

PLAN
SCALE: 1" = 10'

STD ITEM NO.	TO BE CONSTRUCTED	CONTRACT QUANTITY
202021P	REMOVAL OF PAVEMENT	675 S.Y.
302036P	DENSE-GRADED AGGREGATE BASE COURSE, 6" THICK	681 S.Y.
401009P	HMA MILLING, 3" OR LESS	819 S.Y.
401030M	TACK COAT	152 GAL
401036M	PRIME COAT	205 GAL
401054M	HOT MIX ASPHALT 12.5 M 64 SURFACE COURSE	181 TON
401096M	HOT MIX ASPHALT 19 M 64 BASE COURSE	245 TON
401108M	CORE SAMPLES, HOT MIX ASPHALT	5 UNIT
601NS1	MANHOLE DOGHOUSE, 4' DIAMETER	1 UNIT
601134P	36" REINFORCED CONCRETE PIPE	94 L.F.
601416P	UNDERDRAIN, TYPE F	20 L.F.
605212P	RESET FENCE	40 L.F.
606018P	CONCRETE SIDEWALK, 6" THICK	268 S.Y.
606028P	RESET CONCRETE PAVERS	5 S.Y.
606051P	CONCRETE DRIVEWAY, 6" THICK	122 S.Y.
607021P	9"X18" CONCRETE VERTICAL CURB	447 L.F.
612003P	REGULATORY AND WARNING SIGN	22 S.F.
652425M	RECONSTRUCTED MANHOLE, SANITARY SEWER, USING NEW CASTING	2 UNIT
804006P	TOPSOILING, 4" THICK	32 S.Y.
804015P	BORROW TOPSOIL	10 C.Y.
806006P	FERTILIZING AND SEEDING, TYPE A-3	32 S.Y.
809003M	STRAW MULCHING	32 S.Y.

NOTE:

- THE LIMIT OF MILLING TO MEET THE RESURFACING LIMITS SHOWN IN FEDERAL PROJECT NO. STP-2004(102) AND MATCH THE EXISTING SLOPE BEYOND STA. 3+00.
- PARKING SHALL BE PROHIBITED THROUGHOUT THE DURATION OF THE PROJECT IN FRONT OF AND IN THE DRIVEWAYS OF THE FOLLOWING PROPERTIES:
 - BLOCK 1608: LOT 1, LOT 2
 - BLOCK 1709: LOT 37, LOT 38, LOT 39
 - BLOCK 1710: LOT 1, LOT 1.01, LOT 2
 - BLOCK 1711: LOT 24, LOT 25, LOT 25.01
- LOCATIONS FOR THE PAY ITEM "CORE SAMPLES, HOT MIX ASPHALT" SHALL BE DETERMINED BY THE RE IN THE FIELD, AT LEAST 12 HOURS AFTER COMPLETION OF PAVING.
- THE LIMITS FOR PAY ITEMS "TOPSOILING, 4" THICK"; "FERTILIZING AND SEEDING, TYPE A-3"; AND "STRAW MULCHING" SHALL BE ALL OPEN AREAS BETWEEN THE CURBLINE AND THE EXISTING AND/OR PROPOSED SIDEWALK AND DRIVEWAY APRONS.
- THE LIMITS FOR THE PAY ITEM "RESET CONCRETE PAVERS" SHALL BE ALL PAVERS ON BLOCK 1608, LOT 1 BETWEEN THE PROPOSED WORK AND THE EXISTING RIGHT-OF-WAY.
- FOR EARTHWORK SUMMARY TABLE, SEE SHEET 22.
- THE PROPOSED LAYOUT OF STRIPING AND PAVEMENT MARKINGS SHALL BE MARKED IN THE FIELD AND APPROVED BY THE RESIDENT ENGINEER PRIOR TO INSTALLATION.
- ADVISORY SPEED PLAQUE (W13-1P (15MPH)) AND W7-6 SIGNS TO BE INSTALLED AT STA. 0+50 AND 2+50.

PAVEMENT MARKINGS & SIGNING LEGEND
UNLESS OTHERWISE SHOWN, STRIPING SHALL CONFORM TO THE FOLLOWING:

PAVEMENT STRIPING	MATERIAL	DESCRIPTION	LEGEND
CENTER LINE	THERMOPLASTIC	2'-4" WIDE YELLOW SEPERATED 6"	CL
EDGE LINE	THERMOPLASTIC	4" WIDE WHITE	EL



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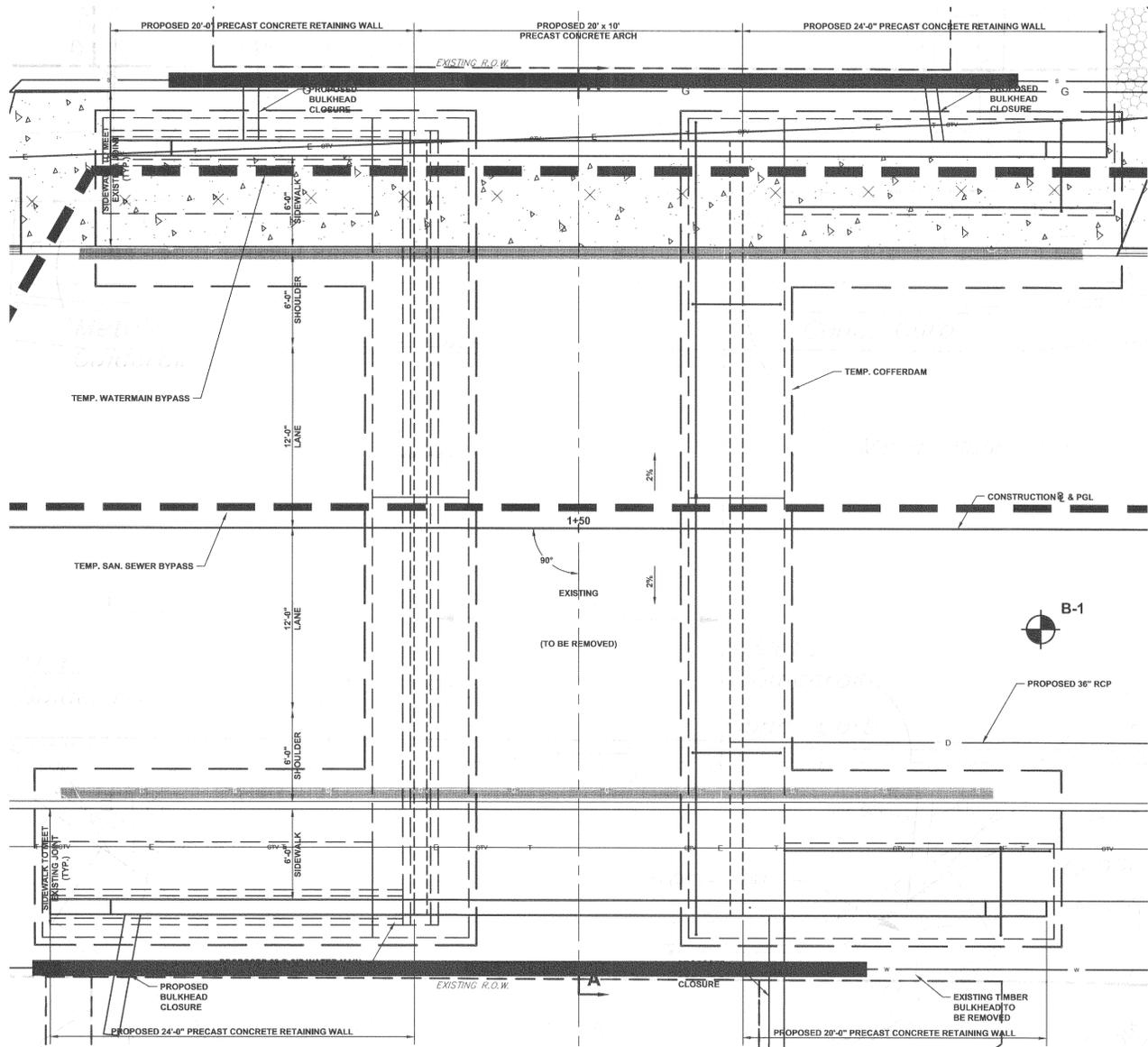
CONSTRUCTION PLAN
FOR
17TH STREET BRIDGE REPLACEMENT
OCEAN CITY
CAPE MAY COUNTY, NEW JERSEY

DATE: JUNE 24, 2016
DESIGNED BY: MJW
DRAWN BY: MJW

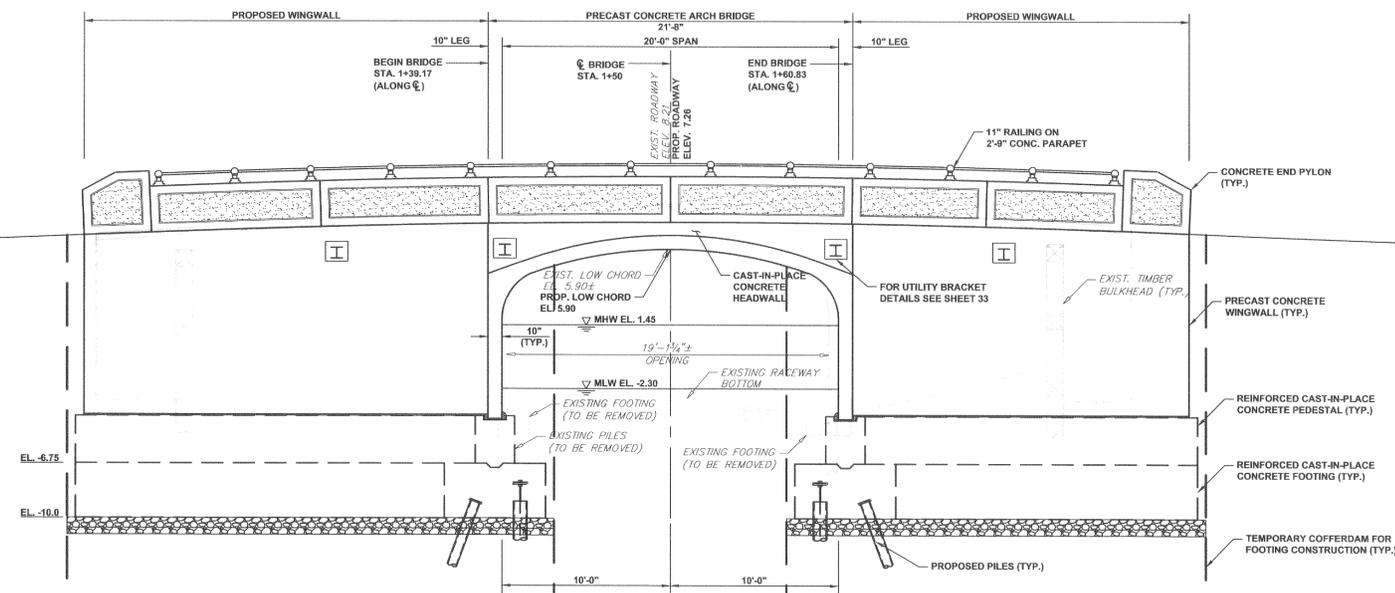
SCALE: 1"=10'
CHECKED BY: JM

PROJECT NUMBER: 5805.001
SHEET: 6 of 33

Project: 17th Street Bridge Rehabilitation, 5805.001, Bridge Inspection, And Design, CADD, 5805.001 - CP.dwg, Construction Plan
 Date: 6/23/2016
 User: JON.MOREN



PLAN
SCALE: 1" = 5'



ELEVATION
(LOOKING NORTH; UTILITIES NOT SHOWN FOR CLARITY PURPOSES)
SCALE: 1" = 5'

CONSTRUCTION NOTES:

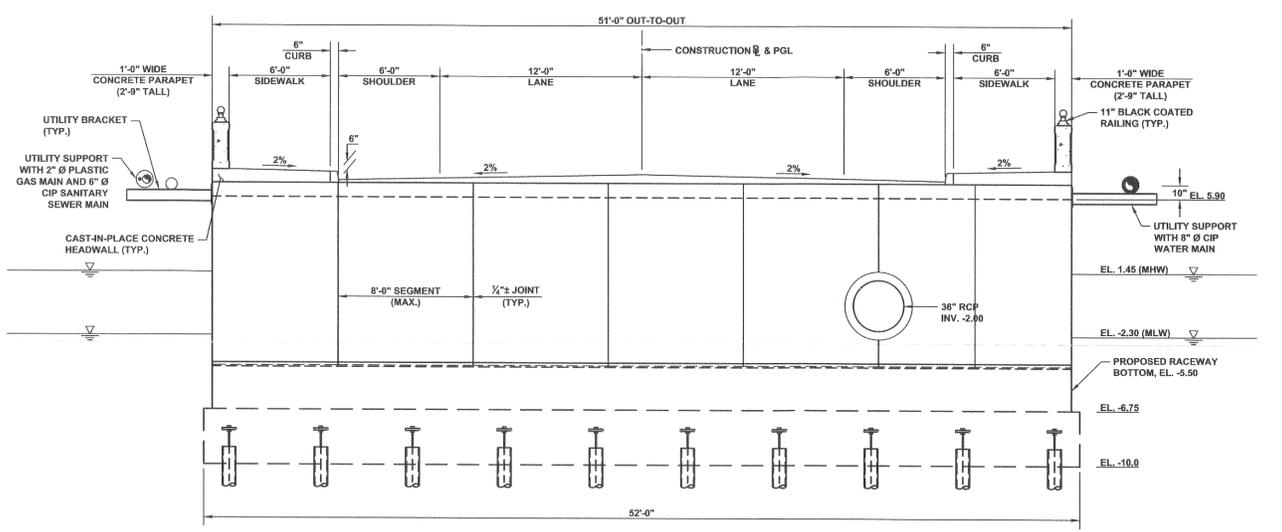
1. THE PRECAST CONCRETE ARCH STRUCTURE, WING WALLS AND FOOTINGS ARE DEPICTED FOR INFORMATIONAL PURPOSES ONLY. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE FINAL DESIGN AND DETAILING OF THE PRECAST STRUCTURES, AND COORDINATION OF THE CAST-IN-PLACE FOOTINGS. THE CONTRACTOR SHALL SUBMIT WORKING DRAWINGS IN ACCORDANCE WITH SUB-SECTION 505.03.02A OF THE 2007 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION AND DESIGN CALCULATIONS FOR THE PRECAST CONCRETE ARCH STRUCTURE, WINGWALLS AND HEADWALLS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW JERSEY FOR APPROVAL PRIOR TO FABRICATION. FABRICATION SHALL NOT BEGIN UNTIL WRITTEN APPROVAL HAS BEEN RECEIVED FROM THE ENGINEER.
2. THE CONTRACTOR IS RESPONSIBLE FOR VERIFYING ALL FIELD MEASUREMENTS AND COORDINATION OF ALL WORK SUBSEQUENT TO APPROVAL OF WORKING DRAWINGS FOR THE PRECAST STRUCTURES. THE CONTRACTOR SHALL VERIFY ALL LOCATIONS AND DIMENSIONS OF COORDINATING FACILITIES.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH UTILITIES.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CONTROL OF WATER THROUGHOUT THE DURATION OF CONSTRUCTION. PRIOR TO EXCAVATION, THE CONTRACTOR SHALL SUBMIT A PLAN FOR THE CONTROL OF WATER TO THE ENGINEER FOR APPROVAL. THE PLAN SHALL BE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER LICENSED IN THE STATE OF NEW JERSEY. SUBMISSION OF SUCH A PLAN DOES NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR PROTECTING HIS WORK AND THE ENVIRONMENT.
5. THE PRECAST CONCRETE ARCH STRUCTURE, WINGWALLS AND HEADWALLS, SHALL BE CONSTRUCTED IN ACCORDANCE WITH SUB-SECTIONS 504.03 AND 505.03.03 OF THE 2007 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION.
6. ALL PRECAST CONCRETE ARCH STRUCTURE, WINGWALL, AND HEADWALL STRUCTURE SHOP AND WORKING DRAWINGS SHALL BE CERTIFIED BY A LICENSED NEW JERSEY PROFESSIONAL ENGINEER AS TO THEIR ABILITY TO WITHSTAND THE LIVE LOADING GIVEN IN GENERAL NOTE 3, AND SUITABILITY FOR THEIR INTENDED USE. THE BRIDGE PLANS, DETAILS AND SPECIFICATIONS ARE SUBJECT TO REVIEW AND APPROVAL OF THE COUNTY OF CAPE MAY.
7. STRUCTURAL STEEL PLATES AND SHAPES SHALL CONFORM TO ASTM A36 AND SHALL BE GALVANIZED PER ASTM A123.
8. HIGH STRENGTH BOLTS, NUTS AND WASHERS SHALL CONFORM TO ASTM A325. HARDWARE SHALL BE GALVANIZED PER ASTM A153.
9. HIGH STRENGTH BOLTS FOR BASE PLATE ANCHORAGE SHALL BE FULLY THREADED AND INSTALLED IN CORED HOLES NO GREATER THAN THE BOLT DIAMETER PLUS 1/4". CARE SHALL BE EXERCISED TO AVOID DAMAGE TO EXISTING REINFORCEMENT AND CONDUITS. MINIMUM EMBEDMENT LENGTH SHALL BE 6". BOLTS SHALL BE EPOXY GROUTED IN PLACE PER MANUFACTURER'S RECOMMENDATIONS TO ATTAIN A MINIMUM PULLOUT STRENGTH OF 24,000 POUNDS AT THE CONSTRUCTION SITE AS CERTIFIED BY THE CONTRACTOR.
10. WELDING OF POSTS TO BASE PLATES SHALL CONFORM TO THE ANSII/AASHTO/AWS D1.5 BRIDGE WELDING CODE.
11. NO SEPARATE PAYMENT SHALL BE MADE FOR BASE PLATES, WELDING, BOLTS, NUTS, AND WASHERS. COSTS SHALL BE INCLUDED IN THE PAY ITEM "BRIDGE RAILING."

PRECAST NOTES:

1. POSITIVE MEANS SHALL BE PROVIDED TO EXTERNALLY DRAW TOGETHER AND BUTT JOINT ADJOINING PRECAST CONCRETE ARCH STRUCTURE SEGMENTS AS THE SEGMENTS ARE PLACED. A FLEXIBLE CONTINUOUS WATER TIGHT RUBBER GASKET SHALL BE PROVIDED AT THE JOINT BETWEEN PRECAST SECTIONS.
2. COST OF MATERIALS SHOWN IN POCKET DETAIL SHALL BE INCLUDED IN THE PAY ITEM "PRECAST CONCRETE ARCH STRUCTURE."
3. COST OF MEMBRANE STRIP, VEGETABLE FIBERBOARD OR FIBERGLASS INSULATION BOARD, LOW-MOD JOINT SEALER AND NEOPRENE FOAM STRIP USED IN THE PRECAST JOINTS TO BE INCLUDED IN THE PAY ITEM "PRECAST CONCRETE ARCH STRUCTURE."
4. LIFTING HOLES SHALL BE FILLED WITH NON-SHRINK GROUT.

GENERAL NOTES:

1. **DESIGN SPECIFICATIONS**
AASHTO LRFD BRIDGE DESIGN SPECIFICATIONS (LATEST EDITION WITH CURRENT INTERIMS), AS MODIFIED BY SECTION 3 OF THE 2009 (5TH EDITION) NJDOT DESIGN MANUAL FOR BRIDGES AND STRUCTURES.
2. **CONSTRUCTION SPECIFICATIONS**
2007 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION WITH CURRENT SUPPLEMENTAL SPECIFICATIONS, AS MODIFIED BY THE SPECIAL PROVISIONS.
3. **LIVE LOAD**
AASHTO LRFD HL-93 VEHICULAR LIVE LOADING OR THE NJDOT PERMIT VEHICLE, WHICHEVER GOVERNS. LIVE LOAD STRUCTURE 240 PSF (RETAINING WALLS).
4. **CONCRETE DESIGN STRESSES**
DESIGN COMPRESSIVE STRENGTH (f_c):
CLASS A = 4,000 PSI (CAST-IN-PLACE CONCRETE PARAPET, PYLONS & BRIDGE PEDESTALS)
CLASS B = 3,000 PSI (CAST-IN-PLACE CONCRETE FOOTINGS)
CLASS P = 5,000 PSI (PRECAST CONCRETE ARCH STRUCTURE, WINGWALLS & HEADWALLS)
CHAMFER ALL EXPOSED CONCRETE EDGES 3/4" BY 1/2", UNLESS OTHERWISE NOTED.
5. **REINFORCEMENT STEEL**
ASTM A615 (GRADE 60) f_y = 24,000 PSI
ALL REINFORCEMENT STEEL SHALL BE GALVANIZED. THE ENDS OF ANY REINFORCEMENT STEEL BAR CUT IN THE FIELD SHALL BE PAINTED WITH 2 COATS OF A ZINC RICH REPAIR PAINT.
PRIOR TO REINFORCEMENT STEEL FABRICATION, THE CONTRACTOR SHALL SUBMIT FULLY DETAILED DRAWINGS FOR PROPOSED CONCRETE ELEMENTS TO THE ENGINEER FOR APPROVAL. THE DRAWING SHALL CONTAIN A BAR SCHEDULE AND BAR PLACEMENT DIAGRAMS FOR ALL REINFORCEMENT STEEL.
ALL REINFORCEMENT SHALL BE SECURELY HELD IN PLACE BEFORE POURING CONCRETE. INSERTING DOWELS AFTER CONCRETE IS POURED WILL NOT BE PERMITTED.
CONCRETE COVER SHALL BE 1 1/2" ON PRECAST ELEMENTS, UNLESS NOTED OTHERWISE. CONCRETE COVER SHALL BE 2" ON CAST-IN-PLACE ELEMENTS, UNLESS NOTED OTHERWISE.
6. **SUPERSTRUCTURE**
DEAD LOAD INCLUDES 25 LBS/SF PROVISION FOR FUTURE 2" THICK WEARING SURFACE
7. **DATUM**
VERTICAL DATUM IS NAVD88.
HORIZONTAL DATUM IS NAD83.
8. **MANUFACTURE'S QUALIFICATION**
THE PRECAST CONCRETE MANUFACTURING PLANT SHALL BE CERTIFIED IN ACCORDANCE WITH SEC. 1011.01 OF THE 2007 NJDOT STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION. CERTIFICATION SHALL LIST THE PROPER PRODUCT GROUP(S) AND CATEGORY(IES) FOR EACH OF THE PRODUCTS BEING SUPPLIED. WRITTEN PLANT CERTIFICATION(S) SHALL BE SUBMITTED WITH THE SHOP DRAWINGS.
9. **BORINGS**
B-1 INDICATES LOCATION OF BORINGS
10. **FOUNDATION**
A ARCH ELEMENTS AND WINGWALLS SHALL BE FOUNDED ON CAST-IN-PLACE PILE FOOTINGS. PROPOSED BRIDGE PILE FOUNDATION CONSISTS OF 9 8" DIAMETER DRILLED MICROPILES HAVING AN ALLOWABLE VERTICAL CAPACITY OF 60 KIPS. IT IS ANTICIPATED THAT THE PILES WOULD BE DRILLED TO A MINIMUM TIP ELEVATION OF -59 FEET.



PROPOSED SECTION A-A
(LOOKING EAST)
SCALE: 1" = 5'

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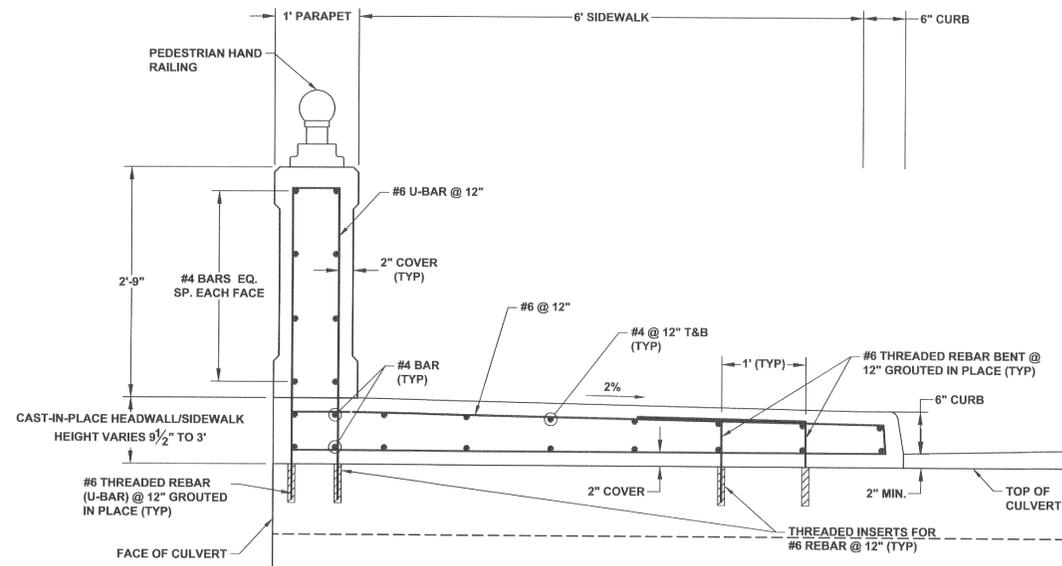
GENERAL PLAN & ELEVATION

FOR
17TH STREET BRIDGE REPLACEMENT

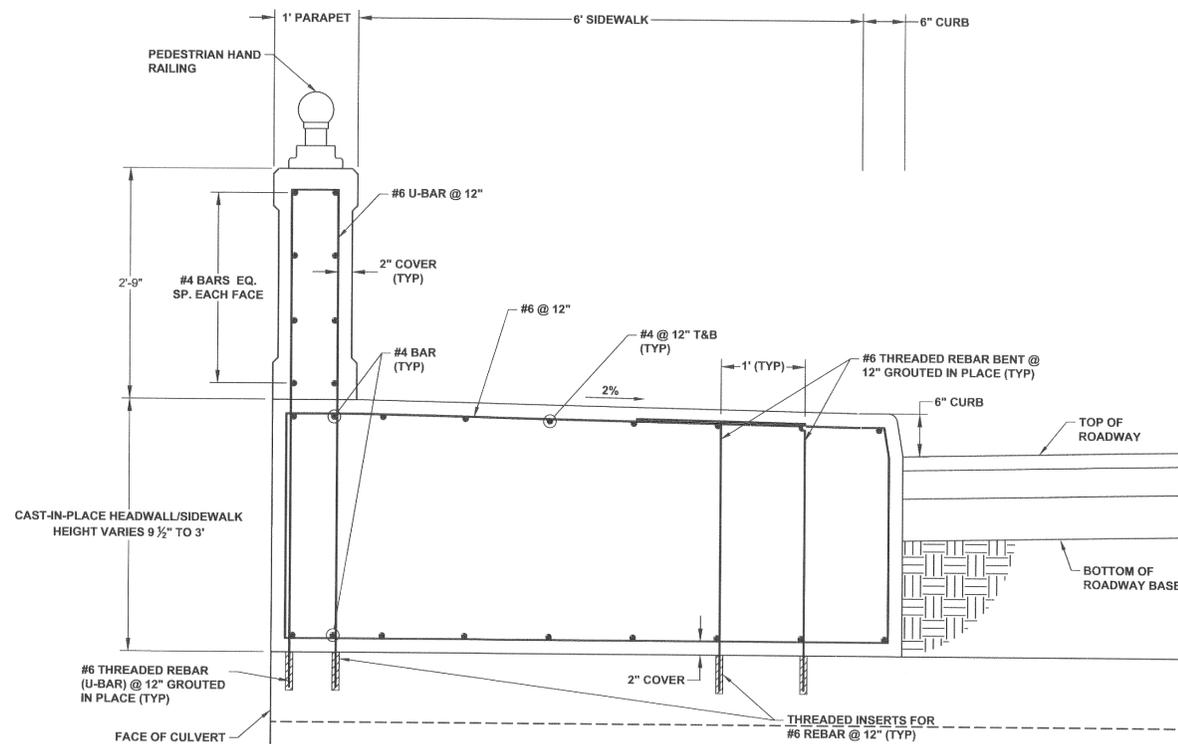
OCEAN CITY
CAPE MAY COUNTY, NEW JERSEY

DATE: JUNE 24, 2016	DESIGNED BY: MJW	SCALE: 1" = 5'	PROJECT NUMBER: 5805.001
DRAWN BY: MJW	CHECKED BY: JM	FIELD BOOK: -----	SHEET: 27 OF 33

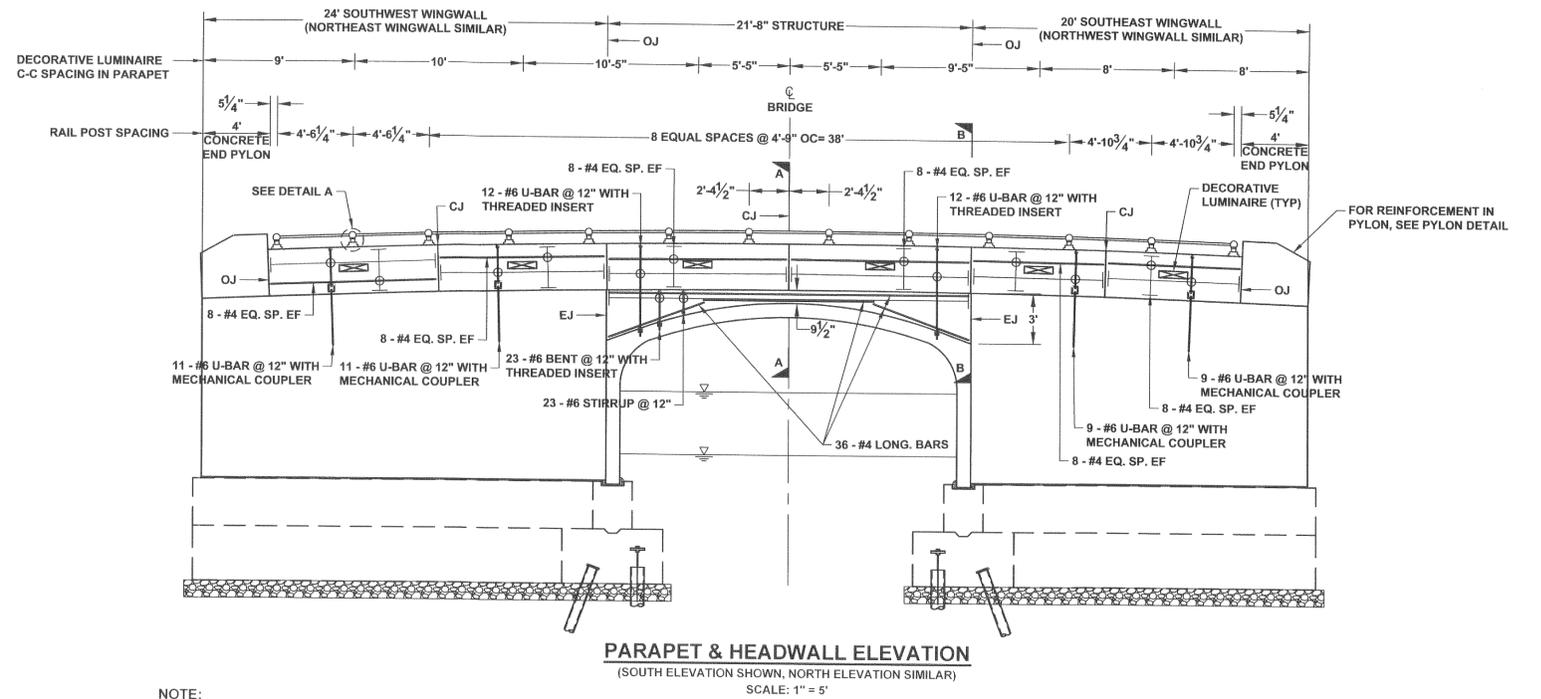
Plotted by Amine Zaidi 6/30/2016
 C:\K\5800\5805\17th Street Bridge Rehabilitation\5805.001 - GPE.dwg General Plan & Elevation



SECTION A-A
SCALE: 1" = 1'

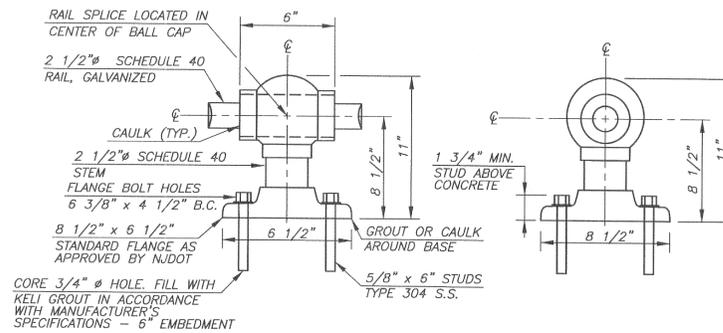


SECTION B-B
SCALE: 1" = 1'

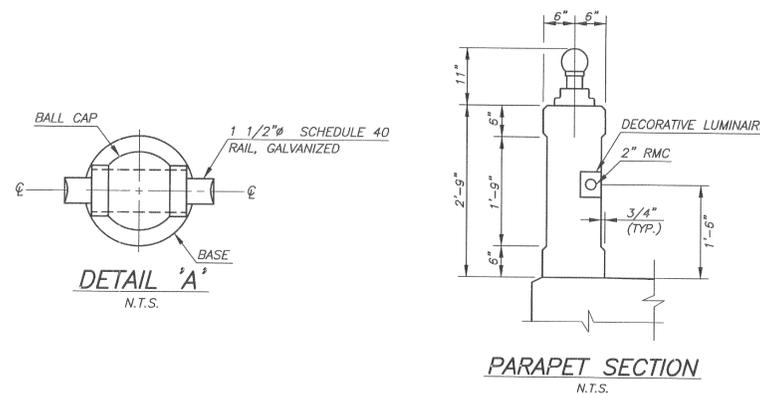


PARAPET & HEADWALL ELEVATION
(SOUTH ELEVATION SHOWN, NORTH ELEVATION SIMILAR)
SCALE: 1" = 5'

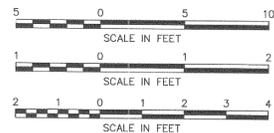
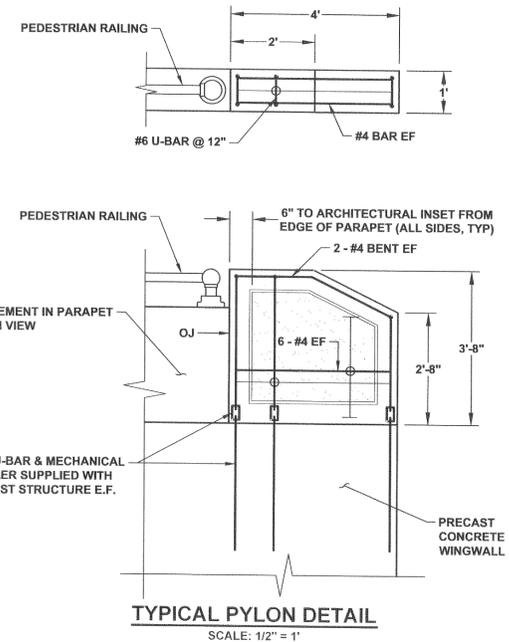
- NOTE:**
1. ARCHITECTURAL INSET IN PARAPET NOT SHOWN FOR CLARITY.
 2. THREADED INSERTS SHALL BE USED FOR THE DOWELING OF REBAR INTO THE PRECAST ARCH WHILE MECHANICAL COUPLERS SHALL BE USED FOR DOWELING OF REBAR INTO THE PRECAST WINGWALL.
 3. DECORATIVE LUMINAIRE TO BE RECESSED WALL WITH LOUVERS TYPE 22 040 AS MANUFACTURED BY BEGA-US, CARPINTERIA, CALIFORNIA



CENTURY METROPOLITAN BALL CAP RAIL SYSTEM DETAILS
N.T.S.



- NOTE:**
1. SEE PARAPET & HEADWALL ELEVATION FOR LOCATIONS OF DECORATIVE LUMINAIRE



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PARAPET & HEADWALL REINFORCEMENT DETAILS
FOR
17TH STREET BRIDGE REPLACEMENT

OCEAN CITY
CAPE MAY COUNTY, NEW JERSEY

DATE: JUNE 24, 2016
DRAWN BY: M.J.W.
CHECKED BY: J.M.

DESIGNED BY: M.J.W.
SCALE: AS NOTED
FIELD BOOK

PROJECT NUMBER: 5805.001
SHEET: 32 of 33

Plotted by Amine Zouadi 6/30/2016
 C:\SR\5805\3805 - 17th Street Bridge Rehabilitation\3805.001 - BD.dwg Parapet & Headwall Reinforcement Details