Linder Road, Chinden Blvd (US 20/26) to SH-44
Concept Study

Construction Staging Memorandum
June 2019

BOISE, ID
ACHD PROJECT NO.: 518020

PREPARED FOR:
ADA COUNTY HIGHWAY DISTRICT

PREPARED BY:
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INTRODUCTION AND BACKGROUND

This Construction Staging Memorandum summarizes the recommended construction staging for the Linder Road Concept Study for the future widening of Linder Road from US 20/26 (Chinden Boulevard) to SH-44 (State Street). The study area consists of a 2.2 mile segment of roadway with five structures crossing the Phyllis Canal, Eureka Canal, South Boise River Channel, Middle Boise River Channel and the North Boise River Channel matching back to the recently improved intersections of Linder Road/Chinden Boulevard and Linder Road/SH-44.

Currently Linder Road is mostly a two lane rural roadway within the project area. A traffic analysis was performed for the project area which is detailed in the Linder Road Concept Study Traffic Memorandum dated October 12, 2018. This analysis determined that this roadway is currently over capacity and in need of widening in order to operate at an acceptable level of service. The traffic analysis evaluated and recommended a staged transition from the existing two-lane section to a “5-lane interim” and ultimately a “7-lane ultimate” section throughout the project area. The construction staging evaluation was performed for the preferred alignment with the preferred Alternative A “5-lane interim” roadway section as shown in Figure 1 below, which requires a right-of-way width of 125’.

ALTERNATIVE A: Five Lanes to Seven Lanes with Shared Pathway

Due to the fact that the structures within the project area have a design life well beyond twenty years the bridges are recommended to be designed and built for the “7-lane ultimate” roadway section as shown in Figure 2 below:
CONSTRUCTION STAGING ANALYSIS

Three major construction stages were identified for the project area in order to allow for projects that can be constructed independently within ACHD’s fiscal year budget constraints, as shown in the Construction Staging Roll Plot shown in Appendix A. The major construction stages each identify projects that could be programmed as standalone projects in ACHD’s Five Year Work Program based on funding availability. Each construction stage has been broken down into two or three major phases, as detailed below, in order to define the major construction tasks and traffic impacts to complete the roadway and bridge construction for that stage. Each stage of construction will require the installation of drainage infrastructure which will include a constructed drainage basin as defined in the Linder Road Concept Study Drainage Report.

The major tasks for each phase of construction, the construction duration, the traffic impacts and the approximate right-of-way take areas and construction costs are defined for each construction stage in the following figures. The 2019 estimated construction costs shown provide a range due to the fact that these costs are based on a conceptual level design. Additional design efforts will refine these costs as the design effort progresses. A range was also provided as the costs shown are based on the 2019 bid averages and it is anticipated that the construction of these projects will not begin for several years. The costs shown for each construction stage includes an estimated cost for a traditional pond site/drainage basin to detain a 25 year event as the design and costs associated with the constructed wetland basins have not yet been determined. The first two stages will require temporary pavement to bring the new roadway back to the existing roadway elevations as well as connections of the pathway to the existing shoulder. These costs are accounted for in the cost estimates provided, as shown in the Construction Staging Cost Worksheet included in Appendix B.

Two options are presented for each construction stage in order to identify the advantages and disadvantages of constructing with Linder Road open to traffic for Option 1 or Linder Road closed to traffic for Option 2. It is recommended that future design phases evaluate the operational impacts to the surrounding roadway network if Linder Road is closed during construction. It is also recommended that the advantages of constructing the ultimate curb and gutter section to the east, in lieu of the temporary pavement that will be required for each construction stage, be evaluated in future design phases.

CONSTRUCTION STAGE 1 – STA. 113+00 TO STA. 148+50

Construction Stage 1 encompasses the roadway and bridge construction for the southern portion of the project area from south of Almaden Dr. to north of Artesian Road. This stage has an added complexity due to the three closely spaced structures for the Phyllis Canal, the Eureka Canal and the South Boise River Channel. Adding to the complexity is the increase of the roadway elevation by approximately 7’ in order to provide for a minimum of 2’ freeboard from the 100 year water surface elevation (WSE) to the low cord of the South Channel structure as well as the necessity to provide access to Duck Alley during all phases of Stage 1 construction. The major construction tasks for Stage 1 are noted below:

- Roadway widening for urban five lane section with 5’ setback sidewalks for 2200’
- Roadway widening from two lanes to five lanes with 10’ separated pathways for 1350’
- Phyllis Canal Structure – single span steel girder bridge with composite concrete deck (105’)
- Eureka Canal Structure – box culvert (15’ x 7’)
- South Channel Structure – single span concrete girders with cast in place deck (105’)
- Re-alignment of Duck Alley
- Construction of Pond 1

Stage 1 was broken into three phases of construction with Phase 1 constructing the east side of Linder Road, Phase 2 completing the Duck Alley connection to the newly constructed east half of Linder Road and Phase 3 constructing the west side of Linder Road. There are three additional piped irrigation crossings located within the Stage 1 limits of construction that will need to be re-constructed outside of the irrigation season: Zinger Lateral Crossing (12” PVC), Zinger Lateral Crossing (48” RCP), and the North Slough Crossing (48” RCP).

It is recommended that future design phases evaluate the viability of relocating the Eureka Canal discharge point from the Phyllis Canal to west of Linder Road in order to eliminate the need for the Eureka Canal crossing of Linder Road. Figures 3 and 4, shown on the following pages, define the Stage 1 construction limits, the estimated right-of-way take area and construction cost, the anticipated construction duration, the major construction tasks for each construction phase as well as the traffic impacts for Option 1 with Linder Road open and Option 2 with Linder Road closed.
**LINDER ROAD - STAGE 1**

- Length: 1850 Ft. with additional 1700 Ft. of Curb, Gutter and Sidewalk
- Anticipated Construction Cost: $13.3M - $15.3M
- Anticipated Right-of-Way Take Area: 3.50 Acres (Easement & Pond Areas are not Included)
- Anticipated Schedule: 18 Months

**Phase 1:**
- Construct Majority of Duck Alley Realignment.
- Construct Temporary HMA and Shoring for Phase 2 & 3 Traffic.
- Construct East Portion of Phylis Canal, Eureka Canal and South Channel Bridges.

**Phase 2:**
- Construct Remaining Realignment of Duck Alley Rd.
- Tie In of New East 1/2 of Linder Rd.

**Phase 3:**
- Construct West 1/2 of Linder Rd.
- Construct Drainage Pond 1. (Shown in Stage 2 Figures)
- Construct Remaining Portion of Phylis Canal, Eureka Canal and South Channel Bridges.

Prime Contractor: Structure / Roadway

**Pros:**
1. Linder Rd. Remains Open.
3. More Temporary HMA.

**Cons:**
TRAFFIC

Phase 1:
- Linder Rd. Closed.
- Artesian Rd. Detoured to W. Hatchery Rd.
- Access to Duck Aley on existing Linder Rd. from the South of Duck Aley.

Phase 2:
- Linder Rd. Open.
- Artesian Rd. Detoured to W. Hatchery Rd.
- Access to Duck Aley from the North of Duck Aley.

LINDER ROAD - STAGE 1
Length: 1850 ft. with Additional 1700 Ft. of Curb, Gutter and Sidewalk
Anticipated Construction Cost: $12.7M - $14.7M
Anticipated Right-of-Way Take Area: 3.50 Acres (Easement & Pond Areas are not Included)
Anticipated Schedule: 18 Months

Phase 1: Construct Majority of Linder Rd.
- Construct All South Channel Bridge.
- Construct East 1/2 Phyllis Canal Bridge.
- Construct East 1/2 Eureka Canal Bridge.
- Construct Realignment of Duck Aley.

Phase 2: Construct Remaining Linder Rd.
- Construct Drainage Pond 1. (Shown in Stage 2 Figures)
- Construct Remaining Phyllis Canal Bridge.
- Construct Remaining Eureka Canal Bridge.
Prime Contractor: Structure / Roadway

PROS
1. Less Cost.
2. Less Temporary Shoring.
3. Less Temporary HMA.

CONS
1. Linder Rd. Closed for Approximately 18 Months.

NOTE:
Phyllis Canal requires two phase construction in order to maintain access to Duck Aley during construction. Thereby, construction duration remains the same as Option 1.

Option 2
LINDER ROAD
Stage 1
CONSTRUCTION STAGE 2 – STA. 148+50 TO STA. 174+00

Construction Stage 2 includes the roadway and bridge construction for the middle portion of the project area from north of Artesian Road to south of Hatchery Road. The Middle Boise River Channel structure currently does not provide freeboard from the existing structure to the 100 year WSE of the Boise River Middle Channel. Therefore, the roadway elevation needs to rise approximately 7’ at the Middle Channel crossing. The major construction tasks for Stage 2 are noted below:

- Roadway widening from two lanes to five lanes with 10’ separated pathways for 2550’
- Middle Channel Structure – single span voided slab with composite cast in place deck (75’ span)
- Construction of Pond 2

Stage 2 was broken into two phases of construction with Phase 1 constructing the east side of Linder Road, and Phase 2 constructing the west side of Linder Road. There are two piped irrigation crossings located with the Stage 2 limits of construction that will need to be re-constructed outside of the irrigation season: Seven Suckers Ditch Crossing (18” CMP) and the Harton Davis South Crossing (30” RCP).

Due to the narrow width of the existing Middle Boise River Channel structure, and the raise in the roadway elevation, only one lane of traffic can be accommodated on the existing Middle Channel structure during Phase 1 construction with Linder Road open or closed. It is anticipated that traffic would be controlled by a temporary signal to allow for a single lane operation on the existing structure during Phase 1. It is recommended that a traffic analysis be performed in future design phases to evaluate the operational impacts to the surrounding roadway network if Linder Road is restricted to one lane during the Phase 1 construction of the Middle Channel structure. A potential detour option could be to allow northbound Linder Road traffic to utilize Artersian Road and Hatchery Road with southbound traffic using the existing bridge.

A temporary structure could be provided across the Boise River Middle Channel in order to allow for two lanes of traffic during all phases of construction with an added construction cost of approximately $600,000 for the bridge alone. The environmental and hydraulic implications of this temporary structure will also need to be considered prior to proceeding with this construction phasing approach. Figures 5 and 6, shown on the following pages, define the Stage 2 construction limits, the estimated right-of-way take area and construction cost, the anticipated construction duration, the major construction tasks for each construction phase as well as the traffic impacts for Option 1 with Linder Road open and Option 2 with Linder Road closed.
TRAFFIC - LINDER RD. REMAINS OPEN

Phase 1: Traffic on Existing West 1/2 of Linder Rd.
- Middle Channel Bridge Open to One Lane. Use Temporary Signals at each end.

Phase 2: Linder Rd. Traffic Shifted to Newly Constructed East 1/2 of Linder Rd. and Temporary Pavement.

OPTION 1
LINER ROAD
Stage 2

LENGTH: 2550 FT.
Anticipated Construction Cost: $7.1M - $9.1M
Anticipated Right-of-Way Take Area: 3.52 Acres (Easement & Pond Areas are not included)
Anticipated Schedule: 18 Months

Phase 1:
- Construct East 1/2 of Linder Rd.
- Construct Temporary HMA and Sharing for Phase 2 Traffic.
- Construct East Portion of Middle Channel Bridge.
- Construct Pond #1.

Phase 2:
- Construct West 1/2 of Linder Rd.
- Construct West Portion of Middle Channel Bridge.
Prime Contractor: Roadway

PROS
1. Linder Rd. Remains Open.

CONS
3. More Temporary HMA.

FIGURE 5
TRAFFIC - LINDER ROAD CLOSED
Maintain Access to River Ranch Ln. During Construction

LINDER ROAD - STAGE 2
Length: 2550 Ft.
Anticipated Construction Cost: $6.6M - $8.6M
Anticipated Right-of-Way Take Area: 3.52 Acres (Easement & Pond Areas are not Included)
Anticipated Schedule: 12 Months
Phase 1: Linder Rd. and Middle Channel Bridge.
Prime Contractor: Roadway

PROS
1. Less Cost.
2. Less Temporary Shoring.
3. Less Temporary HMA.
4. Less Construction Duration.

CONS
1. Linder Rd. Closed for Approximately 12 Months.

Option 2
LINDER ROAD
Stage 2
CONSTRUCTION STAGE 3 — STA. 174+00 TO STA. 209+00

Construction Stage 3 includes the roadway and bridge construction from south of Hatchery Road to south of SH-44 which includes the North Boise River Channel structure. The roadway elevation needs to rise approximately 8’ at the North Channel crossing in order to accommodate a pedestrian tunnel for a future Boise Greenbelt pathway extension. The major construction tasks for Stage 3 are noted below:

- Roadway widening from two lanes to five lanes with 10’ separated pathways for 3500’
- North Channel Structure – pre-stressed four span concrete girders with cast in place deck (440’)
- Construction of Pond 3

Stage 3 was broken into two phases of construction with Phase 1 constructing the east side of Linder Road, and Phase 2 constructing the west side of Linder Road. There are two piped irrigation crossings located with the Stage 3 limits of construction that will need to be re-constructed outside of the irrigation season the Harton Davis North Crossing (18” RCP) and the Old Middleton Mill Canal Crossing (12” PVC).

The proposed roadway alignment was able to be shifted east of the existing roadway alignment at the North Channel structure which allows for two lanes of traffic to be accommodated on the existing North Channel structure during Phase 1 construction. Figures 7 and 8, shown on the following pages, define the Stage 3 construction limits, the estimated right-of-way take area and construction cost, the anticipated construction duration, the major construction tasks for each construction phase as well as the traffic impacts for Option 1 with Linder Road open and Option 2 with Linder Road closed.

This construction stage was evaluated for separating the construction of the structure and roadway into two separate packages due to the significant cost of this construction stage. The construction of the North Channel structure was defined as Stage 3A while the roadway construction was defined as Stage 3B as shown in the Figures 7 and 8. The construction costs and the construction duration increases with this approach due to the need for additional temporary pavement and shoring as well as the splitting of these construction activities into separate construction years.
**Traffic - Linder Rd Remains Open**

Phase 1:
- Traffic on Existing Linder Rd. and North Channel Bridge.
- W. Hatchery Rd. Detoured to Artesian Rd.

Phase 2:
- Linder Rd. Traffic Shifted to Newly Constructed East 1/2 of Linder Rd. and North Channel Bridge.

**Pros**
1. Linder Rd. Remains Open.

**Cons**
2. More Temporary HMA or Shaving.

**Linder Road / North Channel Bridge (Combined) - Stage 3**

**Length:** 3500 ft.

**Anticipated Construction Cost:** $16.1M - $18.1M

**Anticipated Right-of-Way Take Area:** 4.18 Acres (Easement & Pond Areas are not Included)

**Anticipated Schedule:** 18 Months

- Phase 1:
  - Construct East 1/2 of Linder Rd.
  - Construct Temporary HMA and/or Shaving for Phase 2 Traffic.
- Phase 2:
  - Construct East Portion North Channel Bridge.

**Prime Contractor:** Structure

**North Channel Bridge (Only) - Stage 3A**

**Length:** 440 ft.

**Anticipated Construction Cost:** $14.7M - $16.7M

**Anticipated Schedule:** 15 Months

- Phase 1:
  - Construct Temporary HMA and/or Shaving for Phase 2 Traffic.
- Phase 2:
  - Construct East Portion North Channel Bridge.

**Prime Contractor:** Structure

**Linder Road (Only) - Stage 3B**

**Length:** 3500 ft.

**Anticipated Construction Cost:** $2.9M - $4.9M

**Anticipated Schedule:** 12 Months

- Phase 1:
  - Construct East 1/2 of Linder Rd.
  - Construct Temporary HMA and/or Shaving for Phase 2 Traffic.
- Phase 2:
  - Construct West 1/2 of Linder Rd.
  - Construct Drainage Pond +3.

**Prime Contractor:** Roadway

**Option 1**

**Linder Road**

**Stage 3**
TRAFFIC - LINDBERG ROAD CLOSED
-W. Hatchery Rd. Detoured to Artesian Rd.

PROS
1. Less Cost.
2. Less Temporary HMA or Shoring.
3. Less Construction Duration.

CONS
1. Linder Rd. Closed for Approximately 12 Months with the Bridge and Roadway Combined or 17 Months with the Bridge and Roadway as separate Construction Packages.

Option 2
LINDBERG ROAD
Stage 3

NOTE:
Separate Phase 3A & 3B considered for potential funding constraints. These two Phases are not recommended.
SUMMARY AND RECOMMENDATIONS

Three construction stages are recommended for the staging of the construction of Linder Road from US 20/26 (Chinden Boulevard) to SH-44 (State Street):

CONSTRUCTION STAGE 1 (STA. 113+00 TO STA. 148+50) encompasses the roadway and bridge construction for the southern portion of the project area from south of Almaden Dr. to north of Artesian Road. The major construction tasks for Stage 1 are noted below:

- Roadway widening for urban five lane section with 5’ setback sidewalks for 2200’
- Roadway widening from two lanes to five lanes with 10’ separated pathways for 1350’
- Phyllis Canal Structure – single span steel girder bridge with composite concrete deck (105’)
- Eureka Canal Structure – box culvert (15’ x 7’)
- South Channel Structure – single span concrete girders with cast in place deck (105’)
- Re-alignment of Duck Alley
- Construction of Pond 1

CONSTRUCTION STAGE 2 (STA. 148+50 TO STA. 174+00) includes the roadway and bridge construction for the middle portion of the project area from north of Artesian Road to south of Hatchery Road. The major construction tasks for Stage 2 are noted below:

- Roadway widening from two lanes to five lanes with 10’ separated pathways for 2550’
- Middle Channel Structure – single span voided slab with composite cast in place deck (75’ span)
- Construction of Pond 2

CONSTRUCTION STAGE 3 (STA. 174+00 TO STA. 209+00) includes the roadway and bridge construction from south of Hatchery Road to south of SH-44 which includes the North Boise River Channel structure. The major construction tasks for Stage 3 are noted below:

- Roadway widening from two lanes to five lanes with 10’ separated pathways for 3500’
- North Channel Structure – pre-stressed four span concrete girders with cast in place deck (440’)
- Construction of Pond 3

Three independent construction stages were defined for the project area in order to allow for projects that can be constructed within ACHD’s fiscal year budget constraints. The three construction stages defined can be programmed as standalone projects in ACHD’s Five Year Work Program based on funding availability. Table 1 shown on the following page summarizes the construction cost for each stage of construction. This construction stage was evaluated for separating the construction of the structure and roadway into two separate packages due to the significant cost of this construction stage. However, it is recommended that the structure and the roadway are constructed together as the construction duration increases and the individual project cost for the structure alone is only slightly lower than the combined structure and roadway project cost.
<table>
<thead>
<tr>
<th>Stage</th>
<th>Estimated Construction Cost*</th>
<th>Estimated R/W Required (acres)</th>
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<tbody>
<tr>
<td>Stage 1 (STA. 113+00 to STA. 148+50)</td>
<td>$13.3M to $15.3M</td>
<td>3.5</td>
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<tr>
<td>Stage 2 (STA. 148+50 to STA. 174+00)</td>
<td>$7.1M to $9.1M</td>
<td>3.52</td>
</tr>
<tr>
<td>Stage 3 (STA. 174+00 to STA. 209+00)</td>
<td>$16.1M to $18.1M</td>
<td>4.18</td>
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<tr>
<td>Total</td>
<td>$36.5M to $42.5M</td>
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*Design fees are not included in the estimated construction costs. Design fees are estimated to be 10% of the construction cost. Estimated construction costs include traditional drainage ponds for stormwater. Right-of-way take areas and costs for construction may increase for final drainage solution.

Table 1: Estimated Project Cost

**PROJECT PROGRAMMING**

The sequencing of these construction projects does not need to occur in chronological order as the staging numbers indicate. There is benefit to performing the construction of Stage 1 first, followed by Stage 3, with Stage 2 being the final stage. Constructing in this sequencing would provide improvements at the southern and northern limits of the project first where most of the recent development is occurring.

**ENVIRONMENTAL PERMITTING**

The Linder Road project has two potential paths to obtaining full environmental permitting approval with the staged construction spanning multiple years. Option 1 is to permit the entire corridor as a single complete project. Permitting a single complete project would allow for a single permitting and compensatory mitigation effort executed commensurate with the initial project phase. The key advantage of permitting a single and complete project is economy of scale of the permitting effort and implementation of the mitigation approach for corridor wide impacts. A key disadvantage is the design for the entire corridor (not just an initial project phase) will need to be advanced to a point that permitting can occur. Permitting the project as a single and complete project would follow the following steps:

- Permitting the project as a single and complete project would require that ACHD advance the design for the corridor to near final design with the quantification of impacts in a Joint Application for Permit submitted to the US Army Corps of Engineers (USACE). The permitting action would be supported with agency concurrences for the Endangered Species Act and Section 106 of the State Historic Preservation Act. It is possible that future field survey work may be needed to determine presence or absence of species protected under the Endangered Species Act based on recent conversations with USACE as the yellowbill cuckoo may become a concern. Endangered Species Act survey work, if required, would need to be completed regardless of the project permitting approach.

- It is assumed that the project corridor impacts would be in excess of 0.5 acres and as such would precipitate the processing of the permit as a Clean Water Act Individual Permit. The typical time frame for processing an individual permit is 180 days once the permit is determined to be complete by the USACE. It is assumed that compensatory mitigation would be required for the anticipated project impacts. This compensatory mitigation would be defined in the permit application and implemented concurrently with the construction of the initial project phase.
• If compensatory wetlands construction are to be implemented to address stormwater runoff then permittee responsible mitigation in the project corridor will require right-of-way acquisition in order to allow for the construction of wetlands habitat at the amounts determined by the USACE.

Option 2 is to permit the Linder Road Corridor in discrete construction packages/phases or projects. The key advantage of permitting the project in phases is that ACHD will not need to advance the design of the project, for the entire corridor, to the same level to permit the initial phase. The key disadvantage of permitting the project in phases is implementing the compensatory mitigation in phases. Permitting the project in discrete packages/phases would follow the following steps:

• Permitting the project by phase will require that both Endangered Species Act and Section 106 of the State Historic Preservation Act be completed for the initial phase as well as subsequent phases.

• Permitting the project in phases would require that ACHD advance the design for a specific project phase to near final design with the quantification of impacts in a Joint Application for Permit to the US Army Corps of Engineers (USACE). The permitting action would be supported with agency concurrences for the Endangered Species Act and Section 106 of the State Historic Preservation Act. It is possible that future field survey work may be needed to determine presence or absence of species protected under the Endangered Species Act.

• It is assumed that the project impacts for discrete phases could be in excess of 0.5 acres and as such would precipitate the processing of multiple Clean Water Act Individual Permits. The typical time frame for processing an individual permit is 180 days once the permit is determined to be complete by the USACE. It is assumed that compensatory mitigation would be required for the each project phase and its associated impacts. This compensatory mitigation would be defined in the permit application and implemented concurrently with the construction of each individual project.

• If compensatory wetlands construction are to be implemented to address stormwater runoff then permittee responsible mitigation in the project corridor will require right-of-way acquisition in order to allow for the construction of wetlands habitat at the amounts determined by the USACE. The difference in this option is that the compensatory mitigation amounts would be acquired per phase rather than in total for the entire corridor. However, the ultimate overall compensatory mitigation requirements will be the same for both options.

It is recommended that once project timelines are better understood ACHD should consult again with the USACE to determine what permitting option is best suited for implementing the corridor improvements. Finalizing the delineation of aquatic habitats will be a key next step to document compliance with Clean Water Act 401 (b)(1) guidelines during future design phases. Determination of where wetland constructed basins will be built for stormwater and permittee responsible compensatory mitigation is also recommended. Identifying the size of the constructed wetland basin facility will be a key considerations for the right-of-way acquisition process. Lastly, the stormwater constructed wetland basin facilities and their outfall locations may need license agreements from 3rd parties. It is recommended that coordination continue to ensure proof of concept. The recommendations noted assumes that only local funds are used for the design and construction for all projects.
Appendix A – Construction Staging Roll Plot
Appendix B – Construction Staging Cost Worksheet
<table>
<thead>
<tr>
<th>CATEGORY</th>
<th>113+00 - 148+50</th>
<th>148+50 - 174+00</th>
<th>174+00 - 209+50</th>
<th>113+00 - 209+50</th>
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<tr>
<td><strong>PAVEMENT &amp; BASE (ROADWAY/PATHWAY)</strong></td>
<td>$878,500</td>
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<td><strong>EARTHWORK</strong></td>
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<td><strong>STRUCTURES (BRIDGES)</strong></td>
<td>$5,580,354</td>
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<td><strong>STRUCTURES (WALLS)</strong></td>
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<td><strong>DRAINAGE (ROADWAY)</strong></td>
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<td>$200,000</td>
<td>$200,000</td>
<td>$700,000</td>
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<td><strong>DRAINAGE (PONDS)</strong></td>
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<td>$200,000</td>
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<td><strong>IRRIGATION</strong></td>
<td>$62,000</td>
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<td><strong>UTILITIES</strong></td>
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<tr>
<td><strong>TRAFFIC &amp; SAFETY (SIGNS, PAV MARKING, ETC)</strong></td>
<td>$50,000</td>
<td>$50,000</td>
<td>$50,000</td>
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<tr>
<td><strong>TRAFFIC CONTROL (INCLUDES SHORING)</strong></td>
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<td>$680,000</td>
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<td><strong>MISCELLANEOUS (LANDSCAPING, FENCES, SWPPP, ETC)</strong></td>
<td>$100,000</td>
<td>$100,000</td>
<td>$120,000</td>
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<td><strong>TOTAL PER STAGE</strong></td>
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<td>$5,807,275</td>
<td>$12,967,116</td>
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<td><strong>ADD 30% CONTINGENCY</strong></td>
<td>$13,731,710.20</td>
<td>$7,549,457.50</td>
<td>$16,857,250.80</td>
<td>$38,138,418.50</td>
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| **TEMPORARY PAVEMENT (Option 1)**                | $204,983        | $165,667        | $152,583        |
| **SHORING (Option 1)**                           | $400,000        | $400,000        | $100,000        |
| **SUBTOTAL (Option 1)**                          | $13,936,693.53  | $7,715,124.17   | $17,009,834.13  |

| **OPTION 1 TOTAL (Linder Road Open)**            | $14,336,693.53  | $8,115,124.17   | $17,109,834.13  |
| **OPTION 2 TOTAL (Linder Road Closed)**          | $13,731,710.20  | $7,549,457.50   | $16,857,250.80  |