# STATE OF DELAWARE

# DEPARTMENT OF TRANSPORTATION

# DESIGN-BUILD PROJECT

for

# INDIAN RIVER INLET BRIDGE

Replacement of Bridge 3-156,
SR1 over Indian River Inlet
State Contract # 26-073-03 Readvertised
Federal Contract # BRN-S050(14)

# SCOPE OF SERVICES PACKAGE

# CONTRACT DOCUMENTS

# PART 6 – APPENDIX B

# DIRECTIVE AND INDICATIVE PLANS

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2.0 INDICATIVE PLANS ..... 1

## 1.0 DIRECTIVE PLANS

Applicable CADD files in electronic format on CD-ROMs (Compact Disc – Read Only Memory) are included in the Reference Documents for the following directive plans unless otherwise noted:

A) Contract #26-073-03, Replacement of Bridge 3-156, SR 1 Over Indian River Inlet (Design-Build Project) Project-Specific Plans included in Appendix B;

B) Contract #28-073-02, BR 3-156 on SR 1 Over Indian River Inlet (Embankment Removal) Contract Drawings;

C) Contract #23-073-03, BR 3-156 on SR 1 Over Indian River Inlet (Roadway and Approaches) Contract Drawings with Addendums and Revisions; and

D) Contract #23-073-03, BR 3-156 on SR 1 Over Indian River Inlet (Right-of-Way Plans).

## 2.0 INDICATIVE PLANS

Applicable CADD files in electronic format on CD-ROMs (Compact Disc – Read Only Memory) are included in the Reference Documents for the following indicative plans:

A) Contract #28-073-02, BR 3-156 on SR 1 Over Indian River Inlet (Embankment Removal) Contract Drawings;

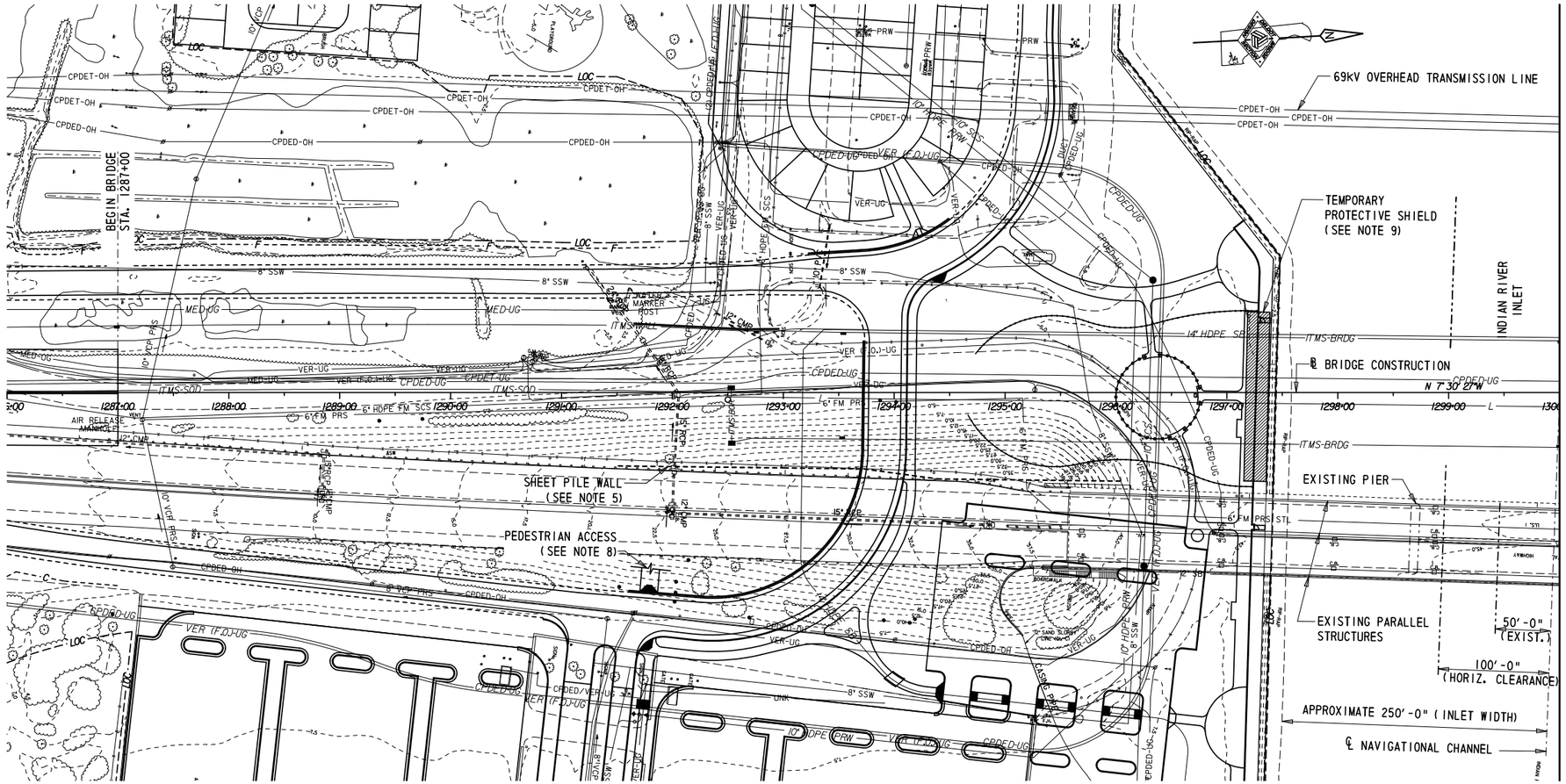
B) Contract #23-073-03, BR 3-156 on SR 1 Over Indian River Inlet (Roadway and Approaches) Contract Drawings with Addendums and Revisions; and

C) Contract #25-073-02, BR 3-156 on SR 1 Over Indian River Inlet (Bridge Replacement) Non-Awarded Contract Drawings with Addendums;

*Remainder of page blank*

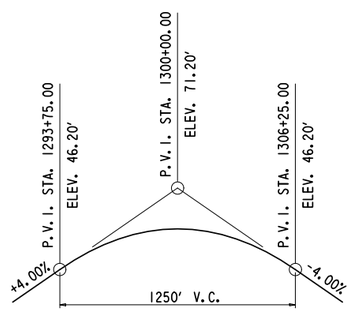
NOTES:

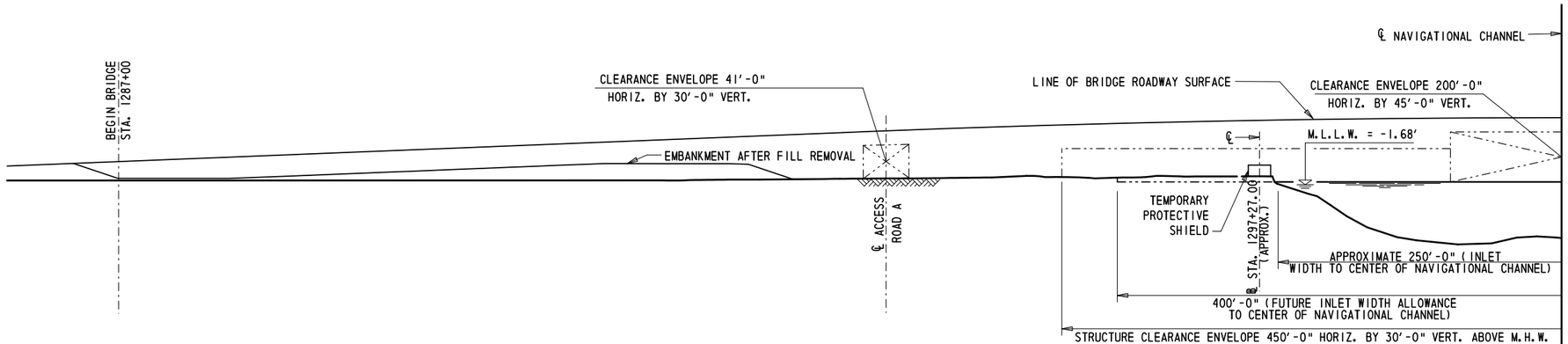
1. ELEVATIONS FOR M.L.L.W. AND M.H.W. ARE GIVEN WITH RESPECT TO NAVD88 DATUM. NAVD88 DATUM ELEVATION 0.00'. ALL ELEVATIONS GIVEN ARE ALONG THE ℄ BRIDGE CONSTRUCTION AND WILL BE APPLIED AS SHOWN ON THE TYPICAL SECTIONS.
2. FOR ROADWAY IMPROVEMENT PLANS SEE REFERENCE DOCUMENTS - ROADWAY CONTRACT PLANS (CONTRACT #23-073-03).
3. FOR PARK IMPROVEMENT PLANS SEE REFERENCE DOCUMENTS - PARK CONTRACT PLANS (CONTRACT #25-073-03).
4. FOR MSE WALL DETAILS SEE ROADWAY CONTRACT PLANS.
5. FOR SHEET PILE WALL DETAILS SEE ROADWAY CONTRACT PLANS.
6. FOR EMBANKMENT REMOVAL PLANS SEE REFERENCE DOCUMENTS - EMBANKMENT REMOVAL CONTRACT PLANS (CONTRACT #28-073-02).
7. TOPO SHOWN ON THIS SHEET MAY NOT REFLECT ACTUAL CONDITIONS AT TIME OF BRIDGE DESIGN-BUILD CONTRACT ADVERTISEMENT AND THE BEGINNING OF CONSTRUCTION.
8. FINAL PEDESTRIAN ACCESS/CONNECTION TO THE NEW INDIAN RIVER INLET BRIDGE WILL BE DESIGNED UNDER A SEPARATE CONTRACT.
9. THE DESIGN-BUILDER SHALL FURNISH, ERECT AND MAINTAIN TEMPORARY PROTECTIVE SHIELDS FOR PEDESTRIAN ACCESS ALONG THE INDIAN RIVER INLET DURING CONSTRUCTION OF THE NEW INDIAN RIVER INLET BRIDGE IN ACCORDANCE WITH THE TEMPORARY WORKS PERFORMANCE SPECIFICATION AND AS SHOWN SCHEMATICALLY ON THIS SHEET.
10. THE APPROACH BRIDGE STRUCTURES SHALL PROVIDE A MINIMUM LOW CHORD ELEVATION OF 11.0 FEET.




PLAN

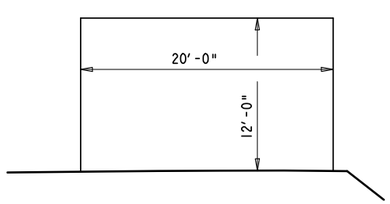
1" = 120'-0"




ELEVATION

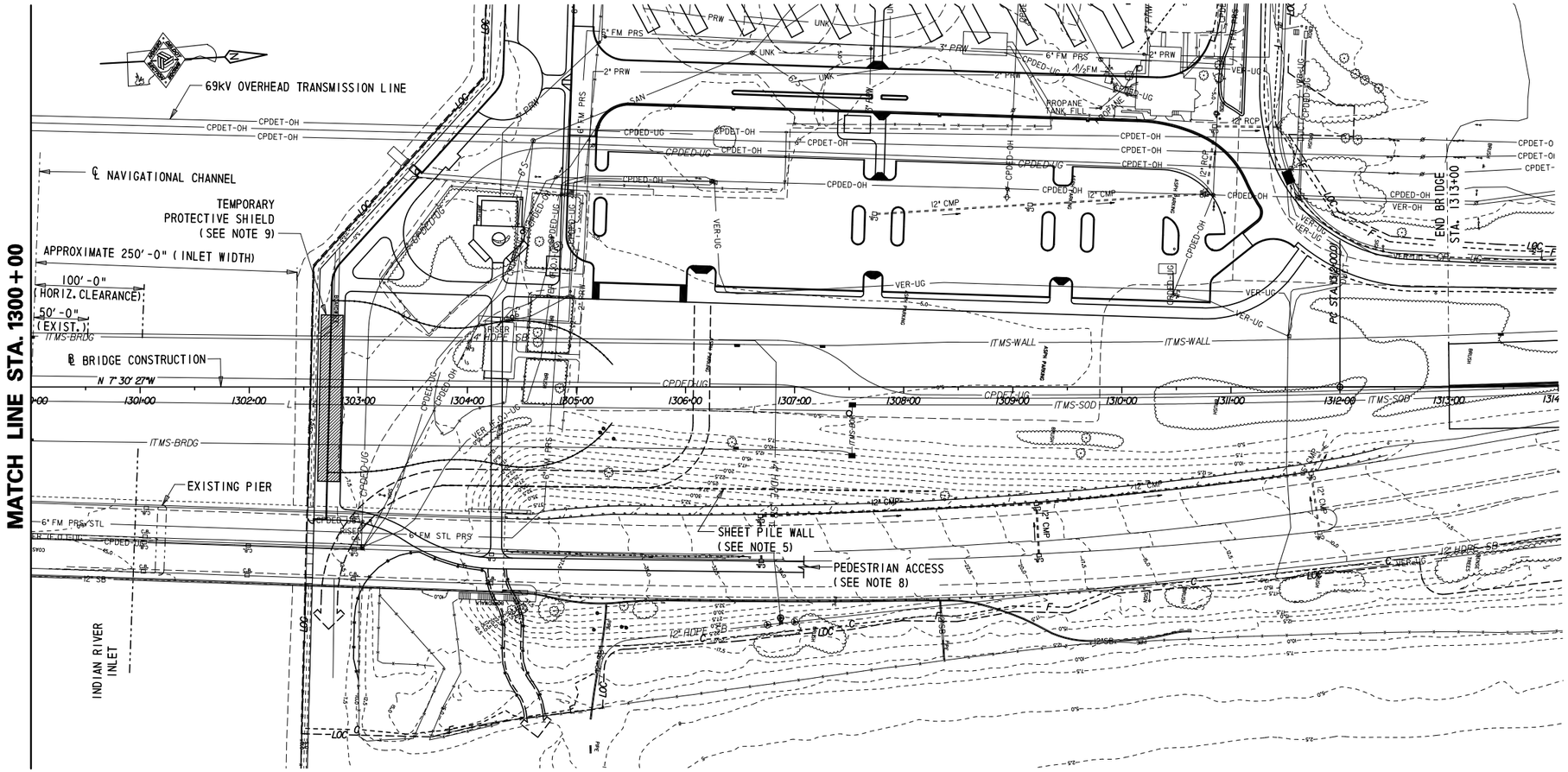
1" = 120'-0"




TEMPORARY PROTECTIVE SHIELD INSIDE CLEARANCE DIMENSIONS

N.T.S.

| DELAWARE DEPARTMENT OF TRANSPORTATION | ADDENDUMS / REVISIONS | SCALE: SEE SHEET | REPLACEMENT OF BR 3-156 SR 1 OVER INDIAN RIVER INLET | CONTRACT 26-073-03/ BROS-5050(9) | BRIDGE NO. BR 3-156 | KEY PLAN | SHEET NO. B-01 |
|---|---|---|---|---|---|---|---|
| | | | | COUNTY SUSSEX | DESIGNED BY: K.R.S. | | TOTAL SHTS. B-06 |
| | | | | | CHECKED BY: R.E.H. | | |




PLAN

1" = 120'-0"

NOTES:

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4. FOR MSE WALL DETAILS SEE ROADWAY CONTRACT PLANS.
5. FOR SHEET PILE WALL DETAILS SEE ROADWAY CONTRACT PLANS.
6. FOR EMBANKMENT REMOVAL PLANS SEE REFERENCE DOCUMENTS - EMBANKMENT REMOVAL CONTRACT PLANS (CONTRACT #28-073-02).
7. TOPO SHOWN ON THIS SHEET MAY NOT REFLECT ACTUAL CONDITIONS AT TIME OF BRIDGE DESIGN-BUILD CONTRACT ADVERTISEMENT AND THE BEGINNING OF CONSTRUCTION.
8. FINAL PEDESTRIAN ACCESS/CONNECTION TO THE NEW INDIAN RIVER INLET BRIDGE WILL BE DESIGNED UNDER A SEPARATE CONTRACT.
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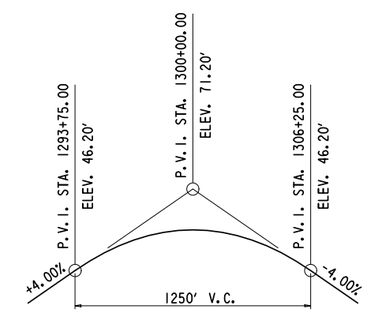
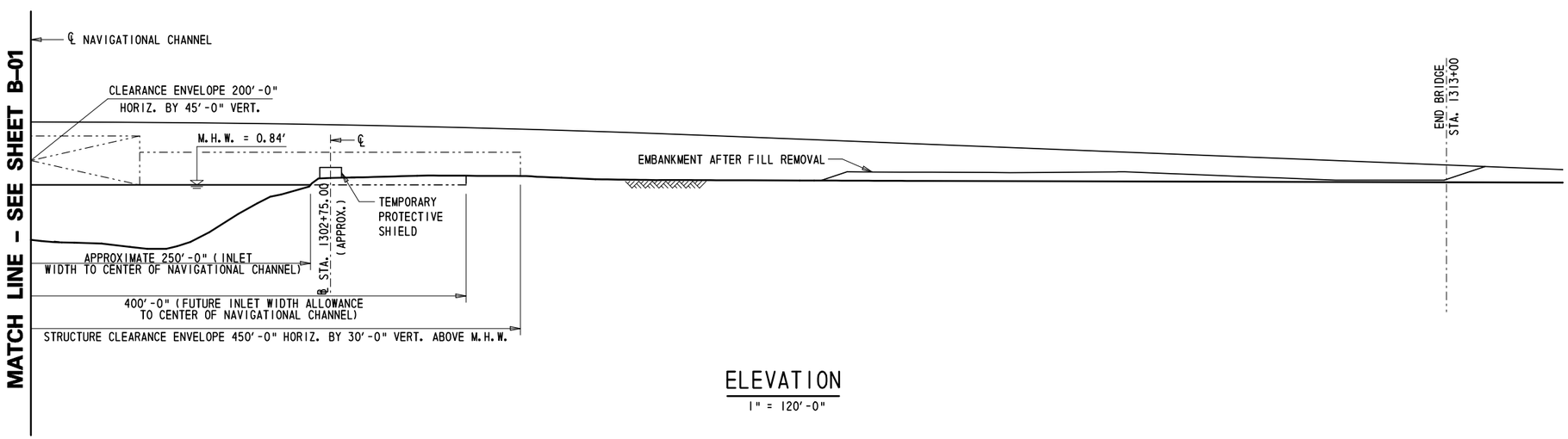
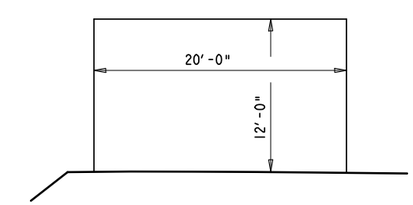



ELEVATION

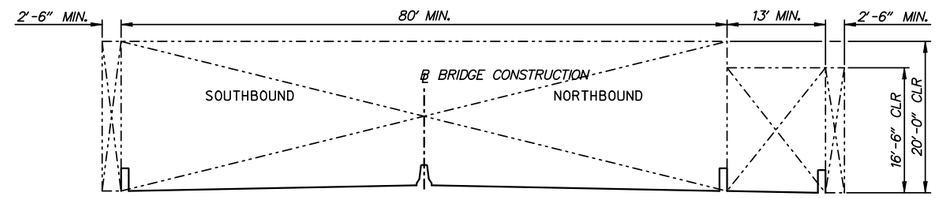
1" = 120'-0"



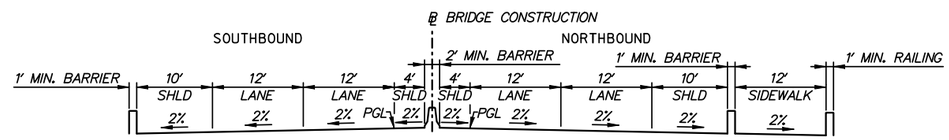

TEMPORARY PROTECTIVE SHIELD INSIDE CLEARANCE DIMENSIONS

N.T.S.

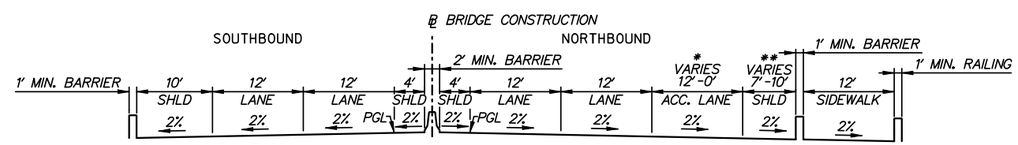
| | | | | | | |
|---|---|---|---|---|---|---|
| DELAWARE DEPARTMENT OF TRANSPORTATION | ADDENDUMS / REVISIONS | SCALE: SEE SHEET | REPLACEMENT OF BR 3-156 SR 1 OVER INDIAN RIVER INLET | CONTRACT 26-073-03/ BROS-S050(9) | BRIDGE NO. BR 3-156 | KEY PLAN | SHEET NO. B-02 |
| | | | | COUNTY SUSSEX | DESIGNED BY: K.R.S. | | TOTAL SHTS. B-06 |
| | | | | | CHECKED BY: R.E.H. | | |




## ABOVE DECK CLEARANCE ENVELOPE

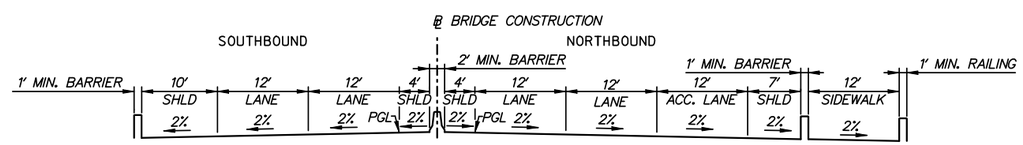



## STA. 1290+84 TO STA. 1313+00




## STA. 1287+84 TO STA. 1290+84

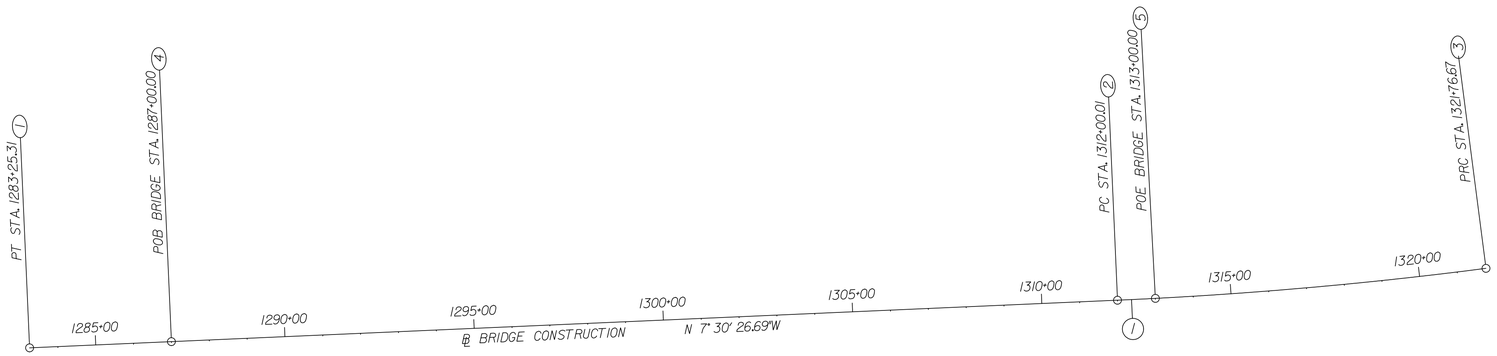
* VARIES FROM 12' AT STA. 1287+84 TO 0' AT STA. 1290+84
** VARIES FROM 7' AT STA. 1290+09 TO 10' AT STA. 1290+84




## STA. 1287+00 TO STA. 1287+84

NOTE:
1. ALL BARRIERS AND RAILINGS SHALL BE PERPENDICULAR TO BRIDGE DECK.
2. ALL DIMENSIONS ARE MEASURED ON THE SLOPE OR PERPENDICULAR TO THE SLOPE (UNLESS OTHERWISE NOTED).
3. ALL DIMENSIONS SHOWN ARE MINIMUMS REQUIRED.
4. RIDING SURFACE OVERLAY IS MEASURED AFTER 1/8" BLANKET GRINDING OF THE DECK OVERLAY (SEE SPECIAL PROVISION 501531).
5. NO PART OF ANY AS-BUILT CABLE STAY SHALL ENCROACH INTO THE CABLE STAY CLEARANCE ENVELOPE.

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| DELAWARE DEPARTMENT OF TRANSPORTATION | ADDENDUMS / REVISIONS | SCALE: 1"=20' | REPLACEMENT OF BR 3-156 SR 1 OVER INDIAN RIVER INLET | CONTRACT 26-073-03/ BROS-S050(9) | BRIDGE NO. 3-156 | TYPICAL SECTIONS | SHEET NO. B-03 |
| | | | | COUNTY SUSSEX | DESIGNED BY: K.R.S. | | TOTAL SHTS. B-06 |
| | | | | | CHECKED BY: R.E.H. | | |




## CONTROL COORDINATES

| | ℄ BRIDGE CONSTRUCTION | | | |
|---|---|---|---|---|
| 1 | PT | 1283+25.31 | 219,985.7219 | 757,255.3651 |
| 2 | PC | 1312+00.01 | 222,835.7841 | 756,879.7721 |
| | PI | 1316+88.63 | 223,320.2184 | 756,815.9314 |
| | CC | | 221,333.2576 | 745,478.3505 |
| 3 | PCC | 1321+76.67 | 223,797.4916 | 756,711.2287 |
| 4 | POB | 1287+00.00 | 220,357.2043 | 757,206.4096 |
| 5 | POE | 1313+00.00 | 222,934.9531 | 756,866.2643 |
| | | | | |
| | | | | |

## CURVE DATA

1 SR 1

Δ = 4°51'57.41" LT
Dc = 0° 29' 53.61"
R = 11,500.00'
T = 488.62
L = 976.66'
E = 10.38
S/E = NONE
60 MPH AASHTO

NOTE:

1. DATUMS: VERTICALLY, THIS PROJECT REFERENCES NGVD 88. HORIZONTALLY, THIS PROJECTS REFERENCES THE DELAWARE STATE COORDINATE SYSTEM FOR NAD 83/91.

**DELAWARE DEPARTMENT OF TRANSPORTATION**

ADDENDUMS / REVISIONS

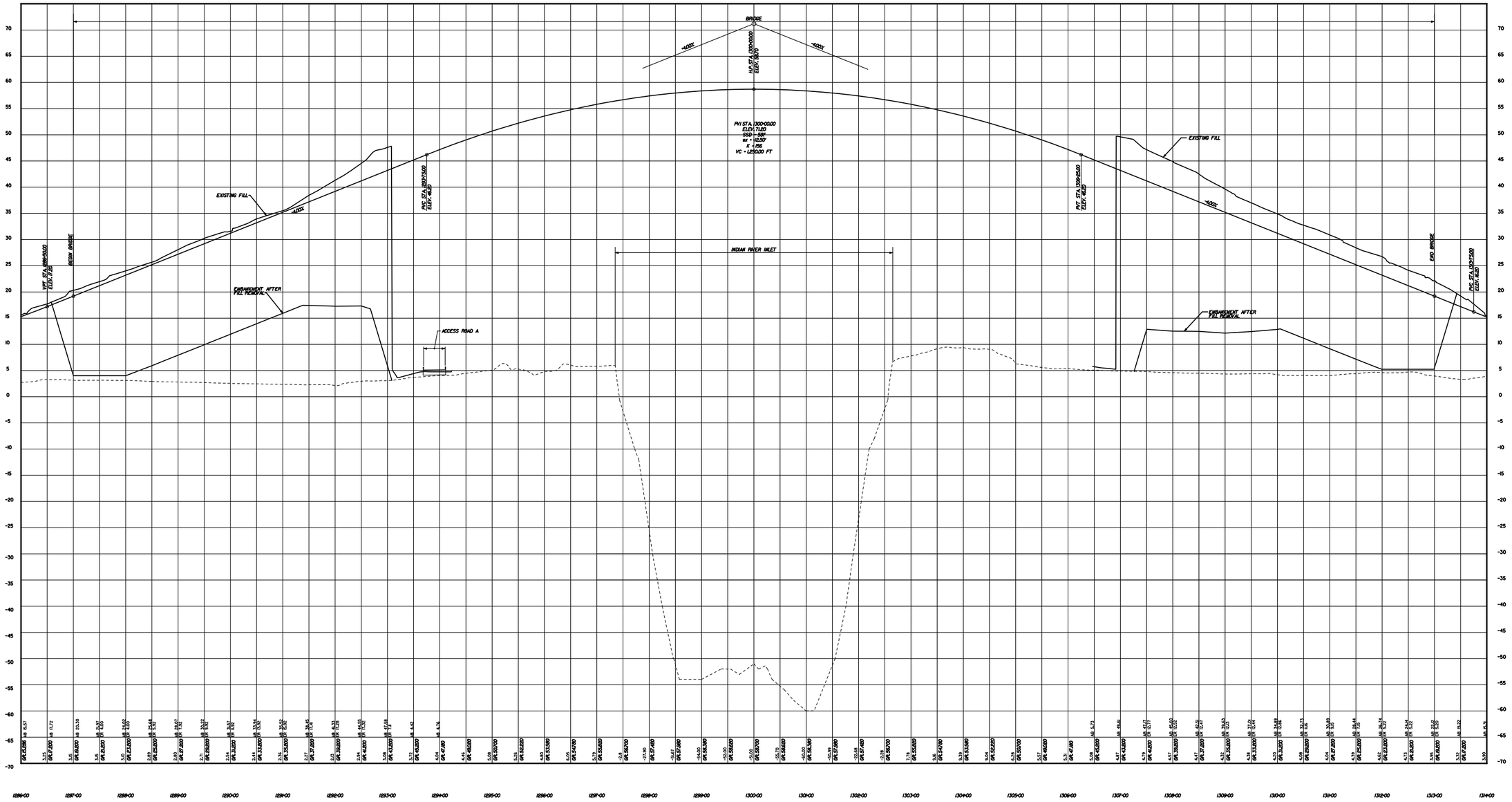
SCALE: 1"=400'

**REPLACEMENT OF BR 3-156 SR 1 OVER INDIAN RIVER INLET**

| CONTRACT | BRIDGE NO. | 3-156 |
|---|---|---|
| 26-073-03/ BROS-S050(9) | DESIGNED BY: K.R.S. | |
| COUNTY | | |
| SUSSEX | CHECKED BY: R.E.H. | |

**HORIZONTAL & VERTICAL CONTROL**

| SHEET NO. |
|---|
| B-04 |
| TOTAL SHTS. |
| B-06 |




**DELAWARE DEPARTMENT OF TRANSPORTATION**

| ADDENDUMS / REVISIONS | |
|---|---|
| | |
| | |
| | |

**HOR. SCALE: 1"=200'**
**VER. SCALE:1"=20'**

# REPLACEMENT OF BR 3-156 SR 1 OVER INDIAN RIVER INLET

| CONTRACT | BRIDGE NO. | BR 3-156 |
|---|---|---|
| 26-073-03/ BROS-S050(9) | DESIGNED BY: K.R.S. | |
| COUNTY | | |
| SUSSEX | CHECKED BY: R.E.H. | |

**PROFILE**

| SHEET NO. |
|---|
| B-05 |
| TOTAL SHTS. |
| B-06 |

| BR. 3-156 | CONTRACT | COUNTY | F.A.P. NO. | SHEET NO. | TOTAL SHTS. |
|---|---|---|---|---|---|
| | 26-073-03 | SUSSEX | BR05-5050(91) | B-06 | B-06 |

**REPLACEMENT OF BR 3-156**
**SR 1 OVER INDIAN RIVER INLET**

**REVISIONS**

## TRAFFIC RESTRICTIONS

| | | MAY TO SEPTEMBER (MEMORIAL DAY TO LABOR DAY) | | | SEPTEMBER TO MAY (POST LABOR DAY TO PRE MEMORIAL DAY) | |
|---|---|---|---|---|---|---|
| | | STATE ROUTE 1 | | PARK ACCESS ROADS | STATE ROUTE 1 | PARK ACCESS ROADS |
| Monday | Start | No Lane Closures Permitted | | No Lane Closures Permitted | Anytime | Anytime |
| | End | | | | Anytime | Anytime |
| Tuesday through Thursday | Start | 9 am | 6 pm | No Lane Closures Permitted | Anytime | Anytime |
| | End | 3 pm | 7 am | | Anytime | Anytime |
| Friday | Start | No Lane Closures Permitted | | No Lane Closures Permitted | Anytime | Anytime |
| | End | | | | Anytime | Anytime |
| Saturday | Start | No Lane Closures Permitted | | No Lane Closures Permitted | Anytime | Anytime |
| | End | | | | Anytime | Anytime |
| Sunday | Start | No Lane Closures Permitted | | No Lane Closures Permitted | Anytime | Anytime |
| | End | | | | Anytime | Anytime |

NOTE: THE TRAFFIC LANES ON SR 1 AND ON THE PARK ACCESS ROADS MAY BE REDUCED TO SINGLE LANES, ONE LANE IN EACH DIRECTION ON SR 1 AND ONE LANE WITH FLAGGER CONTROLLED MOVEMENTS ON THE PARK ACCESS ROADS, DURING THE HOURS DESIGNATED IN THE TRAFFIC RESTRICTION CHART ABOVE.

## CONSTRUCTION MILESTONES

NOTE:
ACTUAL DATES ASSOCIATED WITH EACH MILESTONE ACTIVITY SHALL BE DETERMINED BY THE ENGINEER FOR THE APPLICABLE ACTIVITIES IS INDICATED IN THE NOTICE TO CONTRACTORS IN THE SPECIAL PROVISIONS.

**O ROADWAY ITEMS TO BE COMPLETE PRIOR TO BRIDGE CONSTRUCTION (BY OTHERS):**
COMPLETION OF ACCESS ROAD B RELOCATION UP TO AND INCLUDING HOT MIX TYPE B

DEMOLITION/RELOCATION OF PARK BUILDINGS:
NORTH BATH HOUSE/SEWER PUMP STATION
NORTH SHELTER
SOUTH CONTACT STATION

NORTH SIDE TEMPORARY PARKING LOT

BATCH PLANT FENCING

SET UP MOT FOR ROAD 50A DETOUR, INCLUDING EXTENSION OF LEFT TURN LANE AT 3R'S INTERSECTION AND SIGNING

EXCAVATION AND TIE-BACKS FOR THE TEMPORARY SUPPORT OF SR 1

**O ROADWAY ITEMS TO BE COMPLETE PRIOR TO MAY 30TH 2006 (BY OTHERS):**
FRESH PONDS NORTH MITIGATION SITE
TERRAPIN MITIGATION SITE
SOUTH PARK RV EXPANSION
SOUTH PARK TENT SITE EXPANSION

**O BRIDGE ITEMS TO BE COMPLETED AS A FIRST ORDER OF WORK:**
NORTH AND SOUTH ABUTMENT FOUNDATION, FOOTINGS AND BACKWALL

**O ROADWAY ITEMS TO BE COMPLETE PRIOR TO MAIN SPAN SUPERSTRUCTURE ERECTION (BY OTHERS):**
BRIDGE APPROACH ROADWAY EMBANKMENT AND SURCHARGE PLACEMENT

**O ROADWAY ITEMS TO BE COMPLETE PRIOR TO BRIDGE OPENING (BY OTHERS):**
SOUTHBOUND SR 1 ROADWAY TIE-INS INCLUDING GUARDRAIL, STRIPING, ETC.
MSE WALL FINAL FACING ON WEST SIDE WALLS ONLY
CONECTIV FACILITY INFRASTRUCTURE
ROADWAY LANDSCAPING SHOWN THROUGH STAGE 2 PHASE E

**O BRIDGE ITEMS TO BE COMPLETE PRIOR TO BRIDGE OPENING:**
BRIDGE OVERLAY AND APPROACH SLABS
BRIDGE ELECTRICAL, INCLUDING BRIDGE LIGHTING
BATCH PLANT REMOVED, RESTORE AND VACATE AREA 2
DELTRAC SECURITY MEASURES
BRIDGE SIDEWALK AND INTERPRETIVE SIGNS (ON BRIDGE ONLY)

**O PARK ITEMS TO BE COMPLETE PRIOR TO BRIDGE OPENING (BY OTHERS):**
NORTH PROMENADE OUTSIDE STAGING AREA 4

**O DEMOLITION ITEMS TO BE COMPLETE PRIOR TO BRIDGE OPENING:**
DEMOLITION OF TEMPORARY TOWERS AND/OR OTHER TEMPORARY WORKS

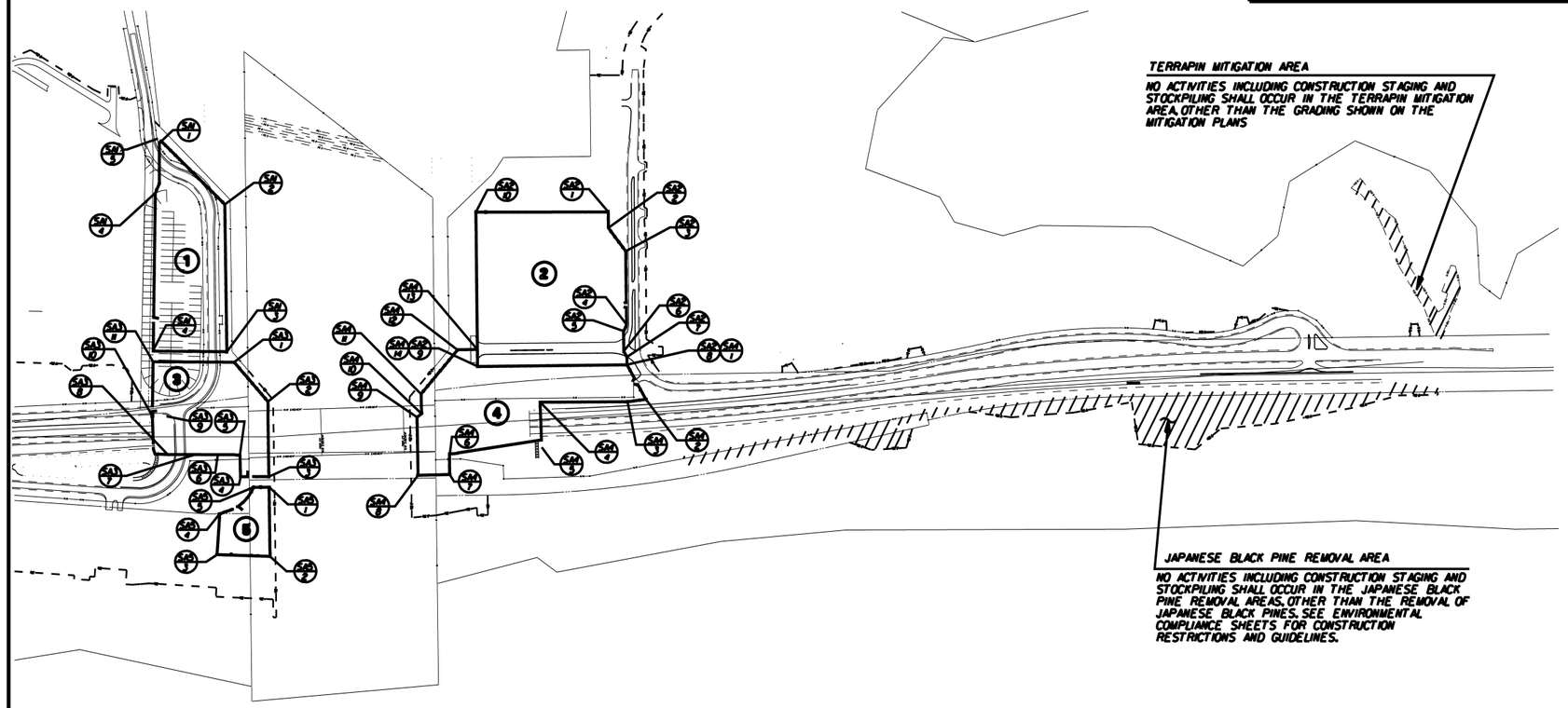
**O 60 DAYS AFTER BRIDGE OPENING:**
BRIDGE CONTRACTOR RESTORES AND VACATES STAGING AREAS 3 AND 4 FOR PARK CONSTRUCTION
ROADWAY CONTRACTOR REMOVES/RELOCATE FIELD OFFICE COMPLEX FOR PARK CONTRACTOR

**O ROADWAY ITEMS TO BE COMPLETE PRIOR TO BRIDGE DEMOLITION (BY OTHERS):**
COMPLETE SAND BY-PASS SYSTEM SYSTEM RELOCATION
ROADWAY CONTRACTOR RESTORES AND VACATES STAGING AREAS 5 FOR DEMOLITION CONTRACTOR

**O 30 DAYS AFTER BRIDGE DEMOLITION (BY OTHERS):**
DEMOLITION CONTRACTOR RESTORES AND VACATES STAGING AREA 5

## CONSTRUCTION PHASING STAGING AREA AND MILESTONES

GRAPHIC SCALE
250 125 0 250




### STAGING AREA 1

| NO. | NORTHING | EASTING |
|---|---|---|
| SA1-1 | 756017 | 220877 |
| SA1-2 | 756233 | 221135 |
| SA1-3 | 756783 | 221191 |
| SA1-4 | 756803 | 220915 |
| SA1-5 | 756213 | 220872 |
| SA1-6 | 756025 | 220870 |

NOTE: ROADWAY CONTRACTOR UPON COMPLETION OF STAGE 2, RESTORE AND VACATE FOR PARK CONTRACTOR. COORDINATE CONSTRUCTION OF ACCESS ROAD B THROUGH THIS AREA.

### STAGING AREA 3

| NO. | NORTHING | EASTING |
|---|---|---|
| SA3-1 | 756820 | 221222 |
| SA3-2 | 756957 | 221361 |
| SA3-3 | 757236 | 221389 |
| SA3-4 | 757246 | 221284 |
| SA3-5 | 757165 | 221274 |
| SA3-6 | 757175 | 221191 |
| SA3-7 | 757178 | 221107 |
| SA3-8 | 757188 | 220904 |
| SA3-9 | 757045 | 220987 |
| SA3-10 | 757049 | 220934 |
| SA3-11 | 756845 | 220999 |

NOTE: BRIDGE CONTRACTOR UPON COMPLETION OF STAGE 2, PHASE E (BRIDGE OPENING), RESTORE AND VACATE FOR PARK AND ROADWAY CONTRACTORS. COORDINATE CONSTRUCTION OF ACCESS ROADS A AND B THROUGH THIS AREA.

### STAGING AREA 5

| NO. | NORTHING | EASTING |
|---|---|---|
| SA5-1 | 757276 | 221393 |
| SA5-2 | 757336 | 221419 |
| SA5-3 | 757346 | 221221 |
| SA5-4 | 757392 | 221217 |
| SA5-5 | 757282 | 221334 |

NOTE: ROADWAY CONTRACTOR UPON COMPLETION OF STAGE 2, PHASE E (BRIDGE OPENING), RESTORE AND VACATE FOR DEMO CONTRACT. UPON COMPLETION OF BRIDGE DEMOLITION, CONTRACTOR SHALL RESTORE AND VACATE FOR PARK CONTRACTOR.

### STAGING AREA 2

| NO. | NORTHING | EASTING |
|---|---|---|
| SA2-1 | 756136 | 222569 |
| SA2-2 | 756196 | 222575 |
| SA2-3 | 756277 | 222647 |
| SA2-4 | 756552 | 222675 |
| SA2-5 | 756577 | 222665 |
| SA2-6 | 756652 | 222673 |
| SA2-7 | 756672 | 222686 |
| SA2-8 | 765701 | 222689 |
| SA2-9 | 756757 | 222132 |
| SA2-10 | 756180 | 222075 |

NOTE: BATCH PLANT BRIDGE CONTRACTOR TO RESTORE AND VACATE UPON COMPLETION OF CONCRETE BARRIER FOR PARK AND ROADWAY CONTRACTORS. COORDINATE CONSTRUCTION OF ACCESS ROAD C THROUGH THIS AREA.

### STAGING AREA 4

| NO. | NORTHING | EASTING |
|---|---|---|
| SA4-1 | 756701 | 222689 |
| SA4-2 | 756824 | 222771 |
| SA4-3 | 756839 | 222703 |
| SA4-4 | 756870 | 222377 |
| SA4-5 | 757039 | 222398 |
| SA4-6 | 757092 | 222057 |
| SA4-7 | 757170 | 222053 |
| SA4-8 | 757183 | 221945 |
| SA4-9 | 756966 | 221922 |
| SA4-10 | 756951 | 221937 |
| SA4-11 | 756879 | 221930 |
| SA4-12 | 756702 | 222051 |
| SA4-13 | 756693 | 222125 |
| SA4-14 | 756757 | 222132 |

NOTE: BRIDGE CONTRACTOR UPON COMPLETION OF STAGE 2, PHASE E (BRIDGE OPENING), RESTORE AND VACATE FOR PARK AND ROADWAY CONTRACTORS.

NOTE:
EACH STAGING AREA SHALL HAVE A 24' SWING GATE. COST SHALL BE INCLUDED IN ITEM 727004. CHAIN LINK FENCE 6' HIGH.

NOTE:
THE STAGING AREA DRAWING IS TO BE USED TO DEFINE AVAILABLE SPACE AND SEQUENCING.

PRELIMINARY DRAWING
PRELIM. TRACING R.K. & K. /FIGG DESIGN R.K. & K. /FIGG CHKD. R.K. & K. /FIGG

Figg©