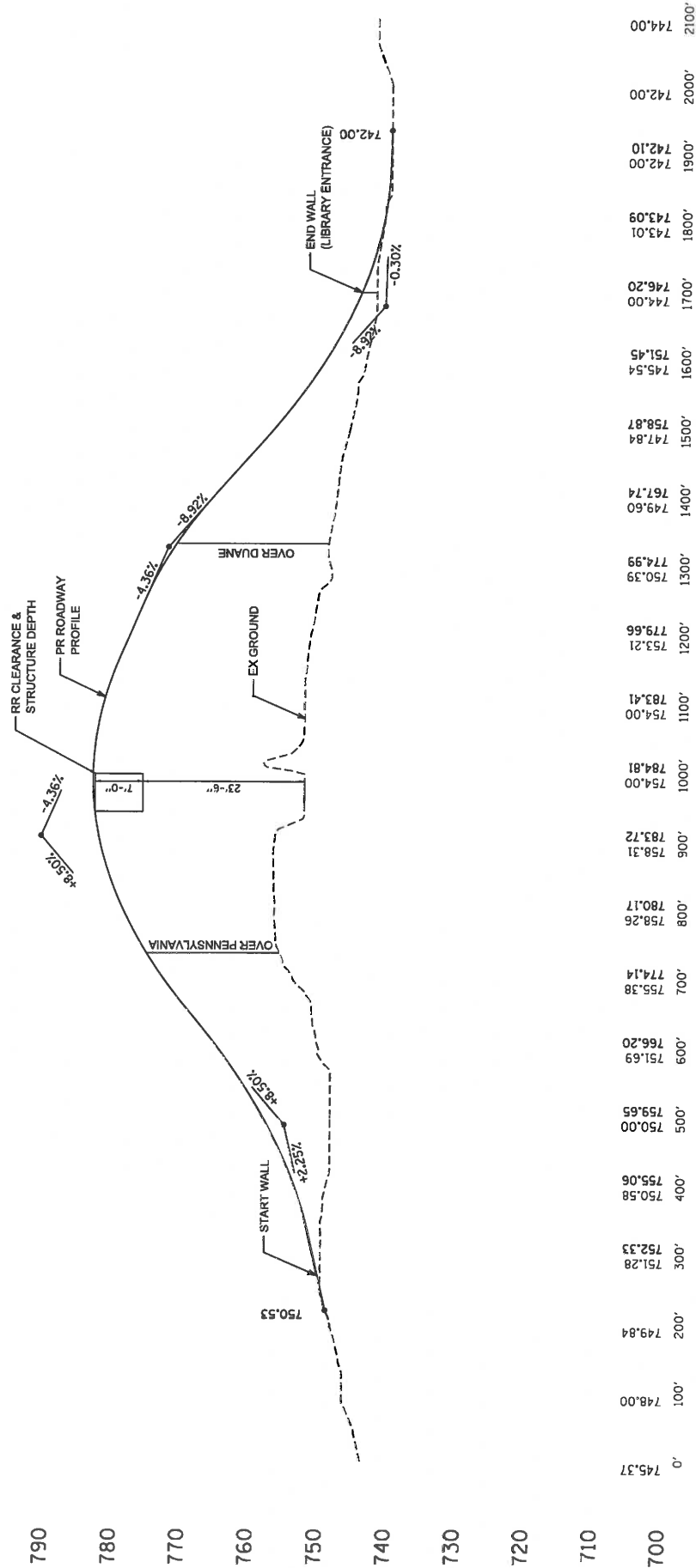


EXHIBIT 12B



OVERPASS
ALTERNATIVE C

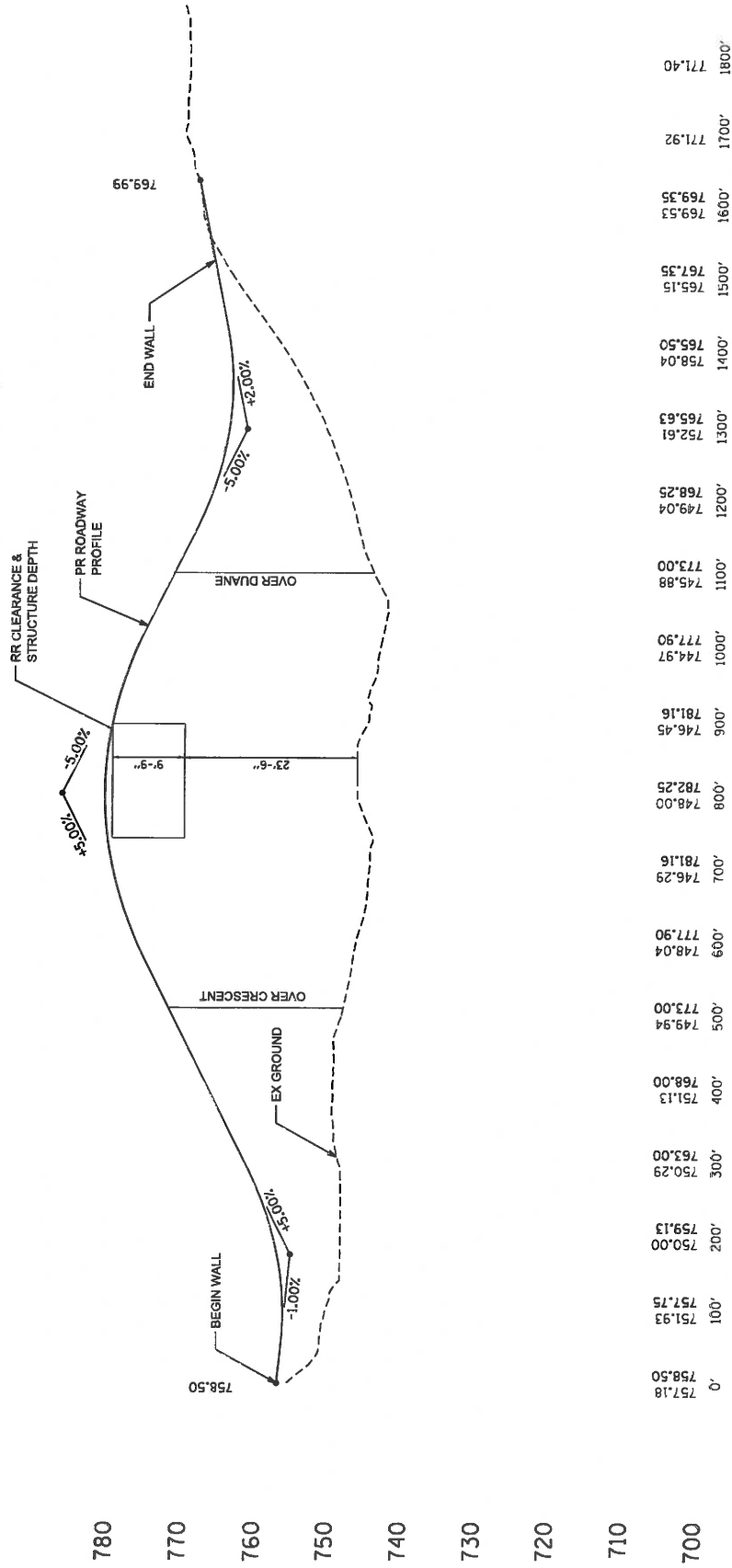


EXHIBIT 13B



OVERPASS
ALTERNATIVE D

PENNSYLVANIA

780

770

760

750

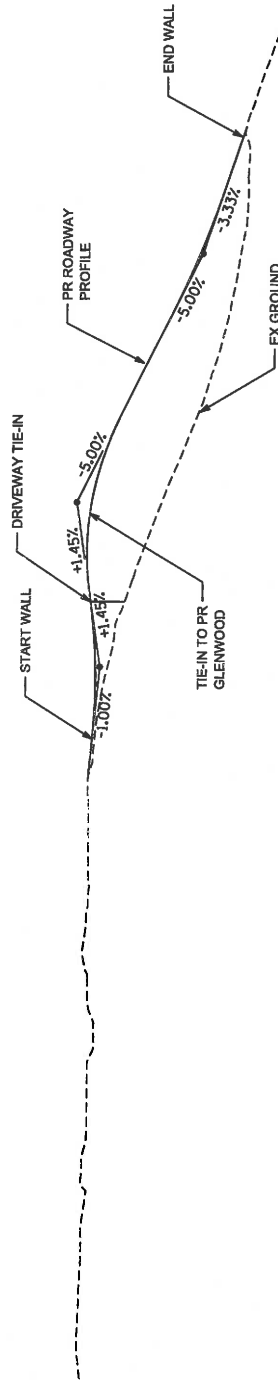
740

730

720

710

700



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758.90	100'
758.52	200'
758.08	300'
757.84	400'
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758.00	600'
758.00	700'
757.19	800'
757.50	800'
755.39	900'
757.18	900'
752.55	1000'
758.14	1000'
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757.63	1100'
744.79	1200'
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741.53	1300'
749.32	1300'
739.51	1400'
744.59	1400'
738.56	1500'
740.91	1500'
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EXHIBIT 14B

OVERPASS
ALTERNATIVE D
GLENWOOD

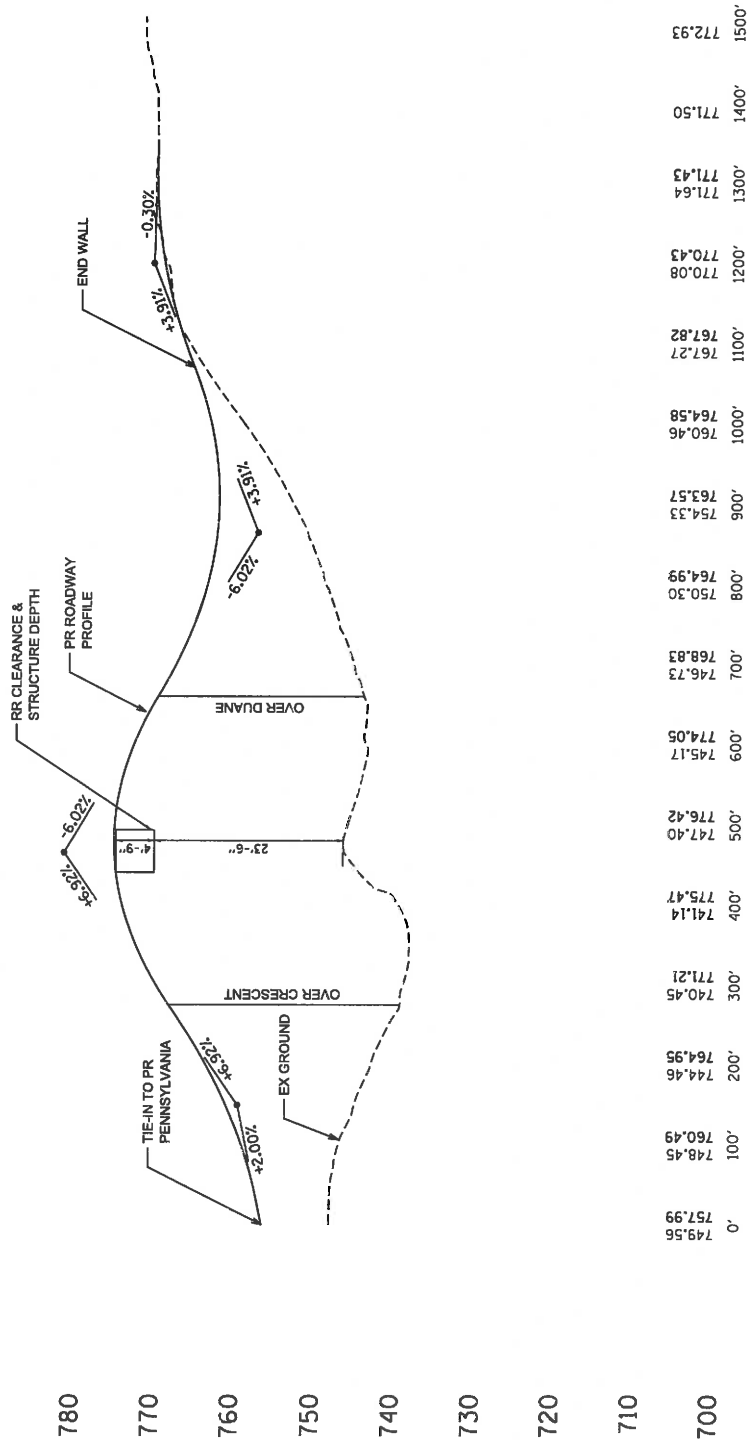


EXHIBIT 14C

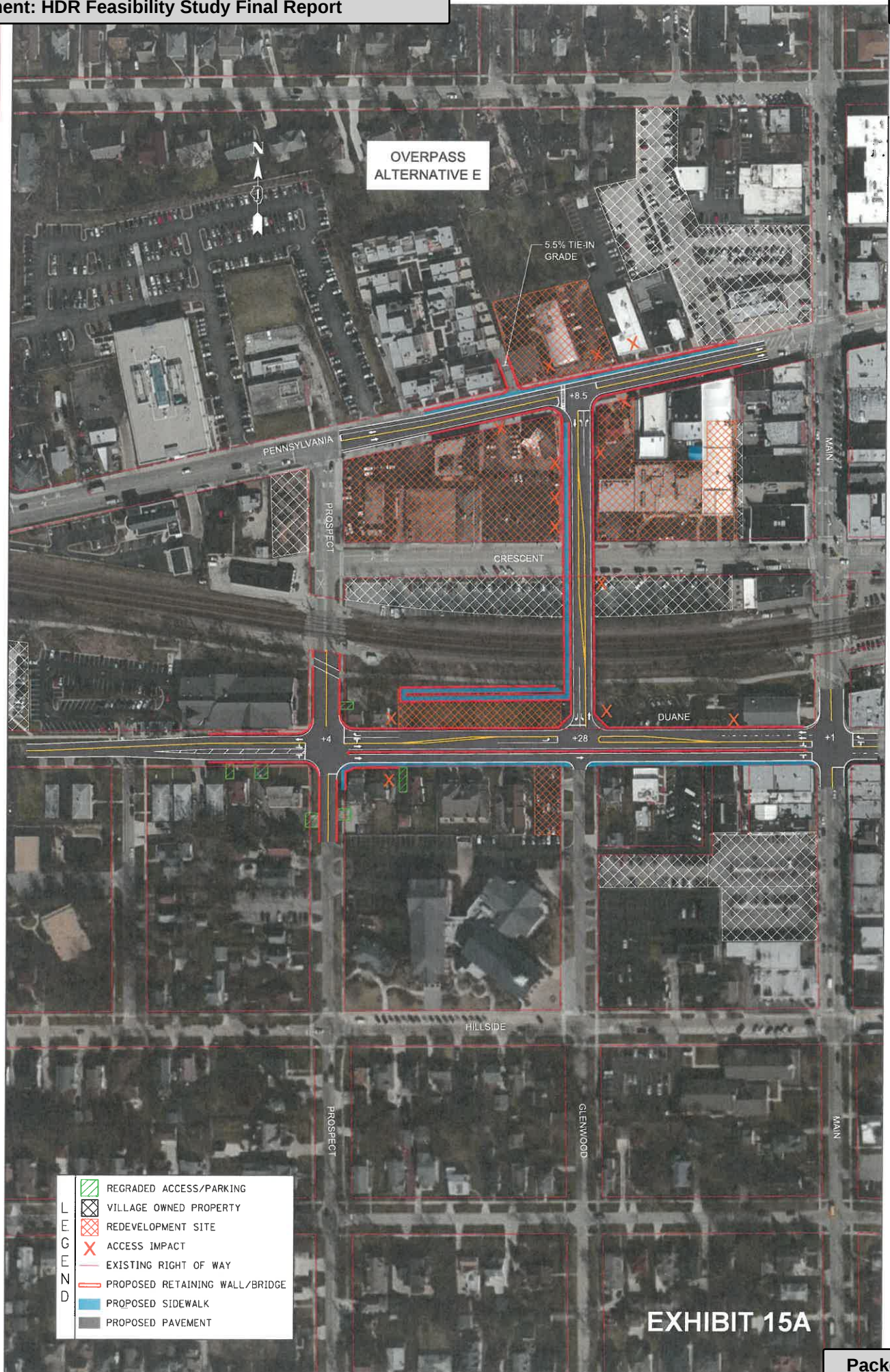


EXHIBIT 15B

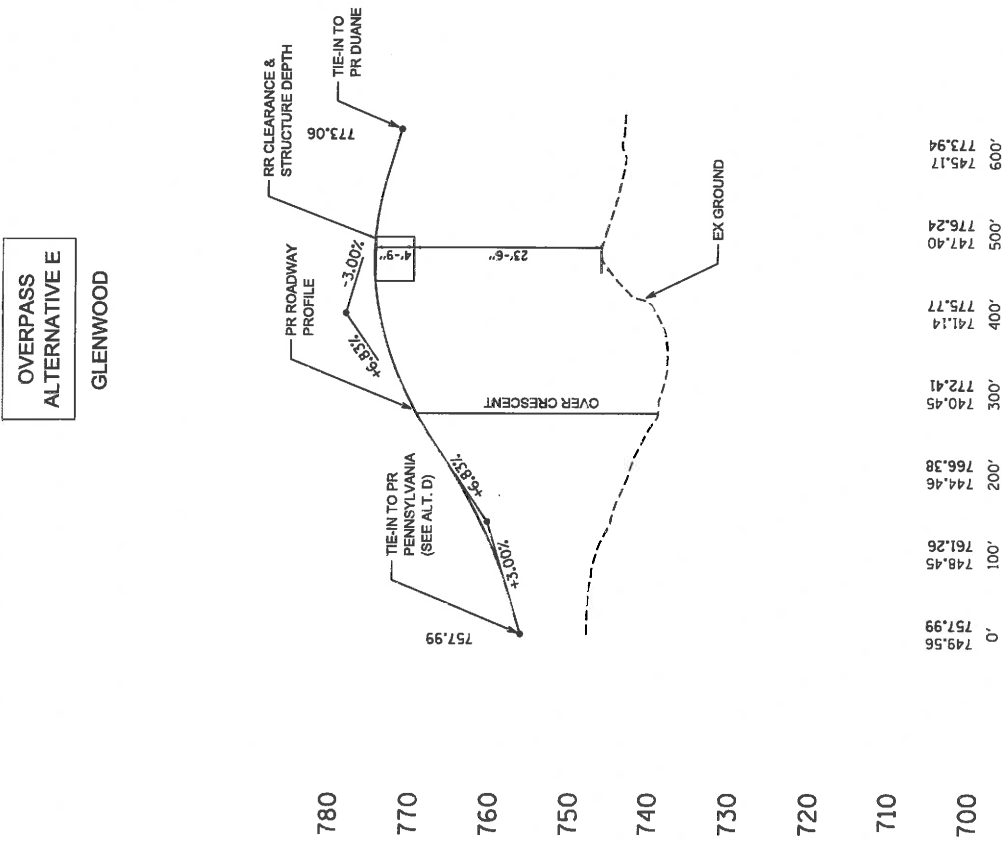
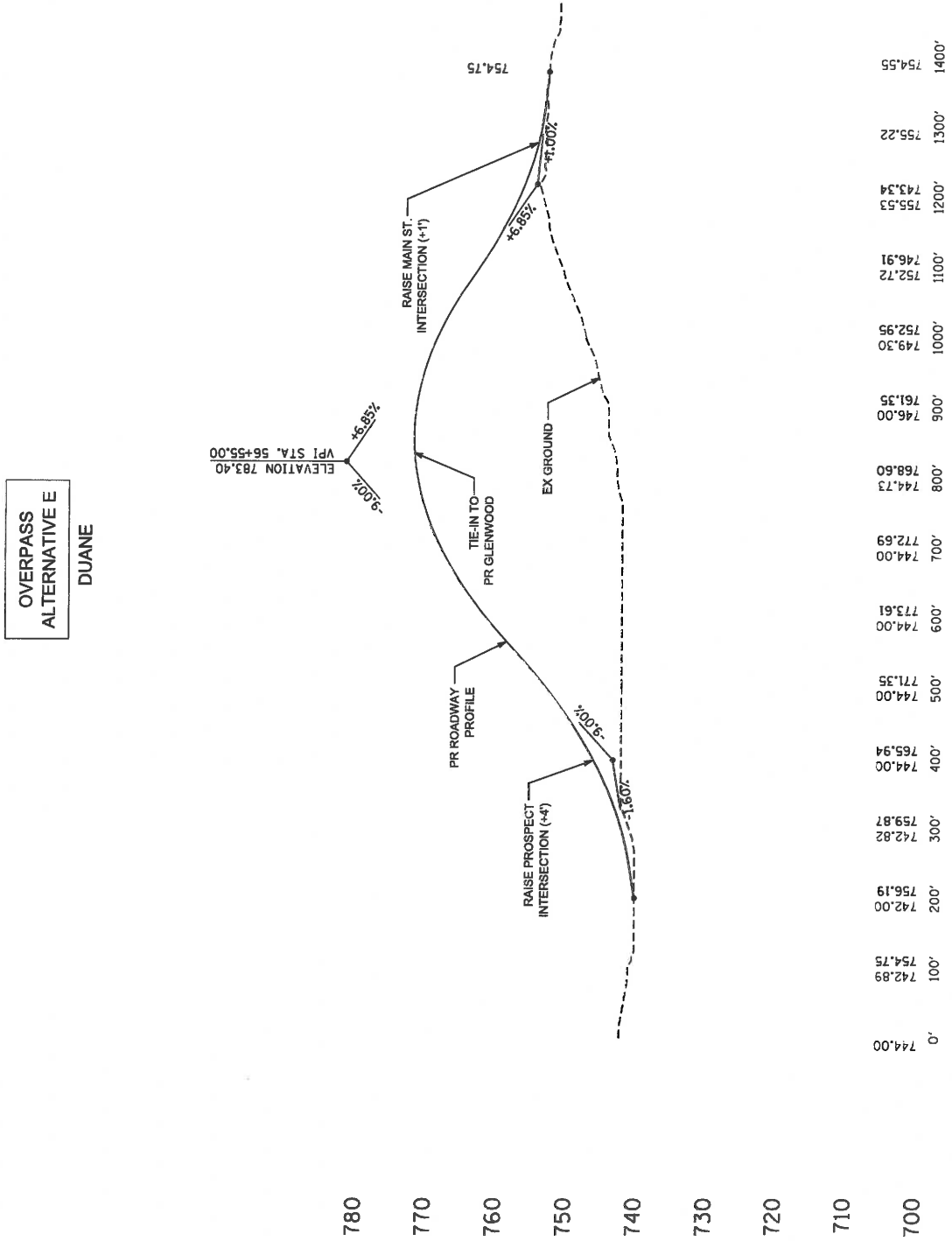


EXHIBIT 15C



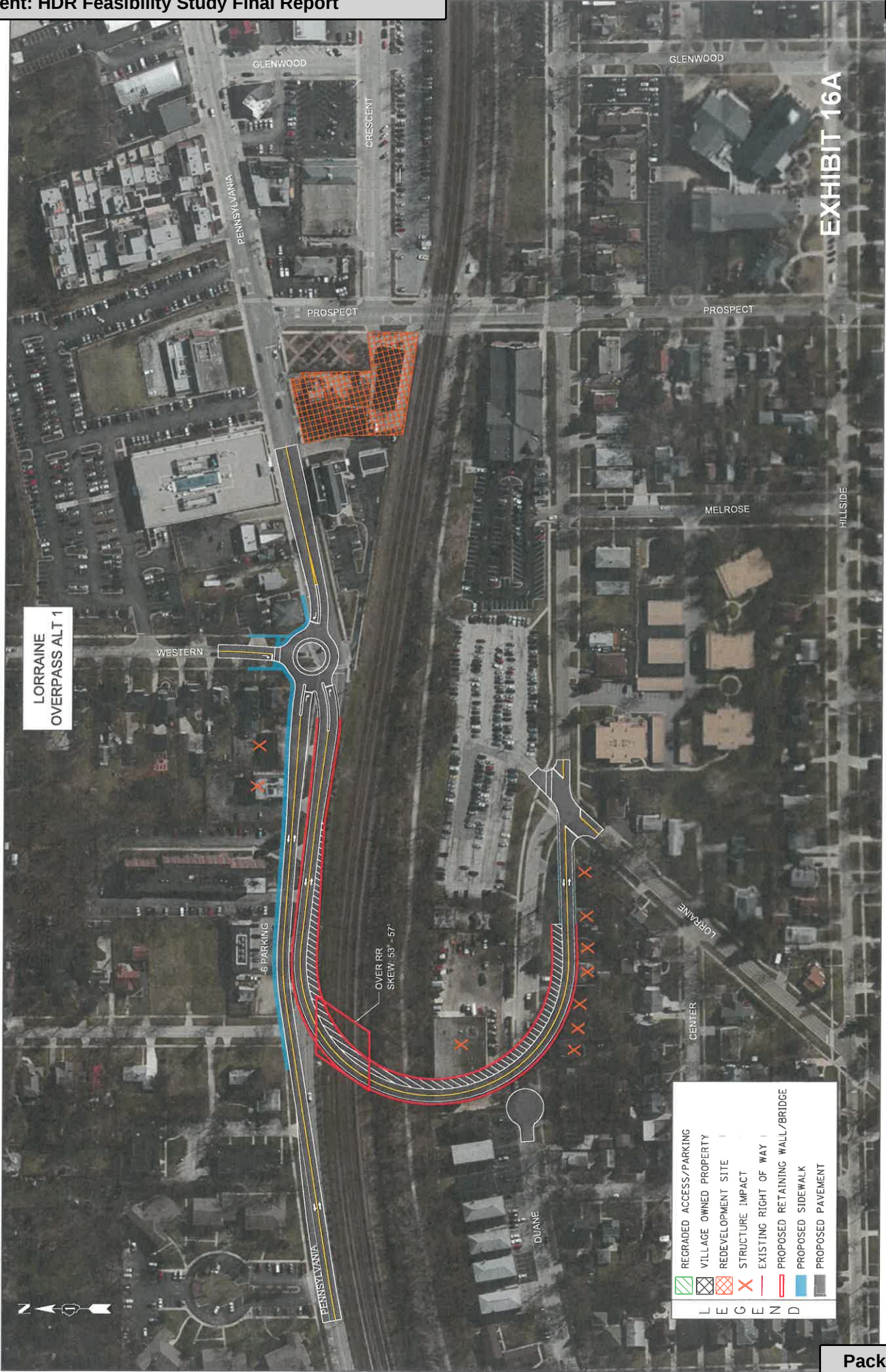
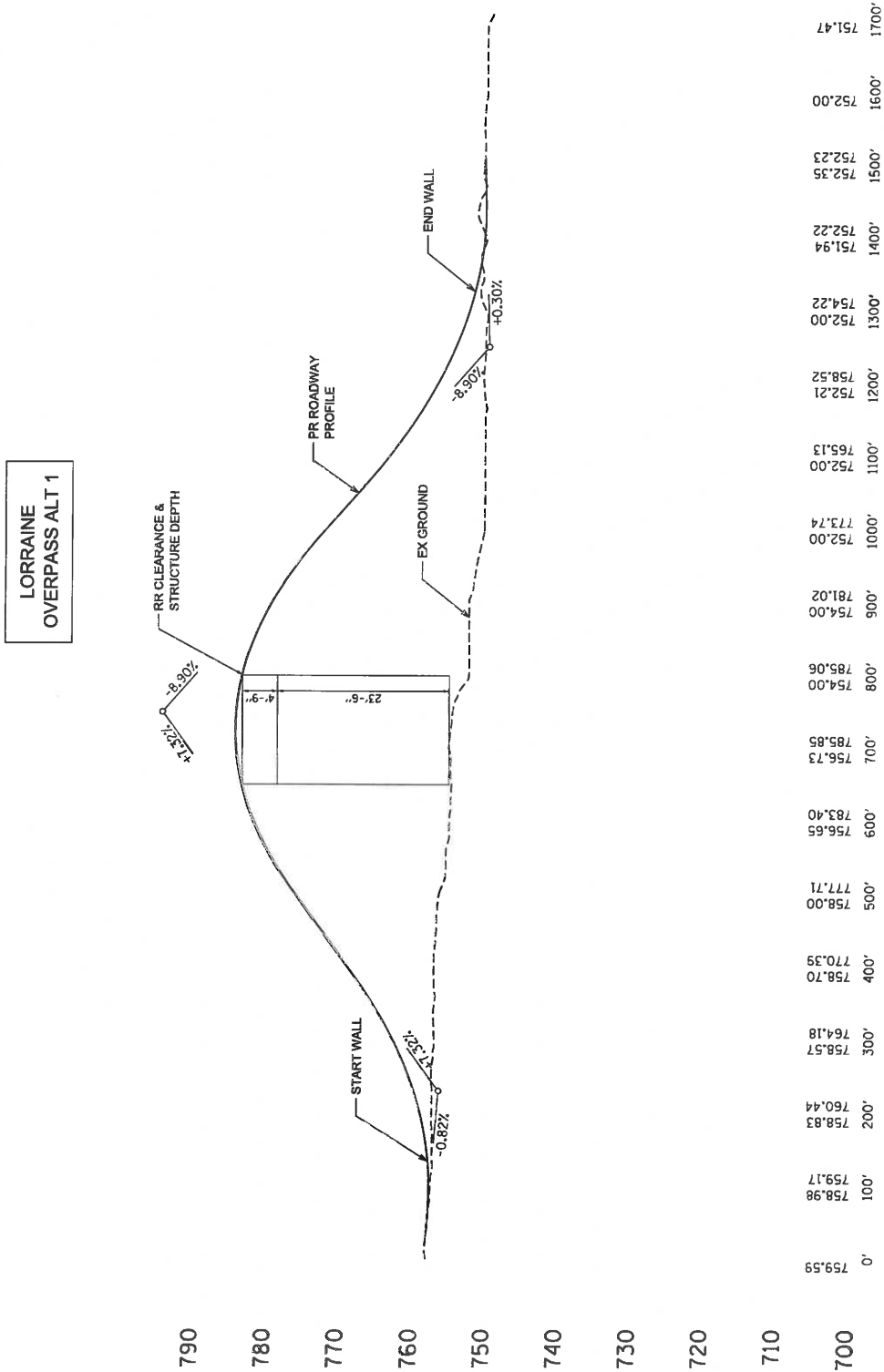
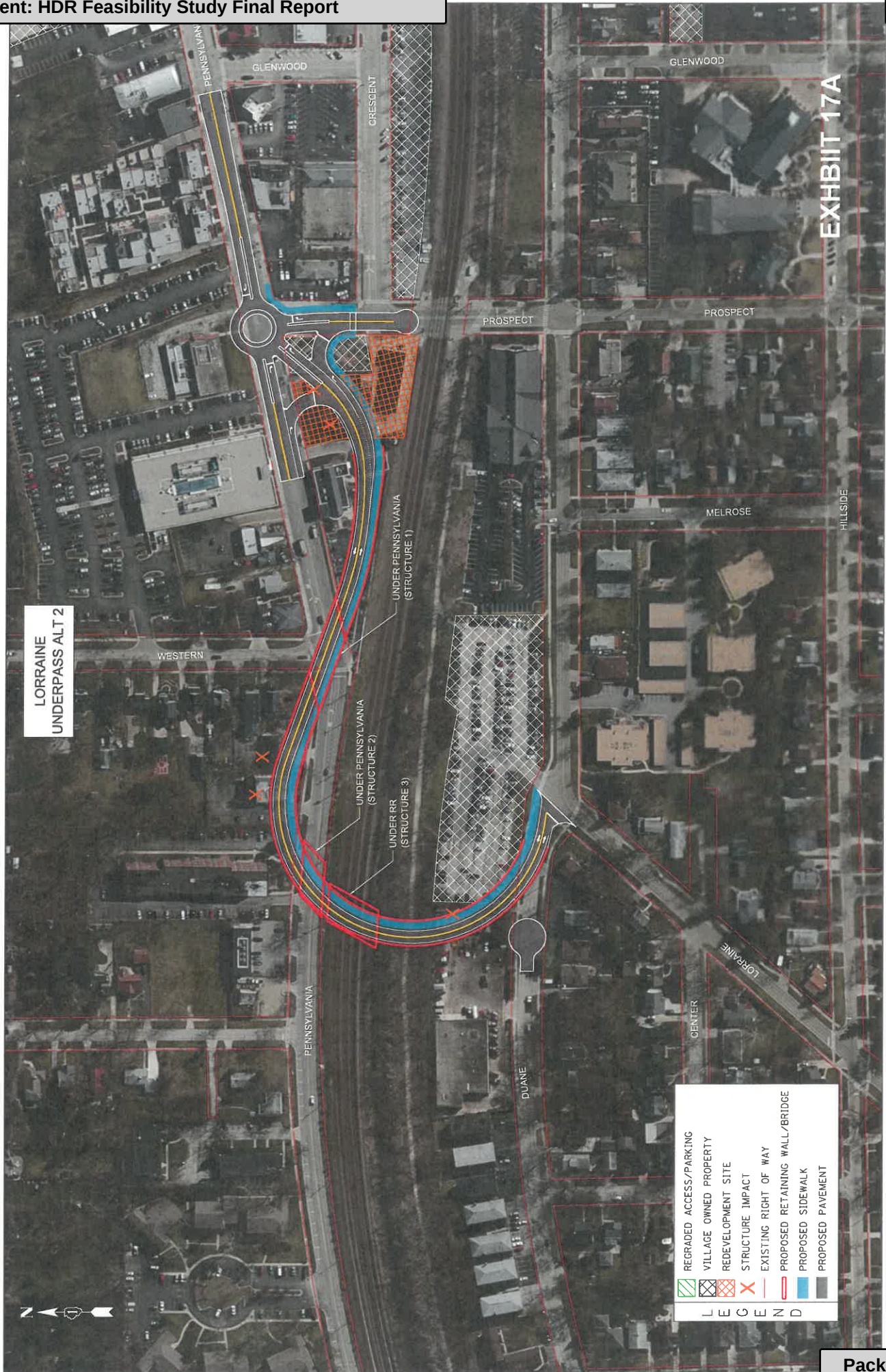


EXHIBIT 16B





LORRAINE
UNDERPASS ALT 2

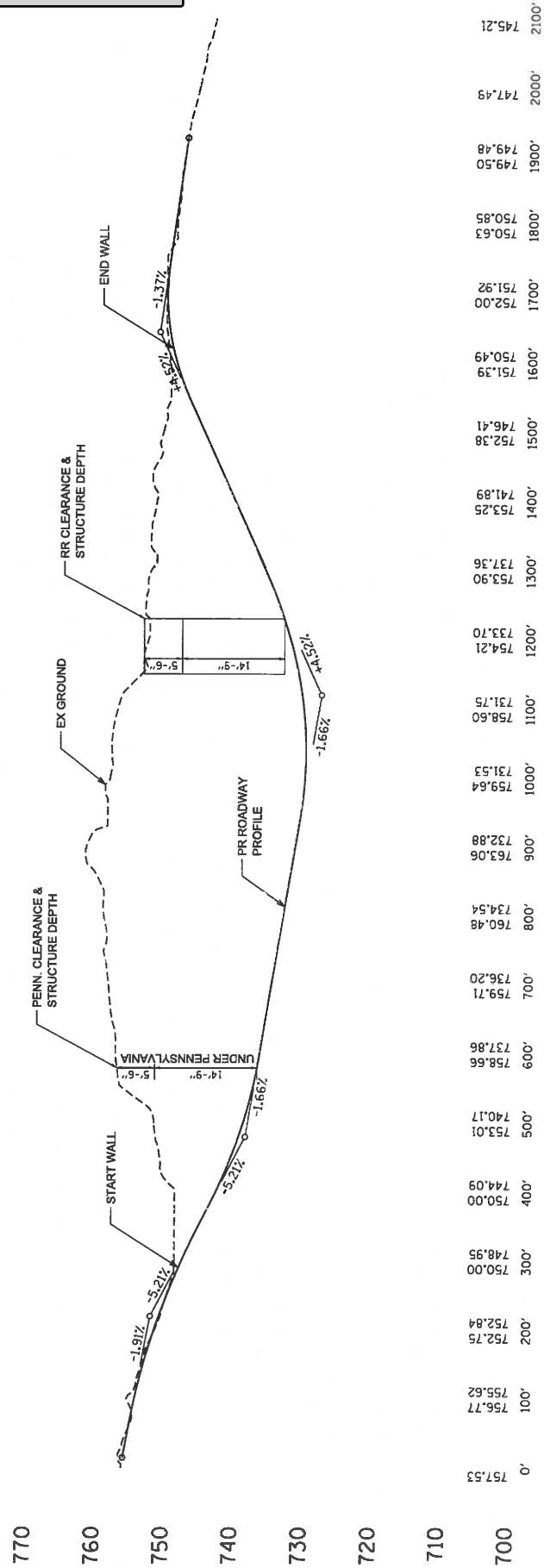


EXHIBIT 17B

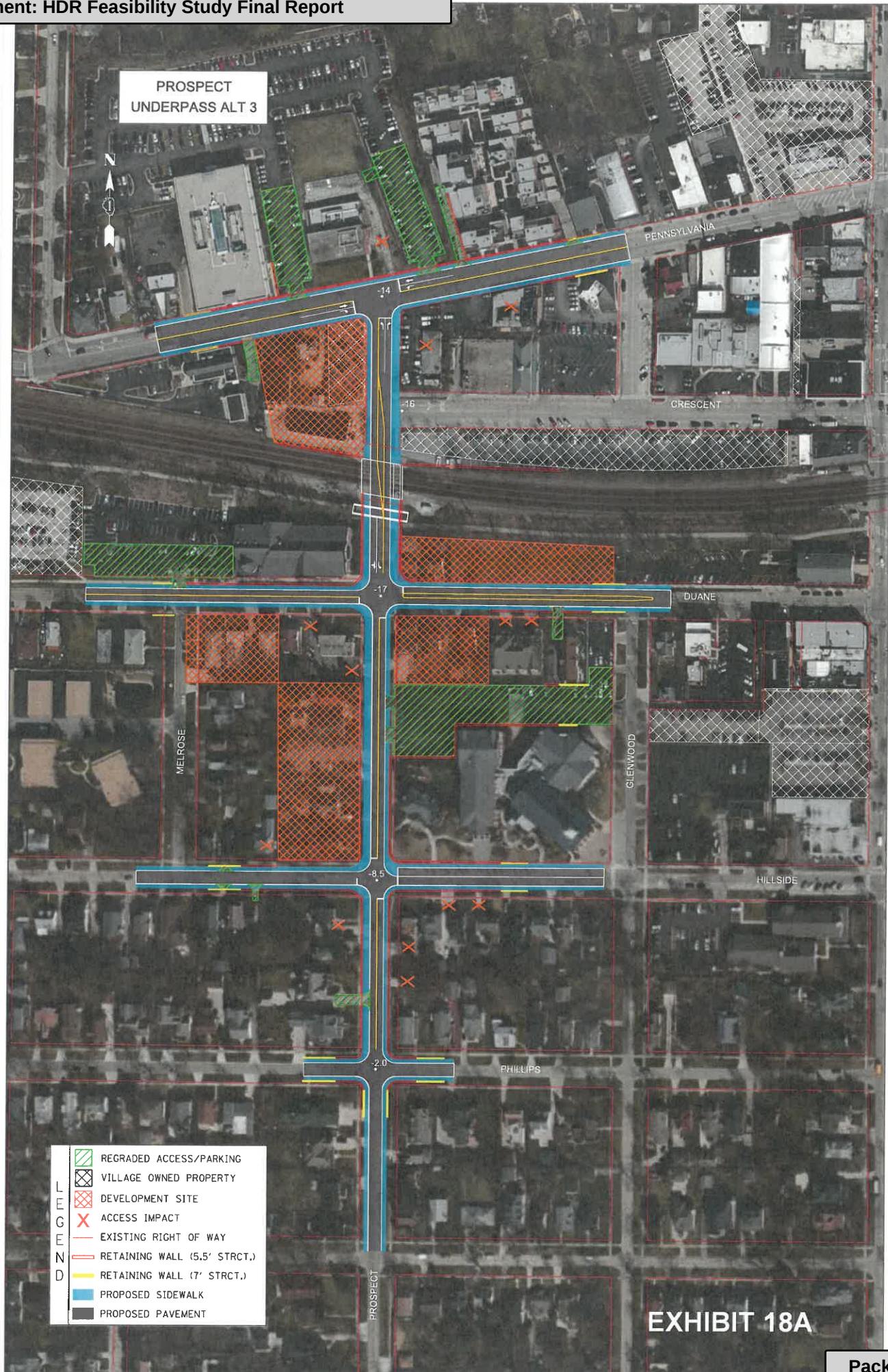
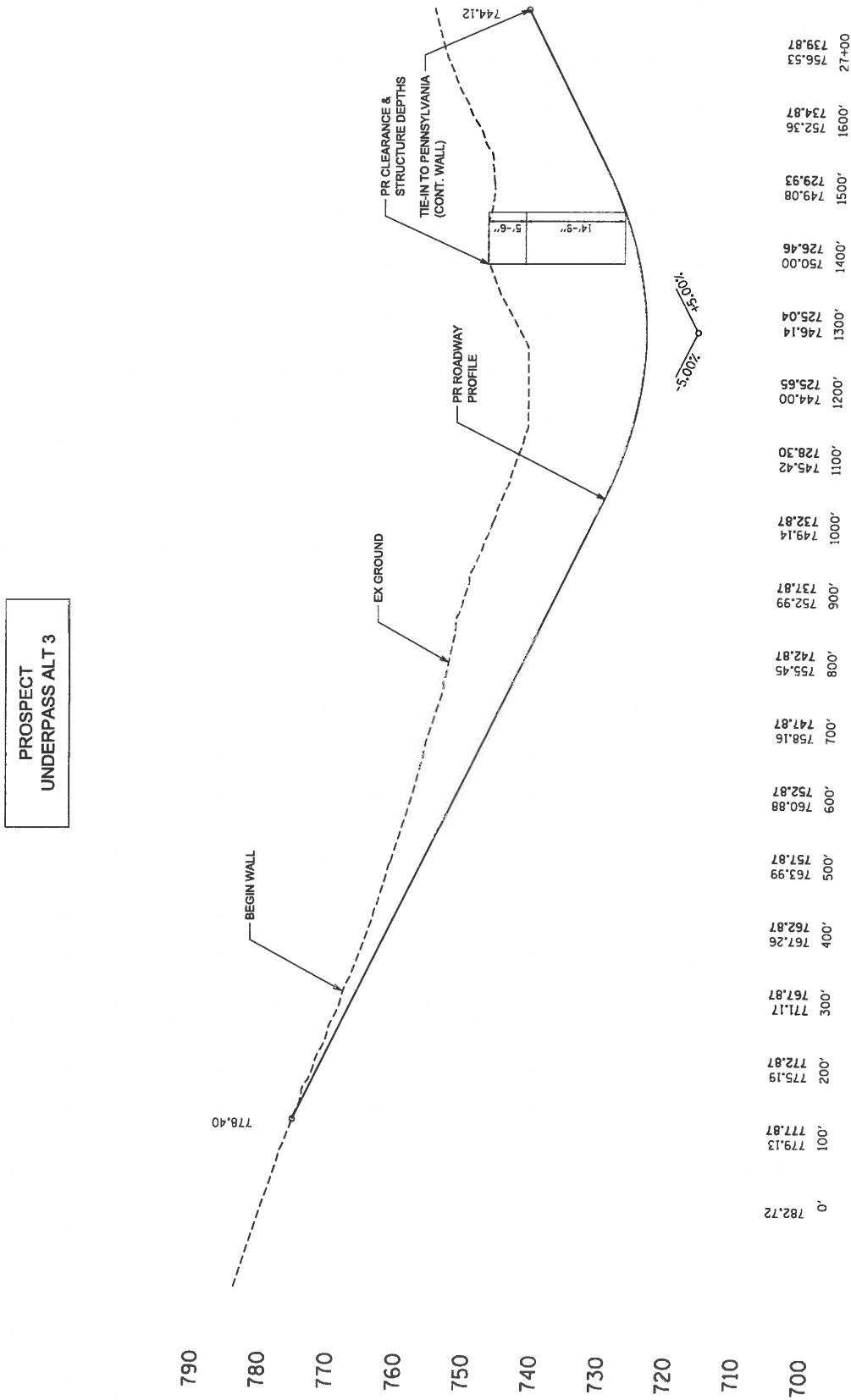


EXHIBIT 18B



PROSPECT
UNDERPASS ALT 3

PENNSYLVANIA

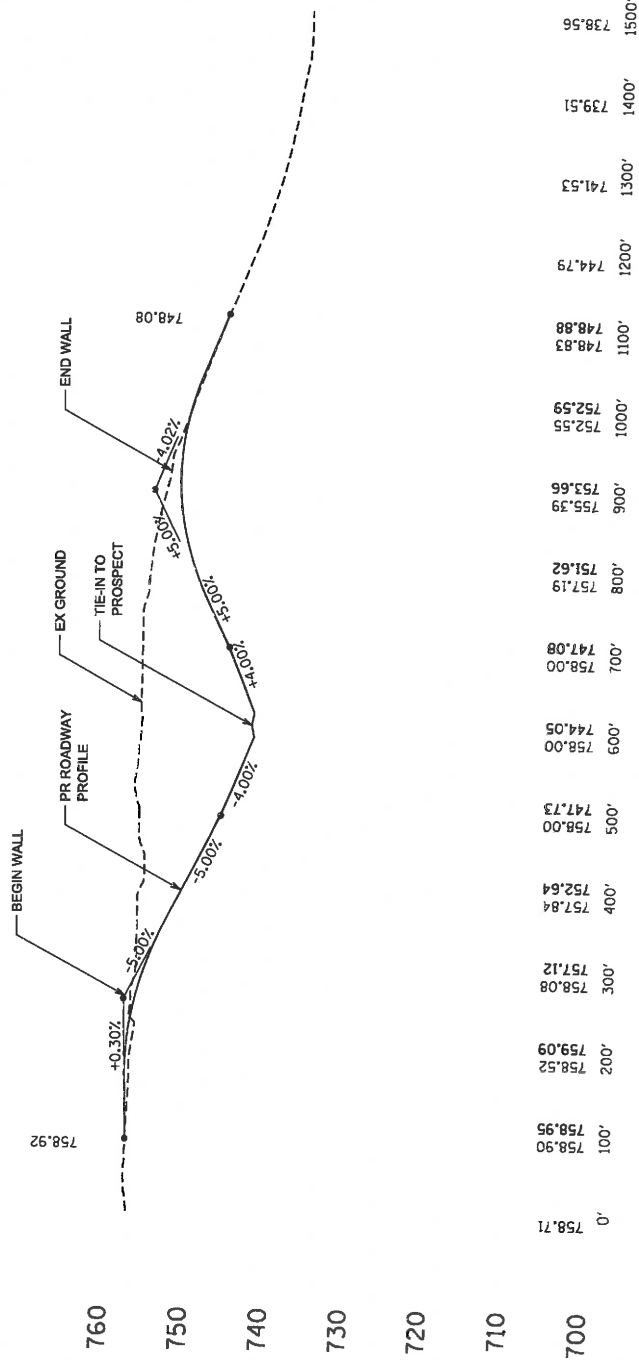


EXHIBIT 18C

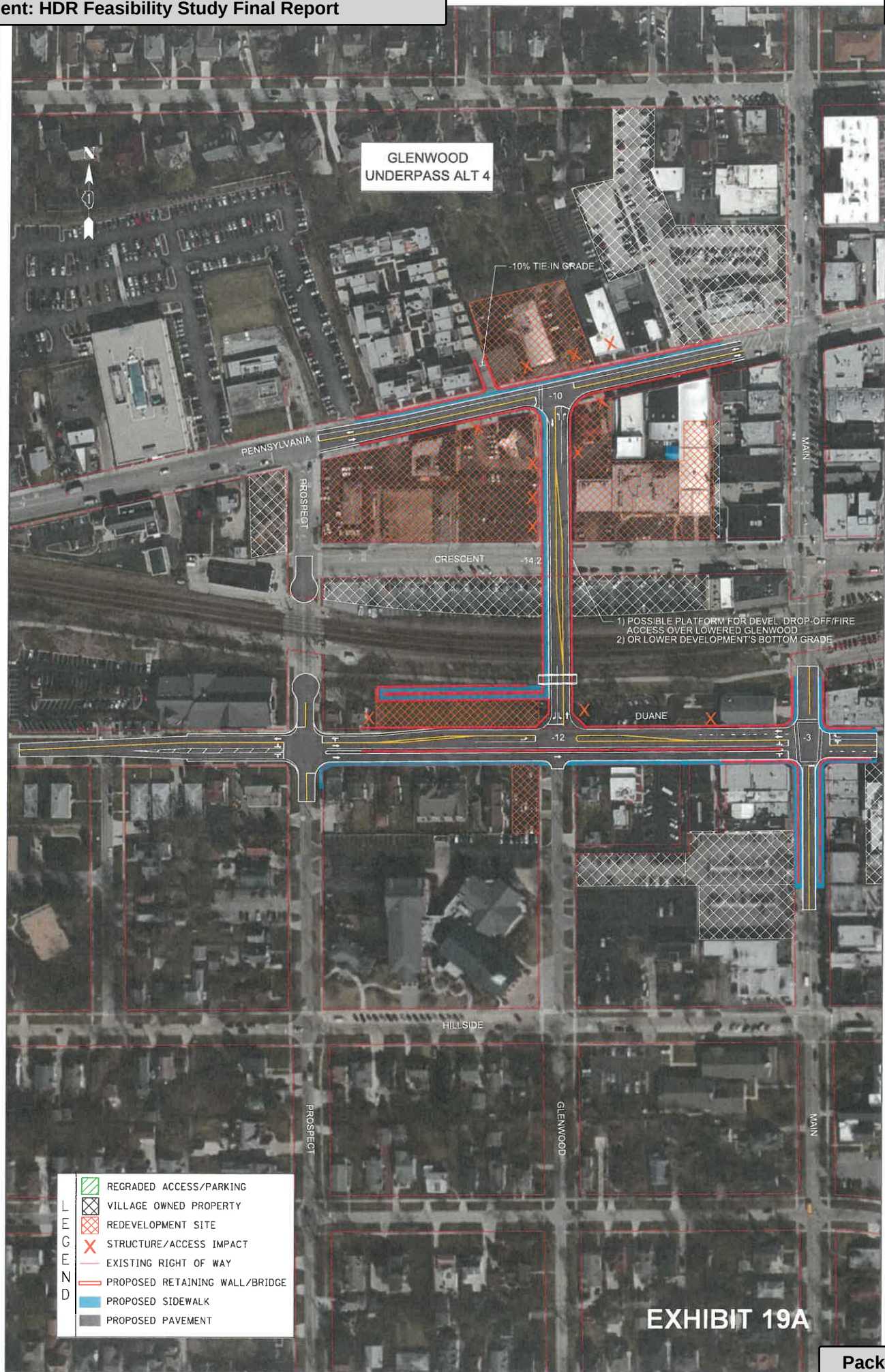


EXHIBIT 19B

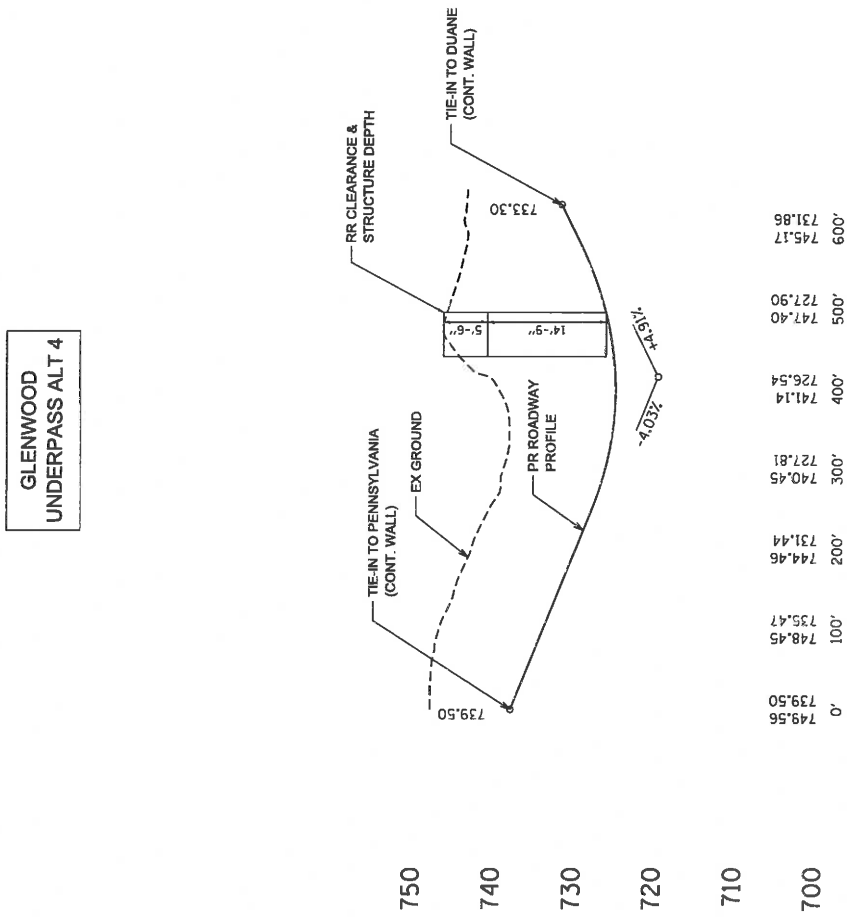
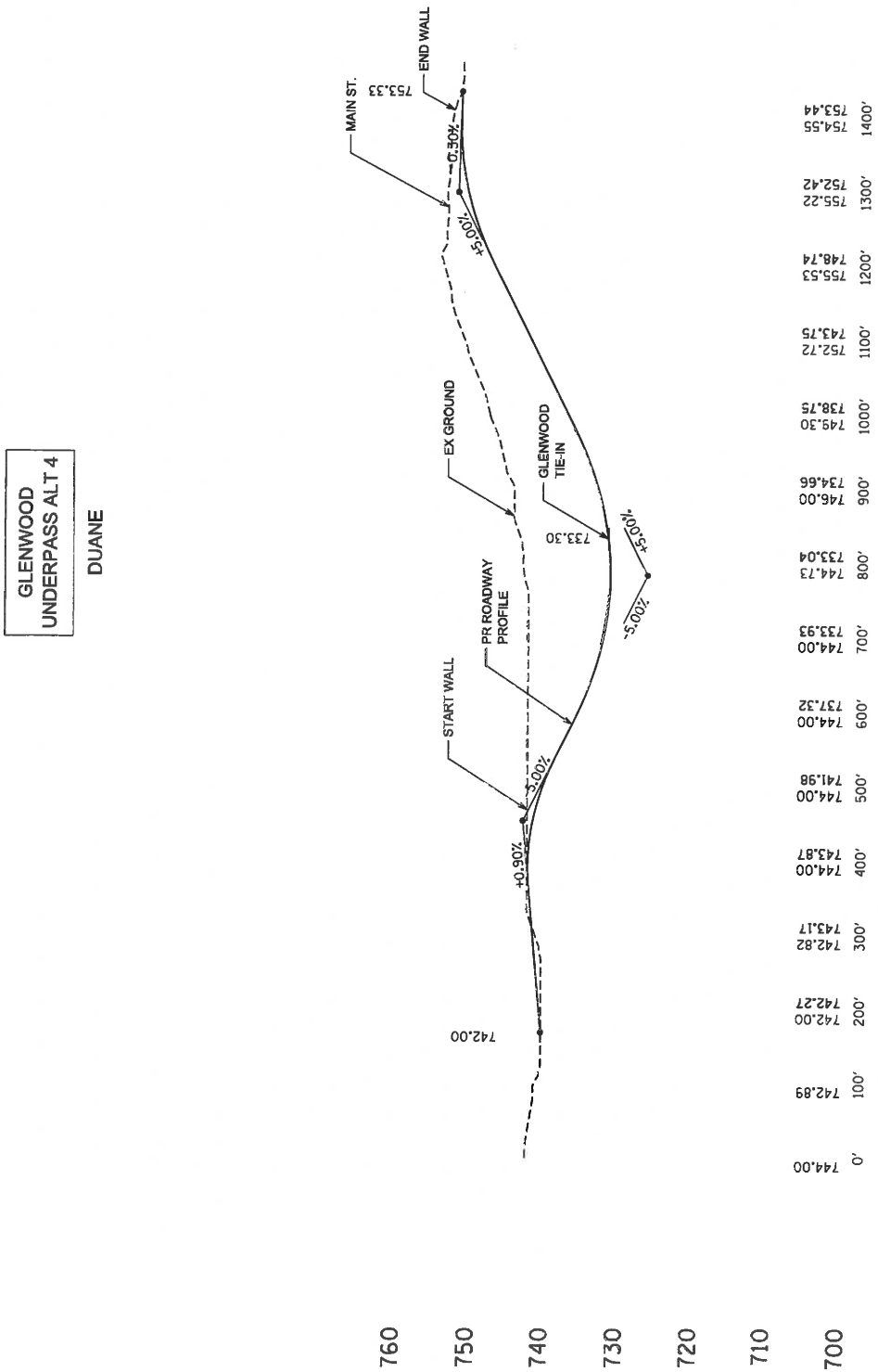


EXHIBIT 19C



GLENWOOD
UNDERPASS ALT 4
PENNSYLVANIA

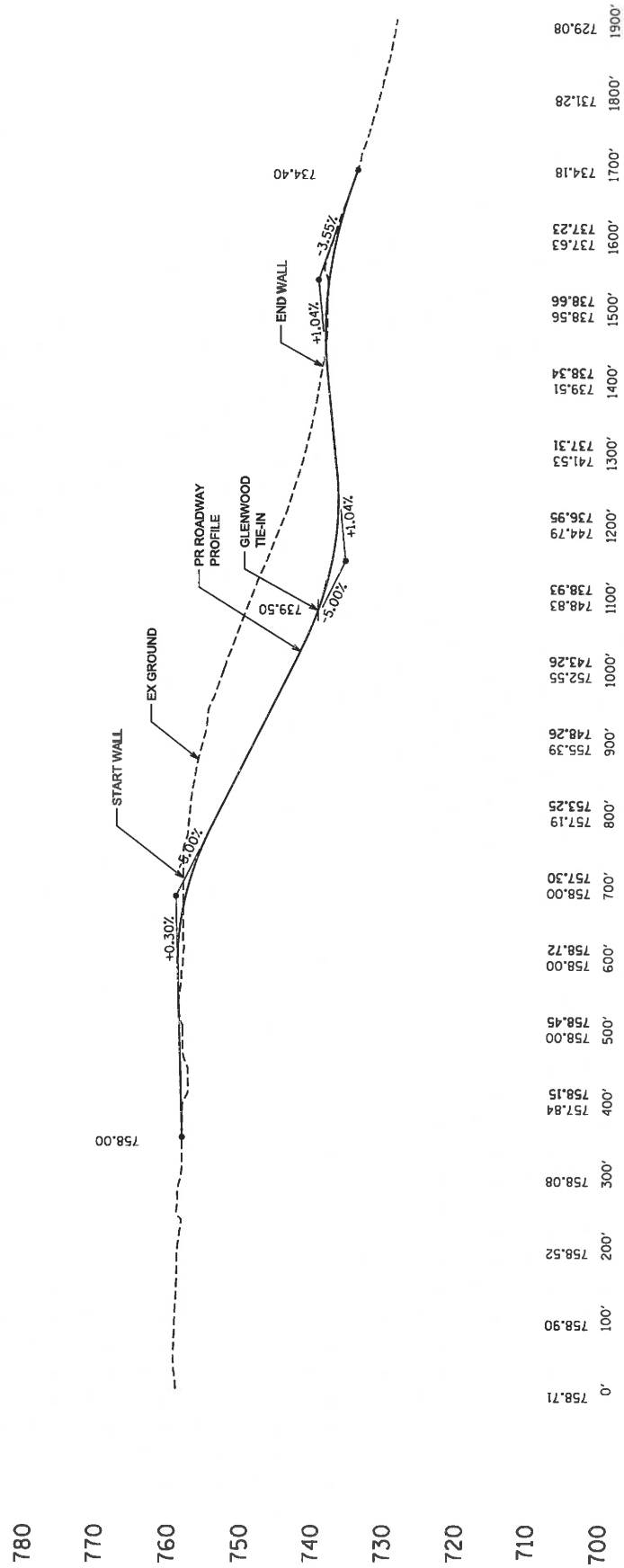


EXHIBIT 19D

**GLEN ELLYN GRADE SEPARATION FEASIBILITY STUDY
POTENTIAL FUNDING SOURCES**

Fund	Objective	Funding Ratios (maximum percentages) (federal / non-federal or state / local)	Eligible Items				Pedestrian Underpass Eligible?	Roadway Grade Separation Eligible?
Federal								
Federal Transportation Bill (Currently: MAP-21)								
Transportation Alternatives Program	Competitive application program to fund projects defined as transportation alternatives, including on- and off-road pedestrian and bicycle facilities, infrastructure projects for improving non-driver access to public transportation and enhanced mobility, community improvement activities, and environmental mitigation; recreational trail program projects; safe routes to school projects. Administered through CMAP.	80 / 20						No
Surface Transportation Program (STP) - DuPage	Program administered by the DuPage Mayors and Managers Conference to allocate federal STP funds to DuPage municipalities. 30% of DuPage STP funds must go to Transportation Control Measure (TCM) projects, which reduce single-occupancy auto travel and/or have a positive impact on air quality, including transit, pedestrian, and bicycle improvements.	70/30 local for highway projects; 75/25 for TCM projects						Yes, but unlikely
Rail-Highway Safety (Section 130) Program	Program to reduce the number of fatalities and injuries at public highway-rail grade crossings through the elimination of hazards and/or the installation/upgrade of protective devices at crossings. Administered by IDOT Central Bureau of Local Roads Rail Unit to Districts and Railroad Companies	90/10						Yes
Congestion Mitigation and Air Quality (CMAQ)	Provides a flexible funding source to State and local governments for transportation projects and programs to help meet the requirements of the Clean Air Act. Funding is available to reduce congestion and improve air quality for areas that do not meet the National Ambient Air Quality Standards for ozone, carbon monoxide, or particulate matter (nonattainment areas). Administered by CMAP through an annual call for projects.	80/20						Yes
Transportation Investment Generating Economic Recovery (TIGER) Discretionary Grant program	Annual competitive funding program for multi-modal, multi-jurisdictional or other projects that are challenging to fund through existing programs. Applicants must detail the benefits their project would deliver for five long-term outcomes: safety, economic competitiveness, state of good repair, livability and environmental sustainability. USDOT also evaluates projects on their expected contributions to economic recovery, as well as their ability to facilitate innovation and new partnerships. Typical projects have NEPA, design, and ROW completed and are ready for construction.	Standard project: up to 80/20						Yes
Federal Transit Administration (Section 5309)	Federal transit funding program allocated through the Regional Transportation Authority to Metra, CTA and Pace. Requires coordination with eligible grant recipient (Metra, CTA or Pace).	80/20						Yes
Job Access and Reverse Commute (Section 5316)	Federal transit funding program allocated through the Regional Transportation Authority to Metra, CTA and Pace. Requires coordination with eligible grant recipient (Metra, CTA or Pace). Address transportation challenges faced by welfare recipients and low-income persons seeking to obtain and maintain employment.	80/20						Yes, if need is shown and met
U.S. Dept. of Housing and Urban Development	Local Technical Assistance Program, administered by CMAP and Community Planning Program, administered by RTA. Both programs provide assistance to communities to undertake planning projects that advance principles of GoTO 2040 Plan, transit oriented development, and transit enhancement. Competitive program with annual call for projects in Spring. Programs use same application. Common project types include transportation planning, TOD planning, and bicycle/pedestrian planning.	Up to 100%						No
State								
Illinois Department of Natural Resources Bicycle Path Program	Competitive program that helps with the acquisition, construction and rehabilitation of public, non-motorized bicycle paths and directly related support facilities. Applications must be received by IDNR by March 1 of each calendar year. http://dnr.state.il.us/ocd/newbike2.htm .	50/50; maximum grant award is \$200,000						No
Illinois Department of Natural Resources Recreational Trails Program	Competitive program that helps with the acquisition, development, rehabilitation and maintenance of motorized and non-motorized recreation trails. Applications are due March 1 of each calendar year.	80/20						No
High Growth Cities Assistance Program	Program administered by IDOT Bureau of Local Roads. For municipalities over 5,000 residents that have experienced at least a 5-percent increase in population between two decennial censuses or between a decennial census and a special census. Funding is based on population and relative per capita population increase.	up to 100%						Yes

EXHIBIT 20

**GLEN ELLYN GRADE SEPARATION FEASIBILITY STUDY
POTENTIAL FUNDING SOURCES**

Fund	Objective	Funding Ratios (maximum percentages) (federal / non-federal or state / local)	Eligible Items			Pedestrian Underpass Eligible?	Roadway Grade Separation Eligible?
Illinois Grade Crossing Protection Fund	To help defray the cost of installing necessary improvements and reduce accidents at railroad/highway and railroad/pedestrian crossings	60% ICC/State, 40% local; up to \$12 million	x	x	x	Yes	Yes. The Illinois Commerce Commission accepts applications on a continual basis. Applicants may reapply every year. Project evaluation is based on crash criteria. Separate applications are required for each project type. Applicants are notified when the Five Year Plan is published, generally in the Spring.
Motor Fuel Tax - State	Motor Fuel Tax provides funds for the purpose of improving, maintaining, repairing, and constructing highways	up to 100%	x	x	x	No	Yes. IDOT Local Planning and Programming Unit to Local Agencies
General Obligation Bonds	Bonds authorized through general purpose units of government for capital improvements		x	x	x	Yes	Yes

EXHIBIT 20



HDR is an employee-owned architectural, engineering and consulting firm with more than 8,500 professionals in more than 185 locations worldwide. All of them are committed to helping clients manage complex projects and make sound decisions. Learn more at www.hdrinc.com.

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Chicago, IL 60631
773.380.7900

30 North LaSalle Street
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Chicago, IL 60602
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This pedestrian overpass in Sturtevant, Wisconsin is on the Amtrak line between Chicago & Milwaukee, on the CPRR corridor which also carries double-stack freight similar to the UPRR through Glen Ellyn. The towers include stairways and elevators and is fully ADA compliant. The Sturtevant overpass is representative of what HDR envisions as an option in Glen Ellyn.



Glen Ellyn Village Board
535 Duane Street
Glen Ellyn, IL 60137

Meeting: 11/16/15 06:00 PM
Department: Police
Department Head: Phil Norton
Category: Discussion Item
Prepared By: Phil Norton

SCHEDULED

ORDINANCE (ID # 1995)

DOC ID: 1995

Chief Phil Norton and the Leopardo/Dewberry team will lead the discussion regarding the new Police Facility design, scope, and budget.

Background

In 1973, the Village acquired 535 Duane Street from School District 41, to use as a Civic Center, which housed all of their administrative offices and included the Police Department. The Village President at the time, Frank Weidner, conducted the negotiations for the purchase and renovations of the new facility, and recently revealed that the police facility was always intended to be a temporary location.

Beginning in 2007, the Police Department began efforts to explore expansion or construction of a new police facility. In 2008, money was sought for a space needs analysis. Due to economic restraints, funds were not available until 2011. In November, 2011, a contract was signed with the architectural firm of Dewberry to provide a space needs assessment. In 2012, the results of their study showed current police space at approximately 11,000 square feet. Further, they recommended a police facility for Glen Ellyn of approximately 44,000 square feet. Recognizing the cost to build such a facility would be overly burdensome to the community, we began to reduce the recommended scope and were able to pare down to approximately 37,000 square feet.

During this time, Dewberry provided several alternative drawings and we looked at several different sites, including the current Civic Center site. The option of adding onto the Civic Center proved to be too cost prohibitive with other less expensive alternatives available. The Village Board selected Pan Fish Park as the preferred site, because of several favorable conditions:

- We already owned some property on the site.
- The Village had discussed plans to purchase additional properties to improve the park.
- An additional Village facility south of Roosevelt Road would further tie the north and south neighborhoods together.
- The location is more central to our higher volume of police related service delivery.
- The site provided some excellent opportunities for enhanced safety at an underused park facility and a natural tie-in to the Fire Company, creating somewhat of a “public safety campus”.
- The location provided quality access in and out of the site via Park Ave. with a potential secondary option onto Taft in the future.

An unfavorable condition arising from the site selection which is a cost driver, is the presence of the site on and adjacent to the floodplain.

Cost estimates for an adequate facility ranged from over \$13,000,000 to over \$17,000,000. On July 21, 2014, the Village Board held a workshop and discussed, among other items, a “10-year Capital Plan Update (presented by Professional Engineer Minix)”. Included in a list of items titled “Pending

major capital projects in this category include” was “New Police Station” with an estimated cost of \$15,000,000. The Board identified a \$12,000,000 initial budget to be an appropriate amount. In retrospect, this figure was arrived at without consultation with the professional architects to determine if such a figure was reasonable or feasible. No discussion of the cost per square foot or the cost of construction was undertaken.

Later, it was determined that of the different models used to build such a facility, the “Design-Build” method would be most appropriate for this endeavor. A public Request for Qualifications led to the interview of four team finalists. Each of the teams expressed concern at the amount of \$12,000,000 in relation to anticipated square footage.

The team of Leopardo/Dewberry was selected and signed a contract for the design and build of a new Glen Ellyn Police facility. Again, great effort was put into reducing the overall square footage to meet anticipated budget demands. Various groups of staff members comprised from management, the Police Department, Public Works, the Planning Department and the Village Links have met numerous times and spent numerous hours with the developer team over the past two months to reduce the overall design and construction costs. Multiple permutations of the plans have been rejected or reduced in scope. A final approximate square footage of 31,500, was arrived at to meet minimum programming needs and reduce costs as much as possible. This number represents a decrease from the original recommended square footage of 44,500 or 29%.

Issues

Exterior Appearance

Exterior appearances are currently being designed and are expected to be available for review at the Village Board workshop on November 16. Dewberry will provide a brief summary of design workshops to date and provide some alternative design concepts for input from the Village Board. Different options will have different costs associated with them and will ultimately impact the design and programming of the facility. Flexibility in the budgeted amount will be vital to proceed with an appropriate police facility.

Project Scope and Budget

During this process, every effort is being explored to add value to the proposed budget to build a viable police facility for the community for the next 50-75 years. In addition, due to the unique site location adjacent to a park, the Village Board has indicated that the project should enhance some basic park amenities that could be incorporated into the overall design. Therefore, staff has identified additional revenues and ways to control costs to further support the necessary project scope, including:

Additional Revenues:

- Seized funds will be utilized to enhance allowable expenses, such as secure jail facilities, Emergency Operations Center, evidence storage, etc.(\$1,200,000).
- Capital Fund improvements including water, sewer, stormwater, sidewalk, street, and parking improvements (\$350,000-Estimate).
- Discussion of private fundraising to enhance a proposed community room.

Expense Reductions:

- In-house labor costs to be provided by Village Links personnel to perform landscaping (estimated \$100,000).
- Elimination of bullet-trap and HVAC in support building, with such equipment to be future addition.
- Elimination of proposed roadway to Taft Avenue.
- Elimination of decorative security perimeter fence.
- Alternate funding for training equipment. (\$30,000).
- The cost of homes being expensed to funds other than the police building due to park enhancements, improved alignment with Wilson Rd., elimination of awkward driveway access, and improved buffer to the neighborhood to the south.

At this point we are within a 1-2% of the draft budget, but the budget is still in flux. Given this stage of the process, we continue to be on track towards finalizing various design elements and balancing the project budget. Before moving forward, there are some significant decisions to be made including how to fund the community room and shooting range support building. Without the use of seized funds and the capital fund, further reductions would be necessary that could compromise the overall goals of the new facility. Below is a list of other changes being considered to balance the project budget:

- Elimination of the support building with some elements being incorporated in the main building
- Elimination of Community Room, with design to include the possibility of a future addition.
- A proposed redesign effort is being explored to eliminate the need for the fourth property.

Every effort has been made to design and cost-out as minimal a facility as practical, while maintaining viability for the future. Please remember, site issues and changing construction costs are uncertainties that cannot be given precise dollar amounts. This preliminary budget discussion will be helpful to drive some decisions, but more discussion will likely be necessary to finalize the budget and project design.

We look forward to discussing the police facility at the November 16 workshop with the Village Board and design team.

Ordinance (ID # 1995)

Meeting of November 16, 2015

ATTACHMENTS:

- ISSUE-POLICE FIRING RANGE (DOC)

MEMORANDUM

TO: President Alexander W. Demos
Glen Ellyn Village Board
Mark Franz, Village Manager

FROM: Phil Norton, Chief of Police
Robert Acton, Deputy Chief of Police



DATE: November 9, 2015

RE: NEW POLICE FACILITY – FIRING RANGE FEASIBILITY AND NEED

ISSUE: SHOULD A NEW WEAPONS TRAINING RANGE BE REMOVED FROM THE DESIGN PLANS FOR THE POLICE FACILITY?

INHERENT BENEFITS TO OPERATING A POLICE RANGE

The most compelling reason for constructing and maintaining a weapons training range is rooted in the Police Department's essential elements of weapons training. The operation of a police department range provides a unique opportunity to train an officer in the midst of their workday. Weapons training while on-duty incorporates greater authenticity to the training, as the experience "interrupts" an officer's work-flow. The timing seeks to capture the officer pre-occupied with the same type of activities likely to be occurring when that same officer receives a call that results in the potential use of deadly force. Use of force experts recognize the tremendous value in training that is authentic and realistic, that which takes full advantage of the stress and distractions officers experience when moving from call to call. Injecting firearms training at these moments will help to inoculate personnel to the intellectual, mental and physical responsibilities associated with responses to deadly force encounters.

Secondly, the continuous access to a weapons training facility enhances the quality of the training experience through control over the ratio of firearm instructors¹ to the officers in training. Currently, police officers report to a firing range operated by another municipality. The municipalities routinely limit the length of time officers are allowed to train. To ensure all Glen Ellyn Officers are able to train, multiple MFI's are assigned to train up to five or six officers in one block of training. Training in groups under these conditions limit the effectiveness of the MFI, and therefore, the training. Unfettered access to a firing range would allow for an MFI to train one or two officers at a time. Understandably, this places the instructor in a far better position to identify deficiencies and take corrective action, enhancing the quality of the training experience.

As mentioned above, the Department currently uses weapons training ranges operated by other police agencies. Throughout the years, the Department has experienced numerous conflicts effecting facility availability, internal scheduling, overtime costs, and limitations on the training with respect to the host agency rules. Also, in as much as the Department seeks to maintain professional relationships with our partners in law enforcement, issues arise that may prompt changes in facility access. Each and every one of the aforementioned impact the Police Departments' ability to deliver critical weapons training to our personnel.

¹ The Department maintains a staff minimum of four State of Illinois Master Firearms Instructors (MFI). These personnel are recertified every two years, and are experts in the instruction and training with Department weapons systems and Use of Force Law and Department Policy.

NEW POLICE FACILITY – FIRING RANGE FEASIBILITY AND NEED

Nov. 9, 2015

Page 2

Only police officers are called, trained and counted upon to “run to the sound of gunfire”. Preparation for this responsibility requires a commitment by the Village to provide the finest training and equipment for our police officers. Officers are thus required to use what they have received to the best of their abilities. The design of the weapons training range meets the responsibilities of the Village, and provides Glen Ellyn Police Officers an effective training environment.

CURRENT FACILITY DESIGN PLAN

The current facility plan has the firing range located in a smaller, smaller annex building to the new Police Department. The firing range components include the firing range, ammunitions armory, a bullet trap and stand along ventilation (HVAC).

Also included in the annex is a 1000 sq. foot multi-flex room, capable for use as a vehicle evidence processing bay, tactical training space, vehicle storage, vehicle inspection bay, and storage. Further, this space will house oversized items as needed for special events. Additionally, a modest area has been included to house canine when in-service at the police department.

A firing range has been included within the police facility design from the start of the planning process. A firing range is considered by law enforcement professionals to be an essential area to facilitate critical training. According to the initial Police Facility Needs Assessment Study (Dewberry, 2012) the appropriate Police Department size for Glen Ellyn should be 3½ times its current size, or about 43,500 square footage (square feet)². In 2014, the Village Manager requested the space recommendation from Dewberry to be reduced. This resulted in a staff modification of the overall square feet to 37,000 square feet. This was the square feet advertised in the RFQ in June 2015.

During multiple meetings in September 2015, staff coordinated with the Design Build Team of Leopardo and Dewberry to further reduce the size of the facility to meet the funds authorized for this project. Discussions amongst the team centered on eliminating, reducing or multi-purposing space while maintain programming needs, quality of construction, and the delivery of a public building reflecting civic pride. Further complicating this process was the actual building site, as approximately 75% of the land is located in a flood plain.

HOW IS A FIRING RANGE USED?

The primary use for the firing range will be the training of Glen Ellyn Police Officers in the fundamental and advanced use of firearms, elevating each officer to their greatest individual competency. Only MFI are permitted to lead weapons training and activity on a firing range.

Through practical exercises, drills, instruction, each Glen Ellyn Police Officer trains monthly under the direction of Department MFI's. Department curriculum far exceeds functional marksmanship. Range training covers a broad spectrum of subjects, including:

- weapon malfunctions
- weapon retention
- tactical movement
- cover & concealment
- communications
- use of multiple weapon systems
- low light shooting
- critical, life-saving self and “buddy” medical aide.

² Glen Ellyn Village Hall & Police Department Facility Needs Assessment Study, p. 20

NEW POLICE FACILITY – FIRING RANGE FEASIBILITY AND NEED

Nov. 9, 2015

Page 3

To a professional police officer, the police range represents the opportunity to grow and excel in skills critical to their personal safety, and the safety of all they risk their lives to protect. Officers fully comprehend and readily accept the risk involved in their choice of career. Training to standards which exceed their own expectations allow officers to mitigate that risk.

In order to effectively maintain the skills required of a police officer, he/she must train frequently, lest these skills perish. In the past, the Department has been steadfast in searching for and finding locations to host firearms training. This has not been without sacrifice, as the number of usable ranges in a reasonable distance from the police department are extremely limited. Competition with other federal, state and local agencies for training on a range remains an administrative challenge.

Over the years, the Department firearms program has existed through the generosity of neighboring agencies. Over the last 25 years, the Department has maintained working relationships with both the Glendale Heights Police and Wheaton Police Departments, using their firing ranges at minimal costs when available and in-service. The Department has never been asked to pay more than \$2000 annually for select training at these facilities. This cost typically covered up to six to 12 months training.

Access is decreasing, as these older, mechanical target ranges routinely fall out of service for increasingly periods of time. Costs to repair and maintain older mechanical facilities continues to increase, and agencies are faced with decisions to either replace or continue to repair their firing ranges. Departments with these aging firing ranges are understandably less eager to offer up their facilities, considering the likelihood their own officers may not be able to train if their range becomes inoperable.

At this point, it should be noted that the Glen Ellyn Police Firing Range design will not include the mechanical targets as noted above. The Glen Ellyn Range will provide a simpler, manual process for setting targets in place. The range will not include any mechanical moving targets or target retrieval systems.

Glendale Heights Police recently moved into a new police facility, with a new firing range. They have limited the use of this range, given the potential for greater maintenance costs which accompany excessive use. Hanover Park Police also moved into a new facility with a range. To preserve their range, they have determined not to share the facility with other agencies.

In August 2015, The College of Dupage opened a new firing range. The priority access for the range is reserved for the police academy recruits. The College administration has also sought out agreements with area law enforcement to help defray the costs of their new range, offering access to other components of their training facility as a perk to a partnership with the College. The range has begun to attract qualified users, including federal, state and local law enforcement, as well as a (military) ROTC unit.

The initial costs quoted to the Glen Ellyn Police Department for range use was in the area of \$18,000 annually. Our Department would only make use of the typical two range dates per month for 6-8 months yearly, making this arrangement impractical and a poor use of our resources. Further, the agreement with the College of Dupage has “strings attached”, in that the agreement draws the Department into other training events. The training which is offered is not an essential part of our training curriculum, and committing funds to the College programming would further limit the training our officers annually receive.

It is understood the close proximity of the College range is appealing, yet our experience suggests partnering with the College at this time may would limit the flexibility and reliability our training program can achieve through with construction of the new Glen Ellyn Police Facility, which includes the new weapons firing range.

NEW POLICE FACILITY – FIRING RANGE FEASIBILITY AND NEED

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Much of the work surrounding the planning of the new police facility has endeavored to capture future uses and corresponding needs. While we can't accurately predict the future of policing, the historical review of our generation has seen the inclusion of the expandable baton, pepper spray, double action and semi-automatic pistols, shotguns and patrol rifles. Officers are now carrying a 2nd generation electronic control devices (ECD), such as Taser™, and the Department also provides less-lethal munitions through specially trained officers.

The expansion of weapons systems, along with growing societal demands for increased officer accountability leaves us to speculate as to what tomorrow will bring. Police officers know their jobs have and will continue to become far more complex, with greater scrutiny of their actions and thought processes than ever before. To offset this, we have sought to design a police department that affords opportunities for continued education, training in all aspects of the profession, and an environment that promotes a healthy lifestyle. The proposed range, although smaller in comparison to others facilities, will offer a means of flexibility if and when government mandates greater training, new weapons and/or ammunitions are developed, and new training mandates are handed down. A significant conflict also generating conversation at this time, is the future placement of firing ranges on college campuses. College campuses have already been declared safe zones, and prohibit the carrying of firearms.

And finally, greater opportunities for community programming are likely to arise. Local agencies are hosting a long list of firearms safety and training programs. "Concealed Carry" is now the law in Illinois, and with that is the demand for Concealed Carry License training courses and Illinois 40-hour certification for firearms. It is more than likely a Glen Ellyn weapons training range would be in a unique position for outreach to residents, with programming of multiple firearms skills and safety training opportunities.

SUMMARY

A police weapons firing range, included in part of the new Glen Ellyn Police Department, continues to be an understandable, logical and forward looking component within the Department. The firing range will offer:

- A significant enhancement to current Police Officer training, with highly effective training covering arguably the most vital component of an officer's intellectual and physical training make-up;
- A greater focus between instructor and officer, to identify and enhance opportunities for improved tactical and marksmanship skills;
- Place the training focus in a setting rooted in the reality of the "routine patrol day";
- Reduction in firearms related over-time costs, primarily limiting overtime to the instructors only;
- Will provide the Department 24/7 access, 365 days annually with no outside limitations or interference to scheduling, use, etc.
- An open door to community outreach programming.
- Use of Weapon/Firing Range costs, which average \$2000 annually, would increase to \$18,000 annually if the Department were to partner with the College of Dupage in the use of their new range facility. In addition to this fee, the Department would continue to experience overtime costs related to officer training time.
- Aside from the cost to use the College of Dupage facility, it appears the College has a strong interest in the Glen Ellyn Police Department partnering with the College in other training, including basic police officer academy and other continuing education courses. This pitch for our partnership has continued for years. The Department has taken opportunities to participate in certain events at the College, with mixed results. Respectfully, our experience has led us to direct our training funds elsewhere, continuing with other well-established police training that is sufficiently in-line with Glen Ellyn practices and training objectives.