A-1

Volume A, Design Plans
(Guideway Plan and Profile, Alignment Data, Right-of-Way, Cross Sections, Street Modifications, Structural, Drainage, Utilities)
LIGHT RAIL TRANSIT SYSTEM
DALLAS CBD SECOND LIGHT RAIL ALIGNMENT
D2 SUBWAY
VOLUME A

30% PRELIMINARY ENGINEERING
This Preliminary 30% Design drawing is not an approved drawing for bidding or permit purposes. It is not to be used for construction. This document is released for the purpose of review under the Contract Sheet No. GC3-0002 and is not for construction.
DART D2 SUBWAY - CBD-2
GUIDEWAY PLAN AND PROFILE KEY PLAN

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

TBPE FIRM NO. F-754
HDR ENGINEERING, INC.
ON 10/30/2020
AMANDA C. STAHLNECKER, P.E. NO. 124571

PROJECT KEY PLAN
A. STAHLNECKER
L. GUBLO
NO SCALE

SE E DWG No. GC4-0002
CBD EL ST 65+00
MATCH LINE
GUIDEWAY PLAN AND PROFILE KEY PLAN

DART PROJECT

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
PROJECT KEY PLAN
SHEET 1 OF 3

IN-PROGRESS

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

IN-PROGRESS

DART PROJECT

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
PROJECT KEY PLAN
SHEET 2 OF 3

AMANDA C. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020

SHEET 2 OF 3

DART D2 SUBWAY - CBD-2
GUIDEWAY PLAN AND PROFILE KEY PLAN

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

IN-PROGRESS

DART PROJECT

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
PROJECT KEY PLAN
SHEET 2 OF 3
DART D2 SUBWAY - SE-1 AND WYE
GUIDEWAY PLAN AND PROFILE KEY PLAN

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

NOT FOR CONSTRUCTION, BIDDING OR PERMIT PURPOSES.
IT IS NOT TO BE USED FOR CONSTRUCTION,
A. STAHLNECKER
NOT FOR CONSTRUCTION

NOT AN APPROVED DRAWING

PRELIMINARY 30% DESIGN

NOT AN APPROVED DRAWING

NOT FOR CONSTRUCTION

TBPE FIRM NO. F-356/TBPLS NO. 100189-00
NATHAN D. MAIER CONSULTING ENGINEERS, INC.
ON 10/30/2020
JOHN L. MELTON, RPLS

SCALE (IN FEET) 0 20 40 80
HORIZ

LEGEND

--- EXISTING ROW OF WAY
--- EXISTING PROPERTY LINE

PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEEDS AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE Either ABOVE OR BELOW EXISTING GROUND LIMITS. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.

NOTES:

1. EXISTING PROPERTY LINE AND ROW OF WAY LINES ARE SHOWN FOR RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL SURVEY. THESE ARE EXISTING ROW LIMITS AS SHOWN BY THE FINAL DESIGN.

2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEEDS AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND LIMITS. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.

3. BASIS OF MEASUREMENT - DISTANCES FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, WHICH IS A TRIGONOMETRIC NETWORK OBTAINED WITH INDEPENDENTLY UTILIZING THE TEXAS SATE PLANE COORDINATE SYSTEM. ALL SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOTES:

1. EXISTING PROPERTY LINE AND ROW OF WAY LINES ARE SHOWN FOR RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL SURVEY. THESE ARE EXISTING ROW LIMITS AS SHOWN BY THE FINAL DESIGN.

2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEEDS AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND LIMITS. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.

3. BASIS OF MEASUREMENT - DISTANCES FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, WHICH IS A TRIGONOMETRIC NETWORK OBTAINED WITH INDEPENDENTLY UTILIZING THE TEXAS SATE PLANE COORDINATE SYSTEM. ALL SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.

NOTES:

1. EXISTING PROPERTY LINE AND ROW OF WAY LINES ARE SHOWN FOR RECORD INFORMATION AND DO NOT REPRESENT AN ACTUAL SURVEY. THESE ARE EXISTING ROW LIMITS AS SHOWN BY THE FINAL DESIGN.

2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEEDS AND ARE SUBJECT TO CHANGE. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC. AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND LIMITS. THESE LIMITS DO NOT INCLUDE CONSTRUCTION NEEDS.

3. BASIS OF MEASUREMENT - DISTANCES FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, WHICH IS A TRIGONOMETRIC NETWORK OBTAINED WITH INDEPENDENTLY UTILIZING THE TEXAS SATE PLANE COORDINATE SYSTEM. ALL SURFACE VALUES CONVERTED FROM GRID VALUES UTILIZING A SCALE FACTOR OF 1.000136506.
LEGEND

- Existing Right-of-Way
- Existing Property Line
- Proposed Right-of-Way

NOTES:
1. Existing Property Line and Right-of-Way lines are shown from record information and do not represent actual survey lines. The existing rows shall be verified by the final designer.
2. Proposed row limits shown are based on engineering needs and are subject to change. Proposed lines may include acquisitions, agreements, easements, etc., and can be either above or below existing ground. These limits do not include construction needs.
3. Base of survey - Surveys for this survey are based on the Texas State Plane Coordinate System, North Central Zone 4202, and are obtained with high-precision leveling and surveying equipment. The limits and row widths shown are for design purposes only and are subject to change as determined by the final designer.

SCALE (IN FEET)
1" = 40'
NOT FOR CONSTRUCTION
 NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
NOT FOR CONSTRUCTION
BIDDING OR PERMIT PURPOSES.

LEGEND

EXISTING RIGHT OF WAY
EXISTING PROPERTY LINE
PROPOSED RIGHT OF WAY

NOTES:
1. EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FOR RECORD INFORMATION AND DO NOT REPRESENT ACTUAL PROPERTY LINES OR EXISTING ROW SHALL BE REVISED BY THE FINAL DESIGNER.

2. PROPOSED ROW LIMITS SHOWN ARE BASED ON ENGINEERING NEEDS AND ARE SUBJECT TO CHANGE. THESE LIMITS DO NOT INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC., AND CAN BE ALIGNED ABOVE OR BELOW EXISTING ROWS. THESE LIMITS DO NOT REPRESENT AN ACTUAL BOUNDARY SURVEY. THE EXISTING PROPERTY LINE AND RIGHT-OF-WAY LINES ARE SHOWN FROM RECORD INFORMATION AND DO NOT REPRESENT ACTUAL PROPERTIES OR CIVIL AND TRACK CONSTRUCTION END SITE.

3. BASIS OF BEARING - BEARINGS FOR THIS SURVEY ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, NORTH CENTRAL ZONE 4202, AND CAN BE EITHER ABOVE OR BELOW EXISTING GROUND LEVEL. THESE LIMITS MAY INCLUDE ACQUISITIONS, AGREEMENTS, EASEMENTS, ETC., AND CAN BE ALIGNED ABOVE OR BELOW EXISTING ROWS.

SCALE (IN FEET)
HORIZ
0
20
40
60
80
M.SALCEDO
D.VALDEZ
D.GRIFFIN
JOHN L. MELTON, RPLS
TBPE FIRM NO. F-356/TBPLS NO. 100189-00
NATHAN D. MAIER CONSULTING ENGINEERS, INC.
ON 10/30/2020

MATCH LINE SE-1 SB STA 32+93.40
TO END OF SE-1 RIGHT-OF-WAY PLAN

STA 28+00.00 TO END OF SE-1
ROW SHALL BE VERIFIED BY THE FINAL DESIGNER.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
HORIZONTAL ALIGNMENT
SCHEMATIC
SHEET 4 OF 4
**LINE SECTION CBD-2 EB TRACK**

**HORIZONTAL ALIGNMENT DATA**

**CENTERLINE OF EASTBOUND TRACK**

**NOTES:**
1. GRID COORDINATES = SURFACE COORDINATES X 0.999863513
2. COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM (NAD83), U.S. SURVEY 1983.
3. CURVE RADII ARE BASED ON THE CHORD DEFINITION.

**Table:**

<table>
<thead>
<tr>
<th>Curve Name</th>
<th>Poi</th>
<th>Bearing</th>
<th>Chainage (Ft)</th>
<th>Northing (Ft)</th>
<th>Easting (Ft)</th>
<th>Curve Length (Ft)</th>
<th>Degree of Curvature</th>
<th>Ee</th>
<th>Ex</th>
<th>Passenger Speed (MPH)</th>
<th>Deflection Angle (D.M.S.)</th>
<th>Deflection (IN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBD2-A</td>
<td>POB</td>
<td>00+00.00</td>
<td>6974996.78</td>
<td>2487462.37</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F1</td>
<td>10+30.96</td>
<td>6974668.00</td>
<td>2487410.45</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y5</td>
<td>13+46.11</td>
<td>6974113.36</td>
<td>2487062.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>SC</td>
<td>15+85.11</td>
<td>6974532.15</td>
<td>2487008.16</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBD2-B</td>
<td>POB</td>
<td>16+40.10</td>
<td>6974320.80</td>
<td>2487074.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F1</td>
<td>16+40.10</td>
<td>6974320.80</td>
<td>2487074.04</td>
<td></td>
<td>R = 320.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Y5</td>
<td>17+98.30</td>
<td>6974843.83</td>
<td>2487074.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ST</td>
<td>18+22.83</td>
<td>6974552.68</td>
<td>2487096.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBD2-C</td>
<td>POB</td>
<td>18+22.41</td>
<td>6974648.10</td>
<td>2487046.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F1</td>
<td>18+22.41</td>
<td>6974648.10</td>
<td>2487046.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ST</td>
<td>18+38.67</td>
<td>6975266.12</td>
<td>2487086.62</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBD2-D</td>
<td>POB</td>
<td>19+41.89</td>
<td>6975011.08</td>
<td>2487068.83</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F1</td>
<td>19+41.89</td>
<td>6975011.08</td>
<td>2487068.83</td>
<td></td>
<td>R = 1000.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ST</td>
<td>19+48.26</td>
<td>6975270.14</td>
<td>2487101.30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBD2-E</td>
<td>POB</td>
<td>20+05.70</td>
<td>6972801.72</td>
<td>2488076.62</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F1</td>
<td>20+05.70</td>
<td>6972801.72</td>
<td>2488076.62</td>
<td></td>
<td>R = 330.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ST</td>
<td>20+12.93</td>
<td>6973271.17</td>
<td>2488098.24</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBD2-F</td>
<td>POB</td>
<td>20+31.72</td>
<td>6972954.40</td>
<td>2488205.31</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F1</td>
<td>20+31.72</td>
<td>6972954.40</td>
<td>2488205.31</td>
<td></td>
<td>R = 504.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ST</td>
<td>20+38.15</td>
<td>6973301.14</td>
<td>2488218.90</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBD2-G</td>
<td>POB</td>
<td>20+57.13</td>
<td>6973237.14</td>
<td>2488344.35</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F1</td>
<td>20+57.13</td>
<td>6973237.14</td>
<td>2488344.35</td>
<td></td>
<td>R = 1000.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ST</td>
<td>20+63.50</td>
<td>6973630.08</td>
<td>2488367.92</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBD2-H</td>
<td>POB</td>
<td>20+83.91</td>
<td>6973600.21</td>
<td>2488390.40</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F1</td>
<td>20+83.91</td>
<td>6973600.21</td>
<td>2488390.40</td>
<td></td>
<td>R = 504.50</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ST</td>
<td>21+22.93</td>
<td>6974452.68</td>
<td>2488913.85</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBD2-I</td>
<td>POB</td>
<td>21+01.32</td>
<td>6974264.70</td>
<td>2488436.83</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>F1</td>
<td>21+01.32</td>
<td>6974264.70</td>
<td>2488436.83</td>
<td></td>
<td>R = 1000.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ST</td>
<td>21+07.73</td>
<td>6974711.17</td>
<td>2488459.34</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---

**Light Rail Transit System**

**LINE SECTION CBD-2**

**Horizontal Alignment Data**

**Centerline of Eastbound Track**

**Notes:**
- Not for construction.
- Not an approved drawing.
- Preliminary 30% design.
### Horizontal Alignment Data

**Line Section CBD-2 EB Track**

**Centerline of Eastbound Track**

**NOTES:**
1. Grid Coordinates x 0.9998513
2. Coordinates shown herein are based on the Texas State Plane Coordinate System, NAD83, U.S. Survey Foot.
3. Curve radii are based on the chord definition.

<table>
<thead>
<tr>
<th>Curve Name</th>
<th>From</th>
<th>To</th>
<th>Length</th>
<th>Curve Radius</th>
<th>Deflection Angle</th>
</tr>
</thead>
<tbody>
<tr>
<td>CBD-2</td>
<td>64+36.50</td>
<td>249+06.50</td>
<td>199.50</td>
<td>11000.00</td>
<td>0° 31' 15&quot; Left</td>
</tr>
<tr>
<td>CBD-3</td>
<td>65+32.30</td>
<td>249+15.30</td>
<td>199.50</td>
<td>11000.00</td>
<td>0° 31' 15&quot; Left</td>
</tr>
<tr>
<td>CBD-4</td>
<td>66+15.30</td>
<td>249+25.26</td>
<td>199.50</td>
<td>11000.00</td>
<td>0° 31' 15&quot; Left</td>
</tr>
<tr>
<td>CBD-5</td>
<td>67+41.31</td>
<td>249+31.06</td>
<td>199.50</td>
<td>11000.00</td>
<td>0° 31' 15&quot; Left</td>
</tr>
</tbody>
</table>

**Notes:**
- Centerline of Eastbound Track
- Horizontal Alignment Data
- Line Section CBD-2 EB Track
- Preliminary 30% Design
- Not an Approved Drawing
- Not for Construction
- In progress authority of: TBD
- For the purpose of review under the contract, this document is released.
### Horizontal Alignment Data

**Centerline of Eastbound Track**

<table>
<thead>
<tr>
<th>Curve Name</th>
<th>Mv</th>
<th>ID Grade</th>
<th>Mv Grade</th>
<th>Elong.</th>
<th>Length</th>
<th>Degree of</th>
<th>E</th>
<th>Ex</th>
<th>Passenger</th>
<th>Deflection</th>
<th>Bearing</th>
</tr>
</thead>
<tbody>
<tr>
<td>T3</td>
<td>110+402.20</td>
<td>6973844.46</td>
<td>2494604.56</td>
<td>SPIRAL</td>
<td>80.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>110+402.20</td>
<td>6973844.46</td>
<td>2494604.56</td>
<td>SPIRAL</td>
<td>80.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBD-2 EB</td>
<td>111+173.40</td>
<td>6973844.46</td>
<td>2494604.56</td>
<td>SPIRAL</td>
<td>80.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>ST</td>
<td>111+081.72</td>
<td>6973833.73</td>
<td>2494616.22</td>
<td>STRAIGHT</td>
<td>31.42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FS</td>
<td>111+111.59</td>
<td>6973814.39</td>
<td>2494957.88</td>
<td>STRAIGHT</td>
<td>35.41</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

1. Grid coordinates + surface coordinates x 0.999863513
2. Coordinates shown herein are based on Texas State Plane Coordinate System (UTM). NAD83, State Plane 1983 zones.
3. Curve Radii are based on the chord definition.
### Horizontal Alignment Data

#### Line Section CBD-2 WB Track

**Centerline of Westbound Track**

**Notes:**
1. SURFACE COORDINATES = SURVEY FOOT.
2. COORDINATES SHOWN ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, NAD83, U.S. BASE SURVEY.
3. CURVE RADII ARE BASED ON THE CHORD DEFINITION.

#### Curve Name

<table>
<thead>
<tr>
<th>Curve Name</th>
<th>Point</th>
<th>Chainage</th>
<th>Element</th>
<th>Length</th>
<th>Curvature</th>
<th>Degree of</th>
<th>Easting</th>
<th>Northing</th>
<th>Bearing</th>
<th>Speed</th>
<th>Passenger</th>
<th>Deflection</th>
<th>Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>POB</td>
<td>11+83.54</td>
<td>694846.09</td>
<td>STRAIGHT</td>
<td>30.39</td>
<td>3.15° 29' 16.43&quot;</td>
<td>17° 50' 10&quot;</td>
<td>22° 17' 25.48&quot;</td>
<td>0.085</td>
<td>1.87</td>
<td>10</td>
<td>65° 33' 24&quot;</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>P1</td>
<td>11+90</td>
<td>694846.07</td>
<td>STRAIGHT</td>
<td>18.28</td>
<td>17° 50' 10&quot;</td>
<td>0.25</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>P2</td>
<td>13+45.89</td>
<td>694881.19</td>
<td>STRAIGHT</td>
<td>30.2</td>
<td>3.15° 29' 16.43&quot;</td>
<td>17° 50' 10&quot;</td>
<td>22° 17' 25.48&quot;</td>
<td>0.085</td>
<td>1.87</td>
<td>10</td>
<td>65° 33' 24&quot;</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>13+95.89</td>
<td>694865.40</td>
<td>STRAIGHT</td>
<td>30.2</td>
<td>3.15° 29' 16.43&quot;</td>
<td>17° 50' 10&quot;</td>
<td>22° 17' 25.48&quot;</td>
<td>0.085</td>
<td>1.87</td>
<td>10</td>
<td>65° 33' 24&quot;</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CBD2-VA</td>
<td>15+23.9</td>
<td>694405.31</td>
<td>STRAIGHT</td>
<td>30.2</td>
<td>3.15° 29' 16.43&quot;</td>
<td>17° 50' 10&quot;</td>
<td>22° 17' 25.48&quot;</td>
<td>0.085</td>
<td>1.87</td>
<td>10</td>
<td>65° 33' 24&quot;</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>16+30.45</td>
<td>694465.20</td>
<td>STRAIGHT</td>
<td>30.2</td>
<td>3.15° 29' 16.43&quot;</td>
<td>17° 50' 10&quot;</td>
<td>22° 17' 25.48&quot;</td>
<td>0.085</td>
<td>1.87</td>
<td>10</td>
<td>65° 33' 24&quot;</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>S1</td>
<td>16+98.75</td>
<td>694425.55</td>
<td>STRAIGHT</td>
<td>30.2</td>
<td>3.15° 29' 16.43&quot;</td>
<td>17° 50' 10&quot;</td>
<td>22° 17' 25.48&quot;</td>
<td>0.085</td>
<td>1.87</td>
<td>10</td>
<td>65° 33' 24&quot;</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>FS</td>
<td>17+67.81</td>
<td>694454.02</td>
<td>STRAIGHT</td>
<td>30.2</td>
<td>3.15° 29' 16.43&quot;</td>
<td>17° 50' 10&quot;</td>
<td>22° 17' 25.48&quot;</td>
<td>0.085</td>
<td>1.87</td>
<td>10</td>
<td>65° 33' 24&quot;</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>17+86.41</td>
<td>694410.19</td>
<td>STRAIGHT</td>
<td>30.2</td>
<td>3.15° 29' 16.43&quot;</td>
<td>17° 50' 10&quot;</td>
<td>22° 17' 25.48&quot;</td>
<td>0.085</td>
<td>1.87</td>
<td>10</td>
<td>65° 33' 24&quot;</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CBD2-WE</td>
<td>18+15.46</td>
<td>694424.42</td>
<td>STRAIGHT</td>
<td>30.2</td>
<td>3.15° 29' 16.43&quot;</td>
<td>17° 50' 10&quot;</td>
<td>22° 17' 25.48&quot;</td>
<td>0.085</td>
<td>1.87</td>
<td>10</td>
<td>65° 33' 24&quot;</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>18+47.25</td>
<td>694423.01</td>
<td>STRAIGHT</td>
<td>30.2</td>
<td>3.15° 29' 16.43&quot;</td>
<td>17° 50' 10&quot;</td>
<td>22° 17' 25.48&quot;</td>
<td>0.085</td>
<td>1.87</td>
<td>10</td>
<td>65° 33' 24&quot;</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>S1</td>
<td>19+71.75</td>
<td>694419.78</td>
<td>STRAIGHT</td>
<td>30.2</td>
<td>3.15° 29' 16.43&quot;</td>
<td>17° 50' 10&quot;</td>
<td>22° 17' 25.48&quot;</td>
<td>0.085</td>
<td>1.87</td>
<td>10</td>
<td>65° 33' 24&quot;</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>FS</td>
<td>20+16</td>
<td>694329.52</td>
<td>STRAIGHT</td>
<td>30.2</td>
<td>3.15° 29' 16.43&quot;</td>
<td>17° 50' 10&quot;</td>
<td>22° 17' 25.48&quot;</td>
<td>0.085</td>
<td>1.87</td>
<td>10</td>
<td>65° 33' 24&quot;</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>24+19.80</td>
<td>693704.21</td>
<td>STRAIGHT</td>
<td>30.2</td>
<td>3.15° 29' 16.43&quot;</td>
<td>17° 50' 10&quot;</td>
<td>22° 17' 25.48&quot;</td>
<td>0.085</td>
<td>1.87</td>
<td>10</td>
<td>65° 33' 24&quot;</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CBD2-EE</td>
<td>24+35.06</td>
<td>693702.71</td>
<td>STRAIGHT</td>
<td>30.2</td>
<td>3.15° 29' 16.43&quot;</td>
<td>17° 50' 10&quot;</td>
<td>22° 17' 25.48&quot;</td>
<td>0.085</td>
<td>1.87</td>
<td>10</td>
<td>65° 33' 24&quot;</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>24+60.26</td>
<td>693702.26</td>
<td>STRAIGHT</td>
<td>30.2</td>
<td>3.15° 29' 16.43&quot;</td>
<td>17° 50' 10&quot;</td>
<td>22° 17' 25.48&quot;</td>
<td>0.085</td>
<td>1.87</td>
<td>10</td>
<td>65° 33' 24&quot;</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>S1</td>
<td>24+66.35</td>
<td>693675.35</td>
<td>STRAIGHT</td>
<td>530.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FS</td>
<td>24+99.71</td>
<td>693604.42</td>
<td>STRAIGHT</td>
<td>530.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>25+25.11</td>
<td>693506.66</td>
<td>STRAIGHT</td>
<td>530.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBD2-FF</td>
<td>25+41.20</td>
<td>693508.06</td>
<td>STRAIGHT</td>
<td>530.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>25+66.20</td>
<td>693508.43</td>
<td>STRAIGHT</td>
<td>530.79</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S1</td>
<td>25+68.23</td>
<td>693505.44</td>
<td>STRAIGHT</td>
<td>127.57</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Additional Notes:**
- **In Progress**
- **Light Rail Transit System**
- **DART Project**
- **Contract File No.**
- **DGN**
- **CVL-GEN**
- **CBD2-CC1-1008**
- **TBPE Firm No. F-754**
- **HDR Engineering, Inc.**
- **A. Stahlnecker, P.E. No. 124571**
- **On 10/30/2020**
- **PRELIMINARY 30% DESIGN NOT AN APPROVED DRAWING NOT FOR CONSTRUCTION**
- **DEFLECTION**
### Horizontal Alignment Data

**Line Section:** CBD-2 WB Track  
**Centerline of Westbound Track**

#### Notes:
1. Grid Coordinates = Surface Coordinates x 0.999863513
2. Coordinates shown herein are based on the Texas State Plane Coordinate System, NAD83, U.S. Coordinate System.
3. Curve radii are based on the chord definition.

#### Curve Table

<table>
<thead>
<tr>
<th>Curve Name</th>
<th>Pt</th>
<th>Ln</th>
<th>Chainage</th>
<th>Northing</th>
<th>Easting</th>
<th>Chord Length</th>
<th>Degree of Curve</th>
<th>Speed (MPH)</th>
<th>Passenger Angle</th>
<th>Deflection Angle</th>
</tr>
</thead>
<tbody>
<tr>
<td>PC</td>
<td>64+30.71</td>
<td>0611135.02</td>
<td>2491547.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBD2-01</td>
<td>66+02.80</td>
<td>0617150.87</td>
<td>2491135.80</td>
<td>R = 11628.17</td>
<td>0.00</td>
<td>0.14</td>
<td>20</td>
<td>51° 00' 00&quot; Signl</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PT</td>
<td>66+02.80</td>
<td>0611135.02</td>
<td>2491547.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC</td>
<td>67+19.30</td>
<td>0611284.53</td>
<td>2492228.75</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CBD2-03</td>
<td>68+15.04</td>
<td>0611284.53</td>
<td>2491484.06</td>
<td>R = 11628.17</td>
<td>0.00</td>
<td>0.14</td>
<td>20</td>
<td>51° 00' 00&quot; Signl</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PT</td>
<td>68+15.04</td>
<td>0611284.53</td>
<td>2491484.06</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PC</td>
<td>70+89.45</td>
<td>0611335.21</td>
<td>2491803.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>70+89.45</td>
<td>0611335.21</td>
<td>2491803.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDC-06</td>
<td>70+89.45</td>
<td>0611335.21</td>
<td>2491803.86</td>
<td>R = 320.00</td>
<td>01° 00' 00&quot;</td>
<td>Right</td>
<td>55° 51' 56&quot;</td>
<td>15</td>
<td>55° 51' 56&quot;</td>
<td>15</td>
</tr>
<tr>
<td>CS</td>
<td>70+89.45</td>
<td>0611335.21</td>
<td>2491803.86</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI</td>
<td>72+48.49</td>
<td>0611664.95</td>
<td>2492526.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS</td>
<td>72+48.49</td>
<td>0611664.95</td>
<td>2492526.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>72+48.49</td>
<td>0611664.95</td>
<td>2492526.71</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDC-08</td>
<td>76+10.70</td>
<td>0611744.20</td>
<td>2492715.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>76+10.70</td>
<td>0611744.20</td>
<td>2492715.10</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI</td>
<td>78+08.85</td>
<td>0611702.10</td>
<td>2492914.54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS</td>
<td>78+08.85</td>
<td>0611702.10</td>
<td>2492914.54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>78+08.85</td>
<td>0611702.10</td>
<td>2492914.54</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDC-11</td>
<td>82+30.25</td>
<td>0611844.44</td>
<td>2493382.22</td>
<td>R = 4015.90</td>
<td>0.50</td>
<td>0.64</td>
<td>25</td>
<td>03° 32' 40&quot; Signl</td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>82+30.25</td>
<td>0611844.44</td>
<td>2493382.22</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI</td>
<td>83+34.49</td>
<td>0611872.11</td>
<td>2493619.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS</td>
<td>83+34.49</td>
<td>0611872.11</td>
<td>2493619.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>83+34.49</td>
<td>0611872.11</td>
<td>2493619.66</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDC-13</td>
<td>87+68.24</td>
<td>0611894.19</td>
<td>2493888.94</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>87+68.24</td>
<td>0611894.19</td>
<td>2493888.94</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI</td>
<td>90+10.70</td>
<td>0611902.10</td>
<td>2494022.91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS</td>
<td>90+10.70</td>
<td>0611902.10</td>
<td>2494022.91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>90+10.70</td>
<td>0611902.10</td>
<td>2494022.91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CDC-15</td>
<td>93+62.21</td>
<td>0611902.10</td>
<td>2494022.91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>93+62.21</td>
<td>0611902.10</td>
<td>2494022.91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI</td>
<td>96+12.36</td>
<td>0611902.10</td>
<td>2494022.91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TS</td>
<td>96+12.36</td>
<td>0611902.10</td>
<td>2494022.91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>96+12.36</td>
<td>0611902.10</td>
<td>2494022.91</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Definition:
- Curve radii are based on the chord definition.
- 1. Grid coordinates = Surface coordinates x 0.999863513
- 2. Coordinates shown herein are based on the Texas State Plane Coordinate System, NAD83, U.S. Coordinate System.
- 3. Curve radii are based on the chord definition.
<table>
<thead>
<tr>
<th>CURVE NAME</th>
<th>MILE</th>
<th>CHAINAGE</th>
<th>NORTHING</th>
<th>EASTING</th>
<th>ELEMENT</th>
<th>LENGTH</th>
<th>DEGREE OF CURVATURE</th>
<th>Ex</th>
<th>Ey</th>
<th>Passenger Angle</th>
<th>Deflection Angle</th>
<th>DEPICTION MEAS</th>
<th>DEPICTION MEAS</th>
</tr>
</thead>
<tbody>
<tr>
<td>TS</td>
<td>129+01.64</td>
<td>607387.48</td>
<td>2495339.35</td>
<td></td>
<td>SPIRAL</td>
<td>60.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.52' 09' 21.15'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI</td>
<td>113+02.28</td>
<td>607394.19</td>
<td>2495069.86</td>
<td></td>
<td>SPIRAL</td>
<td>60.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.52' 44' 35.01'</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>114+40.36</td>
<td>607398.84</td>
<td>2495034.86</td>
<td></td>
<td>STRAIGHT</td>
<td>31.42</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>0.52' 03' 24.01'</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

NOTES:
1. GRID COORDINATES = SURVEY COORDINATES X 0.999863513
2. COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM, State Plane Coordinate 1983, U.T.M.
3. CURVE RADII ARE BASED ON THE CHORD DEFINITION.

CENTERLINE OF WESTBOUND TRACK
LINE SECTION CBD-2 WB TRACK
HORIZONTAL ALIGNMENT DATA
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
NOT FOR CONSTRUCTION
### Horizontal Alignment Data

#### Centerline of Southbound Track

**Line Section SE-1 SB Track**

<table>
<thead>
<tr>
<th>Curve Name</th>
<th>Point</th>
<th>CHORD</th>
<th>TANGENT</th>
<th>LENGTH</th>
<th>DEGREE OF CURVATURE</th>
<th>EX</th>
<th>Ey</th>
<th>Passenger Speed</th>
<th>Deflection Angle</th>
<th>Bearing</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT</td>
<td>0</td>
<td>983</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T1</td>
<td>5-05</td>
<td>984</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25° 15' 00&quot;</td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>10-40</td>
<td>984</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25° 15' 00&quot;</td>
<td></td>
</tr>
<tr>
<td>PT+4</td>
<td>11-05</td>
<td>984</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>11-40</td>
<td>985</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI</td>
<td>12-30</td>
<td>985</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T5</td>
<td>13-40</td>
<td>985</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>15-35</td>
<td>985</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PT+4</td>
<td>16-45</td>
<td>985</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>20-45</td>
<td>986</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI</td>
<td>25-15</td>
<td>986</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>T5</td>
<td>27-15</td>
<td>986</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>30-30</td>
<td>986</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PT+4</td>
<td>32-45</td>
<td>986</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>36-45</td>
<td>986</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI</td>
<td>40-20</td>
<td>986</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F1</td>
<td>38-28</td>
<td>986</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>40-28</td>
<td>986</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI</td>
<td>42-19</td>
<td>986</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>F2</td>
<td>43-29</td>
<td>986</td>
<td>0</td>
<td>0.000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Notes:**

1. Grid Coordinates = SURFACE COORDINATES X 0.999863513
2. Coordinates shown herein are based on the Texas State Plane Coordinate System (NAD83, U.G., survey 1983).
3. Curve Radii are based on the chord definition.

**Definitions:**

- R = Curve Radius
- Dc = Degree of Curve
- E = Excess
- Ey = Excess
- SI = Straight Line
- PS = Spiral
- Sc = Chord of Curve
- PI = Point of Curvature
- CS = Center of Curve
- ST = Point of Straight

**Survey Data:**

- L. GUBLO
- D. BROWN

**Light Rail Transit System Line Section CBD-2**

**Centerline of Southbound Track**

**In-Progress**

**Contract Sheet No.:**

**Not for Construction**

**Not an Approved Drawing**

**Pre-Construction 30% Design**

**Contract No.:**

**See 1001**
## Horizontal Alignment Data

### Centerline of Northbound Track

### TABLE

<table>
<thead>
<tr>
<th>Curve Name</th>
<th>Point</th>
<th>Change</th>
<th>Station</th>
<th>Chainage</th>
<th>Northing</th>
<th>Easting</th>
<th>Length</th>
<th>Degree of curvature</th>
<th>Ex</th>
<th>Ey</th>
<th>Passenger Load</th>
<th>Deflection</th>
<th>Heading</th>
</tr>
</thead>
<tbody>
<tr>
<td>PT1</td>
<td>0+00.74</td>
<td>667469.12</td>
<td>2493082.16</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>TS</td>
<td>10+31.38</td>
<td>667466.04</td>
<td>249307.31</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>10+98.38</td>
<td>667464.25</td>
<td>2493082.06</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>M1-M</td>
<td>11+65.11</td>
<td>667457.27</td>
<td>2493082.11</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>12+38.08</td>
<td>667455.20</td>
<td>2494012.08</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>S1</td>
<td>12+53.44</td>
<td>667455.20</td>
<td>2494044.24</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>PS</td>
<td>19+21.53</td>
<td>667428.28</td>
<td>2494019.39</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>19+91.65</td>
<td>667414.20</td>
<td>2494086.20</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>M1-M</td>
<td>20+40.96</td>
<td>667410.28</td>
<td>2494051.59</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>21+20.29</td>
<td>667422.77</td>
<td>2494081.29</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>S1</td>
<td>22+50.29</td>
<td>667420.00</td>
<td>2494082.29</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>TS</td>
<td>35+60.74</td>
<td>667323.02</td>
<td>2494111.90</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>SC</td>
<td>36+28.74</td>
<td>667313.27</td>
<td>2494062.13</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>M1-M</td>
<td>47+41.50</td>
<td>667305.05</td>
<td>2494085.45</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>50+59.71</td>
<td>667318.01</td>
<td>2495139.60</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>S1</td>
<td>51+92.77</td>
<td>667303.10</td>
<td>2495062.11</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>PT2</td>
<td>52+04.40</td>
<td>667292.00</td>
<td>2495114.30</td>
<td>1</td>
<td>89.30</td>
<td>0.00</td>
<td>0.00</td>
<td>1</td>
<td>0</td>
<td></td>
<td></td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>

### Notes:
1. Grid coordinates = SURFACE COORDINATES X 0.999863513
2. Coordinates shown herein are based on the Texas State Plane Coordinate System, North Central Zone, U.T.M.
3. Curve radii are based on the chord definition.
4. Centerline of Northbound Track
5. Horizontal alignment data
6. Preliminary 30% design

---

**DART Project**

**Line Section SE-1 NB**

**Light Rail Transit System**

**Centerline of Northbound Track**

**Contract Sheet No.** 03-1012
### Horizontal Alignment Data

**Centerline of Eastbound Track**

#### Curve Table

<table>
<thead>
<tr>
<th>Curve Name</th>
<th>Point</th>
<th>Chainage</th>
<th>Northing</th>
<th>Easting</th>
<th>Length</th>
<th>Degree of Curve</th>
<th>Ex</th>
<th>Ey</th>
<th>Passenger Speed</th>
<th>Deflection Angle</th>
<th>Bearing</th>
</tr>
</thead>
<tbody>
<tr>
<td>POB</td>
<td>10+00.00</td>
<td>6973816.33</td>
<td>2494417.19</td>
<td></td>
<td></td>
<td>30.30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PJ</td>
<td>10+30.96</td>
<td>6973899.00</td>
<td>2494441.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>NS</td>
<td>11+02.26</td>
<td>6973972.00</td>
<td>2494464.72</td>
<td></td>
<td></td>
<td>30.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GC</td>
<td>11+50.26</td>
<td>6974046.15</td>
<td>2494498.32</td>
<td></td>
<td></td>
<td>30.20</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WYE-A</td>
<td>12+47.30</td>
<td>6974140.15</td>
<td>2494523.04</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CS</td>
<td>13+25.29</td>
<td>6974223.54</td>
<td>2494547.16</td>
<td></td>
<td></td>
<td>30.96</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SI</td>
<td>15+35.29</td>
<td>6974320.89</td>
<td>2494575.57</td>
<td></td>
<td></td>
<td>31.00</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PI</td>
<td>16+20.96</td>
<td>6974394.20</td>
<td>2494562.64</td>
<td></td>
<td></td>
<td>30.30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>POE</td>
<td>16+60.32</td>
<td>6974434.82</td>
<td>2494593.08</td>
<td></td>
<td></td>
<td>30.30</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### Notes

1. Grid coordinates = survey coordinates x 0.999863513
2. Coordinates shown herein are based on the Texas State Plane coordinate system, NAD83, U.S. survey foot.
3. Curve radii are based on the chord definition.

---

**Light Rail Transit System**

**Line Section CSD-2**

**VYE-CO**

**Horizontal Alignment Data**

**Centerline of Eastbound Track**

---

**In-Progress**

---

**DART Project**

---

**Contract No.: OCL-1013**
# Horizontal Alignment Data

**Line Section: WYE-WB Track**

## Centerline of Westbound Track

<table>
<thead>
<tr>
<th>Curve Name</th>
<th>R</th>
<th>Dc</th>
<th>Bearing</th>
<th>Chainage</th>
<th>Northing</th>
<th>Easting</th>
<th>Length</th>
<th>Degree of Curvature</th>
<th>Ex</th>
<th>Exa</th>
<th>Passenger Speed</th>
<th>Deflection Angle (°)</th>
<th>Riding</th>
</tr>
</thead>
<tbody>
<tr>
<td>PoB</td>
<td>100</td>
<td>200</td>
<td>N 57° 08' 21.13&quot; E</td>
<td>10+40.0</td>
<td>697394.25</td>
<td>2494493.35</td>
<td>72.09</td>
<td>30.96</td>
<td>0.50</td>
<td>1.10</td>
<td>10</td>
<td>60° 05' 57&quot; Left</td>
<td>30.96</td>
</tr>
<tr>
<td>PoB</td>
<td>100</td>
<td>200</td>
<td>N 57° 08' 21.13&quot; E</td>
<td>10+50.0</td>
<td>697394.25</td>
<td>2494493.35</td>
<td>72.09</td>
<td>30.96</td>
<td>0.50</td>
<td>1.10</td>
<td>10</td>
<td>60° 05' 57&quot; Left</td>
<td>30.96</td>
</tr>
<tr>
<td>PoB</td>
<td>100</td>
<td>200</td>
<td>N 57° 08' 21.13&quot; E</td>
<td>11+15.99</td>
<td>697380.44</td>
<td>2494468.15</td>
<td>30.00</td>
<td>30.00</td>
<td>0.50</td>
<td>1.10</td>
<td>10</td>
<td>60° 05' 57&quot; Left</td>
<td>30.00</td>
</tr>
<tr>
<td>PoB</td>
<td>100</td>
<td>200</td>
<td>N 57° 08' 21.13&quot; E</td>
<td>11+33.05</td>
<td>697404.95</td>
<td>2494453.15</td>
<td>349.50</td>
<td>0.50</td>
<td>1.10</td>
<td>10</td>
<td>60° 05' 57&quot; Left</td>
<td>349.50</td>
<td></td>
</tr>
<tr>
<td>PoB</td>
<td>100</td>
<td>200</td>
<td>N 57° 08' 21.13&quot; E</td>
<td>11+51.54</td>
<td>697425.44</td>
<td>2494460.05</td>
<td>30.96</td>
<td>30.96</td>
<td>0.50</td>
<td>1.10</td>
<td>10</td>
<td>60° 05' 57&quot; Left</td>
<td>30.96</td>
</tr>
<tr>
<td>PoB</td>
<td>100</td>
<td>200</td>
<td>N 57° 08' 21.13&quot; E</td>
<td>12+43.19</td>
<td>697426.60</td>
<td>2494454.60</td>
<td>30.96</td>
<td>30.96</td>
<td>0.50</td>
<td>1.10</td>
<td>10</td>
<td>60° 05' 57&quot; Left</td>
<td>30.96</td>
</tr>
<tr>
<td>PoB</td>
<td>100</td>
<td>200</td>
<td>N 57° 08' 21.13&quot; E</td>
<td>12+79.13</td>
<td>697405.60</td>
<td>2494477.88</td>
<td>30.96</td>
<td>30.96</td>
<td>0.50</td>
<td>1.10</td>
<td>10</td>
<td>60° 05' 57&quot; Left</td>
<td>30.96</td>
</tr>
<tr>
<td>PoB</td>
<td>100</td>
<td>200</td>
<td>N 57° 08' 21.13&quot; E</td>
<td>12+11.07</td>
<td>697402.69</td>
<td>2494454.80</td>
<td>30.96</td>
<td>30.96</td>
<td>0.50</td>
<td>1.10</td>
<td>10</td>
<td>60° 05' 57&quot; Left</td>
<td>30.96</td>
</tr>
</tbody>
</table>

**Notes:**
1. **GRID COORDINATES:** SURFACE COORDINATES X 0.999863513
2. **COORDINATES SHOWN HEREON ARE BASED ON THE TEXAS STATE PLANE COORDINATE SYSTEM (T.S.P.C.S.), U.S.G.S. SURVEY grids.
3. CURVE RADII ARE BASED ON THE CHORD DEFINITION.

---

**IN-PROGRESS**

---

**DART PROJECT**

---

**LIGHT RAIL TRANSIT SYSTEM**

---

**LINE SECTION CSO-2**

---

**WYE-40**

---

**HORIZONTAL ALIGNMENT DATA**

---

**CENTERLINE OF WESTBOUND TRACK**

---

**NOT FOR CONSTRUCTION**

---

**NOT AN APPROVED DRAWING**

---

**PRELIMINARY 30% DESIGN**

---

**CONTRACT SHEET NO.: 41 OF 288**

---

**CONTRACT NO.: 011-1014**

---

**TLG: 2014-10-30**

---

**DEVELOPER:** HDR ENGINEERING, INC.

---

**DATE:** 10/30/2020

---

**IN THE PRODUCTION OF THIS DOCUMENT, THE CONTRACTOR IS COMPLIANT WITH THE TEXAS TRANSPORTATION INDEPENDENT CONTRACTOR CERTIFICATE OF CAPABILITY (TCR-107), TEXAS DEPARTMENT OF TRANSPORTATION.**

---

**PRELIMINARY**: NOT AN APPROVED DRAWING

---

**BIDDING OR PERMIT PURPOSES.**
Notes:
1. All sections are looking upstation, with all stationing based on the centerline of the
eastbound track for CBD2 and westbound track for SE-1, unless otherwise noted.
2. See structural standards for details of track elements. Details are provided for final
design/contractor information only.
3. Catenary pole locations are typical and only shown as an illustration. All other elements shown are
designed as part of the final design.
4. In curves and transitions, the top of the low rail, on the inside of the curve, is 10'-0".
5. See guideway plan and profile sheets for details and limits of horizontal and vertical track
demetry and wall locations.
6. See tunnel sheets for tunnel, cut and cover, and portal, typical sections.
7. See architectural sheets for details through stations.
8. Proposed fence as shown on plans. Minimum distance from track centerline is 15'.

1. All sections are looking upstation, with all stationing based on the centerline of the
eastbound track for CBD2 and westbound track for SE-1, unless otherwise noted.
2. See structural standards for details of track elements. Details are provided for final
design/contractor information only.
3. Catenary pole locations are typical and only shown as an illustration. All other elements shown are
designed as part of the final design.
4. In curves and transitions, the top of the low rail, on the inside of the curve, is 10'-0".
5. See guideway plan and profile sheets for details and limits of horizontal and vertical track
demetry and wall locations.
6. See tunnel sheets for tunnel, cut and cover, and portal, typical sections.
7. See architectural sheets for details through stations.
8. Proposed fence as shown on plans. Minimum distance from track centerline is 15'.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

BEGIN PROJECT TO STA 14+00.00
GUIDEWAY PLAN AND PROFILE
LINE SECTION CBD-2
LIGHT RAIL TRANSIT SYSTEM

EXISTING GROUND ELEV
PROPOSED TOP OF RAIL ELEV

EXISTING DART LINE TO REMOVE
EXISTING DART LINE TO REMOVE

PROPOSED TOP OF RAIL
PROPOSED DIAMOND

1" = 40'
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

GUIDEWAY PLAN AND PROFILE
STA 14+00.00 TO STA 21+00.00

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

IN-PROGRESS

DART PROJECT

HDR

GPC

L. GUBLO
A. STAHLNECKER
D. BROWN
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

STA 28+00.00 TO STA 30+00.00

1. FOR PROPOSED ROW FENCE ALONG THE PEDESTRIAN WALKWAY UNDER WOODALL RODGERS FREEWAY, FINAL DESIGNER SHALL COORDINATE THE FENCE TREATMENT WITH THE CITY OF DALLAS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
GUIDEWAY PLAN AND PROFILE
STA 44+00.00 TO STA 51+00.00

IN-PROGRESS

NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

L. GUBLO

DATE
MONDAY, OCTOBER 26, 2020 09:58:35 AM

DATE

AMEND DESCRIPTION

REV

CS 48+

DWG No.

CR

48+

45+

M O N D A Y , O C T O B E R 2 6 , 2 0 2 0  0 9 : 5 8 : 3 5 A M
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

STA 28+00.00 TO END PROJECT

CONTRACT SHEET No. CC1-0019

L. GUBLO
A. STAHLNECKER
D. BROWN
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. FOR PROPOSED ROW FENCE ALONG THE LRT GUIDEWAY, FINAL DESIGN SHALL CONFORM TO THE FENCE TREATMENTS WITH THE CITY OF DALLAS.

NOTES:
1. FOR PROPOSED ROW FENCE ALONG THE LRT GUIDEWAY, FINAL DESIGN SHALL CONFORM TO THE FENCE TREATMENTS WITH THE CITY OF DALLAS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
2. GRAVING LIMITED BY AVAILABLE EXISTING GROUND SURVEY.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
   OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

2. CROSS SECTIONS ARE LIMITS BY AVAILABLE EXISTING GROUND SURVEY.

Notes:

- Survey

- GRADING LIMITED BY AVAILABLE EXISTING GROUND
  DISCIPLINE SHEETS.
- OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
- ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. ONLY VARIOUS FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
2. GRADING LIMITED BY AVAILABLE EXISTING GROUND SURVEY.

NOTES:

sta 16+00.00 to sta 17+50.00
GUIDEWAY CROSS SECTIONS
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
DART PROJECT

IN-PROGRESS

DIM.
SHEET
DRAWN
REV.
AS NOTED
IN CHARGE
CHECKED
DESIGNED
DRAWN
SCALE
CONTRACT
DWG No.
CONTRACT SHEET No.

TBPE FIRM NO. F-754
HDR ENGINEERING, INC.
ON 10/30/2020
AMANDA C. STAHLNECKER, P.E. NO. 124571

PRELIMINARY 30% DESIGN
NOT AN APPROVED DRAWING
NOT FOR CONSTRUCTION
PRELIMINARY 30% DESIGN
NOT FOR CONSTRUCTION

NOT AN APPROVED DRAWING

PRELIMINARY 30% DESIGN

STA 18+00.00 TO STA 19+50.00

GUIDEWAY CROSS SECTIONS

CBD-2

CC8-0005

A. STAHLNECKER

D. BROWN

L. GUBLO

L. GUBLO

AS NOTED

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DART PROJECT

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 28+00.00 TO STA 29+50.00

0100-030
Rev. no
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

IN-PROGRESS

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM DISCIPLINE SHEETS.

DART PROJECT
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CBD-2
GUIDEWAY CROSS SECTIONS
STA 30+00.00 TO STA 31+50.00

IN PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM DISCIPLINE SHEETS.

DART PROJECT
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CBD-2
GUIDEWAY CROSS SECTIONS
STA 30+00.00 TO STA 31+50.00

IN PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION

NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE AUTHORITY OF:

TBPE FIRM NO. F-754
HDR ENGINEERING, INC.
ON 10/30/2020

AMANDA C. STAHLNECKER, P.E. NO. 124571

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
GUIDEWAY CROSS SECTIONS
STA 32+00.00 TO STA 33+50.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
10/30/2020

STA 35+50.00 TO STA 37+00.00

GUIDEWAY CROSS SECTIONS

CBD-2
CC8-0014

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
This document is a Preliminary 30% Design of Light Rail Transit System Line Section CBD-2 for STA 43+00.00 to STA 44+00.00. It is not an approved drawing and is not for construction purposes. Only track features displayed on cross sections can be referenced from specific discipline sheets.

Notes:
1. Only track features displayed on cross sections. Other features can be referenced from specific discipline sheets.

Scale:
- Vertical (in feet):
  0 2.5 7.5
- Horizontal:
  0 10 20 40

Contract Sheet No.: C08-0018

PRELIMINARY 30% DESIGN
NOT AN APPROVED DRAWING
NOT FOR CONSTRUCTION

TBPE FIRM NO. F-754
HDR ENGINEERING, INC.
ON 10/30/2020
AMANDA C. STAHLNECKER, P.E. NO. 124571

IN-PROGRESS
DART PROJECT
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
C08-2
GUIDEWAY CROSS SECTIONS
STA 43+00.00 TO STA 44+00.00

IN PROGRESS

DISCIPLINE SHEETS.
NOTES:
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
GUIDEWAY CROSS SECTIONS
STA 44+50.00 TO STA 46+00.00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

GUIDEWAY CROSS SECTIONS
CBD-2

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
10/30/2020

TBPE FIRM NO. F-754
HDR ENGINEERING, INC.
ON 10/30/2020
AMANDA C. STAHLNECKER, P.E. NO. 124571

IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

GUIDEWAY CROSS SECTIONS
STA 50+50.00 TO STA 52+00.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN PROGRESS

CONTRACT SHEET NO. 105 OF 288

DISCIPLINED SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

STA 56+50.00 TO STA 57+00.00
GUIDEWAY CROSS SECTIONS

CBD-2
CC8-0026

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

VERT SCALE (IN FEET)
HORIZ SCALE (IN FEET)
DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION

NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

10/30/2020

A. STAHLNECKER, P.E. NO. 124571

TBPE FIRM NO. F-754
HDR ENGINEERING, INC.

ON 10/30/2020

FOR THE PURPOSE OF REVIEW UNDER THE
THIS DOCUMENT IS RELEASED
D E F A U L T
L G U B L O
M O N D A Y , O C T O B E R 2 6 , 2 0 2 0  1 0 : 1 9 : 2 8  A M

IN-PROGRESS

DART PROJECT
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
GUIDEWAY CROSS SECTIONS
STA 62+00 TO STA 63+50.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

CC8-0030
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
10/30/2020
IN PROGRESS
AUTHER OF:
FOR THE PURPOSE OF REVIEW UNDER THE
THIS DOCUMENT IS RELEASED

L. GUBLO
A. STAHLNECKER
D. BROWN

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON Cross SECTIONS.
OBSERS FEATURES CAN BE REFERENCED FROM SPECIFIC

SCALE (IN FEET)
SCALE (IN FEET)

0
5
10
20
2.5
7.5

0
10
20
5
10

0
10
20
5
10

94          288
94          288
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

In-Progress

DART Project

Light Rail Transit System
Line Section CBD-2

Guideway Cross Sections
STA 65+00.00 to STA 65+50.00

NOTES:
1. Only track features displayed on cross sections. Other features can be referenced from specific discipline sheets.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. Only track features displayed on cross sections. Other features can be referenced from specific discipline sheets.

STA 68+00.00 TO STA 68+50.00
GUIDEWAY CROSS SECTIONS
CBD-2

NOTES:

VERT SCALE (IN FEET) HORIZ SCALE (IN FEET)

0 0
10 10
40 40
20 20
5 2.5
7.5

IN-PROGRESS

DART PROJECT

LIGHT RAIL TRANSIT SYSTEM

LINE SECTION CBD-2

CBD-2 GUIDEWAY CROSS SECTIONS
STA 68+00.00 TO STA 68+50.00

HDR

NPC

DART

98 OF 288

A. STAHLNECKER

D. BROWN

L. GUBLF

AS NOTED

0

-20
340
340
350
350
360
360
370
370
380
380
-80
-60
-40
-20
20
40
60
80
100
-80
-60
-40
-20
20
40
60
80
100
-20
-40
-60
-80
-100

68+00
68+50

68+50
NOT FOR CONSTRUCTION

NOT AN APPROVED DRAWING

PRELIMINARY 30% DESIGN

IN-PROGRESS

DART PROJECT

LIGHT RAIL TRANSIT SYSTEM

LINE SECTION CBD-2

GUIDEWAY CROSS SECTIONS

STA 69+00.00 TO STA 69+50.00

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
STA 71+00.00 TO STA 71+50.00

GUIDEWAY CROSS SECTIONS

CBD-2

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

IT IS NOT TO BE USED FOR CONSTRUCTION,
BIDDING OR PERMIT PURPOSES.

NOTE:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

STA 74+00.00 TO STA 75+00.00
GUIDEWAY CROSS SECTIONS

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION

NOT AN APPROVED DRAWING

PRELIMINARY 30% DESIGN

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIAL DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
BIDDING OR PERMIT PURPOSES.
IT IS NOT TO BE USED FOR CONSTRUCTION,
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

STA 77+50.00 TO STA 79+00.00
GUIDEWAY CROSS SECTIONS
CBD-2
CC8-0043
A. STAHLNECKER
D. BROWN
L. GUBLO
AS NOTED

VERT SCALE (IN FEET)
HORIZ SCALE (IN FEET)
0 2.5 7.5 20 40 10
0 10

IN-PROGRESS
DART PROJECT
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CBD-2
GUIDEWAY CROSS SECTIONS
STA 77+50.00 TO STA 79+00.00

NOTES:

NOTES:
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

STA 83+50.00 TO STA 85+00.00
GUIDEWAY CROSS SECTIONS

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

CBD-2
GUIDEWAY CROSS SECTIONS
STA 83+50.00 TO STA 85+00.00

IN-PROGRESS
DART PROJECT

HDR ENGINEERING, INC.
ON 10/30/2020
AMANDA C. STAHLNECKER, P.E. NO. 124571

PRELIMINARY 30% DESIGN
NOT AN APPROVED DRAWING
NOT FOR CONSTRUCTION
GUIDEWAY CROSS SECTIONS

STA 85+50.00 TO STA 86+50.00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
10/30/2020

BIDDING OR PERMIT PURPOSES.
IT IS NOT TO BE USED FOR CONSTRUCTION,
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

GUIDEWAY CROSS SECTIONS
CBD-2
CC8-0048

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
2. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS
DART PROJECT
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STA 87+00.00 TO STA 88+50.00

CONTRACT SHEET No. 111 OF 288
NOT FOR CONSTRUCTION

NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

STA 89+00.00 TO STA 90+50.00
GUIDEWAY CROSS SECTIONS

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

LINE SECTION CBD-2
GUIDEWAY CROSS SECTIONS
STA 91+00.00 TO STA 92+00.00

NOTES:

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. Only track features displayed on cross sections. Other features can be referenced from specific discipline sheets.

S T A 92+50.00 TO STA 94+00.00
GUIDEWAY CROSS SECTIONS

NOTES:

IN-PROGRESS
CONTRACT SHEET No. 114 OF 288
LINE SECTION CBD-2
LIGHT RAIL TRANSIT SYSTEM
CBD-2
GUIDEWAY CROSS SECTIONS
STA 92+50.00 TO STA 94+00.00

D T R A CT
D O C U M E N T S
S C H E M E S
D R A W I N G S
M O D I F I C A T I O N S
P H O T O S
C O N T R A C T S
F I L E S
C O N S T R U C T I O N
D I R E C T I O N S
S P E C I F I C AT I O N S
P R O O F S
M A N U A L S
P R O T O T Y P E S
A V A I L A B L E E D I T I O N S
A V A I L A B L E M O D I F I C A T I O N S
A V A I L A B L E M A N U A L S
A V A I L A B L E P R O T O T Y P E S
I N-PROGRESS
CONTRACT SHEET No. 114 OF 288
LINE SECTION CBD-2
LIGHT RAIL TRANSIT SYSTEM
CBD-2
GUIDEWAY CROSS SECTIONS
STA 92+50.00 TO STA 94+00.00

D T R A CT
D O C U M E N T S
S C H E M E S
D R A W I N G S
M O D I F I C A T I O N S
P H O T O S
C O N T R A C T S
F I L E S
C O N S T R U C T I O N
D I R E C T I O N S
S P E C I F I C AT I O N S
P R O O F S
M A N U A L S
P R O T O T Y P E S
A V A I L A B L E E D I T I O N S
A V A I L A B L E M O D I F I C A T I O N S
A V A I L A B L E M A N U A L S
A V A I L A B L E P R O T O T Y P E S
I N-PROGRESS
CONTRACT SHEET No. 114 OF 288
LINE SECTION CBD-2
LIGHT RAIL TRANSIT SYSTEM
CBD-2
GUIDEWAY CROSS SECTIONS
STA 92+50.00 TO STA 94+00.00

D T R A CT
D O C U M E N T S
S C H E M E S
D R A W I N G S
M O D I F I C A T I O N S
P H O T O S
C O N T R A C T S
F I L E S
C O N S T R U C T I O N
D I R E C T I O N S
S P E C I F I C AT I O N S
P R O O F S
M A N U A L S
P R O T O T Y P E S
A V A I L A B L E E D I T I O N S
A V A I L A B L E M O D I F I C A T I O N S
A V A I L A B L E M A N U A L S
A V A I L A B L E P R O T O T Y P E S
I N-PROGRESS
CONTRACT SHEET No. 114 OF 288
LINE SECTION CBD-2
LIGHT RAIL TRANSIT SYSTEM
CBD-2
GUIDEWAY CROSS SECTIONS
STA 92+50.00 TO STA 94+00.00

D T R A CT
D O C U M E N T S
S C H E M E S
D R A W I N G S
M O D I F I C A T I O N S
P H O T O S
C O N T R A C T S
F I L E S
C O N S T R U C T I O N
D I R E C T I O N S
S P E C I F I C AT I O N S
P R O O F S
M A N U A L S
P R O T O T Y P E S
A V A I L A B L E E D I T I O N S
A V A I L A B L E M O D I F I C A T I O N S
A V A I L A B L E M A N U A L S
A V A I L A B L E P R O T O T Y P E S
I N-PROGRESS
CONTRACT SHEET No. 114 OF 288
LINE SECTION CBD-2
LIGHT RAIL TRANSIT SYSTEM
CBD-2
GUIDEWAY CROSS SECTIONS
STA 92+50.00 TO STA 94+00.00

D T R A CT
D O C U M E N T S
S C H E M E S
D R A W I N G S
M O D I F I C A T I O N S
P H O T O S
C O N T R A C T S
F I L E S
C O N S T R U C T I O N
D I R E C T I O N S
S P E C I F I C AT I O N S
P R O O F S
M A N U A L S
P R O T O T Y P E S
A V A I L A B L E E D I T I O N S
A V A I L A B L E M O D I F I C A T I O N S
A V A I L A B L E M A N U A L S
A V A I L A B L E P R O T O T Y P E S
I N-PROGRESS
CONTRACT SHEET No. 114 OF 288
LINE SECTION CBD-2
LIGHT RAIL TRANSIT SYSTEM
CBD-2
GUIDEWAY CROSS SECTIONS
STA 92+50.00 TO STA 94+00.00

D T R A CT
D O C U M E N T S
S C H E M E S
D R A W I N G S
M O D I F I C A T I O N S
P H O T O S
C O N T R A C T S
F I L E S
C O N S T R U C T I O N
D I R E C T I O N S
S P E C I F I C AT I O N S
P R O O F S
M A N U A L S
P R O T O T Y P E S
A V A I L A B L E E D I T I O N S
A V A I L A B L E M O D I F I C A T I O N S
A V A I L A B L E M A N U A L S
A V A I L A B L E P R O T O T Y P E S
I N-PROGRESS
CONTRACT SHEET No. 114 OF 288
LINE SECTION CBD-2
LIGHT RAIL TRANSIT SYSTEM
CBD-2
GUIDEWAY CROSS SECTIONS
STA 92+50.00 TO STA 94+00.00

D T R A CT
D O C U M E N T S
S C H E M E S
D R A W I N G S
M O D I F I C A T I O N S
P H O T O S
C O N T R A C T S
F I L E S
C O N S T R U C T I O N
D I R E C T I O N S
S P E C I F I C AT I O N S
P R O O F S
M A N U A L S
P R O T O T Y P E S
A V A I L A B L E E D I T I O N S
A V A I L A B L E M O D I F I C A T I O N S
A V A I L A B L E M A N U A L S
A V A I L A B L E P R O T O T Y P E S
NOT FOR CONSTRUCTION

NOT AN APPROVED DRAWING

PRELIMINARY 30% DESIGN

NOT FOR BIDDING OR PERMIT PURPOSES.

IT IS NOT TO BE USED FOR CONSTRUCTION,
DISCIPLINE SHEETS.

1. ONLY TRACK FEATURES Displayed ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
10/30/2020

ASA 96+50.00 TO ASA 97+00.00
GUIDEWAY CROSS SECTIONS
CBD-2
CC8-0053

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
10/30/2020
AMANDA C. STAHLNECKER, P.E. NO. 124571

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
10/30/2020

ライトレール・トランジット・システム
ラインセクションCBD-2

ガイドウェイ・カット・セクション
STA 98+50.00 TO STA 100+00.00

 NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
THESE FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

GUIDEWAY CROSS SECTIONS
CBD-2
STA 100+50.00 TO STA 102+00.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CBD-2
GUIDEWAY CROSS SECTIONS
STA 100+50.00 TO STA 102+00.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CBD-2
GUIDEWAY CROSS SECTIONS
STA 100+50.00 TO STA 102+00.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CBD-2
GUIDEWAY CROSS SECTIONS
STA 100+50.00 TO STA 102+00.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CBD-2
GUIDEWAY CROSS SECTIONS
STA 100+50.00 TO STA 102+00.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CBD-2
GUIDEWAY CROSS SECTIONS
STA 100+50.00 TO STA 102+00.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

IN-PROGRESS
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CBD-2
GUIDEWAY CROSS SECTIONS
STA 100+50.00 TO STA 102+00.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

IN PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CC8-0060

GUIDEWAY CROSS SECTIONS STA 107+50.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

SHEET
IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CC8-0060

GUIDEWAY CROSS SECTIONS STA 107+50.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

SHEET
IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CC8-0060

GUIDEWAY CROSS SECTIONS STA 107+50.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

SHEET
IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CC8-0060

GUIDEWAY CROSS SECTIONS STA 107+50.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

SHEET
IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CC8-0060

GUIDEWAY CROSS SECTIONS STA 107+50.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

SHEET
IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CC8-0060

GUIDEWAY CROSS SECTIONS STA 107+50.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

SHEET
IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CC8-0060

GUIDEWAY CROSS SECTIONS STA 107+50.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

SHEET
IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CC8-0060

GUIDEWAY CROSS SECTIONS STA 107+50.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

SHEET
IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CC8-0060

GUIDEWAY CROSS SECTIONS STA 107+50.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

SHEET
IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CC8-0060

GUIDEWAY CROSS SECTIONS STA 107+50.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

SHEET
IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CC8-0060

GUIDEWAY CROSS SECTIONS STA 107+50.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

SHEET
IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CC8-0060

GUIDEWAY CROSS SECTIONS STA 107+50.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

SHEET
IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CC8-0060

GUIDEWAY CROSS SECTIONS STA 107+50.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

SHEET
IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
CC8-0060

GUIDEWAY CROSS SECTIONS STA 107+50.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

NOTE:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

DRAWING INFORMATION:
CONTRACT SHEET No. 124 OF 288

IN-PROGRESS
DART PROJECT
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

TBPE FIRM No. F-754
HDR ENGINEERING, INC.
ON 10/30/2020
AMANDA C. STAHLNECKER, P.E. No. 124571

10/30/2020

PGL

PGL

PGL

PGL

PGL

PGL

PGL

PGL

DISCIPLINE SHEETS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC

NOTES:
124          288

124          288
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

STA 114+00.00 TO STA 115+12.00
GUIDEWAY CROSS SECTIONS

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

STA 9+62.00 TO STA 11+00.00
GUIDEWAY CROSS SECTIONS

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
GUIDEWAY CROSS SECTIONS
STA 11+50.00 TO STA 13+00.00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS, OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
10/30/2020

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS;
   OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC
   DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

FOR THE PURPOSE OF REVIEW UNDER THE
THIS DOCUMENT IS RELEASED
IN-PROGRESS AUTHORITY OF:

A. STAHLNECKER, P.E. NO. 124571
ON 10/30/2020

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS, OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

STA 25+50.00 TO STA 27+00.00
GUIDEWAY CROSS SECTIONS

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
   OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

VERT SCALE (IN FEET)

HORIZ SCALE (IN FEET)
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

ST-1
GUIDEWAY CROSS SECTIONS
STA 27+50.00 TO STA 29+00.00

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
10/30/2020

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

STA 10+00.00 TO STA 11+50.00

GUIDEWAY CROSS SECTIONS

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS. OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

Vert Scale (in feet)
Horiz Scale (in feet)

PGL PGL PGL PGL
PGL PGL PGL PGL

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
VPE GUIDEWAY CROSS SECTIONS
STA 10+00.00 TO STA 11+50.00

IN-PROGRESS
DART PROJECT
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.

THIS DOCUMENT IS RELEASED FOR THE PURPOSE OF REVIEW UNDER THE
DEPARTMENT OF TRANSPORTATION.

IN-PROGRESS
DART PROJECT
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
VPE GUIDEWAY CROSS SECTIONS
STA 12+00.00 TO STA 13+50.00

NOTES:

141          288

141          288
LINE SECTION CBD-2
LIGHT RAIL TRANSIT SYSTEM

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

IT IS NOT TO BE USED FOR CONSTRUCTION,
BIDDING OR PERMIT PURPOSES.

NOTES:
1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. ONLY TRACK FEATURES DISPLAYED ON CROSS SECTIONS.
   OTHER FEATURES CAN BE REFERENCED FROM SPECIFIC DISCIPLINE SHEETS.
LANE LANE LANE PARKING LANE LANE LANE PARKING
10' 10' 8' 8' 10' 10'
À MUSEUM WAY
10'
À CBD-2 EB
À CBD-2 WB
7.75'
VAR
15.25'
67.50'
33.75' - 32'
33.75' - 35.5'
7.75'
4'
5.75' -
7.5'
À MUSEUM WAY/CBD-2 TRACK WAY
2%
47'
BIKE LANE
À HOUSTON STREET
6'
11'
12'
11'
7'
LANE LANE LANE LANE
EXISTING SIDEWALK
EXISTING SIDEWALK
EXISTING SIDEWALK
EXISTING SIDEWALK
24'
23'
SIDEWALK
EXISTING
SIDEWALK
EXISTING
23'
PARKING (USUAL)
PARKING (USUAL)
(SEE NOTE 1)
EXIST CURB TO REMAIN
(SEE NOTE 1)
EXISTING CURB
À VICTORY AVENUE
2%
2%
46'
12'
11'
11'
12'
LANE LANE LANE LANE
SIDEWALK
EXISTING
SIDEWALK
EXISTING
23'
PROPOSED VICTORY AVENUE
PROPOSED HOUSTON STREET
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
IT IS NOT TO BE USED FOR CONSTRUCTION,
BIDDING OR PERMIT PURPOSES.
NOTE 1:
DUE TO VARYING TRACK SPACING VS
EXISTING CURB ALIGNMENT,
THE EXISTING CURBS MAY NEED TO
BE MOVED OR REMOVED TO
COORDINATE WITH FINAL TRACK ALIGNMENT.
DUE TO VARYING TRACK SPACING WITHIN
THE EXISTING CURB LENGTH, CURB REMOVAL
MAY BE REQUIRED TO PROVIDE
ADEQUATE CLEARANCE.
NOTE 2:
DUE TO VARYING CURB SPACING VS
EXISTING CURB ALIGNMENT,
THE EXISTING CURB MAY NEED TO
BE MOVED OR REMOVED TO
COORDINATE WITH FINAL CURB ALIGNMENT.
DUE TO VARYING CURB SPACING WITHIN
THE EXISTING CURB LENGTH, CURB REMOVAL
MAY BE REQUIRED TO PROVIDE
ADEQUATE CLEARANCE.
PROPOSED HORD STREET

PROPOSED ROSS AVENUE

PROPOSED SAN JACINTO STREET
PROPOSED ELM STREET

PROPOSED AKARD STREET

PROPOSED COMMERCE STREET
(LANE STREET TO ENVY STREET)

PROPOSED PEARL STREET

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
PROPOSED FLORENCE STREET
SHOWING SECTION W/ PARKING LANE

PROPOSED LIVE OAK STREET
SHOWING SECTION W/ PARKING LANE

PROPOSED FLORENCE STREET

PROPOSED LIVE OAK STREET
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
10/30/2020
TBPE FIRM NO. F-6981
CIVIL ASSOCIATES, INC.
ON 10/30/2020
JENN-HWAN MA, P.E. NO. 83964

NOTES:
1. SEE DWG No. CC6-0015 FOR PROPOSED TYPICAL SECTIONS:
   MUSEUM WAY
   VICTORY AVENUE
   HOUSTON STREET

2. VICTORY AVENUE, VICTORY PARK LANE AND HOUSTON STREET
   MODIFICATIONS WERE DEEMED INAPPROPRIATE WITH MUSEUM WAY TO BE REMOVED

3. DUE TO VARYING TRACK SPACING WITHIN CURVED DOUBLE TRACK ALIGEMENTS, THE EXISTING CURB ALONG THE CURVED TRACK ALIGEMENTS MAY NEED TO BE REPLACED. FINAL CURB DESIGN WILL CONFORM TO FINAL TRACK DESIGNERS TO ELIMINATE THE LIMITS OF IMPACT BEYOND THE EXISTING BACK OF CURB.

TYPICAL SECTIONS:
1. SEE DWG No. CC6-0015 FOR PROPOSED

NOTES:
1. MAINTAINED BY OTHERS.
2. PATH CONSTRUCTED BY DART.
3. PROPOSED PEDESTRIAN/BIKE PATHS ON SITE.
4. SEE NOTE 4

LEGEND

SCALE (IN FEET)
1"=40'

CC6-0026

FROM C TRACK
ADA RAMP 7.5' CONSTR.
NOTES:

1. EXISTING PARKING SPACES:
   BETWEEN EXIST. U-TURN AND FIELD ST,
   BETWEEN EXIST. U-TURN AND FIELD ST,
   BETWEEN EXIST. LAWS ST. AND FIELD ST.
   BETWEEN EXIST. LAWS ST. AND FIELD ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
   BETWEEN LAMAR ST. AND EXIST. LAWS ST.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

1. SEE DWG No. CC6-00020 FOR PROPOSED TYPICAL SECTIONS: MAIN STREET
2. SEE DWG No. CC6-0021 FOR PROPOSED TYPICAL SECTIONS: COMMERCE STREET
3. SIGNS & PAVEMENT MARKING ARE REQUIRED AT
   COMMERCE STREET PRIOR TO APPROACH HARDWOOD STREET TO REDUCE TRAFFIC LANE
4. COORDINATE WITH CITY OVERALL ALONG COMMERCE FOR
   OTHER IMPROVEMENTS IN PROGRESS OR PLANNED.

NOTES:

1. SEE DWG No. CC6-00020 FOR PROPOSED TYPICAL SECTIONS:

2. SEE DWG No. CC6-0021 FOR PROPOSED TYPICAL SECTIONS:

LEGEND

- PROPOSED SIDEWALK
- PROPOSED ROW
- END OF RECONSTRUCTION
- BEGIN OF RECONSTRUCTION
- EXISTING COMMERCE STREET ROW
- EXISTING PEARL STREET ROW
- EXISTING MAIN STREET ROW
- BEGIN OF MAIN STREET RECONSTRUCTION
- END OF MAIN STREET RECONSTRUCTION
- BEGIN OF PEARL STREET RECONSTRUCTION
- END OF PEARL STREET RECONSTRUCTION

OTHER IMPROVEMENTS IN PROGRESS OR PLANNED.

1. SEE DWG No. CC6-00020 FOR PROPOSED TYPICAL SECTIONS:

2. SEE DWG No. CC6-0021 FOR PROPOSED TYPICAL SECTIONS:

3. SIGNS & PAVEMENT MARKING ARE REQUIRED AT
   COMMERCE STREET PRIOR TO APPROACH HARDWOOD STREET TO REDUCE TRAFFIC LANE
4. COORDINATE WITH CITY OVERALL ALONG COMMERCE FOR
   OTHER IMPROVEMENTS IN PROGRESS OR PLANNED.

NOTES:

1. SEE DWG No. CC6-00020 FOR PROPOSED TYPICAL SECTIONS:

2. SEE DWG No. CC6-0021 FOR PROPOSED TYPICAL SECTIONS:

LEGEND

- PROPOSED SIDEWALK
- PROPOSED ROW
- END OF RECONSTRUCTION
- BEGIN OF RECONSTRUCTION
- EXISTING COMMERCE STREET ROW
- EXISTING PEARL STREET ROW
- EXISTING MAIN STREET ROW
- BEGIN OF MAIN STREET RECONSTRUCTION
- END OF MAIN STREET RECONSTRUCTION
- BEGIN OF PEARL STREET RECONSTRUCTION
- END OF PEARL STREET RECONSTRUCTION

OTHER IMPROVEMENTS IN PROGRESS OR PLANNED.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

CONTRACT SHEET No. 167 OF 208

IN-PROGRESS

1. SEE DWG No. CC6-0024 FOR PROPOSED TYPICAL SECTIONS:
   N. GOOD LATIMER EXPRESSWAY.

2. PROPOSED TYPICAL SECTIONS
   SWISS AVENUE.

3. SEE DWG No. CC6-0035 FOR PROPOSED TYPICAL SECTIONS:
   SWISS AVENUE BETWEEN HAWKINS STREET AND
   N. GOOD LATIMER EXPRESSWAY.

4. SEE DWG No. CC6-0026 FOR PROPOSED TYPICAL SECTIONS:
   HAWKINS STREET, N. GOOD LATIMER EXPY (SB) AT
   SWISS AVENUE, AND N. GOOD LATIMER EXPRESSWAY
   TO BECOME ONE WAY WESTBOUND.

5. FINAL DESIGNER TO COORDINATE WITH TRACK GROUP
   TO DETERMINE IF CROSSWALK IS FEASIBLE BETWEEN END
   PADS AND DESIGN PIECE OF DIAMOND CROSSING.

LEGEND

- STREET/ALLEY/DRIVE RECONSTRUCTION

NOTES:

1. SEE DWG No. CC6-0035 FOR PROPOSED TYPICAL SECTIONS:
   PACIFIC AVENUE/GASTON AVENUE.

2. PROPOSED TYPICAL SECTIONS
   PACIFIC AVENUE/GASTON AVENUE.

3. HAWKINS STREET, N. GOOD LATIMER EXPY (SB) AT
   GASTON AVENUE, TO HAVE GATES AND FLASHERS
   AT GASTON AVENUE TO KEEP CARS AT FLASHERS.

4. SWISS AVENUE BETWEEN HAWKINS STREET AND
   N. GOOD LATIMER EXPRESSWAY TO BECOME ONE WAY
   WESTBOUND.

5. FINAL DESIGNER TO COORDINATE WITH TRACK GROUP
   TO DETERMINE IF CROSSWALK IS FEASIBLE BETWEEN END
   PADS AND DESIGN PIECE OF DIAMOND CROSSING.

CONTRACT SHEET No. 167 OF 208

IN-PROGRESS

1. SEE DWG No. CC6-0024 FOR PROPOSED TYPICAL SECTIONS:
   N. GOOD LATIMER EXPRESSWAY.

2. PROPOSED TYPICAL SECTIONS
   SWISS AVENUE.

3. SEE DWG No. CC6-0035 FOR PROPOSED TYPICAL SECTIONS:
   SWISS AVENUE BETWEEN HAWKINS STREET AND
   N. GOOD LATIMER EXPRESSWAY.

4. SEE DWG No. CC6-0026 FOR PROPOSED TYPICAL SECTIONS:
   HAWKINS STREET, N. GOOD LATIMER EXPY (SB) AT
   SWISS AVENUE, AND N. GOOD LATIMER EXPRESSWAY
   TO BECOME ONE WAY WESTBOUND.

5. FINAL DESIGNER TO COORDINATE WITH TRACK GROUP
   TO DETERMINE IF CROSSWALK IS FEASIBLE BETWEEN END
   PADS AND DESIGN PIECE OF DIAMOND CROSSING.

LEGEND

- STREET/ALLEY/DRIVE RECONSTRUCTION

NOTES:

1. SEE DWG No. CC6-0035 FOR PROPOSED TYPICAL SECTIONS:
   PACIFIC AVENUE/GASTON AVENUE.

2. PROPOSED TYPICAL SECTIONS
   PACIFIC AVENUE/GASTON AVENUE.

3. HAWKINS STREET, N. GOOD LATIMER EXPY (SB) AT
   GASTON AVENUE, TO HAVE GATES AND FLASHERS
   AT GASTON AVENUE TO KEEP CARS AT FLASHERS.

4. SWISS AVENUE BETWEEN HAWKINS STREET AND
   N. GOOD LATIMER EXPRESSWAY TO BECOME ONE WAY
   WESTBOUND.

5. FINAL DESIGNER TO COORDINATE WITH TRACK GROUP
   TO DETERMINE IF CROSSWALK IS FEASIBLE BETWEEN END
   PADS AND DESIGN PIECE OF DIAMOND CROSSING.

CONTRACT SHEET No. 167 OF 208

IN-PROGRESS

1. SEE DWG No. CC6-0024 FOR PROPOSED TYPICAL SECTIONS:
   N. GOOD LATIMER EXPRESSWAY.

2. PROPOSED TYPICAL SECTIONS
   SWISS AVENUE.

3. SEE DWG No. CC6-0035 FOR PROPOSED TYPICAL SECTIONS:
   SWISS AVENUE BETWEEN HAWKINS STREET AND
   N. GOOD LATIMER EXPRESSWAY.

4. SEE DWG No. CC6-0026 FOR PROPOSED TYPICAL SECTIONS:
   HAWKINS STREET, N. GOOD LATIMER EXPY (SB) AT
   SWISS AVENUE, AND N. GOOD LATIMER EXPRESSWAY
   TO BECOME ONE WAY WESTBOUND.

5. FINAL DESIGNER TO COORDINATE WITH TRACK GROUP
   TO DETERMINE IF CROSSWALK IS FEASIBLE BETWEEN END
   PADS AND DESIGN PIECE OF DIAMOND CROSSING.

LEGEND

- STREET/ALLEY/DRIVE RECONSTRUCTION

NOTES:

1. SEE DWG No. CC6-0035 FOR PROPOSED TYPICAL SECTIONS:
   PACIFIC AVENUE/GASTON AVENUE.

2. PROPOSED TYPICAL SECTIONS
   PACIFIC AVENUE/GASTON AVENUE.

3. HAWKINS STREET, N. GOOD LATIMER EXPY (SB) AT
   GASTON AVENUE, TO HAVE GATES AND FLASHERS
   AT GASTON AVENUE TO KEEP CARS AT FLASHERS.

4. SWISS AVENUE BETWEEN HAWKINS STREET AND
   N. GOOD LATIMER EXPRESSWAY TO BECOME ONE WAY
   WESTBOUND.

5. FINAL DESIGNER TO COORDINATE WITH TRACK GROUP
   TO DETERMINE IF CROSSWALK IS FEASIBLE BETWEEN END
   PADS AND DESIGN PIECE OF DIAMOND CROSSING.

CONTRACT SHEET No. 167 OF 208

IN-PROGRESS

1. SEE DWG No. CC6-0024 FOR PROPOSED TYPICAL SECTIONS:
   N. GOOD LATIMER EXPRESSWAY.

2. PROPOSED TYPICAL SECTIONS
   SWISS AVENUE.

3. SEE DWG No. CC6-0035 FOR PROPOSED TYPICAL SECTIONS:
   SWISS AVENUE BETWEEN HAWKINS STREET AND
   N. GOOD LATIMER EXPRESSWAY.

4. SEE DWG No. CC6-0026 FOR PROPOSED TYPICAL SECTIONS:
   HAWKINS STREET, N. GOOD LATIMER EXPY (SB) AT
   SWISS AVENUE, AND N. GOOD LATIMER EXPRESSWAY
   TO BECOME ONE WAY WESTBOUND.

5. FINAL DESIGNER TO COORDINATE WITH TRACK GROUP
   TO DETERMINE IF CROSSWALK IS FEASIBLE BETWEEN END
   PADS AND DESIGN PIECE OF DIAMOND CROSSING.

LEGEND

- STREET/ALLEY/DRIVE RECONSTRUCTION

NOTES:

1. SEE DWG No. CC6-0035 FOR PROPOSED TYPICAL SECTIONS:
   PACIFIC AVENUE/GASTON AVENUE.

2. PROPOSED TYPICAL SECTIONS
   PACIFIC AVENUE/GASTON AVENUE.

3. HAWKINS STREET, N. GOOD LATIMER EXPY (SB) AT
   GASTON AVENUE, TO HAVE GATES AND FLASHERS
   AT GASTON AVENUE TO KEEP CARS AT FLASHERS.

4. SWISS AVENUE BETWEEN HAWKINS STREET AND
   N. GOOD LATIMER EXPRESSWAY TO BECOME ONE WAY
   WESTBOUND.

5. FINAL DESIGNER TO COORDINATE WITH TRACK GROUP
   TO DETERMINE IF CROSSWALK IS FEASIBLE BETWEEN END
   PADS AND DESIGN PIECE OF DIAMOND CROSSING.

CONTRACT SHEET No. 167 OF 208

IN-PROGRESS

1. SEE DWG No. CC6-0024 FOR PROPOSED TYPICAL SECTIONS:
   N. GOOD LATIMER EXPRESSWAY.

2. PROPOSED TYPICAL SECTIONS
   SWISS AVENUE.

3. SEE DWG No. CC6-0035 FOR PROPOSED TYPICAL SECTIONS:
   SWISS AVENUE BETWEEN HAWKINS STREET AND
   N. GOOD LATIMER EXPRESSWAY.

4. SEE DWG No. CC6-0026 FOR PROPOSED TYPICAL SECTIONS:
   HAWKINS STREET, N. GOOD LATIMER EXPY (SB) AT
   SWISS AVENUE, AND N. GOOD LATIMER EXPRESSWAY
   TO BECOME ONE WAY WESTBOUND.

5. FINAL DESIGNER TO COORDINATE WITH TRACK GROUP
   TO DETERMINE IF CROSSWALK IS FEASIBLE BETWEEN END
   PADS AND DESIGN PIECE OF DIAMOND CROSSING.

LEGEND

- STREET/ALLEY/DRIVE RECONSTRUCTION

NOTES:

1. SEE DWG No. CC6-0035 FOR PROPOSED TYPICAL SECTIONS:
   PACIFIC AVENUE/GASTON AVENUE.

2. PROPOSED TYPICAL SECTIONS
   PACIFIC AVENUE/GASTON AVENUE.

3. HAWKINS STREET, N. GOOD LATIMER EXPY (SB) AT
   GASTON AVENUE, TO HAVE GATES AND FLASHERS
   AT GASTON AVENUE TO KEEP CARS AT FLASHERS.

4. SWISS AVENUE BETWEEN HAWKINS STREET AND
   N. GOOD LATIMER EXPRESSWAY TO BECOME ONE WAY
   WESTBOUND.

5. FINAL DESIGNER TO COORDINATE WITH TRACK GROUP
   TO DETERMINE IF CROSSWALK IS FEASIBLE BETWEEN END
   PADS AND DESIGN PIECE OF DIAMOND CROSSING.

CONTRACT SHEET No. 167 OF 208

IN-PROGRESS

1. SEE DWG No. CC6-0024 FOR PROPOSED TYPICAL SECTIONS:
   N. GOOD LATIMER EXPRESSWAY.

2. PROPOSED TYPICAL SECTIONS
   SWISS AVENUE.

3. SEE DWG No. CC6-0035 FOR PROPOSED TYPICAL SECTIONS:
   SWISS AVENUE BETWEEN HAWKINS STREET AND
   N. GOOD LATIMER EXPRESSWAY.

4. SEE DWG No. CC6-0026 FOR PROPOSED TYPICAL SECTIONS:
   HAWKINS STREET, N. GOOD LATIMER EXPY (SB) AT
   SWISS AVENUE, AND N. GOOD LATIMER EXPRESSWAY
   TO BECOME ONE WAY WESTBOUND.

5. FINAL DESIGNER TO COORDINATE WITH TRACK GROUP
   TO DETERMINE IF CROSSWALK IS FEASIBLE BETWEEN END
   PADS AND DESIGN PIECE OF DIAMOND CROSSING.

LEGEND

- STREET/ALLEY/DRIVE RECONSTRUCTION

NOTES:

1. SEE DWG No. CC6-0035 FOR PROPOSED TYPICAL SECTIONS:
   PACIFIC AVENUE/GASTON AVENUE.

2. PROPOSED TYPICAL SECTIONS
   PACIFIC AVENUE/GASTON AVENUE.

3. HAWKINS STREET, N. GOOD LATIMER EXPY (SB) AT
   GASTON AVENUE, TO HAVE GATES AND FLASHERS
   AT GASTON AVENUE TO KEEP CARS AT FLASHERS.

4. SWISS AVENUE BETWEEN HAWKINS STREET AND
   N. GOOD LATIMER EXPRESSWAY TO BECOME ONE WAY
   WESTBOUND.

5. FINAL DESIGNER TO COORDINATE WITH TRACK GROUP
   TO DETERMINE IF CROSSWALK IS FEASIBLE BETWEEN END
   PADS AND DESIGN PIECE OF DIAMOND CROSSING.
STREET MODIFICATION PLAN

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

JENN-HWAN MA, P.E. NO. 83964

10/30/2020

CIVIL ASSOCIATES, INC.

JENN-HWAN MA

DIANA FARRAN

MONDAY, OCTOBER 26, 2020 12:37:20 PM
5. **STRUCTURAL DESIGN NOTES**: The system is designed to resist design loads only as complete structures. Unless otherwise shown on the drawings, any proposed application of construction techniques may necessitate relocations or, in many cases, may require additional structural elements. Certain aspects of the design have been simplified. The engineer shall be responsible for structural design.

6. **STRUCTURAL DESIGN**: The structural design is based on the following assumptions:
   - Loads and forces shall be applied to the structures as shown on the drawings, unless otherwise specified.
   - The structures shall be designed for the following loads and forces:
     - **Dead Loads**:
       - Concrete = 150 PCF
       - Soils (other) = 130 PCF min
       - Soils (buoyancy check) = 110 PCF
     - **Live Loads**:
       - Lateral earth pressure: Refer to geotechnical design memorandum.
       - **Fy = 46,000 PSI**
       - **Fy = 60,000 PSI**
       - **Fy = 24,000 PSI**
       - **Fy = 5000 PSI**
   - The structures shall be designed to resist the following lateral earth pressures:
     - **Lateral earth pressure** shall be calculated at 20 psi for all walls and slabs.
     - **Lateral earth pressure** shall be calculated at 15 psi for all walls and slabs.
   - The structures shall be designed to resist the following live loads:
     - **Live load** shall be calculated at 50 psi for all walls and slabs.
     - **Live load** shall be calculated at 40 psi for all walls and slabs.
   - The structures shall be designed to resist the following wind loads:
     - **Wind load** shall be calculated at 100 psi for all walls and slabs.
     - **Wind load** shall be calculated at 90 psi for all walls and slabs.
   - The structures shall be designed to resist the following seismic loads:
     - **Seismic load** shall be calculated at 60 psi for all walls and slabs.
     - **Seismic load** shall be calculated at 50 psi for all walls and slabs.

7. **CONSTRUCTION AND CONTRACT JOINTS**
   - All construction and contract joints shall be in a true vertical plane except in tunnels and cut-and-cover boxes. The joints shall be perpendicular to the rail axes.
   - Unlined joints are required for all construction and contract joints.
   - The construction and contract joints shall be designed to resist the following loads:
     - **Joints shall be designed to resist the following forces**:
       - Joint forces shall be calculated at 20 psi for all walls and slabs.
       - Joint forces shall be calculated at 15 psi for all walls and slabs.
     - Joint forces shall be calculated at 10 psi for all walls and slabs.
     - Joint forces shall be calculated at 5 psi for all walls and slabs.

8. **CONTRACTOR'S RESPONSIBILITIES**
   - The contractor shall be responsible for the following:
     - Providing all necessary tools, equipment, and labor for the construction and contract joints.
     - Providing all necessary materials for the construction and contract joints.
     - Providing all necessary labor for the construction and contract joints.
     - Providing all necessary supervision for the construction and contract joints.
     - Providing all necessary quality control for the construction and contract joints.

9. **COORDINATION WITH LOCAL AUTHORITIES**
   - The contractor shall coordinate with local authorities as required for the construction and contract joints.
   - The contractor shall coordinate with local authorities as required for the construction and contract joints.
   - The contractor shall coordinate with local authorities as required for the construction and contract joints.
   - The contractor shall coordinate with local authorities as required for the construction and contract joints.

10. **SPECIFICATIONS**
    - The specifications shall be applicable to the construction and contract joints.
    - The specifications shall be applicable to the construction and contract joints.
    - The specifications shall be applicable to the construction and contract joints.
    - The specifications shall be applicable to the construction and contract joints.

11. **NOTES**
    - All notes shall be added to the drawings as required.
    - All notes shall be added to the drawings as required.
    - All notes shall be added to the drawings as required.
    - All notes shall be added to the drawings as required.
<table>
<thead>
<tr>
<th>SYMBOL</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>REVISED</td>
</tr>
<tr>
<td>B</td>
<td>APPROVED</td>
</tr>
<tr>
<td>C</td>
<td>CHECKED</td>
</tr>
<tr>
<td>D</td>
<td>DRAWN</td>
</tr>
<tr>
<td>E</td>
<td>SCALE</td>
</tr>
<tr>
<td>F</td>
<td>SECTION</td>
</tr>
<tr>
<td>G</td>
<td>DETAIL</td>
</tr>
<tr>
<td>H</td>
<td>CONTRACT</td>
</tr>
</tbody>
</table>

**SYMBOLS FOR REVIEW UNDER THE AUTHORITY OF:**

HNTB Corporation

TBPE Firm Registration No. 420

The HNTB Companies

The HNTB Companies

**LEGEND**

- CONCRETE
- DRAGLINE
- EXCAVATION
- OPENING IN SLAB OR WALL
- GROUND LINE
- CONCRETE
- GROUNDWATER TABLE
- WORK POINT
- SECTION DESIGNATION (LETTER)
- DRAWING NUMBER ON WHICH SECTION IS IDENTIFIED
- DRAWING NUMBER ON WHICH DETAIL IS IDENTIFIED
- SECTION DESIGNATION LETTER
- DRAWING NUMBER ON WHICH SECTION EXISTS
- DRAWING NUMBER ON WHICH DETAIL EXISTS

**DRAWING NUMBER ON WHICH DETAIL APPEARS**

**DRAWING NUMBER ON WHICH SECTION APPEARS**

**NOT FOR CONSTRUCTION AND NOT AN APPROVED DRAWING**

**PRELIMINARY DESIGN**

**CONCEPTUAL DESIGN PENDING**

**RAIL/FACILITY SYSTEMS AND TUNNELS**

**TUNNEL EXCAVATION LINE**

**INTEGRATED TUNNEL EXCAVATION LINE**

**WATER PROOFING**

**THEORETICAL TUNNEL EXCAVATION LINE**

**OUTLINE OF UNDER-SLAB BEAM, WALL OR COLUMN**

**SECTION IS IDENTIFIED**

**DRAWING NUMBER ON WHICH SECTION APPEARS**

**SECTION IS IDENTIFIED**

**DRAWING NUMBER ON WHICH DETAIL APPEARS**

**DRAWING NUMBER ON WHICH DETAIL EXISTS**

**SECTION DESIGNATION LETTER**

**SECTION DESIGNATION LETTER**

**DRAFT**

**LIGHT RAIL TRANSIT SYSTEM**

**LINE SECTION CBD-2**

**TUNNEL**

**STRUCTURAL SYMBOLS AND ABBREVIATIONS**

**CONTRACT**

WESTBOUND (SECTION LOOKING WEST)

TBM RUNNING TUNNEL WITH PRECAST SEGMENTAL LINER

TYPICAL SECTION - OPTION 1 WESTBOUND TUNNEL AS SHOWN

EASTBOUND TUNNEL OPP HAND

EASTBOUND (SECTION LOOKING EAST)

TBM RUNNING TUNNEL WITH CAST-IN-PLACE CONCRETE LINER

TYPICAL SECTION - OPTION 2 EASTBOUND TUNNEL AS SHOWN

WESTBOUND TUNNEL OPP HAND

NOTES:
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING No. GC3-0002.
3. DYNAMIC ENVELOPES SHOWN ARE FOR CURVED TRACK, R=300', WITH SUPERELEVATION: 1.5".
4. MINIMUM CLEARANCE BETWEEN TOP OF RAIL AND BOTTOM OF CATENARY CABLE SHALL BE 14- FEET.
5. SIGNALS, SYSTEMS EQUIPMENT, RAIL AND FACILITIES SHOWN ON THESE CROSS-SECTIONS ARE CONCEPTUAL AND FOR ILLUSTRATION ONLY. SEE RELEVANT DISCIPLINE DRAWINGS FOR DETAILS.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN
SEM RUNNING TUNNEL TYPICAL SECTION - OPTION 3

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. DYNAMIC ENVELOPE SHOWN IS FOR CURVED TRACK, R=300', WITH SUPERELEVATION, 1.5°.
4. MINIMUM CLEARANCE BETWEEN TOP OF RAIL AND BOTTOM OF CATHEDRAL CABLE SHALL BE 14- FEET.
5. EXCAVATION, SUBSURFACE, RAIL AND FACILITIES SHOWN ON THESE CROS-SSECTIONS ARE REQUIRES AND THE ILLUSTRATIONS ONLY, SEE RELEVANT DISCIPLINE DRAWINGS FOR DETAILS.

For additional information, see relevant discipline drawings.
PUMP/SUMP ROOM WITH GROUND SUPPORT - SECTION 1

SCALE: 1" = 1'-0"

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. GC3-0002.
3. SUMP DIMENSIONS TO BE DETERMINED BASED ON SITE-SPECIFIC DATA.
4. ALL INITIAL AND FINAL SUPPORTS SHOWN IN THIS DRAWING ARE PRELIMINARY, FOR ILLUSTRATION ONLY, AND ARE TO BE CONFIRMED BASED ON SITE-SPECIFIC INFORMATION.

PUMP/SUMP ROOM WITH GROUND SUPPORT - SECTION 2

SCALE: 1" = 1'-0"

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. GC3-0002.
3. SUMP DIMENSIONS TO BE DETERMINED BASED ON SITE-SPECIFIC DATA.
4. ALL INITIAL AND FINAL SUPPORTS SHOWN IN THIS DRAWING ARE PRELIMINARY, FOR ILLUSTRATION ONLY, AND ARE TO BE CONFIRMED BASED ON SITE-SPECIFIC INFORMATION.
VENTILATION CHAMBER SECTION

VENTILATION ADIT SECTION

PASSENGER ADIT SECTION

NOTE:
1. For structural general notes, see drawing No. 3.3-031-02.

2. For structural symbols and abbreviations, see drawing No. 2.3-031.

3. All initial and final supports shown in this drawing are preliminary, for illustration only, and must be confirmed based on site-specific information.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
Preliminary Design

HNTB Corporation
TBPE Firm Registration No. 420
Engineers Architects Planners

DRAFT
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
MECHANICAL/PASSENGER ADIT
INITIAL AND FINAL SUPPORTS

DESCRIPTION
DATE
CR
AMEND
REV

HNTB Firm Registration No. 420
Engineers Architects Planners

DRAFT
TBPE Firm Registration No. 420
Engineers Architects Planners

CONTRACT SHEET No.

DWG No.

CONTRACT
LINE SECTION CBD-2
LIGHT RAIL TRANSIT SYSTEM

SCALE

DATE

CR
AMEND
REV

TO 30 OCT 2020

DRAWN
DESIGNED
CHECKED
IN CHARGE

APP
CHK
ENG

ENGINEER
ARCHITECT
PLANNER

IN-PROGRESS DRAWING IS RELEASED FOR REVIEW UNDER THE AUTHORITY OF:

C. STONE
P.E. NO. 133866

DRAFT FOR REVIEW UNDER THE AUTHORITY OF:

CHARLES A. STONE, P.E.

FOR STRUCTURAL GENERAL NOTES, SEE DRAWING
NO. GC3-0001.

FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING
NO. GC3-0002.

FOR PASSENGER ADIT ONLY.

APPLY SHOTCRETE WATERPROOFING HCR MEMBRANE LINING FINAL CIP CONCRETE

SPRINGLINE REQUIRED (TYP) AS ROCK DOWEL

APPLY SHOTCRETE WATERPROOFING HCR MEMBRANE LINING FINAL CIP CONCRETE

SPRINGLINE REQUIRED (TYP) AS ROCK DOWEL

APPLY SHOTCRETE WATERPROOFING HCR MEMBRANE LINING FINAL CIP CONCRETE

SPRINGLINE REQUIRED (TYP) AS ROCK DOWEL
LATERAL PRESSURES DUE TO WEIGHT OF SOIL AND WATER

- **Flexible Wall with Multiple Level Support and No Surcharge**
  - **Ground Surface**
  - **Bottom of Excavation**
  - **Retaining Structure**

**Additional Lateral Pressure Due to Surcharge Loads**

- For flexible retaining structures, lateral pressures indicated above
  - **Due to Weight of Soil and Water**
  - **Due to Surcharge Loads**

**Definitions of Symbols:**
- GWT: Ground Water Table
- x: Distance from Retaining Structure to Load Plane
- H': Distance between Horizontal Loading Plane and Bottom of Excavation

**Notes:**
1. For structural, general notes, see drawing no. 031-0007.
2. For structural, symbols and abbreviations, see drawing no. 031-0008.
3. For notes concerning loading diagrams on top signonia, see specifications drawings.
4. Additional lateral pressure due to surcharge loads are based on DART design criteria manual.
5. Apply lateral pressure due to surcharge to all structures and non-continuous sections.

**Additional Considerations:**
- For rigid retaining structures, lateral pressures shall be increased by a factor of 2.
- For structures, the lateral pressures indicated above shall be increased by a factor of 2.

**Distribution of Lateral Pressure on Horizontal Plane:**
- **Area Load of Finite Line Load Parallel to Excavation**
- **Footing Load and Line Load Perpendicular to Excavation**

**Notes:**
- This in-progress drawing is released by the consulting firm for review and comment.
- Additional site-specific data and construction drawings are pending.

**Contact Information:**
- HNTB Corporation
- 212 North College Street
- Fort Worth, TX 76102
- Phone: 817-603-5200
- Email: info@hntb.com

**Additional Information:**
- This drawing is not for construction.
- Not an approved drawing.
CROSS-SECTION AT COMMERCE STREET
LOOKING EAST
(Scale: 1'-0"

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. GC3-0002.
3. ALL DISTANCES AND ELEVATIONS SHOWN IN THIS DRAWING ARE APPROXIMATE AND ARE TO BE FIELD VERIFIED.

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. GC3-0002.
3. ALL DISTANCES AND ELEVATIONS SHOWN IN THIS DRAWING ARE APPROXIMATE AND ARE TO BE FIELD VERIFIED.
4. EXISTING MAJOR UTILITIES AND OUTLINES OF EXISTING BUILDINGS ALONG孫ES FOR STATION CONSTRUCTION ARE SHOWN ONLY.

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. GC3-0002.
3. ALL DISTANCES AND ELEVATIONS SHOWN IN THIS DRAWING ARE APPROXIMATE AND ARE TO BE FIELD VERIFIED.
4. EXISTING MAJOR UTILITIES AND OUTLINES OF EXISTING BUILDINGS ALONG STATION CONSTRUCTION ARE SHOWN ONLY.

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. GC3-0002.
3. ALL DISTANCES AND ELEVATIONS SHOWN IN THIS DRAWING ARE APPROXIMATE AND ARE TO BE FIELD VERIFIED.
4. EXISTING MAJOR UTILITIES AND OUTLINES OF EXISTING BUILDINGS ALONG STATION CONSTRUCTION ARE SHOWN ONLY.

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. GC3-0002.
3. ALL DISTANCES AND ELEVATIONS SHOWN IN THIS DRAWING ARE APPROXIMATE AND ARE TO BE FIELD VERIFIED.
4. EXISTING MAJOR UTILITIES AND OUTLINES OF EXISTING BUILDINGS ALONG STATION CONSTRUCTION ARE SHOWN ONLY.
NOTES:
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. GC3-0002.
3. ALL DISTANCES AND ELEVATIONS SHOWN IN THIS DRAWING ARE APPROXIMATED AND ARE TO BE FIELD VERIFIED.
4. EXISTING MAJOR UTILITIES AND OUTLINES OF EXISTING BUILDING ENVELOPES AND HISTORIC STRUCTURES ARE SHOWN ONLY.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CROSS-SECTION AT COMMERCE STREET
LOOKING EAST

SC8-0009

ELECTRIC VAULT
(MAGNOLIA HOTEL)
BUILDING LINE
(ATT) (APPROX)

EL 391' (APPROX)
BOTTOM OF BASEMENT
AT&T BUILDING

EL 417' (APPROX)
TOP OF ROCK

EL 432' (APPROX)
TOP OF PAVEMENT
MAGNOLIA HOTEL
(APPROX LOCATION)

EL 400' (APPROX)
BOTTOM OF BASEMENT

PASSENGER ADIT
STATION CONSTRUCTION ARE SHOWN ONLY.

EXISTING BUILDINGS POTENTIALLY IMPACTING
VERIFIED.
DRAWING ARE APPROXIMATE AND ARE TO BE FIELD
NOTES:

PLATFORM
STATION

CBD-2 WB TRACK
CBD-2 EB TRACK

WEST OF STA 72+00

COMMERCE STREET STATION
SECTION
WEST OF STA 72+00

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
COMMERCE STATION - SEM SECTION FROM CBD-2 EB STA 72+00.0 TO CBD-2 EB STA 74+66.1

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. GC3-0002.
3. ALL INITIAL AND FINAL SUPPORTS SHOWN IN DRAWINGS ARE PRELIMINARY, FOR ILLUSTRATION PURPOSES ONLY, AND ARE TO BE CONFIRMED BASED ON SITE-SPECIFIC INFORMATION.
4. FOR EXCAVATION SEQUENCE, SEE DRAWING NO. GC3-0003.
5. STATION PLATFORM LINES ARE FROM CBD-2 EB STA 72+00.0 TO CBD-2 EB STA 74+66.1.

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. GC3-0002.
3. ALL INITIAL AND FINAL SUPPORTS SHOWN IN DRAWINGS ARE PRELIMINARY, FOR ILLUSTRATION PURPOSES ONLY, AND ARE TO BE CONFIRMED BASED ON SITE-SPECIFIC INFORMATION.
4. FOR EXCAVATION SEQUENCE, SEE DRAWING NO. GC3-0003.
5. STATION PLATFORM LINES ARE FROM CBD-2 EB STA 72+00.0 TO CBD-2 EB STA 74+66.1.

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. GC3-0002.
3. ALL INITIAL AND FINAL SUPPORTS SHOWN IN DRAWINGS ARE PRELIMINARY, FOR ILLUSTRATION PURPOSES ONLY, AND ARE TO BE CONFIRMED BASED ON SITE-SPECIFIC INFORMATION.
4. FOR EXCAVATION SEQUENCE, SEE DRAWING NO. GC3-0003.
5. STATION PLATFORM LINES ARE FROM CBD-2 EB STA 72+00.0 TO CBD-2 EB STA 74+66.1.
COMMERCe STATION - SEM SECTION
FROM CBD-2 EB STA 68+05.0 TO CBD-2 EB STA 72+00.0 AND FROM CBD-2 EB STA 74+66.1 TO CBD-2 EB STA 75+26.1

NOTES:
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING No. GC3-0002.
3. ALL INITIAL AND FINAL SUPPORTS SHOWN IN DRAFT DRAWINGS ARE PRELIMINARY, FOR ILLUSTRATION ONLY, AND ARE TO BE CONFIRMED BASED ON SITE-SPECIFIC INFORMATION.
4. FOR EXCAVATION SEQUENCES, SEE DRAWING No. GC3-0021.
5. STATION PLATFORM LIMITS ARE FROM CBD-2 EB STA 68+05.0 TO CBD-2 EB STA 75+26.1.
SECTION FROM STA 72+00.0 TO STA 74+66.1

SECTION FROM STA 68+05.0 TO STA 72+00.0
AND FROM STA 74+66.1 TO STA 75+26.1

RUNNING TUNNEL AND COMMERCE STATION CAVERN INITIAL SUPPORT - TYPICAL SECTIONS

SCALE: 1" = 1'-0"
PRE-CONSTRUCTION CONDITION

STAGE 1  TBM MINING

STAGE 2  FIRST SIDE DRIFT EXCAVATION AND SUPPORT

STAGE 3  SECOND SIDE DRIFT EXCAVATION AND SUPPORT

STAGE 4  CENTER DRIFT EXCAVATION AND SUPPORT

NOTES:
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0002.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. GC3-0001.
3. ALL STAGES SHOWN ON THIS DRAWING ARE PRELIMINARY FOR ILLUSTRATION ONLY AND ARE AFFECTED BY CHANGES BASED ON THE JOB SPECIFICATION AND/or CONSTRUCTION DRAWINGS, WHICH ARE TO BE CONFIRMED BASED ON SITE-SPECIFIC INFORMATION.
4. ESTABLISH INSTRUMENTATION, MONITORING, PRE-CONSTRUCTION AND POST-CONSTRUCTION INSPECTION PROGRAMS TO ENSURE STRUCTURAL AND FUNCTIONAL INTEGRITY OF THE EXISTING SEWER IS MAINTAINED DURING AND AFTER TUNNEL MINING AND STATION CONSTRUCTION.
1. For structural general notes, see drawing No. GC3-0001.
2. For structural symbols and abbreviations, see drawing No. GC3-0002.
3. Support of excavation not shown in this cross-section.
4. General section No. 1 to be continued as necessary. If required for installation of jet fans.
5. Signals, protection equipment, RAIL/FACILITY SYSTEMS and CONCEPTUAL DESIGN PENDING. See related system drawings for details.

Notes:

WEST PORTAL: STA 41+50.00 TO STA 45+07.00
EAST PORTAL: STA 101+27.00 TO STA 101+55.23

CUT AND COVER TUNNEL TYPE A (SECTION LOOKING WEST)
CUT-AND-COVER TUNNEL DIMENSIONS

<table>
<thead>
<tr>
<th>PORTAL LOCATION</th>
<th>TYPE</th>
<th>STATION LIMITS</th>
<th>TRACK SPACING (FT)</th>
<th>MINIMUM OVERALL HEIGHT (IN)</th>
<th>INVERT THICKNESS (IN)</th>
<th>ROOF THICKNESS (IN)</th>
<th>WALL THICKNESSES</th>
<th>OVERALL WIDTH (IN)</th>
</tr>
</thead>
<tbody>
<tr>
<td>WEST A</td>
<td>WEST</td>
<td>45+50.00</td>
<td>45+07.00</td>
<td>15'-6&quot; to 21'-11&quot;</td>
<td>25'-6&quot;</td>
<td>3'-6&quot;</td>
<td>3'-6&quot;</td>
<td>2'-6&quot;</td>
</tr>
<tr>
<td>WEST B</td>
<td>WEST</td>
<td>46+00.00</td>
<td>46+50.00</td>
<td>21'-6&quot; to 28'-11&quot;</td>
<td>25'-6&quot;</td>
<td>3'-6&quot;</td>
<td>3'-6&quot;</td>
<td>1'-6&quot;</td>
</tr>
<tr>
<td>WEST C</td>
<td>WEST</td>
<td>46+50.00</td>
<td>49+26.18</td>
<td>28'-11&quot; to 40'-6&quot;</td>
<td>25'-9&quot;</td>
<td>3'-6&quot;</td>
<td>3'-6&quot;</td>
<td>2'-0&quot;</td>
</tr>
<tr>
<td>EAST A</td>
<td>EAST</td>
<td>86+29.81</td>
<td>93+25.00</td>
<td>36'-2&quot; to 45'-6&quot;</td>
<td>25'-6&quot;</td>
<td>3'-6&quot;</td>
<td>3'-6&quot;</td>
<td>2'-0&quot;</td>
</tr>
<tr>
<td>EAST B</td>
<td>EAST</td>
<td>93+35.00</td>
<td>103+27.00</td>
<td>45'-11&quot; to 21'-6&quot;</td>
<td>24'-6&quot;</td>
<td>3'-6&quot;</td>
<td>3'-6&quot;</td>
<td>2'-0&quot;</td>
</tr>
</tbody>
</table>

NOTES:
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND Abbreviations, SEE DRAWING NO. GC3-0001.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS CROSS-SECTION.
4. OVERALL HEIGHT (H) TO BE INCREASED AS NECESSARY, IF REQUIRED FOR INSTALLATION OF JET FANS.
5. SMALLS, SYSTEMS EQUIPMENT, RAIL AND FACILITIES SHOWN IN THESE CROSS-SECTIONS FOR ILLUSTRATION ONLY. SEE RELEVANT DISCIPLINE DRAWINGS FOR DETAILS.

WEST PORTAL: STA 45+07.00 TO STA 46+50.00 (SECTION LOOKING WEST)
EAST PORTAL: STA 86+29.81 TO STA 93+13.09 (SECTION LOOKING EAST)
EAST PORTAL: STA 98+05.17 TO STA 101+65.00 (SECTION LOOKING WEST)
1. For structural general notes, see drawing No. GC3-0001.
2. For structural symbols and abbreviations, see Engrs. No. GC3-0002.
3. Support of excavation not shown in this cross-section.
4. Systems, station equipment, rail and facilities shown on these cross-sections are conceptual and for illustration only. See relevant discipline drawings for details.

**U-WALL Cross-Section**

**Egress Walkways at Outside of Trackway**

**Scale:** 1'-0" = 5'-0"

---

**U-WALL Dimensions**

<table>
<thead>
<tr>
<th>Structure Location</th>
<th>Station Limits</th>
<th>Maximum Design Height (ft)</th>
<th>Invert Slab Thickness (ft)</th>
<th>Wall Thickness (in)</th>
<th>Structure Width (in)</th>
</tr>
</thead>
<tbody>
<tr>
<td>West Portal</td>
<td>35+29.77</td>
<td>12'-0&quot;</td>
<td>2'-6&quot;</td>
<td>1'-6&quot;</td>
<td>37'-0&quot;</td>
</tr>
<tr>
<td>West Portal</td>
<td>38+50.00</td>
<td>18'-0&quot;</td>
<td>3'-0&quot;</td>
<td>2'-6&quot;</td>
<td>39'-0&quot;</td>
</tr>
<tr>
<td>West Portal</td>
<td>40+10.00</td>
<td>24'-0&quot;</td>
<td>5'-3&quot;</td>
<td>2'-6&quot;</td>
<td>41'-0&quot;</td>
</tr>
<tr>
<td>East Portal</td>
<td>103+53.23</td>
<td>12'-0&quot;</td>
<td>2'-6&quot;</td>
<td>1'-6&quot;</td>
<td>37'-0&quot;</td>
</tr>
<tr>
<td>East Portal</td>
<td>107+40.00</td>
<td>12'-0&quot;</td>
<td>2'-6&quot;</td>
<td>1'-6&quot;</td>
<td>37'-0&quot;</td>
</tr>
</tbody>
</table>

**Notes:**

- CBD-2 Track Envelope (TYP)
- CBD-2 Track Envelope (TYP)
-CBD-2 Track Envelope (TYP)
- CBD-2 Track Envelope (TYP)

**Light Rail Transit System**

**Line Section CBD-2**

**East/West Portal Section**

**U-Wall**
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. ELEVATOR AND ESCALATOR PITS TO BE 5'-0" DEEP.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN
NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. ESCALATOR PIT TO BE 5'-0" DEEP.

SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. ESCALATOR PIT TO BE 5'-0" DEEP.

NOT FOR CONSTRUCTION

NOT AN APPROVED DRAWING

PRELIMINARY DESIGN

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. ESCALATOR PIT TO BE 5'-0" DEEP.

NOT FOR CONSTRUCTION

NOT AN APPROVED DRAWING

PRELIMINARY DESIGN
NOTES:
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

PLANT LEVEL PLAN F

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN
NOTES:
1. FOR GENERAL NOTES, SEE DRAWING.
2. CONSULT ENGINEER AND ARCHITECT FOR SPECIFICATIONS, ME CH.
3. SUBSURFACE EXCAVATION NOT SHOWN IN DWG. GC3-0002.
4. ELEVATION PIT TO BE 5'-0" DEEP.

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING.
3. SUPPORT OF EXCAVATION NOT SHOWN IN DWG. GC3-0002.

CONCOURSE LEVEL PLAN A
MATCHLINE

SEE DWG No. SC6-2205

CONCOURSE LEVEL PLAN
MATCHLINE

SEE DWG No. SC6-2205 & SC6-2208

CONTRACT SHEET No. SC6-2201 SHEET 1 OF 8

HNTB Corporation
Engineers Architects Planners
The HNTB Companies

TBPE Firm Registration No. F-420
Engineers Architects Planners

ON 10/30/2020
CHARLES A. STONE, P.E. NO. 133866

FOR REVIEW UNDER THE AUTHORITY OF:
THIS IN-PROGRESS DRAWING IS RELEASED
SUBSURFACE INVESTIGATIONS
CONFIRMED UPON COMPLETION OF
IT SHALL BE UPDATED AND
PRELIMINARY DESIGN
NOT AN APPROVED DRAWING
NOT FOR CONSTRUCTION

SCALE: "=1'-0"
CONCOURSE LEVEL PLAN A
MATCHLINE

SEE DWG No. SC6-2205

CONCOURSE LEVEL PLAN
MATCHLINE

SEE DWG No. SC6-2205 & SC6-2208

CONTRACT SHEET No. SC6-2201 SHEET 1 OF 8

HNTB Corporation
Engineers Architects Planners
The HNTB Companies

TBPE Firm Registration No. F-420
Engineers Architects Planners

ON 10/30/2020
CHARLES A. STONE, P.E. NO. 133866

FOR REVIEW UNDER THE AUTHORITY OF:
THIS IN-PROGRESS DRAWING IS RELEASED
SUBSURFACE INVESTIGATIONS
CONFIRMED UPON COMPLETION OF
IT SHALL BE UPDATED AND
PRELIMINARY DESIGN
NOT AN APPROVED DRAWING
NOT FOR CONSTRUCTION

SCALE: "=1'-0"
NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG NO. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. ESCALATOR PITS TO BE 5'-0" DEEP.

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG NO. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. ESCALATOR PITS TO BE 5'-0" DEEP.

MATCHLINE

CONCOURSE LEVEL PLAN F

MATCHLINE

SEE DWG No. SC6-2205

SEE DWG No. SC6-2207

MATCHLINE

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG NO. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. ESCALATOR PITS TO BE 5'-0" DEEP.

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG NO. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. ESCALATOR PITS TO BE 5'-0" DEEP.
NOTES:
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. SC6-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING No. SC6-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN ON DRAFT PLAN.

MATCHLINE
SEE DWG No. SC6-2206

CONCOURSE LEVEL PLAN G
SCALE 1"=1'-0"

NOT FOR CONSTRUCTION
PRELIMINARY DESIGN

TBPE FIRM No. F-420
HNTB CORPORATION
ON 10/30/2020
CHARLES A. STONE, P.E. No. 133866

FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. SC6-0001.
FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING No. SC6-0002.
SUPPORT OF EXCAVATION NOT SHOWN ON DRAFT PLAN.

THIS PLAN.

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. SC6-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING No. SC6-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN ON DRAFT PLAN.

MATCHLINE
SEE DWG No. SC6-2206

CONCOURSE LEVEL PLAN G
SCALE 1"=1'-0"

NOT FOR CONSTRUCTION
PRELIMINARY DESIGN

TBPE FIRM No. F-420
HNTB CORPORATION
ON 10/30/2020
CHARLES A. STONE, P.E. No. 133866

FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. SC6-0001.
FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING No. SC6-0002.
SUPPORT OF EXCAVATION NOT SHOWN ON DRAFT PLAN.
CONCOURSE LEVEL PLAN J

MATCHLINE

SEE DWG No. SC6-2201

MATCHLINE

SEE DWG No. SC6-2202

CONCOURSE LEVEL PLAN J

SCALE: 1'-0" = 1'-0"

NOTES:
1. FOR STRUCTURAL NOTE, SEE DRAWING No. GC3-0002.
2. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
3. ELEVATOR PITS TO BE 5'-0" DEEP.
4. ELEVATOR PIT TO BE 5'-0" DEEP.
5. SUPPORT OF EXCAVATION NOT SHOWN.

DRAFT
CONCEPTUAL DESIGN PENDING
ADDITIONAL SITE SPECIFIC DATA
TUNNEL/STATION VENTILATION INPUT,
RAIL/FACILITY SYSTEMS AND
CONCEPTUAL DESIGN PENDING
MEZZANINE LEVEL PLAN C

SCALE = 1'-0"

NOTES:
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

LIMIT OF MEZZANINE LEVEL SLAB
NOTES:
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

SUBSURFACE INVESTIGATIONS CONFIRMED UPON COMPLETION OF IT SHALL BE UPDATED AND
PRELIMINARY DESIGN
NOT AN APPROVED DRAWING
NOT FOR CONSTRUCTION

MATCHLINE
SCALE: 1"=1'-0"

MEZZANINE LEVEL PLAN D
SCALE 1"=1'-0"

SHEET 4 OF 5

2-A
2-B
2-C
2-D
2-E
3'-0"
17'-6"
26'-0"
17'-6"
26'-0"
32'-0"
28'-6"
28'-6"
35'-3"
5'-1"
9'-0"
8'-1"
2'-9"†
8'-8"
3'-0"
11'-0"
22'-8"
209
288

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

SUBSURFACE INVESTIGATIONS CONFIRMED UPON COMPLETION OF IT SHALL BE UPDATED AND
PRELIMINARY DESIGN
NOT AN APPROVED DRAWING
NOT FOR CONSTRUCTION

MATCHLINE
SCALE: 1"=1'-0"

MEZZANINE LEVEL PLAN D
SCALE 1"=1'-0"

SHEET 4 OF 5

2-A
2-B
2-C
2-D
2-E
3'-0"
17'-6"
26'-0"
17'-6"
26'-0"
32'-0"
28'-6"
28'-6"
35'-3"
5'-1"
9'-0"
8'-1"
2'-9"†
8'-8"
3'-0"
11'-0"
22'-8"
209
288

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

SUBSURFACE INVESTIGATIONS CONFIRMED UPON COMPLETION OF IT SHALL BE UPDATED AND
PRELIMINARY DESIGN
NOT AN APPROVED DRAWING
NOT FOR CONSTRUCTION

MATCHLINE
SCALE: 1"=1'-0"

MEZZANINE LEVEL PLAN D
SCALE 1"=1'-0"

SHEET 4 OF 5

2-A
2-B
2-C
2-D
2-E
3'-0"
17'-6"
26'-0"
17'-6"
26'-0"
32'-0"
28'-6"
28'-6"
35'-3"
5'-1"
9'-0"
8'-1"
2'-9"†
8'-8"
3'-0"
11'-0"
22'-8"
209
288
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

MATCHLINE SEE DWG No. SC6-2302

MEZZANINE LEVEL PLAN E
SCALE: "=1'-0"

MATCHLINE SEE DWG No. SC6-2302

MEZZANINE LEVEL PLAN F
SCALE: "=1'-0"

NOTES:
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. SC6-2301.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. SC6-2302.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

TBPE Firm Registration No. 420
Engineers Architects Planners
The HNTB Companies
HNTB Corporation

pw://pwhdruscen01:HDR_US_Central_01/Documents/Dallas_Area_Rapid_Transit_DART_Dallas_TX/DART_General_Planning_CS_VI/6.0_CAD_BIM/6.2_Work_In_Progress/
NOTES:
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. SC6-002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. TEAR TO WALL AND TEAR TO WALL MACHINES 1'-6" X 1'-6" NO SHOWN.
NOTES:
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF EXCAVATION OF EXISTING BUILDINGS.
   (B) BASED ON INFORMATION ON EXISTING BUILDING AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDING, EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.
   (D) BASED ON INFORMATION ON EXISTING BUILDING FOUNDATION OF EXISTING BUILDING.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.
6. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
7. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
8. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
9. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
10. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
11. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
12. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
13. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
14. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
15. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
16. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
17. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
18. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
19. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
20. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
21. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
22. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
23. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

NOTES:
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. SC6-3402.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. SC6-3402.
3. SUPPORTS OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS THE TYPE OF CONSTRUCTION AND DEPTH OF EXCAVATION OF EXISTING BUILDINGS.
   (B) BASED ON INFORMATION ON EXISTING BUILDINGS AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATIONSEQUENCE AND UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GRAOUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALARMING LIMITS.
   (C) BASED ON THE CONDITION OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND DEGRAVING FOR THE HEADHOUSE STRUCTURE.

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
COMMERCE STATION HEADHOUSE
UPPER MEZZANINE PLAN

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

DRAWN:
UNDERGROUND DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALARMING LIMITS.

2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. SC6-3402.
3. SUPPORTS OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS THE TYPE OF CONSTRUCTION AND DEPTH OF EXCAVATION OF EXISTING BUILDINGS.
   (B) BASED ON INFORMATION ON EXISTING BUILDINGS AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATIONSEQUENCE AND UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GRAOUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALARMING LIMITS.
   (C) BASED ON THE CONDITION OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND DEGRAVING FOR THE HEADHOUSE STRUCTURE.

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
COMMERCE STATION HEADHOUSE
UPPER MEZZANINE PLAN

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

DRAWN:
UNDERGROUND DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GROUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALARMING LIMITS.

2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. SC6-3402.
3. SUPPORTS OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS THE TYPE OF CONSTRUCTION AND DEPTH OF EXCAVATION OF EXISTING BUILDINGS.
   (B) BASED ON INFORMATION ON EXISTING BUILDINGS AND GEOTECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATIONSEQUENCE AND UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS SECTION 02151 "UNDERPINNING, SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GRAOUND MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALARMING LIMITS.
   (C) BASED ON THE CONDITION OF THE EXISTING BUILDING, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND DEGRAVING FOR THE HEADHOUSE STRUCTURE.
NOTES:

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING NO. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING NO. GC3-0002.
3. SUPPORTS OF EXCAVATION NOT SHOWN IN THIS PLAN.
4. PRIOR TO EXCAVATING FOR HEADHOUSE CONSTRUCTION:
   
   (A) DETERMINE FROM AS-BUILT DRAWINGS AND FIELD SURVEYS TYPE OF CONSTRUCTION AND DEPTH OF EXCAVATION OF EXISTING BUILDINGS.
   
   (B) BASED ON INFORMATION ON EXISTING BUILDINGS AND GEO-TECHNICAL INFORMATION FROM GDM, DEVELOP AN EXCAVATION SEQUENCE AND AN UNDERPINNING DESIGN IN ACCORDANCE WITH DART SPECIFICATIONS. SECTION 600 "GEO-ENGINEERING SUPPORT AND RESTORATION OF STRUCTURES ADJACENT TO UNDERGROUND CONSTRUCTION" TO MITIGATE GRADE MOVEMENTS AND BUILDING SETTLEMENTS THAT WOULD EXCEED ALARMING LEVELS.
   
   (C) BASED ON THE CONDITIONS OF THE EXISTING BUILDINGS, ESTABLISH AND IMPLEMENT AN INSTRUMENTATION AND MONITORING PLAN TO RECORD THE STRUCTURES BEHAVIOR DURING EXCAVATION AND TO ALERT FOR APPROPRIATE ACTION TO BE TAKEN WHEN PRESET THRESHOLDS ARE REACHED.
   
   (D) BASED ON INFORMATION ON EXISTING BUILDING FOUNDATION OF EXISTING BUILDING.
   
5. CONTRACTOR SHALL UNDERTAKE APPROPRIATE MEASURES TO PROTECT EXISTING BUILDINGS AND FACILITIES FROM DAMAGE THAT MAY OCCUR DURING EXCAVATION, CONSTRUCTION AND BACKFILLING FOR THE HEADHOUSE STRUCTURE.

This plan is intended for preliminary design.

NOT FOR CONSTRUCTION.

NOT AN APPROVED DRAWING.

DRAFT FOR REVIEW UNDER THE AUTHORITY OF: CHARLES A. STONE, P.E. NO. 133866
1. For structural general notes, see drawing No. GC3-0001.
2. For structural symbols and abbreviations, see drawing No. GC3-0002.
3. Support of excavation not shown in this plan.
4. Prior to excavation for headhouse construction:
   a. Determine from as-built drawings and field surveys the size and depth of the foundation of existing buildings.
   b. Gather information on existing buildings and geological information from Geolab.
   c. Develop an excavation sequence and an instrumentation and monitoring plan in accordance with the specifications section 02151.
5. Contractor shall undertake appropriate measures to protect exposed sides of existing buildings and facilities from damage that may occur during excavation, construction, and backfilling. The project team will develop an excavation sequence and an instrumentation and monitoring plan to record the structures' behavior during excavation and to take appropriate action to be taken when preset thresholds are reached.
6. Contractor shall undertake appropriate measures to ensure proper control of excavation, construction, and backfilling for the headhouse structure.

HNTB Corporation

DART PROJECT

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

COMMERCE STATION HEADHOUSE
ROOF PLAN

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

CONTACT SHEET No. 232 288

SCALE: "" = 1'-0"

NOTES:

1. See drawing No. SC8-3202. TO 3

2. See drawing No. SC8-3201. A

3. See drawing No. SC8-3200. B

4. See drawing No. SC8-3201. (TYP)

5. See drawing No. SC8-3201. COLUMN

6. See drawing No. SC8-3201. 1' DIA
NOT FOR CONSTRUCTION
PRELIMINARY DESIGN

DRAFT
CONCEPTUAL DESIGN DRAWINGS
HNTB CORPORATION
1111 SW Sixth Street
Kansas City, MO 64105

NOT AN APPROVED DRAWING
NOT FOR CONSTRUCTION
PRELIMINARY DESIGN

DRAFT
CONCEPTUAL DESIGN DRAWINGS
HNTB CORPORATION
1111 SW Sixth Street
Kansas City, MO 64105
This conceptual design preliminary fire life safety ventilation and mechanical drawings are for primary and preliminary in nature and have not been signed or sealed. It is the design-builders responsibility to complete the design and prepare a set of specifications based on their design. The conceptual design preliminary fire life safety ventilation and mechanical systems are dependent on the configuration of the tunnel and surrounding elements. sidewalls enclosing concrete concourse and side lining. These are associated to the plenum and concourse locations. The conceptual design preliminary fire life safety ventilation and mechanical systems are dependent on the configuration of the tunnel and surrounding elements. sidewalls enclosing concrete concourse and side lining. These are associated to the plenum and concourse locations.

Not for construction. Not an approved drawing. Preliminary design.
CM - PLATFORM LEVEL OVERALL MECHANICAL SPACE PROOFING PLAN

GENERAL NOTES:
1. TVS DUCT SIZING AND SUBGRADE STRUCTURE VOLUMES ARE ESTABLISHED ON THE BASIS OF STATION INSTALLATION WITH FULL MECH Platform Screen Doors.

NOT FOR CONSTRUCTION
PRELIMINARY DESIGN

NOT AN APPROVED DRAWING
NOT FOR CONSTRUCTION
PRELIMINARY DESIGN
CM - MECHANICAL SPACE PROOFING CROSS SECTIONS

Scale: 1" = 1'-0"

GENERAL NOTES:
1. Duct system and all subgrade structure volumes are estimated on the basis of nearest system installation from full height platform screen doors.

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN
CM - MECHANICAL SPACE PROOFING CROSS SECTIONS

GENERAL NOTES:
1. Duct sizes and air surface structures volumes are established on the basis of transit system installation with full height platform screen doors.

SCALE: 1" = 1/8"

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

DRAFT CONCEPTUAL DESIGN PENDING FURTHER STUDIES SYSTEM BOUNDARY ADDITIONAL SUBSURFACE INVESTIGATIONS

NOT FOR CONSTRUCTION
COMMERCE STATION AIRFLOW PRESSURIZATION DIAGRAM

COMMERCIAL SPACE

ELEVATOR PRESSURIZATION
1,000 - 10,000 CFM

STAIR PRESSURIZATION
2,500 - 21,000 CFM

RELIEF PRESSURIZATION
4,000 - 30,000 CFM

DIRECTED FLOW

VENT FAN PLANT

PRESSURIZATION
1,000 - 10,000 CFM

PUBLIC CIRCULATION

ENVIRONMENTAL VENTILATION FAN

MECHANICAL VENTILATION

LEGEND:

- REMARKABLE AIR
- MAKE-UP AIR
- RELIEF, TRANSFER, DUCTED, VENTILATION
- PUBLIC CIRCULATION
- BACK OF HOUSE SPACES

COMMERCIAL SPACE

COMMERCIAL SPACE

COMMERCIAL SPACE

COMMERCIAL SPACE

COMMERCIAL SPACE
NOTES:
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN DRAWING.

PLATFORM LEVEL PLAN

SEE DWG No. SC6-4106

SEE DWG No. SC6-4102

SEE DWG No. SC6-4104
NOTES

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING DETAIL NO. GC3-0002.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING DETAIL NO. GC3-0001.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
NOTES:
1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. SC6-4052.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DRAWING No. SC6-4052.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

MATCHLINE

SEE DWG No. SC6-4103

 PLATFORM LEVEL PLAN F
 SHEET 6 OF 6

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY DESIGN

HNTB

DRAFT
CONCEPTUAL DESIGN DRAWING
FOR LIGHT RAIL TRANSIT SYSTEM AND STATION LOCATION AND SITE INFRASTRUCTURE
AND ASSOCIATED SITE DESIGN DATA

HNTB CORPORATION

TBPE FIRM NO. F-420

ON 10/30/2020

CHARLES A. STONE, P.E. NO. 133866

FOR REVIEW UNDER THE AUTHORITY OF:

THIS IN-PROGRESS DRAWING IS RELEASED
SUBSURFACE INVESTIGATIONS
CONFIRMED UPON COMPLETION OF
IT SHALL BE UPDATED AND

FOR STRUCTURAL GENERAL NOTES, SEE DRAWING
No. GC3-0001.

FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE
DWG No. SC6-4052.
MEZZANINE LEVEL PLAN

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.

NOTES

1. FOR STRUCTURAL GENERAL NOTES, SEE DRAWING No. GC3-0001.
2. FOR STRUCTURAL SYMBOLS AND ABBREVIATIONS, SEE DWG No. GC3-0002.
3. SUPPORT OF EXCAVATION NOT SHOWN IN THIS PLAN.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
DRAINAGE AREA MAP
SHEET 4 OF 13

MATCH LINE CBD-2 EB STA 36+50.00
SEE DWG No. CC6-0103

MATCH LINE CBD-2 EB STA 46+25.00
SEE DWG No. CC6-0105

J. BRISCOE

ICONIC CONSULTING GROUP, INC.

ON 10/30/2020
JEFFREY E. BRISCOE, P.E. NO. 99558

DRAINAGE AREA BOUNDARY
LIMITS
100 YEAR FLOODPLAIN
DRAINAGE FLOW
DRAINAGE AREA NUMBER
DRAINAGE AREA IN ACRES
RAIL CENTERLINE
LEGEND
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CSD-2
DRAINAGE AREA MAP
SHEET 13 OF 13

ICONIC CONSULTING GROUP, INC.
gpc
DART PROJECT

IN-PROGRESS

JOB NO.
CCE-013

CONTRACT SHEET No.
206 OF 208

NOTED:

J. BRISCOE, P.E.
JEFFREY E. BRISCOE, P.E.
NO. 99558
ICONIC CONSULTING GROUP, INC.

IN-PROGRESS

FOR THE PURPOSE OF REVIEW UNDER THE
AUTHORITY OF:

ON 10/30/2020

THIS DOCUMENT IS RELEASED
FOR THE PURPOSE OF REVIEW UNDER THE

FOR CONSTRUCTION,
NOT TO BE USED FOR CONSTRUCTION,
IN-PROGRESS
BIDDING OR PERMIT PURPOSES.

THIS DOCUMENT IS RELEASED
IN-PROGRESS
BIDDING OR PERMIT PURPOSES.

FOR THE PURPOSE OF REVIEW UNDER THE
AUTHORITY OF:

ON 10/30/2020

THIS DOCUMENT IS RELEASED
IN-PROGRESS
BIDDING OR PERMIT PURPOSES.
<table>
<thead>
<tr>
<th>Description No.</th>
<th>Area (sq. ft)</th>
<th>Runoff Coeff.</th>
<th>Duration (hr)</th>
<th>Time (min)</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>A01</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A02</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A03</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A04</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A05</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A06</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A07</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A08</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A09</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A10</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A11</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A12</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A13</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A14</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A15</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A16</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A17</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A18</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A19</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A20</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A21</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A22</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A23</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A24</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
<tr>
<td>A25</td>
<td>0.95</td>
<td>2.89</td>
<td>0.95</td>
<td>2.19</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES**

1. Drainage design criteria frequency, intensity, and runoff coefficients are based on the City of Dallas drainage design manual, dated May 1991.

2. All drainage areas are calculated for the 100-year frequency storm.

3. Alignment is within the zoning districts: CA-1(A), Central Area - I.

4. Intensity curve (K-values) are determined based on the rainfall intensity duration curves shown in Table 2 of the Appendix.

5. Runoff coefficients are taken from the Table (except for items) and maximum inlet times located in Table 1 of the Appendix.
### DRAINAGE AREA SUMMARY TABLE

<table>
<thead>
<tr>
<th>DRAINAGE AREA</th>
<th>AREA (ACRES)</th>
<th>RUNOFF COEFF.</th>
<th>&quot;C&quot;</th>
<th>Tc (MIN.)</th>
<th>DRAINAGE AREA (IN/HR)</th>
<th>Q (100 YR) (CFS)</th>
<th>COMMENTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>123</td>
<td>0.25</td>
<td>0.80</td>
<td>0.50</td>
<td>0.10</td>
<td>0.05</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>124</td>
<td>0.26</td>
<td>0.80</td>
<td>0.50</td>
<td>0.10</td>
<td>0.05</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>125</td>
<td>0.27</td>
<td>0.80</td>
<td>0.50</td>
<td>0.10</td>
<td>0.05</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>126</td>
<td>0.28</td>
<td>0.80</td>
<td>0.50</td>
<td>0.10</td>
<td>0.05</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>127</td>
<td>0.29</td>
<td>0.80</td>
<td>0.50</td>
<td>0.10</td>
<td>0.05</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>128</td>
<td>0.30</td>
<td>0.80</td>
<td>0.50</td>
<td>0.10</td>
<td>0.05</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>129</td>
<td>0.31</td>
<td>0.80</td>
<td>0.50</td>
<td>0.10</td>
<td>0.05</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>130</td>
<td>0.32</td>
<td>0.80</td>
<td>0.50</td>
<td>0.10</td>
<td>0.05</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>131</td>
<td>0.33</td>
<td>0.80</td>
<td>0.50</td>
<td>0.10</td>
<td>0.05</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>132</td>
<td>0.34</td>
<td>0.80</td>
<td>0.50</td>
<td>0.10</td>
<td>0.05</td>
<td>0.00</td>
<td></td>
</tr>
<tr>
<td>133</td>
<td>0.35</td>
<td>0.80</td>
<td>0.50</td>
<td>0.10</td>
<td>0.05</td>
<td>0.00</td>
<td></td>
</tr>
</tbody>
</table>

**NOTES:**

1. DRAINAGE DESIGN CRITERIA (FREQUENCY, INTENSITY, AND RUNOFF CORRECTIONS) ARE BASED ON THE CITY OF DALLAS DRAINAGE DESIGN MANUAL, DATED MAY 2008.
2. ALL DRAINAGE AREAS ARE CALCULATED FOR THE 100-YEAR FREQUENCY STORM.
3. ALLOWS FOR ADJUSTMENT TO ADJACENT DRAINAGE DISTRICTS, CA 1114, ORAL AREA - 1.
4. INTENSITY WAS DETERMINED USING THE RAINFALL INTENSITY DURATION TABLE LOCATED ON PAGE 1 OF THE APPENDIX.
5. RUNOFF COEFFICIENTS ARE TAKEN FROM THE TABLE: RUNOFF COEFFICIENTS AND MAXIMUM INLET TIMES LOCATED ON PAGE 1 OF THE APPENDIX.
<table>
<thead>
<tr>
<th>DWG No.</th>
<th>AREA NO.</th>
<th>E01</th>
<th>E02</th>
<th>E03</th>
<th>E04</th>
<th>E05</th>
<th>E06</th>
<th>E07</th>
<th>E08</th>
<th>E09</th>
<th>E10</th>
<th>E11</th>
<th>E12</th>
<th>E13</th>
<th>E14</th>
<th>E15</th>
<th>E16</th>
<th>E17</th>
<th>E18</th>
<th>E19</th>
<th>E20</th>
<th>E21</th>
<th>E22</th>
<th>E23</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.11</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8.88</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**DRAINAGE DESIGN CRITERIA (FREQUENCY, INTENSITY, AND RUNOFF COEFFICIENTS)**

- **Rainfall Intensity Duration Table**
  - Located on page 2 of the Appendix.

- **Table: Runoff Coefficients and Maximum Inlet Times**
  - Located on page 1 of the Appendix.

**NOTES**

1. Drainage design criteria (frequency, intensity, and runoff coefficients) are based on the City of Dallas drainage system manual.
2. All drainage areas are calculated for the 100-year frequency storm.
3. Alignment is within the drainage districts CD-110, Central Area - 1.
4. Intensity and duration using the Hargreaves intensity-duration curves for all areas.
5. Outflow coefficients and design criteria are taken from the tables except for precipitation and runoff rates located in the Appendix.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
FOR THE PURPOSE OF REVIEW UNDER THE
THIS DOCUMENT IS RELEASED
TBPE FIRM NO. F-5332
URBAN ENGINEERS GROUP, INC.
ON 10/30/2020
FAISAL S. SYED, P.E. NO. 84833

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
EXISTING UTILITY COMPOSITE
BEGIN PROJECT TO STA 15+00.00

NOTES:
1. FOR ADDITIONAL AND MONTICELLO GEOMETRY, SEE
HORIZONTAL ALIGNMENT DATA TABLE SHEETS AND GUIDEWAY
PLAN AND PROFILE SHEETS.
2. FOR GENERAL NOTES, ABBREVIATIONS AND SYMBOLS
RELATED TO UTILITY CONSTRUCTION, SEE DWG No. GC1-0003
AND GC1-0004.
3. UTILITY INFORMATION IS BASED UPON EXISTING UTILITY
PLANS PROVIDED BY CITY OF DALLAS AND DALLAS WATER
UTILITIES. THIS DRAWING ONLY MODEL THE EXISTENCE OF
OTHER UNDERGROUND FACILITIES. DESIGNS INFORMATION IS
BASED UPON DATA COLLECTED FROM BOTH PUBLIC AND
PRIVATE SOURCES. THE COMPLETENESS AND/OR ACCURACY
OF THESE RECORDS CANNOT BE GUARANTEED EXCEPT BY FIELD
MEASUREMENTS. UTILITIES SHALL BE VERIFIED BY FINAL
DESIGNER.
4. INDIVIDUAL GAS SERVICES ARE UNKNOWN AND NOT SHOWN
ON THESE DRAWINGS.
5. FINAL DESIGNER SHALL VERIFY THE HEIGHT OF ALL
WATER MAIN CROSSINGS AND PERFORM THE FOR ALL HIGH
PRESSURE GAS.
6. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY
IN ANY AREA OF THE PROJECT, THE CONTRACTOR SHALL
CONTACT ALL COMPANIES KNOWN TO OPERATE UTILITY
SYSTEMS IN THE AREA AND SHALL GIVE THEIR FACILITIES
IMMEDIATELY LOCATED.
7. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING
THE EXACT SIZE OF EXISTING WATER AND WASTEWATER
SERVICES.
8. STORM SEWER PLANS ARE NOT SHOWN ON THESE DRAWINGS.
9. FOR PROPOSED STATIONS, SEE ARCHITECTURAL SHEETS.

NOTES:
1. FOR ADDITIONAL AND MONTICELLO GEOMETRY, SEE
HORIZONTAL ALIGNMENT DATA TABLE SHEETS AND GUIDEWAY
PLAN AND PROFILE SHEETS.
2. FOR GENERAL NOTES, ABBREVIATIONS AND SYMBOLS
RELATED TO UTILITY CONSTRUCTION, SEE DWG No. GC1-0003
AND GC1-0004.
3. UTILITY INFORMATION IS BASED UPON EXISTING UTILITY
PLANS PROVIDED BY CITY OF DALLAS AND DALLAS WATER
UTILITIES. THIS DRAWING ONLY MODEL THE EXISTENCE OF
OTHER UNDERGROUND FACILITIES. DESIGNS INFORMATION IS
BASED UPON DATA COLLECTED FROM BOTH PUBLIC AND
PRIVATE SOURCES. THE COMPLETENESS AND/OR ACCURACY
OF THESE RECORDS CANNOT BE GUARANTEED EXCEPT BY FIELD
MEASUREMENTS. UTILITIES SHALL BE VERIFIED BY FINAL
DESIGNER.
4. INDIVIDUAL GAS SERVICES ARE UNKNOWN AND NOT SHOWN
ON THESE DRAWINGS.
5. FINAL DESIGNER SHALL VERIFY THE HEIGHT OF ALL
WATER MAIN CROSSINGS AND PERFORM THE FOR ALL HIGH
PRESSURE GAS.
6. PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY
IN ANY AREA OF THE PROJECT, THE CONTRACTOR SHALL
CONTACT ALL COMPANIES KNOWN TO OPERATE UTILITY
SYSTEMS IN THE AREA AND SHALL GIVE THEIR FACILITIES
IMMEDIATELY LOCATED.
7. THE CONTRACTOR WILL BE RESPONSIBLE FOR DETERMINING
THE EXACT SIZE OF EXISTING WATER AND WASTEWATER
SERVICES.
8. STORM SEWER PLANS ARE NOT SHOWN ON THESE DRAWINGS.
9. FOR PROPOSED STATIONS, SEE ARCHITECTURAL SHEETS.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
10/30/2020

NOTES:
1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

EXISTING UTILITY COMPOSITE

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

STA 15+00.00 TO STA 21+00.00

NOTES:
1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

NOTES:
1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

Surface Waterway 51+00.00 TO 58+00.00

EXISTING UTILITY COMPOSITE
LINE SECTION CBD-2

LIGHT RAIL TRANSIT SYSTEM
OF DART PROJECT

FAISAL S. SYED, P.E. NO. 84833

THIS DOCUMENT IS RELEASED IN-PROGRESS

TBPE FIRM NO. F-5332

CONTRACT SHEET No. 226 TO 288
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

IN-PROGRESS

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

EXISTING UTILITY COMPOSITE
STA 58+00.00 TO STA 65+00.00

NOTES:
1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.
2. SEE DWG No. UC2-0007, UC2-0012, AND SECTION 6.3.3 OF 'METHOD OF CONSTRUCTION REPORT' FOR RELATIVE LOCATION OF EXISTING 1.47 CONCRETE STORM DRAINAGE DRAIN SYSTEM TO TUNNEL EXCAVATION ALONG COMPLETE DIST.

FAISAL S. SYED, P.E. NO. 84833
IN-PROGRESS
THIS DOCUMENT IS RELEASED
BY ENG CHK IT IS NOT TO BE USED FOR CONSTRUCTION,
AUTHORITY OF:
TBPE FIRM NO. F-5332
IN CHARGE: ENG CHK
CHECKED: ENG CHK
DESIGNED: ENG CHK
DRAWN: ENG CHK
SCALE: 1" = 40'

ONCOR VAULT
#V-4138
SHAFT 15 (1966)
ON 10/30/2020
SHAFT 201 (2018)
ON 10/30/2020

ONCOR UGE
APPROX LOCATION
ONCOR UGE
APPROX LOCATION
ONCOR UGE
APPROX LOCATION
ONCOR UGE
APPROX LOCATION
ONCOR UGE
APPROX LOCATION
ONCOR UGE
APPROX LOCATION
ONCOR UGE
APPROX LOCATION

12" SS 411Q-1599C
SHAFT 15 (1966)
ON 10/30/2020
SHAFT 201 (2018)
ON 10/30/2020

SPECTRUM DUCT
APPROX LOCATION
APPROX LOCATION
APPROX LOCATION
APPROX LOCATION
APPROX LOCATION
APPROX LOCATION
APPROX LOCATION

EXCAVATION ALONG COMMERCE STREET.
STORM HORSESHOE DRAIN SYSTEM TO TUNNEL
RELATIVE LOCATION OF EXISTING 7-FT CONCRETE
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

NOTES:
1. SEE DWG No. UC2-009 FOR ADDITIONAL NOTES.
2. SEE DWG No. AC5-3013, AC5-3018, AND SECTION 6.3.3 OF 'METHOD OF CONSTRUCTION REPORT' FOR RELATIVE LOCATION OF EXISTING CONCRETE STORM HORSESHOE DRAIN SYSTEM TO TUNNEL EXCAVATION ALONG COMMERCE STREET.

SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

STATION 73+00.00 TO STA 81+00.00
EXISTING UTILITY COMPOSITE
ENSION ALONG COMMERCE STREET.

M E S Q U I T E
M E S Q U I T E
M E S Q U I T E
S W E E T  G U M
S W E E T  G U M
S W E E T  G U M
O A K
O A K
O A K
O A K
O A K
E L M
E L M
E L M
OAK
OAK
OAK
OAK
OAK
ELM
ELM
ELM
74+00
76+00
78+00
80+00
80+00
78+00
76+00
74+00
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
STATION 96+00.00 TO STA 103+00.00

1. SEE DWG NO. UC2-001 FOR ADDITIONAL NOTES.
2. FOR PORTAL U-WALL, SEE STRUCTURAL SHEETS.

NOTES:
1. SEE DWG NO. UC2-001 FOR ADDITIONAL NOTES.
2. FOR PORTAL U-WALL, SEE STRUCTURAL SHEETS.

EXISTING UTILITY COMPOSITE
LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2
STA 96+00.00 TO STA 103+00.00

NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
CONTRACT SHEET NO. UC2-0013
10/30/2020
FAISAL S. SYED, P.E. NO. 84833

CITY OF DALLAS
URBAN ENGINEERS GROUP, INC.
ON 10/30/2020
FAISAL S. SYED, P.E. NO. 84833
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN
FOR THE PURPOSE OF REVIEW UNDER THE
THIS DOCUMENT IS RELEASED TBPE FIRM NO. F-5332
URBAN ENGINEERS GROUP, INC.
ON 10/30/2020
FAYSAL S. SYED, P.E. NO. 84833

LOCATION APPROX.
UGT DUCT
SH 22 (2005)
8" SS 411Q-3020

LOCATION APPROX.
SH 23 (2005)
8" SS 411Q-3020

LOCATION APPROX.
3" GAS

LOCATION APPROX.
SH 22 (2005)
16" W 411Q-3020

LOCATION APPROX.
SH 23 (2005)
8" W 411Q-3020

LOCATION APPROX.
16" GAS

LOCATION
À CBD-2 WB
À SE-1 NB
À SE-1 SB

CY PRESS
À CBD-2

ICV
PB
JB

M H
TP

SW E E T  G U M
SY C A M O R E
TP

PB

NW

TS 20+ 00
ST 20+ 00
79.30
CS 20+
ST 20+
19.30

TS 22+ 00
ST 22+ 00
20+ 00
CS 22+
ST 22+
96.29

TS 24+ 00
ST 24+ 00
81.63
CS 24+
ST 24+
112+ 00

TS 25+ 00
ST 25+ 00
68.76
CS 25+
ST 25+
114+ 00

TS 25+ 00
ST 25+ 00
18.75
CS 25+
ST 25+
113+ 00

TS 26+ 00
ST 26+ 00
28.74
CS 26+
ST 26+
115+ 13

TS 26+ 00
ST 26+ 00
28.74
CS 26+
ST 26+
115+ 7

TS 28+ 00
ST 28+ 00
18.74
CS 28+
ST 28+
25+ 00

TS 28+ 00
ST 28+ 00
18.74
CS 28+
ST 28+
113+ 80

TS 30+ 00
ST 30+ 00
28.74
CS 30+
ST 30+
115+ 13

TS 32+ 00
ST 32+ 00
18.74
CS 32+
ST 32+
25+ 00

TS 32+ 00
ST 32+ 00
18.74
CS 32+
ST 32+
115+ 7

TS 34+ 00
ST 34+ 00
28.74
CS 34+
ST 34+
113+ 80

TS 36+ 00
ST 36+ 00
18.74
CS 36+
ST 36+
25+ 00

TS 36+ 00
ST 36+ 00
18.74
CS 36+
ST 36+
115+ 13

TS 38+ 00
ST 38+ 00
28.74
CS 38+
ST 38+
25+ 00

PS NO 10 TO STA 22+
STA 111+00.00 TO SE-1 STA. 28+00.00

STATEMENT OF REASONABLE AND FAIR COMPENSATION

EXISTING UTILITY COMPOSITE

L. WYANDON
H. RAZA
F. SYED

DART PROJECT

NOTES:

1. SEE DWG No. UC2-001 FOR ADDITIONAL NOTES.

SCALE (IN FEET)

1" = 40'
NOT FOR CONSTRUCTION
NOT AN APPROVED DRAWING
PRELIMINARY 30% DESIGN

DATE: 10/30/2020

FAISAL S. SYED, P.E. NO. 84833

LIGHT RAIL TRANSIT SYSTEM
LINE SECTION CBD-2

NOTES:
1. SEE Dwg No. UC2-001 FOR ADDITIONAL NOTES.