



STATE OF NORTH CAROLINA
DEPARTMENT OF TRANSPORTATION

ROY COOPER
GOVERNOR

JAMES H. TROGDON, III
SECRETARY

September 1, 2017

MEMORANDUM TO: All Holders of January, 2018 Edition of the
Roadway Standard Drawings Book

FROM: R.E. Davenport, Jr., PE, State Contract Officer

DocuSigned by:
Ronald E. Davenport, Jr.
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SUBJECT: New and Revised Standard Drawings

This memo informs all holders of revisions made for the January 2018 edition of the Roadway Standard Drawings. The new edition will be effective with the January 2018 letting.

Listed below are new standard drawings and standard drawings that have been deleted or revised since the January 2012 edition of the Roadway Standard Drawings.

NEW STANDARDS:

<u>STANDARD DRAWING</u>	<u>SHEETS</u>	<u>TITLE</u>
422.01	2	<u>BRIDGE APPROACH FILLS – TYPE I - STANDARD APPROACH FILL</u>
422.02	2	<u>BRIDGE APPROACH FILLS – TYPE II - MODIFIED APPROACH FILL</u>
422.03	4	<u>BRIDGE APPROACH FILLS – TYPE A – ALTERNATE APPROACH FILL FOR INTEGRAL ABUTMENT</u>
910.10	2	<u>HIGHWAY-RAIL GRADE CROSSINGS</u>
910.20	4	<u>SIGNING SCHOOL ZONE</u>
910.30	2	<u>SIGNING SUPERSTREET INTERSECTIONS</u>
910.40	2	<u>ROUNDBOUT SIGNING, WITH PEDESTRIANS</u>
1205.14	2	<u>PAVEMENT MARKINGS – ROUNDBOUTS</u>
1205.15	2	<u>PAVEMENT MARKINGS – SUPERSTREETS</u>
1266.01	1	<u>RAISED PAVEMENT MARKERS</u>
1604.01	1	<u>RAILROAD EROSION CONTROL DETAIL</u>



1705.04

3

SIGNAL HEADS – PEDESTRIAN
PUSH BUTTON PLACEMENT

REVISED/DELETED STANDARDS: MINOR CORRECTIONS THAT DO NOT AFFECT THE SCOPE OR MEANING OF THE R.S.D. ARE NOT LISTED. SUCH AS MISSPELLING OR PUNCTUATION ERRORS.

STANDARD
DRAWING

SHEETS

TITLE

DIVISION 2
NO CHANGES

DIVISION 3
NO CHANGES

DIVISION 4

422.10

5

REINFORCED BRIDGE APPROACH FILLS

DELETED

STANDARD DRAWING REPLACED WITH DETAIL TO BE USED IN ROADWAY PLANS.

BRIDGE APPROACH FILLS

TYPE III – REINFORCED APPROACH FILL FOR

MECHANICALLY STABILIZED EARTH (MSE) ABUTMENT WALL
DOWNLOAD LINK AND ADDRESS BELOW.

<https://connect.ncdot.gov/resources/Specifications/2018StandardRdwyDrawings/422d10%20Type%20III%20Bridge%20Approach%20Fills.pdf>

422.11

2

BRIDGE APPROACH FILLS –
SUB REGIONAL TIER

DELETED

DIVISION 5

560.02

1

METHOD OF SHOULDER CONSTRUCTION
- HIGH SIDE OF SUPERELEVATED CURVE
METHOD II (SHOULDERS UP TO 10')

- SHEET 2: DELETED.

DIVISION 6
NO CHANGES

DIVISION 7
NO CHANGES

DIVISION 8

838.22

2

REINFORCED CONCRETE ENDWALL – FOR
DOUBLE & TRIPLE 54” PIPE - 90 DEGREE
SKEW

- SHEET 1: BILL OF MATERIAL WAS MODIFIED. ADDITIONAL V1, V2, V3, AND V4 STEEL BARS WERE ADDED.

- SHEET 2: BILL OF MATERIAL WAS MODIFIED. ADDITIONAL V1, V2, V3, AND V4 STEEL BARS WERE ADDED.

840.01 1 BRICK CATCH BASIN

- SHEET 1: 1. DOWELS ADDED TO SECTION X-X AND SECTION J-J.
2. NOTE NOW STATES "USE #4 BAR DOWELS AT 12" CENTERS FOR ALL PIPE SIZES".

840.34 1 TRAFFIC BEARING JUNCTION BOX

- SHEET 2: NOTE PERTAINING TO PRECAST UNITS REMOVED.

840.45 1 PRECAST DRAINAGE STRUCTURE

- SHEET 2: 1. REFERENCES TO R.S.D. NUMBERS 840.11 AND 840.12 REMOVED FROM NOTES AND 840.13 ADDED.
2. "... WELDED WIRE FABRIC CONFORMING TO ASTM A185." CHANGED TO "WELDED WIRE FABRIC CONFORMING TO ASTM A1064."

840.46 1 TRAFFIC BEARING PRECAST DRAINAGE STRUCTURE

CHANGED "USE ASTM 185 WELDED WIRE FABRIC (WWF)." TO "USE ASTM A1064 WELDED WIRE FABRIC (WWF)."

840.52 1 PRECAST MANHOLE 4', 5', AND 6' DIAMETER

1. REMOVED REINFORCED CONC. FOOTING FROM TYPICAL MANHOLE SECTION.
2. "USE ASTM A615 GRADE 60 REINFORCING STEEL. USE ASTM A1064 WELDED WIRE FABRIC (WWF)." ADDED TO GENERAL NOTES.

846.01 1 CONCRETE SIDEWALK

- SHEET 1: CHANGED DIMENSIONS OF SHOULDER BERM GUTTER FROM 8', 4", AND 5" TO 10', 6", AND 7" RESPECTIVELY.

846.02 1 DROP INLET INSTALLATION IN EXPRESSWAY GUTTER

MOUNTING HEIGHT OF GUARDRAIL CHANGED TO 2'-1" PER AASHTO MASH-16 REQUIREMENTS.

846.03 1 FUNNEL DRAIN INSTALLATION IN SHOULDER BERM GUTTER

- SHEET 2: GUARDRAIL HEIGHT DIMENSION ADDED.

846.04 1 DROP INLET INSTALLATION IN
SHOULDER BERM GUTTER

HEIGHT OF GUARDRAIL CHANGED TO 2'-1" PER AASHTO MASH-16 REQUIREMENTS.

852.06 1 METHOD FOR PLACEMENT OF DROP
INLETS IN CONCRETE ISLANDS

CHANGED DIMENSIONS OF CONCRETE ISLAND SECTION CONTAINING DROP INLETS AND CORRESPONDING SECTION VIEW.

857.01 3 PRECAST REINFORCED CONCRETE
BARRIER

- SHEET 1: ALL BARRIER UNIT LABELS REMOVED.

- SHEET 2: ALL BARRIER UNIT LABELS REMOVED.

- SHEET 3: 1. "FRONT ELEVATION T-77 BARRIER UNIT A-77 BARRIER UNIT OPPOSITE END" CHANGED TO "FRONT ELEVATION END BARRIER UNIT."
2. "FRONT ELEVATION M-XII BARRIER UNIT" CHANGED TO "FRONT ELEVATION MIDDLE UNIT."

862.01 11 GUARDRAIL PLACEMENT

- SHEET 1: "TYPE 350" IMPACT ATTENUATOR CHANGED TO "TYPE TL-3."

- SHEET 2: "TYPE 350" IMPACT ATTENUATOR CHANGED TO "TYPE TL-3."

- SHEET 3: 1. "GUARDRAIL ANCHOR UNIT TYPE 350" CHANGED TO "GUARDRAIL END UNIT TYPE TL-3."
2. "M-350" IN MEDIAN CHANGED TO "GUARDRAIL END UNIT TYPE TL-3".

- SHEET 4: 1. "GUARDRAIL ANCHOR UNIT TYPE 350" CHANGED TO "GUARDRAIL END UNIT TYPE TL-3 OR TL-2."
2. NOTE ADDED: "FOR POSTED SPEEDS \geq 45 MPH USE GREU TYPE TL-3" AND "FOR SPEEDS $<$ 45 MPH USE GREU TYPE TL-2."

- SHEET 5: 1. "GUARDRAIL ANCHOR UNIT TYPE 350" CHANGED TO "GUARDRAIL END UNIT TYPE TL-3."
2. NOTE ADDED: "FOR POSTED SPEEDS \geq 45 MPH USE GREU TYPE TL-3" AND "FOR SPEEDS $<$ 45 MPH USE GREU TYPE TL-2."

- SHEET 6: 1. "GUARDRAIL ANCHOR UNIT TYPE 350" CHANGED TO "GUARDRAIL END UNIT TYPE TL-3 OR TL-2."
2. NOTE ADDED: "FOR POSTED SPEEDS \geq 45 MPH USE GREU TYPE TL-3" AND "FOR SPEEDS $<$ 45 MPH USE GREU TYPE TL-2."

- SHEET 7: 1. "GUARDRAIL ANCHOR UNIT TYPE 350" CHANGED TO "GUARDRAIL END UNIT TYPE TL-3."
2. NOTE ADDED: "FOR POSTED SPEEDS \geq 45 MPH USE GREU TYPE TL-3" AND "FOR SPEEDS $<$ 45 MPH USE GREU TYPE TL-2."

- SHEET 8: 1. "GUARDRAIL ANCHOR UNIT TYPE 350" CHANGED TO "GUARDRAIL END UNIT TYPE TL-3 OR TL-2."
2. NOTE ADDED: "FOR POSTED SPEEDS \geq 45 MPH USE GREU TYPE TL-3" AND "FOR SPEEDS $<$ 45 MPH USE GREU TYPE TL-2."

- SHEET 9: 1. "GUARDRAIL ANCHOR UNIT TYPE 350" CHANGED TO "GUARDRAIL END UNIT TYPE TL-3" FOR DETAIL 3.
2. "GUARDRAIL ANCHOR UNIT TYPE 350" CHANGED TO "GUARDRAIL END UNIT TYPE TL-3 OR TL-2" FOR DETAIL 4.
3. NOTE ADDED: "FOR POSTED SPEEDS \geq 45 MPH USE GREU TYPE TL-3" AND "FOR SPEEDS $<$ 45 MPH USE GREU TYPE TL-2."

- SHEET 10: DELETED. AN UPDATED DESIGN MEETING AASHTO MASH-16 REQUIREMENTS IS AVAILABLE AS A SPECIAL DETAIL.

- SHEET 12: 1. "GUARDRAIL ANCHOR UNIT TYPE 350" CHANGED TO "GUARDRAIL END UNIT TYPE TL-3 OR TL-2."
2. "GUARDRAIL ANCHOR UNIT TERMINAL" CHANGED TO "GUARDRAIL END UNIT TERMINAL."
3. NOTE ADDED: "FOR POSTED SPEEDS \geq 45 MPH USE GREU TYPE TL-3" AND "FOR SPEEDS $<$ 45 MPH USE GREU TYPE TL-2."

862.02

8

GUARDRAIL INSTALLATION

MAJOR REDESIGN OF STANDARD DRAWING WITH SEVERAL NEW SHEETS AS WELL AS DELETIONS AND CONSOLIDATIONS. THIS IS DUE TO THE NEW AASHTO MASH -16 REQUIREMENTS.

- ALL SHEETS: MOUNTING HEIGHT OF GUARDRAIL CHANGED TO 2'-1" PER AASHTO MASH-16 REQUIREMENTS.

- SHEET 2: (NEW SHEET) ELEVATION VIEW OF FLARED AND TANGENT APPROACH END UNITS. AT-1 DELETED.

- SHEET 3: (NEW SHEET) 15'-7½" W-BEAM GUARDRAIL PANEL. 2012 R.S.D. SHEET 3 NOW SHEET 5.

- SHEET 4: (NEW SHEET) TRANSITION FROM 1'-11" TO 2'-1" W-BEAM GUARDRAIL MOUNTING HEIGHT. 2012 R.S.D. SHEET 4 NOW SHEET 6.

- SHEET 5: DOUBLE FACED GUARDRAIL DELETED. FRONT VIEW WITH MID SPAN SPLICE. 2012 R.S.D. SHEET 5 NOW SHEET 7.

- SHEET 6: SOIL PLATE AND BEARING PLATE MOVED TO SHEET 7. 2012 R.S.D. SHEET 6 NOW SHEET 8.

- SHEET 7: SOIL PLATE AND BEARING PLATED ADDED FROM SHEET 6.

2012 R.S.D. SHEET 7 DELETED, BUFFERED END SECTION ADDED TO SHEET 8.

-SHEET 8: TERMINAL END SECTION REMOVED AND BUFFERED END SECTION ADDED. THIS WAS 2012 R.S.D. SHEET 6.

- 862.03 7 STRUCTURE ANCHOR UNITS
- ALL SHEETS: MOUNTING HEIGHT OF GUARDRAIL CHANGED TO 2'-1" PER AASHTO MASH-16 REQUIREMENTS.
 - SHEET 1: NEW WTR SECTION AND MIDSPAN SPLICE.
 - SHEET 2: NEW WTR SECTION AND MIDSPAN SPLICE.
 - SHEET 3: NEW WTR SECTION DETAILS AND POST SECTION DIMENSIONS.
 - SHEET 4: NEW MIDSPAN SPLICE.

- 865.01 1 CABLE GUIDRAIL
- SHEET 2: 1. "GUARDRAIL ANCHOR UNIT TYPE 350" CHANGED TO "GUARDRAIL END UNIT TYPE TL-3."
 - 2. "M-350" IN MEDIAN CHANGED TO "GUARDRAIL END UNIT TYPE TL-3".

DIVISION 9

- 903.10 2 GROUND MOUNTED SIGN SUPPORTS
- SHEET 1: REVISED BASE CONNECTION DETAILS TO SHOW KEEPER PLATE.
 - SHEET 2: REVISED FOUNDATION DATA CHART SPIRAL BAR FROM 3" PITCH TO 6" PITCH.

- 903.20 1 WOOD SIGN POST
- SHEET 1: REVISED NOTE 1. REMOVED 2002 FROM NOTE.

- 904.20 1 SECONDARY SIGN MOUNTING
- UPDATED ATTACHMENT METHOD ONE RIGHT EXIT PANEL OR OTHER SECONDARY SIGN FOR TOTAL TO EQUAL TO 30" FOR OVERALL PANE HEIGHT (CHANGED 6" TO 9")

- 904.40 1 MILEPOST AND PLACEMENT
- 1. REMOVED SIGN DETAIL SIZES (CURRENTLY ON MUTCD).
 - 2. REMOVED NOTE 7.
 - 3. REVISED NOTES 1 THROUGH 6.

- 904.50 1 MOUNTING OF TYPE 'D', 'E' AND 'F' SIGNS ON U-CHANNEL POSTS

- SHEET 2: UPDATED TYPE 'E' AND 'F' SIGNS HOLE PATTERN DRILL INFORMATION TO BE IN LINE WITH THE FEDERAL HIGHWAY SPECIFICATIONS FOR 18" SIGNS.

DIVISION 11

1101.01

3

WORK ZONE ADVANCE WARNING SIGNS

- SHEET 1: 1. REMOVED GENERAL NOTE #1 AND RENUMBERED NOTES 2-7 TO 1-6.
2. ADDED "AND CONSTRUCTION IS UNDERWAY" TO THE NOTE IN DETAIL B.
3. CHANGED NOTE 2 TO "THE SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT LONGER THAN 3 CONSECUTIVE DAYS"
4. REMOVED "USE 3 LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3 LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE." (THIS IS IN THE STANDARD SPECIFICATIONS)
5. ADDED "(MINIMUM)" UNDERNEATH "END ROAD WORK" SIGNS.
6. NOTE 6: CHANGED ROADWAY STANDARD DRAWING NO. TO RSD.

- SHEET 2: 1. REMOVED GENERAL NOTE #1 AND RENUMBERED NOTES 2-7 TO 1-6.
2. CHANGED NOTE 2 TO "THE SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT LONGER THAN 3 CONSECUTIVE DAYS"
3. REMOVED "USE 3 LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3 LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE."
4. NOTE 6: CHANGED ROADWAY STANDARD DRAWING NO. TO RSD.
5. ADDED NOTE "NO STATIONARY -Y- LINE ADVANCE WARNING SIGNAGE IS REQUIRED UNLESS THERE IS MORE THAN 1000' OF CONSTRUCTION ALONG THE -Y- LINE.

- SHEET 3: 1. REMOVED GENERAL NOTE #1 AND RENUMBERED NOTES 2-7 TO 1-6.
2. CHANGED NOTE 2 TO "THE SIGNS SHOWN ARE REQUIRED FOR WORK ZONES THAT WILL REMAIN IN EFFECT LONGER THAN 3 CONSECUTIVE DAYS"
3. REMOVED "USE 3 LB STEEL U-CHANNEL POST OR 4" X 4" WOOD POST FOR ALL WORK ZONE SIGNS. 3 LB STEEL U-CHANNEL POSTS MUST MEET THE REQUIREMENTS OF STANDARD SPECIFICATION SECTION 1094-1(B), MAY BE GALVANIZED STEEL, OR MAY BE PAINTED GREEN BY THE POST MANUFACTURER. SQUARE STEEL TUBING POSTS HAVING EQUIVALENT

STRENGTH OF THE 3 LB STEEL U-CHANNEL POST ARE ALSO ACCEPTABLE FOR USE.”

4. CHANGED HEADING TO “WORK ZONE ADVANCE WARNING SIGNS FOR TWO-WAY UNDIVIDED FACILITIES.

5. ADDED NOTE “NO STATIONARY -Y- LINE ADVANCE WARNING SIGNAGE IS REQUIRED UNLESS THERE IS MORE THAN 1000’ OF CONSTRUCTION ALONG THE -Y- LINE.

6. NOTE 6: CHANGED ROADWAY STANDARD DRAWING NO. TO RSD.

1101.02

15

TEMPORARY LANE CLOSURES

- SHEET 1: 1. CHANGED ALL TWO-WAY TO 2-WAY.

2. NOTE 1 - ADDED SHEETS 1 & 4 FOR REFERENCE OF L DISTANCE AND SIGN SPACING.

3. ADDED NOTE 11.

4. CHANGED FLAGGER IN “GENERAL NOTES FOR FLAGGER OPERATIONS” TO FLAGGING.

5. ADDED COMMAS AFTER THE STANDARD NUMBER FOR NOTES #1 AND #5 OF THE GENERAL NOTES FOR FLAGGING OPERATIONS.

- SHEET 2: 1. REMOVED TMA FROM DRAWING AND LEGEND.

2. CHANGE NOTE 5 TO “TMAS ARE REQUIRED WHEN ADEQUATE BUFFER SPACE CANNOT BE ATTAINED. WHEN USED, POSITION TMA’S TO MAINTAIN A ROLL-AHEAD DISTANCE AS RECOMMENDED BY THE MANUFACTURER.

3. REMOVED THE “-“ FROM SKINNY DRUMS.

4. ADDED “SHEETS 1 & 4” TO REFERENCE FOR RSD 1101.11.

5. IN DRAWING, CHANGED THE INITIAL “BUFFER SPACE” AND “TMA SPACE” TO JUST BUFFER SPACE.

- SHEET 3: NOTE 4 ADDED SHEET NUMBERS FOR RSD 1101.11 REFERENCE.

- SHEET 4: NOTE 4 ADDED SHEET NUMBERS FOR RSD 1101.11 REFERENCE.

- SHEET 5: 1. ADDED FAB IN CAUTION MODE TO TMA AND LEGEND.

2. REWORDED NOTE 8 AND 9.

3. CHANGED “SEE” TO “REFER TO” NOTE 4 AND 5.

4. REMOVED DATA FIELDS ON CMS.

5. CORRECTED LABELS FOR “NORMAL” AND “WEAVE”.

- SHEET 6: 1. ADDED FAB IN CAUTION MODE TO TMA AND LEGEND.

1101.02 CONT.

2. ADDED COMMAS TO NOTES 4 AND 5.

3. REWORDED NOTE 8 AND 9.

4. REMOVED DATA FIELDS ON CMS.

- SHEET 7: 1. REMOVED “WITH THE EXCEPTION THAT” IN NOTE 1.

2. ADDED FAB IN CAUTION MODE TO TMAS AND LEGEND.

3. REMOVED TYPE C FOR PANEL TYPE IN LEGEND.

- SHEET 8: 1. CHANGED W20-5A SIGN TO “2 LEFT LANES CLOSED”.
2. REMOVED DATA FIELDS FROM CMS DISPLAYS.
3. ADDED ADDITIONAL ADVANCE WARNING CMS.

- SHEET 9: 1. RENUMBERED AND CHANGED NOTES
2. ADDED 16’ DIMENSION TO RAMP TRAVEL WIDTH.

- SHEET 10: ADDED FAB IN CAUTION MODE TO TMAS AND LEGEND.

- SHEET 11: 1. CHANGED NOTE 2 TO, “IF SPACE LIMITATIONS ON SHOULDER PROHIBIT A 48” X 48” SIGN, A SMALLER SIGN CAN BE USED WITH APPROVAL FROM ENGINEER.”
2. CHANGED “LIGHT BAR” TO “WARNING LIGHT(S)” IN LEGEND.

- SHEET 12: 1. CHANGED “GROUND” TO “PORTABLE” IN NOTE 1B.
2. CHANGED “LIGHT BAR” TO “WARNING LIGHTS” IN NOTE 2.
3. ADDED NOTES 11 AND 12.
4. CHANGED “LIGHT BAR” TO “WARNING LIGHT(S)” IN LEGEND.

- SHEET 13: 1. REMOVED “W21-1” FROM ENTRANCE RAMP SIGN.
2. CHANGED “ROADWAY STANDARD DRAWING” TO “RSD” IN NOTE 7.
3. CHANGED NOTE 12 TO, “TRUCK MOUNTED CHANGEABLE MESSAGES SIGNS (TMCMS) USED ON SHADOW VEHICLES FOR ‘IN LANE’ ACTIVITIES, SHALL BE A MINIMUM SIZE OF 43” X 73”. THE DISPLAY PANEL SHALL HAVE FULL MATRIX CAPABILITY WITH THE CAPABILITY TO PROVIDE TWO MESSAGE LINES WITH 7 CHARACTERS PER LINE WITH A CHARACTER HEIGHT OF 18 INCHES. FOR ADDITIONAL SUGGESTED MESSAGING, CONTACT THE WORK ZONE TRAFFIC CONTROL SECTION.”
4. ADDED NOTE 13.
5. CHANGED “LIGHT BAR” TO “WARNING LIGHT(S)” IN LEGEND.

- SHEET 14: 1. REMOVED AFAD FROM STANDARD DRAWINGS.
2. CHANGED TO TEMPORARY PORTABLE SIGNAL DRAWING.

- SHEET 15: DELETED

1101.03

9

TEMPORARY ROAD CLOSURES

- SHEET 1: 1. CHANGED TYPE III WING NOTE TO “PLACE WING BARRICADES WITH R11-3 SIGN AT THROUGH SIDE ROADS BETWEEN THE DETOUR POINT AND THE POINT OF CLOSURE.”
2. COMBINATION OF SIGNS W20-3 & SP-4L AND W20-3 & SP-4R ARE NO LONGER OPTIONAL.
3. CHANGED “21” TO “30” IN NOTE.

- SHEET 2: 1. COMBINATION OF SIGNS W20-3 & R3-2 WERE CHANGED TO MIMIC SHEET 1.
2. COMBINATION OF SIGNS W20-3 & R3-1 WERE CHANGED TO MIMIC SHEET 1.
3. CHANGED “21” TO “30” IN NOTE 2.

- SHEET 3: 1. CHANGED SIGN W1-4L TO W24-1L.

2. CHANGED SIGN W1-4R TO W24-1R.
 3. CHANGED W1-3L AND W1-3R TO W24-1L AND W24-1R IN NOTE 6.
 4. CHANGED W1-5L AND W1-5R TO W24-1L AND W24-1R IN NOTE 8.
- SHEET 4: ADDED FAB IN CAUTION MODE TO TMAS AND LEGEND.
- SHEET 5: 1. ADDED 16' WIDTH DIMENSIONS TO ENTRANCE AND EXIT RAMPS.
 2. ADDED "MIN. 400' PARALLEL ACCELERATION" AND "MIN. 300' MERGE TAPER" TO ENTRANCE RAMP.
 3. ADDED A COMMA AFTER 1101.03 IN NOTE 1.
- SHEET 6: 1. CHANGED DRUM SPACING FROM 25' TO 20'.
 2. CHANGED NOTE 6 TO, "IF USED, LAW ENFORCEMENT SHOULD BE PLACED AFTER MERGE TAPER BUT IN ADVANCE OF THE TMAS." TO EXPLAIN THE ILLUSTRATION.
 3. ADDED FAB TO TMAS AND LEGEND.
 4. CHANGED "3 DAYS OR LESS" TO "ONE WORK PERIOD" IN NOTE 1.
 5. CHANGED "ORANGE TABULAR. . ." TO "SKINNY DRUMS." IN NOTE 4.
- SHEET 7: 1. ADDED FAB IN CAUTION MODE TO TMAS AND LEGEND.
 2. CHANGED NOTE 3 TO, "IF RAMP TERMINAL IS SIGNALIZED, PLACE SIGNALS IN FLASH MODE AND USE LAW ENFORCEMENT TO DIRECT TRAFFIC."
 3. ADDED A COMMA AFTER 1101.02 IN NOTE 5.
 4. REMOVED NOTE 6.
- SHEET 8: 1. EXTENDED THE PICTURE TO ILLUSTRATE BOTH ENDS.
 2. ADDED (OPTIONAL) LAW ENFORCEMENT TO ILLUSTRATION AND LEGEND.
 3. NOTE 2 CHANGED TO "DO NOT EXCEED 20 MINUTES AT A TIME FOR ROAD CLOSURE."
 4. NOTE 3 CHANGED TO "IMPLEMENT THIS TYPE OF ROAD CLOSURE DURING PERIODS OF LOW TRAFFIC VOLUMES. DEplete THE EXISTING TRAFFIC QUEUE BEFORE RECLOSING THE ROADWAY TO TRAFFIC IF MULTIPLE CLOSURES ARE REQUIRED."
 5. ADDED "SHEETS 2 & 4" TO NOTE 4.
- SHEET 9: 1. 1ST SET OF CMS ADDED: CMS NO. 1 READS "SLOW STOPPED TRAFFIC" AND CMS NO. 2 READS "3 MILES AHEAD".
 2. 2ND SET OF CMS: CMS NO. 1 CHANGED TO "TRAFFIC STOPPED AHEAD" AND CMS NO. 2 CHANGED TO "STOPPAGE 30 MIN MAX".
 3. ADDED LAW ENFORCEMENT TO ILLUSTRATION AND LEGEND.
 4. ADDED "FIRST" BEFORE "CHANGEABLE" AND CHANGED "2-3" TO "3" IN NOTE 5.
 5. A NOTE WAS ADDED, "COORDINATE WITH LOCAL TRAFFIC OPERATIONS PERSONNEL TO UTILIZE DYNAMIC MESSAGE SIGNS (DMS), IF APPLICABLE." AND BECAME NOTE 6, RESULTING IN ALL FOLLOWING NOTES TO INCREASE BY 1 TO BE A TOTAL OF 10 NOTES INSTEAD OF 9.

1. REMOVED “- ≥60 MPH” FROM FIRST TITLE HEADING AND “- ≤ 55 MPH” FROM THE SECOND.
2. DRUM BARRIER CHANGED TO PORTABLE CONCRETE BARRIER IN 10’ PAVED SHOULDER IN THE FIRST ILLUSTRATION.
3. 10’ PAVED SHOULDER ONLY IN SECOND ILLUSTRATION.
4. REMOVED ALL SIGNS EXCEPT W21-5A.
5. REMOVED THIRD ILLUSTRATION FROM STANDARD.
6. ADDED A COMMA AND “SHEETS 3 & 4” AFTER 1101.11 IN NOTE 4.
7. REMOVED NOTE 5.
8. ADDED PORTABLE CONCRETE BARRIER TO LEGEND.

1101.05 1 WORK ZONE VEHICLE ACCESSES

1. ADDED ANOTHER SHEET TO THE STANDARD AND MOVED “ACCESS THROUGH TEMPORARY BARRIER” FROM SHEET 1 TO SHEET 2
2. ACCESS THROUGH TEMPORARY BARRIER (NOW SHEET 2 OF 2).

1101.06 1 WARNING SIGNS FOR BLASTING ZONES

REMOVED “IF THERE IS DANGER.” FROM AFTER THE SENTENCE IN PARENTHESES FROM NOTE 2.

1101.11 1 TRAFFIC CONTROL DESIGN TABLES

- SHEET 4: NOTE 1 WAS CHANGED TO “REFER TO 2009 MUTCD OR THE EQUIVALENT REVISION.”

1110.01 2 STATIONARY WORK ZONE SIGNS

- SHEET 1: 1. NOTES 3-6 ALL CHANGED TO BEGIN WITH “REFER TO”
2. CHANGED “ROADWAY STANDARD DRAWING” TO “RSD” IN NOTE 5.

- SHEET 2: THE GROUND SUPPORT/SIGN SUPPORT AT THE TOP CHANGED TO POINT IN THE OPPOSITE DIRECTION.

1110.02 1 PORTABLE WORK ZONE SIGNS

REMOVED WEBSITE ADDRESS IN NOTE 3.

1115.01 1 FLASHING ARROW BOARDS

1. IN NOTE 1, “STATIC” WAS ADDED IN FRONT OF CHEVRON.
2. NOTE 5 CHANGED TO, “ALL FLASHING ARROW BOARDS MUST BE LISTED ON THE DEPARTMENTS APPROVED PRODUCTS LIST.”.

1130.01 1 DRUM

1. REMOVED NOTE 3
2. REMOVED NOTE 5
3. NOTE 4: REMOVED WEBSITE ADDRESS AND CHANGED NOTE TO “ALL DRUMS MUST BE ON DEPARTMENT’S APL”.

- 1135.01 1 CONES
1. NOTE 2: REMOVED WEBSITE ADDRESS AND CHANGE NOTE TO “ALL CONES MUST BE ON DEPARTMENT’S APL”.
 2. REMOVED NOTE 3.
- 1145.01 1 BARRICADES – TYPE III
1. REMOVED NOTE 5.
 2. NOTE 11: REMOVED WEBSITE ADDRESS AND CHANGED NOTE TO “ALL BARRICADES MUST BE ON DEPARTMENT’S APL”.
- 1150.01 1 FLAGGING DEVICES
1. CHANGED TITLE TO “FLAGGERS”
 2. NOTE 5: REMOVED “PART IV” AND CHANGED “MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES” TO “MUTCD”
 3. CHANGED PADDLE HEIGHT TO “6-7”
- 1160.01 1 TEMPORARY CRASH CUSHION
- CHANGED ALL REFLECTIVE TO “RETROREFLECTIVE”.
- 1165.01 1 WORK VEHICLE LIGHTING SYSTEMS
AND TMA DELINEATION
1. REMOVED “DUMP BODY” AND CORRESPONDING VISUAL.
 2. REMOVED “LIGHT SYSTEM OPTIONS” NOTE.
 3. ADDED TMA TO TRUCK.
 4. NOTE 3: REMOVED WEBSITE ADDRESS AND CHANGED NOTE TO “ALL TRUCK MOUNTED ATTENUATORS MUST BE ON APL”.
 5. CHANGED TITLE TO TRUCK MOUNTED ATTENUATOR.
 6. ADDED NOTE “THIS VISUAL IS FOR DEMONSTRATIVE PURPOSES ONLY, AND DOES NOT IMPLY A SPECIFIC TYPE OF ATTENUATOR MUST BE USED”.
- 1180.01 1 SKINNY DRUM
1. REMOVED “-“ FROM TITLE.
 2. REMOVED NOTE 4.
 3. NOTE 5: REMOVED THE WEBSITE ADDRESS AND CHANGED TO “ALL SKINNY DRUMS MUST BE ON THE APL”.
- DIVISION 12**
- 1205.01 1 PAVEMENT MARKINGS – LINE TYPES
AND OFFSETS
- SHEET 1: CHANGED LINE WIDTH OF 3’-3”/SP MINI-SKIP LINE FROM 12” TO 8”/12”.
- 1205.02 1 PAVEMENT MARKINGS – TWO LANE

AND MULTI-LANE ROADWAYS

- SHEET 1: CORRECTED WORD ERROR IN “TWO-LANE, TWO-WAY ROADWAY” DETAIL, CHANGED “SIGNAL” TO “SINGLE”.

1205.03 3 PAVEMENT MARKINGS – EXIT AND
ENTRANCE RAMPS

- ALL SHEETS: CHANGED NOTE 1 TO CLARIFY LINE WIDTH FOR ENTRANCE AND EXIT RAMPS.

1205.06 4 PAVEMENT MARKINGS

- SHEET 1: NEW DETAILS AND NOTES.

- SHEET 3: ADDED RIGHT ARROW SYMBOLS AND THE CHARACTER “ONLY” TO THE “AUXILIARY LANE” DETAIL.

- SHEET 4: NEW SHEET.

- SHEET 5: NEW SHEET.

1205.07 1 PAVEMENT MARKINGS – PEDESTRIAN
CROSSWALKS

NEW DETAILS AND NOTES.

1205.08 4 PAVEMENT MARKINGS – SYMBOLS AND
WORD MESSAGES

- SHEET 1: ADDED NEW SYMBOL DETAIL, “STRAIGHT ARROW FOR WRONG-WAY MOVEMENTS”.

- SHEET 2: ADDED NEW SYMBOL DETAILS, “LEFT / U-TURN ARROW COMBINATION” AND “ROUNDAABOUT FISH-HOOK ARROW TYPICAL”. MOVED BIKE SYMBOL DETAILS FROM SHEET 2 TO NEW SHEET 3.

- SHEET 3: NEW SHEET WITH BIKE SYMBOLS FROM SHEET 2. ADDED “ROUTE SHIELDS” DETAIL.

- SHEET 4: ADDED NOTES.

1205.11 4 PAVEMENT MARKINGS – RAILROAD
CROSSINGS

- SHEET 1: CHANGED NOTE 5 AND UPDATED DETAIL TO REFLECT NOTE.

- SHEETS 2 THRU 4: UPDATED DETAILS TO REFLECT NOTE 5 FROM SHEET 1.

1205.12 1 PAVEMENT MARKINGS – BRIDGES

CORRECTED “CLEAR ROADWAY WIDTH” PARAMETER ON “NARROW BRIDGE” DETAIL.

1262.01 1 GUARDRAIL END DELINEATION

UPDATED DETAIL TO INCLUDE TYPE 3 OBJECT MARKER SHEETING AS OPTION FOR SHEETING END TREATMENT.

1264.01 1 OBJECT MARKERS – TYPES

UPDATED DETAILS TO MEET CURRENT MUTCD.

1264.01 1 OBJECT MARKERS – INSTALLATION

UPDATED DETAILS TO MEET CURRENT MUTCD.

DIVISION 14

1401.01 2 HIGH MOUNT STANDARD

- SHEET 1: 1. CHANGED SIZE OF LUMINAIRE TO REFLECT USE OF LED LUMINAIRES.
2. CHANGED POWER CORD IN POLE FROM “SO”, 10/2 WITH GROUND TO “SOOW”, 10/3.
3. ADDED HIGH MAST JUNCTION BOX WITHIN 10’ OF FOUNDATION.
4. SHOWED FEEDER CIRCUIT WIRING TEEING TO POLE FROM JUNCTION BOX.
5. SHOWED GROUND ROD IN JUNCTION BOX CONNECTED TO GROUNDING LUG IN POLE.
6. CHANGED SHAPE OF THE HEAD FROM HOOD FROM ROUNDED TO MORE SQUARE SINCE DESIGNS HAVE CHANGED OVER TIME.

- SHEET 2: 1. CHANGED POWER CORD FROM “TYPE “SO”, #10/2 WITH GROUND” TO “TYPE “SOOW”, #10/3” IN TWO PLACES.
2. CHANGED FUSE AND FUSEBLOCK IN PORTABLE DRIVE POWER SUPPLY FROM “120-VOLT, 15 AMP MAX” TO “120-VOLT, 15 AMP MAX, 5 AMP MIN”.
3. ADDED DELTA NOTE CONCERNING REIDENTIFICATION OF WHITE CONDUCTOR IN SOOW CORD.

1402.01 1 HIGH MOUNT FOUNDATION

1. CHANGED FORMED REQUIREMENT FROM 36” TO 12”.
2. IN DELTA NOTE 3, CHANGED REFERENCE FROM SECTION 1402 OF STANDARD SPECIFICATIONS TO PSP.
3. RESIZED DELTA NOTE 2 TO REFLECT GROUND ROD LOCATED IN HIGH MAST JUNCTION BOX INSTEAD OF NEAR FOUNDATION.

1403.01 1 HIGH MOUNT LUMINARIES

COMPLETE CHANGE FROM 2012 VERSION. WE HAVE NOW MOVED AWAY FROM HIGH PRESSURE SODIUM LUMINAIRES AND USE LED LUMINAIRES.

LED LUMINAIRES HAVE A DIFFERENT FORM FACTOR, NO LAMP AND DIFFERENT LUMEN REQUIREMENTS.

1404.01

3

LIGHT STANDARDS

- SHEET 1: 1. CHANGED TITLE OF THIS SHEET FROM “LIGHT STANDARDS SINGLE-ARM” TO “LIGHT STANDARDS SHOULDER OR GRASSY MEDIAN INSTALLATION”.
2. ADDED CIRCUIT NUMBER TO DETAIL I.
3. RENAMED “SINGLE-ARM LIGHT STANDARD” DETAIL TO “LIGHT STANDARD IN SHOULDER OR GRASSY MEDIAN”.
4. REMOVED “SINGLE-ARM” FROM DELTA NOTE 5.
5. ADDED LIGHT STANDARD JUNCTION BOX (LSJB) NEAR POLE UNDER STANDARD PLACEMENT DETAIL.
6. ADDED LSJB NEAR POLE IN THE LIGHT STANDARD DETAIL.
7. ADDED DELTA NOTE 7 TO DESCRIBE PLACEMENT OF LSJB.
8. ADDED DELTA NOTE 8 TO ALLOW THE USE OF DIRECT POLE MOUNTED LUMINAIRES IN LIEU OF LUMINAIRES WITH BRACKET ARMS.
9. ADDED DELTA NOTE 9 TO REQUIRE THE POLE ID BE STENCILED RATHER THAN USE A STICKER.
10. DEFINED MTLs AND MTLT IN DELTA NOTE 5.
11. MODIFIED DELTA NOTES 1, 3 AND 6 TO REFER TO BREAKAWAY SUPPORTS INSTEAD OF BREAKAWAY BASES TO BE CONSISTENT WITH LANGUAGE IN STANDARD SPECS.
12. MODIFIED DELTA NOTE 3 TO REFER TO “BASE DETAILS” ON SHEET 3 OF 3 INSTEAD OF SHEET 2 OF 3.

- SHEET 2: 1. CHANGED THIS SHEET TO SHEET 3 OF 3.
2. CHANGED “REMOVABLE DOOR” TO “REMOVABLE METAL DOOR” ON THE TRANSFORMER BASE DETAIL.
3. CHANGED DRAWING LABEL FROM BASE DETAILS TO BREAKAWAY SUPPORT BASE DETAILS TO BETTER ALIGN WITH LANGUAGE IN STANDARD SPECS.
4. MODIFIED DELTA NOTE 1 TO REFER TO BREAKAWAY SUPPORTS TO ALIGN WITH LANGUAGE IN STANDARD SPECS.

- SHEET 3: 1. CHANGED THIS SHEET TO SHEET 2 OF 3.
2. CHANGED TITLE FROM “LIGHT STANDARDS TWIN ARM” TO “LIGHT STANDARDS CONCRETE BARRIER INSTALLATION”.
3. CHANGED “TWIN-ARM LIGHT STANDARD” TO “LIGHT STANDARD ON BARRIER” DETAIL.
4. CHANGED “MEDIAN BARRIER” TO “CONCRETE BARRIER IN THE LIGHT STANDARD ON BARRIER DETAIL”.
5. CHANGED DELTA NOTE 5 TO DISCUSS REQUIRED BARRIER NOTCH. THE OLD NOTE WAS NO LONGER NEEDED SINCE THAT INFORMATION WILL BE ADDRESSED UNDER SHEET 1.
6. ADDED A NOTCH PROFILE VIEW TO CLEARLY SHOW REQUIRED BARRIER NOTCH.
7. ADDED DELTA NOTE 6 TO REFER TO 1405.01 FOR FOUNDATION DETAILS.
8. DEFINED MTLs AND MTLT.

1405.01

3

STANDARD FOUNDATION

- SHEET 1: 1. REMOVED HOOKED ANCHOR BOLT REQUIREMENT.
2. REMOVED ANCHOR BOLT LENGTH AND DIAMETER REQUIREMENT. ANCHOR BOLTS WILL NOW BE DESIGNED SPECIFIC TO THE POLE AND SUBMITTED FOR STRUCTURAL REVIEW.
3. CHANGED DELTA NOTE 1 TO REFLECT NEW ANCHOR BOLT REQUIREMENTS.
4. REVISED DELTA NOTE 2 FOR CLARITY.
5. ADDED DELTA NOTE 5 CONCERNING ANCHOR BOLT LENGTH AND SIZE.

- SHEET 2: 1. ADDED THE WORD "REQUIRED" TO THE "TYPE T OR TYPE T1 MEDIAN BARRIER" CALLOUT ON THE SECTION A-A DRAWING OF THE TYPE M1 FOUNDATION.
2. ADDED MINIMUM HEIGHT REQUIREMENT OF 46" TO THE ELEVATION VIEW.
3. ADDED REFERENCE TO THE STANDARD DRAWINGS FOR BARRIER DIMENSIONS TO DELTA NOTE 7.

- SHEET 3: 1. ADDED THE WORD "REQUIRED" TO THE "TYPE T2 MEDIAN BARRIER" CALLOUT ON THE SECTION A-A DRAWING OF THE TYPE M2 FOUNDATION.
2. ADDED MINIMUM HEIGHT REQUIREMENT OF 46" TO THE ELEVATION VIEW.
3. ADDED REFERENCE TO THE STANDARD DRAWINGS FOR BARRIER DIMENSIONS TO DELTA NOTE 7.

1406.01

1

LIGHT STANDARD LUMINARIES

COMPLETE CHANGE FROM 2012 VERSION. WE HAVE NOW MOVED AWAY FROM HIGH PRESSURE SODIUM LUMINAIRES AND USE LED LUMINAIRES. LED LUMINAIRES HAVE A DIFFERENT FORM FACTOR, NO LAMP AND DIFFERENT LUMEN REQUIREMENTS. ALSO ADDED A LSJB IN THE WIRING DIAGRAM AND CHANGED BRANCH CIRCUIT INSIDE POLE TO TYPE SOOW CABLE.

1407.01

1

ELECTRIC SERVICE POLE AND LATERAL

CHANGED INSERTION DEPTH OF SERVICE POLE FROM 5' TO 5'6" TO MATCH STANDARD SPECIFICATIONS.

1408.01

3

LIGHT CONTROL SYSTEM

- SHEET 1: 1. ADDED DASHED LINE BOXES AROUND THE CONTACTORS TO SHOW HOW THE CONTACTORS ARE GROUPED.
2. REMOVED OLD DELTA NOTE 11. LIGHTNING ARRESTORS ARE NO LONGER USED. WE NOW USE A MULTI-USE SURGE PROTECTION DEVICE INSIDE THE PANEL.
3. CHANGED DELTA NOTE 11 TO DESCRIBE USING A CONDUIT CHOKE ON THE END OF THE SERVICE GROUNDING CONDUCTOR CONDUIT. A CHOKE IS REQUIRED TO PREVENT PARALLEL PATHS TO GROUND PER NEC.

4. CHANGED ITEM 7 OF THE COMPONENT LIST TO A TYPE 1 SURGE PROTECTION DEVICE.
5. INCLUDED ITEM 7 IN THE INTERIOR PANEL COMPONENT LAYOUT.
6. ADDED REQUIRED 2ND GROUND ROD.
7. REMOVED QUANTITY OF CONTACTORS AND BREAKERS IN THE COMPONENT LIST. ADDED DESCRIPTORS UNDER THE COMPONENT LIST TO STATE HOW MANY CONTACTORS AND BREAKERS ARE REQUIRED.
8. REWORDED DELTA NOTE 4 TO TELL CONTRACTORS TO INSTALL SIX CONDUITS.

- SHEET 2: 1. REMOVED DELTA NOTE 7 SINCE LIGHTNING ARRESTOR IS NOW A MULTI-USE SURGE SUPPRESSION DEVICE THAT CAN BE MOUNTED INSIDE THE CABINET. DELTA NOTE 7 NOW REFERS TO THE DEPTH OF THE GROUND ROD FOR INSPECTION.

2. ADDED DELTA NOTE 8 TO INSTRUCT CONTRACTOR TO BOND EGC TO CONDUIT USING AN UNDERGROUND CHOKE.
3. ADDED DELTA NOTE 9 TO INSTRUCT CONTRACTOR TO NOT TERMINATE CONDUIT UNDER CONCRETE FOUNDATION PAD.
4. CHANGED PC36 JUNCTION BOX TO CONTROL SYSTEM JUNCTION BOX DUE TO SPEC LANGUAGE CHANGES.
5. ADDED REQUIRED 2ND GROUND ROD.

- SHEET 3: ADDED DELTA NOTE 4

1409.01 1 ELECTRICAL DUCT

1. CLARIFIED “JACKED, DRILLED OR BURIED DUCT” IDENTIFICATION BY ADDING “(USED AS A PROTECTIVE SLEEVE” TO THE END.
2. CREATED A SECTION A-A DRAWING TO SHOW THE PROTECTIVE SLEEVE, CIRCUIT CONDUIT AND FEEDER CIRCUITS.
3. ADDED NOTE IDENTIFYING PAVED SHOULDER ON MIDDLE DIAGRAM. CHANGED PC JUNCTION BOX IN UPPER RIGHT SKETCH TO IG JUNCTION BOX
4. DUE TO SPEC LANGUAGE CHANGES.
5. CHANGED LENGTH OF JACKED, DRILLED OR BURIED DUCT IN MIDDLE LEFT SKETCH FROM 30’ BEYOND EOT TO 15’ BEYOND EOT.

1410.01 1 FEEDER CIRCUITS

ADDED DELTA NOTE 1.

1411.01 1 ELECTRICAL JUNCTION BOXES

1. INCLUDED NOTE OF 18” MIN. BESIDE (D) BECAUSE CONTRACTORS CONTINUE TO SUBMIT 12” DEEP BOXES.
2. ADDED DELTA NOTE 6.
3. CHANGED PC JUNCTION BOX TO IG JUNCTION BOX DUE TO SPEC LANGUAGE CHANGES.
4. CHANGED LOGO FROM ELECTRIC TO LIGHTING
5. CHANGED CONDUIT STUB HEIGHT FROM 6” ABOVE BOTTOM OF BOX TO 10” BELOW LID TO ALIGN BETTER WITH HOW SIGNALS SHOWS CONDUIT IN THEIR DRAWINGS.

6. UPDATED DELTA NOTE 1 FROM 1400-2(H) TO 1400-2(G) BECAUSE OF CHANGES IN STANDARD SPECS.

1412.01 2 UNDERPASS LIGHTING

- SHEET 1: 1. CHANGED LUMINAIRE TO LED TYPE.
2. REMOVED DETAIL AND REQUIREMENT FOR QUICK DISCONNECT SINCE LED IS USED NOW.
3. CHANGED “SO” CORD TO “SOOW” CORD.

- SHEET 2: 1. REMOVED SPURIOUS DELTA NOTE 4 ON UPPER LEFT OF SHEET.
2. CHANGED BREAKER SIZE FROM 20A TO 15A.
3. REDREW DETAIL B TO SHOW LED FIXTURE INSTEAD OF HPS.
4. LABELED TRANSITION ADAPTER AT BOTTOM OF BRIDGE PIER
5. LABELED FEEDER CIRCUITS EXITING CONDUIT AT BOTTOM OF BRIDGE PIER.

DIVISION 15
NO CHANGES

DIVISION 16

1604.01 1 RAILROAD EROSION CONTROL DETAIL

1. MODIFIED “FILTRATION GEOTEXTILE” LABELS TO READ “GEOTEXTILE FOR DRAINAGE”.
2. MODIFIED NOTES FROM “FILTRATION GEOTEXTILE” TO “GEOTEXTILE FOR DRAINAGE”.

1605.01 1 TEMPORARY SILT FENCE

1. MODIFIED WIRES TO CLEARLY SHOW 5 LINES AND ADJUSTED ARROWS TO POINT TO TOP OF WIRE AND THE GROUND.
2. MODIFIED “FILTRATION GEOTEXTILE” LABELS TO READ “GEOTEXTILE”.
3. MODIFIED NOTES FROM “6 LINE WIRES” TO “5 LINE WIRES” AND “STAY SPACING” TO “VERTICAL SPACING”.

1606.01 1 SPECIAL SEDIMENT CONTROL FENCE

1. IN NOTES, CORRECTED “POST” TO “POSTS”.
2. SHORTED LENGTH OF POSTS ABOVE THE WIRE MESH FOR DRAWING TO LOOK MORE TO SCALE.

1607.01 1 GRAVEL CONSTRUCTION ENTRANCE

MODIFIED NOTE FROM “FILTRATION GEOTEXTILE” TO “GEOTEXTILE FOR DRAINAGE”.

1622.01 1 GUIDE FOR TEMPORARY BERMS AND SLOPE DRAIN

1. MODIFIED “SEDIMENT CONTROL STONE” LABEL TO READ “INLET PROTECTION”. REMOVED “CLASS B STONE” LABEL.
2. MOVED “ELBOW” AND “10’ MAX” LABELS FOR BETTER UNDERSTANDING.
3. ADDED AN “ANCHOR STAKE” LABEL.
4. MODIFIED LABEL FROM “CLASS B STONE OR SILT BASIN TYPE B.” TO “CLASS B STONE FOR EROSION CONTROL”.
5. DELETED SUMP HATCHING.
6. ADDED STONE INLET PROTECTION AND “INLET PROTECTION” LABEL TO ISOMETRIC VIEW.
7. DELETED “SILT BASINS AND OTHER EROSION CONTROL DEVICES MAY ALSO BE UTILIZED TO PREVENT SCOUR AT OUTLET LOCATIONS.” FROM NOTE 4.
8. ADDED WATTLE FOR INLET PROTECTION IN INLET PROTECTION OPTION #1 AND ISOMETRIC VIEW OPTION #1.

1630.01 2 RISER BASIN

- SHEET 1: MODIFIED NOTE #7 AND LABEL FROM “MINIMUM RISER PIPE DIAMETER IS 1.2 TIMES THE BARREL PIPE DIAMETER” TO “MINIMUM RISER PIPE DIAMETER IS 1.5 TIMES THE BARREL PIPE DIAMETER”.

1630.01 CONT.

- SHEET 2: MODIFIED LABEL FOR RISER DIAMETER FROM 1.2 TO 1.5. ADJUSTED THE SIDE OF THE CIRCLE REPRESENTING P.

1630.02 1 SILT BASIN TYPE ‘B’

MODIFIED MINIMUM WIDTH FROM 2’ TO 6’.

1630.03 1 TEMPORARY SILT DITCH

1. MODIFIED NOTE FROM “SEED BERM CREATED BY EXCAVATED MATERIAL AS DIRECTED” TO “STABILIZE TEMPORARY SILT DITCH AS DIRECTED”.
2. MODIFIED LABEL “EXCAVATED MATERIAL” TO “COMPACTED EXCAVATED MATERIAL”. MODIFIED BERM TO LOOK MORE COMPACTED.

1630.04 1 STILLING BASIN FOR PUMPED EFFLUENT

1. MODIFIED NOTES FROM “THE BASIN MAY HAVE ANY TYPE CONFIGURATION” TO “THE BASIN MAY DEVIATE FROM TYPICAL DUE TO SITE CONDITIONS”. CHANGED “DIKES” TO “EMBANKMENT”.
2. ADDED LABEL “EARTH EMBANKMENT” TO ARROW WITH NO LABEL.

1630.05 1 TEMPORARY DIVERSION

MODIFIED NOTE FROM “SEED BERM CREATED BY COMPACTED SOIL” TO “STABILIZE TEMPORARY DIVERSION”.

1630.06 1 SPECIAL STILLING BASIN

MODIFIED LABEL FROM “FILTRATION GEOTEXTILE” TO “GEOTEXTILE FOR DRAINAGE”.

1631.01 1 MATTING INSTALLATION

CORRECTED STANDARD NUMBER TO 1631.01 FROM 1633.01.

1632.01 1 ROCK INLET SEDIMENT TRAP TYPE A

DELETED 1'-2" LABEL FROM WIDTH OF SEDIMENT CONTROL STONE.

1632.02 1 ROCK INLET SEDIMENT TRAP TYPE B

1. DELETED 1'-2" LABEL FROM WIDTH OF SEDIMENT CONTROL STONE.
2. MODIFIED DIMENSIONS FROM 5'-0" TO 5'-6".

1632.03 1 ROCK INLET SEDIMENT TRAP TYPE C

1. MODIFIED LABELS FOR POST HEIGHT FROM 2' TO VARIABLE.

1632.03 CONT.

2. MODIFIED NOTES FROM “WIRE STAPLE OR OTHER ACCEPTABLE METHODS” TO “PLASTIC TIES, WIRE FASTENERS, OR OTHER APPROVED ATTACHMENT DEVICE”.
3. MODIFIED NOTES FROM 1.5' POST DEPTH TO 2' POST DEPTH.

1633.01 1 TEMPORARY ROCK SILT CHECK TYPE A

ADDED LABEL “B” TO PLAN VIEW.

1633.02 1 TEMPORARY ROCK SILT CHECK TYPE B

1. MODIFIED SHAPE OF STRUCTURAL STONE IN ISOMETRIC VIEW.
2. MODIFIED ARROWS FOR DIMENSIONS IN ISOMETRIC AND ELEVATION VIEWS.
3. DELETED OPTIONAL TYPE B SILT BASIN.

1634.01 1 TEMPORARY ROCK SEDIMENT DAM
TYPE A

1. DELETED “DO NOT PLACE SEDIMENT DAM IN A LIVE STREAM” AND “WITH A SPACING OF 15 FEET” FROM NOTES.
2. ADDED FLOODPLAIN LINES TO EACH SIDE OF THE STRUCTURE.

1634.02 1 TEMPORARY ROCK SEDIMENT DAM
TYPE B

DELETED DRAINAGE AREA AND WEIR LENGTH TABLE.

1635.01 1 ROCK PIPE INLET SEDIMENT TRAP

TYPE A

ADDED 12" DIMENSION LABEL FOR SEDIMENT CONTROL STONE.

1635.02	1	<u>ROCK PIPE INLET SEDIMENT TRAP TYPE B</u>
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ADDED 12" DIMENSION LABEL FOR SEDIMENT CONTROL STONE.

1640.01	1	<u>COIR FIBER BAFFLE</u>
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1. DELETED "T-" FROM "T-POST".
2. DELETED "EMERGENCY" FROM NOTES.

1645.01	1	<u>TEMPORARY STREAM CROSSING</u>
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MODIFIED "FILTRATION GEOTEXTILE" LABEL TO READ "GEOTEXTILE FOR DRAINAGE".

DIVISION 17

1700.01	1	<u>ELECTRICAL SERVICE OPTIONS</u>
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- SHEET 1: ADDED NOTE #6.

1700.02	1	<u>ELECTRICAL SERVICE GROUNDING</u>
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- SHEET 1: MODIFIED THE GROUND CONNECTORS TO "IRREVERSIBLE COMPRESSION GROUND CONNECTOR".

1705.02	2	<u>SIGNAL HEADS – PEDESTRIAN ASSEMBLIES</u>
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- SHEET 4: MODIFIED THE DIMENSION LINE FOR PUSHBUTTON MOUNTING HEIGHT TO CLEARLY POINT TO THE CENTER OF THE PUSHBUTTON.

- SHEET 5: MODIFIED THE DIMENSION LINE FOR PUSHBUTTON MOUNTING HEIGHT TO CLEARLY POINT TO THE CENTER OF THE PUSHBUTTON.

1716.01	1	<u>JUNCTION BOXES</u>
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MODIFIED THE WASHED STONE REQUIREMENT TO INCLUDE #57 WASHED STONE. IT NOW READS "#57 OR #67 WASHED STONE".

1736.01	2	<u>SPREAD SPECTRUM RADIO</u>
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- SHEET 3: 1. REMOVED UNUSED NOTES 1, 3, 5, 6 AND 7.
2. UPDATED NOTE 4 FROM TYPE III TO GRADE C REFLECTIVE SHEETING.

- SHEET 4: 1. REMOVED UNUSED NOTES 1, 3, 5, 6 AND 7.
2. UPDATED NOTE 4 FROM TYPE III TO GRADE C REFLECTIVE SHEETING.

1743.01

1

PEDESTALS – PEDESTRIAN PUSHBUTTON
POST (TYPE I)

1. MODIFIED THE TITLE BLOCK TO READ “PEDESTRIAN PUSHBUTTON POST”.
2. MODIFIED DRAWING LABELS TO READ “PUSHBUTTON POSTS” INSTEAD OF “PUSHBUTTON PEDESTAL”.
3. MODIFIED WASHER REQUIREMENT ON TRANSFORMER BASE ANCHORING DETAIL TO READ “1/4” TH. SPECIAL WASHER” INSTEAD OF “FLAT WASHER”.
4. ADDED “SEE NOTE NO. 5” TO THE ELECTRICAL CONDUCTOR SHEAR DEVICE DETAIL.
5. MODIFIED THE BOLT CIRCLE REQUIREMENT FOR THE THREADED FLANGE BASE TO READ “7 ½ FOOT MIN BOLT CIRCLE”
6. ADDED THE LINE “IF APPROVED ALTERNATIVES ARE AVAILABLE THEY CAN BE USED PER APPROVAL OF THE ENGINEER” TO NOTE #5.

1743.02

1

PEDESTALS – NORMAL DUTY (TYPE II)

1. ADDED A BASE COLLAR TO POLE AND BASE DETAILS.
2. MODIFIED THE TRANSFORMER BASE BOLT CIRCLES REQUIREMENT TO READ “12” MIN BOLT CIRCLE”.
3. MODIFIED THE “THREADED PIPE AND NECK” DETAIL TO READ “THREADED PIPE AND NECK WITH BASE COLLAR”.
4. MODIFIED WASHER REQUIREMENT ON TRANSFORMER BASE ANCHORING DETAIL TO READ “1/4” TH. SPECIAL WASHER” INSTEAD OF “FLAT WASHER”
5. ADDED “SEE NOTE NO. 5” TO THE ELECTRICAL CONDUCTOR SHEAR DEVICE DETAIL.
6. MODIFIED THE BOLT CIRCLE REQUIREMENT FOR THE THREADED FLANGE BASE TO READ “7 ½ FOOT MIN BOLT CIRCLE”.
7. ADDED THE LINE “IF APPROVED ALTERNATIVES ARE AVAILABLE THEY CAN BE USED PER APPROVAL OF THE ENGINEER” TO NOTE #5.
8. ADDED NOTE #6 “PROVIDE POLE AND BASE COLLAR ASSEMBLY”.

1743.03

1

PEDESTALS – HEAVY DUTY (TYPE III)

1. MODIFIED NOTE #3 TO READ “HEAVY DUTY PEDESTALS” INSTEAD OF “PUSHBUTTON PEDESTALS”.
2. ADDED “SEE NOTE NO. 5” TO THE ELECTRICAL CONDUCTOR SHEAR DEVICE DETAIL.
3. ADDED THE LINE “IF APPROVED ALTERNATIVES ARE AVAILABLE THEY CAN BE USED PER APPROVAL OF THE ENGINEER” TO NOTE #5.
4. REMOVED THE BOLT CIRCLE SIZE REQUIREMENT FROM THE TRANSFORMER BASE DETAILS.

1751.01

2

CONTROLLERS AND CABINETS

- SHEET 1: MODIFIED ALL REFERENCES TO “2070L” TO READ “2070”.
- SHEET 2: MODIFIED ALL REFERENCES TO “2070L” TO READ “2070”.