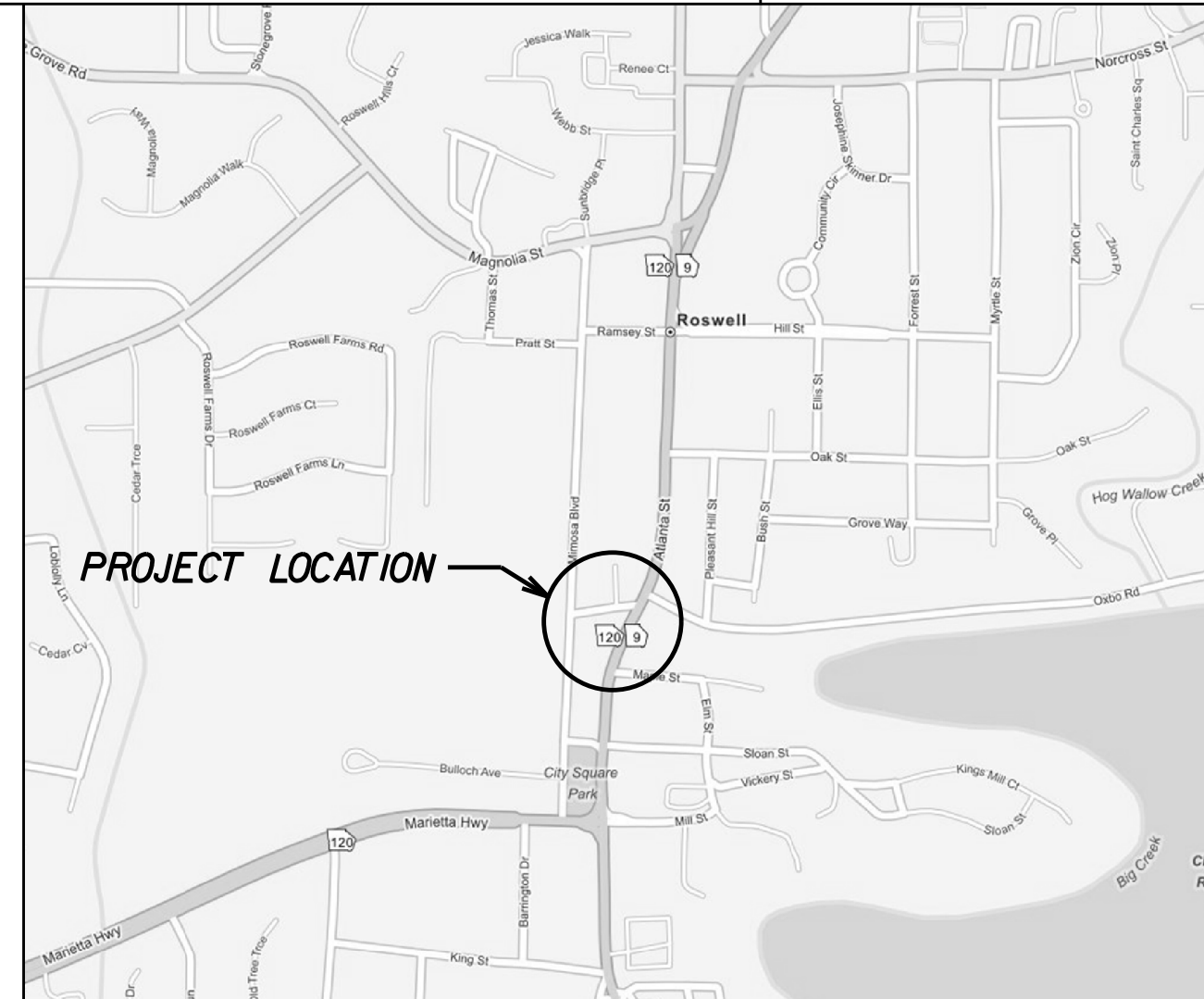


DEPARTMENT OF TRANSPORTATION CITY OF ROSWELL

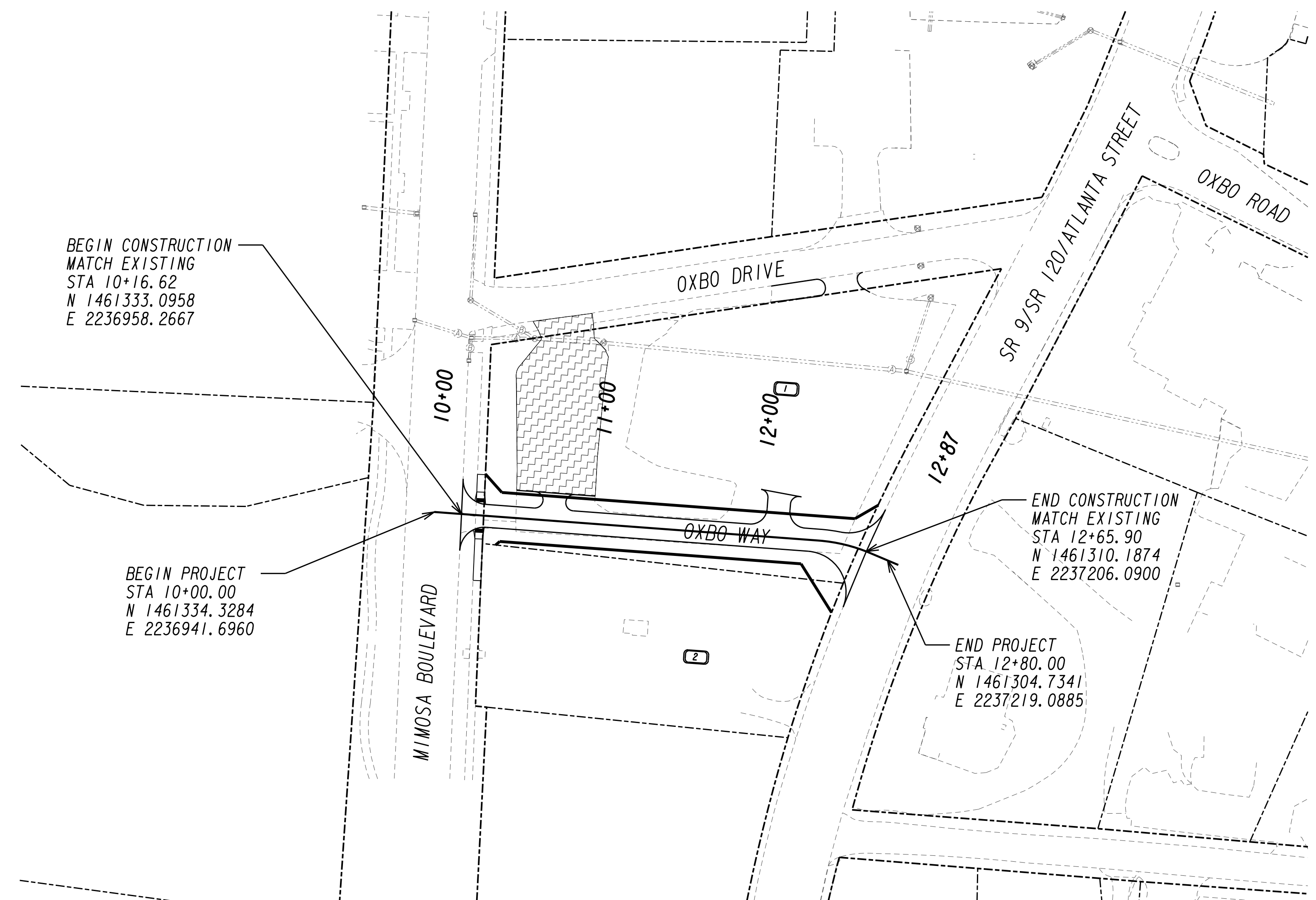
PLAN AND PROFILE OF PROPOSED

OXBO DRIVE ONE-WAY PAIR @ SR 9/SR 120/ATLANTA STREET



LOCATION SKETCH

LOCAL LET PROJECT



BEGIN CONSTRUCTION
MATCH EXISTING
STA 10+16.62
N 1461333.0958
E 2236958.2667

BEGIN PROJECT
STA 10+00.00
N 1461334.3284
E 2236941.6960

END CONSTRUCTION
MATCH EXISTING
STA 12+65.90
N 1461310.1874
E 2237206.0900

END PROJECT
STA 12+80.00
N 1461304.7341
E 2237219.0885



CITY OF ROSWELL
DEPARTMENT OF TRANSPORTATION
38 HILL STREET, SUITE 235
ROSWELL, GA 30075
770-594-6420

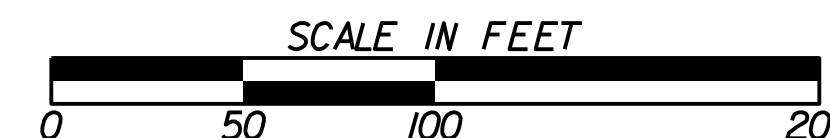


THE TOTAL AREA FOR THIS PROJECT IS 0.24 ACRES. THE TOTAL DISTURBED AREA FOR THIS PROJECT IS 0.19 ACRES. A NOTICE OF INTENT (NOI) IS NOT REQUIRED.

THIS PROJECT HAS BEEN PREPARED USING THE HORIZONTAL GEORGIA COORDINATE SYSTEM OF 1984 (NAD 1983/94 WEST ZONE, AND THE NORTH AMERICAN VERTICAL DATUM (NAVD) OF 1988.

THE DATA TOGETHER WITH ALL OTHER INFORMATION SHOWN ON THESE PLANS OR IN ANYWAY INDICATED THEREBY, WHETHER BY DRAWINGS OR NOTES, OR IN ANY OTHER MANNER, ARE BASED UPON FIELD INVESTIGATIONS AND ARE BELIEVED TO BE INDICATIVE OF ACTUAL CONDITIONS. HOWEVER, THE SAME ARE SHOWN AS INFORMATION ONLY, ARE NOT GUARANTEED, AND DO NOT BIND THE DEPARTMENT OF TRANSPORTATION IN ANY WAY. THE ATTENTION OF BIDDER IS SPECIFICALLY DIRECTED TO SUBSECTIONS 102.04, 102.05, AND 104.03 OF THE SPECIFICATIONS.

| LENGTH OF PROJECT | COUNTY No. |
|--------------------------|-------------|
| | Project No. |
| MILES | |
| NET LENGTH OF ROADWAY | 0.05 |
| NET LENGTH OF BRIDGES | 0.00 |
| NET LENGTH OF PROJECT | 0.05 |
| NET LENGTH OF EXCEPTIONS | 0.00 |
| GROSS LENGTH OF PROJECT | 0.05 |



| | |
|-----------------|-------------------------------------|
| DATE | GREGORY NICOLAS, P.E., 770-641-3704 |
| PLANS COMPLETED | 2-5-2016 |
| REVISIONS | |
| | |
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| | |

DRAWING No.
01-0001

GENERAL NOTES

1. A NOTICE OF INTENT (NOI) IS NOT REQUIRED FOR THIS PROJECT.
2. THE CONTRACTOR WILL BE RESPONSIBLE FOR ANY RESULTING BROKEN WATER, SANITARY SEWER, OR OTHER UTILITIES DURING CONSTRUCTION.
3. ADD ALTERNATE *1 SHALL CONSIST OF 6" GRADED AGGREGATE BASE AND 1.5" 9.5 MM SUPERPAVE.
4. ADD ALTERNATE *2 SHALL CONSIST OF AGGREGATE SURFACE COURSE - *89 STONE.
5. THE 1ST BAPTIST CHURCH SHALL BE NOTIFIED 7 DAYS PRIOR TO ANY WORK TO BE DONE.

STANDARD SIGNS GENERAL NOTES

1. ALL ITEMS NECESSARY FOR COMPLIANCE WITH THESE REQUIREMENTS SHALL BE INCLUDED IN THE PRICE BID FOR THE SPECIFIC ITEM.
2. ALL SIGNS AND PAVEMENT MARKINGS SHALL CONFORM TO THE MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES, (MUTCD), LATEST EDITION, AND ANY APPLICABLE CITY OF ROSWELL STANDARDS.
3. ALL INSTALLATION MATERIALS AND METHODS SHALL COMPLY WITH THE CURRENT GEORGIA DEPARTMENT OF TRANSPORTATION STANDARDS AND SPECIFICATIONS AND/OR SPECIAL PROVISIONS.
4. ALL PAVEMENT MARKINGS SHALL BE PAINTED UNLESS OTHERWISE NOTED.
5. ALL SIGNS SHALL HAVE TYPE III OR TYPE IX RETROREFLECTIVE SHEETING EXCEPT SCHOOL RELATED SIGNS, WITH THEIR REQUIRED PLAQUES AND ADVISORY NAME BLADES, WHICH SHALL HAVE FLUORESCENT YELLOW/GREEN COLOR AND TYPE IX SHEETING.
6. ALL SIGNS SHALL BE ON 5052-H38 FLAT ALUMINUM ALLOY (0.080 GAUGE THICKNESS) WITH ROUNDED CORNERS. ALL SIGNS SHALL MEET OR EXCEED ASTM D 4956 SPECIFICATIONS FOR RETROREFLECTIVITY. SIGN COLORS SHALL BE MATCHED VISUALLY AND BE WITHIN THE COLOR TOLERANCE LIMITS SHOWN ON THE APPROPRIATE HIGHWAY COLOR TOLERANCE CHARTS ISSUED BY THE FHWA UTILIZING THE INSTRUCTIONS THEREON.
7. SIGN ERECTION STATIONS ARE APPROXIMATE AND MAY BE ADJUSTED TO MEET FIELD CONDITIONS WHERE NECESSARY, BUT SHALL BE WITHIN THE LIMITATIONS OF THE MUTCD, CURRENT EDITION. NO SIGN LOCATION SHALL BE CHANGED BY THE CONTRACTOR WITHOUT WITHOUT PRIOR APPROVAL FROM CITY OF ROSWELL DEPARTMENT OF TRANSPORTATION.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE REMOVAL OF ALL SIGNS/POSTS/PAVEMENT MARKINGS THAT ARE DUPLICATED OR CONTRARY TO THESE PLANS.
9. THE CONTRACTOR IS RESPONSIBLE FOR THE MAINTENANCE OF EXISTING TRAFFIC CONTROL SIGNS THROUGHOUT CONSTRUCTION. THIS INCLUDES CLEANING AND REPLACEMENT OF EXISTING SIGNS SHOULD THESE SIGNS NEED CLEANING, REPAIR OR REPLACEMENT DURING CONSTRUCTION.

| UTILITY OWNER | SERVICE | CONTACT NUMBERS | SHEET NUMBERS |
|---------------|----------|-----------------|---------------|
| GEORGIA POWER | GUY POLE | JOHN GAY | 24-001 |
| | | | |
| | | | |
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REVISION DATES

GENERAL NOTES

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| CHECKED: | DATE: | DRAWING No. 04-001 |
| BACKCHECKED: | DATE: | |
| CORRECTED: | DATE: | |
| VERIFIED: | DATE: | |

SUMMARY OF QUANTITIES

| | |
|-------------------------|--|
| GRADING COMPLETE | |
| LUMP SUM | |

• INCLUDES CLEARING AND GRUBBING (0.19 AC. EST.)
SEE SECTION 210 - GA. STD. SPECIFICATIONS
(ESTIMATED EARTHWORK; 95 CU. YDS.
UNCL. EXCAVATION AND 85 CU. YDS. OF
BORROW). A 15% SHRINKAGE FACTOR HAS
BEEN APPLIED TO CUT & BORROW EXCAVATION.

| | |
|------------------------|--|
| TRAFFIC CONTROL | |
| LUMP SUM | |

| | |
|--------------------------------|-------|
| CONCRETE SIDEWALK, 4 IN | |
| TOTAL | 35 SY |

| | |
|---|--------|
| CONCRETE HEADER CURB 6 IN, TP 2 - GA STD 9032B | |
| TOTAL | 750 LF |

| | |
|---|--------|
| SAWED JOINTS IN EXIST PAVEMENT (ASPHALT) | |
| TOTAL | 350 LF |

| SURFACING QUANTITIES | | | | |
|--|------|---------|--|--------|
| ITEMS | UNIT | ROADWAY | | TOTALS |
| GRADED AGGREGATE BASE COURSE | TON | 260 | | 260 |
| RECYCLED ASPH CONC, 19 MM SUPERPAVE, GP 1 OR 2, INCL BITUM MATL & H LIME | TON | 55 | | 55 |
| RECYCLED ASPH CONC, 9.5 MM SUPERPAVE, TYPE 11, GP 2 ONLY, INCL BITUM MATL & H LIME | TON | 45 | | 45 |
| BITUMINOUS TACK COAT | GAL | 35 | | 35 |
| HA-5 MINERAL BOND SURFACE TREATMENT | SY | 600 | | 600 |
| | | | | |
| | | | | |

| EROSION CONTROL QUANTITIES | | |
|-----------------------------------|------|----------|
| DESCRIPTION | UNIT | QUANTITY |
| MULCH | TN | 35 |
| SOD | SY | 450 |
| EROSION CONTROL MATS, SLOPES | SY | 300 |
| AGRICULTURAL LIME | TN | 1 |
| FERTILIZER MIXED GRADE | TN | 1 |
| FERTILIZER NITROGEN CONTENT | LB | 10 |
| TEMPORARY SILT FENCE, TYPE C | LF | 425 |
| MAINTENANCE OF SILT FENCE, TYPE C | LF | 212.5 |
| | | |
| | | |

| SUMMARY OF QUANTITIES - STANDARD SIGNS | | | | | | | | | | | | | | | | | | | |
|--|---------|------|--------------------|--------------------------------------|-----|---------------|------|---------------|----------|-------------------------------------|-----|--------------|------|--------|---------------|------------------|---------------|--------------|---------------|
| INSTL NO. | STATION | SIDE | CODE | SIGNS (TYPE III REFLECTIVE SHEETING) | | | | | | SIGNS (TYPE IX REFLECTIVE SHEETING) | | | | | | SQUARE TUBE POST | | | |
| | | | | TYPE 1 (0.08) | | TYPE 2 (0.10) | | TYPE 1 (0.08) | | TYPE 2 (0.10) | | TYPE 7 | | TYPE 8 | | TYPE 9 | | | |
| | | | | SIZE | QTY | SQ. FEET | SIZE | QTY | SQ. FEET | SIZE | QTY | SQ. FEET | SIZE | QTY | LENGTH (FEET) | TOTAL LENGTH | LENGTH (FEET) | TOTAL LENGTH | LENGTH (FEET) |
| Oxbo Drive | | | | | | | | | | | | | | | | | | | |
| | 10+93 | LT | R3-1 | 24x24 | 1 | 4 | | | | | | | | | | | | 13 | 13 |
| | 12+52 | LT | R3-1 | 24x24 | 1 | 4 | | | | | | | | | | | | 12 | 12 |
| Oxbo Way | | | | | | | | | | | | | | | | | | | |
| | 9+75 | LT | M4-5 | 24x12 | | 2 | | | | | | | | | | | | 15 | 15 |
| | | | M1-5 (9) | 24x24 | | 4 | | | | | | | | | | | | | |
| | | | M5-1L | 21x15 | | 2.2 | | | | | | | | | | | | | |
| | 10+21 | LT | R6-2L | 24x30 | | 5 | | | | | | | | | | | | 13 | 13 |
| | | | R6-2R | 24x30 | | 5 | | | | | | | | | | | | | |
| | | | D3-1 (Oxbo Way) | 24x12 | | | | | | | | | | | | | | | |
| | | | D3-1 (Mimosa Blvd) | 24x12 | | | | | | | | | | | | | | | |
| | 10+22 | RT | M4-5 | 24x12 | | 2 | | | | | | | | | | | | 15 | 15 |
| | | | M1-5 (9) | 24x24 | | 4 | | | | | | | | | | | | | |
| | | | M5-1R | 21x15 | | 2.2 | | | | | | | | | | | | | |
| | 11+00 | RT | W5-1R | | | | | | | | | 30x30 | 6.25 | | | | | 14 | 14 |
| | 12+52 | RT | R1-1 | | | | | | | | | 30x30 | 6.25 | | | | | 13 | 13 |
| | 12+57 | RT | R6-1L | | | | | | | | | 36x12 | 3 | | | | | 14 | 14 |
| | | | R5-1 | | | | | | | | | 30x30 | 6.25 | | | | | | |
| | 12+60 | LT | R6-1R | | | | | | | | | 36x12 | 3 | | | | | 14 | 14 |
| | | | R5-1 | | | | | | | | | 30x30 | 6.25 | | | | | | |
| TOTAL | | | | | | 34.4 | | | | | | 37.25 | | | | | | 123 | |

| THERMOPLASTIC TRAFFIC STRIPE | | |
|-------------------------------|------|----------|
| DESCRIPTION | UNIT | QUANTITY |
| 5" SOLID WHITE | LF | 475 |
| TRAFFIC STRIPE WHITE | SY | 56 |
| 24" SOLID WHITE | LF | 37 |
| 8" SOLID WHITE | LF | 75 |
| HANDICAP SYMBOL MARKING | EA | 3 |
| TYPE 1 ARROW PAVEMENT MARKING | EA | 3 |
| REMOVE EXISTING STRIPE | LF | 400 |

| ADD ALTERNATE #1 | | |
|----------------------------------|------|----------|
| DESCRIPTION | UNIT | QUANTITY |
| GRADING COMPLETE | LS | 1 |
| GRADED AGGREGATE BASE | TN | 66 |
| 9.5 MM SUPERPAVE, TYPE 11 | TN | 15 |
| CONCRETE HEADER CURB, 6 IN, TP 2 | LF | 120 |
| | | |
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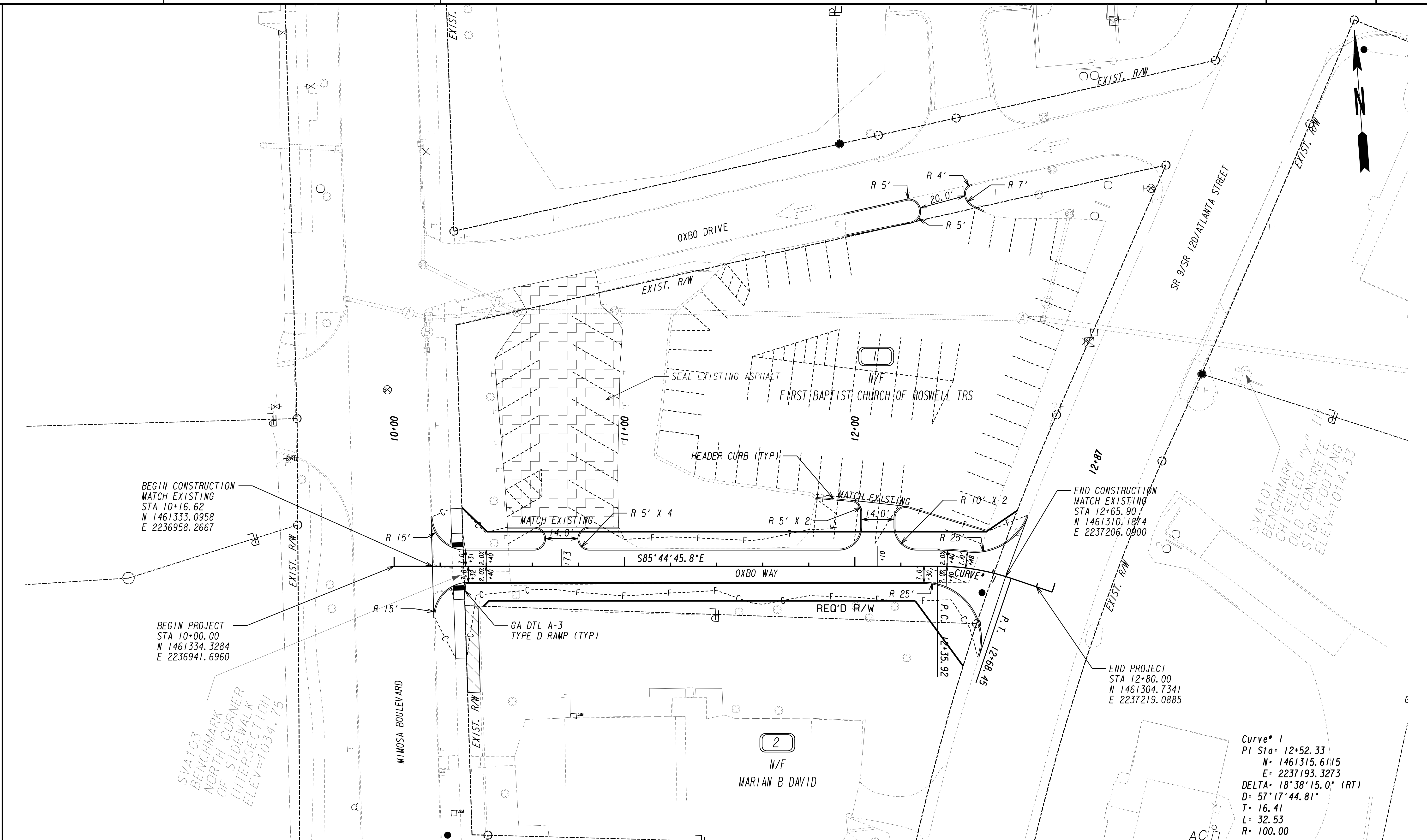
| ADD ALTERNATE #2 | | |
|---------------------------------|------|----------|
| DESCRIPTION | UNIT | QUANTITY |
| GRADING COMPLETE | LF | 1 |
| AGGREGATE SURFACE CRS-*89 STONE | TN | 50 |
| | | |
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REVISION DATES

SUMMARY QUANTITIES



| | | |
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| CHECKED: | DATE: | DRAWING No. 06-001 |
| BACKCHECKED: | DATE: | |
| CORRECTED: | DATE: | |
| VERIFIED: | DATE: | |



BEGIN CONSTRUCTION
MATCH EXISTING
STA 10+16.62
N 1461333.0958
E 2236958.2667

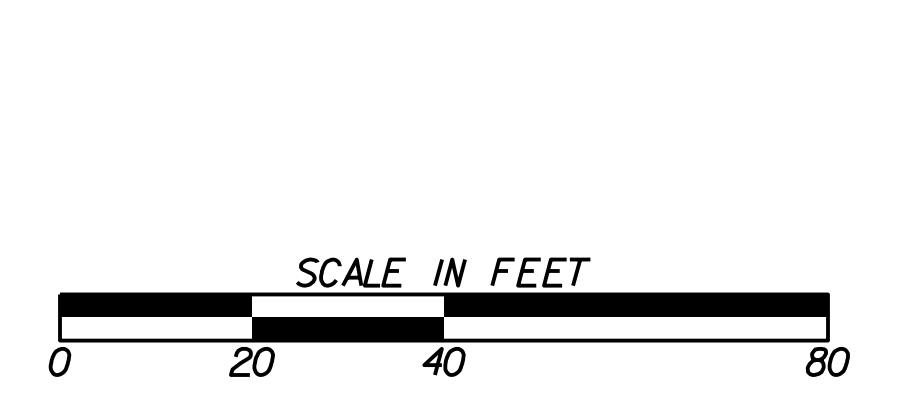
BEGIN PROJECT
STA 10+00.00
N 1461334.3284
E 2236941.6960

END CONSTRUCTION
MATCH EXISTING
STA 12+65.90
N 1461310.1874
E 2237206.0800

END PROJECT
STA 12+80.00
N 1461304.7341
E 2237219.0885

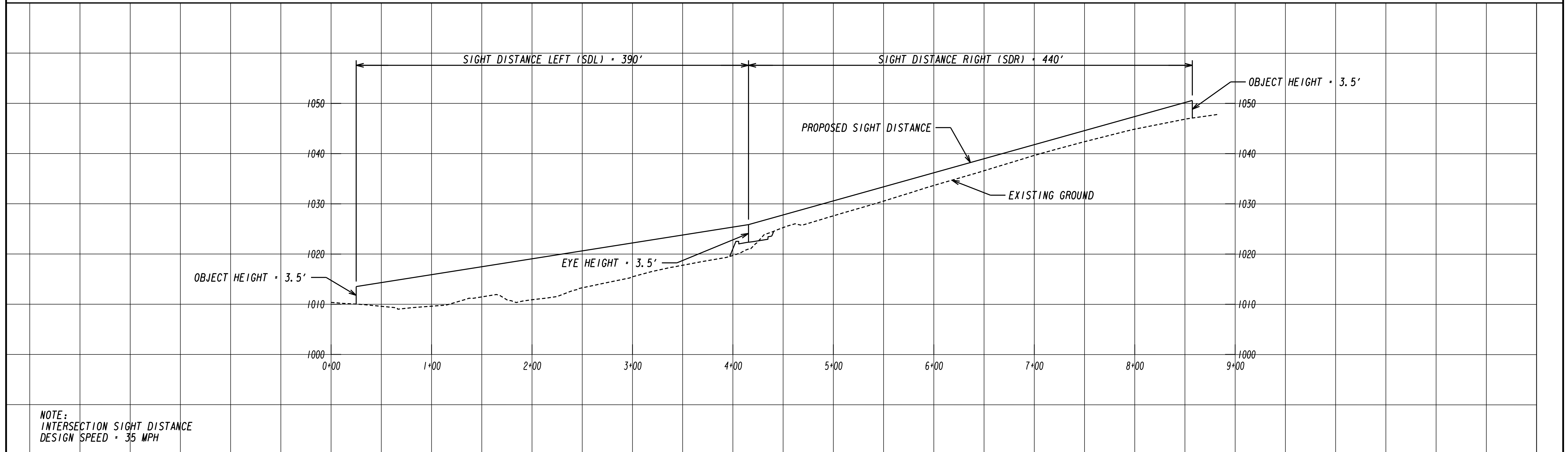
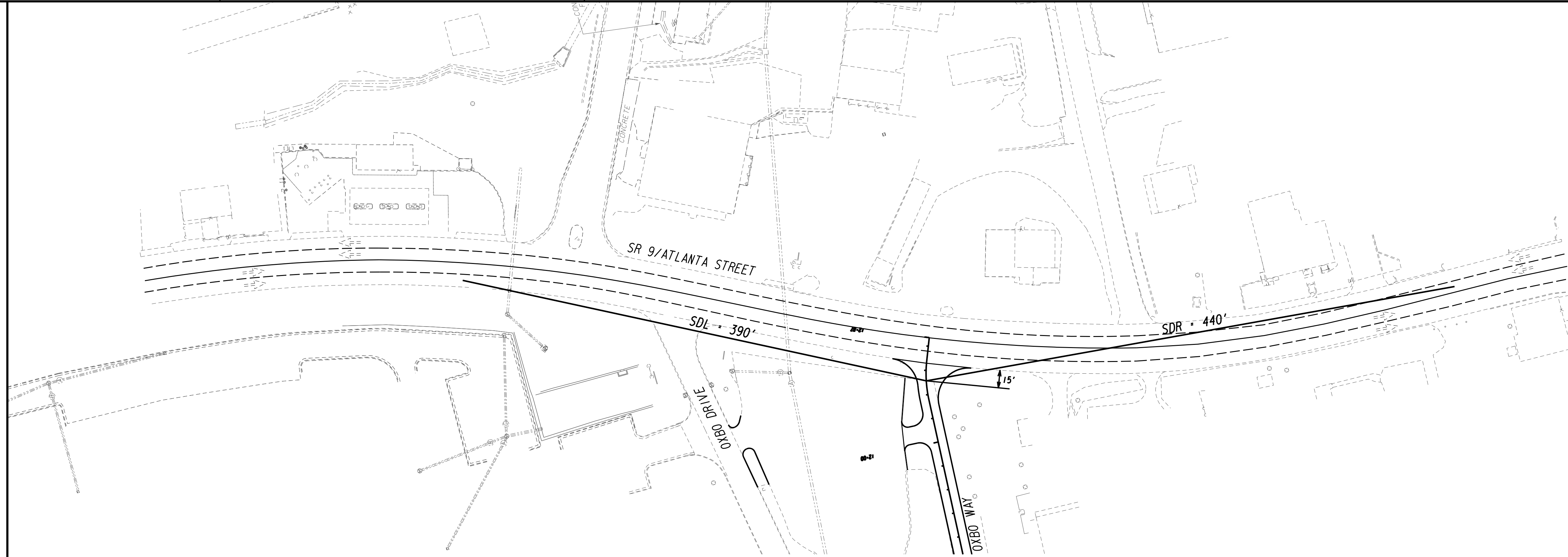
Curve 1
PI Sta= 12+52.33
N= 1461315.6115
E= 2237193.3273
DELTA= 18°38'15.0" (RT)
D= 57°17'44.81"
T= 16.41
L= 32.53
R= 100.00

| | |
|---|--|
| PROPERTY AND EXISTING R/W LINE | |
| REQUIRED R/W LINE | |
| CONSTRUCTION LIMITS | |
| EASEMENT FOR CONSTR & MAINTENANCE OF SLOPES | |
| EASEMENT FOR CONSTR OF SLOPES | |
| EASEMENT FOR CONSTR OF DRIVES | |

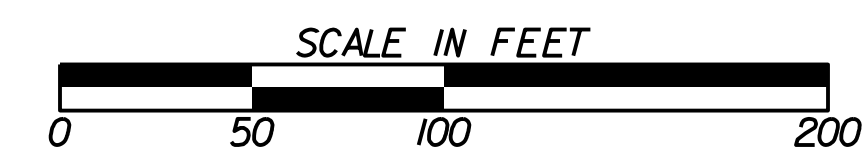


| REVISION DATES | |
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| MAINLINE PLAN | | | |
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| BACKCHECKED: | | DATE: | |
| CORRECTED: | | DATE: | |
| VERIFIED: | | DATE: | |
| DRAWING No. | | | 13-001 |



NOTE:
INTERSECTION SIGHT DISTANCE
DESIGN SPEED - 35 MPH

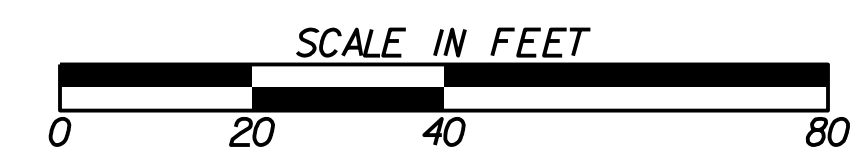
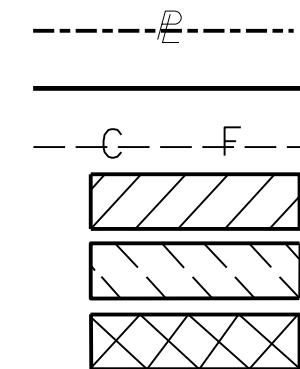


| REVISION DATES | | MAINLINE PLAN | |
|----------------|-------|---------------|--|
| CHECKED: | DATE: | DRAWING No. | |
| BACKCHECKED: | DATE: | 13-002 | |
| CORRECTED: | DATE: | | |
| VERIFIED: | DATE: | | |



ADD ALTERNATE #1
 8 NEW PARKING SPOTS TO BE ADDED (10' x 20')
 PAVEMENT SECTION: 6" GAB WITH 1.5" 9.5 MM SUPERPAVE
 CONCRETE HEADER CURB

PROPERTY AND EXISTING R/W LINE
 REQUIRED R/W LINE
 CONSTRUCTION LIMITS
 EASEMENT FOR CONSTR
 & MAINTENANCE OF SLOPES
 EASEMENT FOR CONSTR OF SLOPES
 EASEMENT FOR CONSTR OF DRIVES



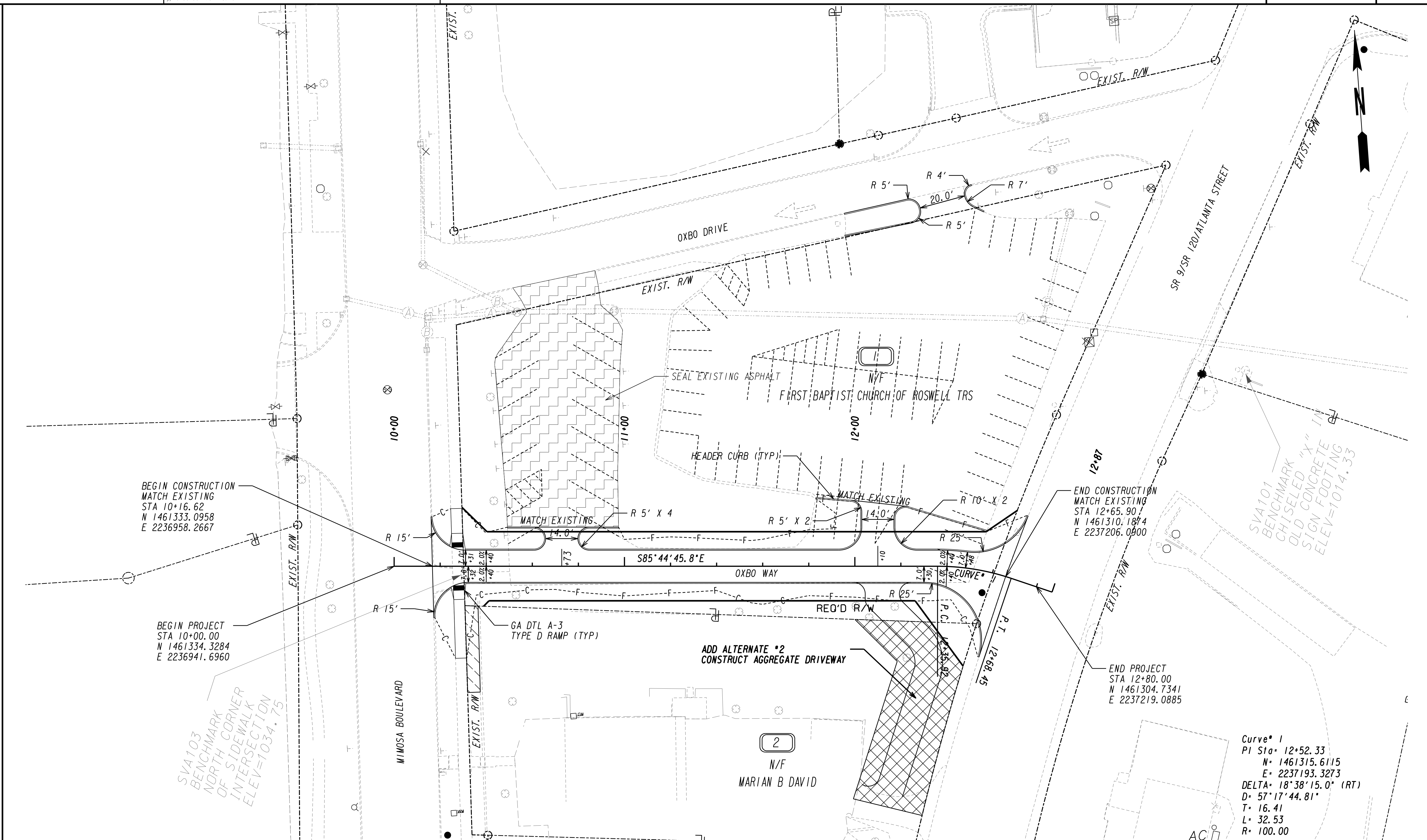
REVISION DATES

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MAINLINE PLAN
 ADD ALTERNATE # 1

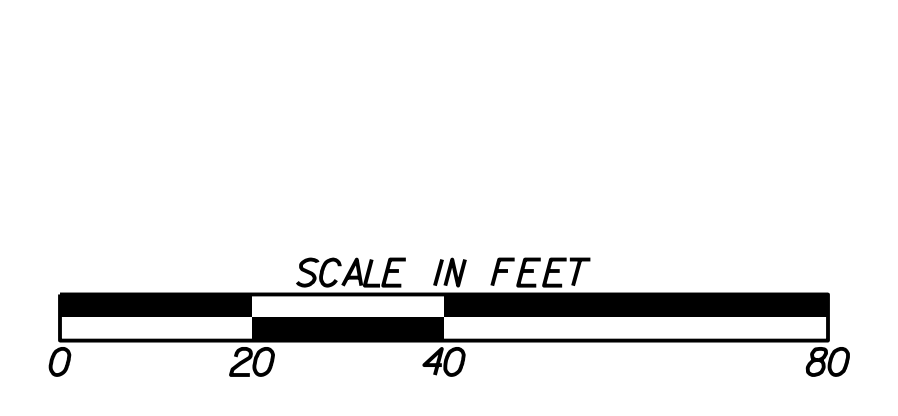
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| VERIFIED: | DATE: |

DRAWING No.
13-003



PROPERTY AND EXISTING R/W LINE
 REQUIRED R/W LINE
 CONSTRUCTION LIMITS
 EASEMENT FOR CONSTR
 & MAINTENANCE OF SLOPES
 EASEMENT FOR CONSTR OF SLOPES
 EASEMENT FOR CONSTR OF DRIVES

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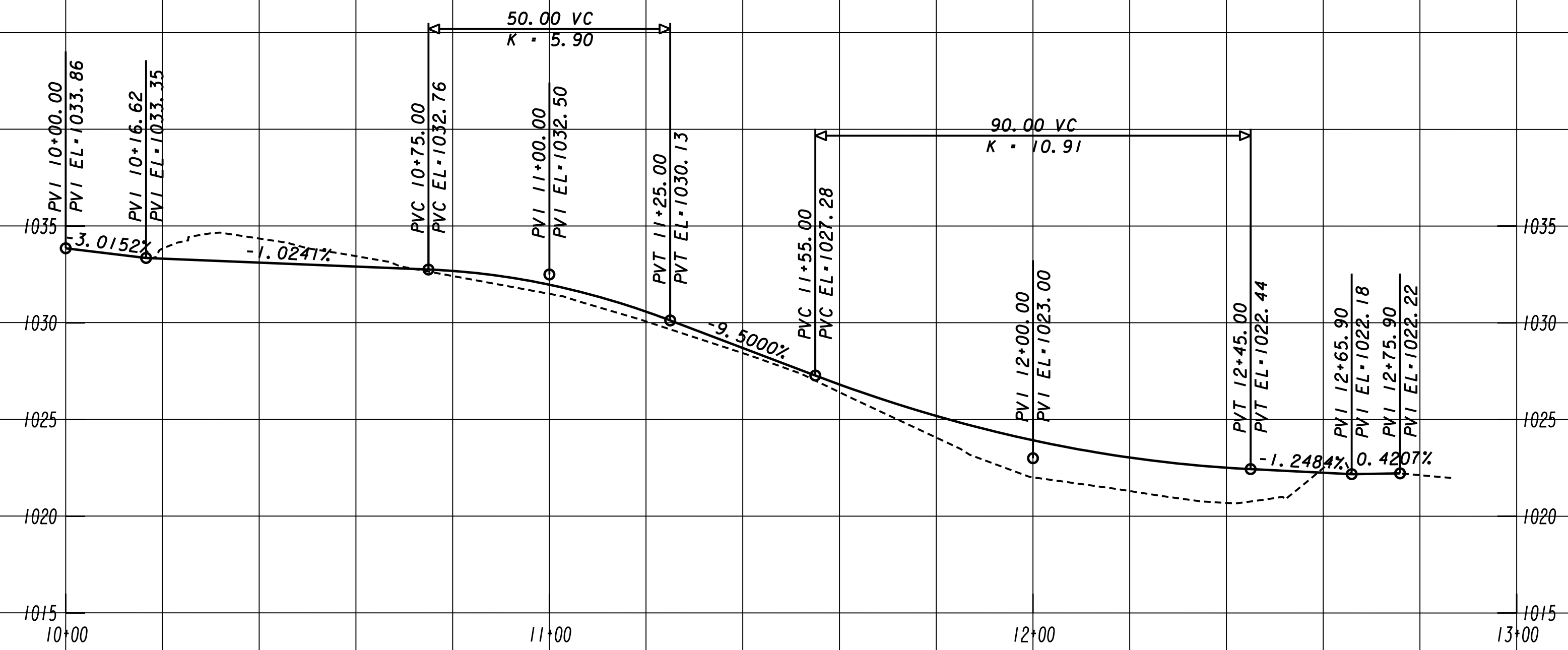


REVISION DATES

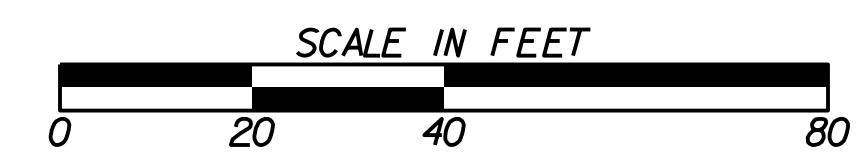
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MAINLINE PLAN
ADD ALTERNATE # 2

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| CHECKED: | DATE: | DRAWING No. 13-004 |
| BACKCHECKED: | DATE: | |
| CORRECTED: | DATE: | |
| VERIFIED: | DATE: | |

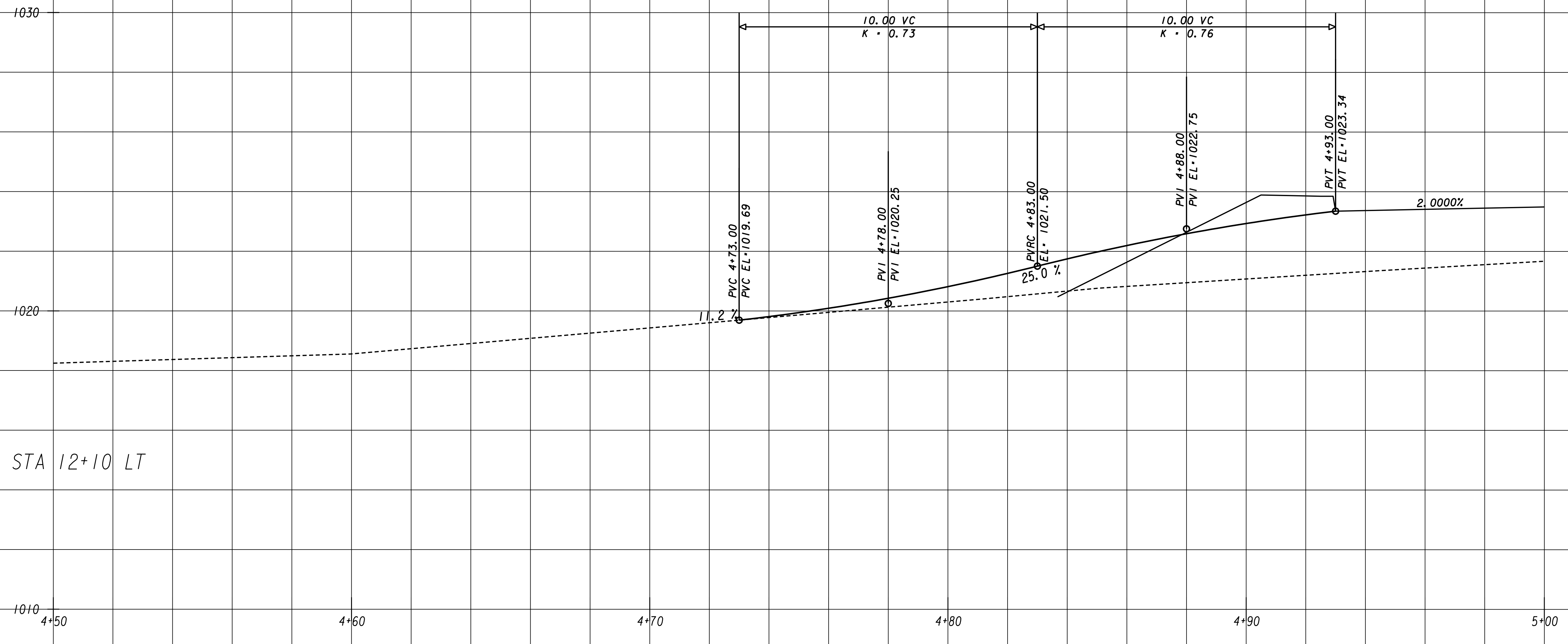


- NOTES:
1. PROPOSED SPEED DESIGN = 15 MPH
 2. MINIMUM K CREST = 3
 3. MINIMUM K SAG = 10

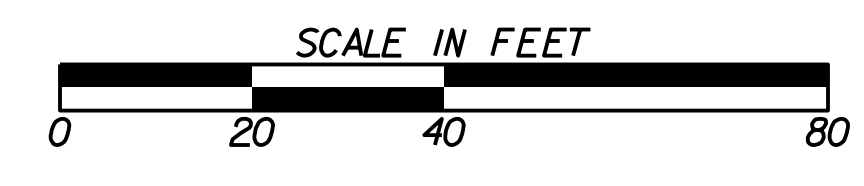


| REVISION DATES | |
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| MAINLINE PROFILE | | | |
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| CORRECTED: | | DATE: | |
| VERIFIED: | | DATE: | |
| DRAWING No. | | | 15-001 |



STA 12+10 LT

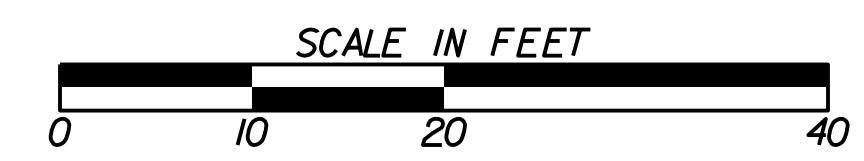
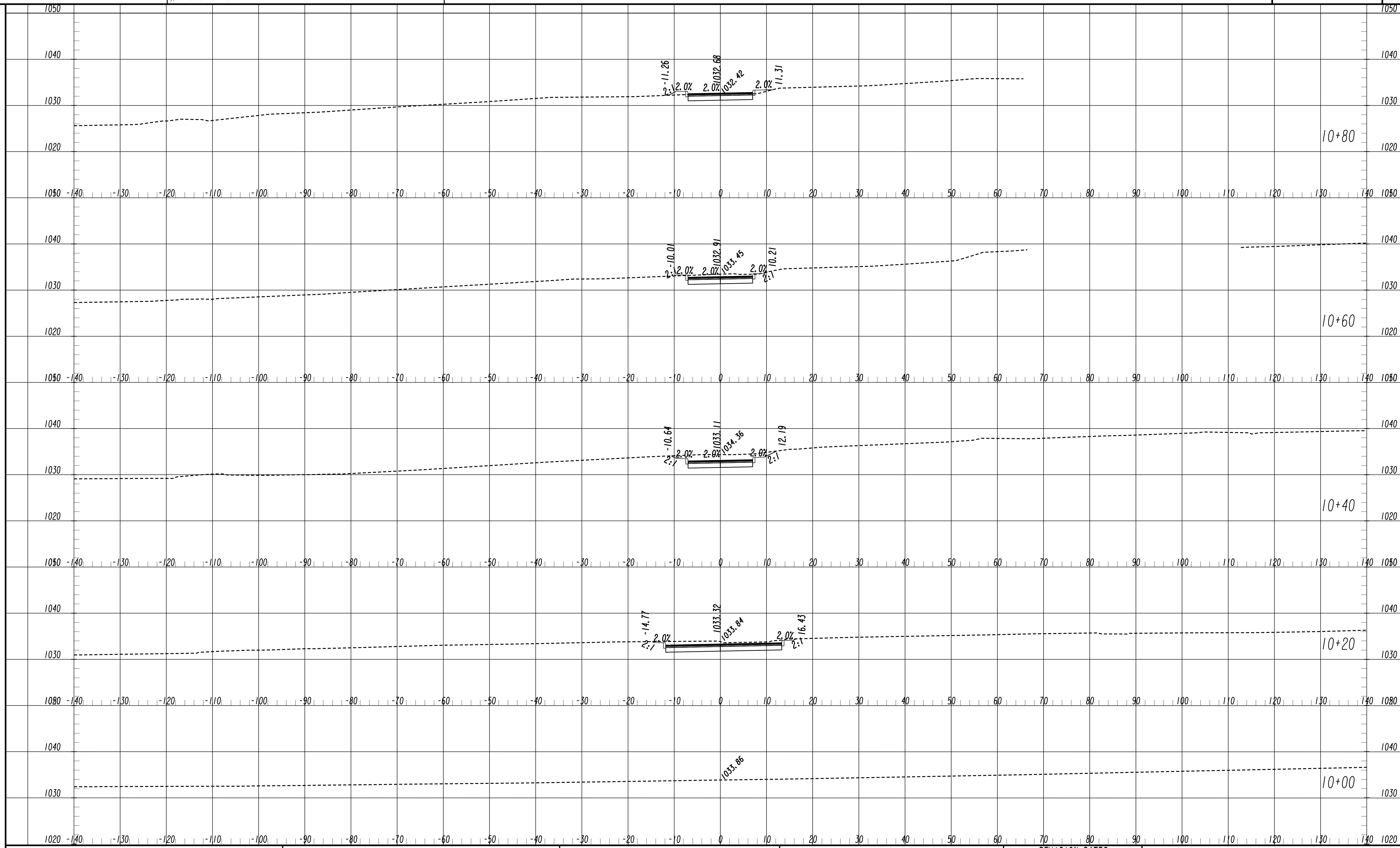


| REVISION DATES | |
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DRIVEWAY PROFILE

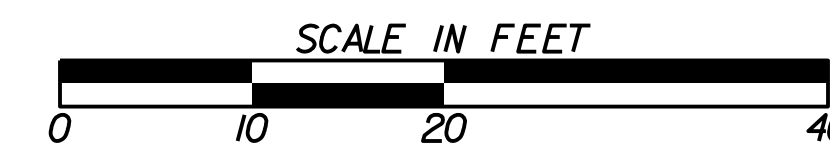
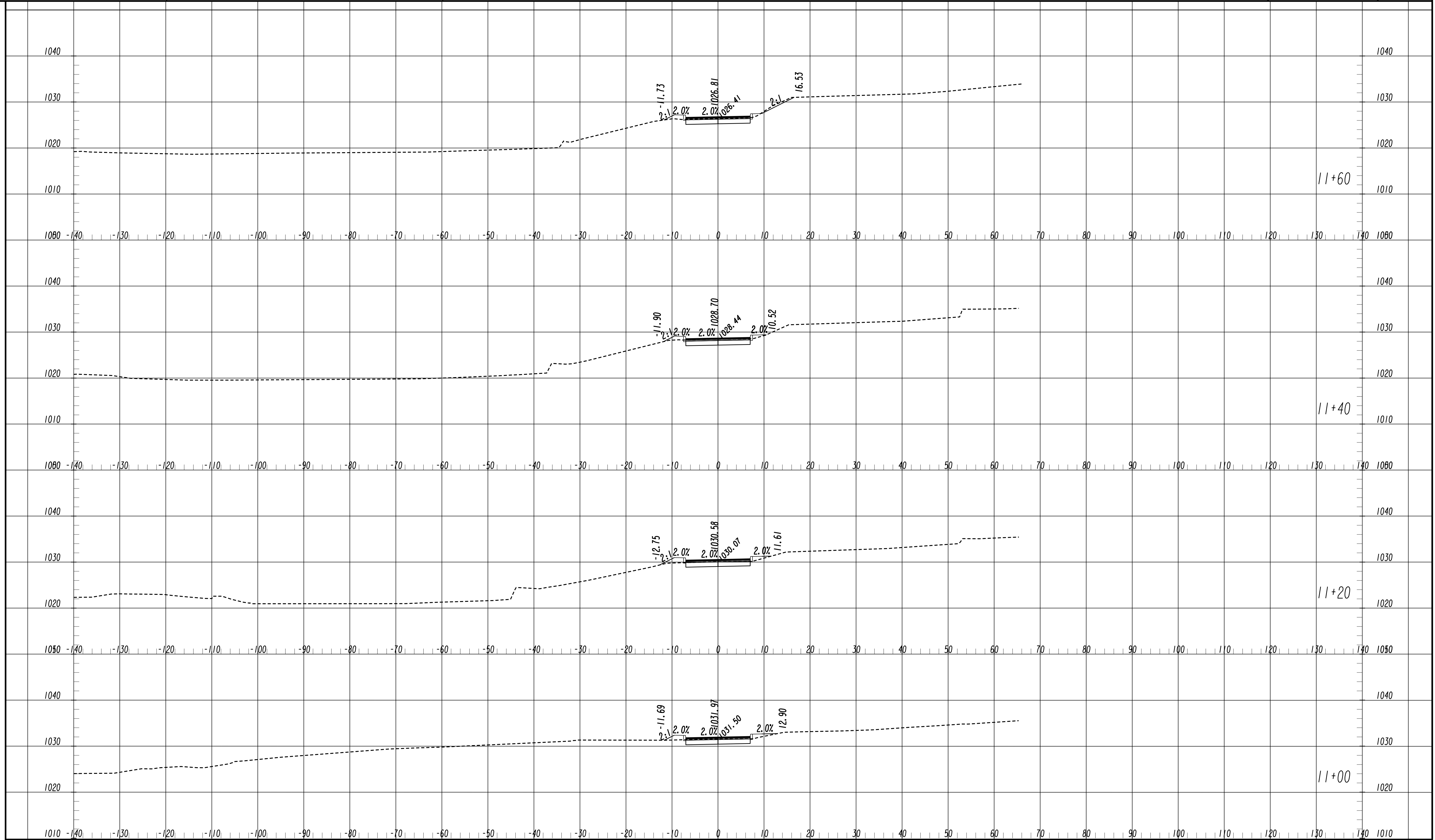
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| VERIFIED: | DATE: |

DRAWING No.
17-001



| REVISION DATES | |
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| CROSS SECTIONS | | | |
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| CHECKED: | | DATE: | |
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| CORRECTED: | | DATE: | |
| VERIFIED: | | DATE: | |
| DRAWING No. | | | 23-001 |

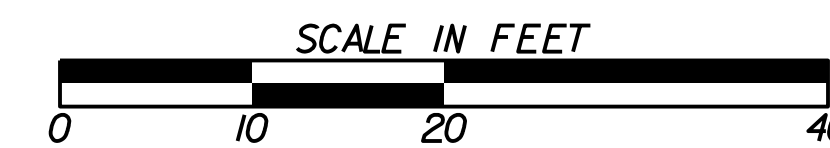
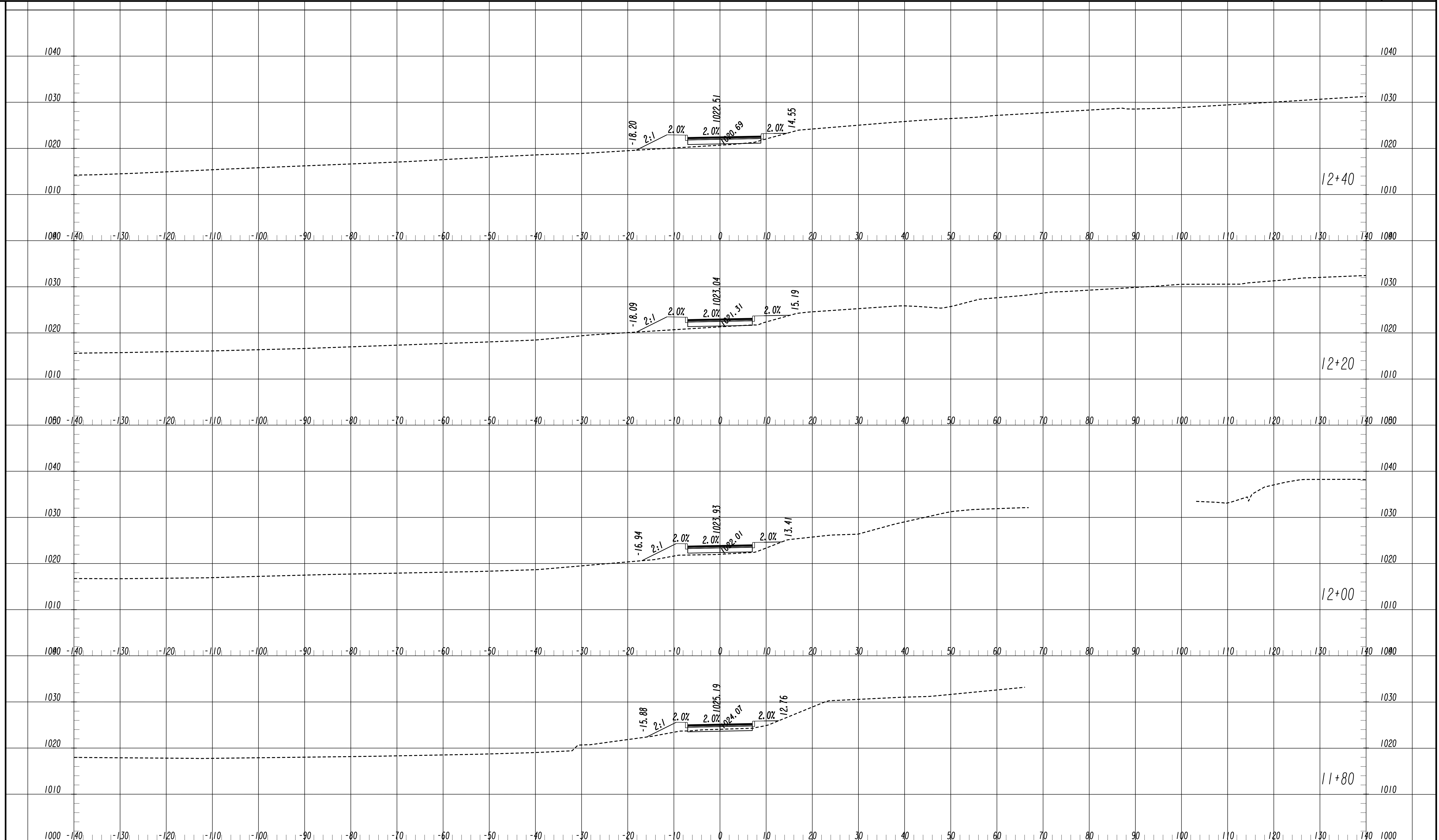


REVISION DATES

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CROSS SECTIONS

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| CHECKED: | DATE: | DRAWING No. 23-002 |
| BACKCHECKED: | DATE: | |
| CORRECTED: | DATE: | |
| VERIFIED: | DATE: | |

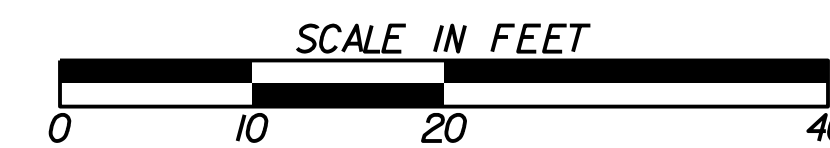
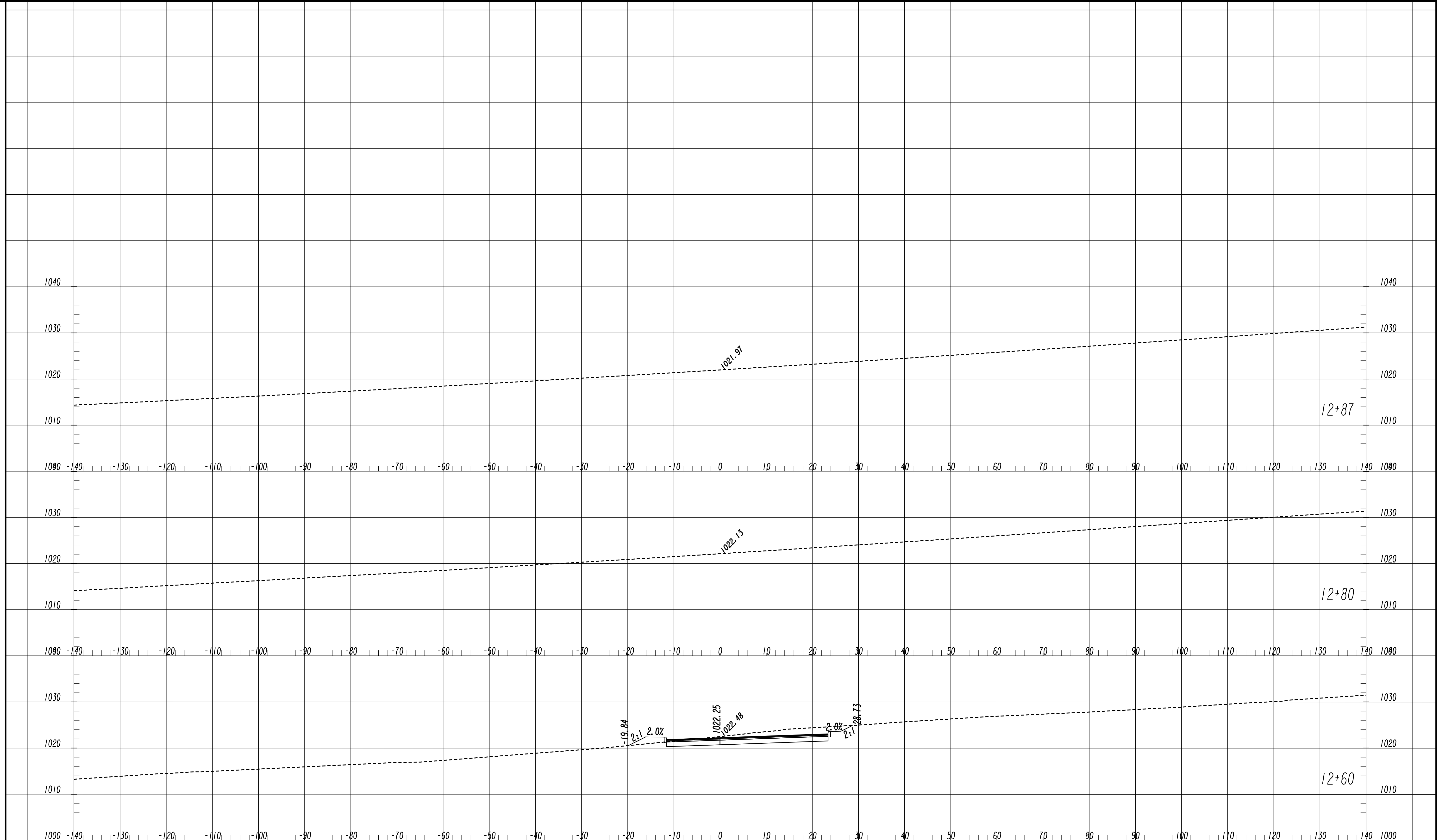


REVISION DATES

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CROSS SECTIONS

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| CORRECTED: | DATE: | |
| VERIFIED: | DATE: | |



REVISION DATES

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CROSS SECTIONS

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| CHECKED: | DATE: | DRAWING No. 23-004 |
| BACKCHECKED: | DATE: | |
| CORRECTED: | DATE: | |
| VERIFIED: | DATE: | |

UTILITY LINECODES

| | EXISTING | TO BE REMOVED | PROPOSED | TYPE OF UTILITY |
|--------------------------------------|-----------------|-----------------|-----------------|---|
| O V E R H E A D | ~E~E~E | -X-E-X-E | ~E~E~E | ELECTRIC |
| | ~E-T~E | -X-E-T-X-E | ~E-T~E | ELECTRIC/TELECOMMUNICATIONS |
| | ~E-TV~E | -X-E-TV-X-E | ~E-TV~E | ELECTRIC/CABLE TV |
| | ~E-T-TV~E | -X-E-T-TV-X-E | ~E-T-TV~E | ELECTRIC/TELECOMMUNICATIONS/CABLE TV |
| U N D E R | ~GW~GW~GW | -X-GW-X-GW-X-GW | ~GW~GW~GW | GUY WIRE |
| | ~T~T~T | -X-T-X-T-X-T | ~T~T~T | TELECOMMUNICATIONS |
| | ~T-TV~T-TV | -X-T-TV-X-T-TV | ~T-TV~T-TV | TELECOMMUNICATIONS/CABLE TV |
| | ~TV~TV~TV | -X-TV-X-TV-X-TV | ~TV~TV~TV | CABLE TV |
| U N D E R | -----E----- | --X--E--X-- | =====E===== | ELECTRIC |
| | -----T----- | --X--T--X-- | =====T===== | TELECOMMUNICATIONS |
| | -----TV----- | --X--TV--X-- | =====TV===== | CABLE TV |
| | -----W----- | --X--W--X-- | =====W===== | WATER |
| | -----**W----- | --X--**W--X-- | =====**W===== | WATER FOR LABELED PIPE SIZES |
| | -----NW----- | --X--NW--X-- | =====NW===== | NON-POTABLE WATER |
| | -----**NW----- | --X--**NW--X-- | =====**NW===== | NON-POTABLE WATER FOR LABELED PIPE SIZES |
| | -----STM----- | --X--STM--X-- | =====STM===== | STEAM |
| | -----**STM----- | --X--**STM--X-- | =====**STM===== | STEAM FOR LABELED PIPE SIZES |
| | ----->SS----- | --X-->SS--X-- | =====>SS===== | SANITARY SEWER WITH FLOW DIRECTION |
| | -----Σ**SS----- | --X--Σ**SS--X-- | =====Σ**SS===== | SANITARY SEWER WITH FLOW DIRECTION FOR LABELED PIPE SIZES |
| | ----->SFM----- | --X-->SFM--X-- | =====>SFM===== | SANITARY SEWER FORCE MAIN WITH FLOW DIRECTION |
| U N D E R | -----G----- | --X--G--X-- | =====G===== | GAS |
| | -----**G----- | --X--**G--X-- | =====**G===== | GAS FOR LABELED PIPE SIZES |
| | -----P----- | --X--P--X-- | =====P===== | PETROLEUM |
| | -----**P----- | --X--**P--X-- | =====**P===== | PETROLEUM FOR LABELED PIPE SIZES |

UTILITY SYMBOLS

| EXISTING | PROPOSED | TEMPORARY | EXISTING | PROPOSED | TEMPORARY | |
|----------|----------|-----------|----------|----------|-----------|---|
| | | | | | | FIRE HYDRANT ASSEMBLY (INCLUDES ASSOCIATED VALVE) |
| | | | | | | BACKFLOW PREVENTER |
| | | | | | | PRESSURE INDICATOR VALVE |
| | | | | | | AIR RELEASE VALVE |
| | | | | | | WELL |
| | | | | | | WATER VAULT |
| | | | | | | WATER VALVE MARKER |
| | | | | | | STAND PIPE |
| | | | | | | CLEANOUT |
| | | | | | | SANITARY SEWER MANHOLE |
| | | | | | | AIR RELEASE VALVE |
| | | | | | | GREASE TRAP |
| | | | | | | SANITARY SEWER FORCE MAIN VALVE |
| | | | | | | GAS VALVE |
| | | | | | | GAS METER |
| | | | | | | GAS MANHOLE |
| | | | | | | GAS PRESSURE REGULATOR |
| | | | | | | GAS VAULT |
| | | | | | | GAS TEST STATION |
| | | | | | | PETROLEUM VALVE |
| | | | | | | |

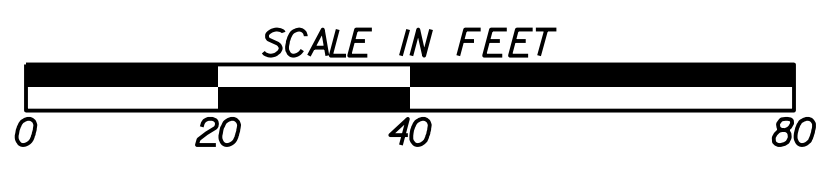
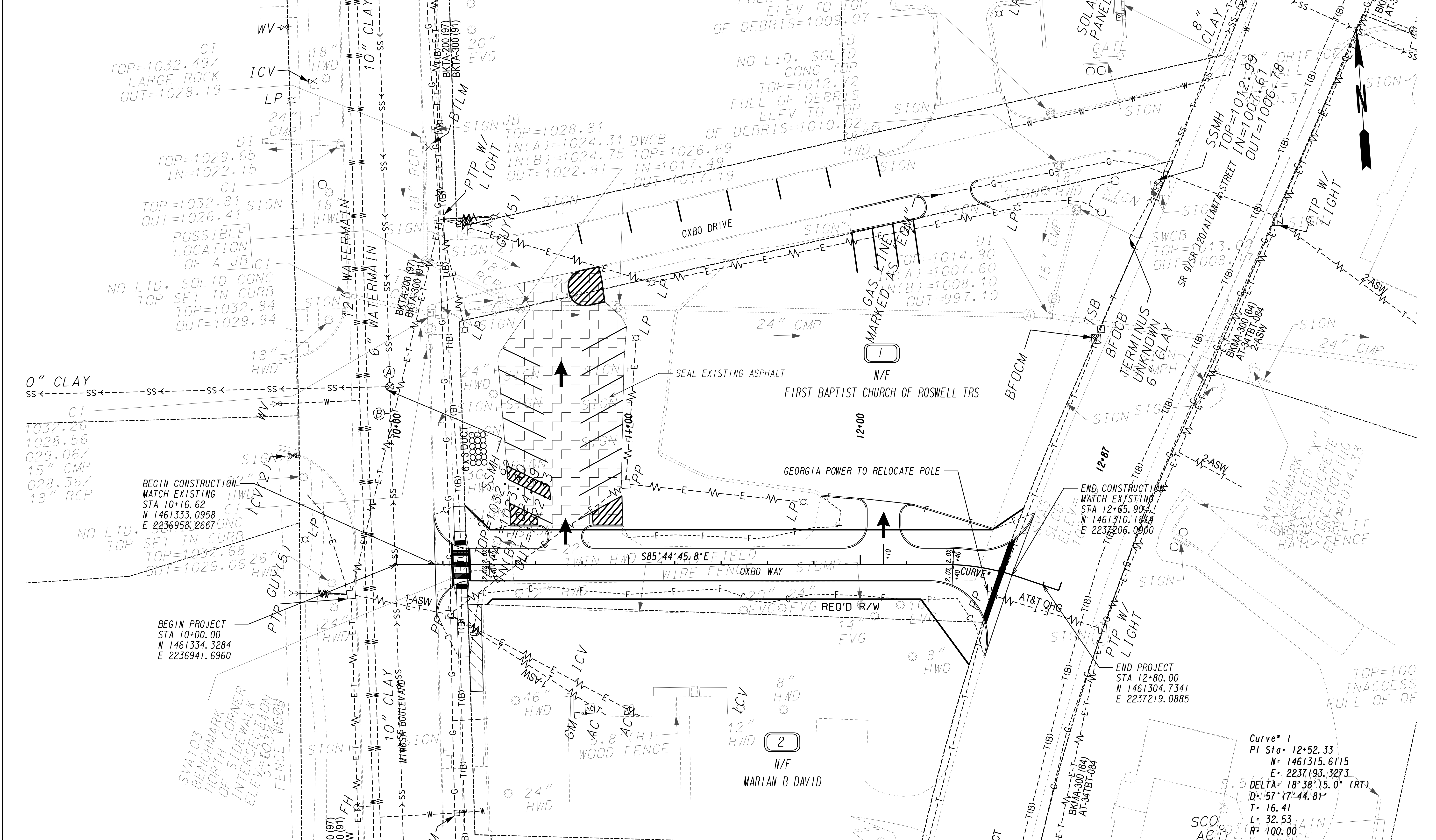


REVISION DATES

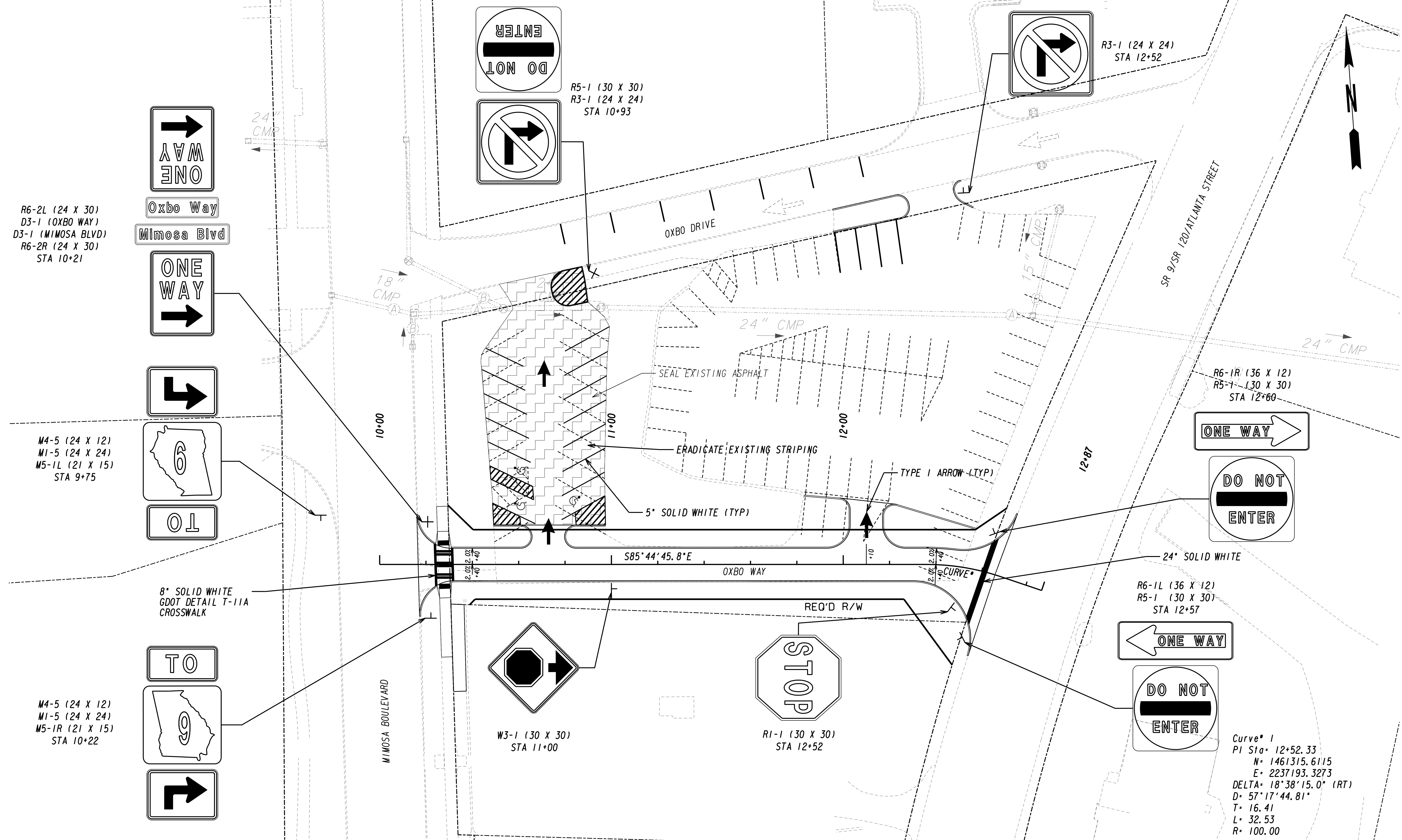
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UTILITY PLANS

| | | |
|--------------|-------|-------------------------------|
| CHECKED: | DATE: | DRAWING No. 24-001A |
| BACKCHECKED: | DATE: | |
| CORRECTED: | DATE: | |
| VERIFIED: | DATE: | |



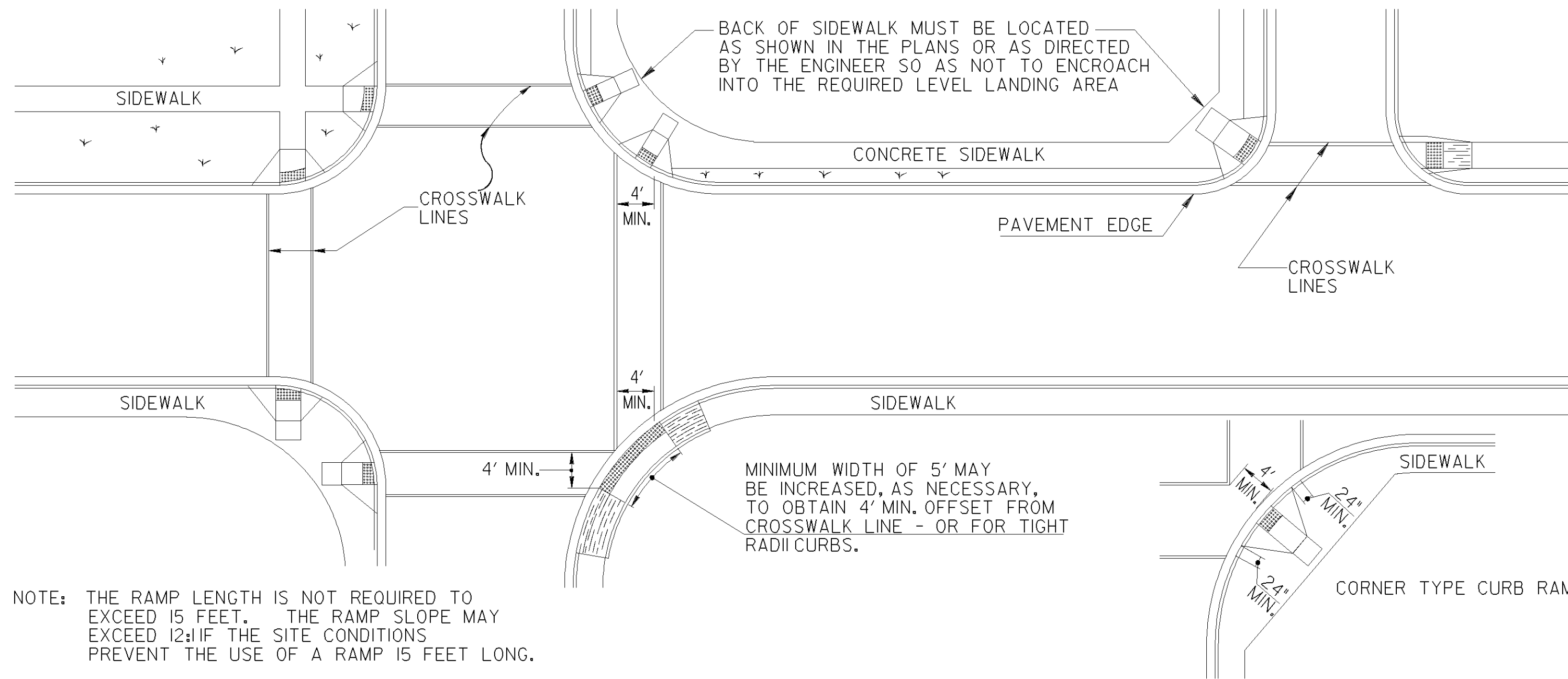
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|----------------|--|---------------|--------|
| | | CHECKED: | DATE: |
| | | BACKCHECKED: | DATE: |
| | | CORRECTED: | DATE: |
| | | VERIFIED: | DATE: |
| DRAWING No. | | | 24-001 |



Curve* 1
 PI Sta= 12+52.33
 N= 1461315.6115
 E= 2237193.3273
 DELTA= 18° 38' 15.0" (RT)
 D= 57° 17' 44.81"
 T= 16.41
 L= 32.53
 R= 100.00

| | | | | | | | | | | | | | | | | | | | | |
|--|--|---|--|--|--|--|--|--|--|--|---|----------|-------|------------------------------|--------------|-------|------------|-------|-----------|-------|
|  <p>ROSWELL GEORGIA SINCE 1854</p> | <p>SCALE IN FEET</p>  | <p>REVISION DATES</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> <tr><td> </td><td> </td></tr> </table> | | | | | | | | | <p>SIGNING AND MARKING PLANS</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td>CHECKED:</td> <td>DATE:</td> <td rowspan="4" style="text-align: center; vertical-align: middle;">DRAWING No. 26-001</td> </tr> <tr> <td>BACKCHECKED:</td> <td>DATE:</td> </tr> <tr> <td>CORRECTED:</td> <td>DATE:</td> </tr> <tr> <td>VERIFIED:</td> <td>DATE:</td> </tr> </table> | CHECKED: | DATE: | DRAWING No. 26-001 | BACKCHECKED: | DATE: | CORRECTED: | DATE: | VERIFIED: | DATE: |
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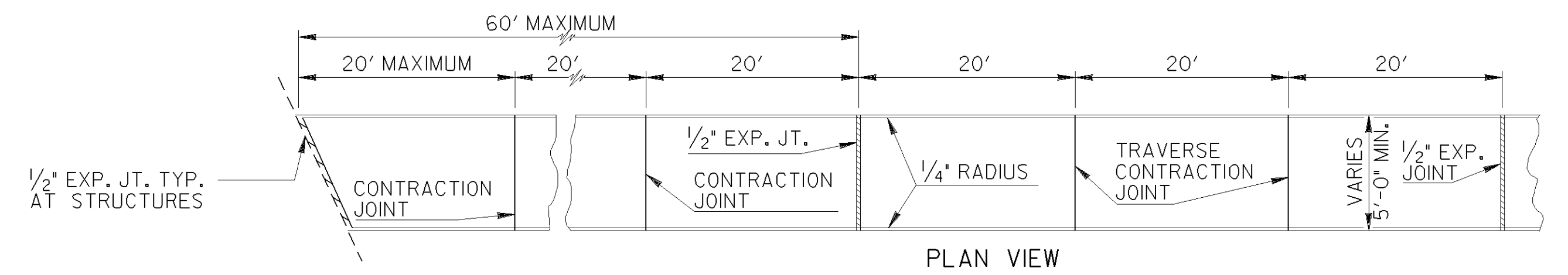
TYPICAL LOCATIONS FOR CURB CUT RAMPS - PLAN VIEW



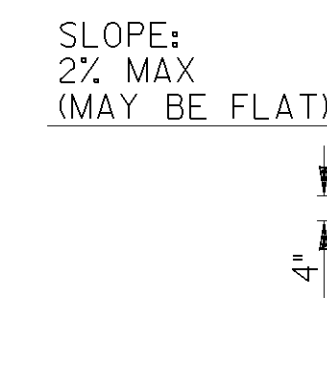
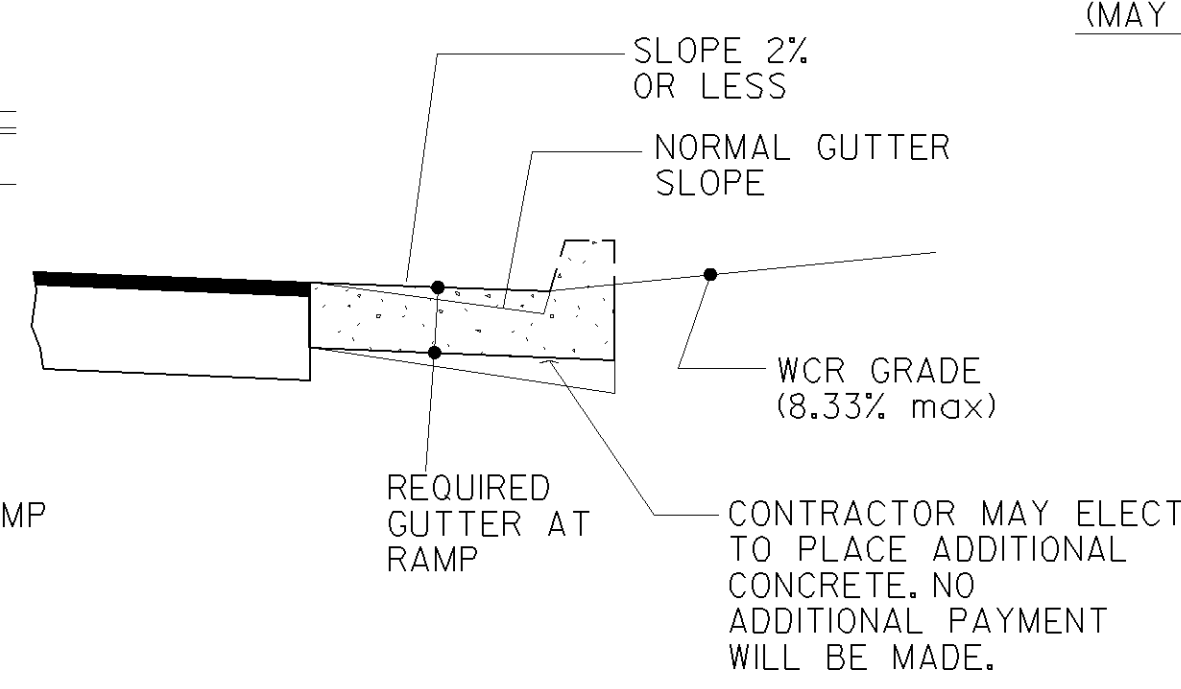
NOTE: THE RAMP LENGTH IS NOT REQUIRED TO EXCEED 15 FEET. THE RAMP SLOPE MAY EXCEED 12% IF THE SITE CONDITIONS PREVENT THE USE OF A RAMP 15 FEET LONG.

CONCRETE SIDEWALK DETAILS

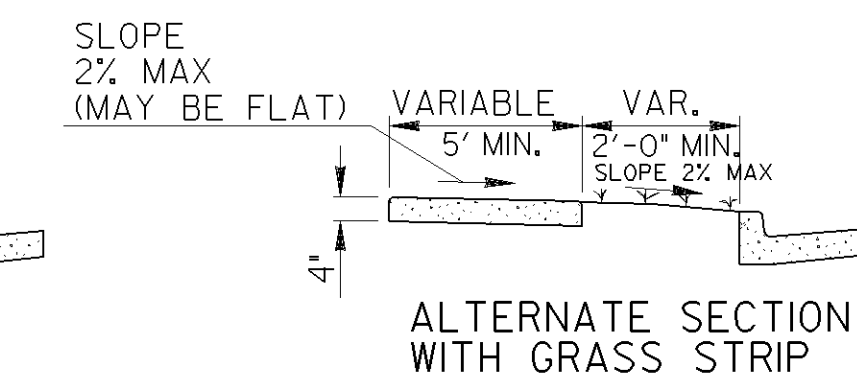
| | | | |
|-------|----------------|-----------|--------------|
| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
| GA. | | | |



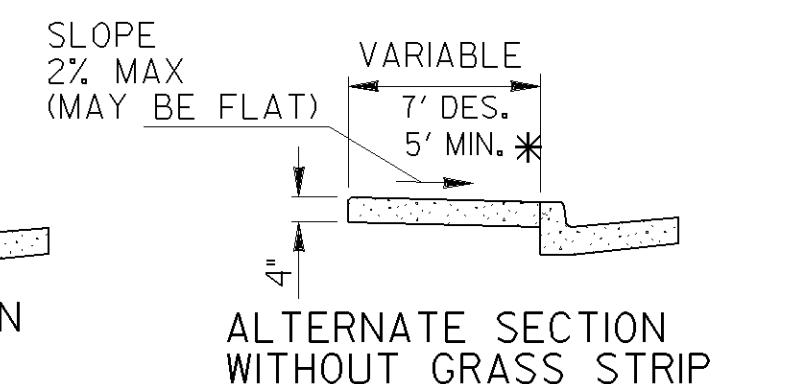
GUTTER TRANSITION DETAIL



PREFERRED SECTION WITH 6" GRASS STRIP
* 16" SHOULDER RECOMMENDED WITH THIS INSTALLATION



ALTERNATE SECTION WITH GRASS STRIP



ALTERNATE SECTION WITHOUT GRASS STRIP
* 5' MIN WIDTH WITH NO OBSTRUCTIONS (MAILBOXES, SIGNS, ETC)
7' PREFERRED WIDTH WITH A 2' AREA OF CONTRASTING COLOR & TEXTURE ADJACENT TO THE CURB. (COST OF TEXTURE, COLORING & HOLES REQUIRED FOR MAILBOX AND SIGN POST SHALL BE INCLUDED IN THE PRICE BID FOR SIDEWALK)

NOTES FOR CONCRETE SIDEWALK:

- CONCRETE TO BE PLACED 4" THICK AND FINISHED WITH TAMPS, WOOD FLOATS AND STIFF-BRISTLE BROOMS.
- TRANSVERSE CONTRACTION JOINTS SHALL BE PLACED AT 20 FT. INTERVALS. ALL EDGES TO BE ROUNDED TO 1/4" RADIUS.
- 1/2" EXPANSION JOINTS SHALL BE PLACED, WHERE SIDEWALK TIE INTO A STRUCTURE OR TERMINATE AT CURB, RAMPS OR DRIVEWAYS AND AT 60' INTERVALS.

NOTES FOR CURB CUT RAMPS:

- CURB CUT RAMPS WILL BE LOCATED AS FOLLOWS UNLESS PLANS OR CONTRACT SPECIFY OTHERWISE.
 - AT ALL PEDESTRIAN CROSSWALKS WHERE CURB IS CONSTRUCTED OR REPLACED.
 - WHERE THE SIDEWALK, CONCRETE OR UNPAVED, IS INTERRUPTED BY THE CURB AT TURNOUTS OR AT INTERSECTIONS.
 - AT OTHER LOCATIONS SUCH AS HOSPITALS, NURSING HOMES, REST AREAS, ETC... WHERE THE CURB WOULD OTHERWISE BE AN OBSTRUCTION TO THE PHYSICALLY DISABLED.
- RAMPS WILL BE CONSTRUCTED FROM CONCRETE. SPECIFICATIONS FOR RAMPS WILL BE THE SAME AS FOR CONCRETE SIDEWALK. RAMPS SHALL HAVE EITHER A ROUGH OR A TEXTURED FINISH.
- DROP INLETS ARE NOT TO BE LOCATED DIRECTLY IN FRONT OF RAMPS. CATCH BASINS SHOULD BE LOCATED AT LEAST 10 FT. FROM RAMPS WHEN FEASIBLE.
- WHERE RAMPS ARE LOCATED IN RADII, THE DIMENSIONS SHOWN FOR RAMP WIDTHS AND TAPERS ARE MEASURED PERPENDICULAR TO THE RAMP AND NOT ALONG THE CURVE.
- WHERE UTILITY STRUCTURES CONFLICT, WHERE SIDEWALK GEOMETRY VARIES, AT SKewed INTERSECTIONS, OR IN OTHER SPECIAL CASES, THE RAMP DESIGNS MAY BE MODIFIED BY THE DESIGNER OR ENGINEER, PROVIDED THAT THE WIDTH REMAINS A MINIMUM OF 48 INCHES, AND NO SLOPE ON THE ACCESSIBLE PART OF THE RAMP IS STEEPER THAN 12:1.
- 1 IN. FT. OF CURB AND GUTTER WILL INCLUDE THE TRANSITIONED CURB IN FRONT OF RAMPS. SO, YDS. OF CONCRETE SIDEWALK AND CONCRETE MEDIAN PAVING WILL INCLUDE RAMPS. NO ADDITIONAL PAYMENT WILL BE MADE FOR CURB RAMPS. NO ADDITIONAL PAYMENT WILL BE MADE FOR SAWING AND REMOVING EXISTING SIDEWALK OR CURB WHERE NECESSARY FOR RAMP CONSTRUCTION.
- WHEN A CURB RAMP IS PLACED ON EXISTING PAVEMENT, THE PAVEMENT SHALL BE REMOVED TO PROVIDE A MINIMUM THICKNESS OF 3 INCHES OF CONCRETE AT ALL LOCATIONS. NO SEPARATE PAYMENT WILL BE MADE FOR REMOVAL OF THE PAVEMENT.
- DETECTABLE WARNING SURFACES ARE REQUIRED ON ALL INTERSECTIONS WITH PUBLIC STREETS, SIGNALIZED COMMERCIAL DRIVEWAYS, AND COMMERCIAL DRIVEWAYS WITH AN AADT OF 25 VPD.

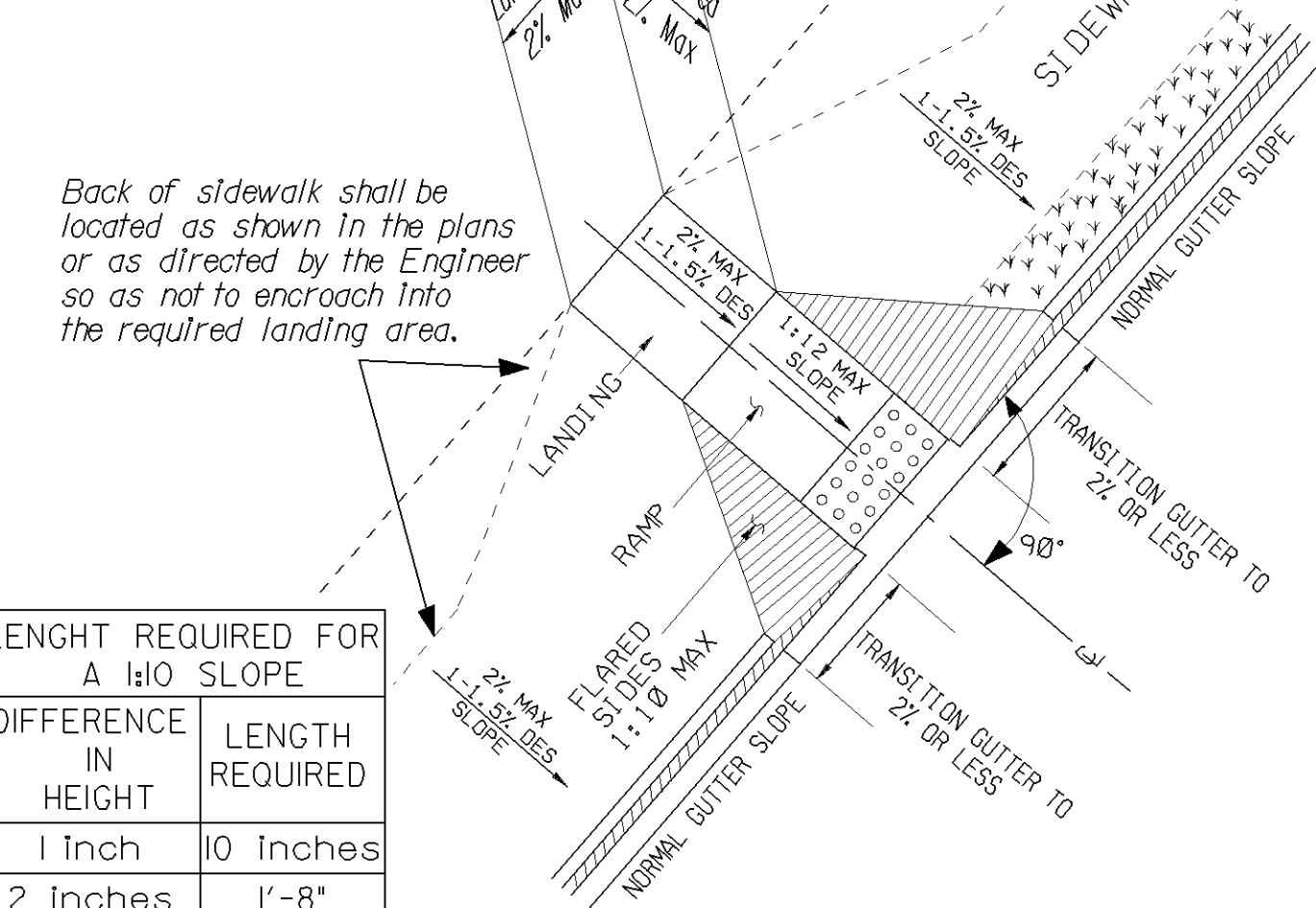
This Detail Replaces Ga Standard 9031W

Guidelines For Usage On Metric Projects

When these details are incorporated into plans and or projects that are being prepared or constructed in metric units, exact or precise conversion to metric units is not required. The dimensions shown that are in feet and inches may be converted to corresponding metric units using the following "Rounded-Off" conversion factors: 1" = 25mm, 4" = 100mm, and 12" or 1' = 300mm. All measurement notes that refer to linear feet and square yards shall be interpreted to mean linear meters and square meters.

Type A

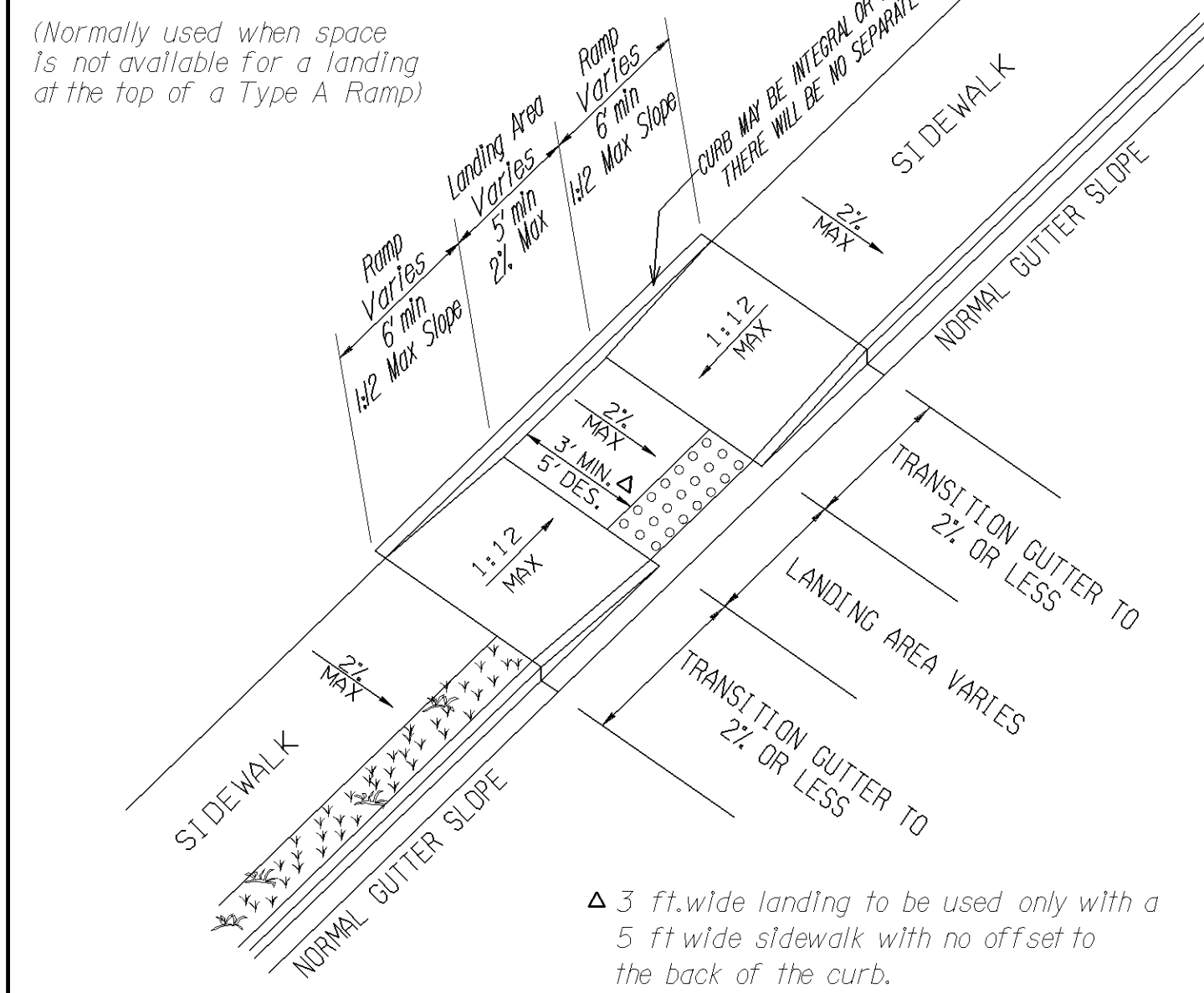
(The Preferred Ramp)



| LENGTH REQUIRED FOR A 1:10 SLOPE | |
|----------------------------------|-----------------|
| DIFFERENCE IN HEIGHT | LENGTH REQUIRED |
| 1 inch | 10 inches |
| 2 inches | 1'-8" |
| 3 inches | 2'-6" |
| 4 inches | 3'-4" |
| 5 inches | 4'-2" |
| 6 inches | 5 feet |

Type B

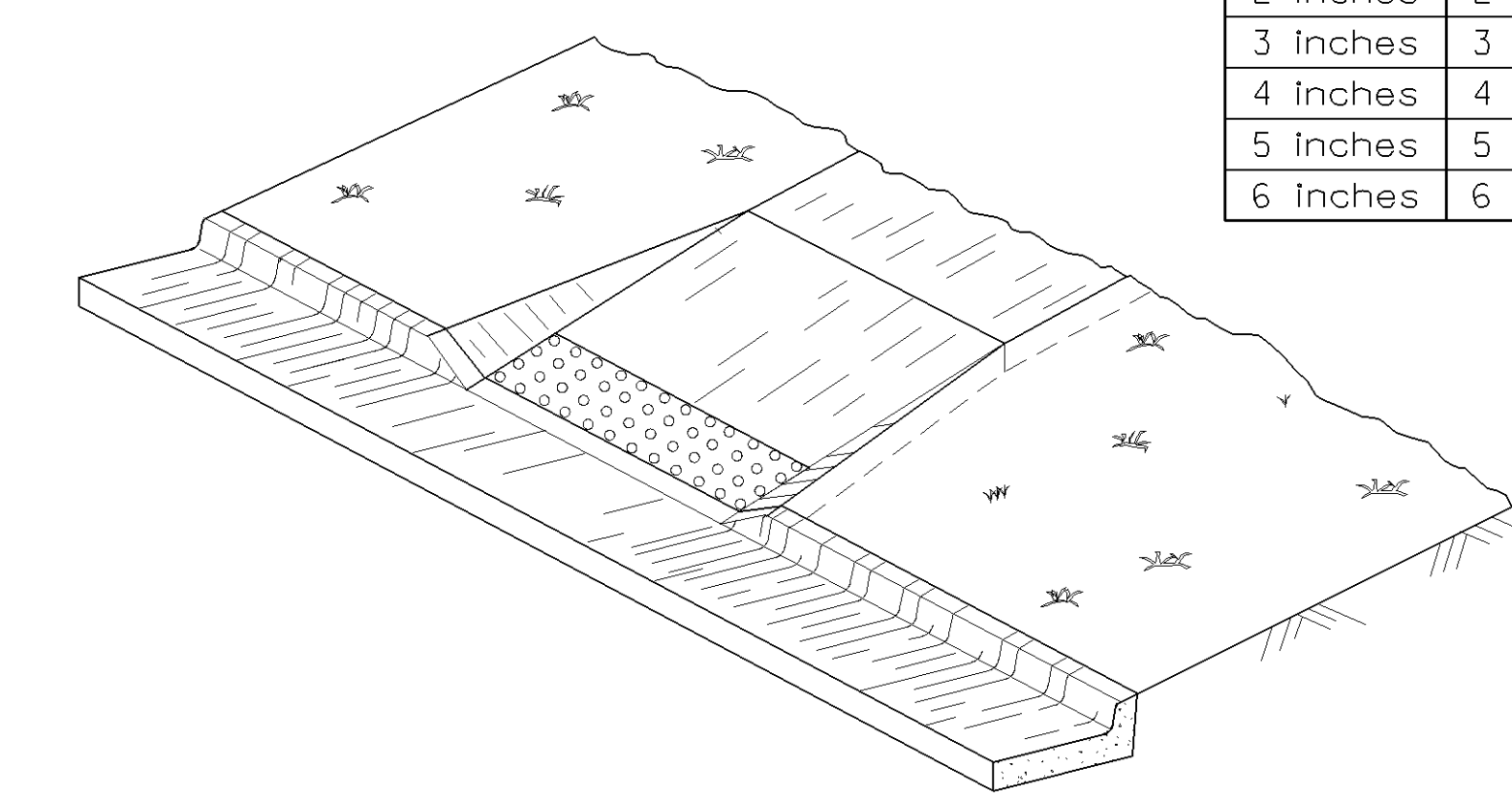
(Normally used when space is not available for a landing at the top of a Type A Ramp)



3 ft. wide landing to be used only with a 5 ft wide sidewalk with no offset to the back of the curb.

Type D

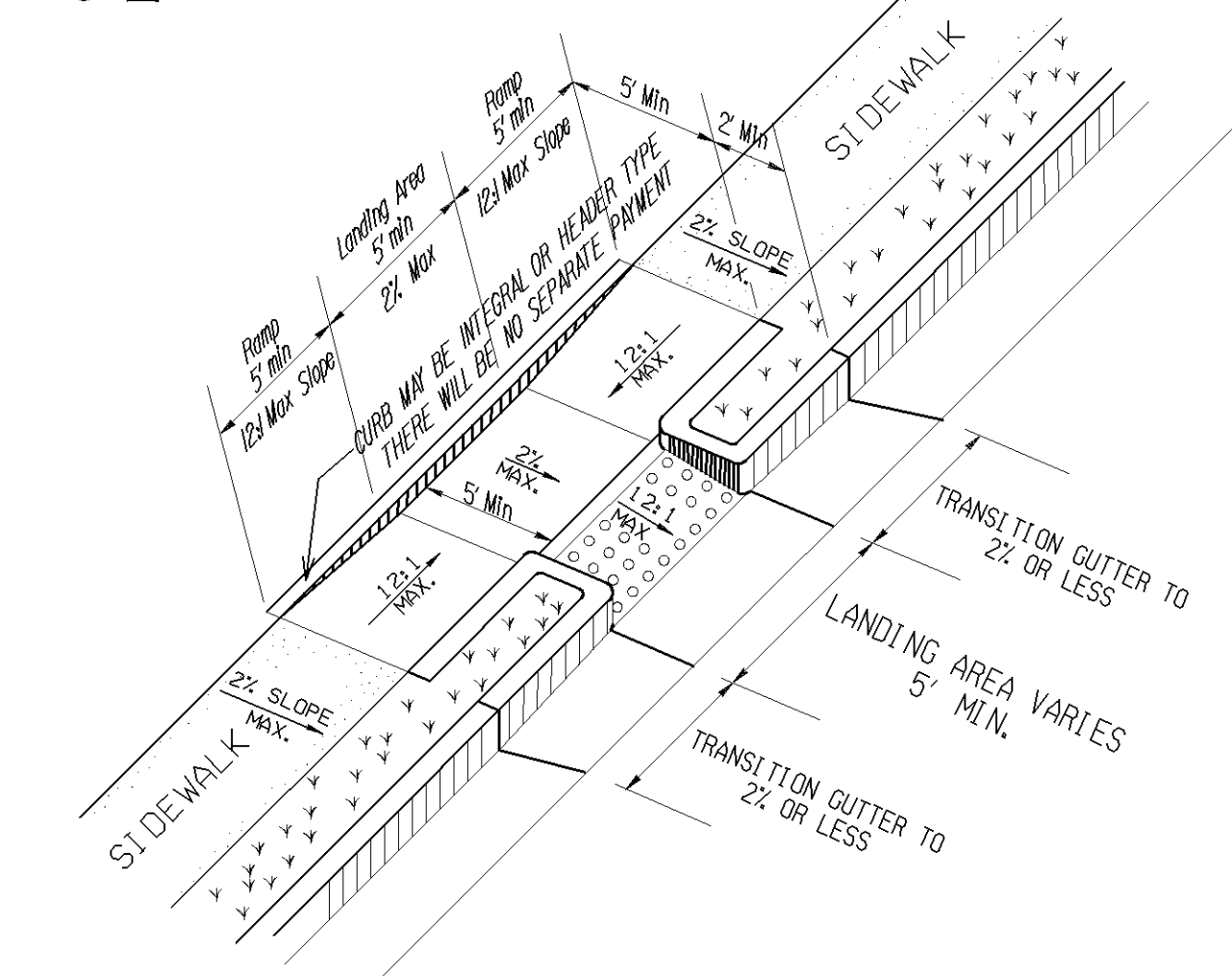
(Normally used when the sidewalk ties directly into the crosswalk)



IN AREAS WHERE THE GUTTER HAS A SLOPE 1" IN 1' END NORMAL GUTTER SLOPE AT A DISTANCE OF 6 TO 10 FEET FROM THE RAMP AND BEGIN TRANSITION TO A FLAT GUTTER SLOPE, NORMAL GUTTER SLOPE SHALL BE RESUMED AT A SIMILAR DISTANCE BEYOND THE RAMP.

| LENGTH REQUIRED FOR A 1:12 SLOPE | |
|----------------------------------|-----------------|
| DIFFERENCE IN HEIGHT | LENGTH REQUIRED |
| 1 inch | 1 foot |
| 2 inches | 2 feet |
| 3 inches | 3 feet |
| 4 inches | 4 feet |
| 5 inches | 5 feet |
| 6 inches | 6 feet |

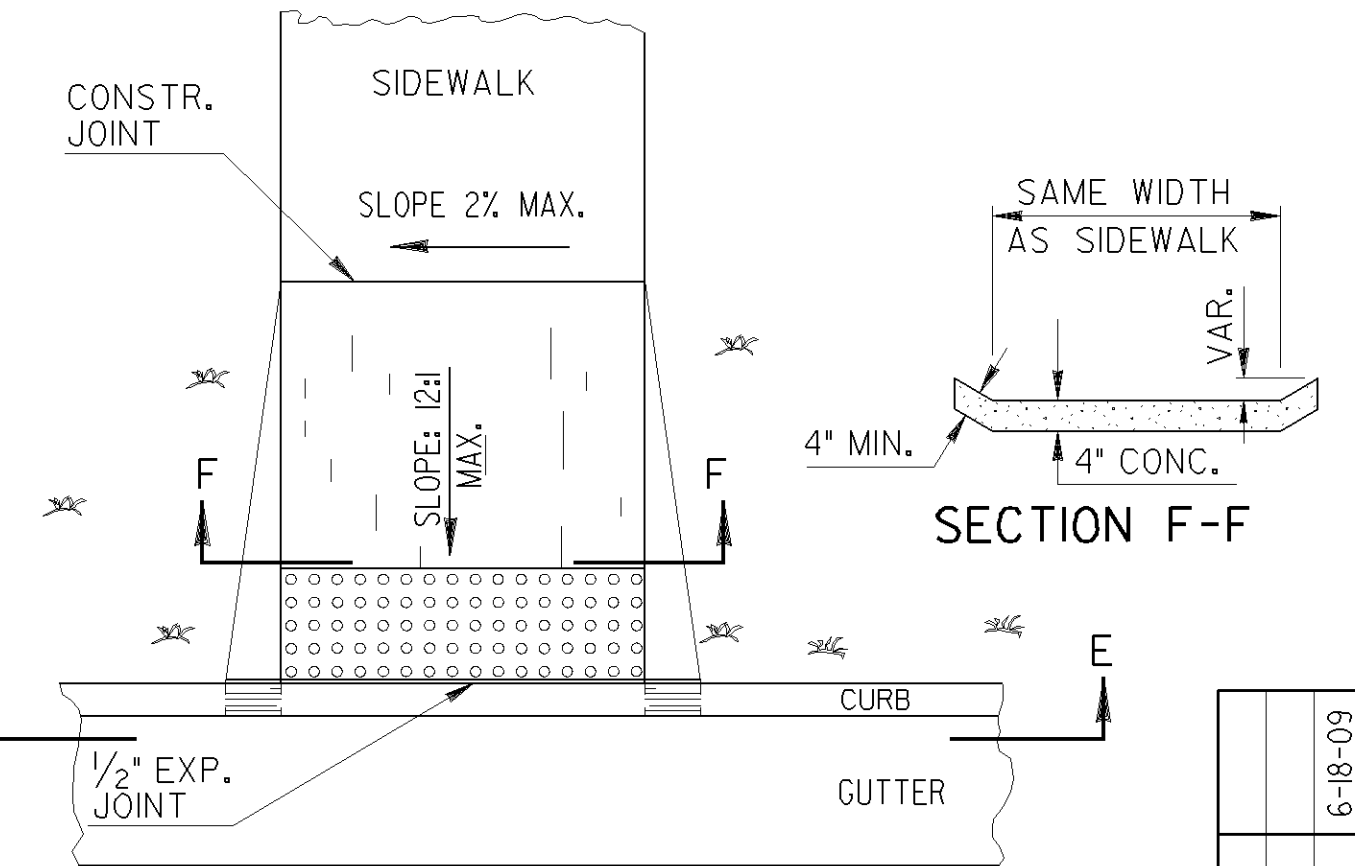
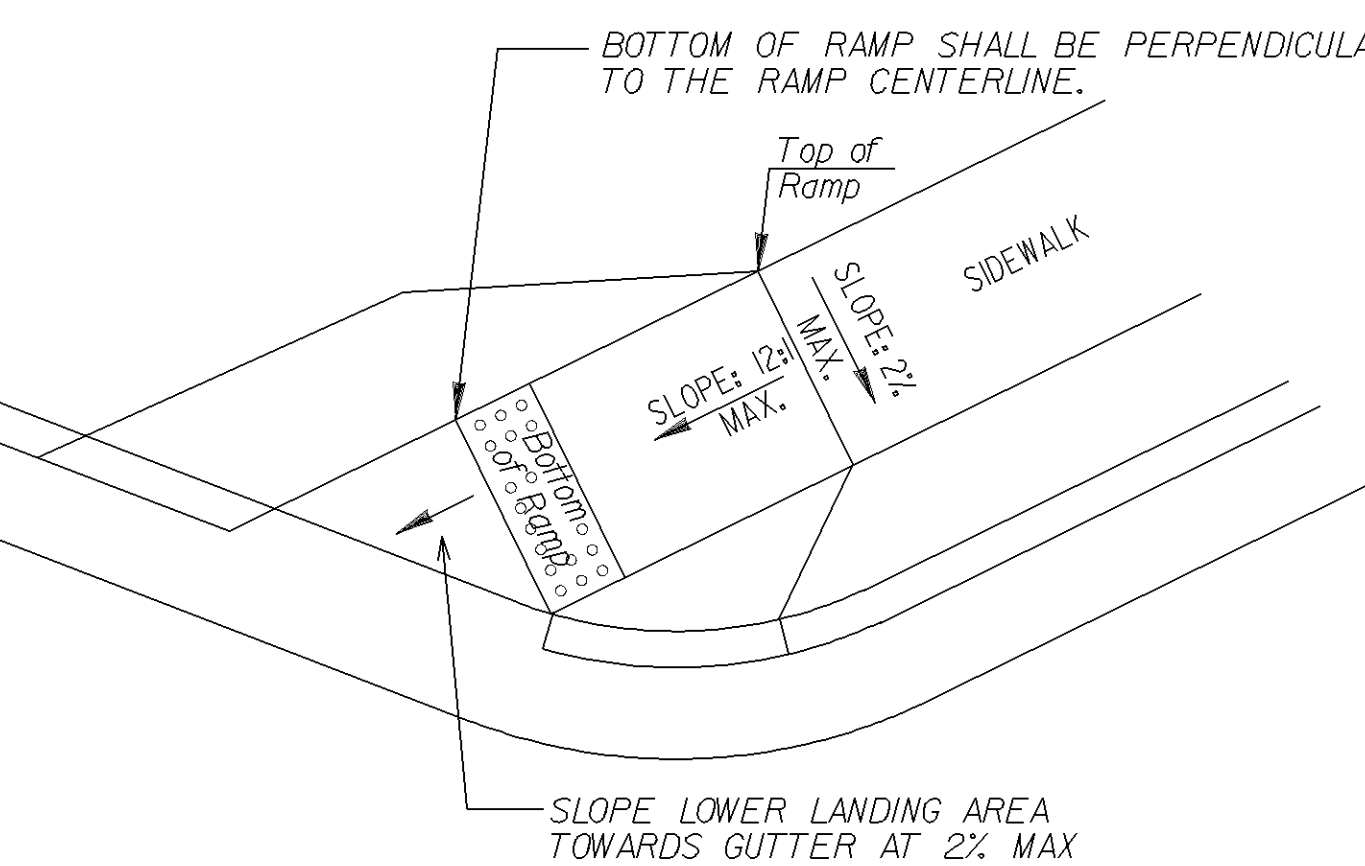
Type C



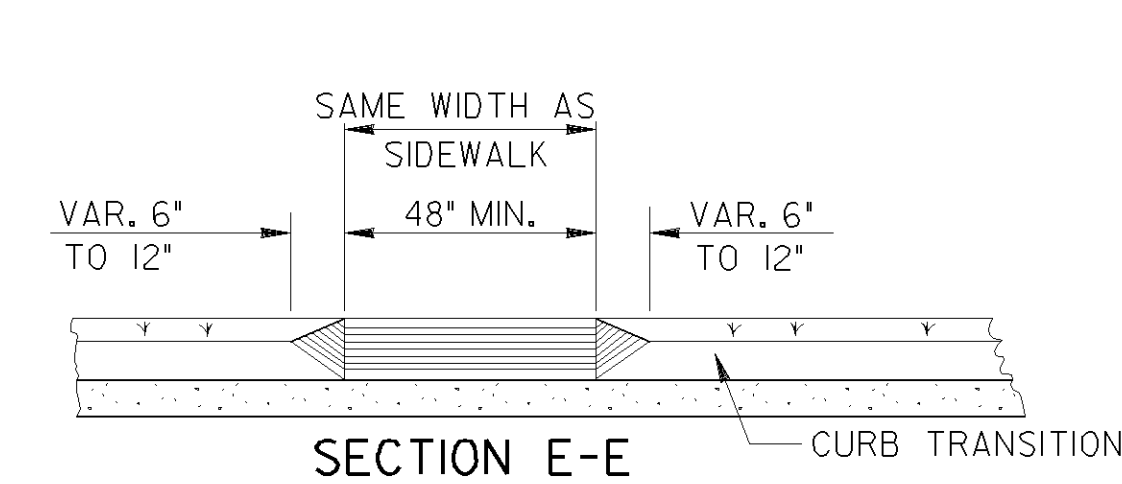
Skewed Ramp Details

(Applies to Type A & Type D Ramps Only)

WHEN THE RAMP CENTERLINE IS NOT PERPENDICULAR TO THE CURB A LEVEL LANDING AREA WITH SLOPES LESS THAN 2% MUST BE PROVIDED AT THE BOTTOM OF THE RAMP.



PLAN VIEW



SECTION E-E

| DEPARTMENT OF TRANSPORTATION | | | | | | | | | | STATE OF GEORGIA | |
|------------------------------|------|---|---------|------|----------------------|---------|------|-------------|------|------------------|-------------|
| REV. | DATE | DESCRIPTION | REV. | DATE | DESCRIPTION | REV. | DATE | DESCRIPTION | REV. | DATE | DESCRIPTION |
| 6-18-09 | | REV. SLOPES TO PERCENT AND ADDED I24 & I01 CHART. | 5-10-06 | | REV. TRUNCATED DOMES | 2-21-03 | | REVISED | | | |
| | | ADDED GEN. NOTE NO. 8. | 2-10-03 | | REVISED | 7-29-02 | | REVISED | | | |
| | | | 5-23-02 | | REVISED | 5-23-02 | | REVISED | | | |
| | | | 5-13-02 | | REVISED | 4-29-02 | | REVISED | | | |
| | | | 4-11-02 | | REVISED | 4-11-02 | | REVISED | | | |
| | | | 4-3-02 | | REVISED | 3-28-02 | | REVISED | | | |

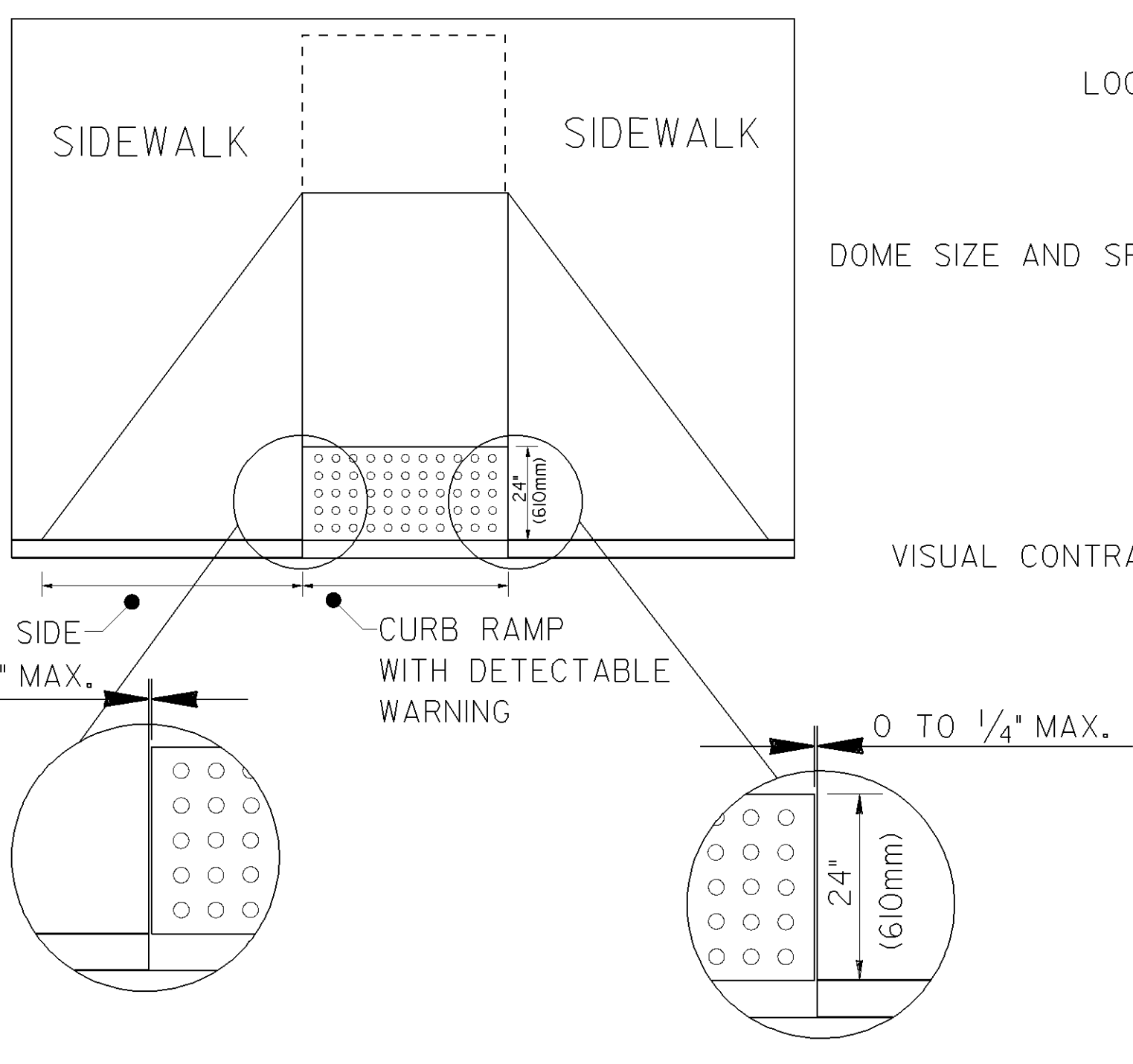
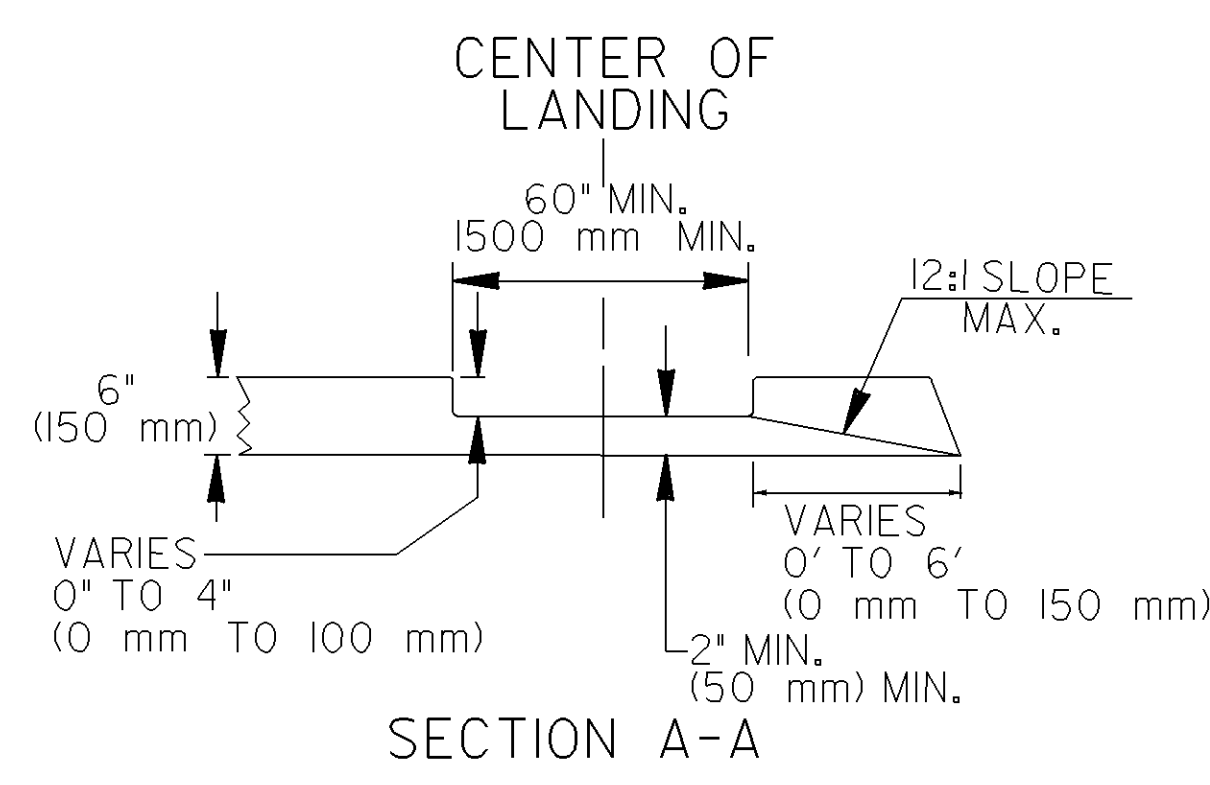
SPECIAL DETAIL
CONCRETE SIDEWALK DETAILS
CURB CUT (WHEELCHAIR) RAMPS

NO SCALE

MARCH 12, 2002

NUMBER
A3

| | | | |
|-------|----------------|-----------|--------------|
| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
| GA. | | | |



SIZE: DETECTABLE WARNINGS SHALL BE 24 INCHES (610 mm) IN THE DIRECTION OF PEDESTRAIN TRAVEL AND EXTEND THE FULL WIDTH OF THE CURB RAMP OR FLUSH SURFACE.

LOCATION: THE DETECTABLE WARNING SHALL BE LOCATED SO THAT THE EDGE NEAREST THE CURB LINE OR OTHER POTENTIAL HAZARD IS 6 TO 8 INCHES (150 mm to 180mm) FROM THE CURB LINE OR OTHER POTENTIAL HAZARD, SUCH AS A REFLECTIVE POOL EDGE OR THE DYNAMIC ENVELOPE OF RAIL OPERATIONS.

DOMES SIZE AND SPACING: TRUNCATED DOMES SHALL HAVE A BASE DIAMETER OF 0.9 INCH TO 1.4 INCH (23mm-36mm) AT THE BOTTOM, A DIAMETER OF 0.45 INCH TO 0.91 INCH (11mm-23mm) AT THE TOP, THE TOP DIAMETER SHALL BE A MINIMUM OF 50% AND A MAXIMUM OF 65% OF THE BASE DIAMETER, A HEIGHT OF 0.2 INCH (5.1mm) AND A CENTER-TO-CENTER SPACING OF 2.40 INCHES (61mm) DESIRABLE 1.60 INCHES (41mm) MINIMUM MEASURED ALONG ONE SIDE OF A SQUARE ARRANGEMENT. DOMES SHALL HAVE A SQUARE ARRANGEMENT. DOMES SHALL BE ALIGNED ON A SQUARE GRID IN THE PREDOMINANT DIRECTION OF TRAVEL TO PERMIT WHEELS TO ROLL BETWEEN DOMES.

VISUAL CONTRAST: DETECTABLE WARNING SURFACES SHALL CONTRAST VISUALLY WITH THE ADJACENT WALKING SURFACE EITHER LIGHT-ON-DARK OR DARK-ON-LIGHT. THE MATERIAL USED TO PROVIDE VISUAL CONTRAST SHALL BE AN INTEGRAL PART OF THE DETECTABLE WARNING SURFACE.

MATERIALS:

NEW CONSTRUCTION
THE DETECTABLE WARNINGS SHALL BE MADE OF MATERIALS SPECIFIED ON QPL 87.

RETROFIT OF EXISTING RAMPS
SURFACED APPLIED MATERIALS WILL ONLY BE APPROVED TO BE USED ON EXISTING WHEELCHAIR RAMPS.

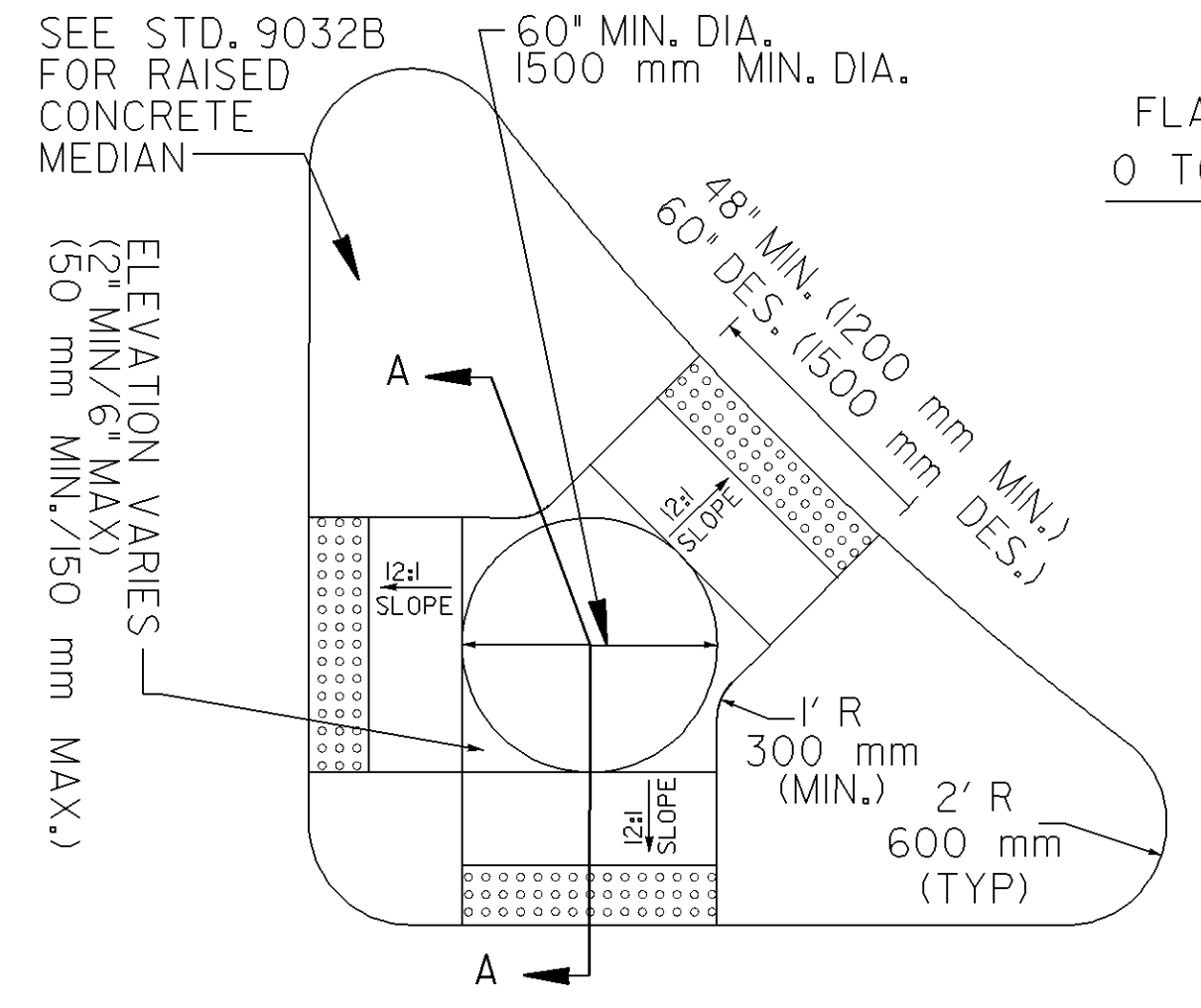
INSTALLATION:
BRICK PAVERS SHALL BE SET IN A WET MORTAR BED. THE BED SHALL BE PLACED ON CONCRETE. THE CONCRETE SHALL BE A MINIMUM OF 4" THICK.

CERAMIC TILE SHALL BE EPOXIED IN PLACE OR SET IN A WET MORTAR BED. MANUFACTURER RECOMMEND ADHESIVE OR FASTENER SHALL BE USED IN THE INSTALLATION.

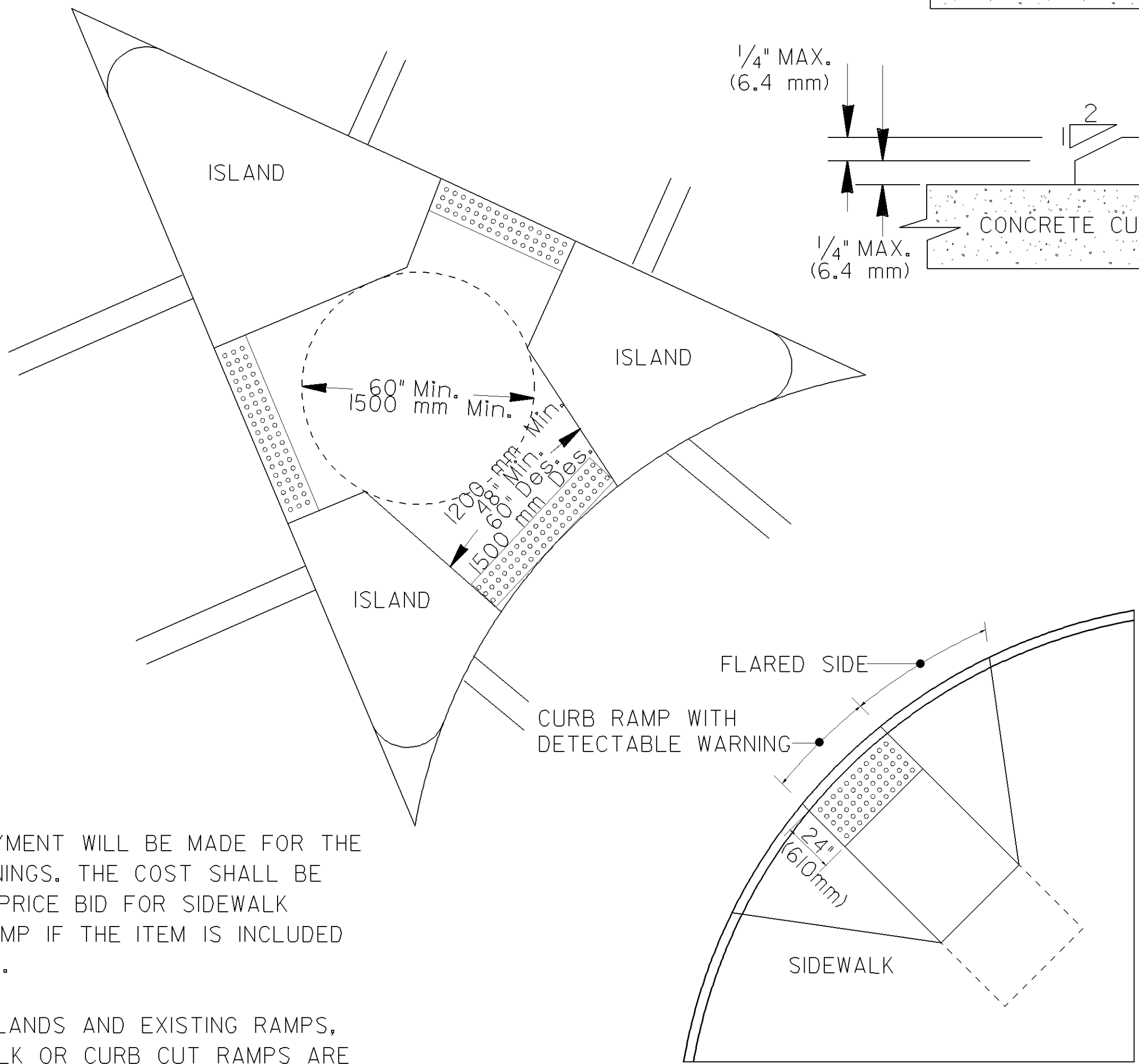
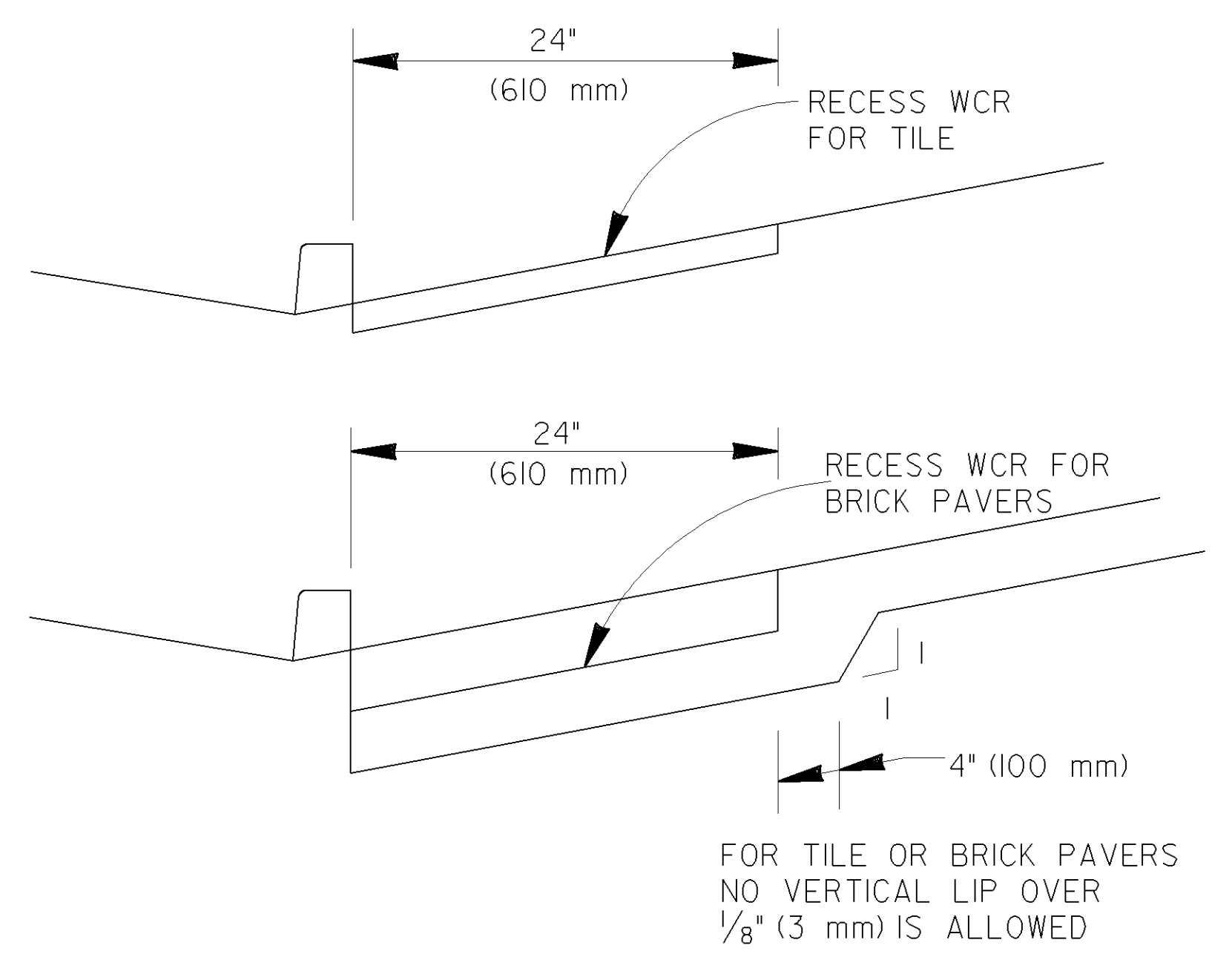
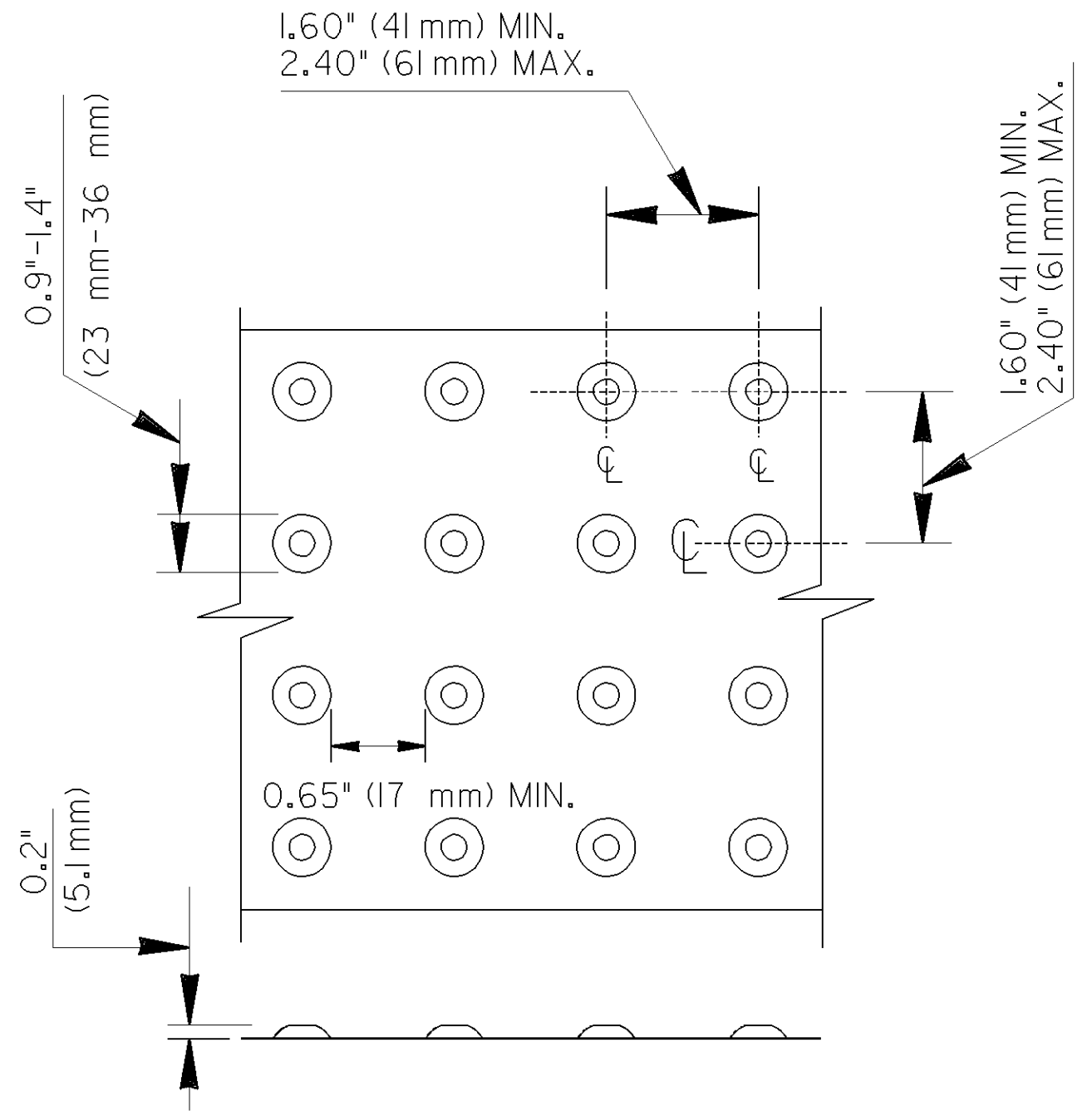
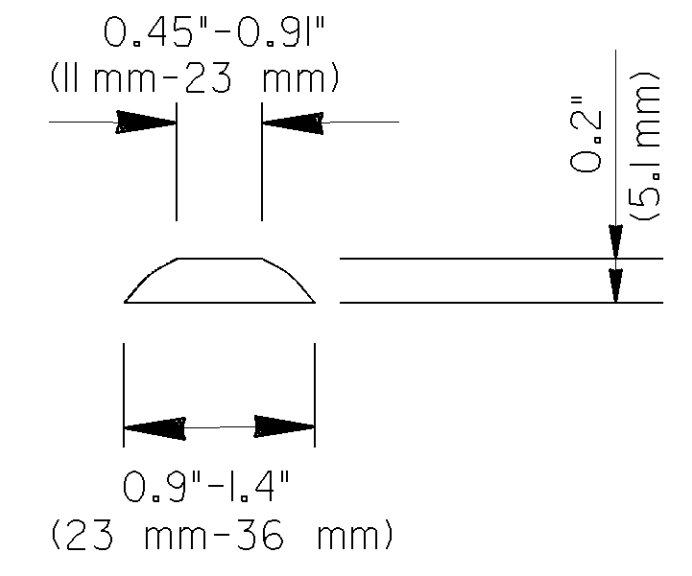
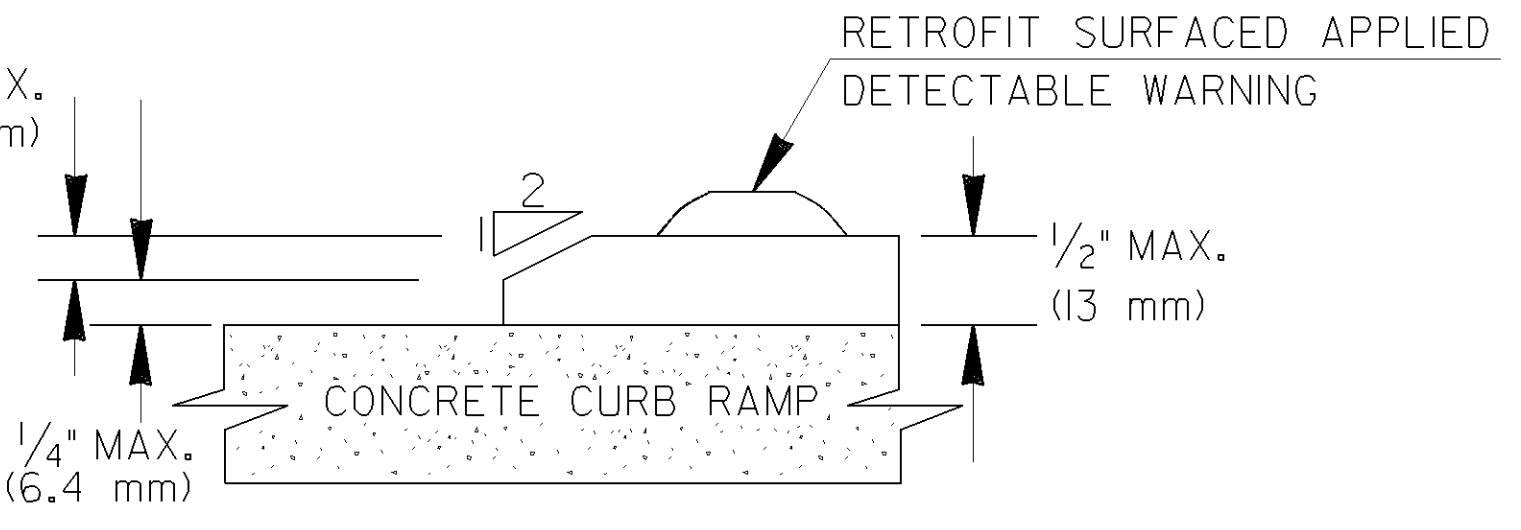
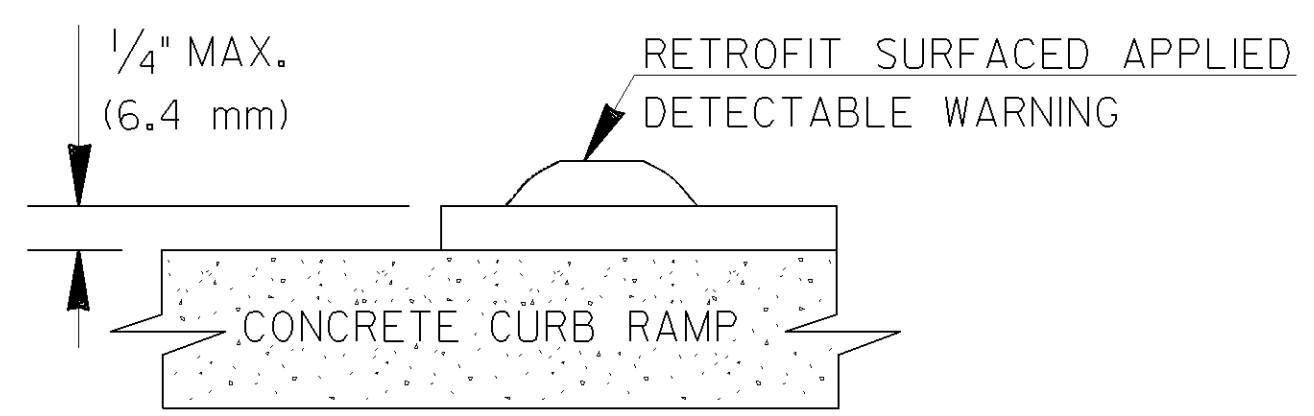
ALL OTHER MATERIALS SHALL BE INSTALLED ACCORDING TO MANUFACTURER DETAILS OR INSTRUCTION.

GENERAL NOTES:

- RETROFIT SURFACED APPLIED MATERIALS ONLY:
- CHANGES IN LEVEL OF 1/4" (6.4 mm) HIGH MAXIMUM SHALL BE PERMITTED VERTICALLY ON SURFACED APPLIED MATERIALS.
 - CHANGES IN LEVEL BETWEEN 1/4" (6.4 mm) HIGH MINIMUM AND 1/2" (13mm) HIGH MAXIMUM SHALL BE BEVELED WITH A SLOPE NOT STEEPER THAN 2:1.



CONCRETE ISLAND WITH ELEVATED CUT THROUGH



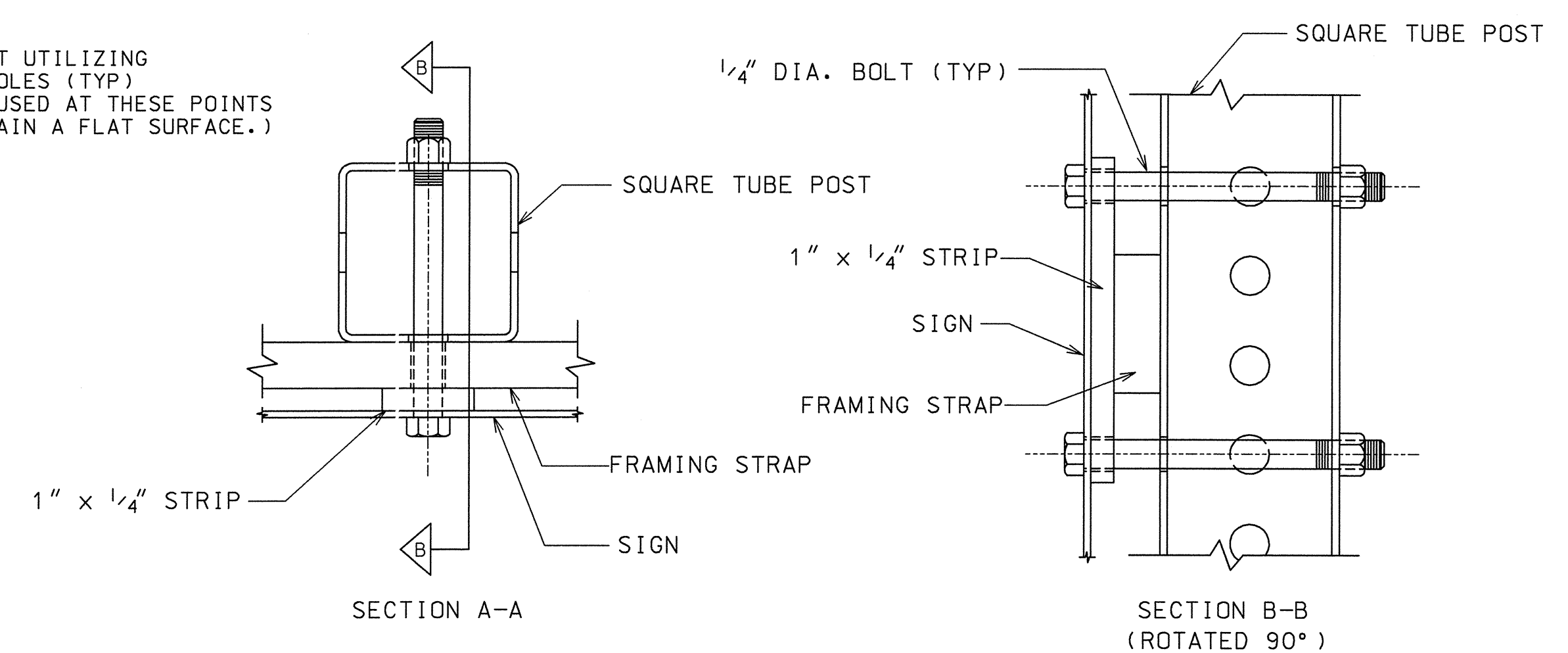
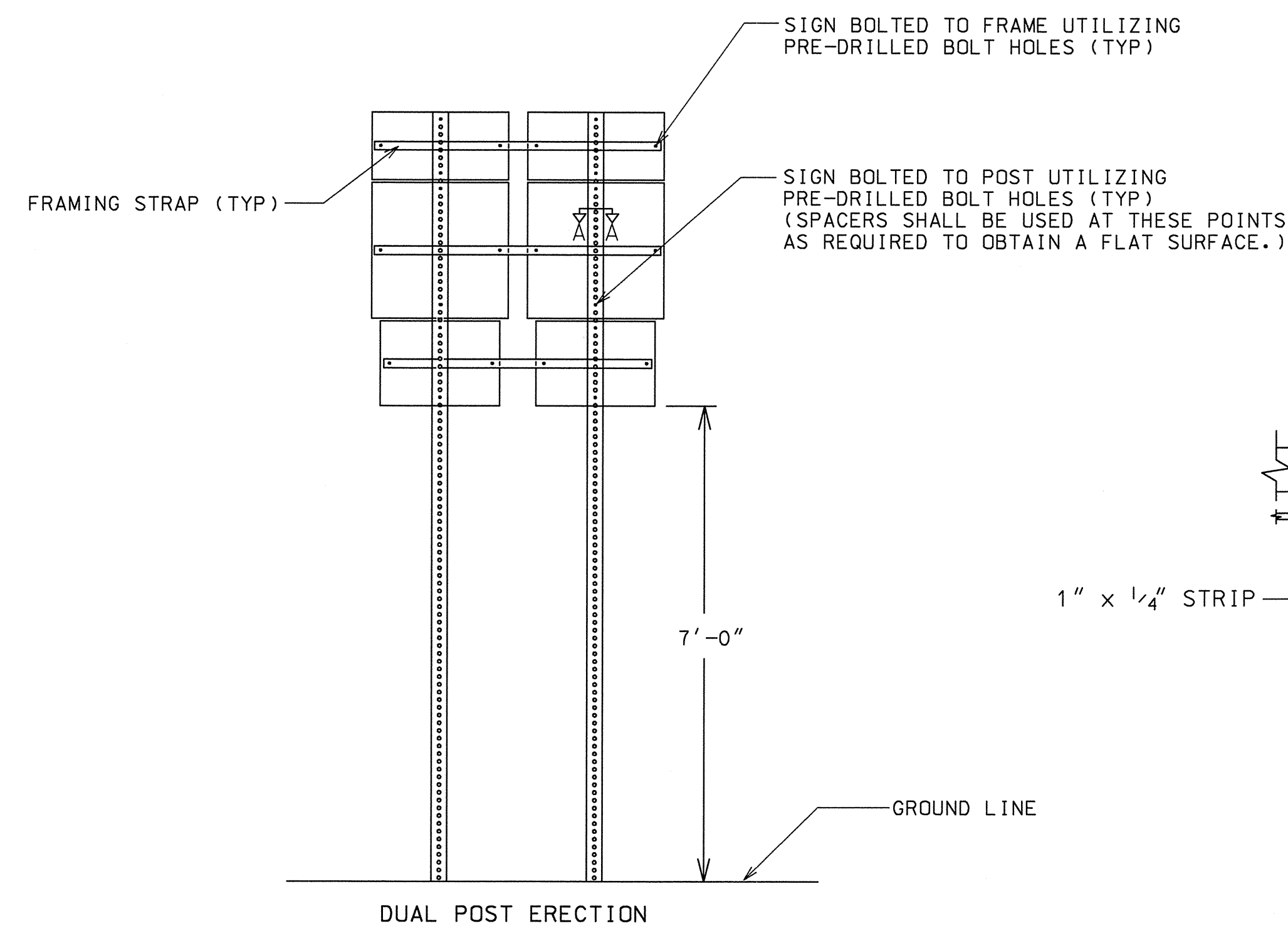
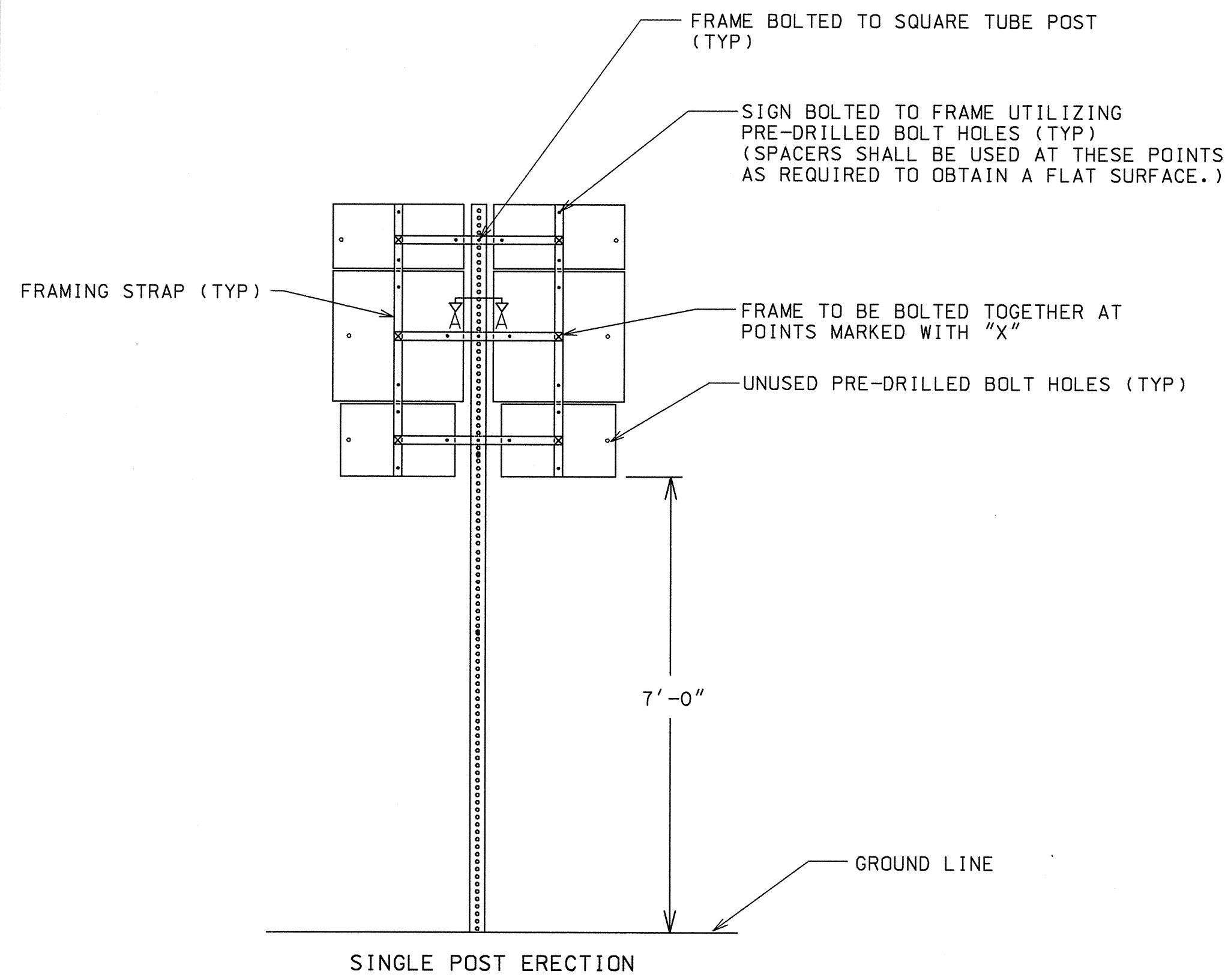
DETAIL FOR DETECTABLE WARNING AT CUT-THRU CONCRETE ISLAND

NO SEPARATE PAYMENT WILL BE MADE FOR THE DETECTABLE WARNINGS. THE COST SHALL BE INCLUDED IN THE PRICE BID FOR SIDEWALK (OR CURB CUT RAMP IF THE ITEM IS INCLUDED IN THE PROPOSAL).

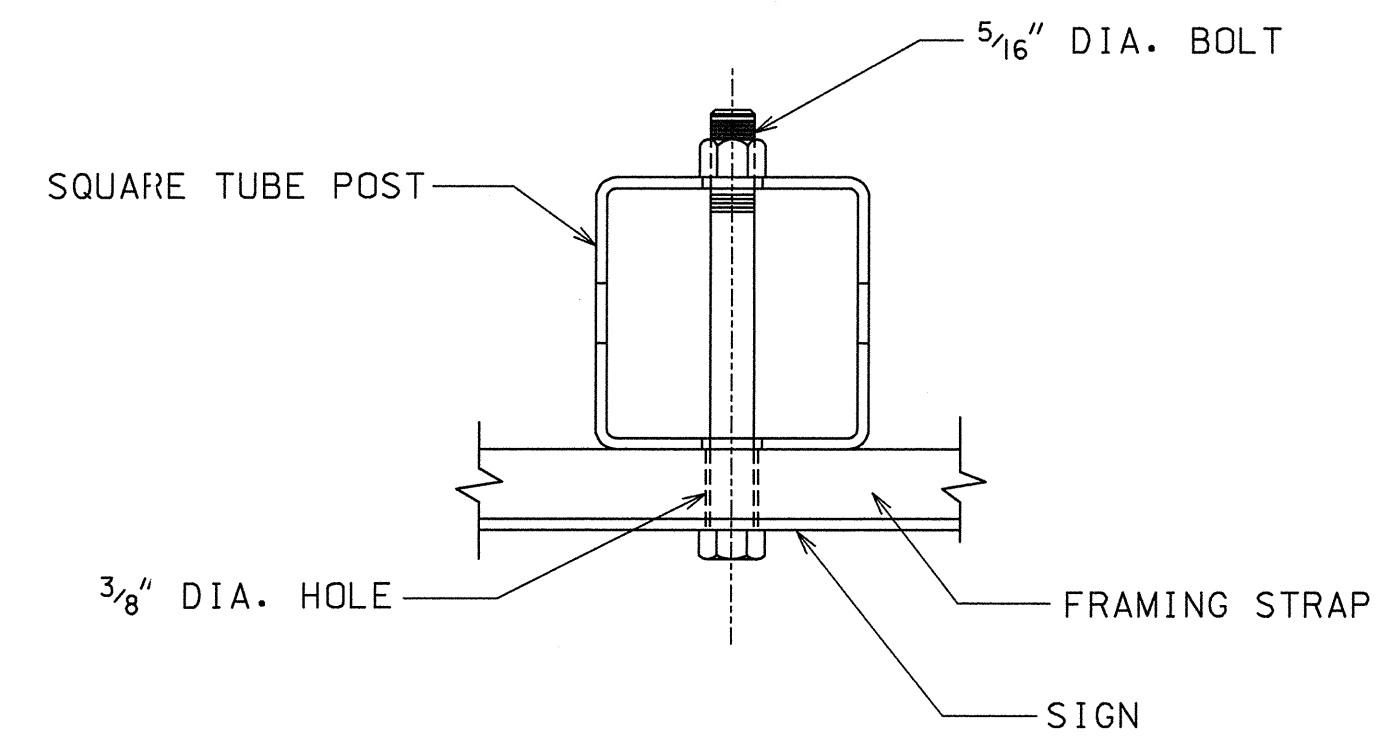
FOR CUT-THRU ISLANDS AND EXISTING RAMPS, WHERE NO SIDEWALK OR CURB CUT RAMPS ARE IN THE PROPOSAL, THE COST OF THE DETECTABLE WARNINGS SHALL BE INCLUDED IN THE OVERALL BID PRICE SUBMITTED.

| | | | | | | | | | |
|--|---------------------|-----------------------|-------------------------|-------------------------|------------|---------|---------|----------|----------------|
| 6-18-09 | | 10-2-06 | | 11-4-02 | | 7-29-02 | | DATE | |
| ADDED RETROFIT DETAIL | AND ADDED ALT. RAMP | DETAIL AND GEN. NOTES | ADDED TOLERANCE TO DTL. | REVISED TRUNCATED DOMES | AND NOTES. | REVISED | REVISED | REVISION | BY |
| GLO | GLO | GLO | GLO | GLO | GLO | GLO | GLO | | |
| DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA | | | | | | | | | NUMBER |
| SPECIAL DETAIL | | | | | | | | | A4 |
| DETECTABLE WARNING SURFACE TRUNCATED DOME SIZE, SPACING AND ALIGNMENT REQUIREMENTS | | | | | | | | | |
| NO SCALE | | | | | | | | | MARCH 12, 2002 |

| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|-------|----------------|-----------|--------------|
| GA. | | | |



OPTION #1 - FRAMING STRAP WITHOUT MOUNTING HOLE
(ALL FRAMING STRAPS SHALL BE 1 1/2" x 1/2" x REQUIRED LENGTH)



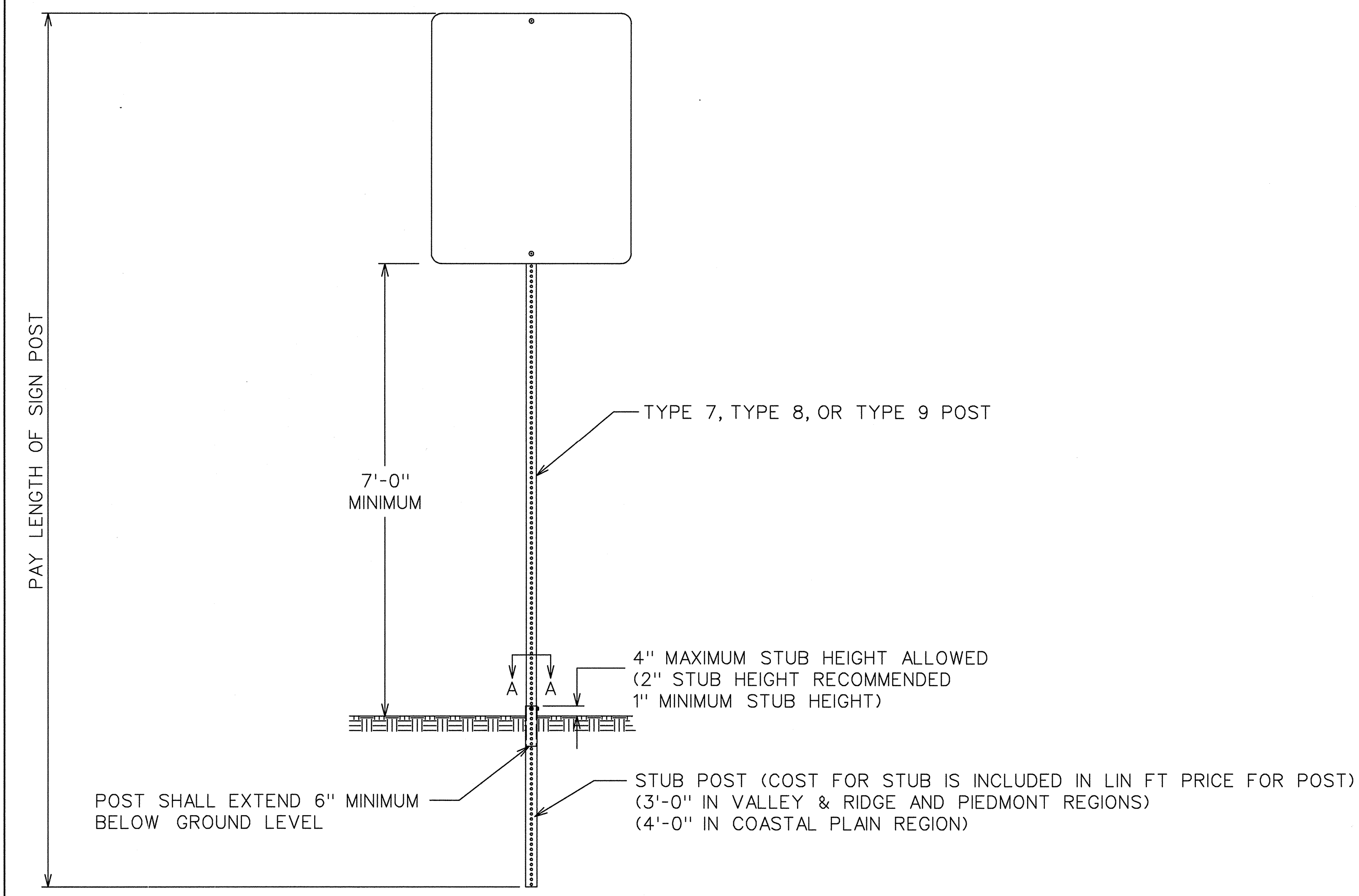
OPTION #2 - FRAMING STRAP WITH MOUNTING HOLE
(ALL FRAMING STRAPS SHALL BE 2" x 1/2" x REQUIRED LENGTH)

TYPICAL ASSEMBLY UNIT (BACK VIEW)

- GENERAL NOTES:
1. STYLE OF FRAMING IS OPTIONAL. ALTERNATE DESIGNS ARE ACCEPTABLE UPON APPROVAL OF THE ENGINEER. FRAME SHALL BE DESIGNED SO AS TO HOLD THE ASSEMBLY IN A FIXED, RIGID POSITION.
 2. FRAMING STRAPS SHALL BE GALVANIZED STEEL OR ALUMINUM.
 3. STEEL SHALL BE A.S.T.M. DESIGNATION A-283, GRADE D, GALVANIZED IN ACCORDANCE WITH A.S.T.M. DESIGNATION A-123.
 4. ALUMINUM SHALL BE ALLOY 6061-T6.
 5. BOLTS, NUTS, WASHERS, AND SPACERS SHALL CONFORM TO THE STANDARD SPECIFICATIONS AND/OR SPECIAL PROVISIONS.
 6. FRAMING STRAPS ON A DUAL POST ERECTION SHALL NOT BE BOLTED TO THE POST.

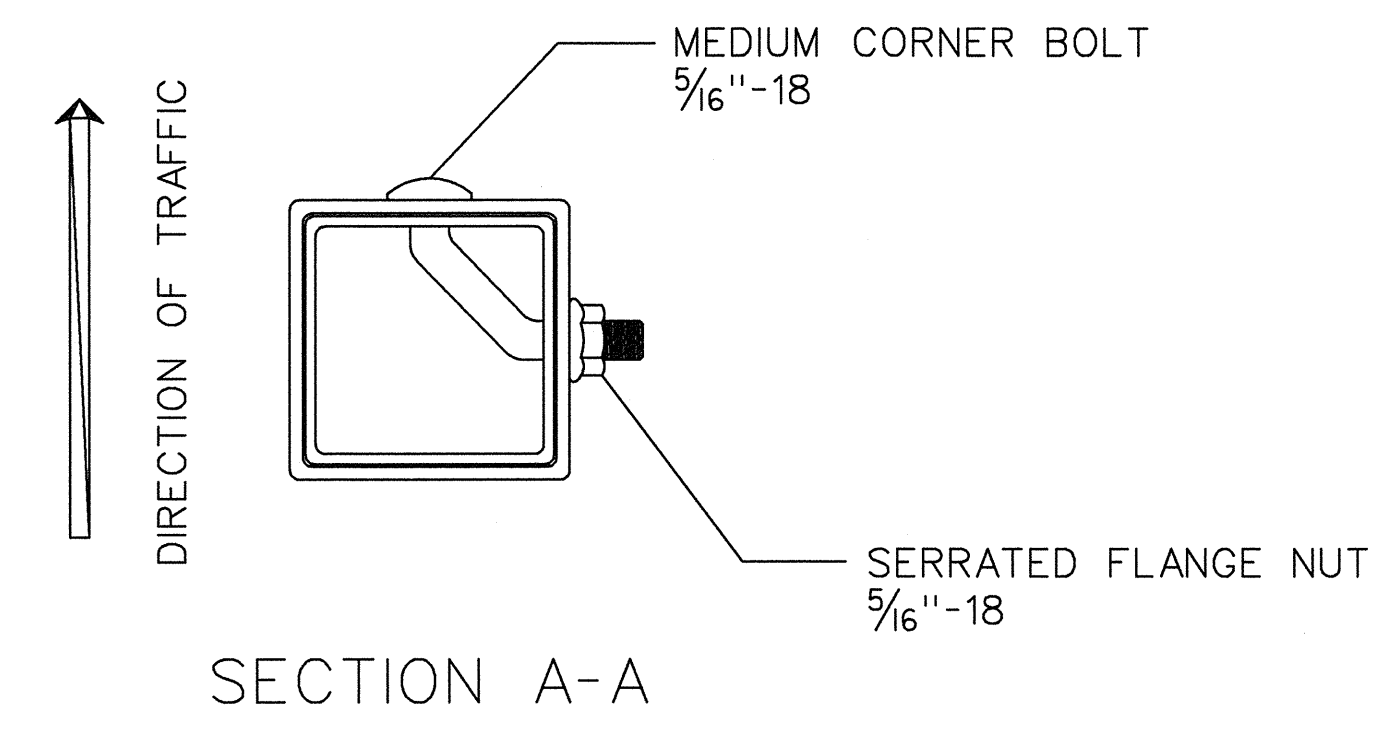
| DATE | REVISIONS | GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE OF TRAFFIC OPERATIONS |
|---------|--|--|
| 3/31/00 | CHANGED U-CHANNEL POST TO SQUARE TUBE POST | DETAILS FOR TYPICAL FRAMING |
| | | NO SCALE |
| | | JANUARY 2000 |

| | | | |
|-------|----------------|-----------|--------------|
| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
| GA. | | | |



FRONT VIEW

| POST | STUB SIZE |
|--------|-----------------|
| TYPE 7 | 2 1/4" x 2 1/4" |
| TYPE 8 | 2 3/4" x 2 3/4" |
| TYPE 9 | 2 1/2" x 2 1/2" |



SECTION A-A

SIGN POST SELECTION CHART

70 MPH Wind Load Chart + 15% Gust Factor

| Sign Centroid | SLIP BASE NOT REQUIRED | | | | GROUND MOUNTED BREAKAWAY SIGN SUPPORT REQUIRED | | | | | |
|---------------|------------------------|--------|------------------------|-------------------------|--|--------|--|--------|--------|--|
| | TYPE 7 2" 1/4 ga. | | TYPE 9 2-1/4" 14 ga | TYPE 8 2-1/2" 12 ga. | TYPE 8 2-1/2" 12 ga. | | TYPE 8 w / TYPE 9 Insert* 2-1/2" 12 ga. W / 2-1/4" 14 ga. | | | |
| | 1 Post | 2 Post | 1 Post | 1 Post | 2 Post | 3 Post | 1 Post | 2 Post | 3 Post | |
| | SQUARE FOOTAGE | | | | SQUARE FOOTAGE | | | | | |
| 6' | 13.50 | 27.00 | 19.25 | 30.00 | 60.00 | 90.00 | 49.25 | 98.50 | 147.75 | |
| 7' | 11.60 | 23.20 | 16.50 | 25.75 | 51.50 | 77.25 | 42.25 | 84.50 | 126.75 | |
| 8' | 10.15 | 20.30 | 14.45 | 22.55 | 45.10 | 67.65 | 37.00 | 74.00 | 111.00 | |
| 9' | 9.00 | 18.00 | 12.85 | 20.00 | 40.00 | 60.00 | 32.85 | 65.70 | 98.55 | |
| 10' | 8.10 | 16.20 | 11.55 | 18.00 | 36.00 | 54.00 | 29.55 | 59.10 | 88.65 | |
| 11' | 7.40 | 14.80 | 10.50 | 16.40 | 32.80 | 49.20 | 26.90 | 53.80 | 80.70 | |
| 12' | 6.80 | 13.60 | 9.65 | 15.00 | 30.00 | 45.00 | 24.65 | 49.30 | 73.95 | |
| 13' | 6.25 | 12.50 | 8.90 | 13.85 | 27.70 | 41.55 | 22.75 | 45.50 | 68.25 | |
| 14' | 5.80 | 11.60 | 8.25 | 12.90 | 25.80 | 38.70 | 21.15 | 42.30 | 63.45 | |
| 15' | 5.00 | 10.00 | 6.45 | 10.10 | 20.20 | 30.30 | 16.55 | 33.10 | 49.65 | |
| 16' | 4.70 | 9.40 | 6.05 | 9.45 | 18.90 | 28.35 | 15.50 | 31.00 | 46.50 | |
| 17' | 4.40 | 8.80 | 5.70 | 8.90 | 17.80 | 26.70 | 14.60 | 29.20 | 43.80 | |
| 18' | 4.15 | 8.30 | 5.40 | 8.40 | 16.80 | 25.20 | 13.80 | 27.60 | 41.40 | |
| 19' | 3.95 | 7.90 | 5.10 | 7.95 | 15.90 | 23.85 | 13.05 | 26.10 | 39.15 | |
| 20' | 3.75 | 7.50 | 4.85 | 7.55 | 15.10 | 22.65 | 12.40 | 24.80 | 37.20 | |

SIGN CENTROID IS DISTANCE FROM GROUND LEVEL TO BOTTOM OF SIGN PLUS HALF THE HEIGHT OF SIGN.
 EXAMPLE: 24" X 48" SIGN THAT IS 7 FEET FROM GROUND TO BOTTOM OF SIGN. ADD HALF OF 48" (24" OR 2 FT) PLUS 7 FT. = 9' CENTROID.

SIGN PLATE SHALL NOT EXCEED 48" IN WIDTH ON A SINGLE POST.

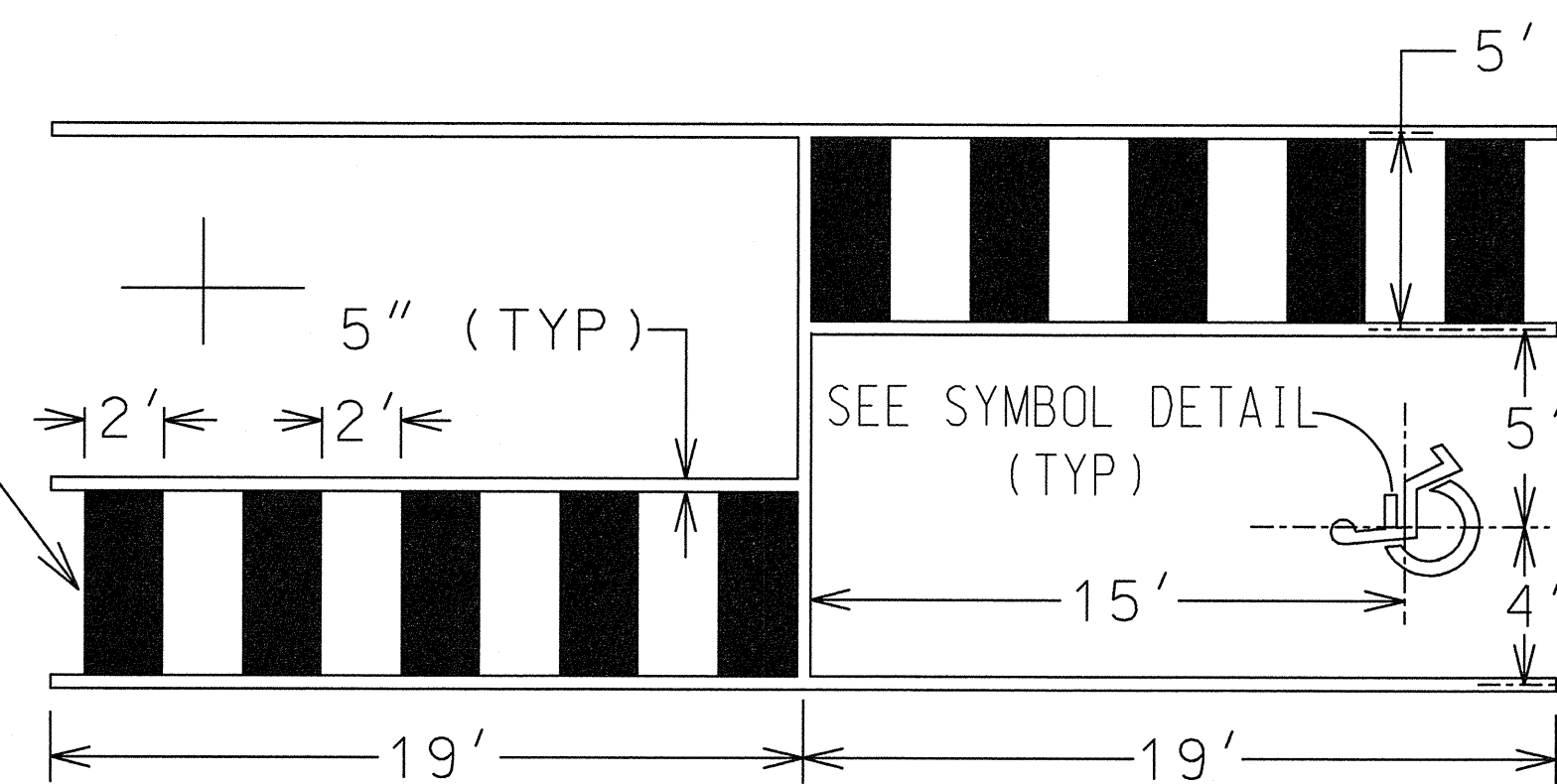
* TYPE 9 INSERT SHALL BE A CONTINUOUS POST INSERTED INTO THE TYPE 8 POST WHERE REQUIRED. THE INSERT POST SHALL EXTEND FROM THE BOTTOM OF THE SLIP BASE UPPER ASSEMBLY TO 4" BELOW THE BOTTOM OF THE SIGN. THE INSERT POST SHALL NOT EXTEND ABOVE THE BOTTOM OF THE SIGN. PAYMENT FOR THE INSERT POST SHALL BE PER LINEAR FOOT OF TYPE 9 POST.

GROUND MOUNTED BREAKAWAY SIGN SUPPORT WILL BE MEASURED AND PAID FOR SEPARATELY. THE COST FOR THIS WORK SHALL INCLUDE THE UPPER AND LOWER ASSEMBLY, STUB POST, CLASS "A" CONCRETE, ALL HARDWARE NECESSARY TO COMPLETE THE INSTALLATION, AND BE INCLUDED IN THE BID PRICE SUBMITTED FOR ITEM 636-3010.

| DATE | REVISIONS | GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE OF TRAFFIC SAFETY & DESIGN |
|------|-----------|---|
| | | TYPE 7, 8, AND 9 SQUARE TUBE POST INSTALLATION DETAIL |
| | | NO SCALE JULY 2002 |

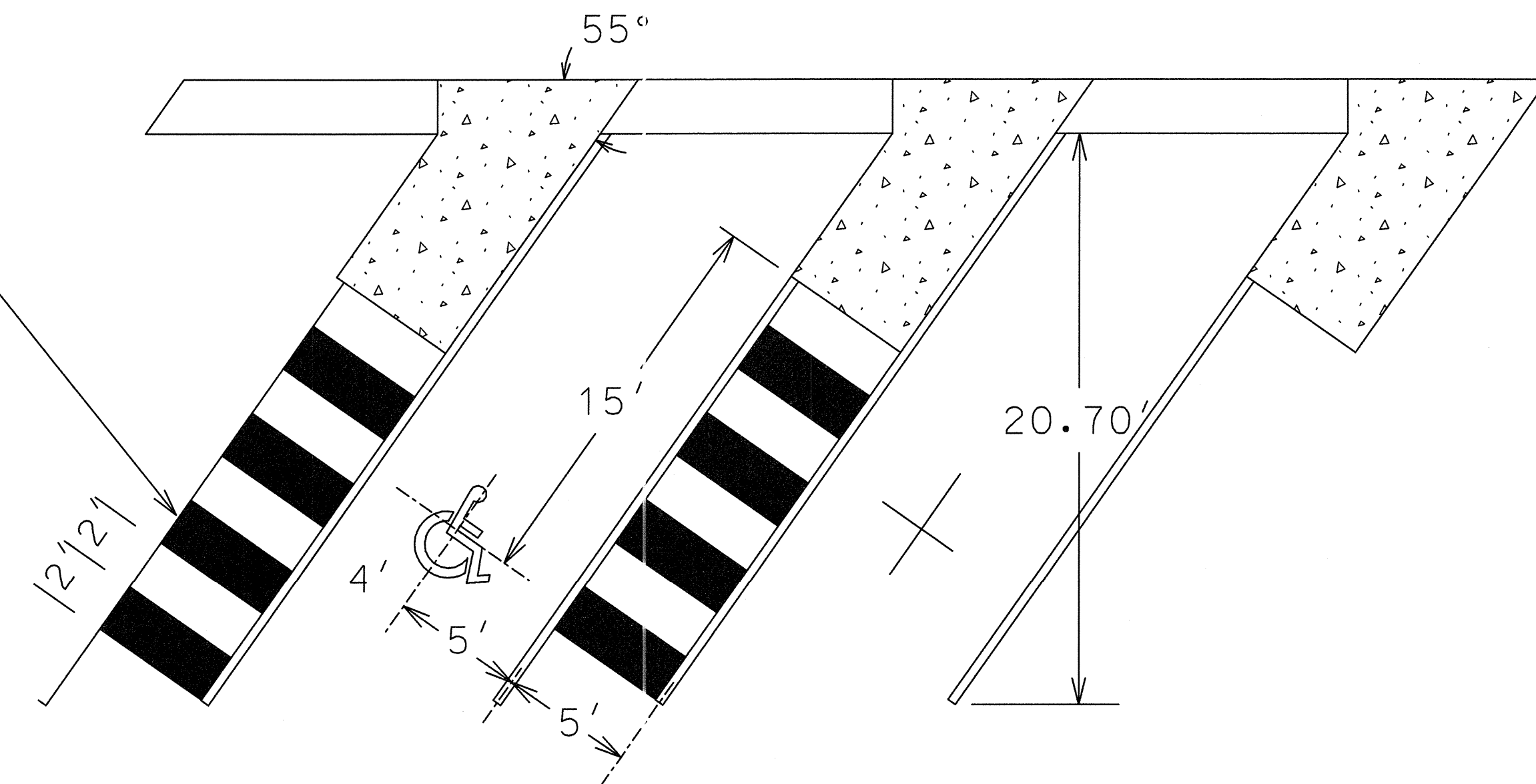
| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|-------|----------------|-----------|--------------|
| GA. | | | |

REQ'D. 6.22 SQ. YDS.- WHITE *
(PER EACH PARKING SPACE)



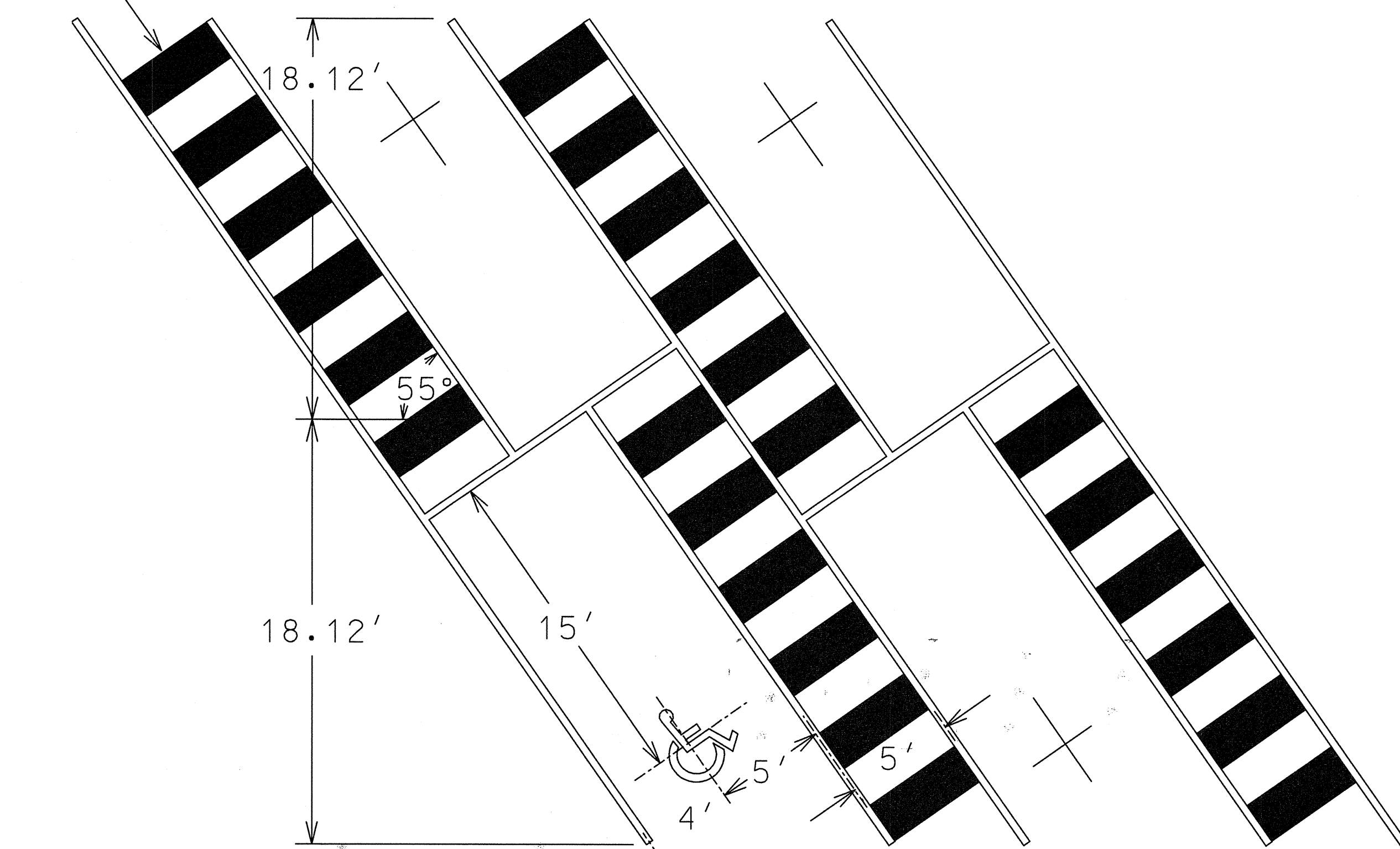
PERPENDICULAR PARKING

REQ'D. 4.15 SQ. YDS.- WHITE *
(PER EACH PARKING SPACE)

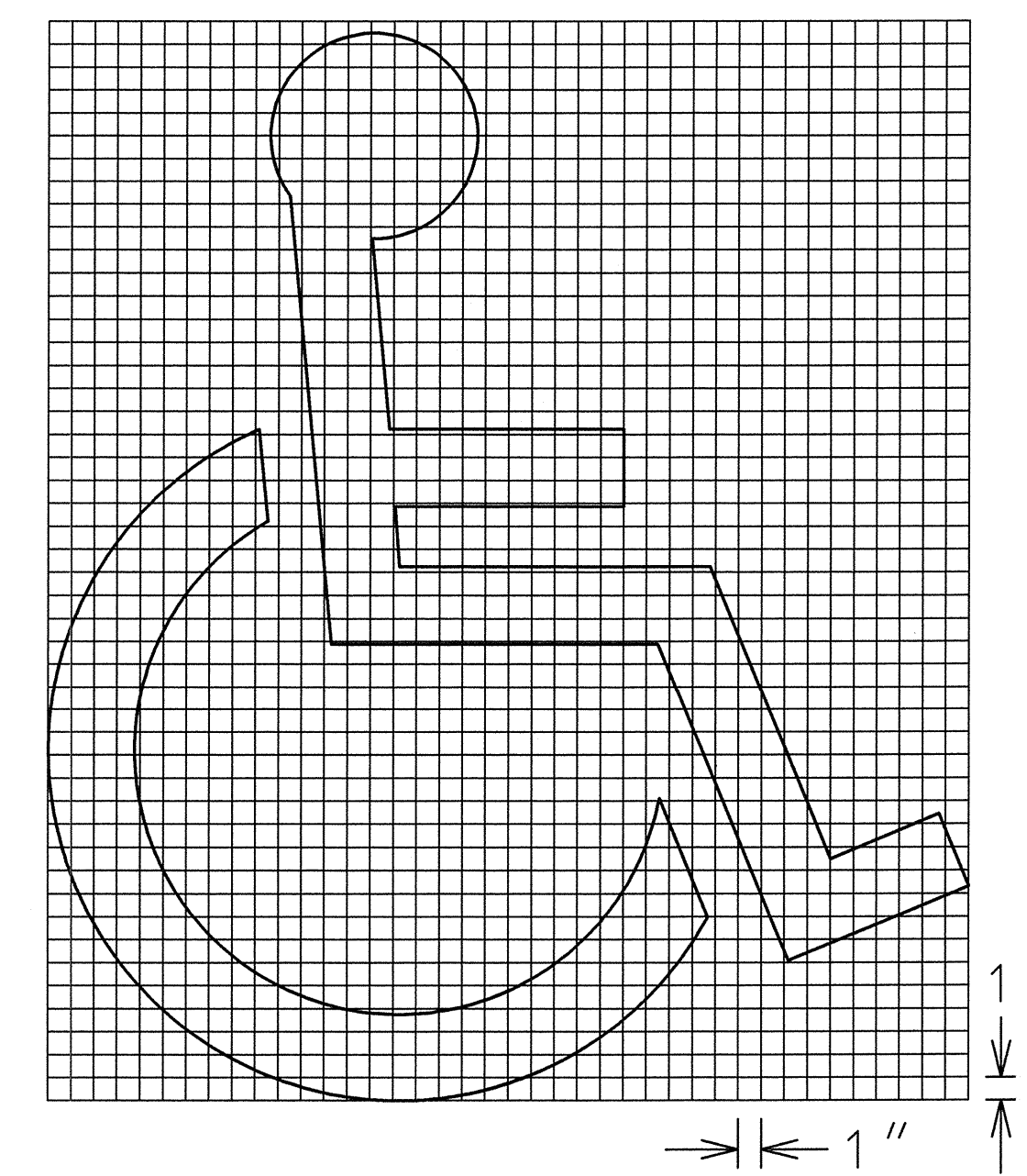


SINGLE ROW 55° ANGULAR PARKING
WITH RAMP

REQ'D. 5.19 SQ. YDS.- WHITE *
(PER EACH PARKING SPACE)



DOUBLE ROW 55° ANGULAR PARKING



HANDICAPPED SYMBOL DETAIL
- NO SCALE -

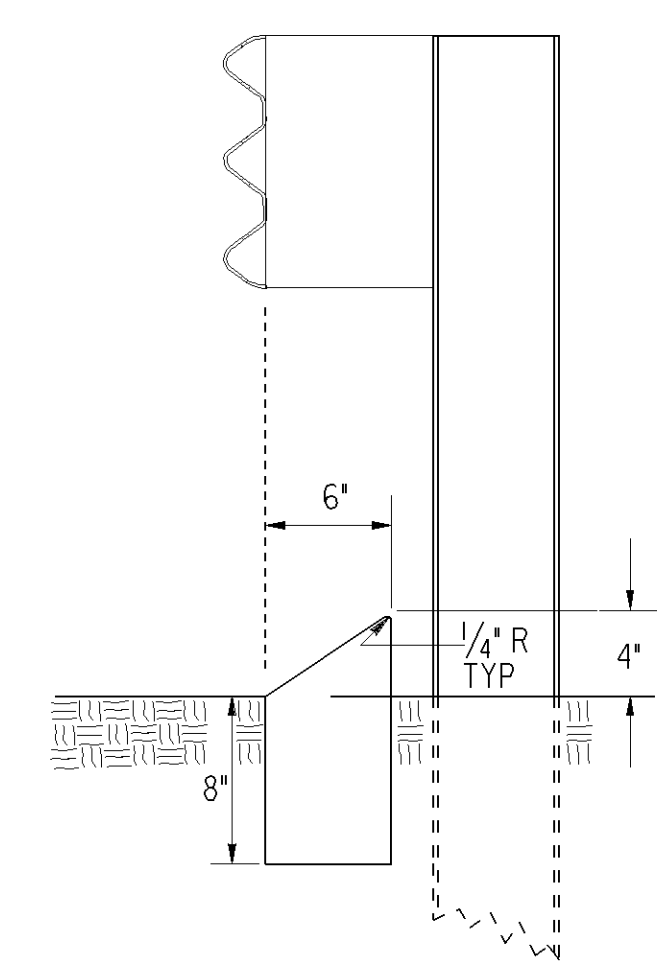
* SQ. YDS. STRIPING MEASUREMENT SHALL BEGIN AND END WITH A MARKED STRIPE AND SHALL NOT INCLUDE PARKING LANE LINES. PARKING LANE LINES SHALL BE PAID FOR PER LINEAR FOOT.

| DATE | REVISIONS | GEORGIA DEPARTMENT OF TRANSPORTATION OFFICE OF TRAFFIC SAFETY & DESIGN |
|------|-----------|--|
| | | DETAILS OF HANDICAPPED PAVEMENT MARKINGS |
| | | NO SCALE JANUARY 2000 |

| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
|-------|----------------|-----------|--------------|
| GA. | | | |

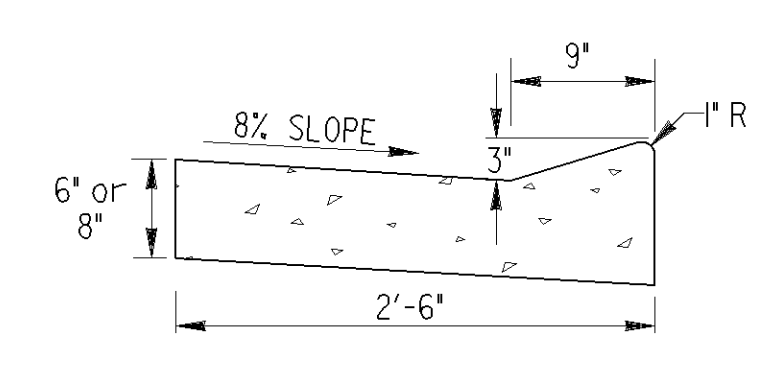
RAISED EDGE WITH CONCRETE GUTTER

FACE OF CURB MUST ALIGN WITH BACK EDGE OF GUARDRAIL AND THE FACE OF THE OFFSET BLOCK.



TYPE 8

TYPE 8 CURB IS USED IN CONJUNCTION WITH GUARDRAIL CONNECTIONS TO CONCRETE BARRIER AS NOTED ON GA. STD. 4012C.

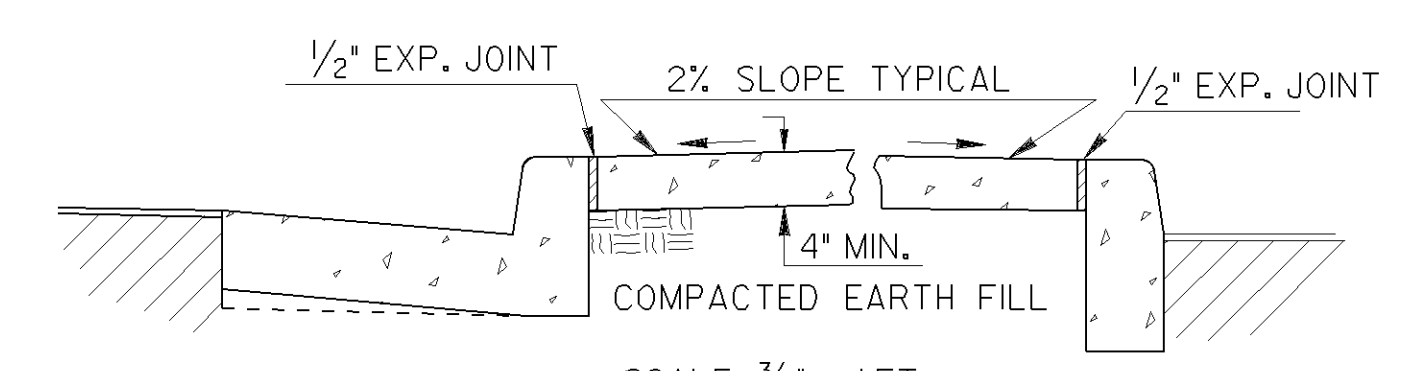


SCALE: 1" = 1 FT.

RAISED EDGE TO BE CONSTRUCTED WITH SAME CONCRETE MIX AS THE GUTTER AND SHALL BE FORMED MONOLITHIC WITH GUTTER. JOINTS IN RAISED EDGE SHALL MATCH THOSE IN THE GUTTER.

CONCRETE MEDIAN (Between Curbs)

NOTE: CURB TYPES SHOWN ARE TYPICAL. OTHER TYPES MAY BE SPECIFIED.



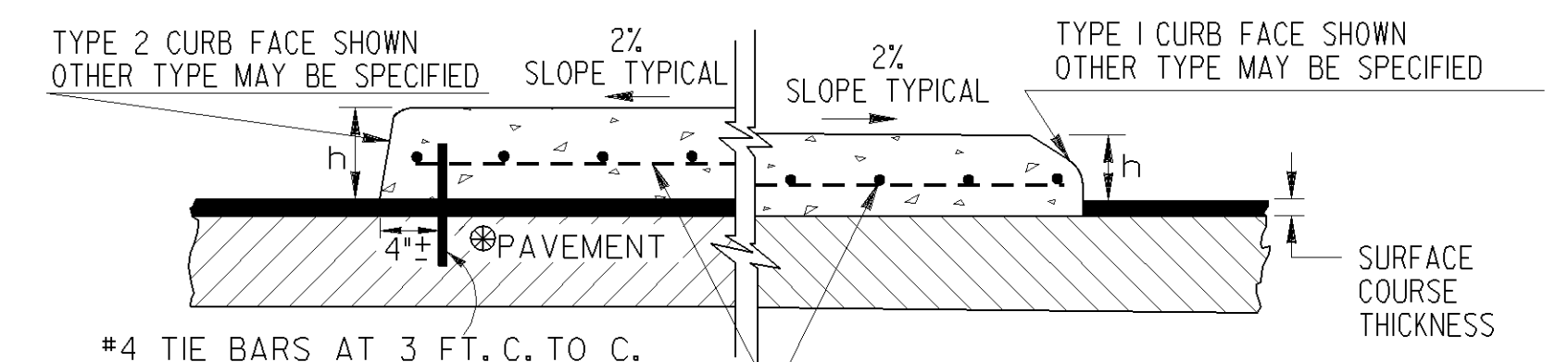
SCALE: 3/4" = 1 FT.

NOTE: WIDTH OF CONCRETE MEDIAN WILL BE AS SHOWN IN PLANS

CONCRETE MEDIANS (Integral)

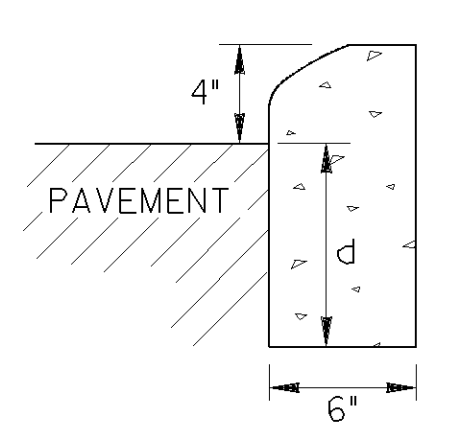
SCALE: 1" = 1 FT.

-WITH TIE BARS- -WITHOUT TIE BARS-



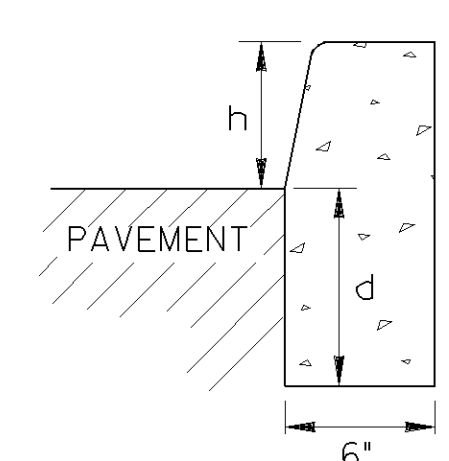
NOTE: IF FINAL SURFACE COURSE IS PRESENT OR MUST BE INSTALLED BEFORE THE CONCRETE MEDIAN CAN BE INSTALLED, THEN DOWELED IN CONCRETE MEDIAN IS REQUIRED.

CONCRETE HEADER CURBS

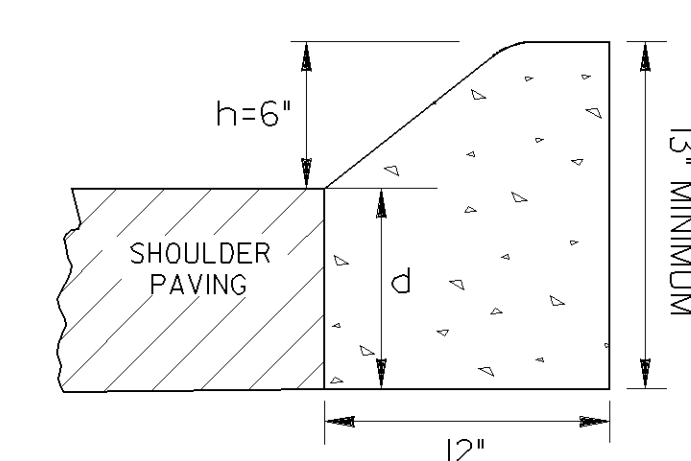


TYPE 1

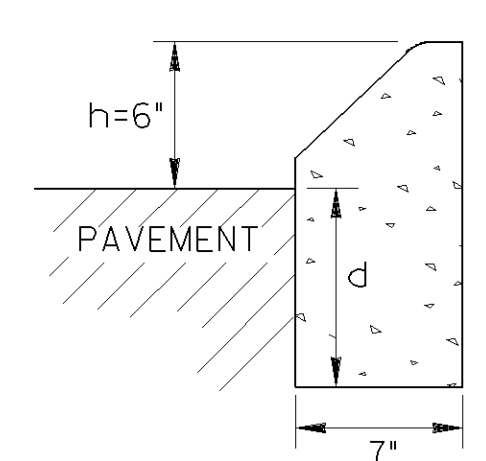
| CURB TYPE | h | d |
|-----------|-----|----------|
| 1 | 4" | 6" min. |
| 2 | 6" | 8" min. |
| 3 | 8" | 10" min. |
| 4 | 10" | 12" min. |
| 6 | 6" | 7" min. |
| 7 | 6" | 8" min. |
| 9 | 4" | 8" min. |



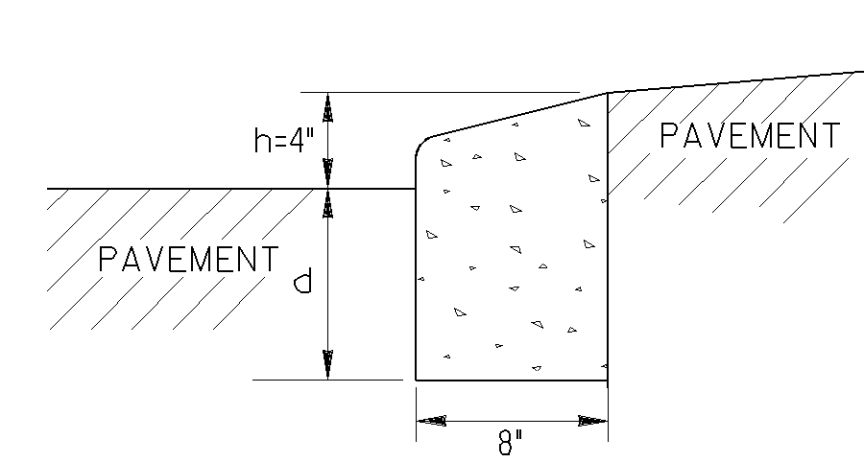
TYPE 2, 3 OR 4



TYPE 6



TYPE 7



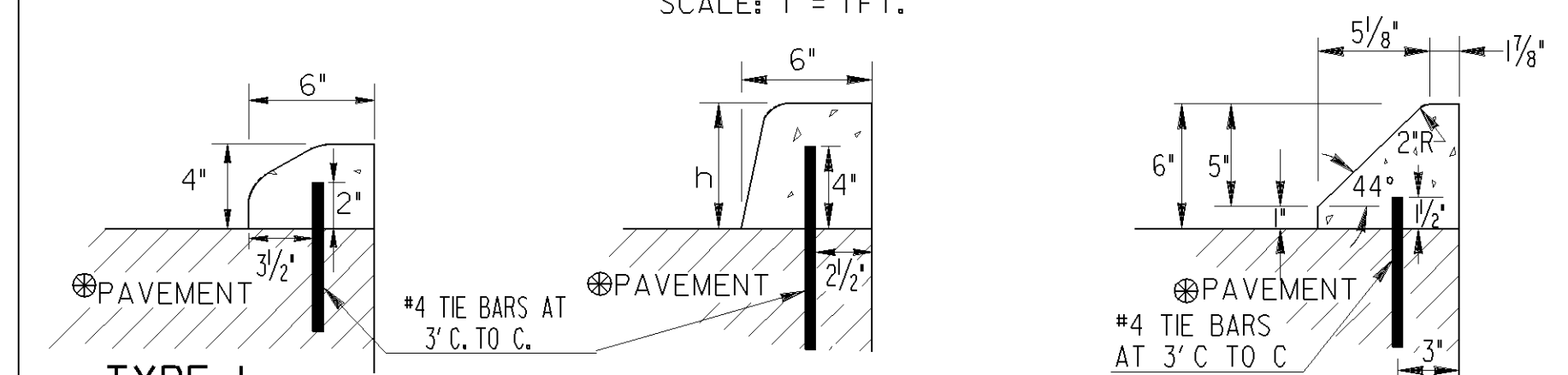
TYPE 9
TRUCK APRON
IN ROUNDABOUTS

THE DIMENSION d MAY BE INCREASED AT CONTRACTOR'S OPTION SO BOTTOM OF HEADER CURB WILL ALIGN WITH BOTTOM OF PAVEMENT TYPICAL SECTION.

SCALE: 1/2" = 1 FT.

CONCRETE DOWELED INTEGRAL CURBS

SCALE: 1" = 1 FT.



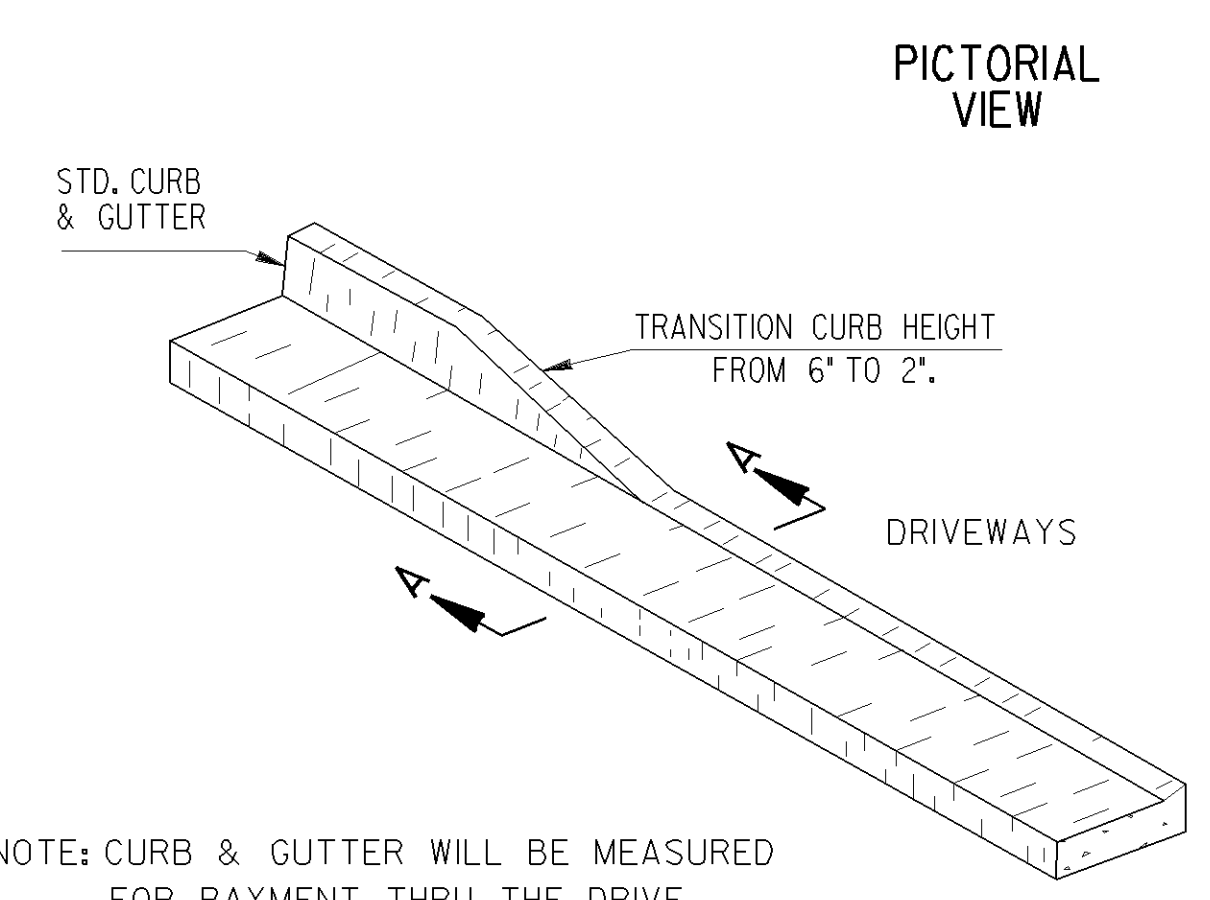
- NOTES:
- CONCRETE CURB CAN BE INSTALLED AFTER INITIAL SET AS LONG AS TIE BARS ARE DRILLED INTO UNDERLYING CONCRETE PAVEMENT.
 - CONCRETE CURB CAN BE INSTALLED BEFORE INITIAL SET WITH DOWELS THAT ARE DRIVEN INTO UNDERLYING CONCRETE PAVEMENT.
 - JOINTS IN CURB AND CONCRETE MEDIAN WILL MATCH THOSE IN THE CONCRETE PAVEMENT.
 - ALL TYPES OF CONCRETE CURB CAN BE PLACED ON ASPHALT PAVEMENTS WHERE TIE BARS MAY BE EITHER DRIVEN OR DRILLED INTO THE UNDERLYING PAVEMENT. CONTRACTION JOINTS SHALL BE CONSTRUCTED IN CURB OR CONCRETE MEDIAN AT 20 FT. SPACING.

| CURB TYPE | MINIMUM TIE BAR LENGTHS (FOR CONC. DOWELED CURBS OR CONC. MEDIAN) | |
|-----------|---|--------------|
| | P.C. CONC. PAV. | ASPHALT PAV. |
| 1 | 6" | 8" |
| 2, 3 or 4 | 8" | 12" |
| 7 | 6" | 8" |

NOTE: TIE BARS FOR DOWELED CURBS MAY BE UNCOATED PLAIN OR DEFORMED BILLET-STEEL BARS (GRADE 40) AS USED FOR CONCRETE REINFORCEMENT, (AASHTO M-31)

DETAILS OF RECESSED CURB FOR DRIVEWAYS

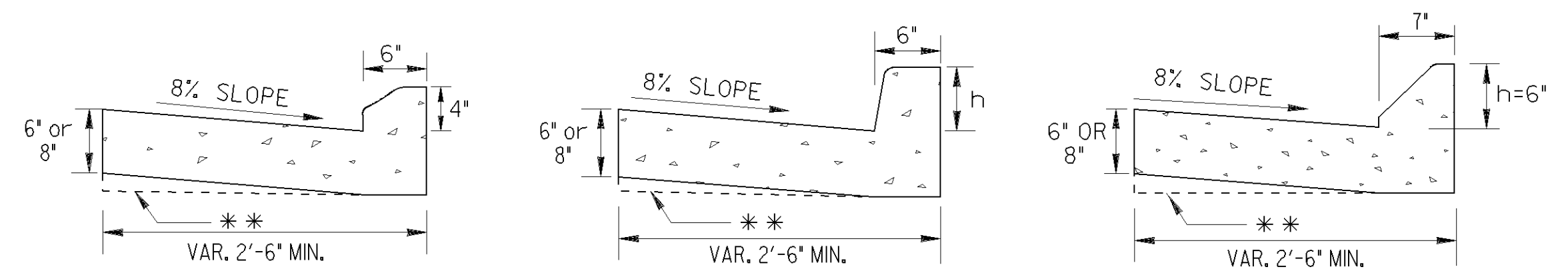
NO SCALE



PICTORIAL VIEW

NOTE: CURB & GUTTER WILL BE MEASURED FOR PAYMENT THRU THE DRIVE

CONCRETE CURB & GUTTER



SCALE: 1" = 1 FT.

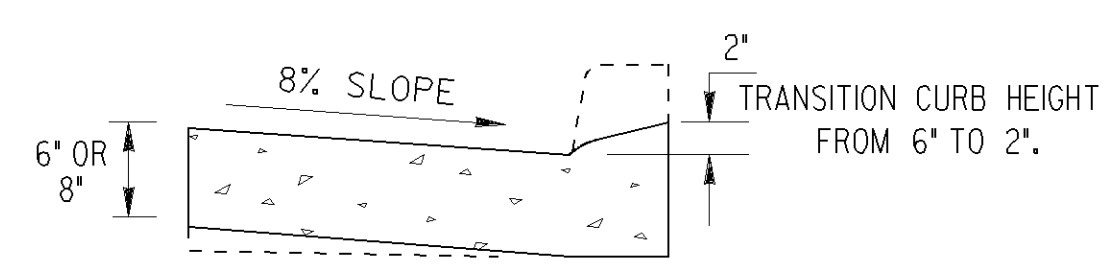
TYPE 1

TYPE 2, 3 OR 4

TYPE 7

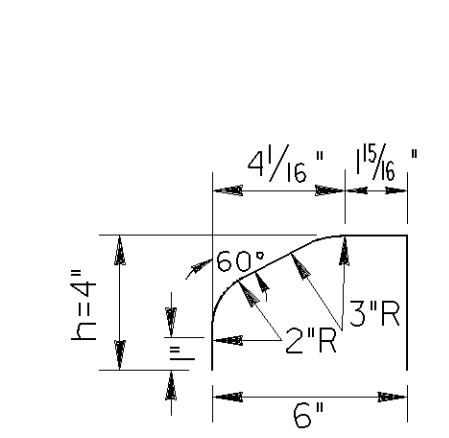
** AT CONTRACTOR'S OPTION THE GUTTER THICKNESS MAY BE INCREASED AT EDGE OF PAVEMENT TO MAKE BOTTOM OF GUTTER PARALLEL WITH PAVING OF BASE COURSE, BUT THE GUTTER THICKNESS MUST NOT BE LESS THAN THE SPECIFIED 6" OR 8" AT ANY POINT.

CURB FACE DESIGN



SECTIONAL VIEW
SECTION A-A

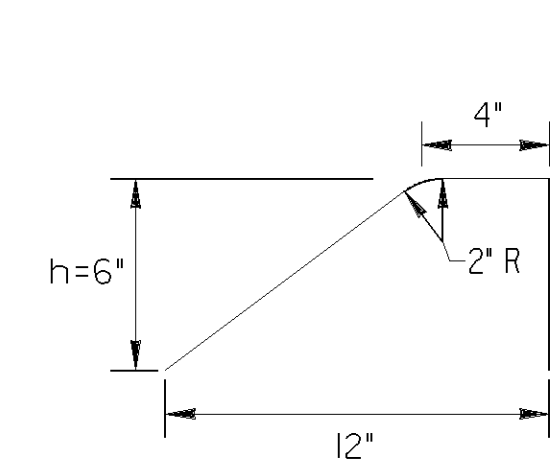
(SEE SEPARATE CONSTRUCTION DETAILS FOR DRIVEWAYS)



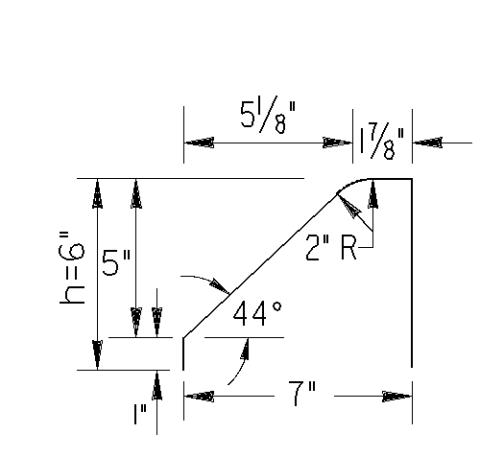
TYPE 1

| TYPE | h |
|------|-----|
| 1 | 4" |
| 2 | 6" |
| 3 | 8" |
| 4 | 10" |
| 6 | 6" |
| 7 | 6" |
| 9 | 4" |

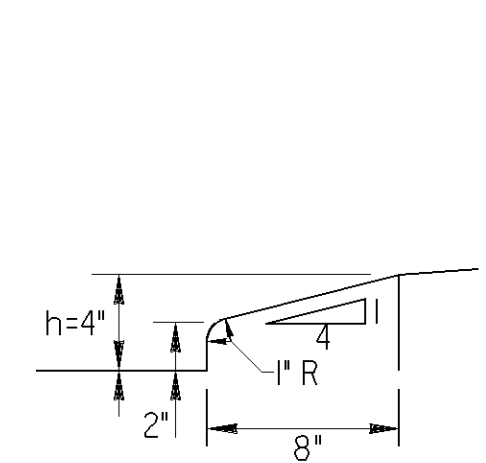
TYPE 2, 3 OR 4



TYPE 6



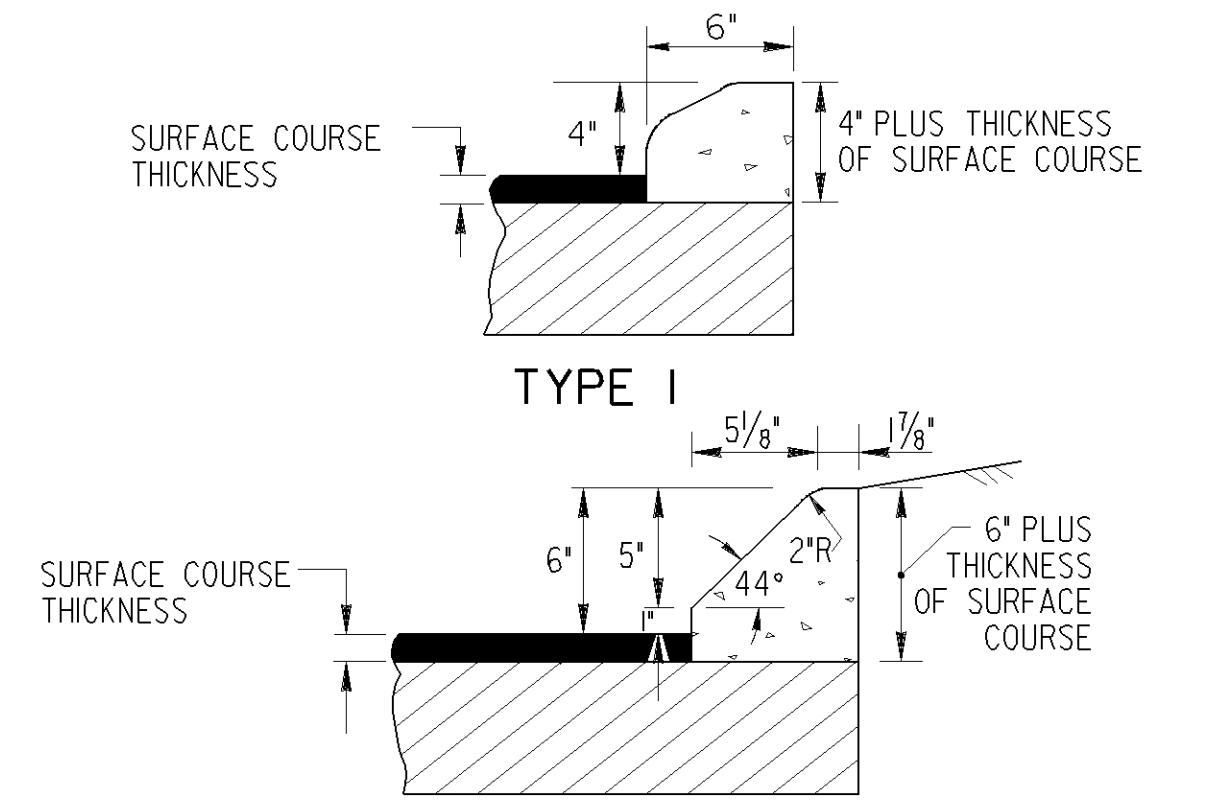
TYPE 7



TYPE 9

SCALE: 2" = 1 FT.

CONCRETE INTEGRAL CURB



TYPE 1

TYPE 7

SCALE: 1/2" = 1 FT.

DEPARTMENT OF TRANSPORTATION
STATE OF GEORGIA

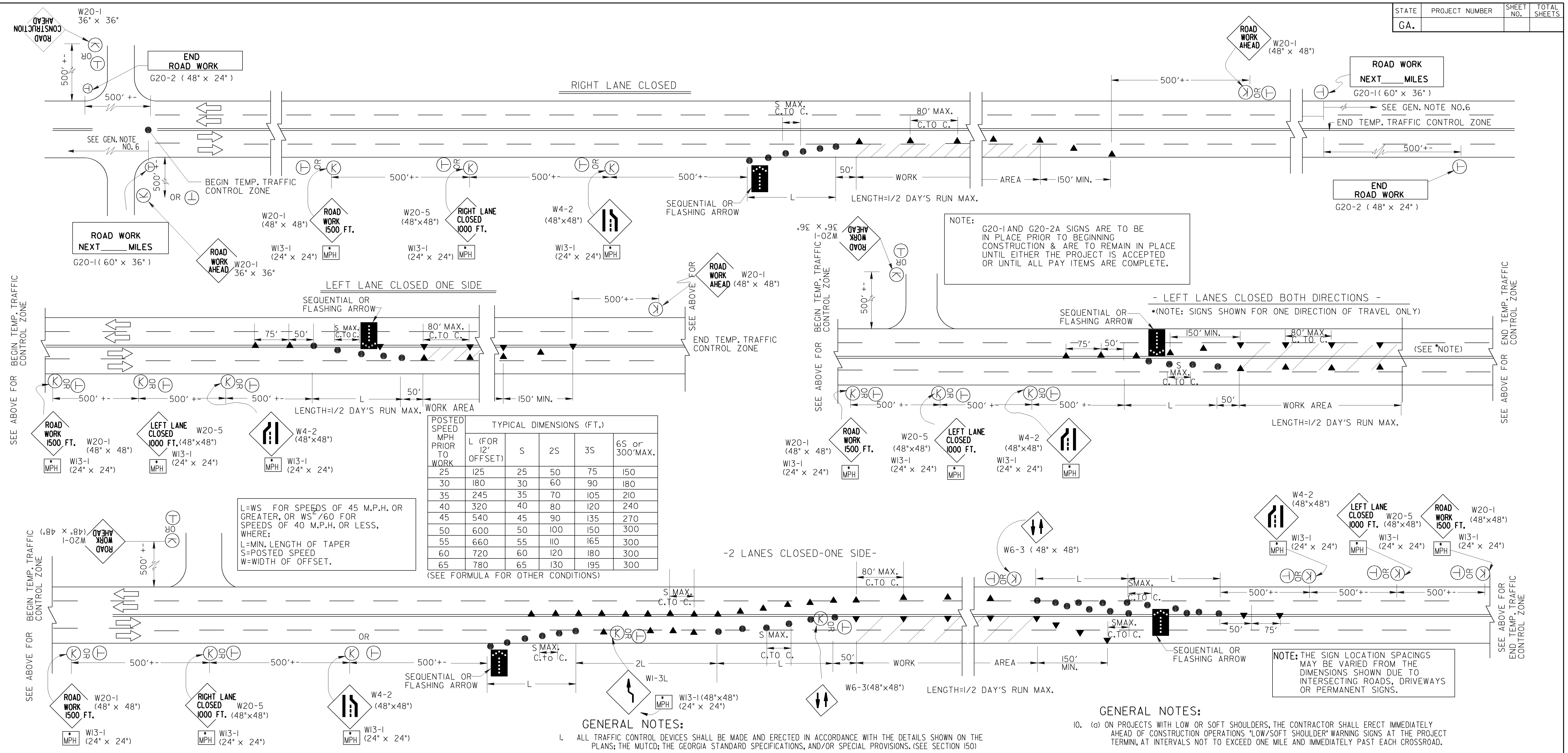
STANDARD
CONCRETE CURB & GUTTER
CONCRETE CURBS, CONCRETE MEDIANS

SCALE: AS SHOWN REVISED AND REDRAWN OCT. 2011

| REV. | DATE | BY | REVISION |
|------|---------|----|---|
| 1 | 11-5-11 | | REV. TYPE 9 CURB DETAIL & REV. OVERALL LAYOUT |
| 2 | 1-27-11 | | REV. MEDIAN NOTE AND ADDED TYPE 9 CURB DETAIL |
| 3 | 3-03 | | ADDED TYPE 9 DETAIL |

| | | |
|------------|------------------------------|--------|
| DES. _____ | (SUBMITTED) <i>B. A. S.</i> | NUMBER |
| DRW. _____ | STATE DESIGN POLICY ENGINEER | 9032B |
| TRA. _____ | (APPROVED) <i>D. M. P.</i> | |
| CHK. _____ | CHIEF ENGINEER | |

| | | | |
|-------|----------------|-----------|--------------|
| STATE | PROJECT NUMBER | SHEET NO. | TOTAL SHEETS |
| GA. | | | |



L=WS FOR SPEEDS OF 45 M.P.H. OR GREATER, OR WS²/60 FOR SPEEDS OF 40 M.P.H. OR LESS, WHERE:
 L=MIN. LENGTH OF TAPER
 S=POSTED SPEED
 W=WIDTH OF OFFSET.

NOTE: G20-1 AND G20-2A SIGNS ARE TO BE IN PLACE PRIOR TO BEGINNING CONSTRUCTION & ARE TO REMAIN IN PLACE UNTIL EITHER THE PROJECT IS ACCEPTED OR UNTIL ALL PAY ITEMS ARE COMPLETE.

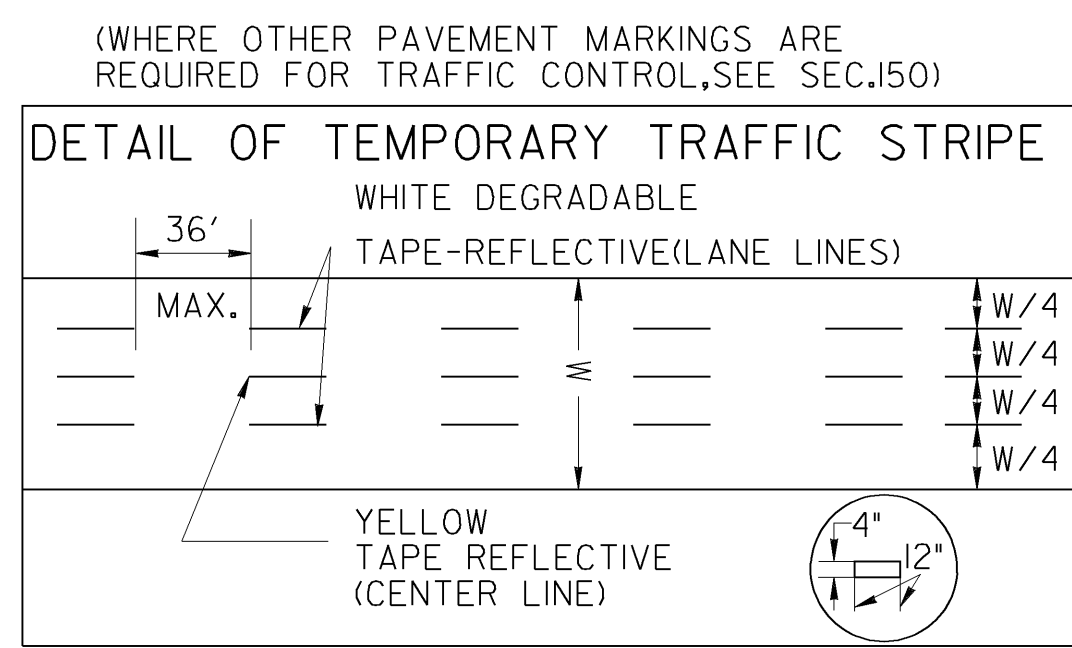
NOTE: THE SIGN LOCATION SPACINGS MAY BE VARIED FROM THE DIMENSIONS SHOWN DUE TO INTERSECTING ROADS, DRIVEWAYS OR PERMANENT SIGNS.

FOR LOCATIONS ON THIS PROJECT INVOLVING ADDED TURN LANES, THE DISTRICT TRAFFIC OPERATIONS OFFICE WILL FURNISH A SCHEMATIC DRAWING OF THE TEMPORARY PAVEMENT MARKINGS AT THE PRE-CONSTRUCTION CONFERENCE.

WHEN TEMPORARY OPERATING SPEEDS ARE LESS THAN THE POSTED SPEED LIMIT, THE ADVISORY SPEED PLATES (W13-I) SHALL BE USED IN 10 M.P.H. INCREMENTS, UNTIL THE SPEED IS REDUCED TO THE TEMPORARY OPERATING SPEED.

STANDARD LEGEND

- STRIPED DRUM
- ⊕ TEMPORARY POST MOUNTED SIGN (OFF SHOULDER) --FOR LONG TERM LANE CLOSURE SUCH AS STATIONARY OPERATIONS, BRIDGE WIDENING PROJECTS ETC. - (7' MOUNT HEIGHT)
- Ⓚ PORTABLE MOUNTED SIGN (ON SHOULDER) --FOR SHORT TERM LANE CLOSURE SUCH AS MOVING OPERATIONS, RESURFACING PROJECTS, ETC. (SEE GENERAL NOTE, NO. 3)
- ▲ TRAFFIC CONE - 28" MIN. (DAYTIME USE ONLY)
- ▬ SEQUENTIAL OR FLASHING ARROW
- ▨ WORK AREA



GENERAL NOTES:

10. (a) ON PROJECTS WITH LOW OR SOFT SHOULDERS, THE CONTRACTOR SHALL ERECT IMMEDIATELY AHEAD OF CONSTRUCTION OPERATIONS "LOW/SOFT SHOULDER" WARNING SIGNS AT THE PROJECT TERMINI, AT INTERVALS NOT TO EXCEED ONE MILE AND IMMEDIATELY PAST EACH CROSSROAD.
- (b) WHERE THE CONTRACTOR IS NOT RESPONSIBLE FOR SHOULDER CONSTRUCTION, THE DEPARTMENT WILL FURNISH THESE SIGNS FOR THE CONTRACTOR TO PICK-UP, TRANSPORT AND ERECT, THE DEPARTMENT WILL LATER REMOVE AND RETAIN THE SIGNS.
11. HIGHWAY WORK ZONE SIGNS (HWZ-2 AND HWZ-3) SHALL BE INSTALLED ON THE TRAVEL WAY AND THE INTERSECTING ROADWAY AS REQUIRED IN SECTION 150.
12. THE G20-SIGNS SHOULD BE PLACED AT EACH TERMINUS OF THE PROJECT, PREFERABLY BETWEEN THE LAST ADVANCE WARNING SIGN(ROAD WORK- 500 FT.) AND BEFORE THE ADVANCE WARNING SIGNS FOR LANE SHIFTS, LANE CLOSURES, ETC.

| | | | | | |
|------------------------|--|---|--------------------------------------|---|--|
| 3-30-06 | | DATE | | DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA | |
| REMOVED FLAGS AND REV. | GENERAL NOTES REV. SIGN G20-2A TO G20-2. | REVISION | DATE | STANDARD TRAFFIC CONTROL DETAIL FOR LANE CLOSURE ON MULTI-LANE UNDIVIDED HIGHWAY | |
| | | | | | |
| GLO | BY | DES. (SUBMITTED) <i>B.A.H.</i> | STATE ROAD & AIRPORT DESIGN ENGINEER | NUMBER 9107 | |
| | | TRA. (APPROVED) <i>O.S. [Signature]</i> | CHIEF ENGINEER | | |

PRIMARY PERMITEE:
CITY OF ROSWELL
STEVE ACENBRAK
38 HILL STREET, SUITE 235
ROSWELL GA, 30076
770-594-6510



ESPCP GENERAL NOTES

I certify under penalty of law that this Plan was prepared after a site visit to the locations described herein by myself or my authorized agent, under my supervision.

The escape of sediment from the site shall be prevented by the installation of erosion and sedimentation control measures and practices prior to, or concurrent with, land-disturbing activities.

Erosion and sedimentation control measures will be maintained at all times during this project. If full implementation of this approved plan does not provide effective erosion and sedimentation control, additional erosion and sedimentation control measures shall be implemented to control or treat the sediment source.

Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding.

The receiving waters for this project is the Big Creek. The stream buffers are not impacted by this project.

The total disturbed area for this project is 0.19 acres. A Notice of Intent (NOI) is not required.

The Runoff Coefficient of the disturbed area before construction activities ("C Before") is 0.70
 The Runoff Coefficient of the disturbed area after construction activities ("C After") is 0.66

The main construction activities involved in this project include grading, paving, and reestablishment of permanent grassing in the disturbed area.

Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation without first acquiring the necessary variances and permits.

SOIL SERIES INFORMATION

The following is a summary of the soils that are expected to be found on the project site:

| MAP UNIT SYMBOL | MAP UNIT NAME |
|-----------------|---|
| Ub | Urban land |
| UmC2 | Urban land-Madison-Bethlehem complex, 2-10% slopes, moderately eroded |

Due to the size and scope of this project and the nature of soil series maps, it is not reasonably practical to delineate the precise locations of the above listed soils on the construction plans. The NRCS soil survey and soil series maps for the project site are also available online at <http://websoilsurvey.nrcs.usda.gov/>.

CONTOUR DISPLAY AND WATERSHED NOTE:

Due to the size and scope of this project, it is not practical to display the existing and proposed contour lines in the project vicinity on a USGS 1":2000' topographical sheet. The existing and proposed contours are shown with greater clarity on sheet 54-001 at 1":20' scale.

VEGETATION AND PLANTING SCHEDULE

All temporary and permanent vegetative practices including plant species, planting dates, seeding, fertilizing, liming and mulching for this project can be found in section 700 of the current edition of the Department's Standard Specifications (or Special Provisions) and other applicable contract documents, or landscaping plans.

PETROLEUM STORAGE, SPILLS AND LEAKS

These plans expressly delegate the responsibility of proper on-site hazardous material management to the Contractor. The Contractor shall at a minimum provide an action plan and keep the necessary materials on site for the capture, clean up, and disposal of any petroleum product, or other hazardous material, leaks or spills associated with the servicing, refueling or operation of any equipment utilized at the site. A copy of the action plan shall be submitted to the Project Engineer and maintained on the project site. All personnel operating or servicing equipment shall be familiar with the action plan. The Contractor shall not park, refuel, or maintain equipment within stream buffers.

EROSION, SEDIMENTATION & POLLUTION CONTROL PLAN CHECKLIST
INFRASTRUCTURE CONSTRUCTION PROJECTS

SWCD: District 4 - Fulton County

Project Name: Oxbo One-Way Pair **Address:** Oxbo Drive, Roswell, GA 30075
City/County: Roswell/Fulton **Date on Plans:** 2/5/2016

| Plan Page # | Included Y/N | TO BE SHOWN ON ES&PC PLAN | Plan Page # | Included Y/N | TO BE SHOWN ON ES&PC PLAN |
|-------------|--------------|--|---------------|--------------|---|
| 51-001 | Y | 2 Level II certification number issued by the Commission, signature and seal of the certified design professional. (Signature, seal and Level II number must be on each sheet pertaining to ES&PC Plan or the Plan will not be reviewed) | 51-001 | N/A | 27 Description of the practices that will be used to reduce the pollutants in storm water discharges.* |
| 51-001 | Y | 3 The name and phone number of the 24-hour local contact responsible for erosion, sedimentation and pollution controls. | | Y | 28 Description and chart or timeline of the intended sequence of major activities which disturb soils for the major portions of the site (i.e., initial perimeter and sediment storage BMPs, clearing and grubbing activities, excavation activities, utility activities, temporary and final stabilization). |
| 51-001 | Y | 4 Provide the name, address and phone number of primary permittee. | | N/A | 29 Provide complete requirements of inspections and record keeping by the primary permittee.* |
| 51-001 | Y | 5 Note total and disturbed acreage of the project or phase under construction. | | N/A | 30 Provide complete requirements of sampling frequency and reporting of sampling results.* |
| 51-001 | Y | 6 Provide the GPS locations of the beginning and end of the Infrastructure project. Give the Latitude and Longitude in decimal degrees. | | N/A | 31 Provide complete details for retention of records as per Part IV.F. of the permit.* |
| 51-001 | Y | 7 Initial date of the Plan and the dates of any revisions made to the Plan including the entity who requested the revisions. | | N/A | 32 Description of analytical methods to be used to collect and analyze the samples from each location.* |
| 51-001 | Y | 8 Description of the nature of construction activity. | | N/A | 33 Appendix B rationale for NTU values at all outfall sampling points where applicable.* |
| 01-001 | Y | 9 Provide vicinity map showing site's relation to surrounding areas. Include designation of specific phase, if necessary. | | N/A | 34 Delineate all sampling locations, perennial and intermittent streams and other water bodies into which storm water is discharged also provide a summary chart of the justification and analysis for the representative sampling as applicable.* |
| | N/A | 10 Identify the project receiving waters and describe all sensitive adjacent areas including streams, lakes, residential areas, wetlands, marshlands, etc. which may be affected. | | N/A | 35 A description of appropriate controls and measures that will be implemented at the construction site including: (1) initial sediment storage requirements and perimeter control BMPs, (2) intermediate grading and drainage BMPs, and (3) final BMPs. For construction sites where there will be no mass grading and the initial perimeter control BMPs, intermediate grading and drainage BMPs, and final BMPs are the same, the plan may combine all of the BMPs into a single phase.* |
| 51-001 | Y | 11 Design professional's certification statement and signature that the site was visited prior to development of the ES&PC Plan as stated on page 15 of the permit. | 54-001 | Y | 36 Graphic scale and North arrow. |
| | N/A | 12 Design professional's certification statement and signature that the permittee's ES&PC Plan provides for an appropriate and comprehensive system of BMPs and sampling to meet permit requirements as stated on page 15 of the permit.* | 54-001 | Y | 37 Existing and proposed contour lines with contour lines drawn at an interval in accordance with the following: Existing Contours USGS 1": 2000' Topographical Sheets Proposed Contours 1": 400' Centerline Profile |
| | N/A | 13 Design professional certification statement and signature that the permittee's ES&PC Plan provides for representative sampling as stated on page 26 of permit as applicable.* | | N/A | 38 Use of alternative BMPs whose performance has been documented to be equivalent to or superior to conventional BMPs as certified by a Design Professional (unless disapproved by EPD or the Georgia Soil and Water Conservation Commission). Please refer to the Alternative BMP Guidance Document found at www.gaswcc.org . |
| | N/A | 14 Clearly note the statement that "The design professional who prepared the ES&PC Plan is to inspect the installation of the initial sediment storage requirements, perimeter control BMPs, and sediment basins in accordance with part IV.A.5. within 7 days after installation." | | N/A | 39 Use of alternative BMP for application to the Equivalent BMP List. Please refer to Appendix A-2 of the Manual for Erosion & Sediment Control in Georgia 2016 Edition.* |
| | N/A | 15 Clearly note the statement that "Non-exempt activities shall not be conducted within the 25 or 50-foot undisturbed stream buffers as measured from the point of wrested vegetation or within 25-feet of the coastal marshland buffer as measured from the Jurisdictional Determination Line without first acquiring the necessary variances and permits." | | N/A | 40 Delineation of the applicable 25-foot or 50-foot undisturbed buffers adjacent to State waters and any additional buffers required by the Local Issuing Authority. Clearly note and delineate all areas of impact. |
| | N/A | 16 Provide a description of any buffer encroachments and indicate whether a buffer variance is required. | | N/A | 41 Delineation of on-site wetlands and all State waters located on and within 200 feet of the project site. |
| | N/A | 17 Clearly note the statement that "Amendments/revisions to the ES&PC Plan which have a significant effect on BMPs with a hydraulic component must be certified by the design professional." | | N/A | 42 Delineation and acreage of contributing drainage basins on the project site. |
| | N/A | 18 Clearly note the statement that "Waste materials shall not be discharged to waters of the State, except as authorized by a section 404 permit." | | N/A | 43 Delineate on-site drainage and off-site watersheds using USGS 1" :2000' topographical sheets. |
| 51-001 | Y | 19 Clearly note statement that "The escape of sediment from the site shall be prevented by the installation of erosion and sediment control measures and practices prior to land disturbing activities." | 51-001 | Y | 44 An estimate of the runoff coefficient or peak discharge flow of the site prior to and after construction activities are completed. |
| 51-001 | Y | 20 Clearly note statement that "Erosion control measures will be maintained at all times. If full implementation of the approved Plan does not provide for effective erosion control, additional erosion and sediment control measures shall be implemented to control or treat the sediment source." | | N/A | 45 Storm-drain pipe and weir velocities with appropriate outlet protection to accommodate discharges without erosion. Identify/Delineate all storm water discharge points. |
| 51-001 | Y | 21 Clearly note the statement "Any disturbed area left exposed for a period greater than 14 days shall be stabilized with mulch or temporary seeding." | 54-001 | Y | 46 Soil series for the project site and their delineation. |
| | N/A | 22 Any construction activity which discharges storm water into an Impaired Stream Segment, or within 1 linear mile upstream of and within the same watershed as, any portion of an Impaired Stream Segment must comply with Part III. C. of the Permit. Include the completed Appendix 1 listing all the BMPs that will be used for those areas of the site which discharge to the Impaired Stream Segment.* | 54-001 | Y | 47 The limits of disturbance for each phase of construction. |
| | N/A | 23 If a TMDL Implementation Plan for sediment has been finalized for the Impaired Stream Segment (identified in item 22 above) at least six months prior to submittal of NOI, the ES&PC Plan must address any site-specific conditions or requirements included in the TMDL Implementation Plan.* | | N/A | 48 Provide a minimum of 67 cubic yards of sediment storage per acre drained using a temporary sediment basin, retrofitted detention pond, and/or excavated inlet sediment traps for each common drainage location. Sediment storage volume must be in place prior to and during all land disturbance activities until final stabilization of the site has been achieved. A written justification explaining the decision to use equivalent controls when a sediment basin is not attainable must be included in the plan for each common drainage location in which a sediment basin is not provided. A written justification as to why 67 cubic yards of storage is not attainable must also be given. Worksheets from the Manual must be included for structural BMPs and all calculations used by the design professional to obtain the required sediment storage when using equivalent controls. When discharging from sediment basins and impoundments, permittees are required to utilize outlet structures that withdraw water from the surface, unless infeasible. If outlet structures that withdraw water from the surface are not feasible, a written justification explaining this decision must be included in the plan. |
| | N/A | 24 BMPs for concrete washdown of tools, concrete mixer chutes, hoppers and the rear of the vehicles. Washout of the drum at the construction site is prohibited.* | 54-001 | Y | 49 Location of Best Management Practices that are consistent with and no less stringent than the Manual for Erosion and Sediment Control in Georgia. Use uniform coding symbols from the Manual, Chapter 6, with legend. |
| 54-001 | Y | 25 Provide BMPs for the remediation of all petroleum spills and leaks. | 52-001 to 006 | Y | 50 Provide detailed drawings for all structural practices. Specifications must, at a minimum, meet the guidelines set forth in the Manual for Erosion and Sediment Control in Georgia. |
| | N/A | 26 Description of the measures that will be installed during the construction process to control pollutants in storm water that will occur after construction operations have been completed.* | 51-001 | Y | 51 Provide vegetative plan, noting all temporary and permanent vegetative practices. Include species, planting dates and seeding, fertilizer, lime and mulching rates. Vegetative plan shall be site specific for appropriate time of year that seeding will take place and for the appropriate geographic region of Georgia. |

*If using this checklist for a project that is less than 1 acre and not part of a common development but within 200 ft of a perennial stream the * checklist items would be N/A. **Effective January 1, 2016**

24 HOUR CONTACT:
JOE VITALE
770-594-6105

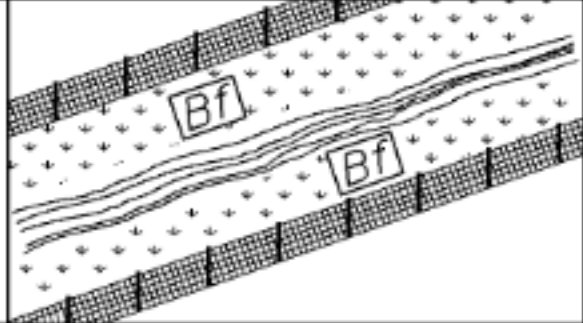

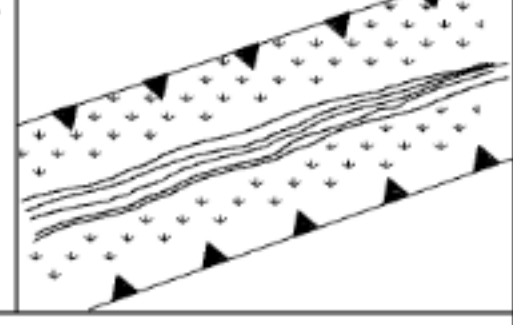

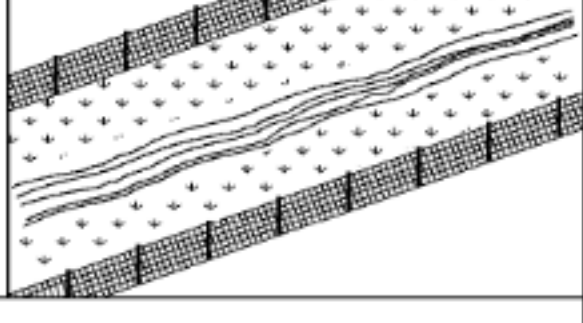



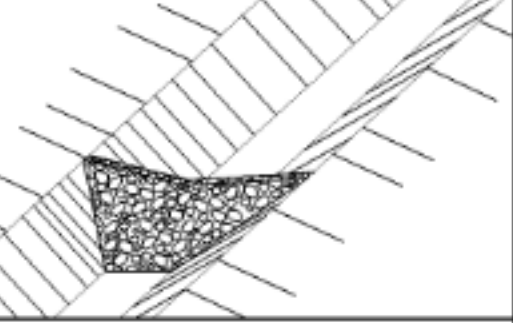

GREGORY J. NICOLAS
 GSWCC LEVEL II CERTIFICATION
 NUMBER 0000065865



REVISION DATES

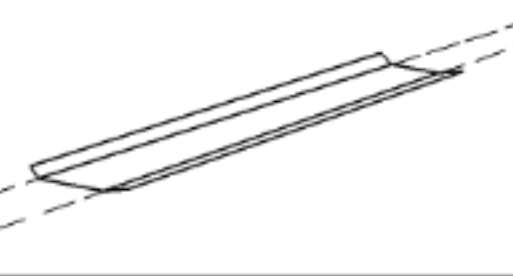







ESPCP GENERAL NOTES

| | | |
|--------------|-------|------------------------------|
| CHECKED: | DATE: | DRAWING No. 51-001 |
| BACKCHECKED: | DATE: | |
| CORRECTED: | DATE: | |
| VERIFIED: | DATE: | |

| CODE | PRACTICE STD : SPC'S : SECTION | DETAIL | DESCRIPTION |
|------|--------------------------------|--|--|
| Bf | | <p>BUFFER ZONE</p>  <p>SYMBOL</p>  | <p>A STRIP OF UNDISTURBED ORIGINAL VEGETATION, ENHANCED OR RESTORED EXISTING VEGETATION, OR THE RE-ESTABLISHMENT OF VEGETATION SURROUNDING AN AREA OF DISTURBANCE OR BORDERING STREAMS, PONDS, WETLANDS, LAKES, AND COASTAL WATERS. THE BOUNDARIES OF THESE AREAS ARE BE DELINEATED BY ORANGE BARRIER FENCE.</p> |
| ESA | | <p>ENVIRONMENTALLY SENSITIVE AREA</p>  <p>LINE CODE</p>  <p>ESA-25' (OR 50') STREAM BUFFER, ETC.</p> | <p>ENVIRONMENTALLY SENSITIVE AREA (ESA) CONTAINS RESOURCES THAT ARE ENVIRONMENTALLY, CULTURALLY, OR HISTORICALLY SENSITIVE. ESA AREAS INCLUDE, BUT ARE NOT LIMITED TO: STATE WATER BUFFERS, ARCHAEOLOGICAL SITES, HISTORIC SITES, AND PROTECTED ANIMAL AND PLANT SPECIES HABITATS. IF WORK IS AUTHORIZED IN THIS AREA, THE WORK MUST BE PERFORMED IN ACCORDANCE WITH SECTION 107 AND ANY OTHER APPLICABLE SPECIAL PROVISIONS AND APPLICABLE PLAN NOTES.</p> |
| | | <p>ORANGE BARRIER FENCE</p>  <p>LINE CODE</p>  <p>ORANGE BARRIER FENCE</p> | <p>ORANGE BARRIER FENCE DELINEATES ESA AREAS WHERE THE CONTRACTOR SHALL NOT CLEAR, GRUB, PLACE CONSTRUCTION MATERIALS OR EQUIPMENT WITHIN THIS AREA.</p> |
| Cd-F | | <p>FABRIC CHECK DAM</p> <p>CONSTRUCTION DETAIL SECTION 171</p>  <p>LINE CODE</p>  | <p>A CHECK DAM COMPOSED OF SYNTHETIC FIBER FABRIC, WIRE REINFORCED, POST, AND BRACING PLACED IN DITCHES IN A SPECIAL CONFIGURATION WHICH CONTROLS ENERGY DISSIPATION AND FILTRATION OF STORM WATER. SEE CONSTRUCTION DETAIL D-24b FOR SPACING REQUIREMENT.</p> <p>THIS ITEM IS SUITABLE FOR USE IN ROADSIDE DITCHES THAT ARE PART OF INFRASTRUCTURE CONSTRUCTION PROJECTS.</p> <p>IF THIS ITEM IS USED IN AN AREA WITHOUT A SEDIMENT BASIN CONSIDERATION SHOULD BE GIVEN TO USING TWO OR MORE ROCK FILTER DAMS NEAR THE DISCHARGE POINT.</p> |
| Cd-S | | <p>STONE OR SANDBAG CHECK DAM</p> <p>SECTION 163, 603</p>  <p>LINE CODE</p>  | <p>STONE CHECK DAMS ARE USED IN ROADWAY DITCHES. GEOTEXTILE UNDERLINER SHALL BE USED WHEN PLACING STONE CHECK DAMS. CONTRACTOR MAY USE SANDBAG CHECK DAMS IN LIEU OF STONE CHECK DAMS.</p> <p>SANDBAG CHECK DAMS MUST BE USED IN CONCRETE LINED CHANNELS.</p> |


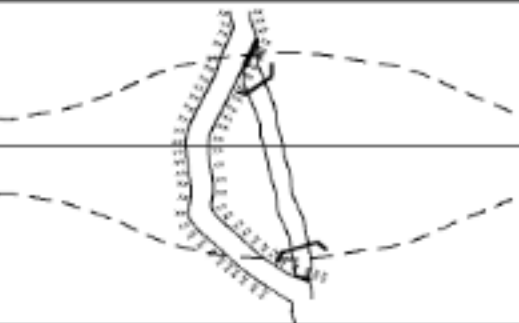
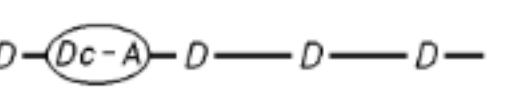
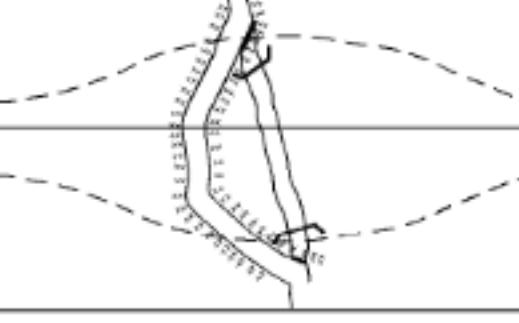
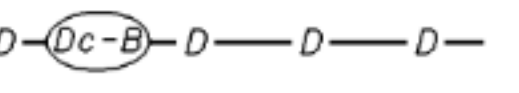
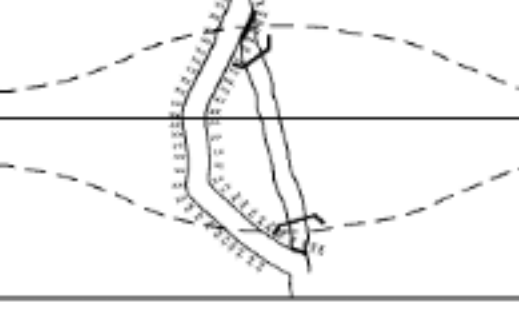
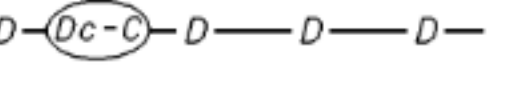
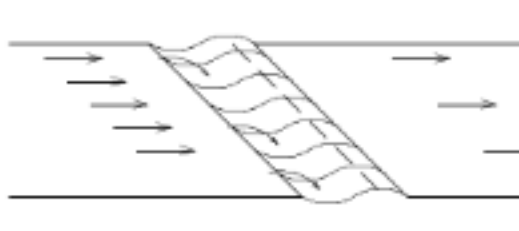

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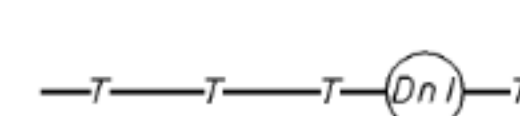
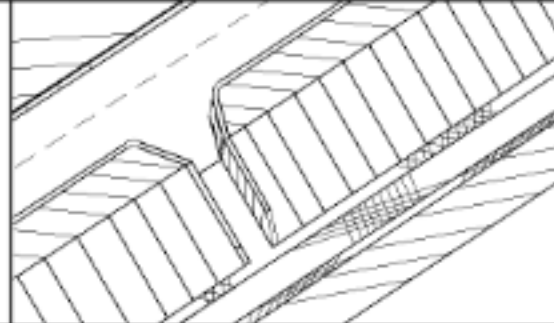
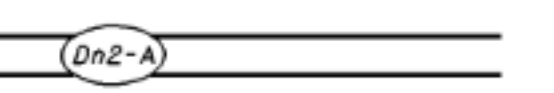

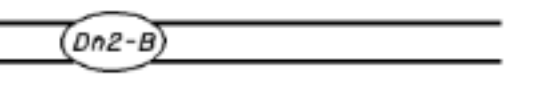
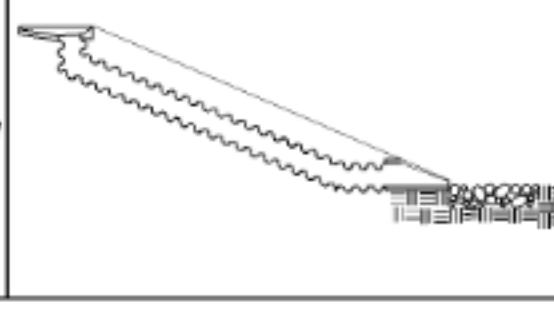
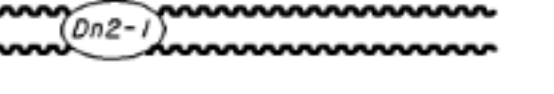
- DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
- FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION CONTROL MEASURES SEE THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

| CODE | PRACTICE STD : SPC'S : SECTION | DETAIL | DESCRIPTION |
|--------|--------------------------------|---|--|
| Ch-C | | <p>CHANNEL CONCRETE</p> <p>SECTION 161, 441</p>  <p>LINE CODE</p>  | <p>THIS ITEM CONSISTS OF CONSTRUCTING A 4" THICK CONCRETE CHANNEL. THE CONCRETE SHALL PROTECT THE DITCH FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT DITCH PROTECTION PROGRAM</p> <p>"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS</p> |
| Ch-Rp1 | | <p>CHANNEL RIP RAP TYPE 1</p> <p>SECTION 161, 603</p>  <p>LINE CODE</p>  | <p>THIS ITEM CONSISTS OF LINING A CHANNEL WITH TYPE 1 RIP RAP 24" THICK (UNLESS SPECIFIED OTHERWISE) PLACED ON TOP OF A GEOTEXTILE UNDERLINER. THE RIP RAP SHALL PROTECT THE DITCH FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT DITCH PROTECTION PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED ALONG THIS CHANNEL SUCH AS Sd1-C, Rdc OR Sg.</p> <p>"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS</p> |
| Ch-Rp3 | | <p>CHANNEL RIP RAP TYPE 3</p> <p>SECTION 161, 603</p>  <p>LINE CODE</p>  | <p>THIS ITEM CONSISTS OF LINING A CHANNEL WITH TYPE 3 RIP RAP 24" THICK (UNLESS SPECIFIED OTHERWISE) PLACED ON TOP OF A GEOTEXTILE UNDERLINER. THE RIP RAP SHALL PROTECT THE DITCH FLOWING TO A DEPTH "Dp" RECOMMENDED BY THE GDOT DITCH PROTECTION PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED ALONG THIS CHANNEL SUCH AS Sd1-C, Rdc OR Sg.</p> <p>"Dp" SHALL BE IDENTIFIED IN A TABLE LOCATED ON THE SUMMARY OF QUANTITIES SHEETS</p> |
| Ch-V | | <p>CHANNEL GRASS</p> <p>SECTION 161, 700</p>  <p>LINE CODE</p>  | <p>USED TO IMPROVE OR STABILIZE A NEW OR EXISTING CHANNEL. IT IS CONSTRUCTED IN STORMWATER DRAINAGE DITCHES. THIS MEASURE SHALL BE DESIGNED IN ACCORDANCE WITH THE GDOT DITCH PROTECTION PROGRAM. ADDITIONAL EROSION CONTROL MEASURES MAY BE REQUIRED. TYPICALLY NOT SHOWN IN PLANS.</p> |

| | |
|---|------------------------------|
| DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA | |
| EROSION CONTROL LEGEND AND UNIFORM CODE SHEET SHEET 10F 6 | |
| NO SCALE | JANUARY 2007 |
| NUMBER EC-LI | DRAWING No. 52-001 |

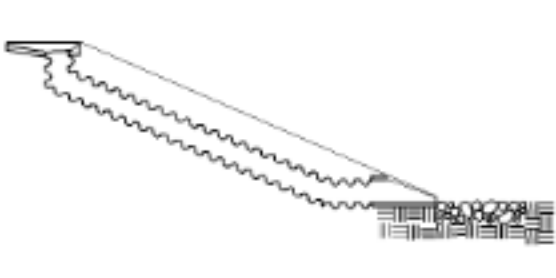
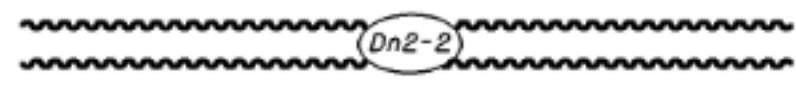

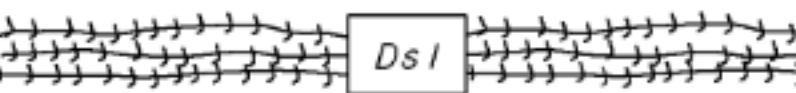

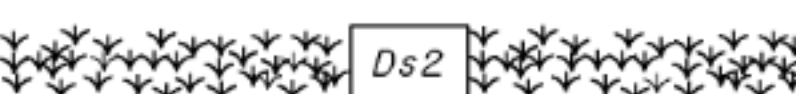

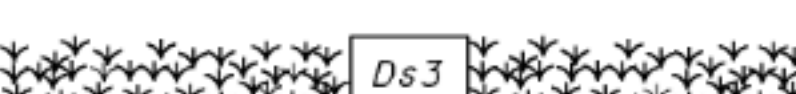
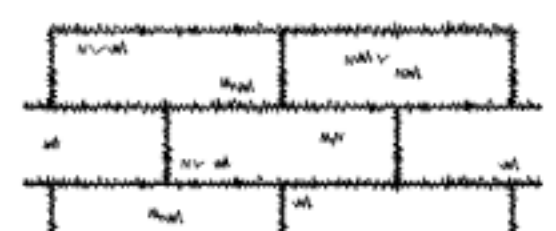

| DATE | REVISION | BY | DESCRIPTION |
|----------|----------|----|---|
| 1-24-13 | | | UPDATED DRAWING NO. |
| 10-2-12 | | | REVISED Cd-S DESCRIPTION |
| | | | REMOVED Bb & Ch-Br, AND RELOCATED Ch-Rp4, Ch-Rp3 AND Ch-V CODES FROM ECL&UC SHEET 2 OF 6. |
| 11-13-07 | | | REV. Bb, ADDED Bf, ESA, OBF AND Ch-F |
| 11-9-07 | | | REVISED TITLE BLOCK |

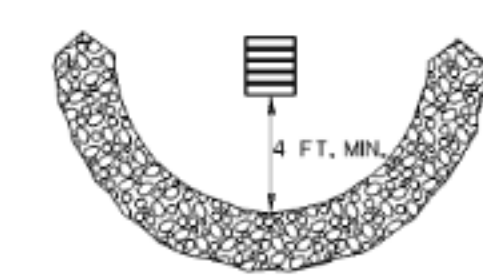



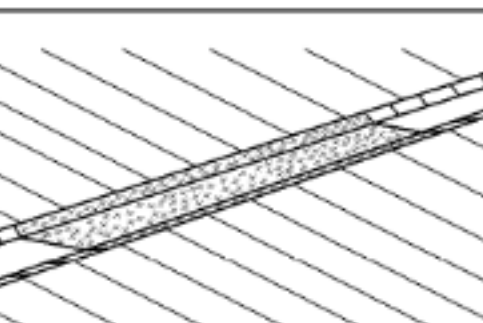
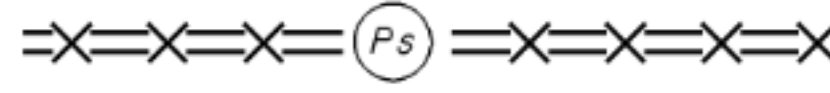


| CODE | PRACTICE STD : SPC'S : SECTION | DETAIL | DESCRIPTION |
|--------|--|--|--|
| (Co) | CONSTRUCTION EXIT CONSTRUCTION DETAIL | | A STONE STABILIZED PAD LOCATED AT ANY POINT WHERE TRAFFIC WILL BE EXITING A CONSTRUCTION SITE TO A PUBLIC ROAD. BEST USED AT ACCESS POINTS, I. e. NEW LOCATION PROJECTS, BORROW PITS, WASTE PITS, ACCESS ROADS, ETC. SHOULD BE MIN. 20' WIDE AND 50' LONG, AND 6" THICK. REQUIRES A GEOTEXTILE UNDERLINER, INCLUDED IN THE PRICE FOR THE CONSTRUCTION EXIT. |
| | | LINE CODE  | |
| (Dc-A) | DIVERSION CHANNEL GEOTEXTILE, POLYETHYLENE FILM SECTION 163 |  | A DIVERSION CHANNEL IS A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH GEOTEXTILE OR POLYETHYLENE FILM. INSTALL TWO ROWS OF Sd1-C PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE, CHANNEL GEOMETRY, CHANNEL SLOPE AND ROUGHNESS. IT IS DESIGNED FOR A TWO YEAR STORM FREQUENCY WITH A FLOW RATE BETWEEN 0-2.5 fps. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE. |
| | | LINE CODE  | |
| (Dc-B) | DIVERSION CHANNEL GEOTEXTILE ONLY SECTION 163 |  | A DIVERSION CHANNEL IS A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH GEOTEXTILE ONLY. INSTALL TWO ROWS OF Sd1-C PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE, CHANNEL GEOMETRY, CHANNEL SLOPE AND ROUGHNESS. IT IS DESIGNED FOR A TWO YEAR STORM FREQUENCY WITH A FLOW RATE BETWEEN 2.5-9.0 fps. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE. |
| | | LINE CODE  | |
| (Dc-C) | DIVERSION CHANNEL RIPRAP AND GEOTEXTILE SECTION 163 |  | A DIVERSION CHANNEL IS A TEMPORARY CHANNEL CONSTRUCTED TO CONVEY FLOW AROUND A CONSTRUCTION SITE WHILE A PERMANENT DRAINAGE STRUCTURE IS BEING CONSTRUCTED IN A NATURAL STREAM. THIS IS A MEASURE USED TO PROTECT STREAM BEDS FROM EROSION. LINE THE CHANNEL WITH RIPRAP AND GEOTEXTILE. INSTALL TWO ROWS OF Sd1-C PARALLEL TO THE CHANNEL TO PREVENT SEDIMENT LADEN RUNOFF FROM ENTERING THE STREAM. THE SIZE OF THE CHANNEL WILL DEPEND ON THE DISCHARGE, CHANNEL GEOMETRY, CHANNEL SLOPE AND ROUGHNESS. IT IS DESIGNED FOR A TWO YEAR STORM FREQUENCY WITH A FLOW RATE BETWEEN 9.0-13.0 fps. CONSTRUCTION OF THE DIVERSION CHANNEL IS INCLUDED IN THE COST OF THE STRUCTURE. |
| | | LINE CODE  | |
| (Di) | DIVERSION BERM CONSTRUCTION DETAIL SECTION 161, 205 |  | THIS IS A TEMPORARY EARTHEN BERM WITH A COMPACTED SUPPORTING RIDGE ON THE LOWER SIDE TO BE USED AT THE EDGE OF EMBANKMENT DURING THE GRADING OPERATION. THE BERMS ARE ALSO CONSTRUCTED ABOVE, ACROSS OR BELOW A SLOPE TO REDUCE THE LENGTH OF A SLOPE. THEY ARE USED TO INTERCEPT RUNOFF, PREVENTING SLOPE EROSION AND TO DIRECT THE RUNOFF TO A STABLE OUTLET. DOWN DRAINS "Dn1" OR CATCHMENT AREAS AND ON ALL GRADING PROJECTS. SEE CHAPTER 6 OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA FOR DESIGN CRITERIA AND DETAILS. |
| | | LINE CODE  | |

| CODE | PRACTICE STD : SPC'S : SECTION | DETAIL | DESCRIPTION |
|---------|---|--|---|
| (Dn1) | DOWN DRAIN STRUCTURE FLEXIBLE CONSTRUCTION DETAIL SECTION 163 | | A TEMPORARY PIPE SLOPE DRAIN IS A PLASTIC FLEXIBLE PIPE TO CARRY WATER FROM THE WORK AREA TO A LOWER ELEVATION. TEMPORARY SLOPE DRAINS SHOULD BE PLACED AT INTERVALS OF 500 FEET ON A 0 TO 2 PERCENT GRADE, 200 FEET ON STEEPER GRADES AND MORE FREQUENTLY AS DICTATED BY FIELD CONDITIONS. THE USUAL PIPE SIZE IS 10 INCH CORRUGATED. THE OUTLET AREA SHOULD BE STABILIZED WITH SILT FENCE, SUMP HOLE, HAYBALES, ANGLING OUTLET IN UPHILL DIRECTION OR OTHER APPROPRIATE MEANS FOR VELOCITY DISSIPATION AND EROSION CONTROL. THE PIPE WILL BE ANCHORED WITH STAKES AT INTERVALS NOT TO EXCEED 10'. |
| | | LINE CODE  | |
| (Dn2-A) | PERMANENT DOWN DRAIN STRUCTURE CONCRETE CONSTRUCTION DETAIL SECTION 441 |  | A CONCRETE FLUME TYPE "A" IS USED TO DIRECT SURFACE RUNOFF DOWN A ROADWAY SLOPE INTO ANOTHER FORM OF CONTROL. IT IS USED IN ALL DEPRESSED AREAS WHERE WATER WILL FLOW DOWN THE SLOPE. IT IS DESIGNED FOR A 25 YEAR STORM AND MUST HAVE SOME FORM OF OUTLET PROTECTION. ADDITIONAL LABELING IS NOT REQUIRED IF SHOWN AS A PERMANENT DRAINAGE STRUCTURE ON THE CONSTRUCTION PLANS. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA). |
| | | LINE CODE  | |
| (Dn2-B) | PERMANENT DOWN DRAIN STRUCTURE CONCRETE CONSTRUCTION DETAIL SECTION 441 |  | A CONCRETE FLUME TYPE "B" IS USED TO DIRECT SURFACE DITCH RUNOFF DOWN A BACK SLOPE INTO ANOTHER FORM OF CONTROL. IT IS USED IN DEPRESSED AREAS WHERE CONCENTRATED OFFSITE WATER REACHES THE CUT SLOPE. IT IS DESIGNED TO SAFELY CONVEY WATER DOWN THE CUT SLOPE. IT IS DESIGNED FOR A 25 YEAR STORM AND MUST HAVE SOME FORM OF OUTLET PROTECTION. ADDITIONAL LABELING IS NOT REQUIRED IF SHOWN AS A PERMANENT DRAINAGE STRUCTURE ON THE CONSTRUCTION PLANS. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA). |
| | | LINE CODE  | |
| (Dn2-1) | PERMANENT DOWNDRAIN STRUCTURE GA. STD. 9017 J TPI, D-26 TPI SECTION 576, 577. |  | CONCRETE DRAIN INLET WITH METAL PIPE IS USED TO DRAIN CURBS, ON A GRADE, DOWN TO A LOWER ELEVATION. THIS IS A PERMANENT STRUCTURE, REQUIRING OUTLET PROTECTION. TEMPORARY AND PERMANENT. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA). |
| | | LINE CODE  | |

- NOTE:
- DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
 - FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION CONTROL MEASURES SEE THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

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| DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA | |
| EROSION CONTROL LEGEND AND UNIFORM CODE SHEET SHEET 2 OF 6 | |
| NO SCALE | JANUARY 2007 |
| NUMBER EC-L2 | DRAWING No. 52-002 |



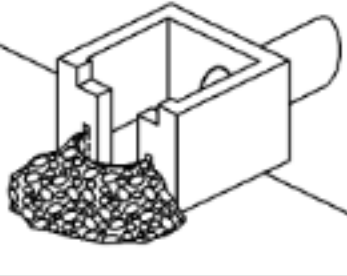

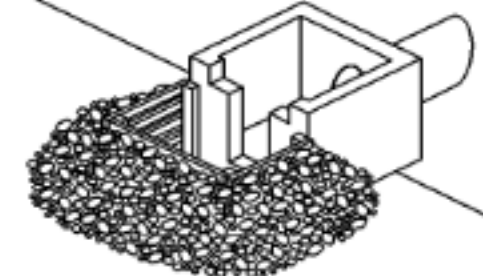
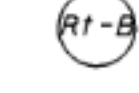


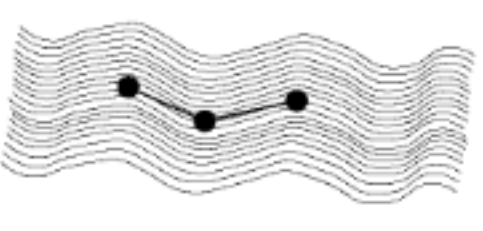
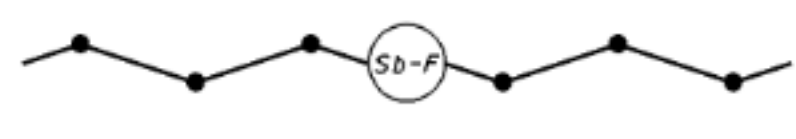
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|-------|--|--|---|
| Dn2-2 | PERMANENT DOWN DRAIN STRUCTURE GA. STD. 9017J TP2, D-26 TP2 SECTION 576, 577. |  | CONCRETE DRAIN INLET AND METAL PIPE IS USED TO DRAIN CURB, IN A SAG, DOWN TO A LOWER ELEVATION. THIS IS A PERMANENT STRUCTURE, REQUIRING OUTLET PROTECTION, TEMPORARY AND PERMANENT. INLETS SHALL BE SPACED ACCORDING TO GDOT GUIDELINES (REGARDING GUTTER SPREAD AND OR OTHER CRITERIA). |
| | | LINE CODE  | |
| Ds1 | MULCH SECTION 163 |  | THIS IS AN APPLICATION OF STRAW MULCH USED TO REDUCE SOIL EROSION AND STABILIZE THE SOIL. IT IS USED TO CONTROL EROSION IN AREAS WHERE PERMANENT VEGETATION IS OUT OF SEASON OR TO TEMPORARILY STABILIZE AREAS PRIOR TO FINAL GRADING. |
| | | LINE CODE  | |
| Ds2 | TEMPORARY GRASSING SECTION 163 |  | THE SOWING OF A QUICK GROWING SPECIES OF GRASS SUITABLE TO THE AREA AND SEASON IS TO BE USED ON ALL PROJECTS. |
| | | LINE CODE  | |
| Ds3 | PERMANENT GRASSING SECTION 700 |  | THE SOWING OF PERMANENT VEGETATION, SUCH AS GRASS, SUITABLE TO THE AREA AND SEASON IS TO BE USED ON ALL PROJECTS. PERMANENT VEGETATIVE REQUIREMENTS ARE ADDRESSED BY STANDARD SPECIFICATIONS AND ARE NOT TYPICALLY SHOWN ON THE PLANS; HOWEVER, THEY MAY BE SHOWN ON THE PLANS FOR HIGHLY SENSITIVE AREAS WHERE THESE VEGETATIVE PRACTICES ARE CRITICAL. |
| | | LINE CODE  | |
| Ds4 | SODDING SECTION 700 |  | THE INSTALLATION OF A SPECIES OF GRASS SODDING SUITABLE TO THE AREA AND SEASON TO PROVIDE IMMEDIATE PERMANENT VEGETATION. SODDING MAY BE SHOWN FOR HIGHLY SENSITIVE AREAS, TO IMPROVE AESTHETICS, OR FOR SPECIAL PLANTING REQUIREMENTS ON THE BASIS OF ENVIRONMENTAL COMMITMENTS OR LANDSCAPING REQUIREMENTS. |
| | | PATTERN  | |

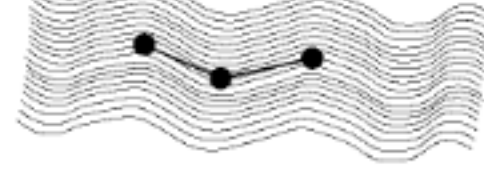
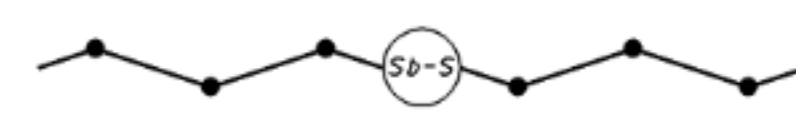
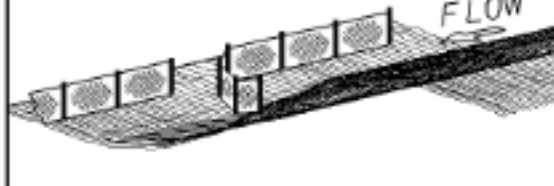
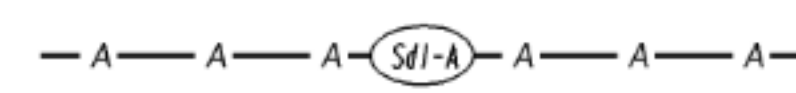
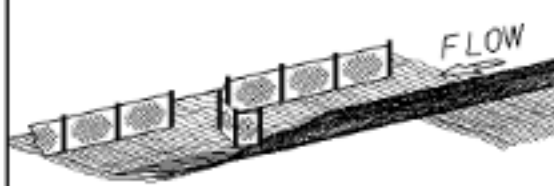
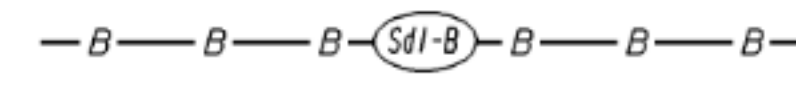

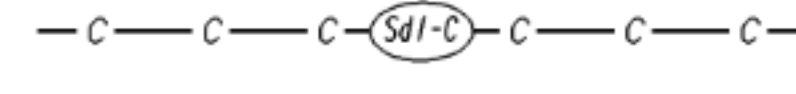
| CODE | PRACTICE STD : SPC 's : SECTION | DETAIL | DESCRIPTION |
|------|---|--|--|
| Fr | FILTER RING CONSTRUCTION DETAIL |  | A TEMPORARY STONE BARRIER CONSTRUCTED AT DRAINAGE STRUCTURE INLETS. THIS REDUCES THE VELOCITY OF THE RUNOFF AND FILTERS SEDIMENT FROM THE RUNOFF. SEE CHAPTER 6 OF THE MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA FOR DESIGN CRITERIA AND DETAILS. |
| | | LINE CODE  | |
| Mb | EROSION CONTROL MATS CONSTRUCTION DETAIL SECTION 716 |  | ALL CUT OR FILL SLOPES OF 2.5:1 OR STEEPER AND WITHIN 50' OF ALL CROSS DRAINS AND CULVERTS. |
| | | PATTERN  | |
| Ps | PERMANENT SOIL REINFORCING MAT CONSTRUCTION DETAIL SECTION 710 |  | THIS THREE DIMENSIONAL EROSION CONTROL MAT IS USED IN DITCHES TO STABILIZE THE SOIL BY REINFORCING THE GRASS ROOTS TO PROVIDE LONG-TERM PROTECTION FOR SHEAR STRESSES. (THIS IS ALSO CALLED "Mb" IN THE MANUAL FOR EROSION & SEDIMENT CONTROL IN GEORGIA.) |
| | | LINE CODE  | |
| Rd | ROCK FILTER DAM CONSTRUCTION DETAIL SECTION 163, 603. |  | ROCK FILTER DAMS ARE CONSTRUCTED OF TYPE 3 STONE RIP RAP AND ARE USED TO PROTECT SMALL STREAMS OR DRAINAGEWAYS. TO BE USED IN SMALL DRAINAGE CHANNELS OF 50 ACRES OR LESS. THE RIP RAP SHOULD BE PLACED ON A GEOTEXTILE UNDERLINER. |
| | | LINE CODE  | |

NOTE:
1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION CONTROL MEASURES, SEE THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

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| DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA | |
| EROSION CONTROL LEGEND AND UNIFORM CODE SHEET SHEET 3 OF 6 | |
| NO SCALE | JANUARY 2007 |
| NUMBER EC-L3 | DRAWING No. 52-003 |

| | |
|-----|--|
| TC | UPDATED DRAWING NO., ADDED 1-24-13 |
| | Ds3 & Ds4 CODES, RELOC. |
| | Rp & RT-P CODES TO DRAWING NO. 52-004. |
| TC | RELOCATED Rd, Ps, & RT-B 10-2-12 |
| | CODES FROM ECL&IC SHEET 4 OF 6. |
| GLO | DELETED Fp, REVISED ORDER 11-13-07 |
| GLO | REVISED TITLE BLOCK 11-19-07 |
| BY | REVISION |
| | DATE |


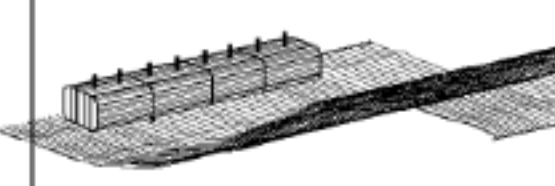
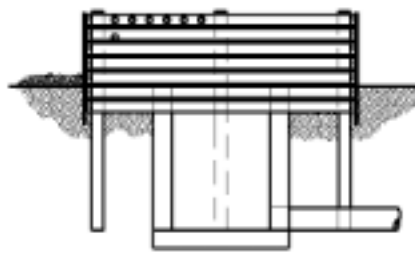

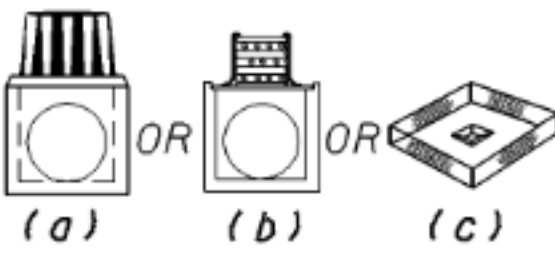
| CODE | PRACTICE STD : SPC'S : SECTION | DETAIL | DESCRIPTION |
|-------------------------------|--|---|--|
| Rp | RIPRAP |  | RIP RAP IS A FLEXIBLE PERMANENT BLANKET FOR PROTECTION OF FILL SLOPES AND END ROLLS. RIP RAP, TYPE 1 SHOULD BE PLACED ON TOP OF A GEOTEXTILE UNDERLINER AT A MINIMUM 24" THICKNESS OR AS INDICATED ON THE PLANS. |
| | SECTION 603 | PATTERN  | |
| Rt-P | RETROFITTING CONSTRUCTION DETAIL SECTION 163 |  | A PERFORATED HALF-ROUND PIPE WITH STONE FILTER PLACED IN FRONT OF A PERMANENT STORMWATER DETENTION POND OUTLET STRUCTURE TO SERVE AS A TEMPORARY SEDIMENT FILTER. SHOULD BE USED ONLY IN DETENTION PONDS WITH LESS THAN 30 ACRES TOTAL DRAINAGE AREA. SHALL ONLY BE USED IN DETENTION BASINS LARGE ENOUGH TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DISTURBED AREA. THIS ITEM SHOULD BE DESIGNED ACCORDING TO CHAPTER 6 IN THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" |
| | | LINE CODE  | |
| Rt-B | RETROFITTING CONSTRUCTION DETAIL SECTION 163 |  | A SLOTTED BOARD DAM WITH STONE PLACED IN FRONT OF A PERMANENT STORMWATER DETENTION POND OUTLET STRUCTURE TO SERVE AS A TEMPORARY SEDIMENT FILTER. SHOULD BE USED ONLY IN DETENTION PONDS WITH LESS THAN 100 ACRES TOTAL DRAINAGE AREA. SHALL ONLY BE USED IN DETENTION BASINS LARGE ENOUGH TO STORE 67 CUBIC YARDS OF SEDIMENT PER ACRE OF DISTURBED AREA. THIS ITEM SHOULD BE DESIGNED ACCORDING TO CHAPTER 6 IN THE "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA" |
| | | LINE CODE  | |
| Rt-BSg1 Rt-BSg2 Rt-BSg3 | SILT CONTROL GATES CONSTRUCTION DETAIL D-20 SECTION 163 |  FRONT VIEW | A SILT CONTROL GATE IS A STRUCTURE PLACED ON A PIPE, SMALL BOX CULVERT, OR DROP INLET TO FORM A BASIN TO CATCH SILT AND PREVENT IT FROM LEAVING THE CONSTRUCTION SITE. IT IS EFFECTIVE ON SMALL DRAINAGE AREAS ONLY. DO NOT USE IN STATE WATERS. Rt-BSg1-TYPE 1: USED ON BOX CULVERTS Rt-BSg2-TYPE 2: USED ON STRAIGHT HEADWALLS Rt-BSg3-TYPE 3: USED ON FLARED END SECTIONS AND TAPERED HEADWALLS |
| | | LINE CODE  | |
| Sb-F | SILT RETENTION BARRIER FLOATING |  | A FLOATING BARRIER IS USED TO PREVENT SEDIMENT FROM MOVING IN WATER BY FORCING IT TO DROP OUT OF SUSPENSION BEFORE IT MOVES OUT OF THE CONSTRUCTION AREA. IT IS USUALLY USED WHERE CONSTRUCTION IS REQUIRED IN A LARGE BODY OF WATER SUCH AS LAKES AND RIVERS. IT SHOULD BE USED AS DIRECTED BY THE ENGINEER. |
| | SECTION 170 | LINE CODE  | THIS ITEM IS ONLY TO BE USED WHEN PERMITTED FILL IS BEING PLACED INTO A STATE WATER, OR AS A SUPPLEMENT TO ADEQUATELY PLACED BMP'S. |


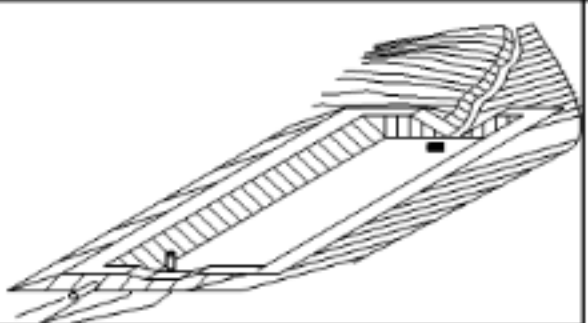
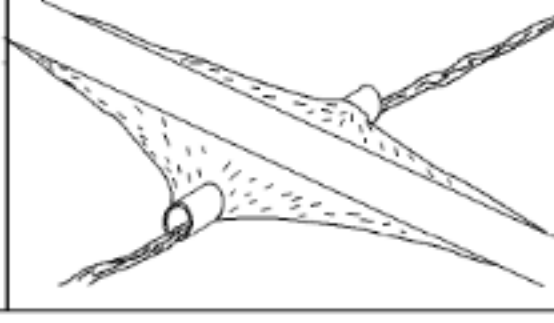
| CODE | PRACTICE STD : SPC'S : SECTION | DETAIL | DESCRIPTION |
|-------|--|--|--|
| Sb-S | SILT RETENTION BARRIER STAKED |  | A STAKED BARRIER IS USED TO PREVENT SEDIMENT FROM MOVING IN WATER BY FORCING IT TO DROP OUT OF SUSPENSION BEFORE IT MOVES OUT OF THE CONSTRUCTION AREA. IT IS USUALLY USED WHERE CONSTRUCTION IS REQUIRED IN SHALLOW INUNDATED AREAS. IT SHOULD BE USED AS DIRECTED BY THE ENGINEER. A STAKED BARRIER MAY BE USED TO PROTECT A SMALL STREAM WHILE IT IS BEING REALIGNED OR WIDENED IN "Ch1". IN THIS CASE THE BARRIER SHOULD EXTEND TO THE BOTTOM OF THE STREAM. IT SHOULD BE LIMITED TO 5' IN HEIGHT UNLESS OTHERWISE DIRECTED. STAKED BARRIERS IN SMALL STREAMS SHOULD EXTEND 1' ABOVE NORMAL WATER. THIS ITEM IS ONLY TO BE USED WHEN PERMITTED FILL IS BEING PLACED INTO A STATE WATER, OR AS A SUPPLEMENT TO ADEQUATELY PLACED BMP'S. |
| | SECTION 170 | LINE CODE  | |
| Sd1-A | SILT FENCE TYPE A CONSTRUCTION DETAIL SECTION 171 |  | USED ALONG THE TOE OF FILLS LESS THAN 10' HIGH, ALONG THE RIGHT OF WAY LINE OR PARALLEL TO STREAMS. THE FENCE SHOULD NEVER RUN CONTINUOUS. IT SHOULD TURN BACK INTO THE FILL TO CREATE SMALL POCKETS TO TRAP SILT. |
| | | LINE CODE  | |
| Sd1-B | SILT FENCE TYPE B CONSTRUCTION DETAIL SECTION 171 |  | TYPE B MAY BE USED IN LIEU OF BALED STRAW AND AT THE TOE OF FILLS LESS THAN 10 FEET HIGH. |
| | | LINE CODE  | |
| Sd1-C | SILT FENCE TYPE C CONSTRUCTION DETAIL SECTION 171 |  | A WOVEN SYNTHETIC FIBER FABRIC PLACED IN FRONT OF A WIRE FENCE. IT CAN BE USED ALONG THE TOE OF THE FILL, ALONG THE RIGHT OF WAY LINE OR PARALLEL TO STREAMS. IT IS USED TO CAPTURE SEDIMENT FROM FILLS OVER 10 FEET HIGH AND UNDER ALL BRIDGES. |
| | | LINE CODE  | |

NOTE:
1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION CONTROL MEASURES, SEE THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION, "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

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| DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA | |
| EROSION CONTROL LEGEND AND UNIFORM CODE SHEET SHEET 4 OF 6 | |
| NO SCALE | JANUARY 2007 |
| NUMBER EC-L4 | DRAWING No. 52-004 |

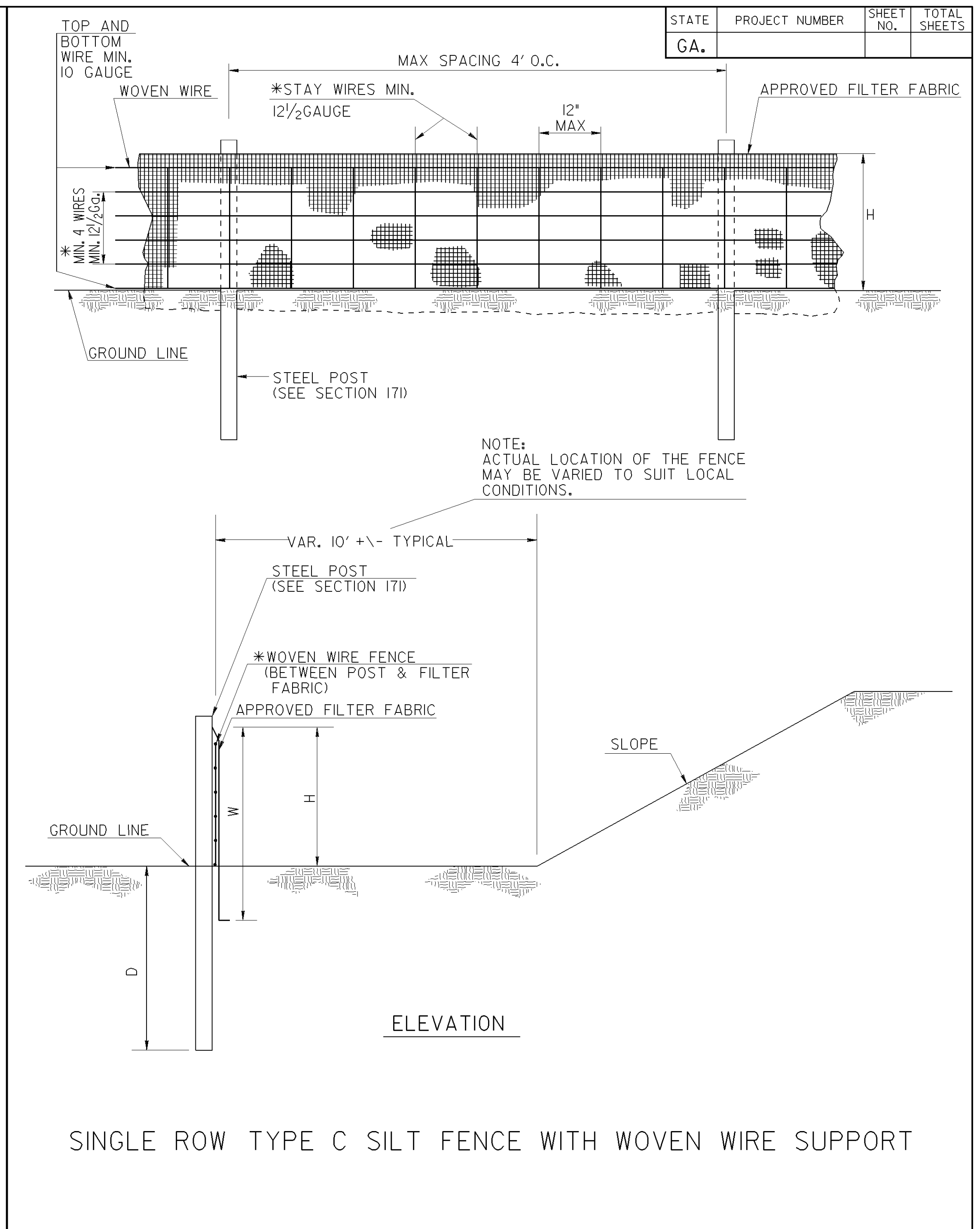
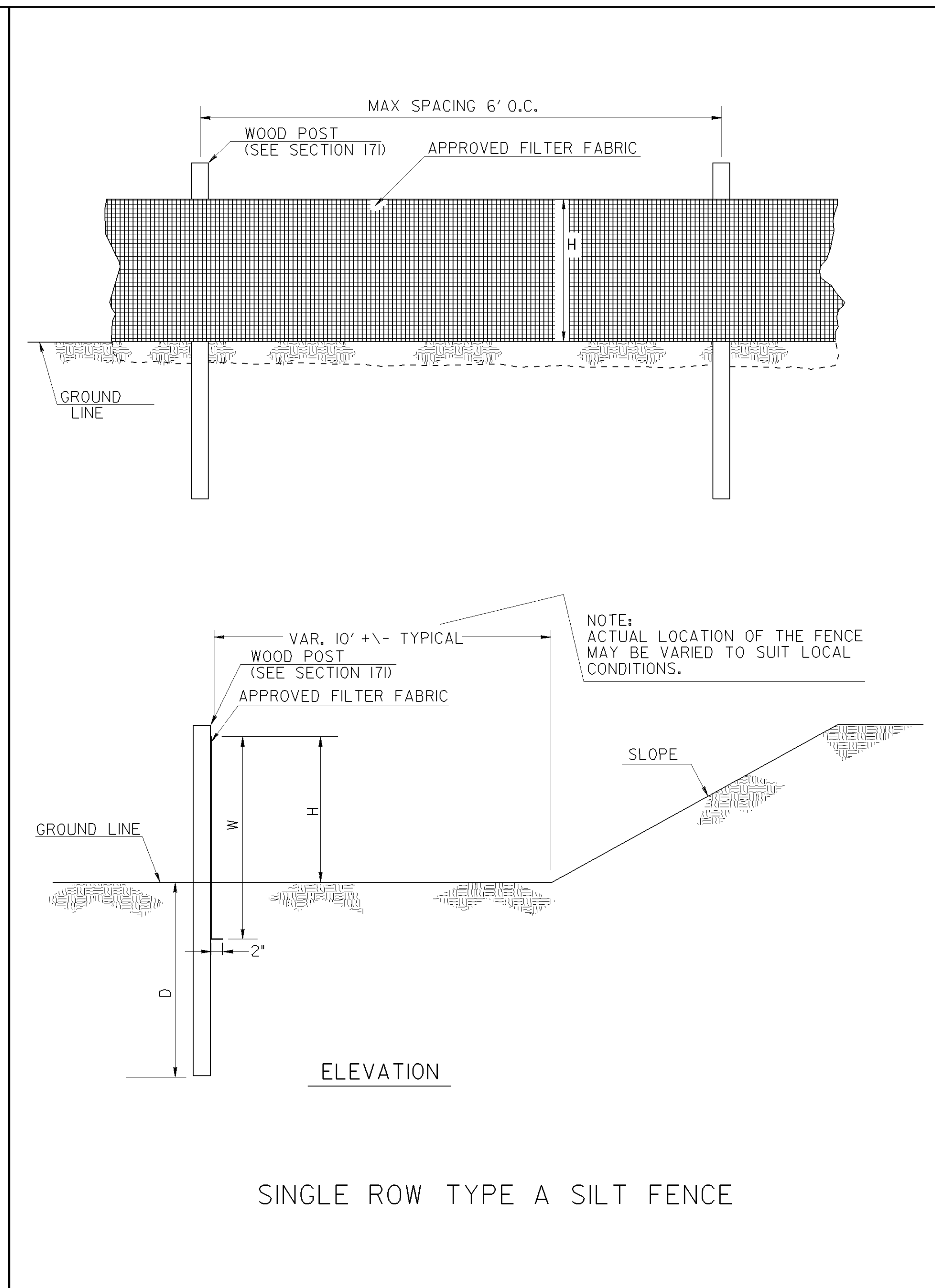
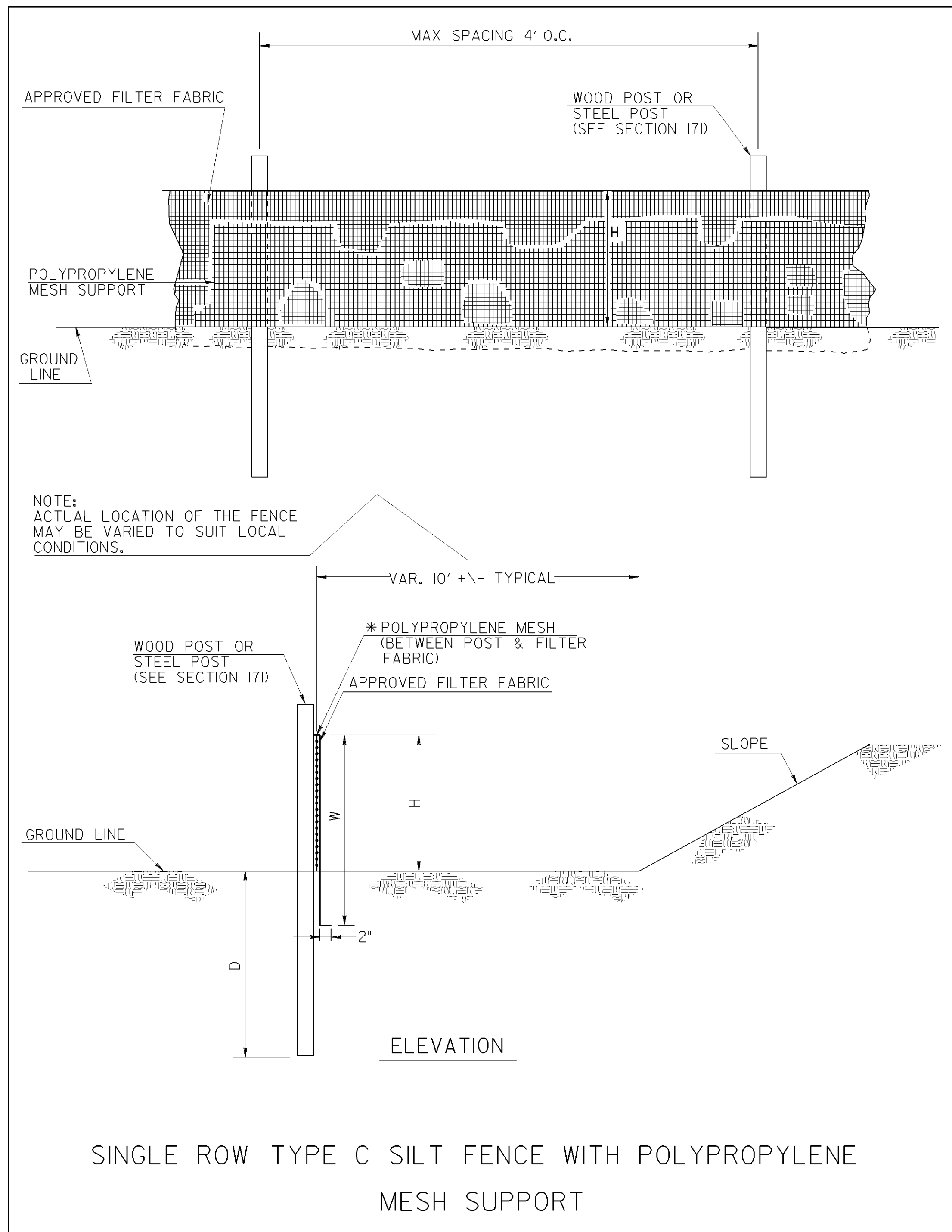
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|-----|--|----------|
| TC | UPDATED DRAWING NO. & RELOCATED Sd1-Bb&Sd1-Hb CODES TO DRAWING NO. 52-005. | 1-24-13 |
| TC | RELABELLED AND RELOCATED Sg-1, Sg-2, Sg-3 TO Rt-BSg1, Rt-BSg2, & Rt-BSg3 CODES AND Sd1-Bb, Sd1-Hb CODES FROM ECL&UC SHT. 5 OF 6. | 10-2-12 |
| GLO | REV. Sd1-A | 11-03-07 |
| GLO | REV. Sb-F, Sb-S, Sd1-A, Sd1-B AND Sd1-C. | 11-03-07 |
| GLO | REVISED TITLE BLOCK | 11-09-07 |
| BY | REVISION | DATE |

| CODE | PRACTICE STD : SPC 's : SECTION | DETAIL | DESCRIPTION |
|--------|--|---|--|
| Sd1-Bb | BRUSH BARRIER CONSTRUCTION DETAIL |  | THIS ITEM CONSISTS OF INTERMINGLED BRUSH, LOGS, ETC. SO AS NOT TO FORM A SOLID DAM. CONSTRUCTED AT THE TOE OF FILL SLOPES DURING THE CLEARING AND GRUBBING OPERATION. THE BARRIER SHOULD BE USED AT THE TOE OF FILL SLOPES ON GRADING PROJECTS IN RURAL AREAS WHERE SUFFICIENT RIGHT OF WAY OR EASEMENT IS AVAILABLE (10 FEET OR MORE). THE BARRIER SHOULD RUN ROUGHLY PERPENDICULAR TO THE FLOW OF WATER WHERE THIS DOES NOT CONFLICT WITH RIGHT OF WAY OR EASEMENT LIMITS. THEY WILL NOT BE PLACED IN WETLANDS. PAYMENT FOR THIS ITEM IS INCLUDED IN THE CLEARING AND GRUBBING COST. NO SEPERATE PAYMENT SHALL BE MADE. |
| | | LINE CODE * * * Sd1-Bb * * * | |
| Sd1-Hb | SEDIMENT BARRIER CONSTRUCTION DETAIL SECTION 163 |  | A BARRIER OF BALED STRAW IS USED TO PREVENT SEDIMENT FROM LEAVING THE CONSTRUCTION SITE. IT IS USED IN DITCHES AS DITCH CHECKS OR ALONG THE TOE OF SLOPE OR RIGHT OF WAY IN FILLS LESS THAN 10 FEET HIGH. THE BALES SHOULD RUN PARALLEL TO THE SILT YIELDING AREA UNTIL THE TOP OF THE BALE IS 6 INCHES LOWER THAN THE GROUND ELEVATION OF THE BEGINNING BALE. THEY SHOULD THEN TURN INTO THE FILL WITH A LOW POINT FOR THE WATER TO DRAIN OVER THE BALE. IN DITCHES, BALED STRAW SHOULD BE PERPENDICULAR TO THE FLOW. USED FOR SLOPES LESS THAN 1%. USE 100' SPACING. BALED STRAW SHALL BE STAKED SECURELY TO THE GROUND. |
| | | LINE CODE -s-s-s Sd1-Hb -s-s-s- | |
| Sd2-B | BAFFLE BOX INLET SEDIMENT TRAP CONSTRUCTION DETAIL D42 SPECIFICATIONS SECTION 163 |  | USED FOR INLETS RECEIVING RUNOFF WITH A HIGHER VOLUME OR VELOCITY. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING A Q=7 cfs. |
| | | LINE CODE Sd2-B | |
| Sd2-Bg | BLOCK & GRAVEL DROP INLET PROTECTION CONSTRUCTION DETAIL D42 SPECIFICATIONS SECTION 163 |  | USED FOR INLET PROTECTION WHERE HEAVY FLOWS ARE EXPECTED AND WHERE OVERFLOW CAPACITY IS NECESSARY TO PREVENT EXCESSIVE PONDING AROUND THE STRUCTURE. CAN BE USED AT CULVERT INLETS. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING A Q=5-7 cfs. |
| | | LINE CODE Sd2-Bg | |
| Sd2-F | INLET SEDIMENT TRAP CONSTRUCTION DETAILS SECTION 163 |  | (a) A SEDIMENT BARRIER CONSISTING OF A PREFABRICATED FRAME WITH FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN (b) A SEDIMENT BARRIER CONSISTING OF A PERFORATED METAL STAND PIPE WITH FILTER FABRIC USED AROUND A DROP INLET OR CATCH BASIN (c) TYPE C SILT FENCE WITH SUPPORTING FRAME CAN BE USED AS AN ALTERNATE TO INLET SEDIMENT TRAP FOR AREAS WITH SLOPES < 5% THIS ITEM IS USED TO PREVENT SILT FROM ENTERING THE PIPE SYSTEM. SHALL NOT APPLY TO INLETS RECIEVING CONCENTRATED FLOWS. RECOMMENDED FOR INLET RECEIVING FLOWS THAT RANGE FROM Q=0-4 cfs. |
| | | LINE CODE Sd2-F | |

| CODE | PRACTICE STD : SPC 's : SECTION | DETAIL | DESCRIPTION |
|-------|--|--|---|
| Sd2-G | GRAVEL DROP INLET PROTECTION CONSTRUCTION DETAIL D42 SPECIFICATIONS SECTION 163 |  | USED FOR INLET PROTECTION WHERE HEAVY CONCENTRATED FLOWS ARE EXPECTED. STONE AND GRAVEL ARE USED TO TRAP SEDIMENT. THE SLOPE TOWARD THE INLET SHALL BE NO MORE THAN 3:1. A GUIDE FOR USE WILL BE FOR AN INLET RECEIVING A Q=3-5 cfs. |
| | | LINE CODE Sd2-G | |
| Sd3 | SEDIMENT BASIN CONSTRUCTION DETAIL SECTION 163 |  | A BASIN EXCAVATED OR AN AREA THAT IS DAMMED. THE BASIN IS DESIGNED TO HOLD A SEDIMENT LOAD OF 67 CUBIC YARDS OF VOLUME PER ACRE OF DRAINAGE AREA. IT IS USED FOR DRAINAGE AREAS OF 3 TO 5 ACRES OR WHERE A ROADWAY CUTS OR FILLS EXCEEDS 1,000 FEET IN LENGTH. IF A SEDIMENT BASIN IS USED ON AN AREA LARGER THAN 5 ACRES SPECIAL CONSIDERATION FOR CLEAN OUT IS REQUIRED. SUFFICIENT RIGHT OF WAY OR PERMANENT EASEMENT NEEDED FOR THE BASIN AND ACCESS FOR CLEAN OUT VIA A ROUTE WITH 3:1 SLOPES OR LESS. SEDIMENT BASINS SHOULD ALSO BE CONSIDERED WHERE HIGH FILLS OVER 30 FEET DRAIN TO ONE LOCATION. |
| | | LINE CODE Sd3 | |
| Sr | STREAM CROSSING SECTION 161 |  | A TEMPORARY BRIDGE OR PIPE STRUCTURE PROTECTING A STREAM OR WATER COURSE FROM DAMAGE BY CONSTRUCTION EQUIPMENT. THIS AREA MUST BE COMPLETELY STABILIZED. THIS ITEM MUST BE DESIGNED ACCORDING TO CHAPTER 6 OF THE MANUAL FOR EROSION CONTROL IN GEORGIA FOR CONTRACTOR'S USE ONLY |
| | | LINE CODE Sr | |

NOTE:
1. DO NOT USE EROSION CONTROL ITEMS IN A FLOWING STREAM OR IN A TIDAL AREA BELOW HIGH TIDE.
2. FOR ADDITIONAL INFORMATION ON THE DESIGN AND APPLICATION OF EROSION CONTROL MEASURES, SEE THE GEORGIA SOIL AND WATER CONSERVATION COMMISSION. "MANUAL FOR EROSION AND SEDIMENT CONTROL IN GEORGIA".

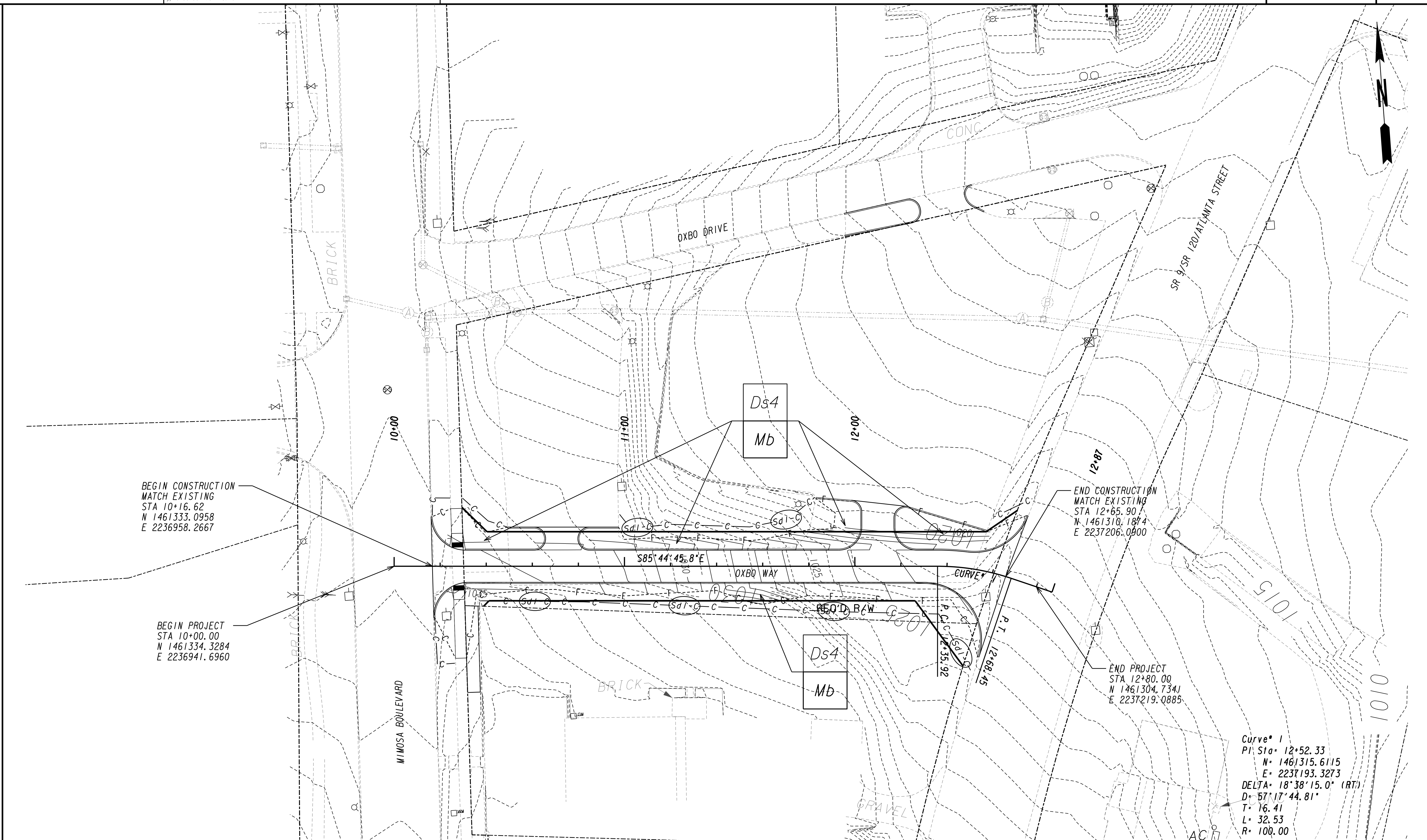
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|--|--|
| 1-24-13 RELOCATED ST & ST-RP CODES TO DRAWING NO. 52-006. DEL. Sg-1, Sg-2, Sg-3 CODES. 10-2-12 RELOCATED ST & ST-RP, CODES FROM ECL & UC SHT. 6 OF 6. REV. Sg-1, Sg-2 AND Sg-3 11-13-07 REVISED TITLE BLOCK 1-19-07 REVISION DATE | DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA EROSION CONTROL LEGEND AND UNIFORM CODE SHEET SHEET 5 OF 6 NO SCALE JANUARY 2007 |
| NUMBER EC-L5 | DRAWING No. 52-005 |



| FENCE TYPE | POST LENGTH | H | D | W | TYPICAL USES |
|------------|-------------|-------|-------|-------|---|
| TYPE "A" | 4 FT. | 2'-4" | 1'-6" | 3'-0" | |
| TYPE "C" | 4 FT. | 2'-4" | 1'-6" | 3'-0" | AT BRIDGE END ROLLS, DOUBLE ROW ALONG STREAMS, WETLANDS AND ENVIRONMENTALLY SENSITIVE AREAS FOR USE OF THIS MATERIAL IN FABRIC CHECKDAMS SEE D-24D. |

- NOTES:
1. WIRE STAPLES SHALL BE AT LEAST 17 GAUGE, WITH LEGS AT LEAST 1/2 INCHES LONG AND A CROWN AT LEAST 3/4 INCHES WIDE. NAILS SHALL BE AT LEAST 14 GAUGE, 1 INCH LONG, WITH BUTTON HEADS AT LEAST 3/4 INCHES WIDE.
 2. NAILS OR STAPLES SHALL BE EVENLY PLACED WITH AT LEAST 5 PER POST FOR TYPE A FENCE AND 4 PER POST FOR TYPE C FENCE.
 3. THE VERTICAL WIRES FOR THE WOVEN WIRE SUPPORT FENCE SHALL HAVE A MAXIMUM SPACING OF 12 INCHES. THE TOP AND BOTTOM WIRES SHALL BE AT LEAST 10 GAUGE AND ALL OTHER WIRES SHALL BE AT LEAST 12 1/2 GAUGE.
 4. TEMPORARY SILT FENCE INSTALLATION IS DIFFERENT THAN THE SILT RETENTION BARRIER INSTALLATION.
 5. SEE SECTION 171 FOR SILT FENCE SPECIFICATIONS.
 6. SEE SECTION 894 FOR FENCING SPECIFICATIONS.
 7. SEE QPL-36 FOR A LIST APPROVED SILT FENCE FABRIC.
 8. TEMPORARY SILT FENCE SHALL NOT BE PLACED WITHIN STATE WATERS UNLESS PERMITTED.

| | | |
|----------|--|-----------------------------------|
| DATE | DEPARTMENT OF TRANSPORTATION STATE OF GEORGIA | |
| REVISION | CONSTRUCTION DETAILS TEMPORARY SILT FENCE | |
| BY | NO SCALE | REV. AND REDRAWN JAN. 2011 |
| | | NUMBER D-24A (SHEET 1 OF 4) |



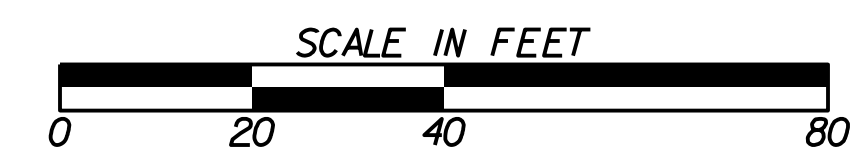
BEGIN CONSTRUCTION
MATCH EXISTING
STA 10+16.62
N 1461333.0958
E 2236958.2667

BEGIN PROJECT
STA 10+00.00
N 1461334.3284
E 2236941.6960

END CONSTRUCTION
MATCH EXISTING
STA 12+65.90
N 1461310.1874
E 2237206.0900

END PROJECT
STA 12+80.00
N 1461304.7341
E 2237219.0885

Curve # 1
PI Sta 12+52.33
N 1461315.6115
E 2237193.3273
DELTA 18°38'15.0" (RT)
D=57'17"44.81"
T=16.41
L=32.53
R=100.00



REVISION DATES

| NO. | DATE | DESCRIPTION |
|-----|------|-------------|
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| | | |

BMP LOCATION DETAILS

| CHECKED: | DATE: | DRAWING No. 54-001 |
|--------------|-------|------------------------------|
| BACKCHECKED: | DATE: | |
| CORRECTED: | DATE: | |
| VERIFIED: | DATE: | |