

CVS/pharmacy®

CVS STORE NO. 07464
SWC HORIZON RD. & RIDGE RD. (F.M. 740)
ROCKWALL, TEXAS

PROJECT DIRECTORY

CITY OF ROCKWALL

385 SOUTH GOLIAD STREET
ROCKWALL, TEXAS 75087
PH: 972.771.7700

CLIENT:

CVS CAREMARK, INC.
ONE CVS DRIVE
WOONSOCKET, RI 02895

ELECTRIC

TXU ELECTRIC
PH: 800.242.9113

TELEPHONE

SOUTHWESTERN BELL / ATT
PH: 800.464.7928

GAS

ATMOS ENERGY
PH: 800.460.3030



City of Rockwall, Texas



VICINITY MAP
NOT TO SCALE

AS-BUILT
Winkelmann & Associates, Inc. hereby states that this plan, to the best of our knowledge is "As Built." Modifications from the originally approved construction documents have been made as per information provided by the contractor. Winkelmann & Associates, Inc. does not certify as to the correctness or quality of construction as no field inspection was performed.
Michael T. Doggett
WINKELMANN & ASSOCIATES, INC. 07-16-15 DATE

JULY 2014

03/27/2015 CHANGE ORDER NO. 1
09/29/2014 ADDENDUM NO. 2
06/12/2014 ADDENDUM NO. 1
07/28/2014 RE-DESIGN

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STORE NUMBER: 07464
SWC HORIZON RD. AND RIDGE RD.
ROCKWALL, TEXAS
PROJECT TYPE: EXTERIOR REMODEL
DEAL TYPE: FEE FOR SERVICE
CS PROJECT NUMBER: 76657

CIVIL ENGINEER:

Winkelmann & Associates, Inc.
CONSULTING CIVIL ENGINEERS ■ SURVEYORS
6750 HILLCREST PLAZA DR., SUITE 325 (972) 480-7080
DALLAS, TEXAS 75230 (972) 480-7089 FAX
Texas Engineers Registration No. 89
Texas Surveyors Registration No. 100866-00
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CONSULTANT:

DEVELOPER:

SEAL:
Michael T. Doggett
MICHAEL T. DOGGETT
98628
7-16-2015
THE SEAL APPEARING ON THIS DOCUMENT
WAS AUTHORIZED BY
MICHAEL T. DOGGETT, P.E. # 98628

REVISIONS:
8-12-14 ADDENDUM NO. 1
9-29-14 ADDENDUM NO. 2
CHANGE WALL VENEER TO BRICK
3-24-15 CHANGE ORDER NO. 1
4-13-15 ADA RAMPS NO. 2
7-16-15 ASBUILT SET

FILE NAME: 70801-Cov.dwg
JOB NUMBER: 70801.00
DATE: JULY 28, 2014
TITLE:

COVER SHEET

SHEET NUMBER:
C-01
COMMENTS:



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7-16-15 ASBUILT SET

FILE NAME: 70801-Ero.dwg
JOB NUMBER: 70801.00
DATE: JULY 28, 2014
TITLE: CONSTRUCTION PHASING
SHEET NUMBER: C-03
COMMENTS:

CONSTRUCTION PHASING NOTES

- ** ONE DRIVE-THRU LANE MUST REMAIN OPEN AT ALL TIMES. MINIMUM WIDTH = 12 FT.
- ** NO TRUCK TRAFFIC (CONSTRUCTION OR DELIVERIES) ALLOWED BEHIND BUILDING AT ANY TIME DURING CONSTRUCTION AND UNTIL FULL ACCEPTANCE OF PROJECT BY CITY INSPECTORS.
- ** CONSTRUCTION AND SAFETY FENCING AND CONES TO BE INSTALLED AND MAINTAINED AT ALL TIMES BETWEEN ONGOING CONSTRUCTION AND PUBLIC ACCESS.
- ** CONTRACTOR TO LOCATE AND VERIFY EXISTENCE AND LOCATION OF BUILDING FOUNDATION PIERS (IN TWO LOCATIONS ~ AT BUILDING CORNERS FACING WALL) PRIOR TO COMMENCEMENT OF ANY CONSTRUCTION ACTIVITY. NOTIFY ENGINEER AND OWNER/LEASEE AFTER PIER LOCATION.

PHASE 1

1. DEMOLISH AND REMOVE EXISTING RETAINING WALL ALONG NORTHWEST LINE PER DEMOLITION PLAN.
2. PLACE CONSTRUCTION FENCING AND CONES, ETC. TO BLOCK OFF OUTSIDE DRIVE-THRU LANES FROM USE.
3. DEMOLISH AND REMOVE EXISTING DUMPSTER ENCLOSURE AND CONCRETE PAD LEAVING ALL DRIVE-THRU LANES IN PLACE.
4. COORDINATE WITH BUILDING MANAGER TO TEMPORARILY RELOCATE DUMPSTER TO FRONT OF BUILDING AND ENSURE FULL TRUCK ACCESS TO DUMPSTER.

PHASE 2

1. HAYWARD BAKER, INC. TO DESIGN AND CONSTRUCT WORK AREA/BENCH/SHELF AT BASE OF PROPOSED WALL. DESIGN MUST BE APPROVED BY CITY OF ROCKWALL PRIOR TO EXCAVATION/CONSTRUCTION.
2. ALLOW RETAINING WALL INSTALLATION BY HAYWARD BAKER, INC. AND MAINTAIN USE OF INSIDE DRIVE-THRU LANE.
3. ACQUIRE RETAINING WALL ACCEPTANCE FROM CITY OF ROCKWALL PRIOR TO FURTHER EXCAVATION OR CONSTRUCTION.

PHASE 3

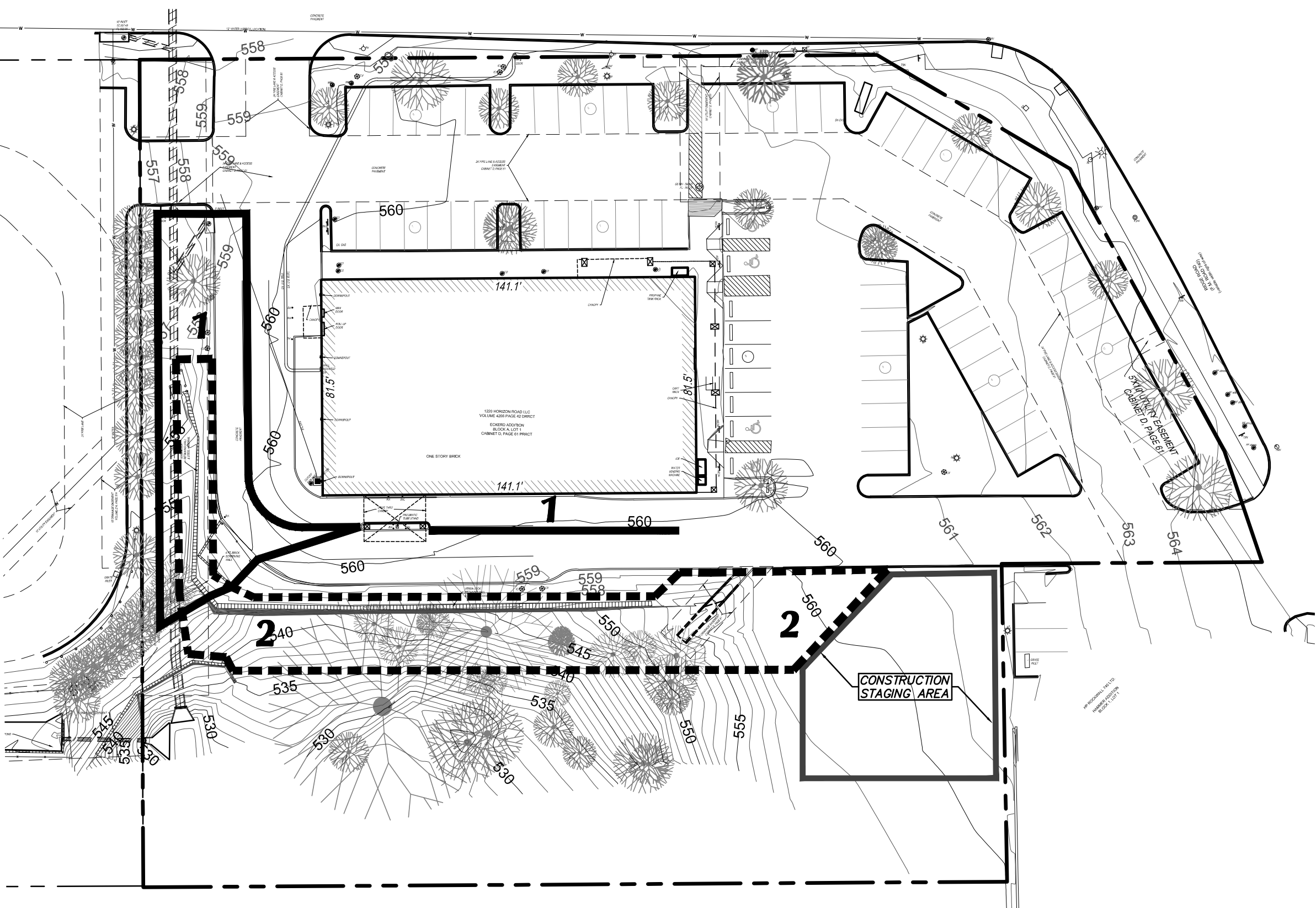
1. SAW CUT AND REMOVE OUTSIDE DRIVE-THRU LANES. MAINTAIN CONSTRUCTION FENCING TO KEEP INSIDE DRIVE-THRU LANE OPEN.
2. RELOCATE EXISTING FRANCHISE UTILITIES AS REQUIRED TO ALLOW STORM SEWER INSTALLATION.
3. CONSTRUCT NEW STORM SEWER LINES, NEW DRIVE-THRU LANES, AND NEW DUMPSTER PAD AREA.
4. INSTALL NEW CONCRETE CAP BETWEEN NEW PAVEMENT AND RETAINING WALL.
5. INSTALL NEW GUARD RAIL/FENCE.
6. BUILD NEW TRASH ENCLOSURE.

PHASE 4

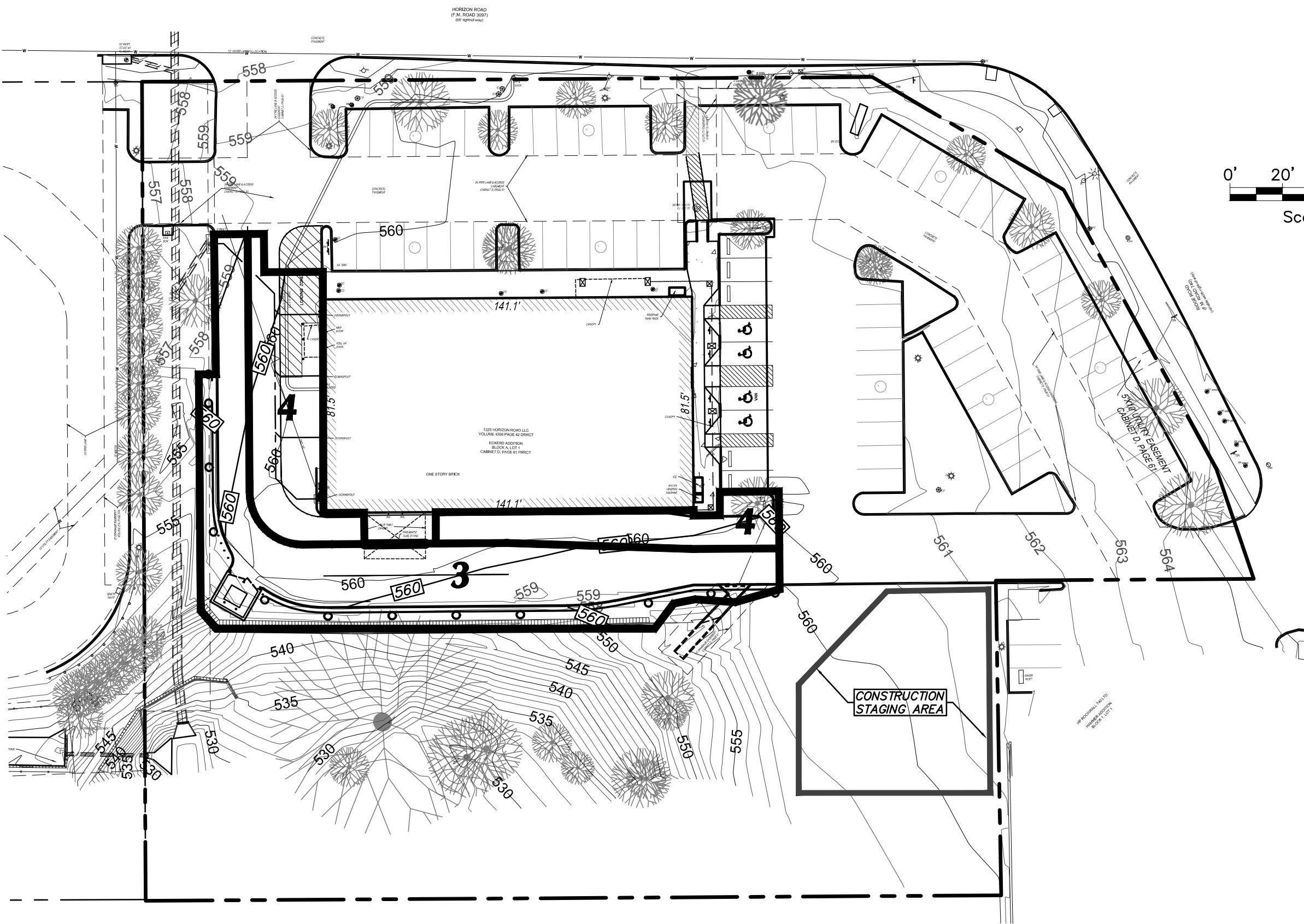
1. SWITCH DRIVE-THRU TRAFFIC TO NEW OUTSIDE DRIVE-THRU LANE(S) AND MAINTAIN EXISTING CONSTRUCTION FENCING AS NEEDED.
2. SAW CUT AND REMOVE EXISTING INSIDE DRIVE-THRU LANE AND RAISED CURB AREAS. REMOVE BOLLARDS.
3. CONSTRUCT/EXTEND NEW STORM SEWER TO BUILDING CONNECTIONS.
4. COMPLETE FRANCHISE UTILITY RELOCATIONS.
5. CONSTRUCT NEW INSIDE DRIVE-THRU LANES, INSTALL BOLLARDS AT BACK DOOR, AND CONSTRUCT NEW RAISED CURB AREAS PER PLAN.

MISC. CONSTRUCTION

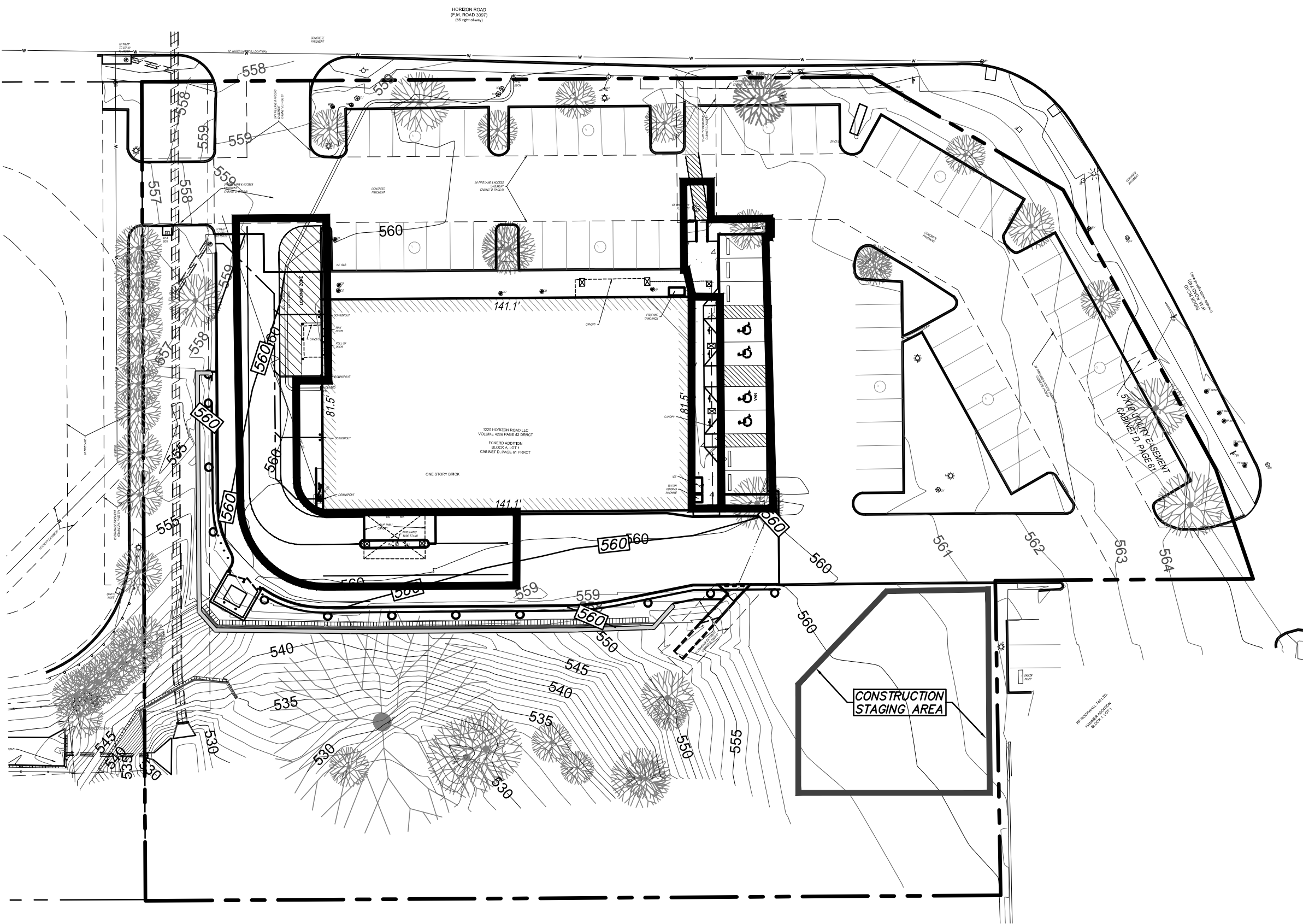
1. FRONT SIDEWALK AND RAMP, PAINT STRIPING, AND A.D.A. SIGNAGE PLACEMENT TO BE DONE OVERNIGHT IN TWO PARTS. COORDINATE WITH BUILDING MANAGER.
2. FRONT PARKING REPLACEMENT TO BE DONE IN TWO PARTS. COORDINATE CONSTRUCTION WITH BUILDING MANAGER.
3. COMPLETE NEW DRIVE-THRU STRIPING.



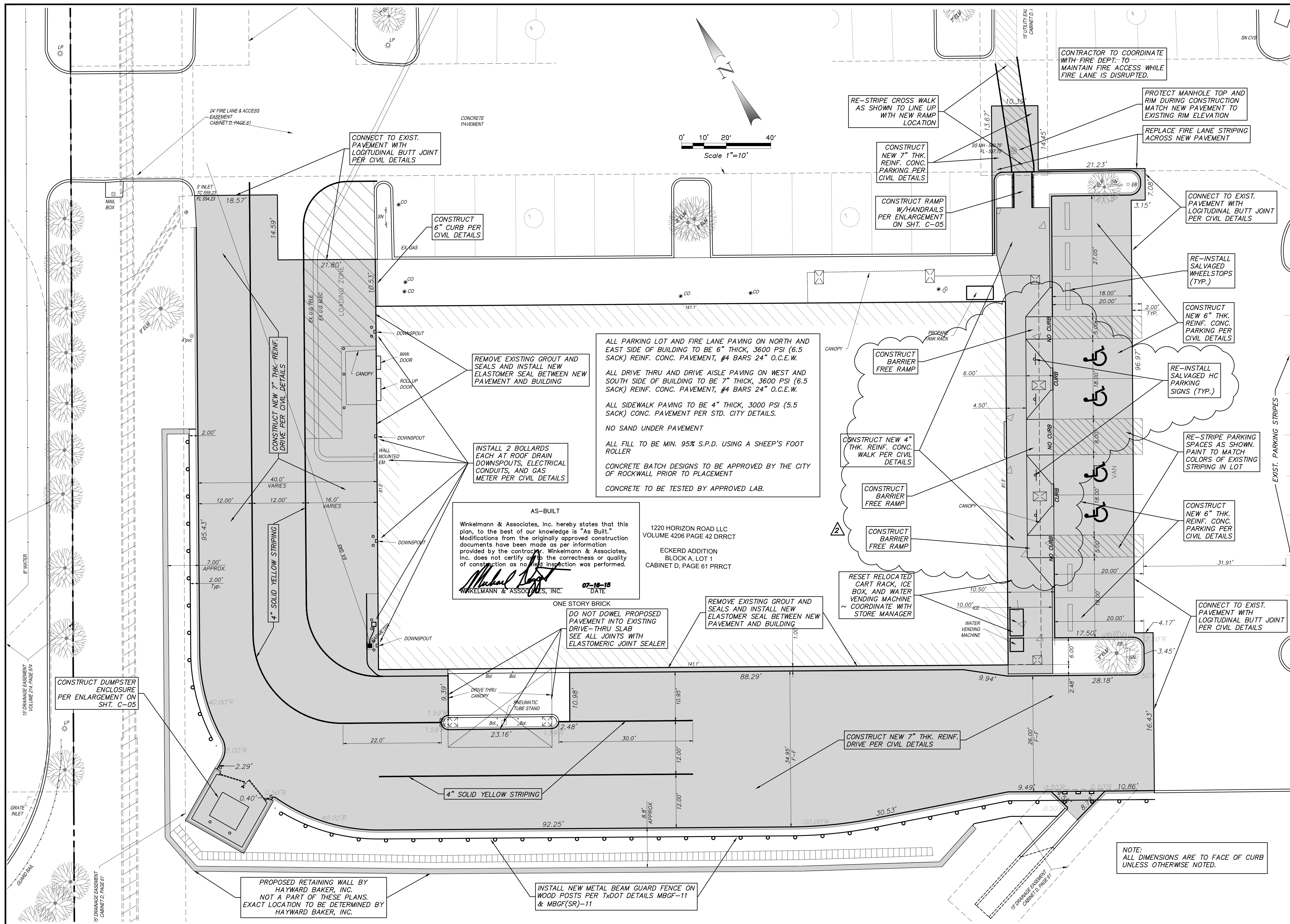
CONSTRUCTION PHASES 1 & 2



CONSTRUCTION PHASES 3 & 4



MISC. CONSTRUCTION



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ROCKWALL, TEXAS
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DEAL TYPE: FEE FOR SERVICE

CS PROJECT NUMBER: 76657

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CONSULTING CIVIL ENGINEERS ■ SURVEYORS
6750 HILLCREST PLAZA DR., SUITE 325
DALLAS, TEXAS 75230
Texas Engineers Registration No. 89
Texas Surveyors Registration No. 100866-00
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CONSULTANT:

DEVELOPER:

SEAL:
MICHAEL T. DOGGETT
98628
7-16-2015
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7-16-15 ASBUILT SET

FILE NAME: 70801-Dim.dwg

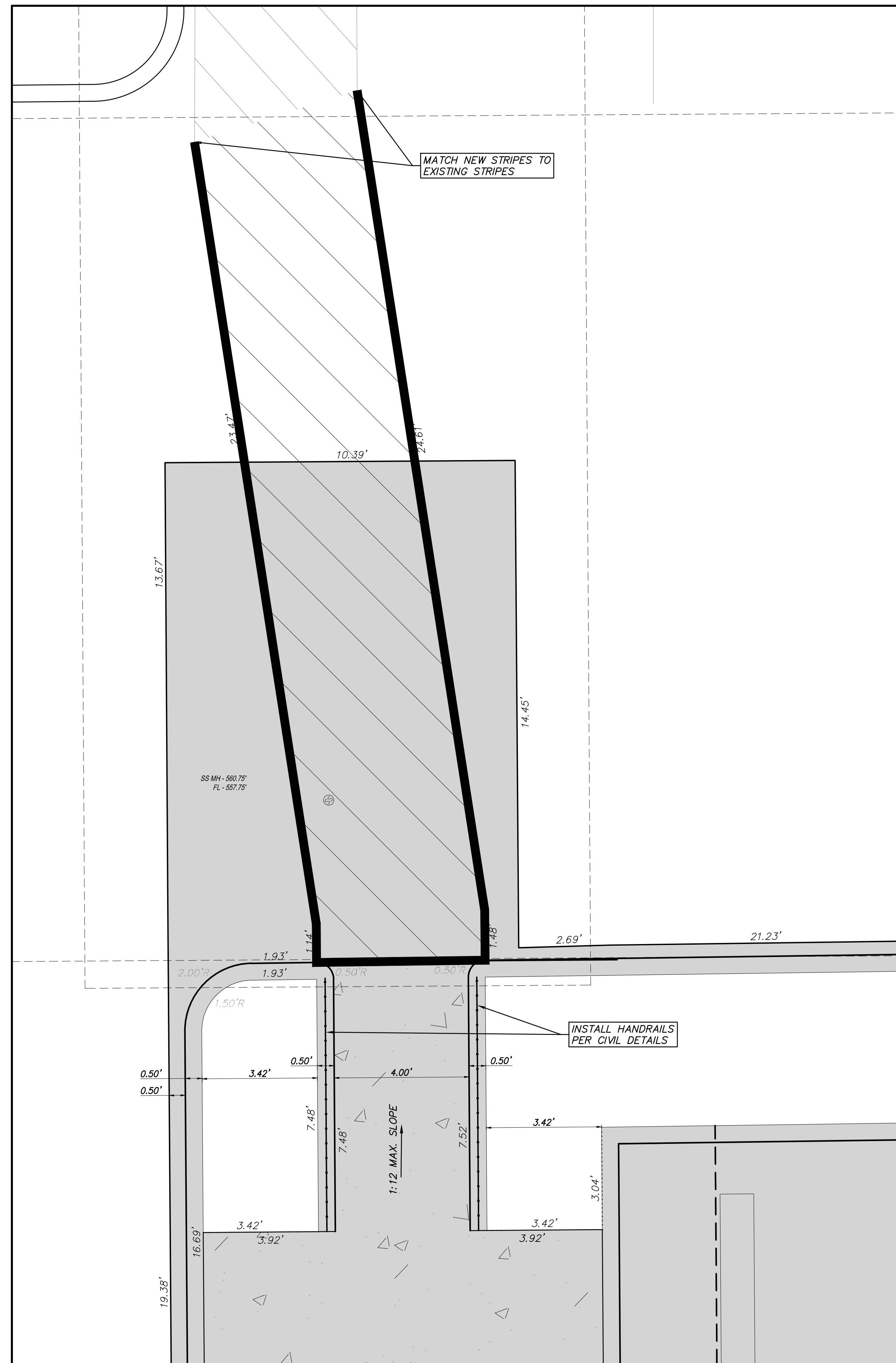
JOB NUMBER: 70801.00

DATE: JULY 28, 2014

TITLE:
PAVING & DIMENSIONAL
CONTROL PLAN

SHEET NUMBER:
C-04

COMMENTS:



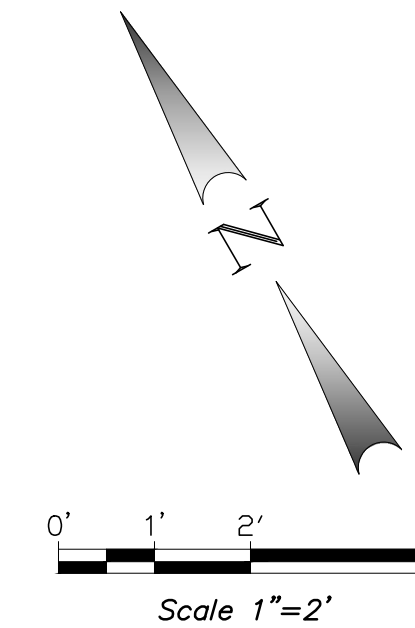
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Michael R. [Signature]

WINKELMANN & ASSOCIATES, INC.

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& Associates, Inc.**

CONSULTING CIVIL ENGINEERS ■ SURVEYORS

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CONSULTANT:

DEVELOPER:

SEAL:

STATE OF TENNESSEE
PROFESSIONAL SOCIAL WORKERS

MICHAEL T. DOGGETT
98628
LICENSED

7-16-2015

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FILE NAME: 70801-Dim.dwg

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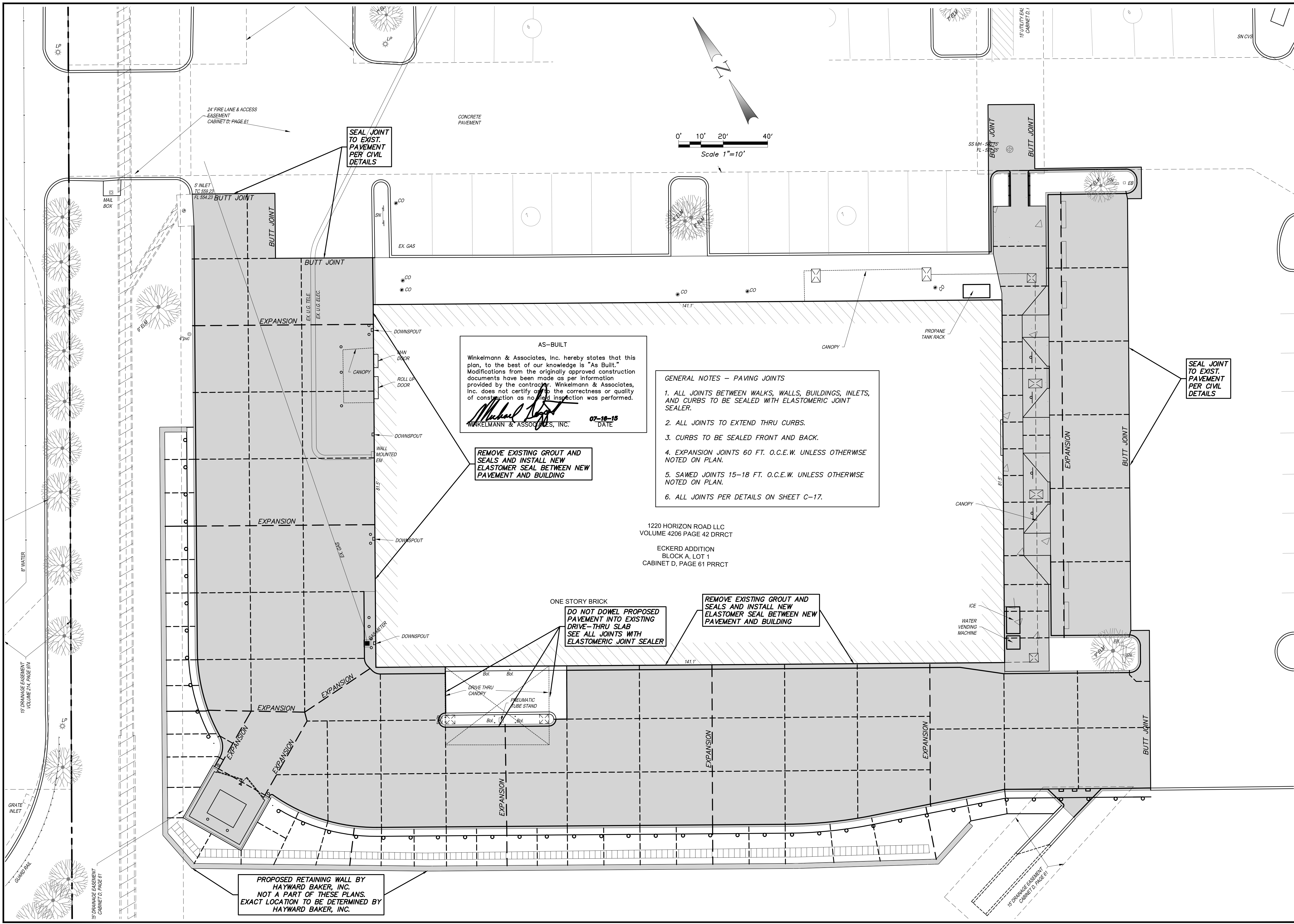
DATE: JULY 28, 2014

TITLE:
DIMENSIONAL CONTROL
ENLARGEMENTS

SHEET NUMBER: _____

C-05

COMMENTS:



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ROCKWALL, TEXAS
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FILE NAME: 70801-Dim.dwg
JOB NUMBER: 70801.00
DATE: JULY 28, 2014
TITLE:
**PAVEMENT JOINT
SCHEMATIC**
SHEET NUMBER:
C-06

COMMENTS:



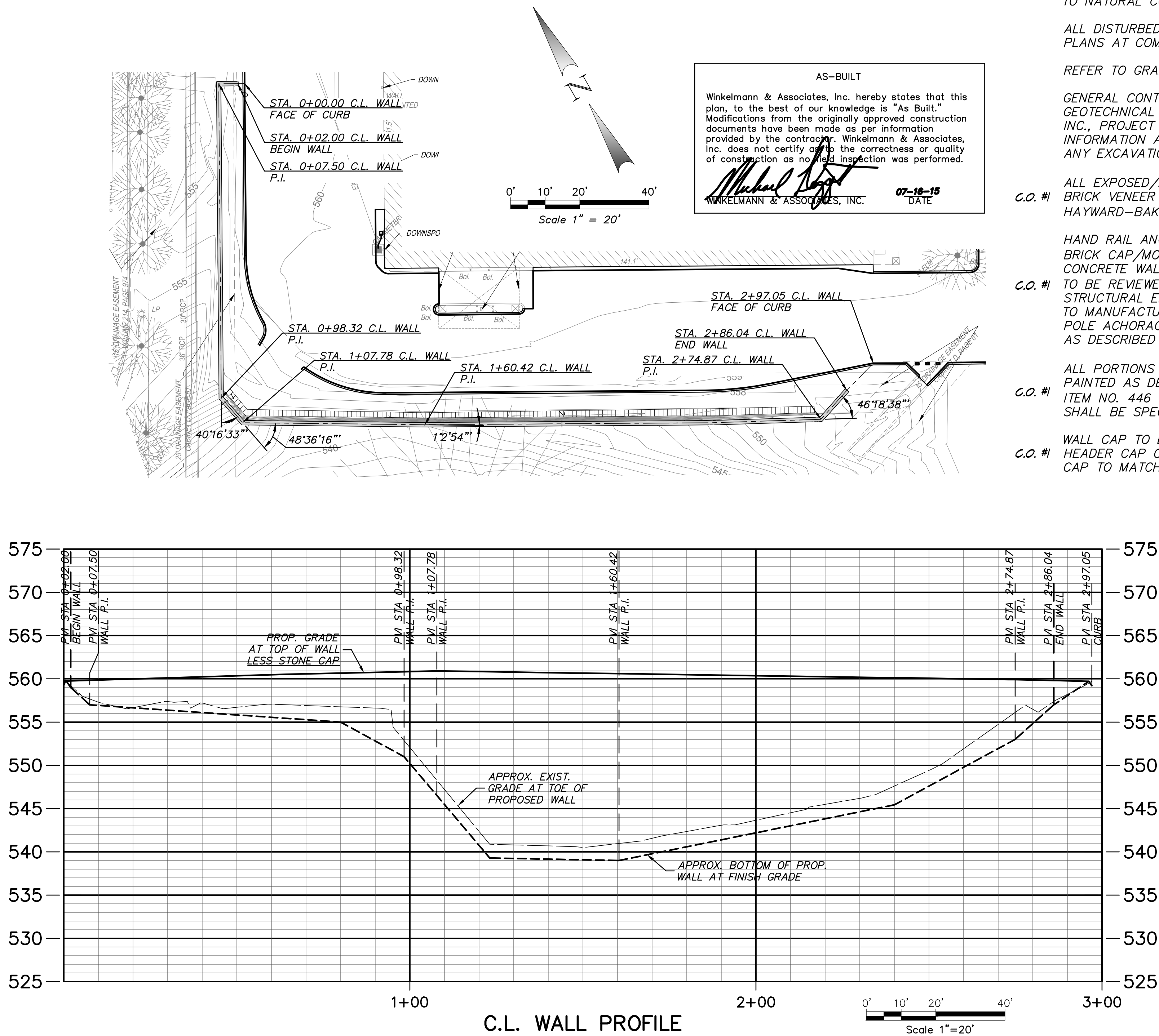
NOTICES TO CONTRACTOR

EXISTING UNDERGROUND/BURIED PUBLIC, PRIVATE, AND FRANCHISE UTILITIES/FACILITIES AFFECT THIS SITE, AND ARE DEPICTED ON THE PLANS PER THE BEST AVAILABLE INFORMATION AT THE TIME THE PLANS WERE PRODUCED. WINKELMANN & ASSOC., INC. SHALL NOT BE RESPONSIBLE FOR KNOWING THE EXACT LOCATION OF ALL FACILITIES OR DEPICTING EXACT LOCATIONS OF SAID FACILITIES ON THE PLANS BEYOND WHAT IS STATED ABOVE.

CONTRACTOR(S) SHALL CALL "811" A MINIMUM OF 48 HOURS PRIOR TO BEGINNING WORK ON THE SITE, AND SHALL NOT BEGIN ANY EXCAVATION OR DEMOLITION ACTIVITIES UNTIL AFTER SAID FACILITIES HAVE BEEN MARKED AND/OR FLAGGED PER "811" OR THE FACILITY OWNERS.

CONTRACTOR(S) SHALL BE WHOLLY RESPONSIBLE FOR ANY DAMAGE THAT MAY OCCUR TO SAID FACILITIES DUE TO WORK BEING DONE WITHOUT FOLLOWING THE PROCEDURES ABOVE.

BENCHMARK:
"■" CUT AT CENTER OF 16 FT. WIDE INLET ON NORTHEAST SIDE OF HORIZON RD., APPROX. 330 FT. NORTHWEST OF THE INTERSECTION OF F.M. 740 (RIDGE RD.) WITH HORIZON RD.
ELEV. 557.44 (CALLED ELEV. 557.58)



NOTE:

THIS PLAN SHEET TO BE USED FOR REFERENCE ONLY AND IS NOT TO BE USED FOR CONSTRUCTION.

SOLDIER PILE WALL DESIGN AND CONSTRUCTION BY HAYWARD BAKER, INC., AND IS NOT A PART OF THESE PLANS.

LOCATION OF WALL SHOWN IS APPROXIMATE. EXACT LOCATION TO BE DETERMINED BY HAYWARD BAKER, INC..

REFER TO RETAINING WALL PLANS AND DETAILS BY HAYWARD BAKER, INC. FOR FOOTER DEPTH AND CONSTRUCTION INFORMATION.

DESIGN AND CONSTRUCTION OF WORKING AREA/BENCH/SHELF AT BASE OF WALL BY HAYWARD BAKER, INC. AREA TO BE RETURNED TO NATURAL CONDITIONS AT COMPLETION OF WALL.

ALL DISTURBED AREAS TO BE SEEDED PER EROSION CONTROL PLANS AT COMPLETION OF WALL.

REFER TO GRADING PLANS FOR ALL GRADING ELEVATIONS.

GENERAL CONTRACTOR AND HAYWARD BAKER, INC. TO REFER TO GEOTECHNICAL REPORT PERFORMED BY TERRACON CONSULTANTS, INC., PROJECT NO. 94135081, DATED MAY 9, 2013, FOR INFORMATION AND RECOMMENDATIONS FOR THIS PROJECT PRIOR TO ANY EXCAVATION OR CONSTRUCTION ON THIS PROJECT.

C.O. # ALL EXPOSED/EXTERIOR FACES/ENDS OF SHOTCRETE WALL TO BE BRICK VENEER TO MATCH BUILDING. BRICK TO BE INSTALLED PER HAYWARD-BAKER DESIGN/DIRECTION.

C.O. # HAND RAIL ANCHOR BOLTS TO BE LENGTHENED TO ACCOUNT FOR BRICK CAP/MORTAR THICKNESS AND PROVIDE MIN. 5" DEPTH INTO CONCRETE WALL PER TxDOT PRD-13 DETAILS ~ ANCHORING METHOD

C.O. # TO BE REVIEWED AND APPROVED BY OWNER'S ENGINEER AND A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF TEXAS PRIOR TO MANUFACTURE AND INSTALLATION. AN ALTERNATE METHOD OF POLE ACHORAGE MAY BE PROPOSED, BUT STILL MUST BE APPROVE AS DESCRIBED ABOVE.

C.O. # ALL PORTIONS OF TxDOT PRD-13 TYPE "E" HANDRAIL SHALL BE PAINTED AS DESCRIBED ON PRD-13 SHEET 3 OF 3 USING TxDOT ITEM NO. 446 "CLEANING AND PAINTING STEEL". COLOR OF PAINT SHALL BE SPECIFIED BY OWNER PRIOR TO PAINTING.

C.O. # WALL CAP TO BE FULLY MORTARED BRICK MASONRY ROWLOCK. HEADER CAP OF UNIFORM WIDTH ALONG ENTIRE LENGTH OF WALL. CAP TO MATCH WALL VENEER.



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SWC HORIZON RD. AND RIDGE RD.
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CIVIL ENGINEER:



CONSULTANT:

DEVELOPER:

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8-12-14 ADDENDUM NO. 1
9-29-14 ADDENDUM NO. 2
CHANGE WALL VENEER TO BRICK
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7-16-15 ASBUILT SET

FILE NAME: 70801-Grd.dwg

JOB NUMBER: 70801.00

DATE: JULY 28, 2014

TITLE:
RETAINING WALL
ELEVATION

SHEET NUMBER:

C-08

COMMENTS:



STORE NUMBER: 07464

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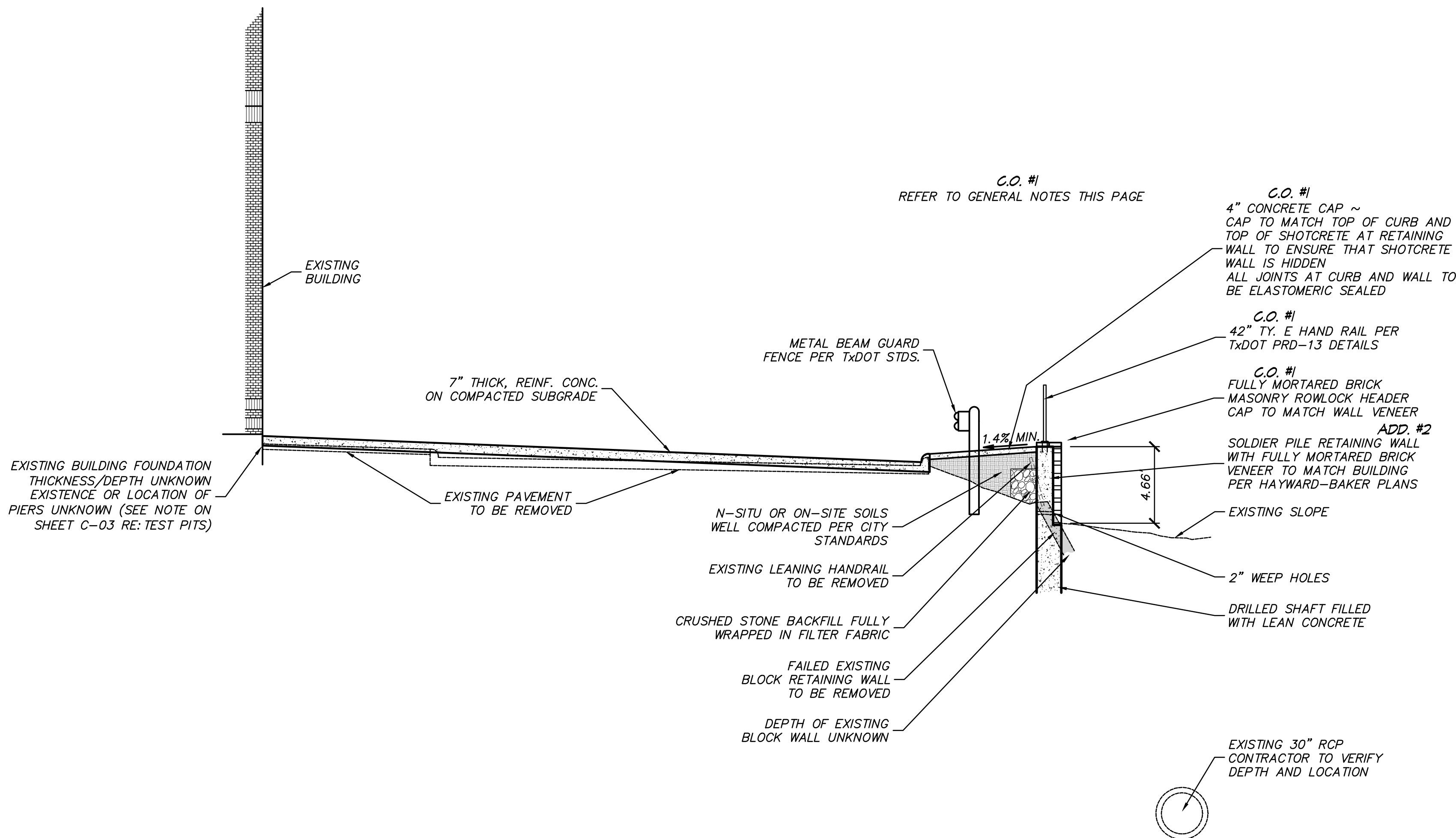
TITLE:

DRIVEWAY
XSECT 1

SHEET NUMBER:

C-09

COMMENTS:



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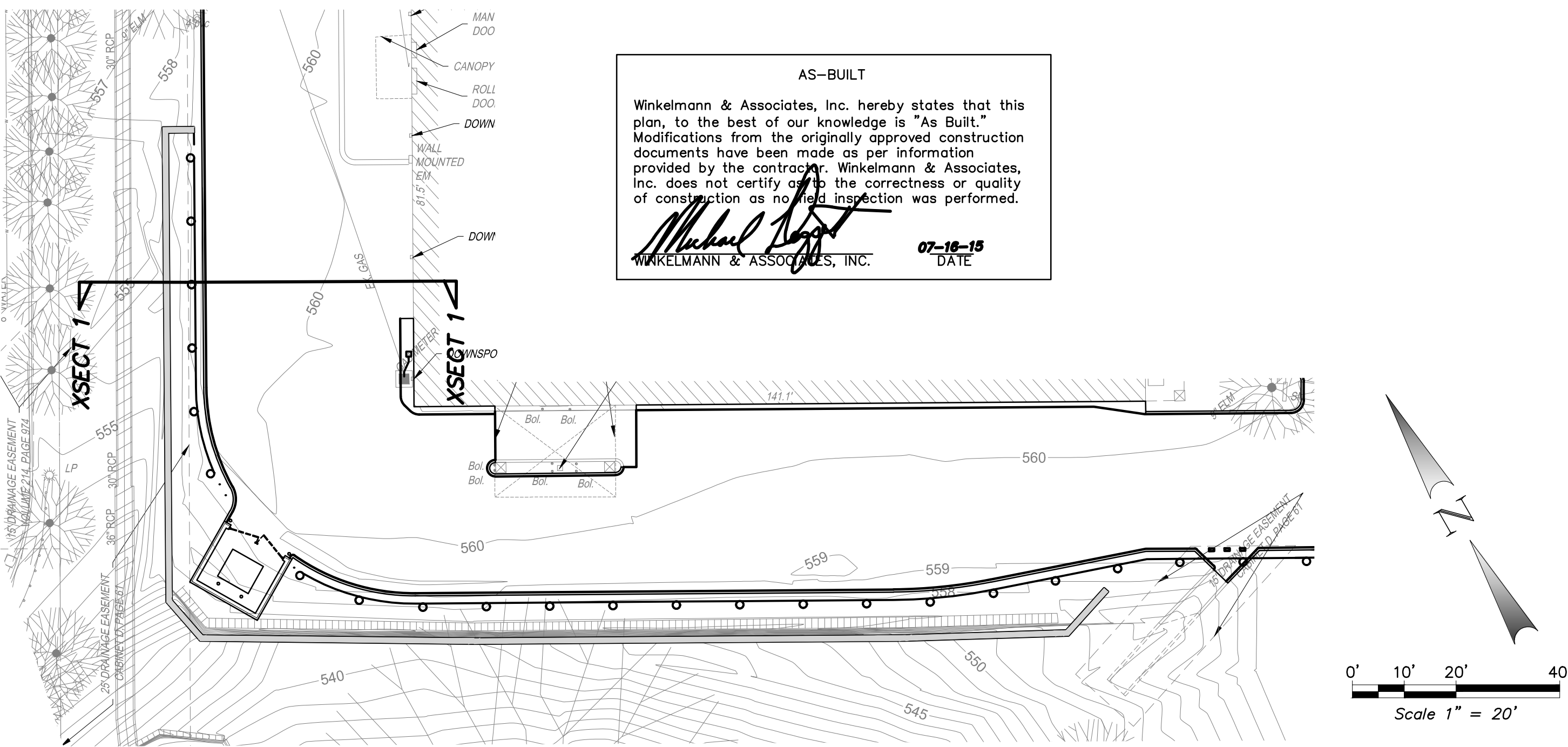
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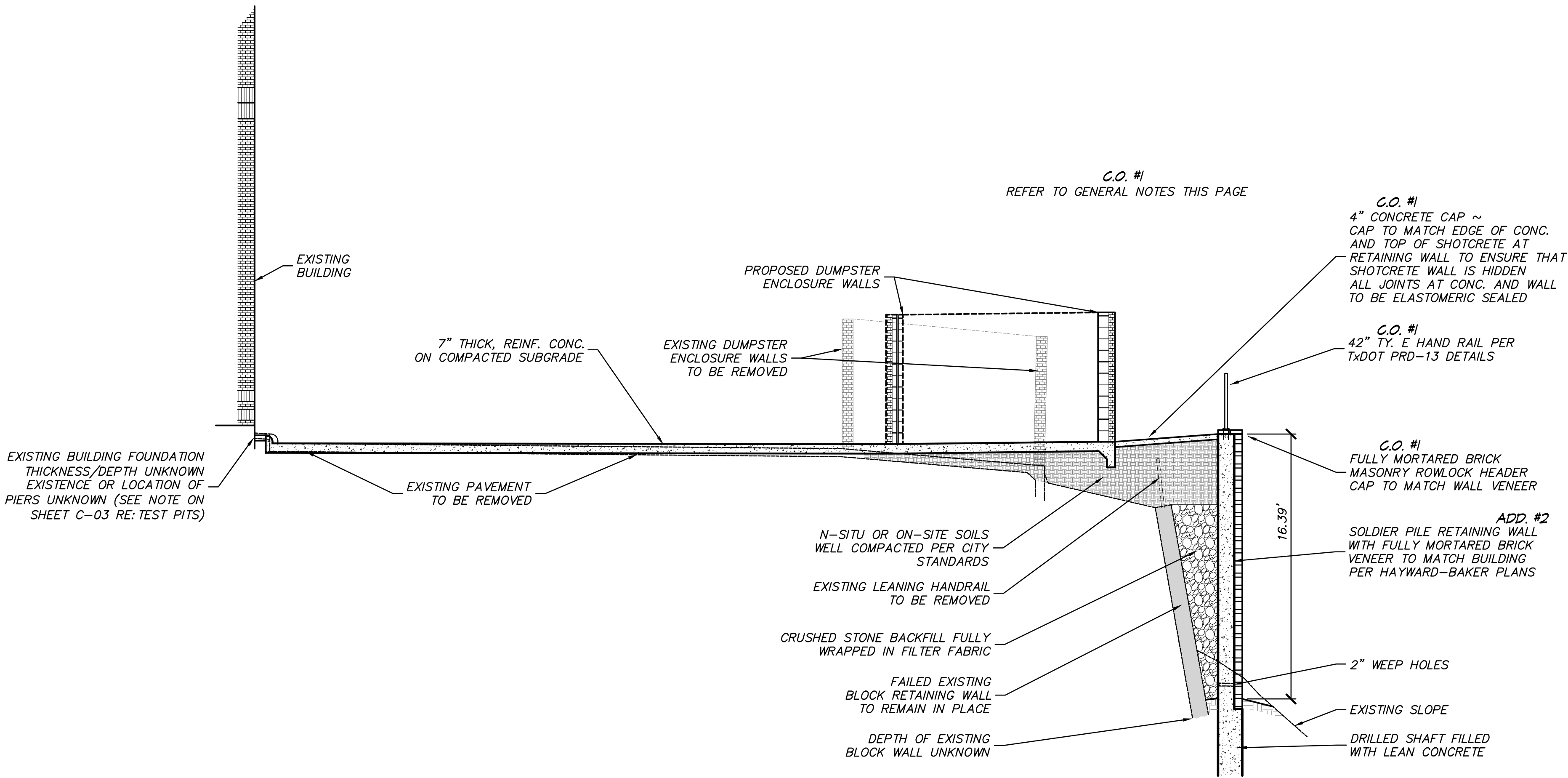
JOB NUMBER: 70801.00

DATE: JULY 28, 2014

TITLE:
**DRIVEWAY
XSECT 2**

SHEET NUMBER:
C-10

COMMENTS:



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SOLDIER PILE WALL DESIGN AND CONSTRUCTION BY HAYWARD BAKER, INC., AND IS NOT A PART OF THESE PLANS.

LOCATION OF WALL SHOWN IS APPROXIMATE. EXACT LOCATION TO BE DETERMINED BY HAYWARD BAKER, INC..

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DESIGN AND CONSTRUCTION OF WORKING AREA/BENCH/SHELF AT BASE OF WALL BY HAYWARD BAKER, INC. AREA TO BE RETURNED TO NATURAL CONDITIONS AT COMPLETION OF WALL.

ALL DISTURBED AREAS TO BE SEEDED PER EROSION CONTROL PLANS AT COMPLETION OF WALL.

REFER TO GRADING PLANS FOR ALL GRADING ELEVATIONS.

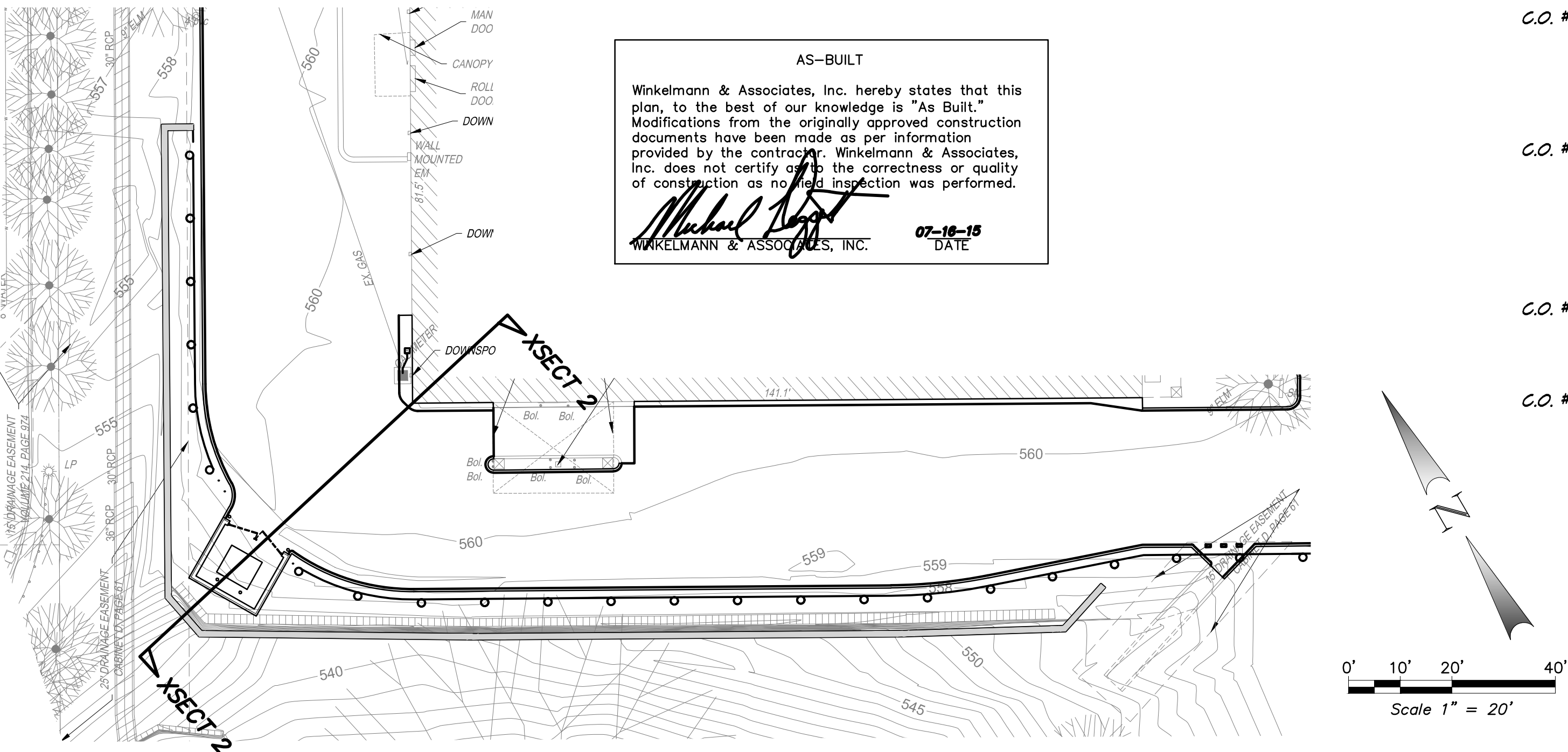
GENERAL CONTRACTOR AND HAYWARD BAKER, INC. TO REFER TO GEOTECHNICAL REPORT PERFORMED BY TERRACON CONSULTANTS, INC., PROJECT NO. 94135081, DATED MAY 9, 2013. FOR INFORMATION AND RECOMMENDATIONS FOR THIS PROJECT PRIOR TO ANY EXCAVATION OR CONSTRUCTION ON THIS PROJECT.

C.O. #1 ALL EXPOSED/EXTERIOR FACES/ENDS OF SHOTCRETE WALL TO BE BRICK VENEER TO MATCH BUILDING. BRICK TO BE INSTALLED PER HAYWARD-BAKER DESIGN/DIRECTION.

C.O. #1 HAND RAIL ANCHOR BOLTS TO BE LENGTHENED TO ACCOUNT FOR BRICK CAP/MORTAR THICKNESS AND PROVIDE MIN. 5" DEPTH INTO CONCRETE WALL PER TxDOT PRD-13 DETAILS ~ ANCHORING METHOD TO BE REVIEWED AND APPROVED BY OWNER'S ENGINEER AND A STRUCTURAL ENGINEER REGISTERED IN THE STATE OF TEXAS PRIOR TO MANUFACTURE AND INSTALLATION. AN ALTERNATE METHOD OF POLE ACHORAGE MAY BE PROPOSED, BUT STILL MUST BE APPROVE AS DESCRIBED ABOVE.

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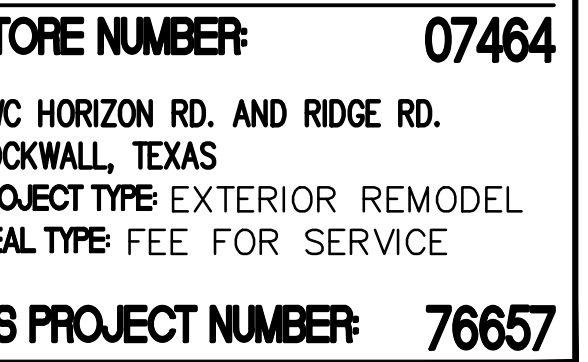
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BENCHMARK:
"■" CUT AT CENTER OF 16 FT. WIDE INLET ON NORTHEAST SIDE OF HORIZON RD., APPROX. 330 FT. NORTHWEST OF THE INTERSECTION OF F.M. 740 (RIDGE RD.) WITH HORIZON RD.
ELEV. 557.44 (CALLED ELEV. 557.58)



**Winkelmann
& Associates, Inc.**

CONSULTING CIVIL ENGINEERS ■ SURVEYORS

750 HILLCREST PLAZA DR., SUITE 325 (972) 490-7090
 DALLAS, TEXAS 75230 (972) 490-7090 FAX

As Engineers Registration No. 89
 As Surveyors Registration No. 100866-00

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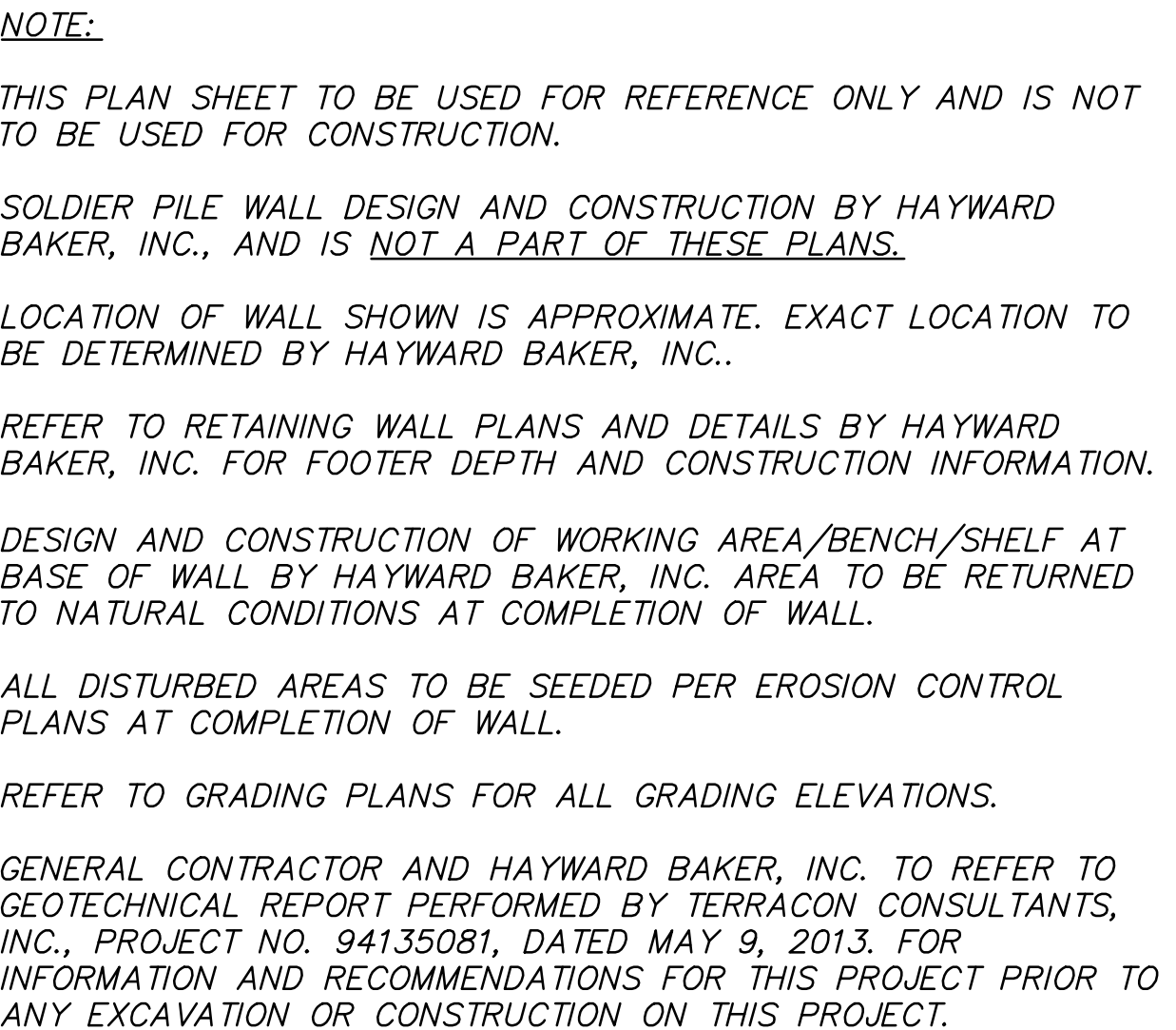
DEVELOPER:

VISIONS:

12-14	ADDENDUM NO. 1
19-14	ADDENDUM NO. 2
	CHANGE WALL VENEER TO BRICK
14-15	CHANGE ORDER NO. 1
13-15	ADA RAMPS NO. 2
16-15	ASBUILT SET

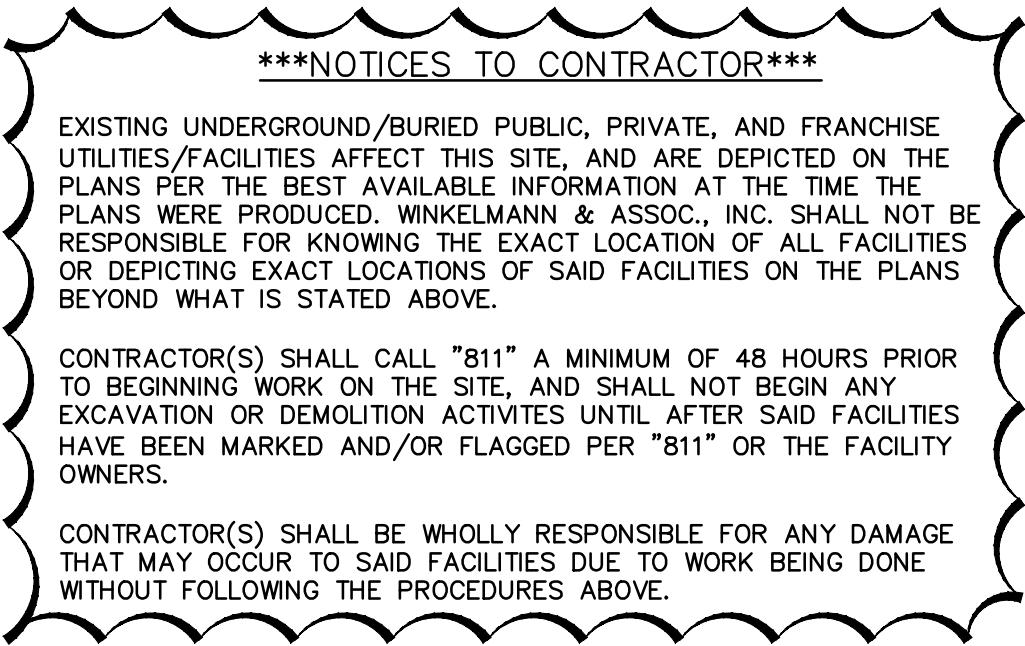
NAME: 70801-Grd.dwg
 NUMBER: 70801.00
 DATE: JULY 28, 2014
 DRAWN BY:
 DRIVEWAY
 XSECT 3
 DET NUMBER:
 C-11

EXPERIMENTS:



HAND RAIL ANCHOR BOLTS TO BE LENGTHENED TO ACCOUNT FOR
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Michael D. Winkelmann
WINKELMANN & ASSOCIATES, INC. 07-10-15
DATE

Scale 1"=5'

0' 10' 20' 40'
Scale 1" = 20'



STORE NUMBER: 07464
SWC HORIZON RD. AND RIDGE RD.
ROCKWALL, TEXAS
PROJECT TYPE: EXTERIOR REMODEL
DEAL TYPE: FEE FOR SERVICE
CS PROJECT NUMBER: 76657

CIVIL ENGINEER:
Winkelmann & Associates, Inc.
CONSULTING CIVIL ENGINEERS ■ SURVEYORS
6750 HILLCREST PLAZA DR., SUITE 325 (972) 490-7090
DALLAS, TEXAS 75230 (972) 490-7099 FAX
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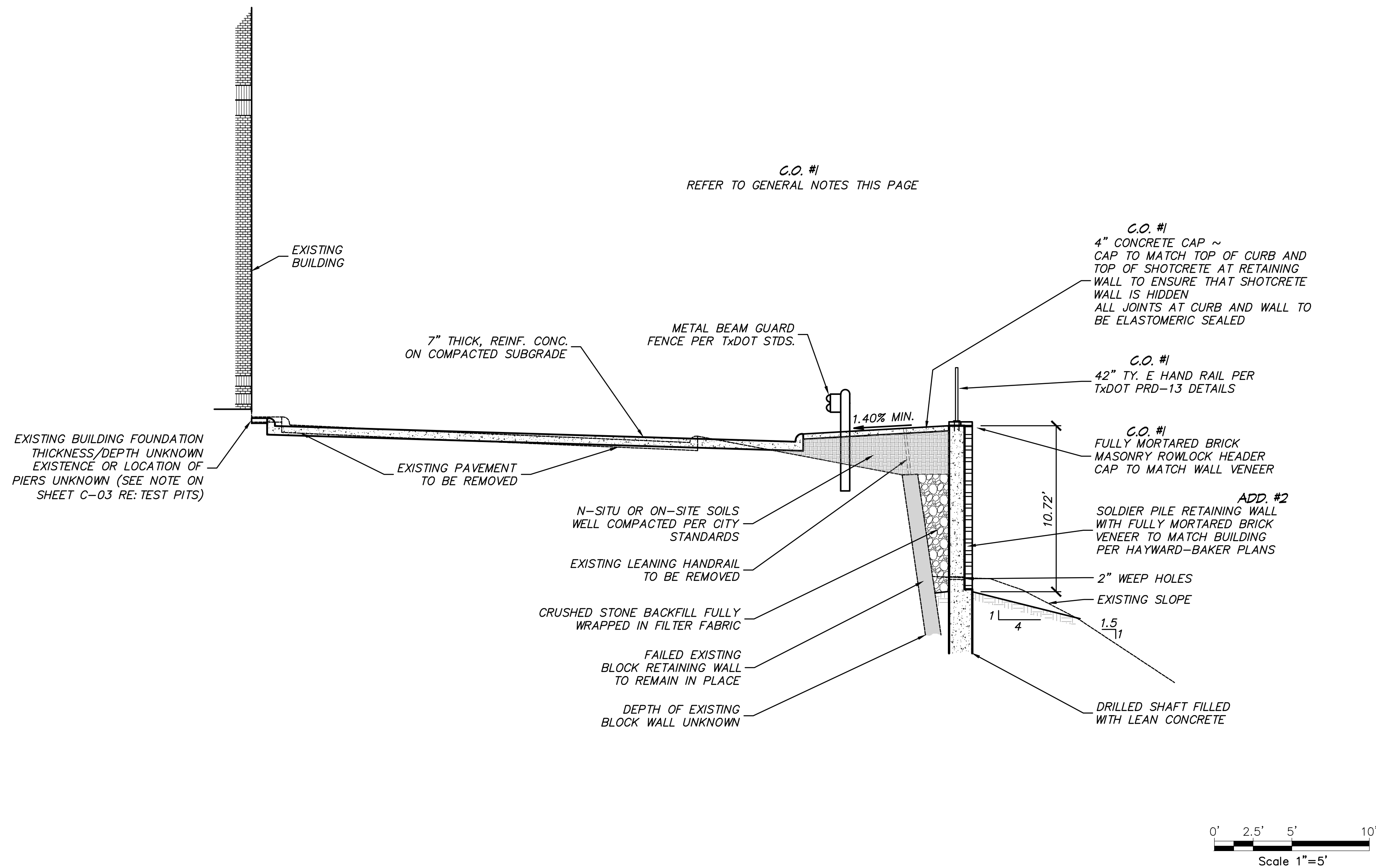
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9-29-14 ADDENDUM NO. 2
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3-24-15 CHANGE ORDER NO. 1
4-13-15 ADA RAMPS NO. 2
7-16-15 ASBUILT SET

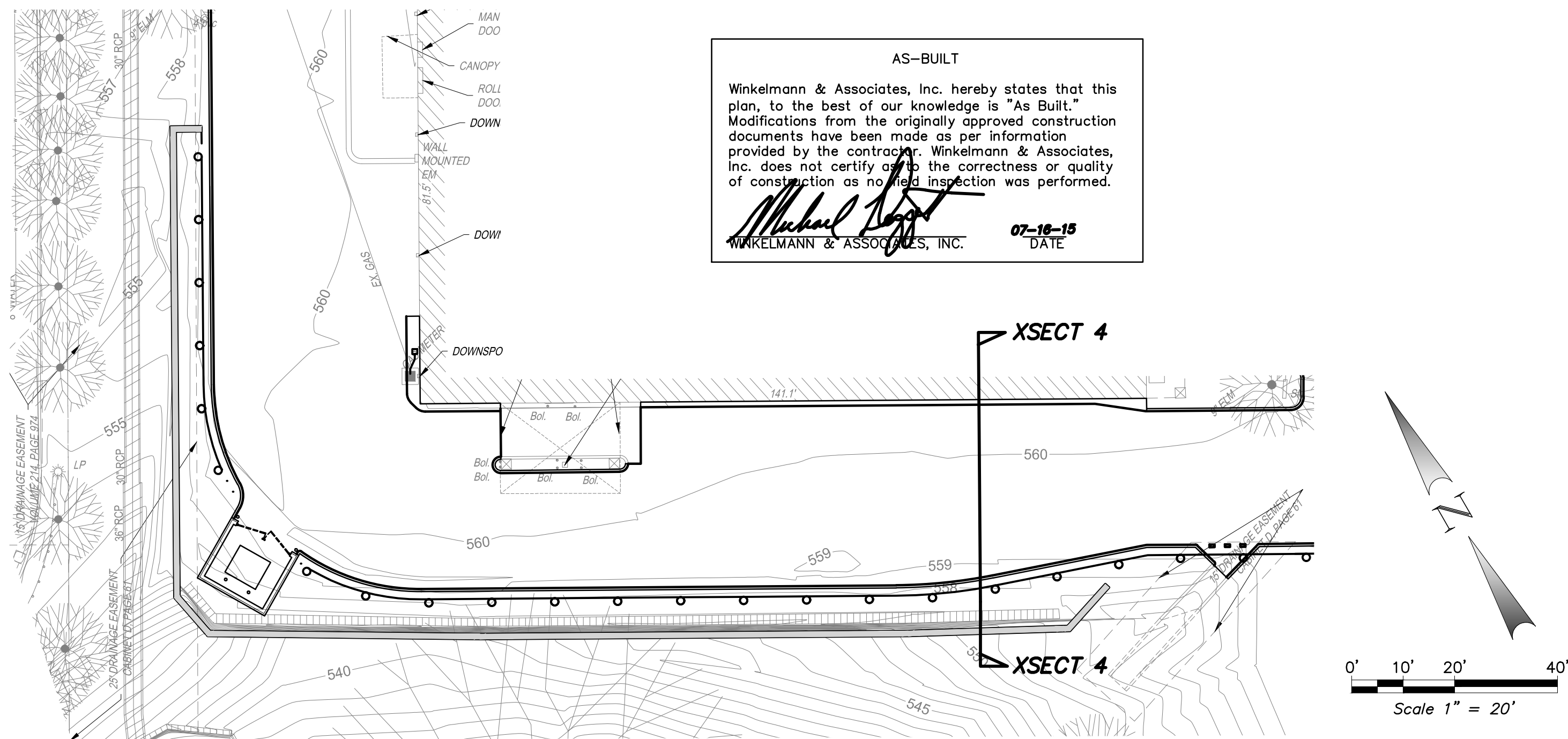
FILE NAME: 70801-Grd.dwg
JOB NUMBER: 70801.00
DATE: JULY 28, 2014
TITLE:
**DRIVEWAY
XSECT 4**
SHEET NUMBER:
C-12

COMMENTS:



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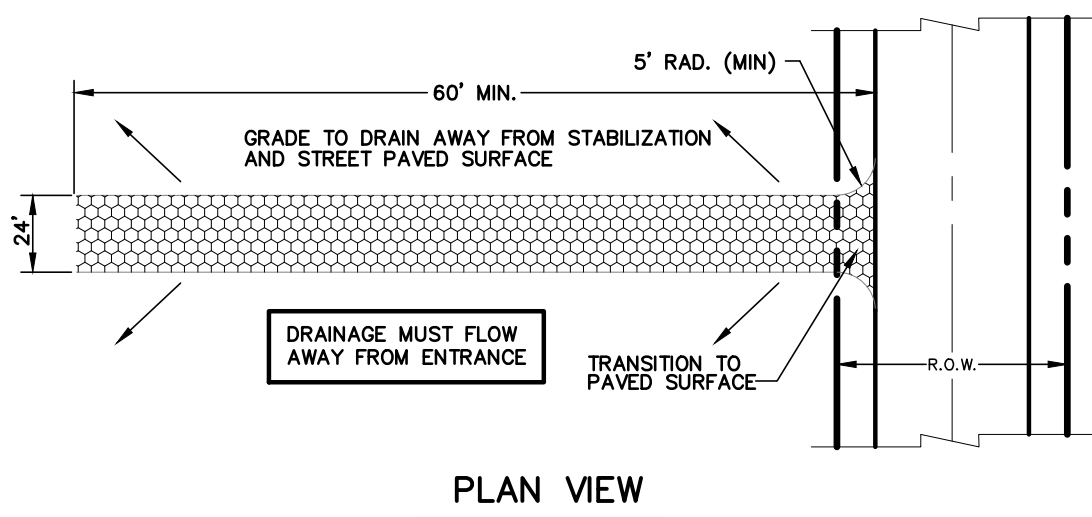
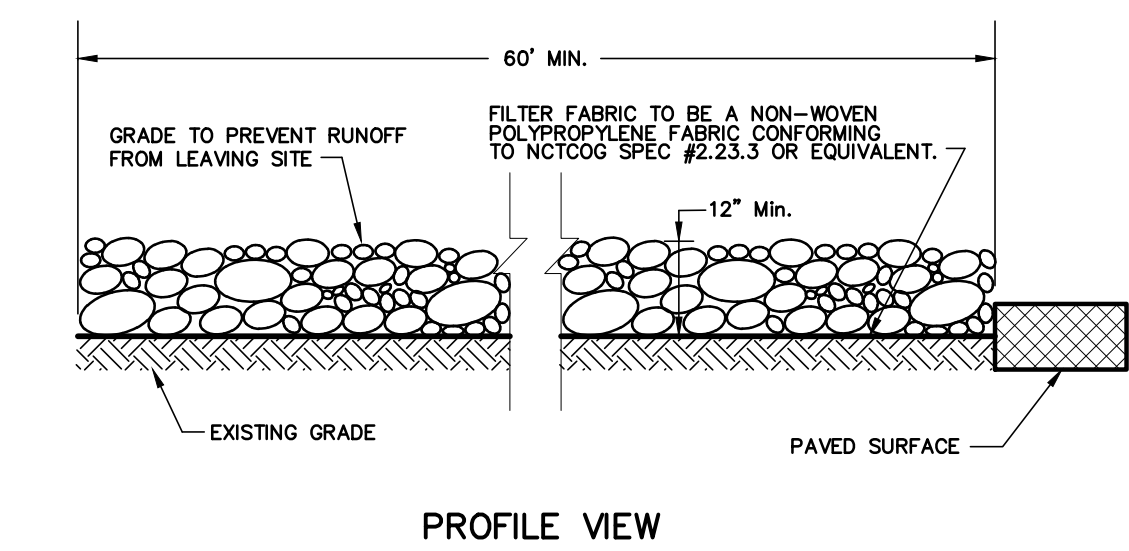
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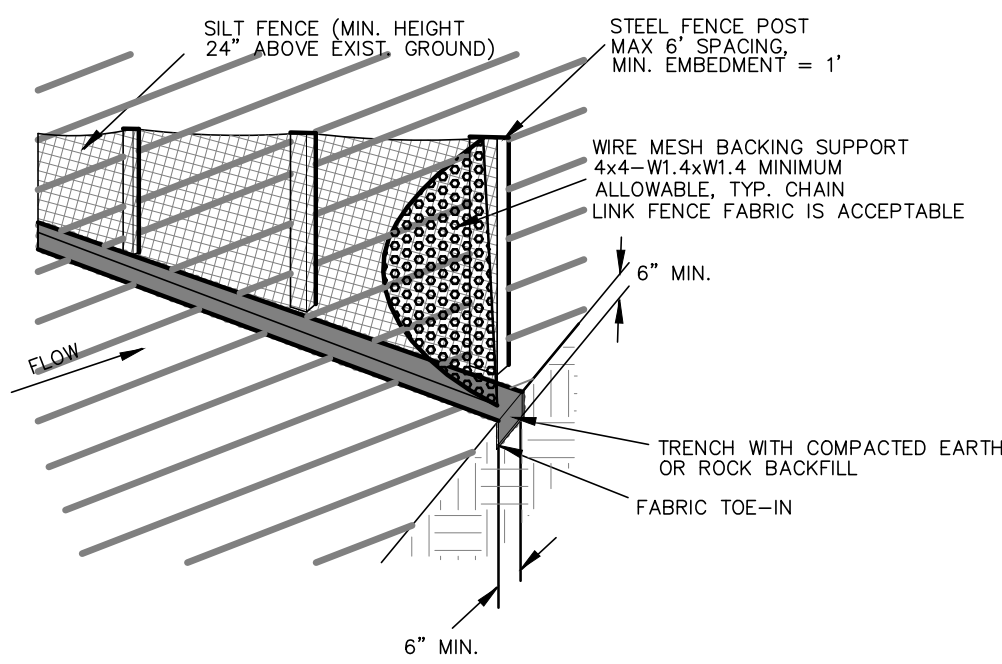
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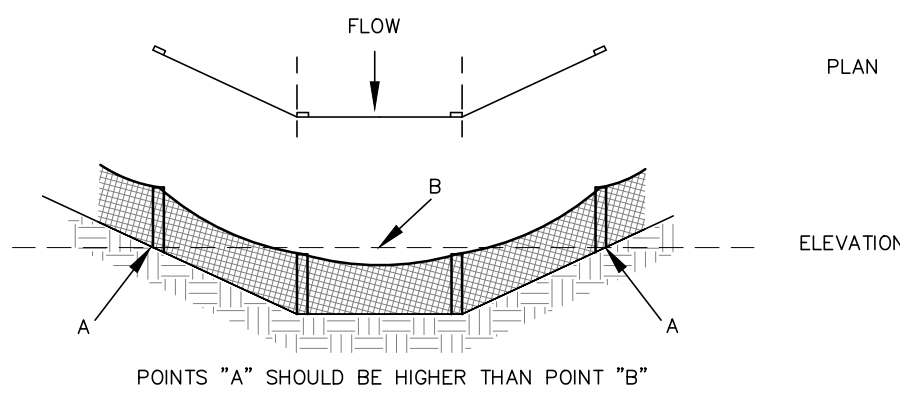
STABILIZED CONSTRUCTION ENTRANCE

N.T.S.



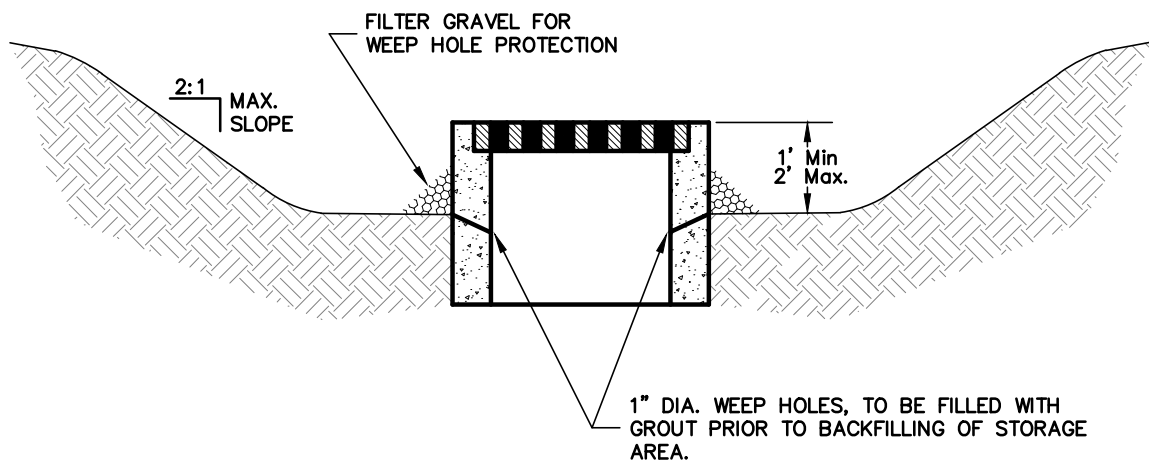
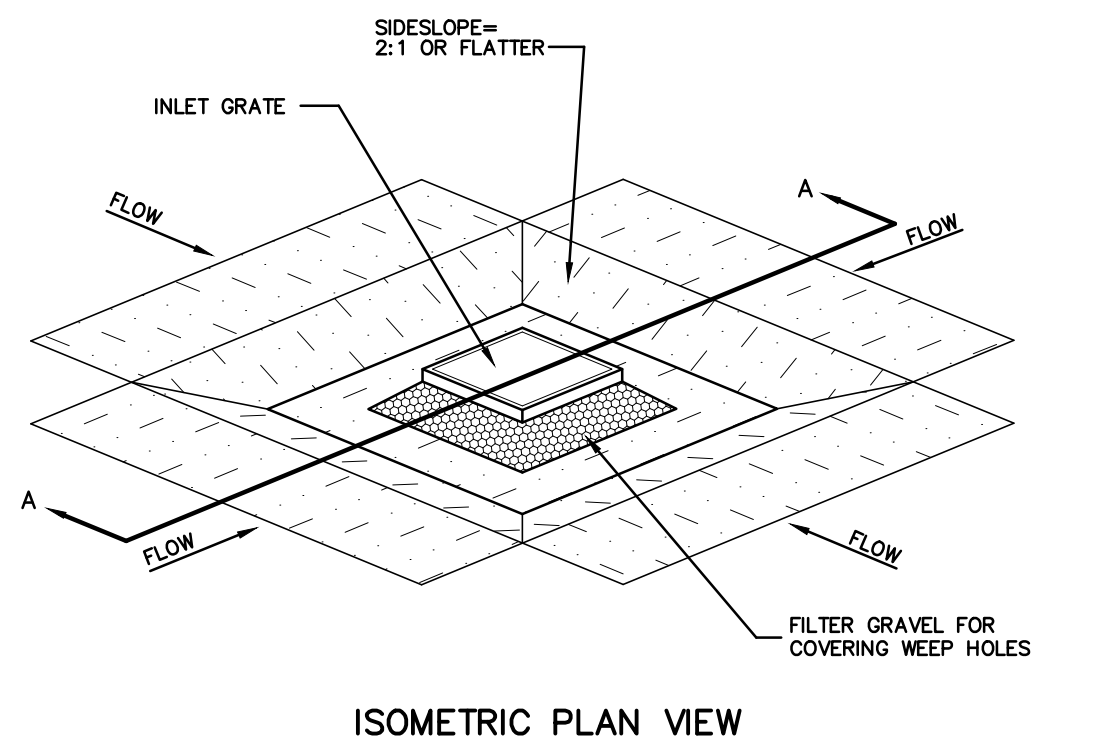
CONSTRUCTION OF A FILTER BARRIER (SILT FENCE)

N.T.S.



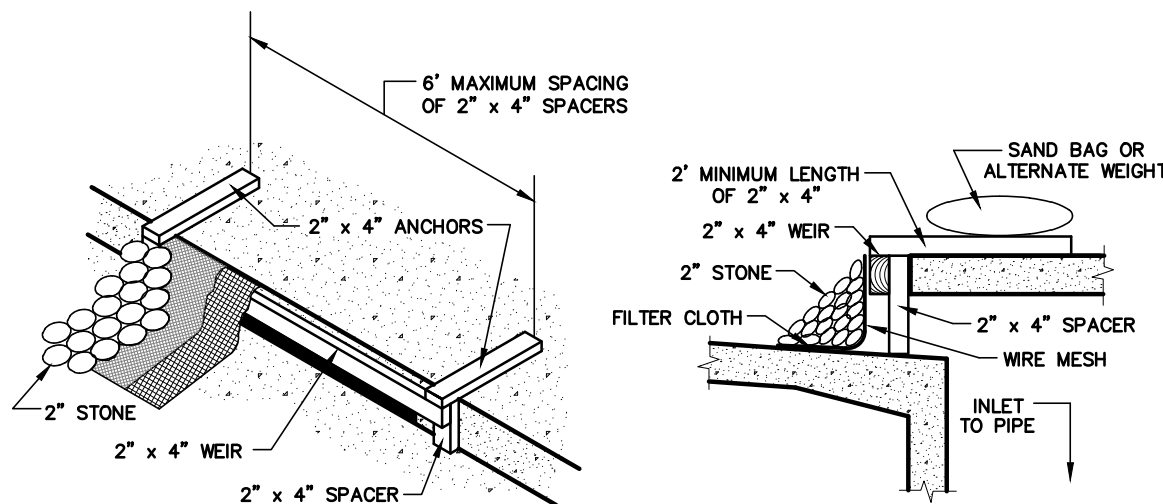
PROPER PLACEMENT OF A FILTER BARRIER IN A DRAINAGE WAY

N.T.S.



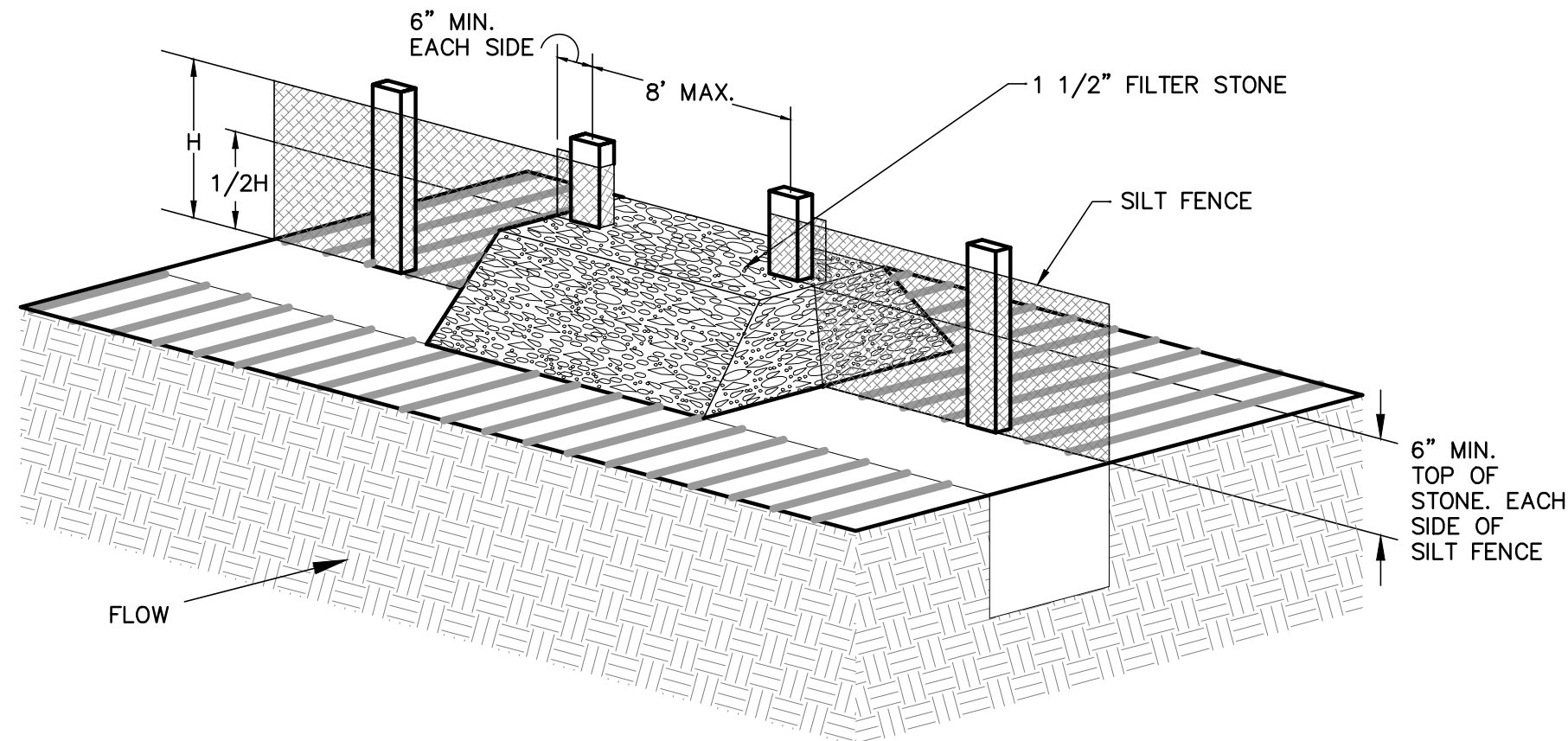
INLET PROTECTION EXCAVATED IMPOUNDMENT

N.T.S.



CURB INLET PROTECTION DETAIL

N.T.S.



CHECK DAM

N.T.S.

EROSION CONTROL GENERAL NOTES

1. STEEL POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE.
2. THE TOE OF THE SILT FENCE SHALL BE TRENCHED IN WITH A SPADE OR MECHANICAL TRENCHER SO THAT THE DOWNSLOPE FACE OF THE TRENCH IS FLAT AND PERPENDICULAR TO THE LINE OF FLOW.
3. THE TRENCH SHOULD BE A MINIMUM OF 6 INCHES DEEP AND 6 INCHES WIDE TO ALLOW FOR THE SILT FENCE TO BE LAID IN THE GROUND AND BACKFILLED.
4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL FENCE POSTS.
5. INSPECTION SHALL BE FREQUENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED. 6. SILT FENCE SHALL BE REMOVED WHEN IT HAS SERVED ITS USEFULNESS, SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.
7. SEDIMENT TRAPPED BY THIS PRACTICE SHALL BE DISPOSED OF IN AN APPROVED SITE IN A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.
8. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 6 INCHES AND DISPOSED OF IN AN APPROVED SPOIL SITE OR AS IN NO. 7 ABOVE.
9. EROSION PROTECTION WILL BE DELETED OR ADDED PER THE CITY.
10. THE CONTRACTOR SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL EROSION, CONSERVATION, AND SILTATION ORDINANCES. THE CONTRACTOR SHALL REMOVE ALL TEMPORARY EROSION CONTROL DEVICES UPON COMPLETION OF PERMANENT DRAINAGE FACILITIES AND THE ESTABLISHMENT OF A STAND OF GRASS OR OTHER GROWTH TO PREVENT EROSION.
11. ALL SEEDING AND FERTILIZATION OF DISTURBED AREAS WILL BE THE RESPONSIBILITY OF THE GRADING CONTRACTOR.

STANDARDS FOR SILT FENCE

DEFINITION

TEMPORARY BARRIER FENCE MADE OF BURLAP OR POLYPROPYLENE MATERIAL WHICH IS WATER PERMEABLE BUT WILL TRAP WATERBORNE SEDIMENT.

PURPOSE

TO INTERCEPT AND DETAIN WATERBORNE SEDIMENT FROM UNPROTECTED AREAS OF LIMITED EXTENT.

CONDITIONS WHERE PRACTICE APPLIES

SILT FENCE IS USED DURING THE PERIOD OF CONSTRUCTION NEAR THE PERIMETER OF A DISTURBED AREA TO INTERCEPT SEDIMENT WHILE ALLOWING WATER TO PERCOLATE THROUGH. THIS FENCE SHALL REMAIN IN PLACE UNTIL THE DISTURBED AREA IS PERMANENTLY STABILIZED. SILT FENCE SHOULD NOT BE USED WHERE THERE IS A CONCENTRATION OF WATER IN A CHANNEL OR OTHER DRAINAGE WAY.

DESIGN CRITERIA

SILT FENCE IS CONSTRUCTED NEAR THE PERIMETER OF A DISTURBED SITE WITHIN THE DEVELOPING AREA. IT IS NOT TO BE CONSTRUCTED OUTSIDE THE PROPERTY LINES WITHOUT OBTAINING A LETTER OF PERMISSION FROM THE AFFECTED ADJACENT PROPERTY OWNERS.

A DESIGN IS NOT REQUIRED FOR THE INSTALLATION OF THE SILT FENCE. HOWEVER, THE FOLLOWING CRITERIA SHALL BE OBSERVED:

- DRAINAGE AREA – LESS THAN TWO ACRES
- HEIGHT – 24 INCHES MINIMUM HEIGHT MEASURED FROM EXISTING OR GRADED GROUND.
- MATERIAL – BURLAP, POLYPROPYLENE FABRIC, OR NYLON REINFORCED WITH POLYESTER NETTING. THE MULLEN BURST STRENGTH SHALL BE GREATER THAN 150 PSI. THE EDGES SHALL BE TREATED TO RESIST UNRAVELING.
- SUPPORT – STEEL FENCE POSTS SPACED A MAXIMUM OF 8 FEET APART. WOVEN WIRE WILL BE USED TO SUPPORT THE MATERIAL.

OUTLET

SILT FENCE SHALL BE PLACED AND CONSTRUCTED IN SUCH A MANNER THAT RUNOFF FROM A DISTURBED SURFACE OR EXPOSED UPLAND AREA SHALL BE INTERCEPTED, SEDIMENT TRAPPED, AND THE SURFACE RUNOFF ALLOWED TO PERCOLATE THROUGH THE STRUCTURE.

SILT FENCE SHALL BE PLACED IN SUCH A MANNER THAT SURFACE RUNOFF WHICH PERCOLATES THROUGH WILL FLOW ONTO AN UNDISTURBED STABILIZED AREA OR STABILIZED OUTLET.

STORM DRAIN INLET PROTECTION CONSTRUCTION SPECIFICATIONS

1. WOODEN FRAME IS TO BE CONSTRUCTED OF 2" X 4" CONSTRUCTION GRADE LUMBER.
2. WIRE MESH MUST BE OF SUFFICIENT STRENGTH TO SUPPORT FILTER FABRIC, AND STONE FOR CURB INLETS, WITH WATER FULLY IMPOUNDED AGAINST IT.
3. FILTER CLOTH MUST BE OF A TYPE APPROVED FOR THIS PURPOSE; RESISTANT TO SUNLIGHT WITH SIEVE SIZE, EOS, 40-85, TO ALLOW SUFFICIENT PASSAGE OF WATER AND REMOVAL OF SEDIMENT.
4. STONE IS TO BE 2" IN SIZE AND CLEAN, SINCE FINES WOULD CLOG THE CLOTH.
5. THE ASSEMBLY SHALL BE PLACED SO THAT THE END SPACERS ARE A MINIMUM 1' BEYOND BOTH ENDS OF THE THROAT OPENING.
6. FORM THE WIRE MESH AND FILTER CLOTH TO THE CONCRETE GUTTER AND AGAINST THE FACE OF CURB ON BOTH SIDES OF THE INLET. PLACE CLEAN 2" STONE OVER THE WIRE MESH AND FILTER FABRIC IN SUCH A MANNER AS TO PREVENT WATER FROM ENTERING THE INLET UNDER OR AROUND THE FILTER CLOTH.
7. THIS TYPE OF PROTECTION MUST BE INSPECTED FREQUENTLY AND THE FILTER CLOTH AND STONE REPLACED WHEN CLOGGED WITH SEDIMENT.
8. ASSURE THAT STORM FLOW DOES NOT BYPASS INLET BY INSTALLING TEMPORARY EARTH OR ASPHALT DIKES DIRECTING FLOW INTO INLET.

STABILIZED CONSTRUCTION ENTRANCE

1. STONE SHALL BE 4 TO 6 INCH DIAMETER CRUSHED ROCK. CRUSHED CONCRETE NOT ALLOWED.
2. LENGTH SHALL BE SHOWN ON PLANS, WITH A MINIMUM LENGTH OF 30 FEET FOR LOTS WHICH ARE LESS THAN 150 FEET FROM EDGE OF PAVEMENT. THE MINIMUM DEPTH IN ALL OTHER CASES SHALL BE 60 FEET.
3. THE THICKNESS SHALL NOT BE LESS THAN 12 INCHES.
4. THE WIDTH SHALL BE NO LESS THAN THE FULL WIDTH OF ALL POINTS OF INGRESS OR EGRESS.
5. WHEN NECESSARY, VEHICLES SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO A PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE WITH DRAINAGE FLOWING AWAY FROM BOTH THE STREET AND THE STABILIZED ENTRANCE. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM, DITCH, OR WATERCOURSE USING APPROVED METHODS.
6. THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION WHICH WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PAVED SURFACES. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND. ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PAVED SURFACES, MUST BE REMOVED IMMEDIATELY.
7. THE ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

CHECK DAMS

1. USE ONLY OPEN GRADED ROCK 4-8 INCHES IN DIAMETER FOR STREAM FLOW CONDITIONS. USE OPEN GRADED ROCK 3-5 INCHES IN DIAMETER FOR OTHER CONDITIONS.
2. THE CHECK DAM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING A MAXIMUM OPENING OF 1 INCH AND A MINIMUM WIRE SIZE OF 20 GAUGE AND SHALL BE BURIED IN A TRENCH APPROXIMATELY 3 TO 4 INCHES DEEP.
3. THE CHECK DAM SHALL BE INSPECTED WEEKLY OR AFTER EACH RAIN EVENT AND SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED DUE TO SILT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
4. WHEN SILT REACHES A DEPTH EQUAL TO ONE-THIRD OF THE HEIGHT OF THE CHECK DAM OR ONE FOOT, WHICHEVER IS LESS, THE SILT SHALL BE REMOVED AND DISPOSED OF PROPERLY.
5. WHEN THE SITE IS COMPLETELY STABILIZED, THE CHECK DAM AND ACCUMULATED SILT SHALL BE REMOVED AND DISPOSED OF IN AN APPROPRIATE MANNER.

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STORE NUMBER: 07464

SWC HORIZON RD. AND RIDGE RD.
ROCKWALL, TEXAS
PROJECT TYPE: EXTERIOR REMODEL
DEAL TYPE: FEE FOR SERVICE

CS PROJECT NUMBER: 76657

CIVIL ENGINEER:

Winkelmann & Associates, Inc.
CONSULTING CIVIL ENGINEERS ■ SURVEYORS
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CONSULTANT:

DEVELOPER:

SEAL:
MICHAEL T. DOGGETT
98628
7-16-2015
THE SEAL APPEARING ON THIS DOCUMENT
WAS AUTHORIZED BY
MICHAEL T. DOGGETT, P.E. # 98628

REVISIONS:

- 8-12-14 ADDENDUM NO. 1
- 9-29-14 ADDENDUM NO. 2
- CHANGE WALL VENEER TO BRICK
- 3-24-15 CHANGE ORDER NO. 1
- 4-13-15 ADA RAMPS NO. 2
- 7-16-15 ASBUILT SET

FILE NAME: 70801-Ero.dwg

JOB NUMBER: 70801.00

DATE: JULY 28, 2014

TITLE:
EROSION CONTROL
DETAILS

SHEET NUMBER:

C-14

COMMENTS:



STORE NUMBER: 07464
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ROCKWALL, TEXAS
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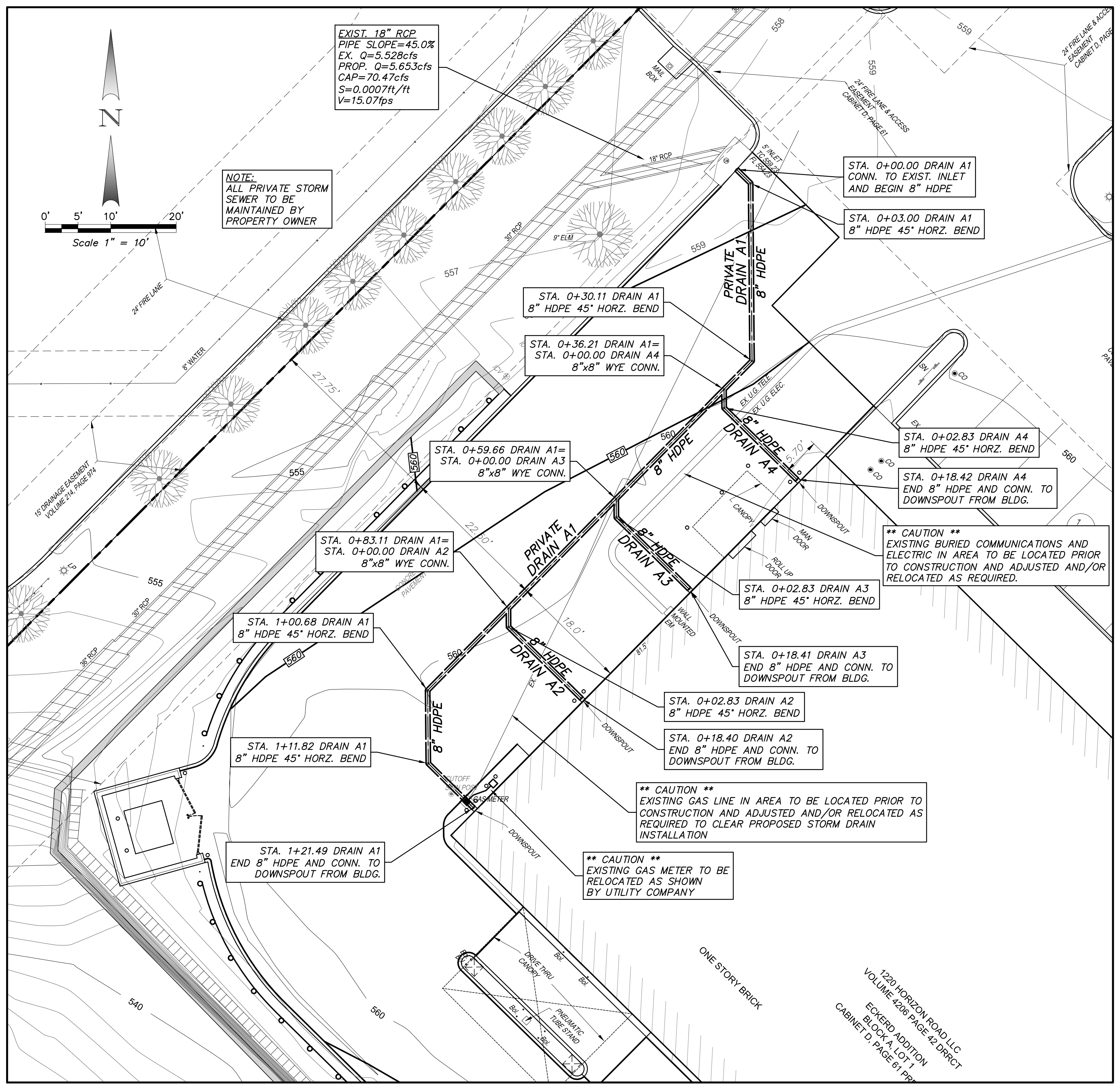
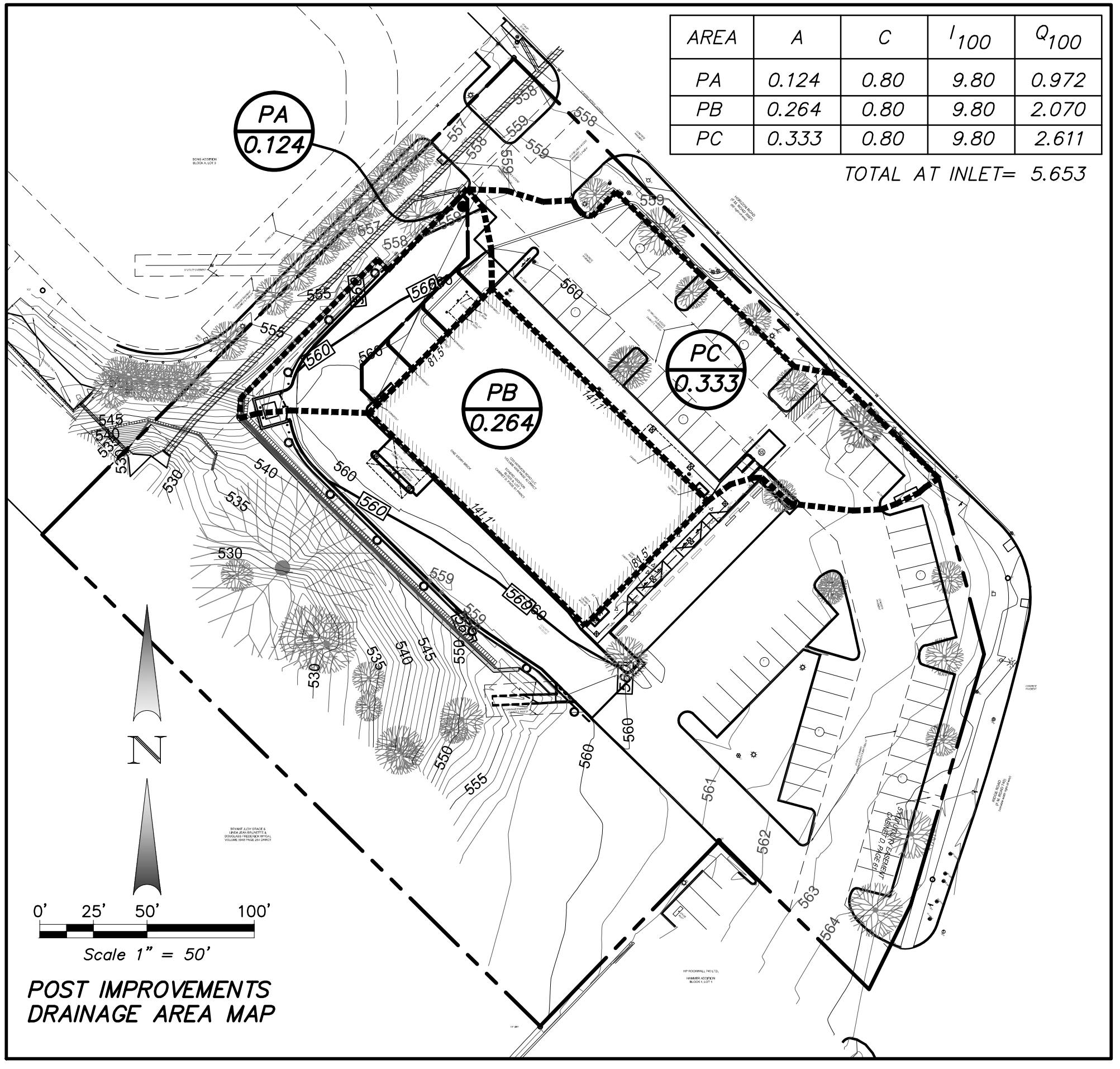
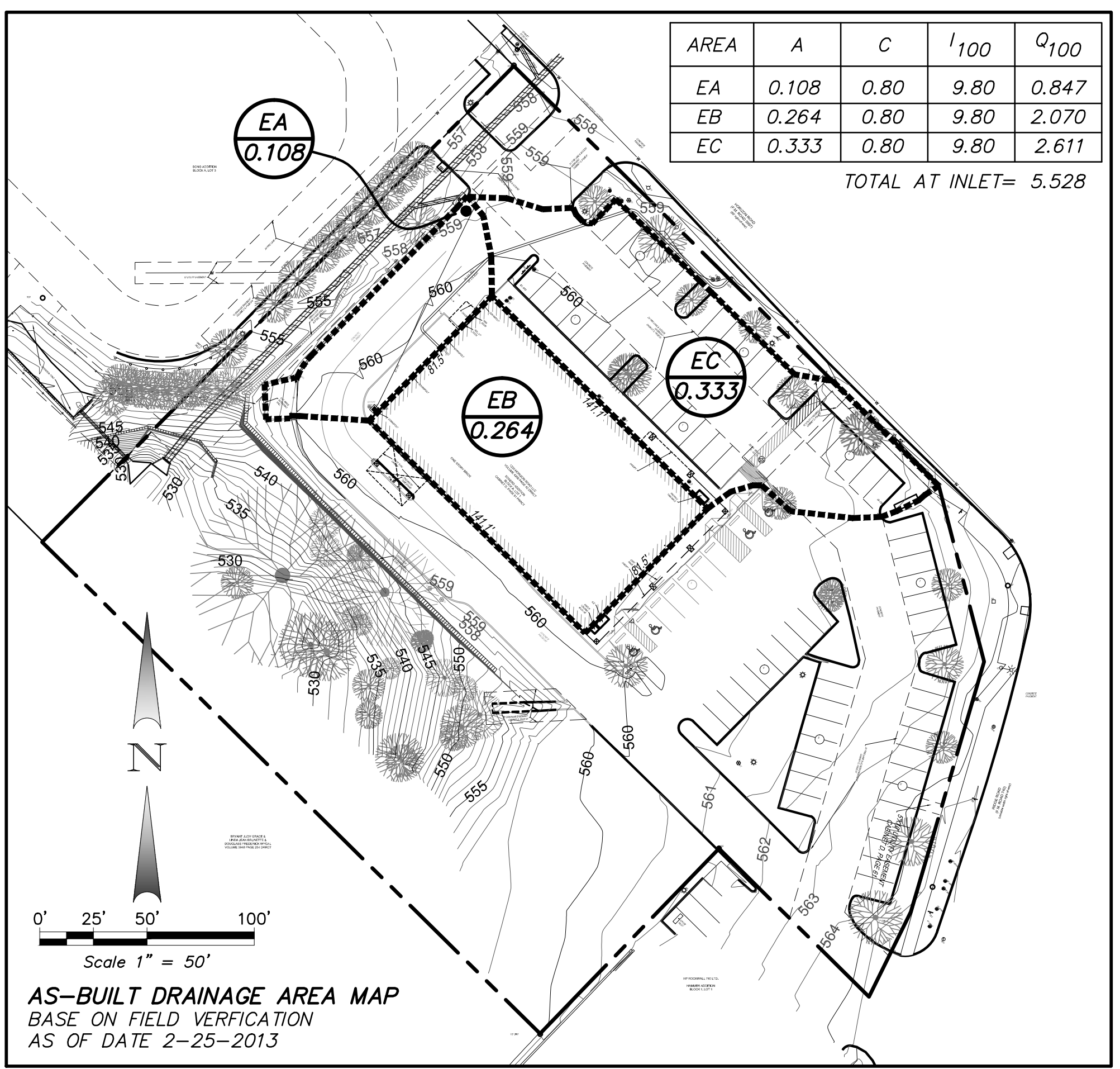
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FILE NAME: 70801-Stm.dwg
JOB NUMBER: 70801.00
DATE: JULY 28, 2014
TITLE:

STORM PLAN

SHEET NUMBER:
C-15

COMMENTS:



AREA/BASIN
ACREAGE
DRAINAGE DIVIDE
EXISTING CONTOURS
PROPOSED CONTOURS

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MICHAEL T. DOGGETT, P.E.
DATE: 07-10-15

NOTICES TO CONTRACTOR

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CONTRACTOR(S) SHALL CALL "811" A MINIMUM OF 48 HOURS PRIOR TO BEGINNING WORK ON THE SITE, AND SHALL NOT BEGIN ANY EXCAVATION OR DEMOLITION ACTIVITIES UNTIL AFTER SAID FACILITIES HAVE BEEN MARKED AND/OR FLAGGED PER "811" OR THE FACILITY OWNERS.

CONTRACTOR(S) SHALL BE WHOLLY RESPONSIBLE FOR ANY DAMAGE THAT MAY OCCUR TO SAID FACILITIES DUE TO WORK BEING DONE WITHOUT FOLLOWING THE PROCEDURES ABOVE.



BENCHMARK:
"■" CUT AT CENTER OF 16 FT. WIDE INLET ON
NORTHEAST SIDE OF HORIZON RD., APPROX. 330
FT. NORTHWEST OF THE INTERSECTION OF F.M. 740
(RIDGE RD.) WITH HORIZON RD.
ELEV. 557.44 (CALLED ELEV. 557.58)



STORE NUMBER: 07464
SWC HORIZON RD. AND RIDGE RD.
ROCKWALL, TEXAS
PROJECT TYPE: EXTERIOR REMODEL
DEAL TYPE: FEE FOR SERVICE
CS PROJECT NUMBER: 76657

CIVIL ENGINEER:
Winkelmann & Associates, Inc.
CONSULTING CIVIL ENGINEERS ■ SURVEYORS
6750 HILLCREST PLAZA DR., SUITE 325 (972) 490-7090
DALLAS, TEXAS 75230 (972) 490-7099 FAX
Texas Engineers Registration No. 89
Texas Surveyors Registration No. 100866-00
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CONSULTANT:

DEVELOPER:

SEAL:

THE SEAL APPEARING ON THIS DOCUMENT
WAS AUTHORIZED BY
MICHAEL T. DOGGETT, P.E. # 98628

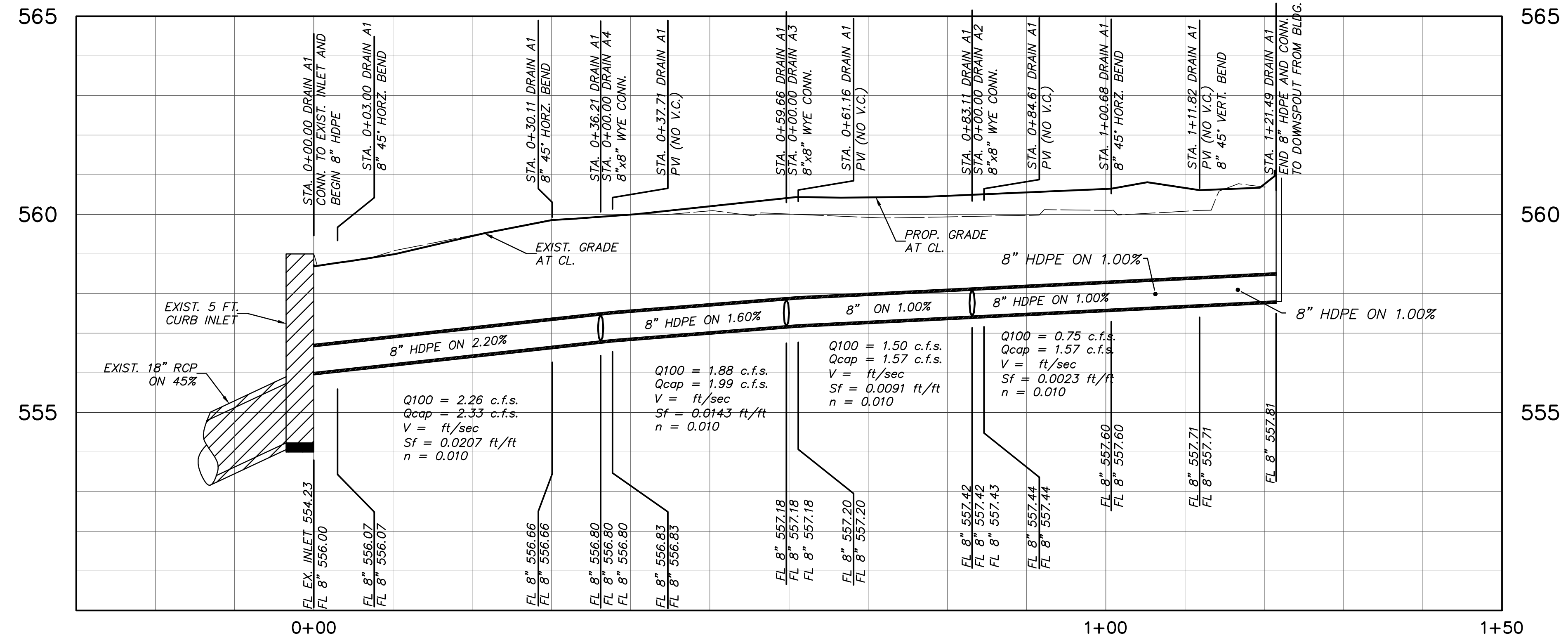
REVISIONS:
8-12-14 ADDENDUM NO. 1
9-29-14 ADDENDUM NO. 2
CHANGE WALL VENEER TO BRICK
3-24-15 CHANGE ORDER NO. 1
4-13-15 ADA RAMPS NO. 2
7-16-15 ASBUILT SET

FILE NAME: 70801-Stm.dwg
JOB NUMBER: 70801.00
DATE: JULY 28, 2014

TITLE: STORM PROFILES

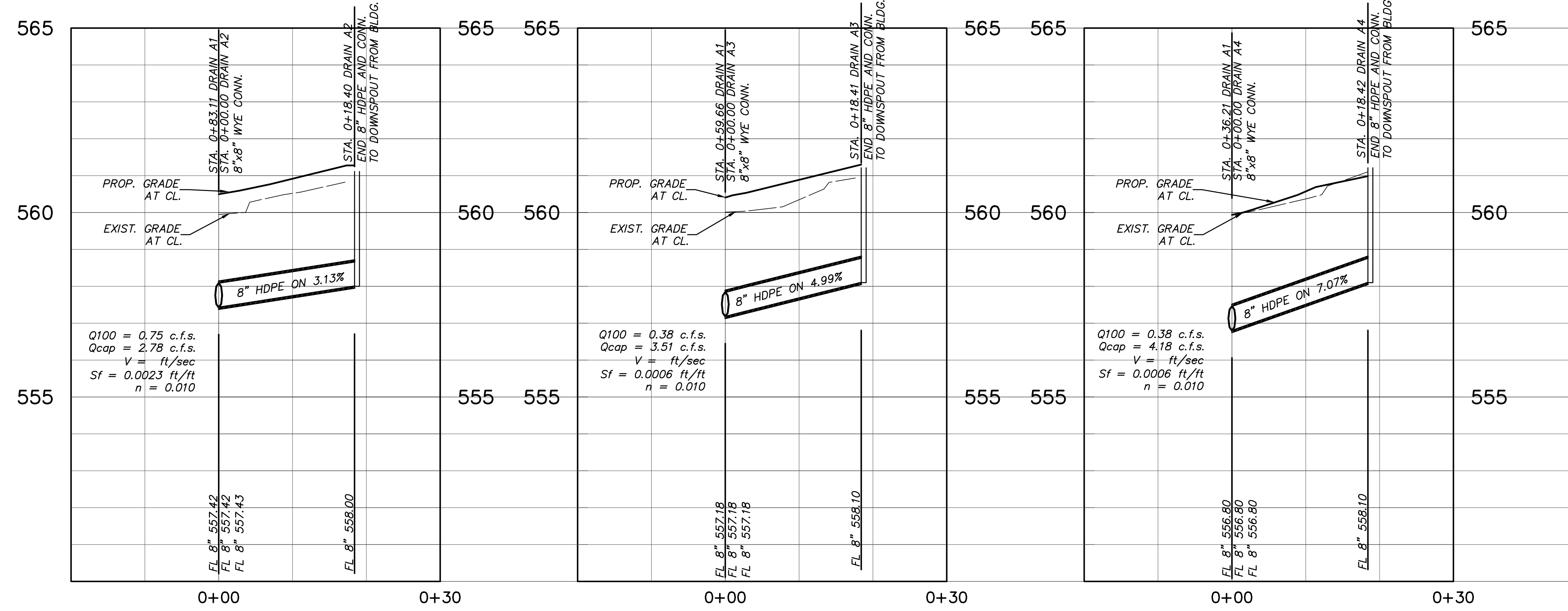
SHEET NUMBER: C-16

COMMENTS:



DRAIN A1 PROFILE
PRIVATE

NOTE:
ALL PRIVATE STORM SEWER TO BE
MAINTAINED BY PROPERTY OWNER.



DRAIN A2 PROFILE
PRIVATE

DRAIN A3 PROFILE
PRIVATE

DRAIN A4 PROFILE
PRIVATE

AS-BUILT
Winkelmann & Associates, Inc. hereby states that this plan, to the best of our knowledge is "As Built." Modifications from the originally approved construction documents have been made as per information provided by the contractor. Winkelmann & Associates, Inc. does not certify as to the correctness or quality of construction as no field inspection was performed.

WINKELMANN & ASSOCIATES, INC. 07-18-15 DATE



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CONTRACTOR(S) SHALL BE WHOLLY RESPONSIBLE FOR ANY DAMAGE THAT MAY OCCUR TO SAID FACILITIES DUE TO WORK BEING DONE WITHOUT FOLLOWING THE PROCEDURES ABOVE.

BENCHMARK:
"BM" CUT AT CENTER OF 16 FT. WIDE INLET ON NORTHEAST SIDE OF HORIZON RD., APPROX. 330 FT. NORTHWEST OF THE INTERSECTION OF F.M. 740 (RIDGE RD.) WITH HORIZON RD.
ELEV. 557.44 (CALLED ELEV. 557.58)

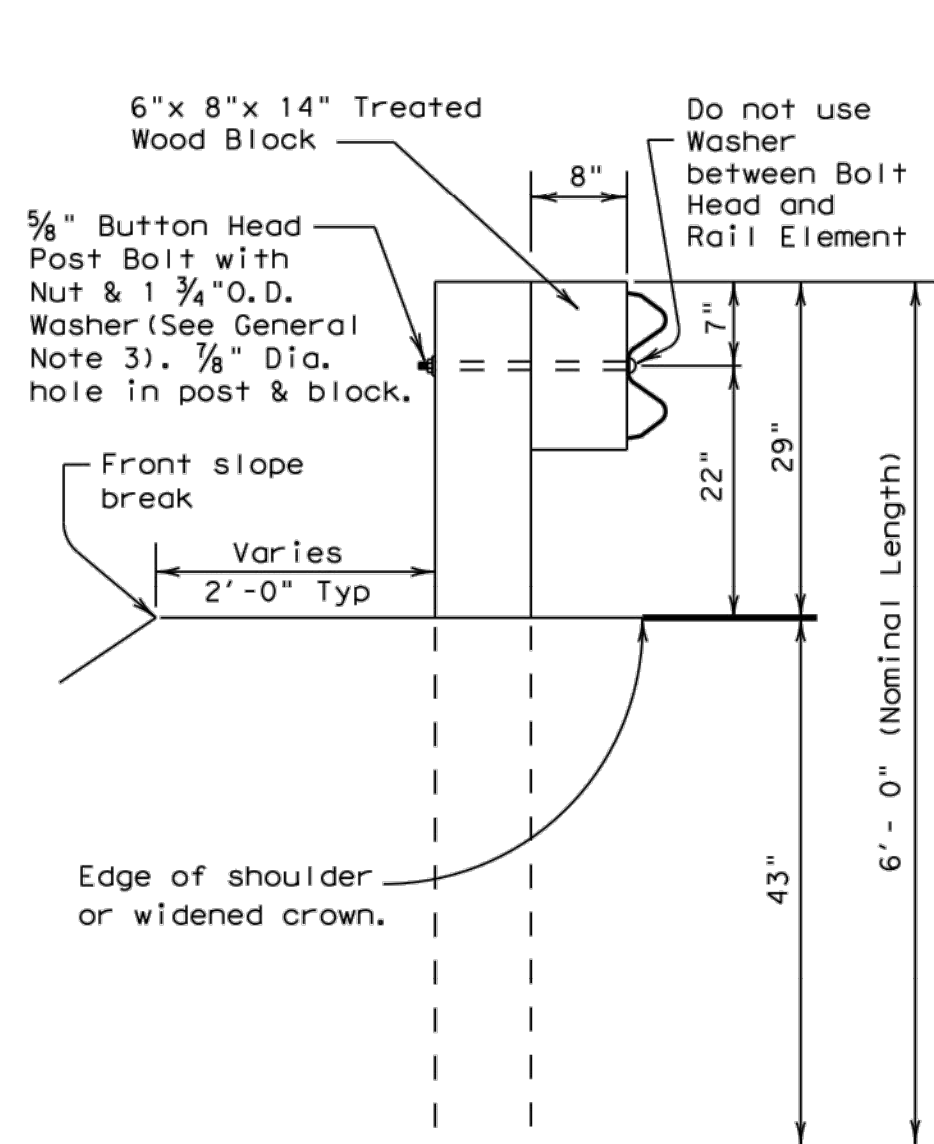


MAX. SPACING = 60' O.C.E.W.
N T S

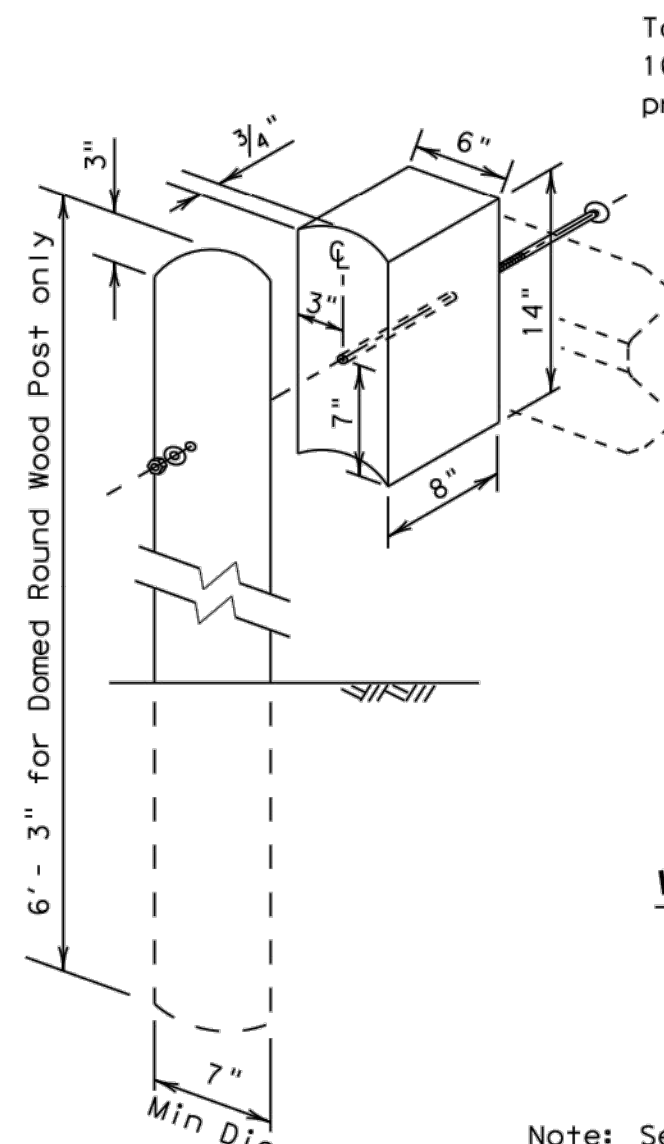
COMMENTS:

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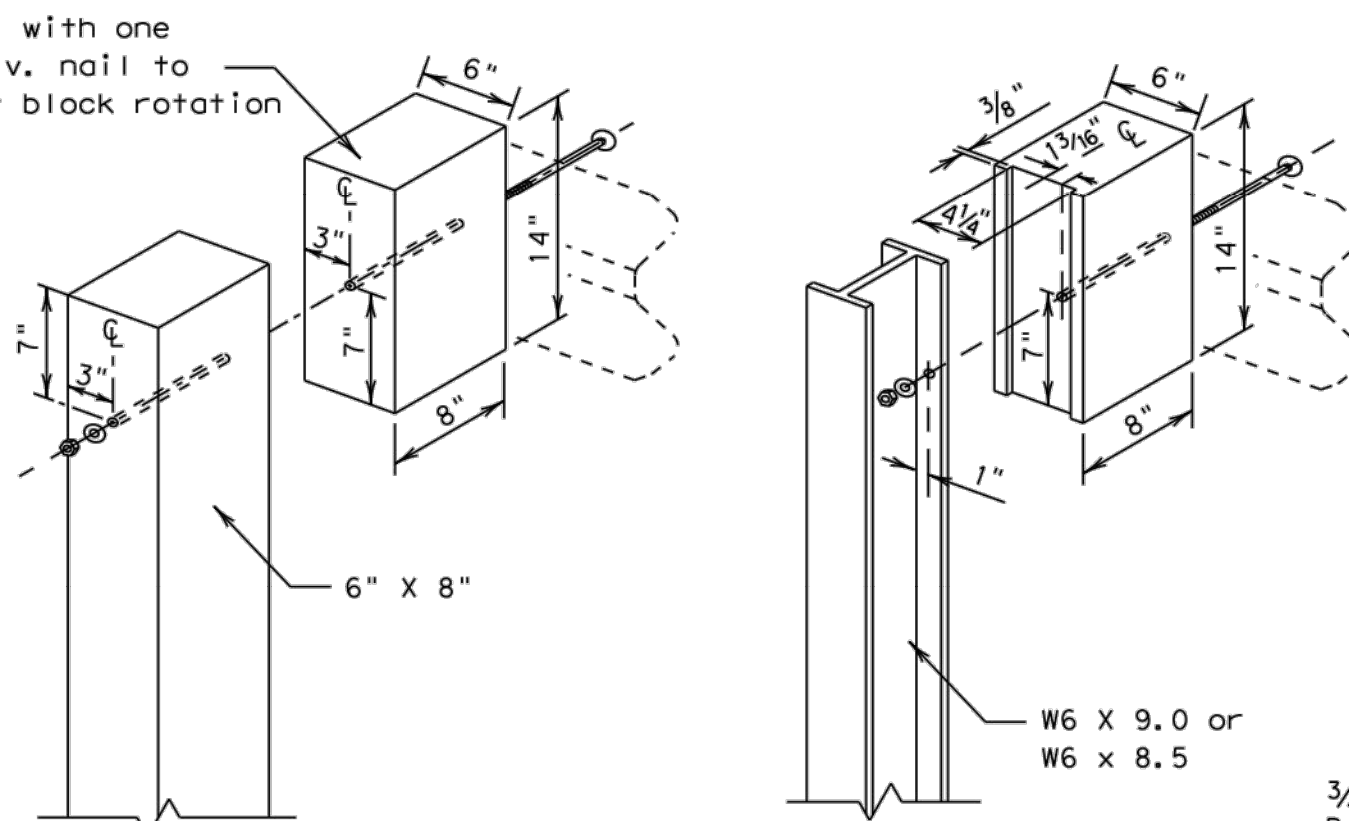
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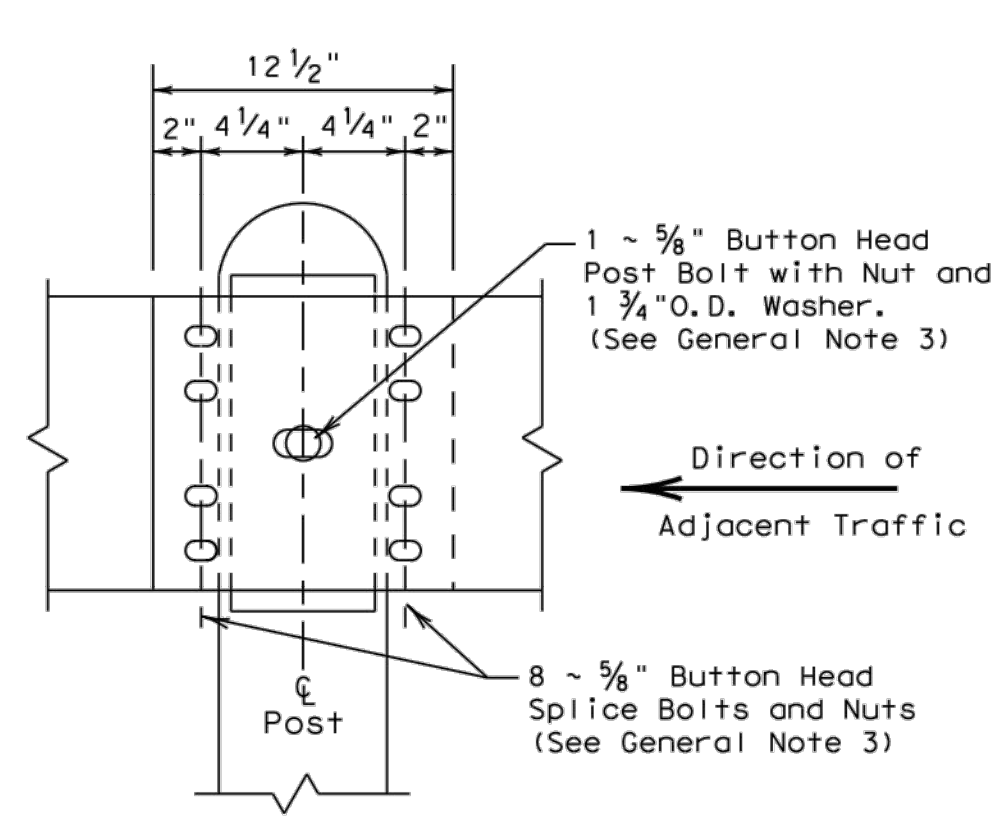
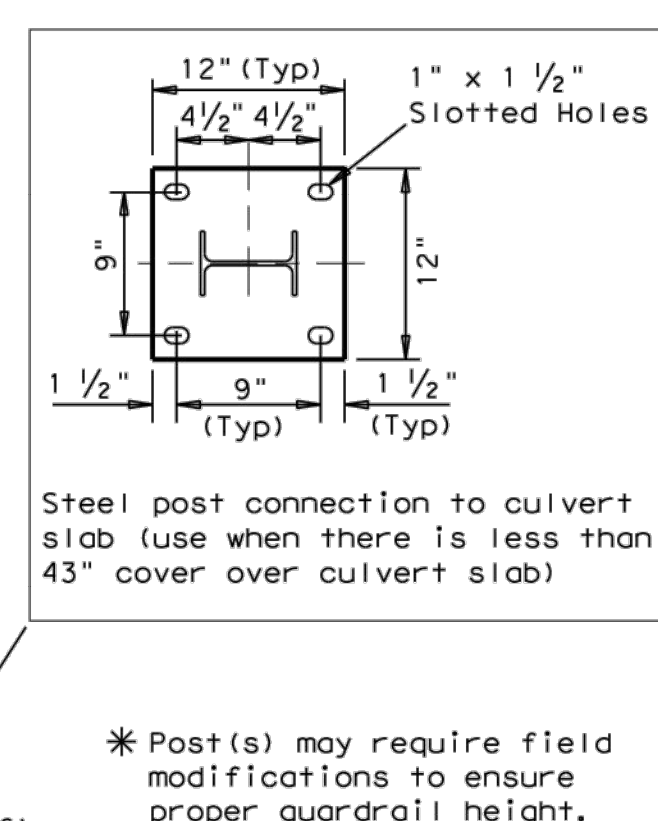
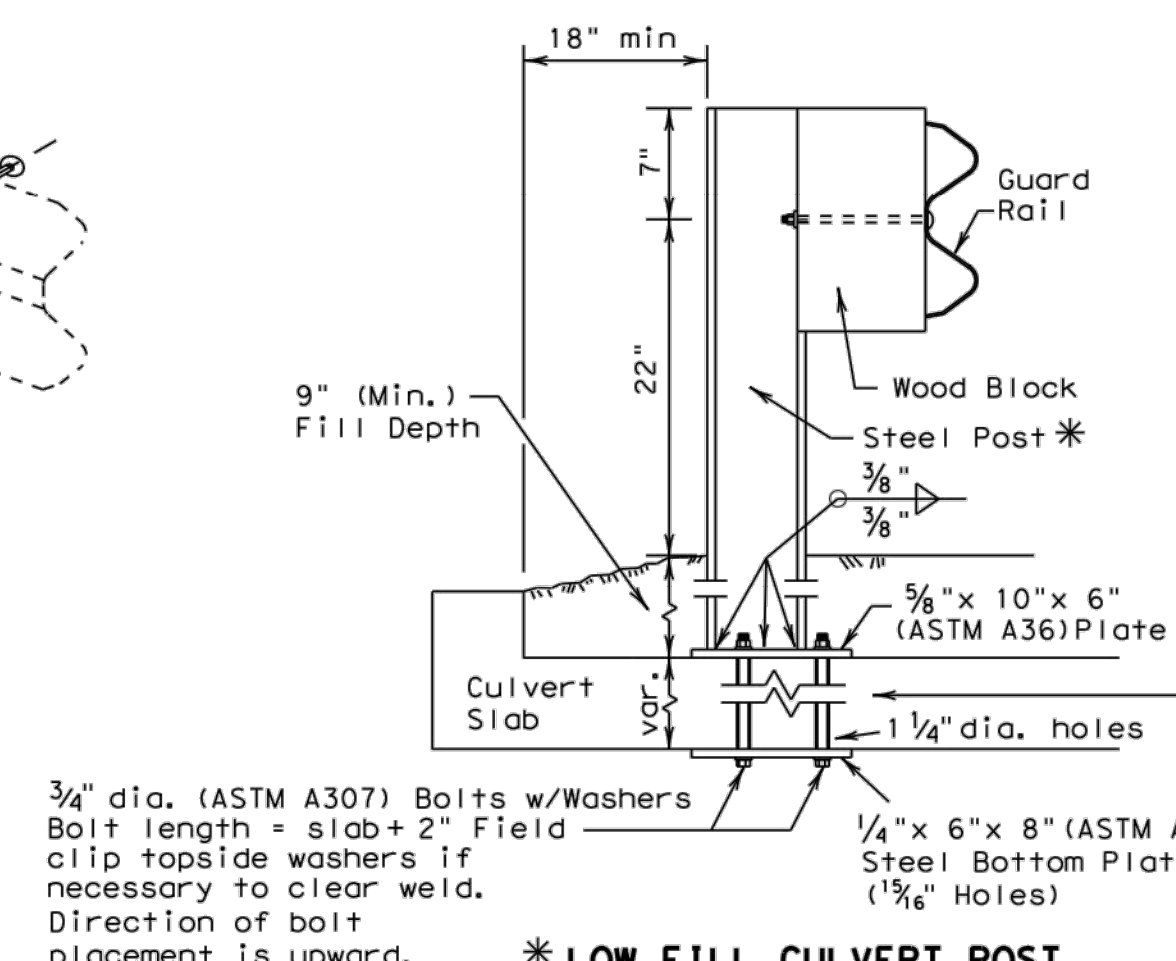
TYPICAL POST



WOOD BLOCK TO RECTANGULAR WOOD POST



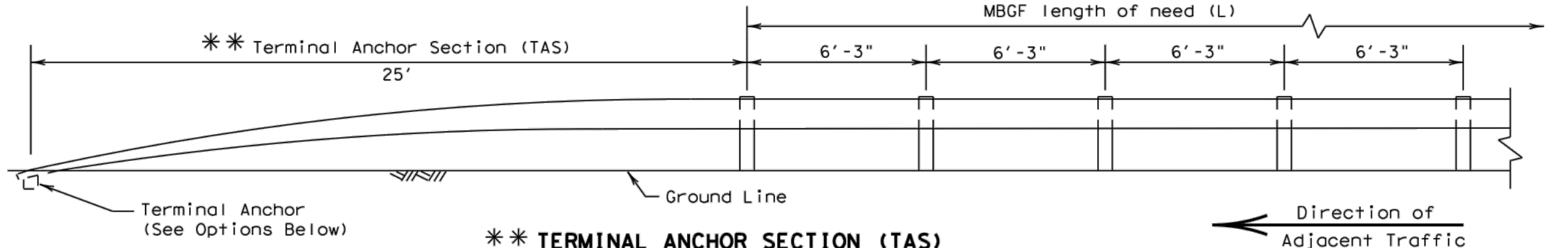
WOOD BLOCK TO STEEL POST



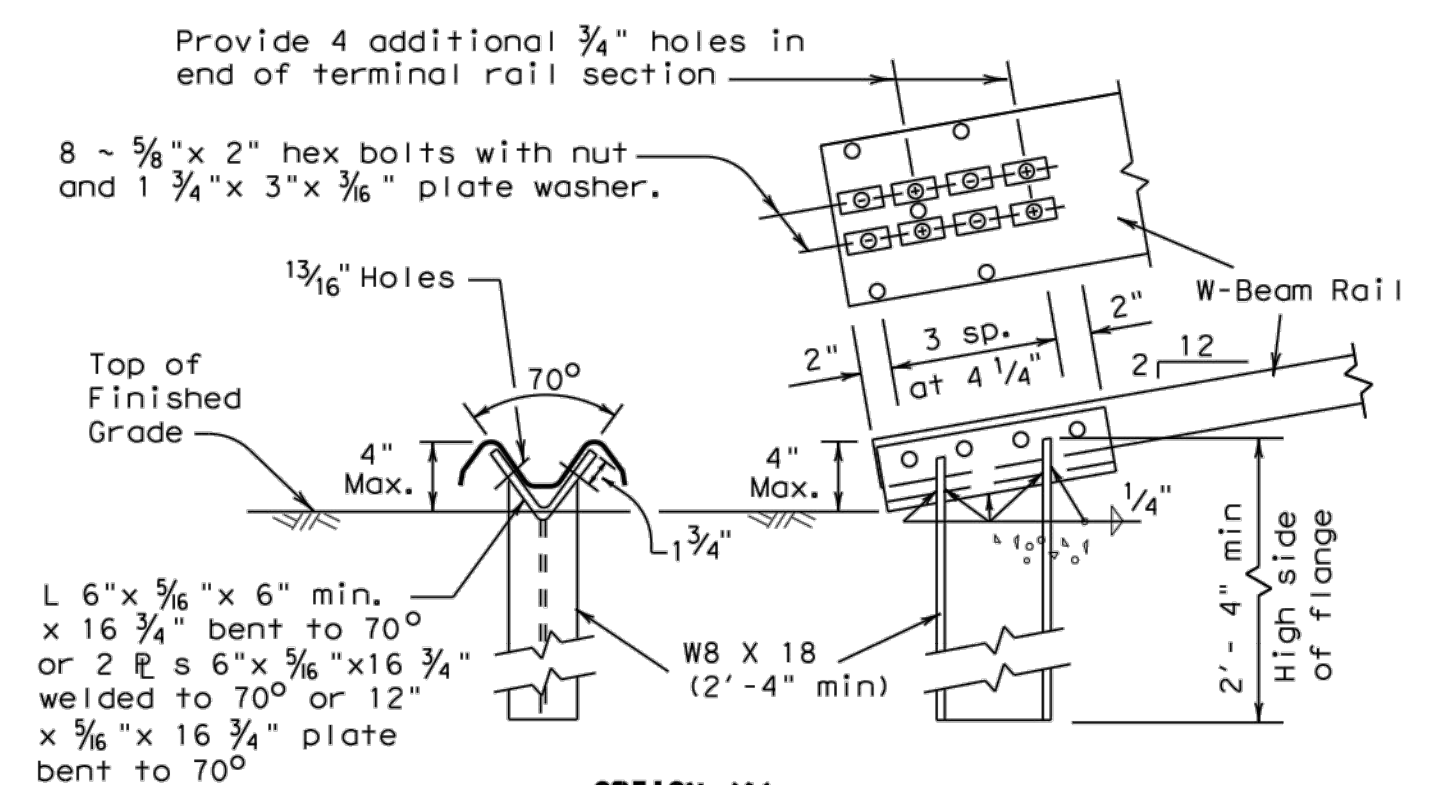
RAIL SPLICE DETAIL

GENERAL NOTES

1. The type of post (round wood post, rectangular wood post, or steel post) will be shown elsewhere in the plans. The exact position of MBGF shall be shown elsewhere in the plans or as directed by the Engineer. Steel posts to be galvanized in accordance with Item 445, "Galvanizing."
2. Rail element shall meet the requirements of Item 540, "Metal Beam Guard Fence" except as modified on the plans. The Contractor may furnish rail elements of 12 1/2 or 25 foot nominal lengths.
3. Button head "post" bolts (ASTM A307) shall be of sufficient length to extend through the full thickness of the nut (ASTM A563) and Type A (1 3/4" O.D.) washer and not more than 1" beyond it. Button head "splice" bolts (ASTM A307) are 5/8" x 1 1/4" (or 2" long at triple rail splices) with a 5/8" double recessed nut (ASTM A563).
4. Fittings (bolts, nuts, and washers) shall be galvanized in accordance with Item 445, "Galvanizing." Fittings shall be subsidiary to the bid item.
5. Crown shall be widened to accommodate the Metal Beam Guard Fence.
6. The lateral approach to the guard fence, shall have a slope rate of not more than 1V:10H.
7. Unless otherwise shown in the plans, guard fence placed in the vicinity of curbs shall be positioned so that the face of curb is located directly below or behind the face of the block. Rail placed over curbs shall be installed so that the post bolt is located approximately 21 inches above the gutter pan or roadway surface.
8. If solid rock is encountered within 0 to 18" of the finished grade, drill a 22" dia. hole, 24" into the rock, or drill two 12" dia. front to back overlapping holes, 24" into the rock. If solid rock is encountered below 18", drill a 12" dia. hole, 12" into the rock or to the standard embedment depth, whichever is less. Any excess post length, after meeting these depths, may be field cut to ensure proper guardrail mounting height. Backfill with a cohesionless material.
9. Posts shall not be set in concrete, of any depth.
10. Special fabrication will be required at installations having a curvature of less than 150 ft. radius.
11. The terminal anchor section (TAS) post shall be set in Class A concrete (unless otherwise shown in the plans) in accordance with Item 421, "Hydraulic Cement Concrete." Concrete shall be subsidiary to the bid item requiring construction of the terminal anchor section (TAS). Terminal anchor post to be galvanized in accordance with Item 445, "Galvanizing."
12. Unless otherwise shown in the plans, a composite material post and/or block that meets the requirements of DMS-7210, "Composite Material Posts and Blocks for Metal Beam Guard Fence" may be substituted for posts and/or blocks of similar dimensions. The Construction Division, TxDOT maintains a Material Producer List (MPL) for producers of materials conforming to DMS-7210. Only producers on the MPL can furnish composite material posts and/or blocks.

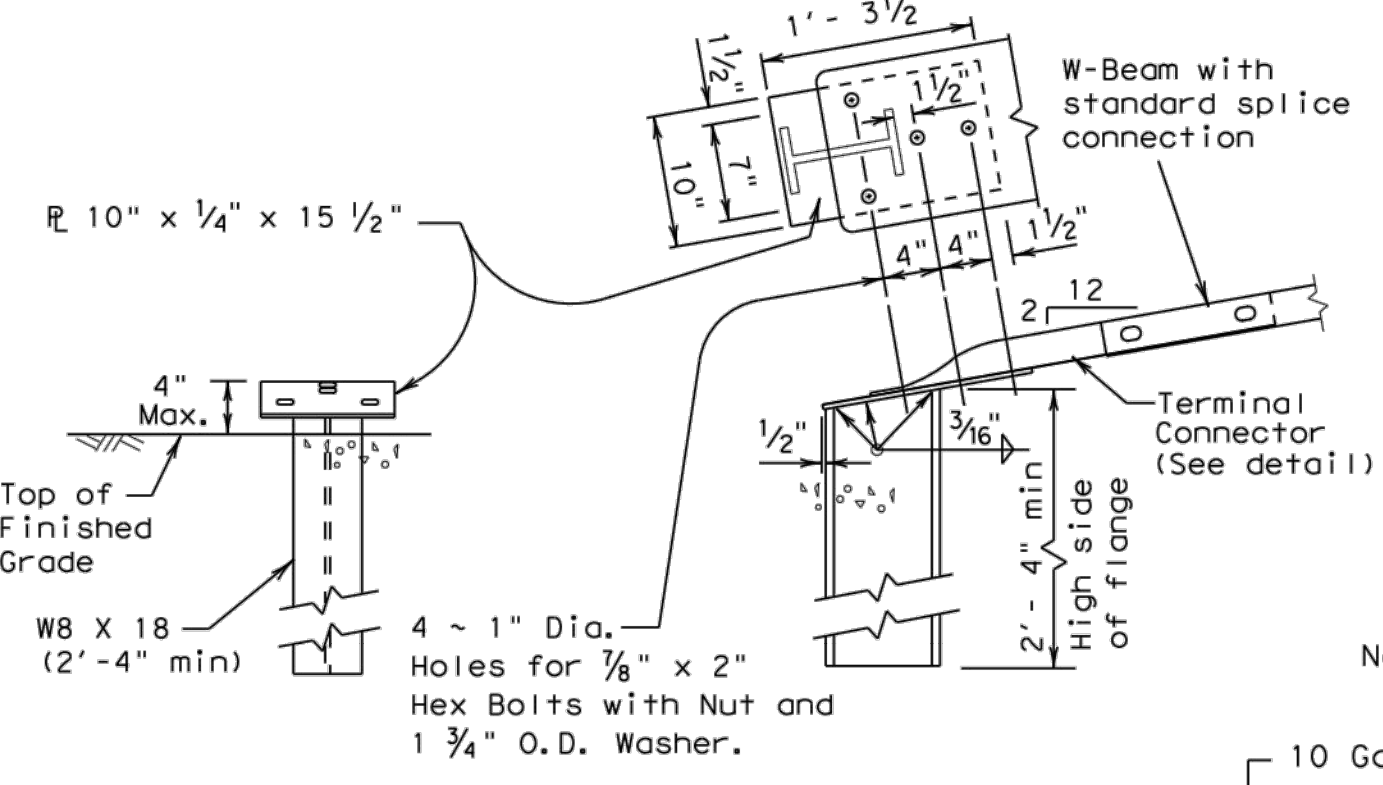


Terminal anchor sections are only for downstream use, when located outside the horizontal clearance area of opposing traffic.



OPTION (1)

Note: This anchor post requires four additional 3/4" holes (shop or field) in the rail member with eight 5/8" hex bolts with nut and plate washer.



OPTION (2)

Note: This anchor post requires the use of the 10 ga. terminal connector with four 5/8" hex bolts with nut and washer.

TERMINAL ANCHOR POST OPTIONS

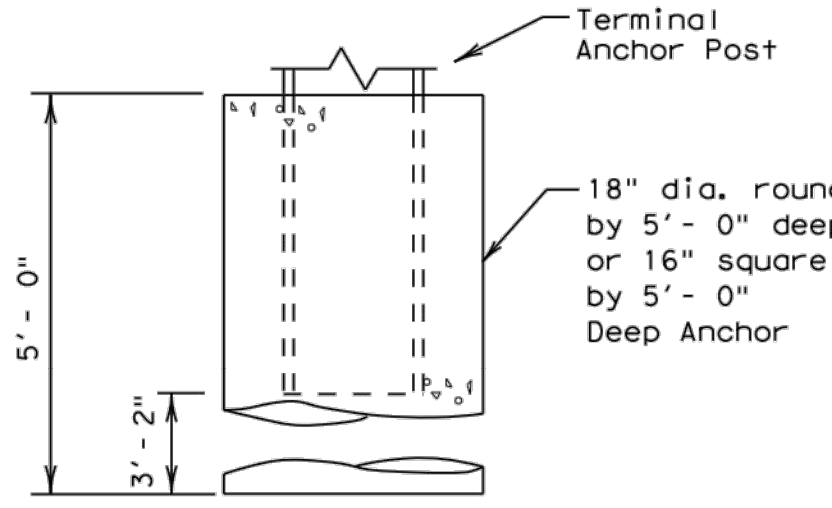
(See General Note 11)

Notes:

Either concrete anchor may be used with either post option above. No construction joint is allowed in the concrete anchor.

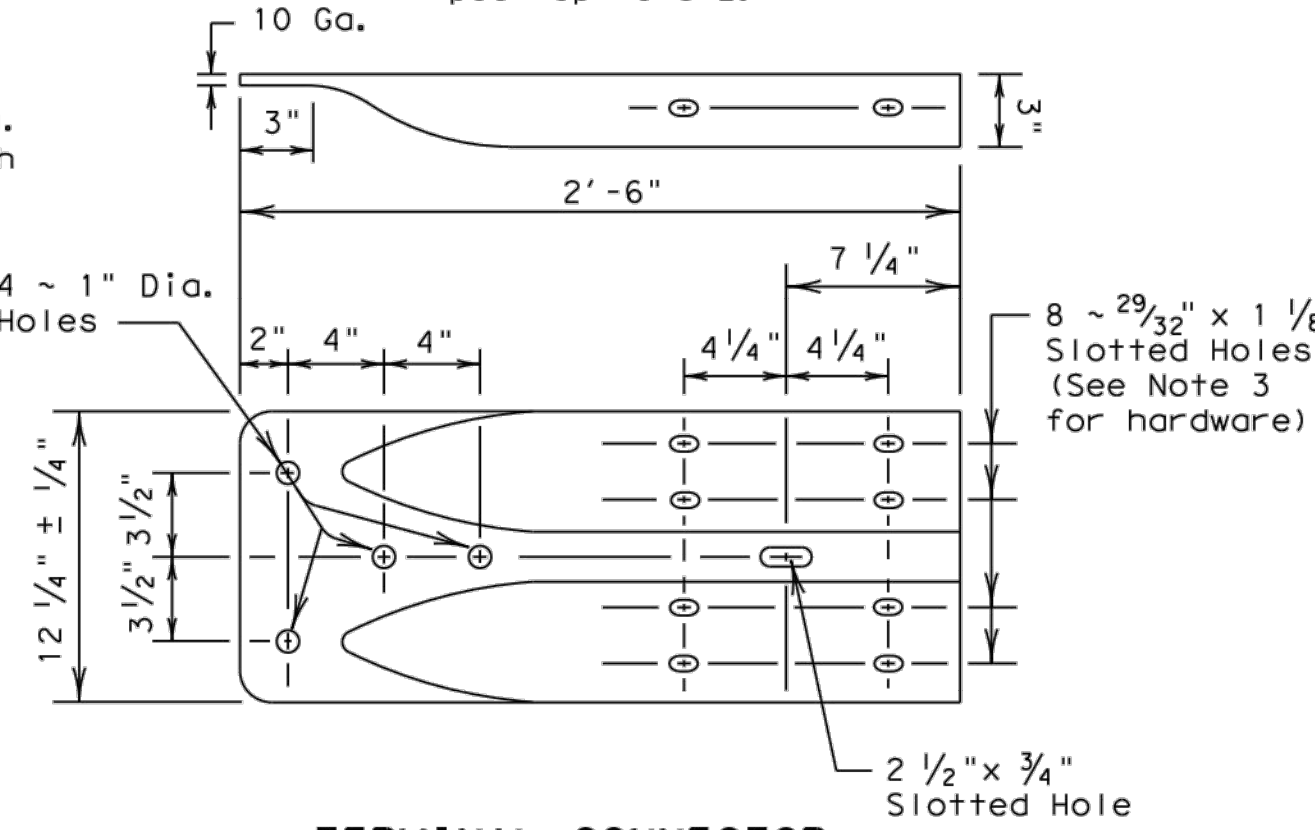
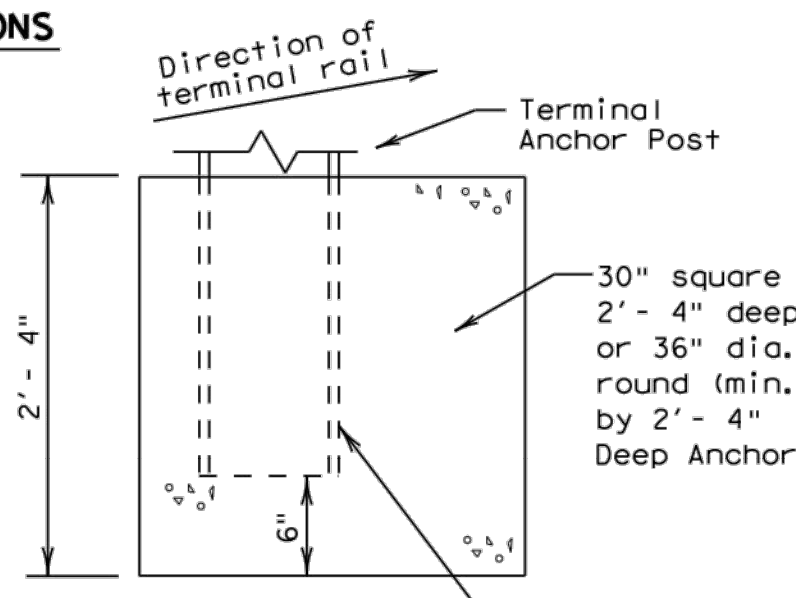
Terminal rail may be bolted to post and in twist position prior to placing concrete anchor.

If concrete anchor is precast, the area should be compacted as directed by the Engineer, when placed in the field.




TERMINAL CONCRETE ANCHOR OPTIONS

(See General Note 11)



TERMINAL CONNECTOR

For connection hardware to concrete rails, see the MBGF transition standards.



Design Division Standard

METAL BEAM GUARD FENCE

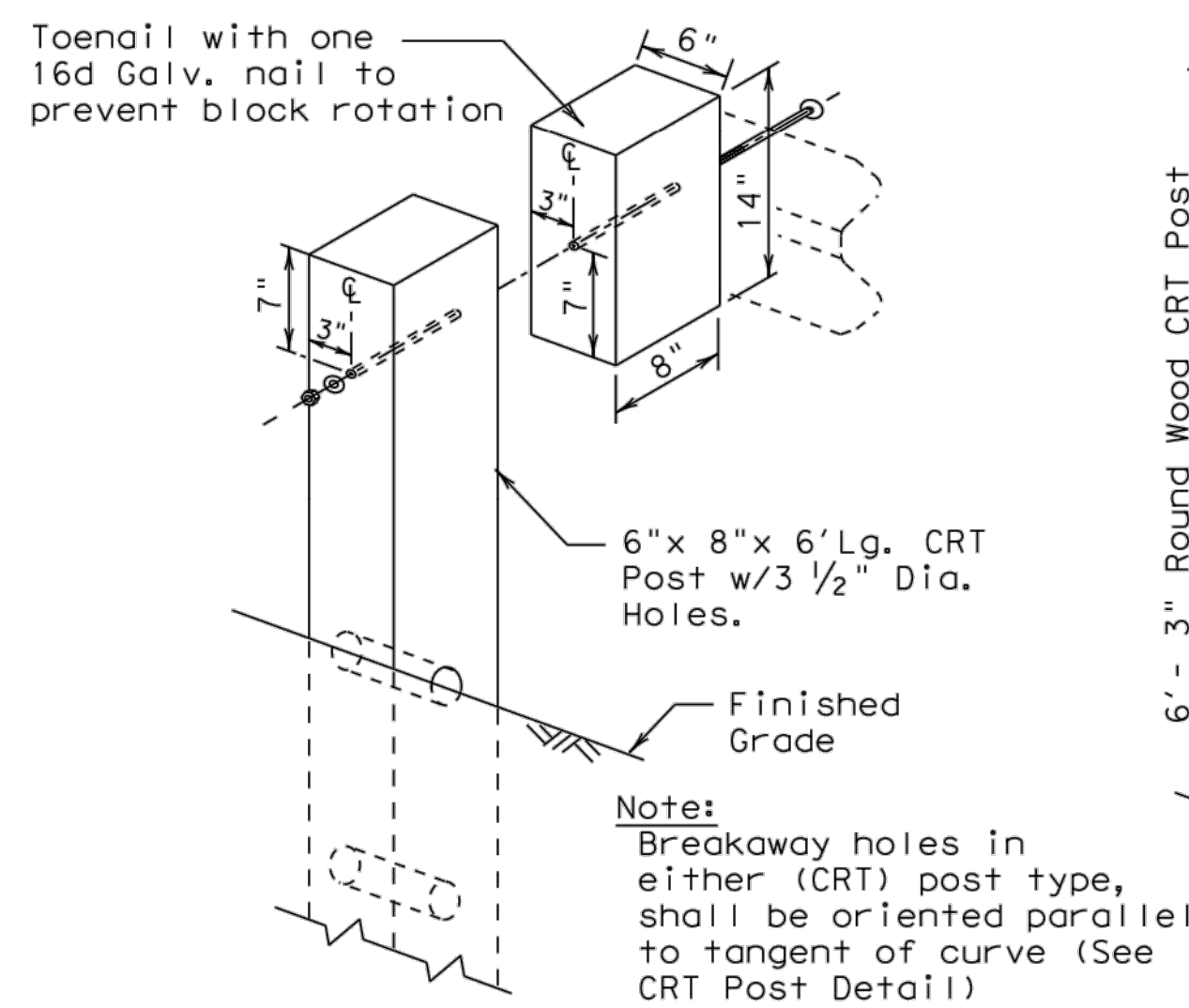
MBGF - 11

C-18

FILE: mbgf11.dgn	DN: TxDOT		CK: AM	DW: BD	CK: VP
© TxDOT July 1994	CONT	SECT	JOB		HIGHWAY
REVISIONS					
12-2011	DIST		COUNTY		SHEET NO.

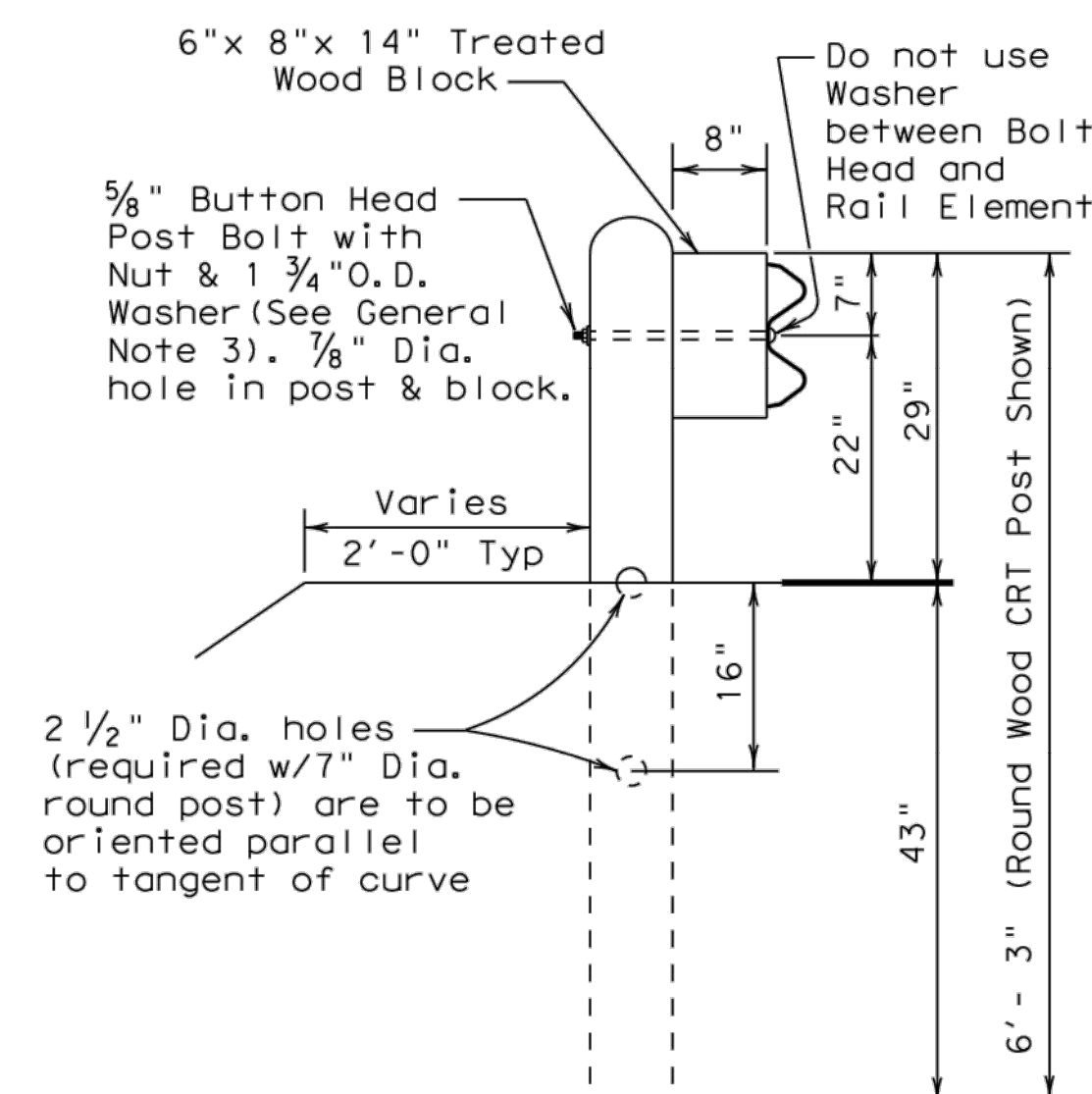
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DATE: FILE:



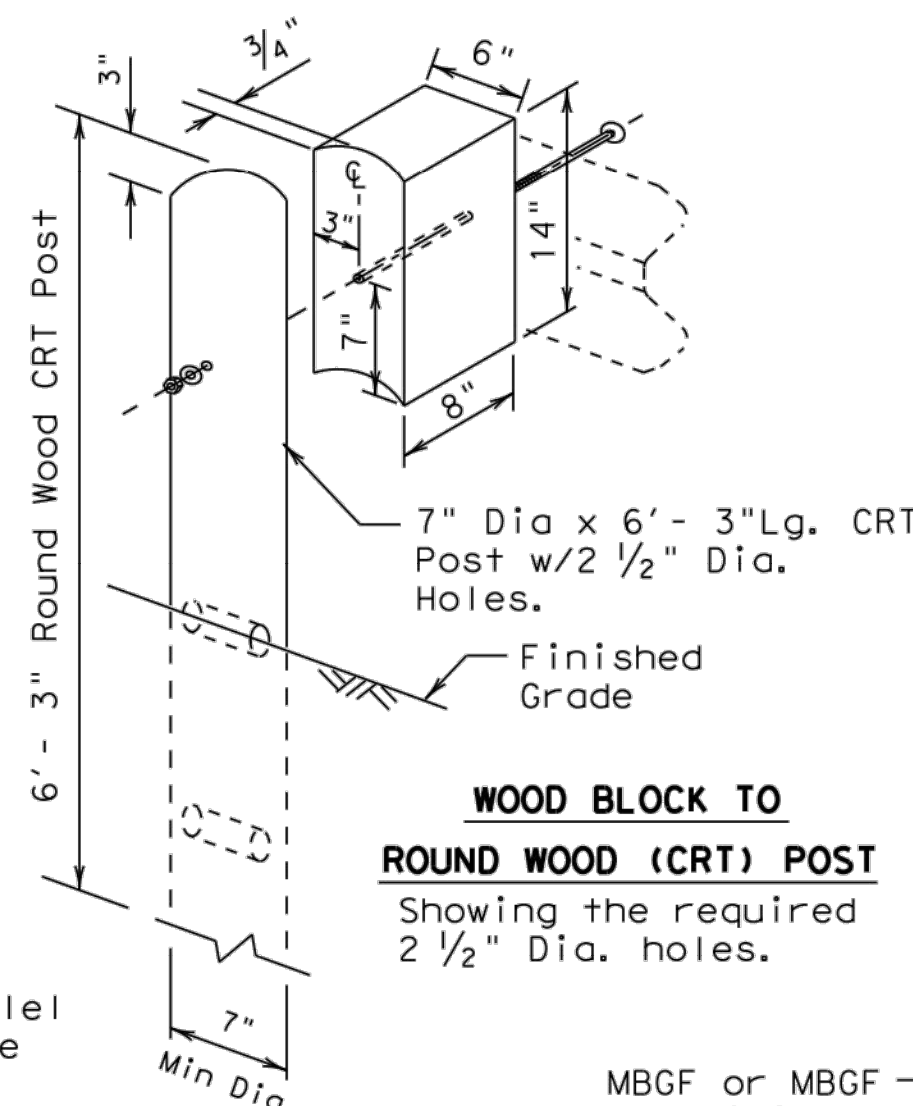
WOOD BLOCK TO RECTANGULAR

WOOD (CRT) POST
Showing the required
3 1/2" Dia. holes.



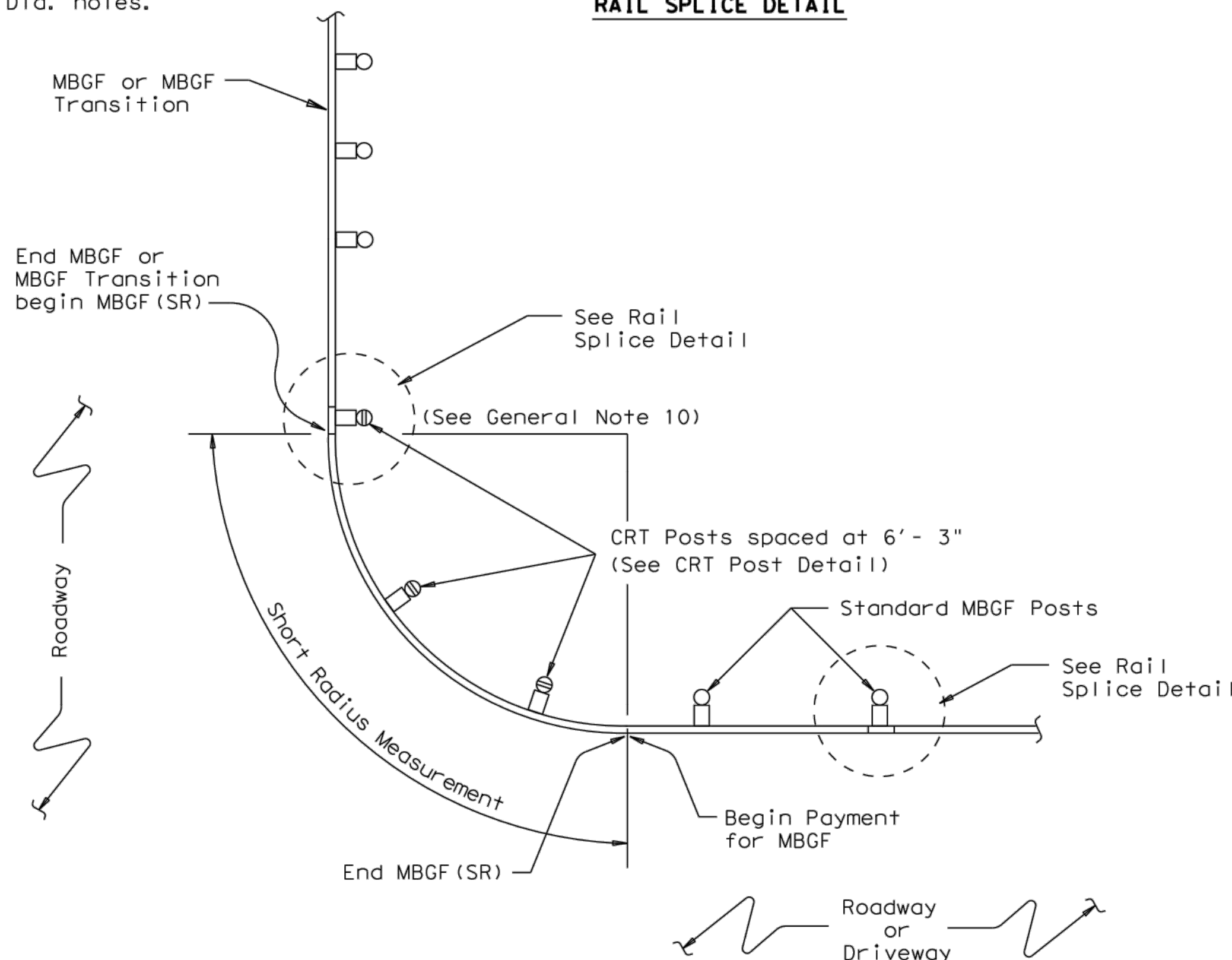
(CRT) POST DETAIL CONTROLLED RELEASE TERMINAL POST

Two or more wood CRT post(s) are required at any radius installation located at intersecting roadways or driveways.



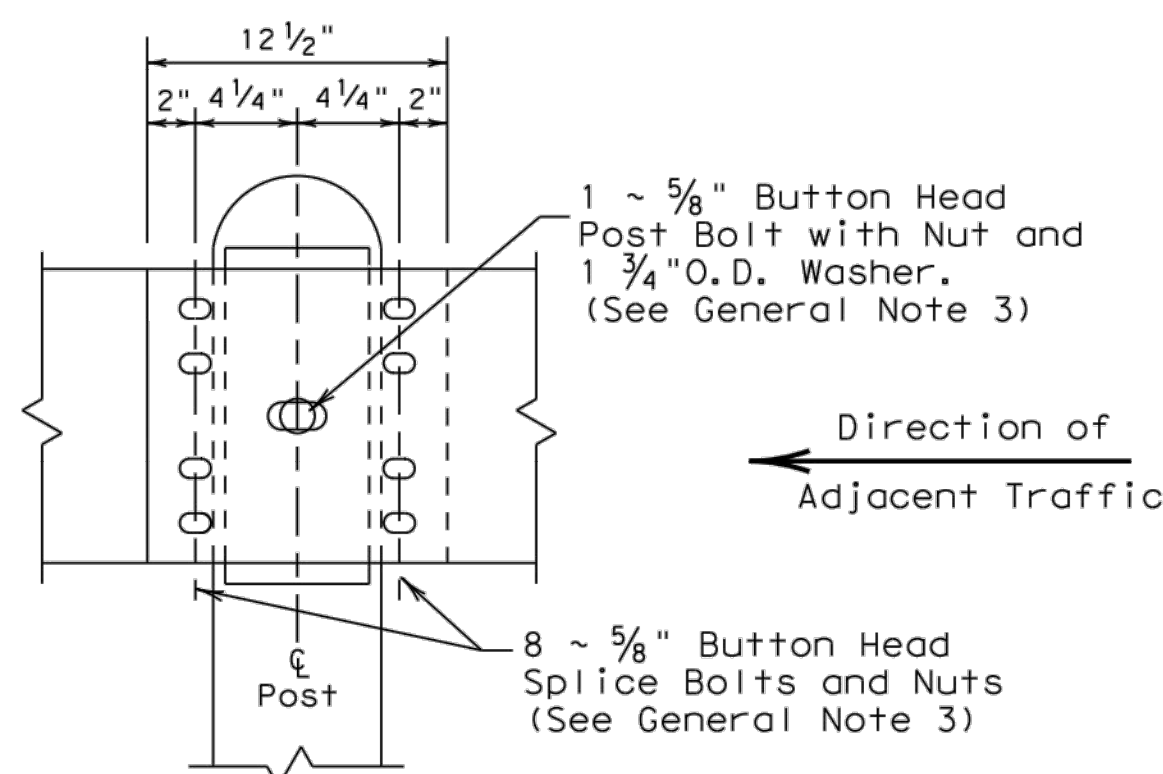
WOOD BLOCK TO ROUND WOOD (CRT) POST

Showing the required
2 1/2" Dia. holes.



PLAN VIEW SHOWING TYPICAL RADIUS

The required radius is shown elsewhere on the plans.

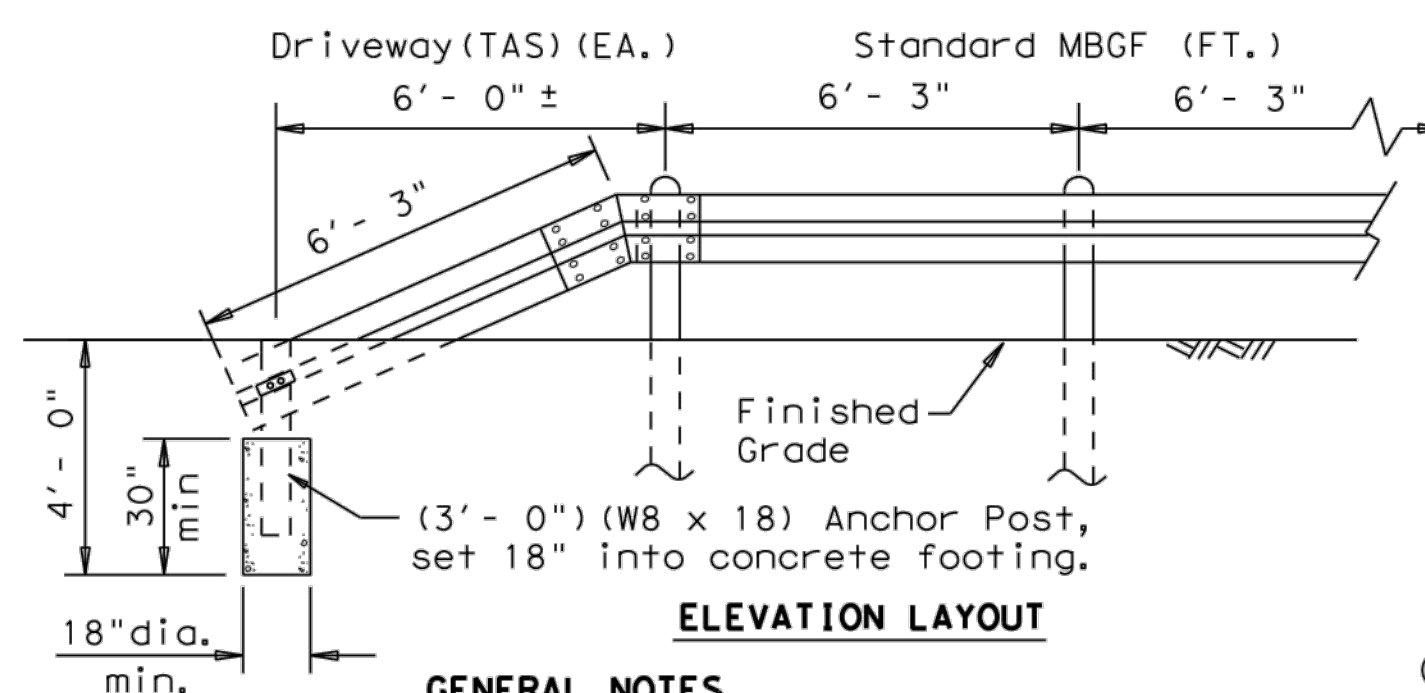


RAIL SPLICE DETAIL

1. The type of (CRT) post (round wood post, or rectangular wood post) will be shown elsewhere in the plans. The exact position of MBGF shall be shown elsewhere in the plans or as directed by the Engineer.
2. Steel posts are not permitted at CRT post positions.
3. Rail element shall meet the requirements of Item 540, "Metal Beam Guard Fence" except as modified on the plans. The Contractor may furnish rail elements of 12 1/2 or 25 foot nominal lengths.
4. Button head "post" bolts (ASTM A307) shall be of sufficient length to extend through the full thickness of the nut (ASTM A563) and Type A (1 3/4" O.D.) washer and not more than 1" beyond it. Button head "splice" bolts (ASTM A307) are 5/8" x 1 1/4" (or 2" long at triple rail splices) with a 5/8" double recessed nut (ASTM A563).
5. Fittings (bolts, nuts, and washers) shall be galvanized in accordance with Item 445, "Galvanizing." Fittings shall be subsidiary to the bid item.
6. Crown shall be widened to accommodate the Metal Beam Guard Fence.
7. The lateral approach to the guard fence, shall have a slope rate of not more than 1V:10H.
8. Unless otherwise shown in the plans, guard fence placed in the vicinity of curbs shall be positioned so that the face of curb is located directly below or behind the face of the block. Rail placed over curbs shall be installed so that the post bolt is located approximately 21 inches above the gutter pan or roadway surface.
9. If solid rock is encountered within 0 to 18" of the finished grade, drill a 22" dia. hole, 24" into the rock, or drill two 12" dia. front to back overlapping holes, 24" into the rock. If solid rock is encountered below 18", drill a 12" dia. hole, 12" into the rock or to the standard embedment depth, whichever is less. Any excess post length, after meeting these depths, may be field cut to ensure proper guardrail mounting height. Backfill with a cohesionless material.
10. Guardrail posts shall not be set in concrete, of any depth.
11. Special rail fabrication will be required at installations having a curvature of less than 150 ft. radius. The required radius shall be shown on the plans.
12. The terminal anchor section (TAS) post shall be set in Class A concrete (unless otherwise shown in the plans) in accordance with Item 421, "Hydraulic Cement Concrete." Concrete shall be subsidiary to the bid item requiring construction of the terminal anchor section (TAS). Terminal anchor post to be galvanized in accordance with Item 445, "Galvanizing."
13. Unless otherwise shown in the plans, a composite material post and/or block that meets the requirements of DMS-7210, "Composite Material Posts and Blocks for Metal Beam Guard Fence" may be substituted for posts and/or blocks of similar dimensions. The Construction Division, TxDOT maintains a Material Producer List (MPL) for producers of materials conforming to DMS-7210. Only producers on the MPL can furnish composite material posts and/or blocks.

"DRIVEWAY" TERMINAL ANCHOR SECTION

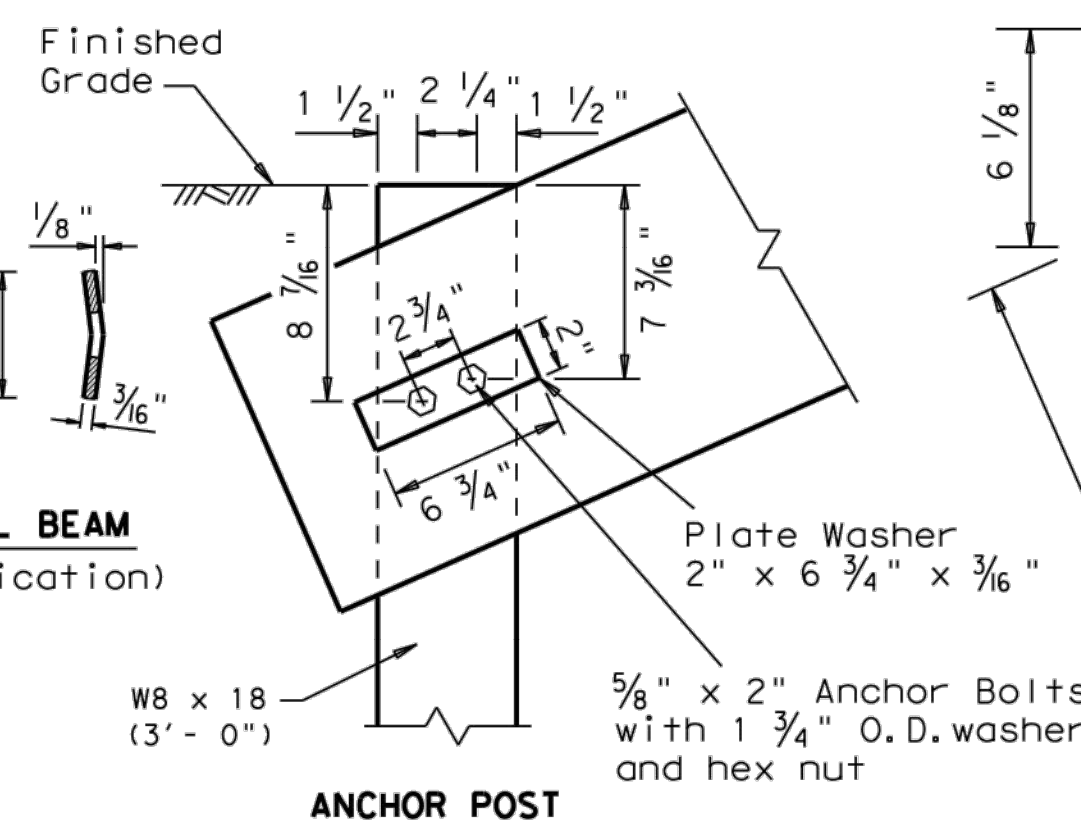
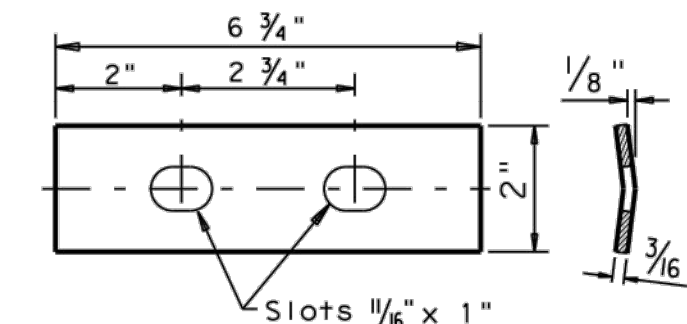
Only for use within driveway locations, where a standard (TAS) Terminal Anchor Section can not be installed.



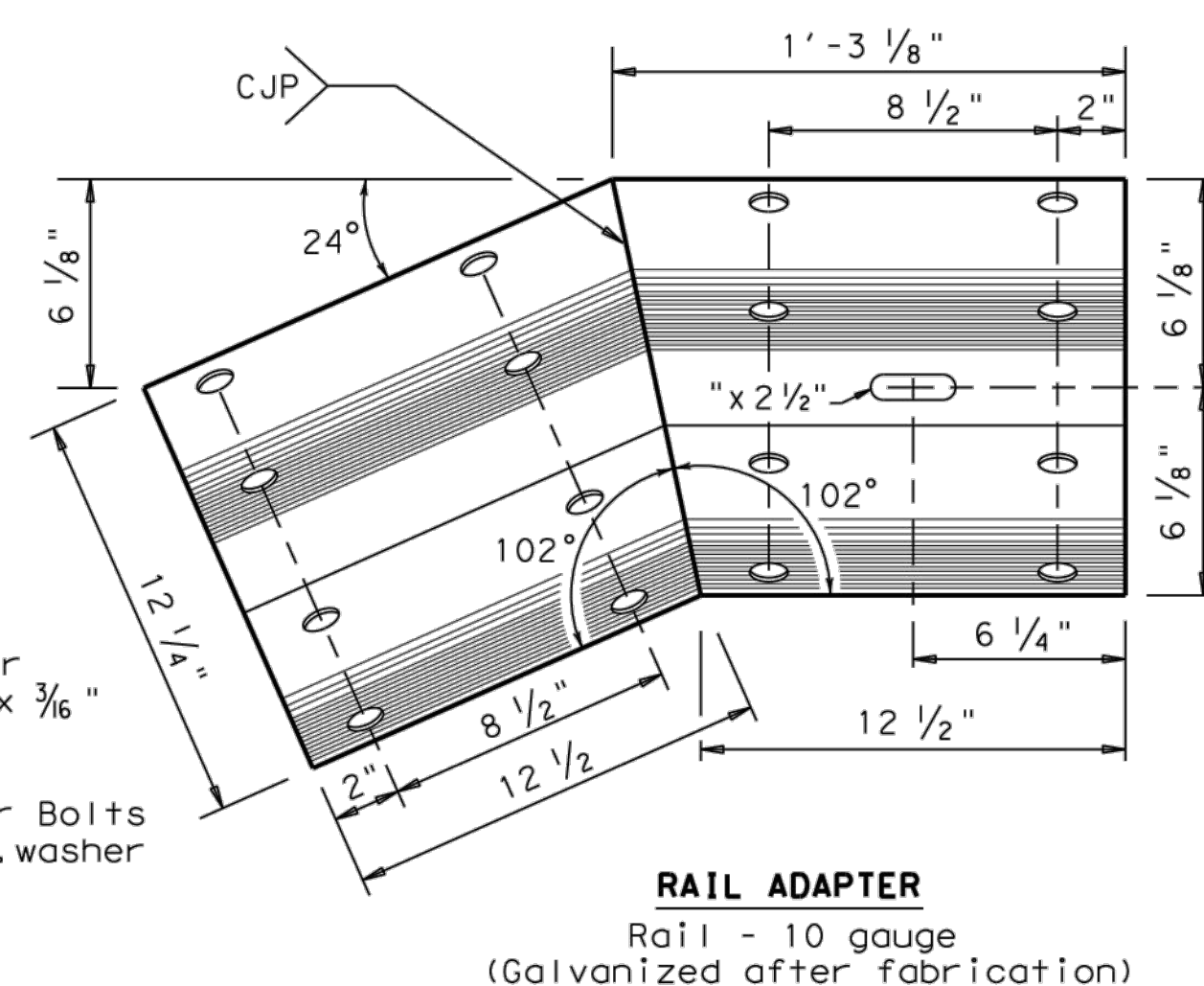
GENERAL NOTES

1. The "Driveway" Terminal Anchor Section is ONLY to be used within driveway locations, where the ROW is limited and a standard 25 ft. (TAS) Terminal Anchor Section, is too long.
2. Terminal anchor post shall be set in Class A concrete.
3. All steel shall be galvanized after fabrication in accordance with Item 445, "Galvanizing."

PLATE WASHER FOR METAL BEAM (Galvanized after fabrication)




ANCHOR POST



RAIL ADAPTER

Rail - 10 gauge
(Galvanized after fabrication)

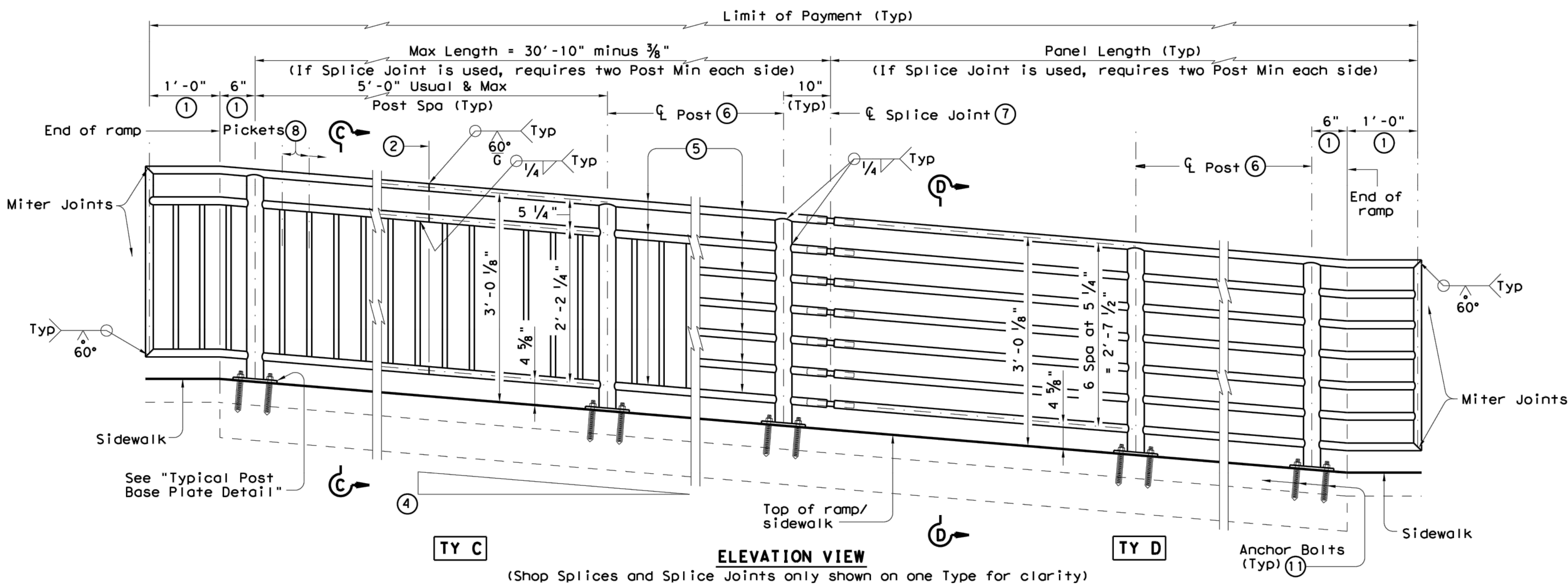
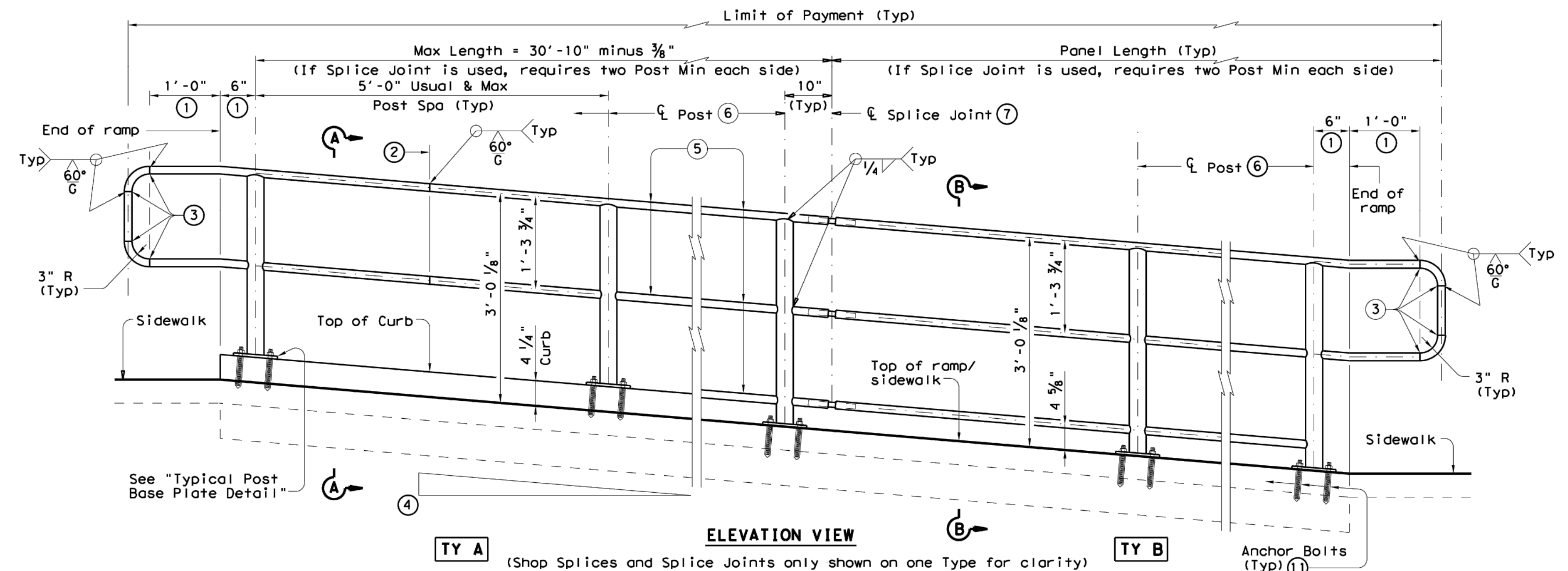
GENERAL NOTES



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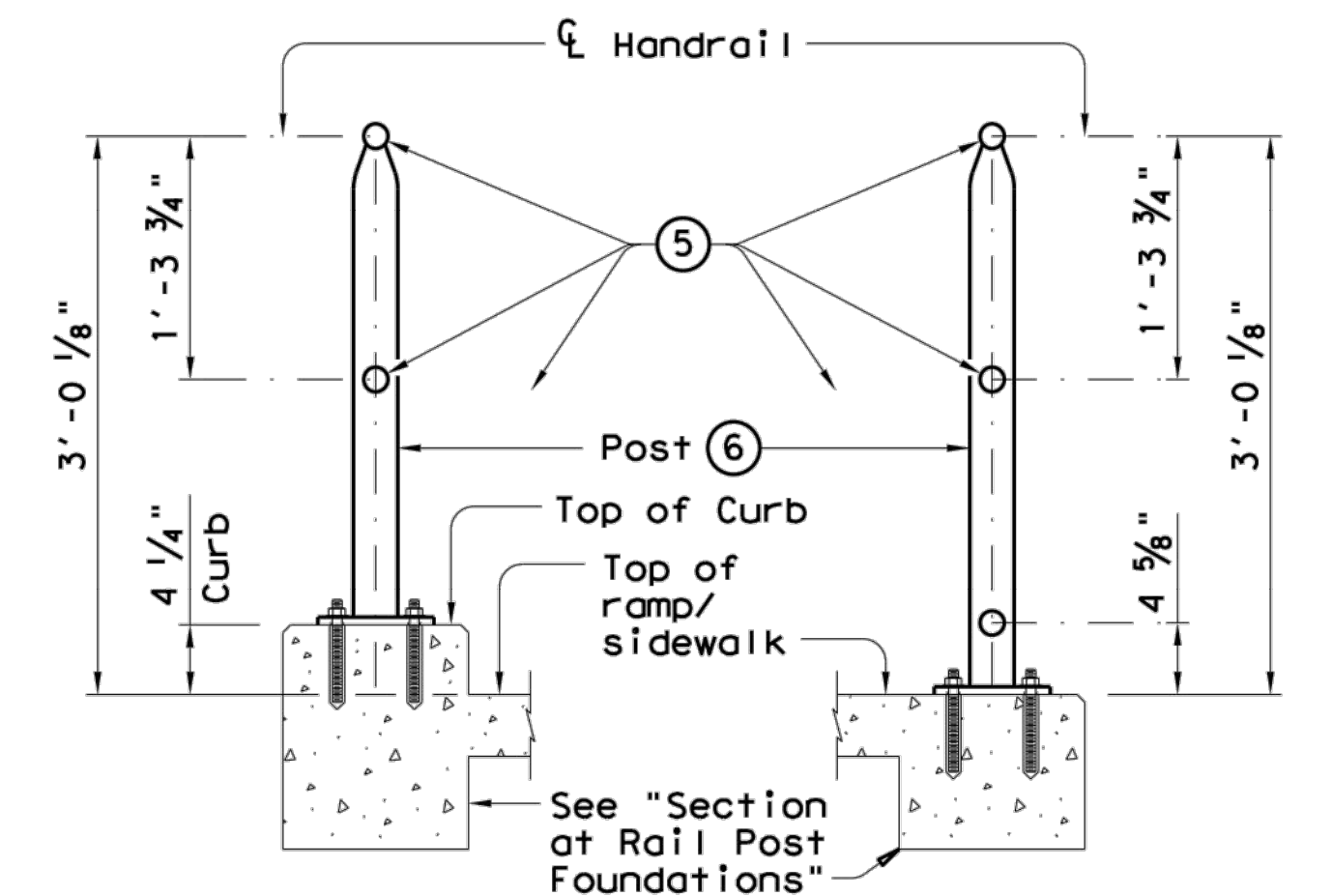
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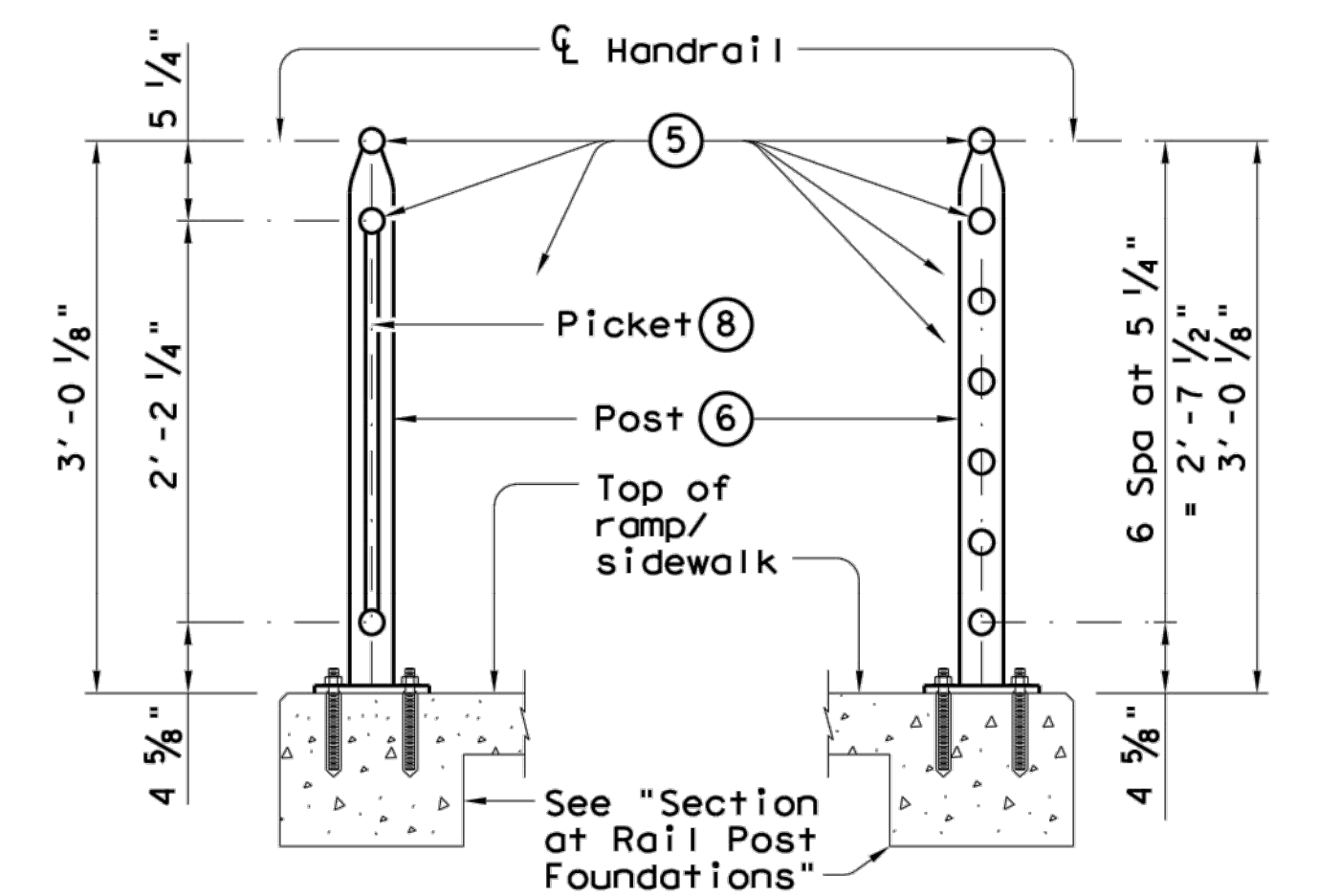
- ① Parallel to ground.
- ② One shop splice per panel is permitted with minimum 85 percent penetration. The weld may be square groove or single vee groove. Grind smooth.
- ③ Shop splice is permitted with minimum 85 percent penetration. The weld may be square groove or single vee groove. Grind smooth.
- ④ See Ramp Details located elsewhere in plans for ramp slope and dimensions. Maximum ramp slope will not exceed 8.3 percent. Level landing required for each 30" rise if grade exceeds 5 percent.
- ⑤ 1 1/2" Dia. Standard Pipe (1.900" O.D., 0.145" wall thickness). Parallel to ramp / sidewalk. Provide holes as needed in 1 1/2" Dia. pipe for galvanizing drainage and venting.

- ⑥ 2 1/2" Dia. Standard Pipe (2.875" O.D., 0.203" wall thickness). See "Post Mount Detail" for crimping and trimming post to fit Dia. of top rail. Provide holes as needed in post for galvanizing drainage and venting. Plumb all posts.
- ⑦ See "Handrail Fabrication Details" for Splice Joints.
- ⑧ 5/8" Dia. Round Bar equal spacing at 4 1/2" Max. Plumb all pickets.
- ⑨ When needed for accessibility (grade > 5 percent) or as needed for pedestrian safety.
- ⑩ Not to be used on bridges.
- ⑪ See "General Notes" for anchor bolt information.

RECOMMENDED USAGE ⑨ ⑩	
Dropoff Height/Condition	Recommended Rail Options
< 30" dropoff	TY A, TY B, TY C, or TY D
≥ 30" dropoff, or along Bike Path	TY E or TY F



SECTION A-A (Showing Handrail TY A) SECTION B-B (Showing Handrail TY B)



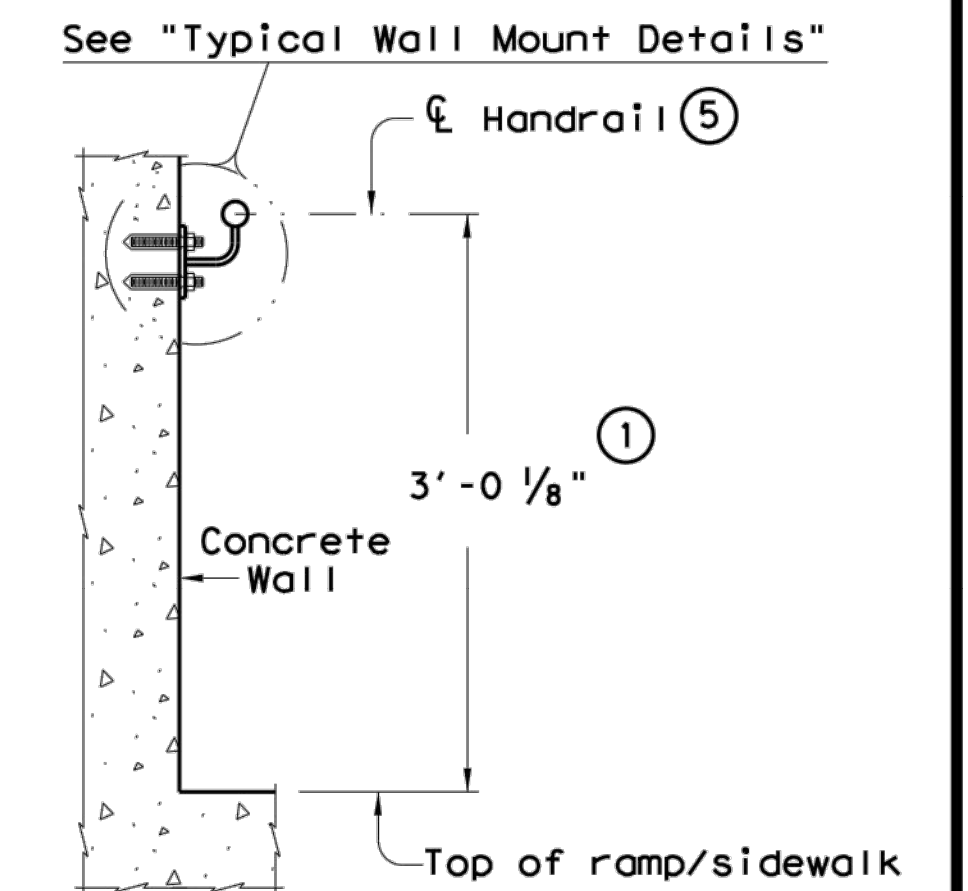
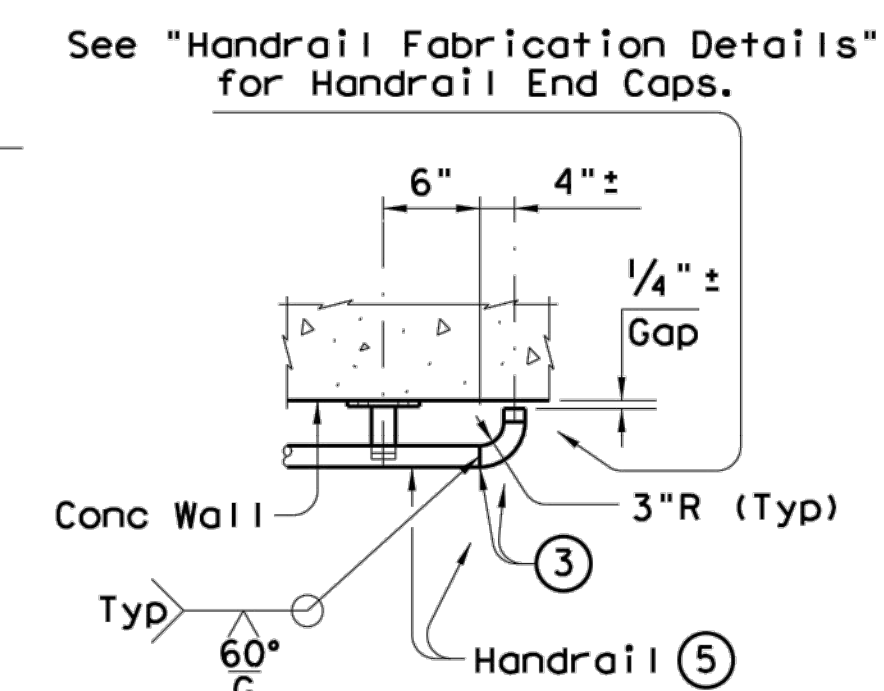
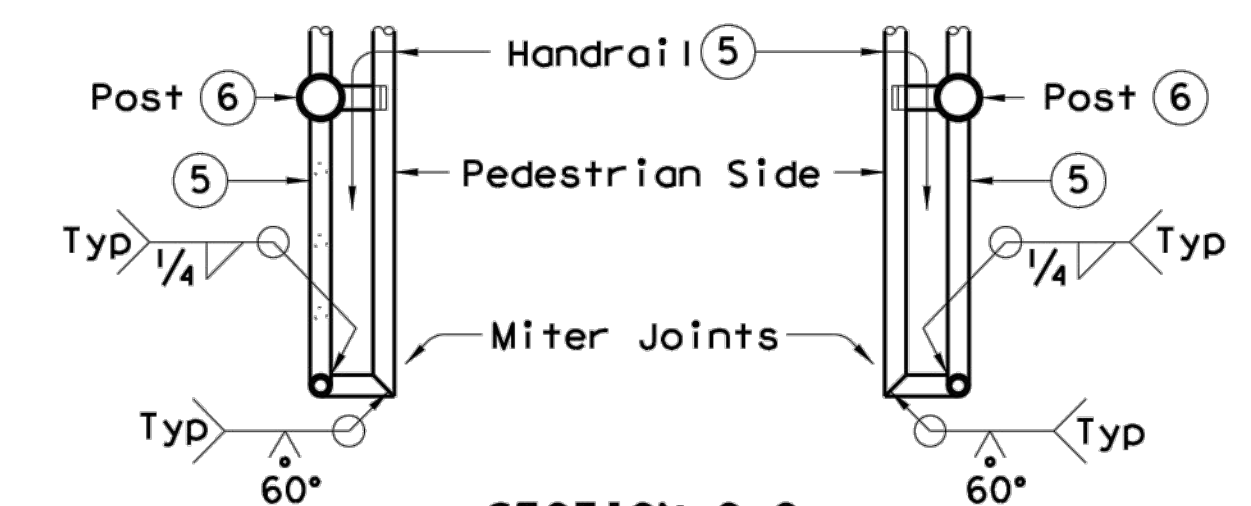
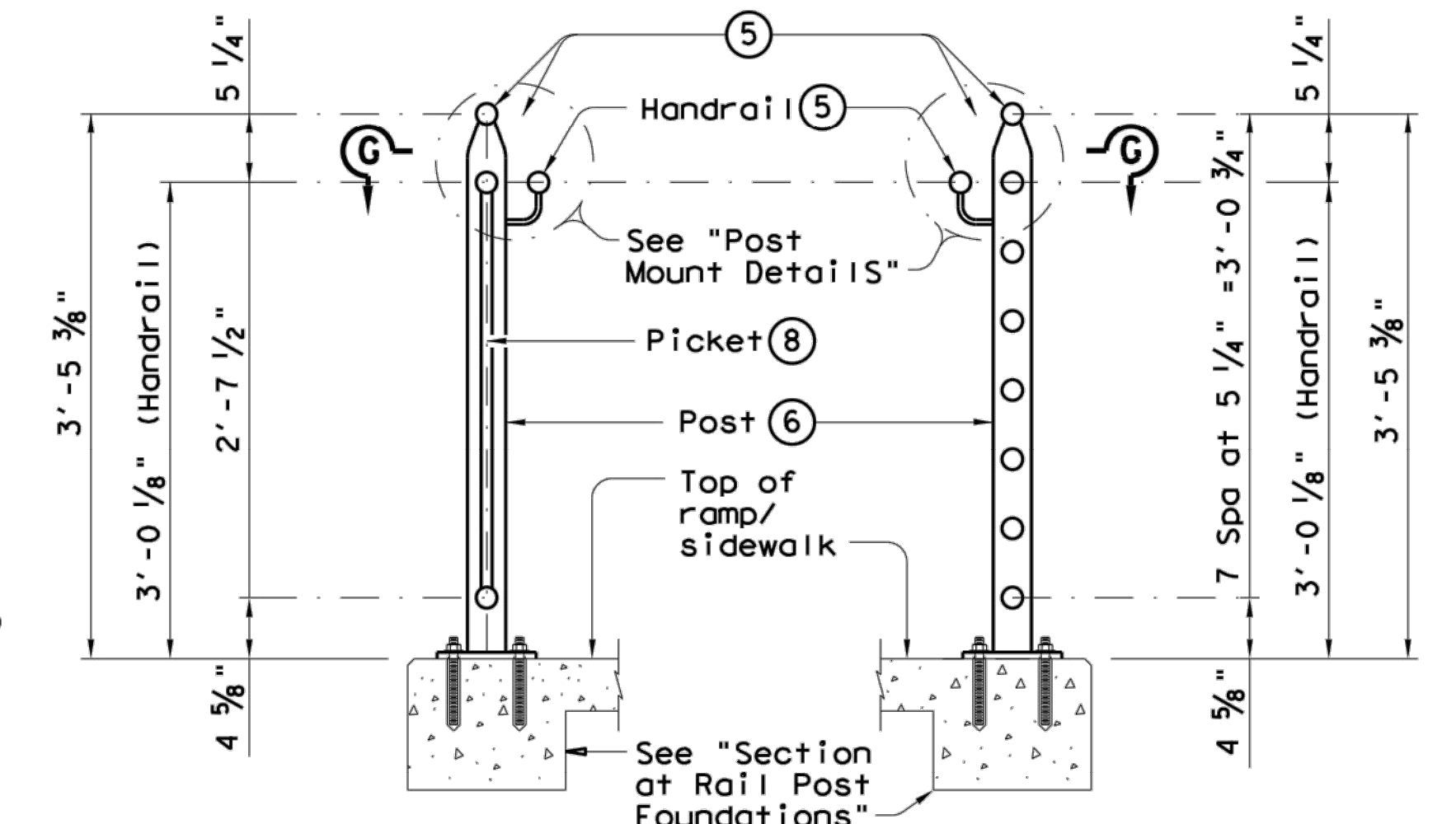
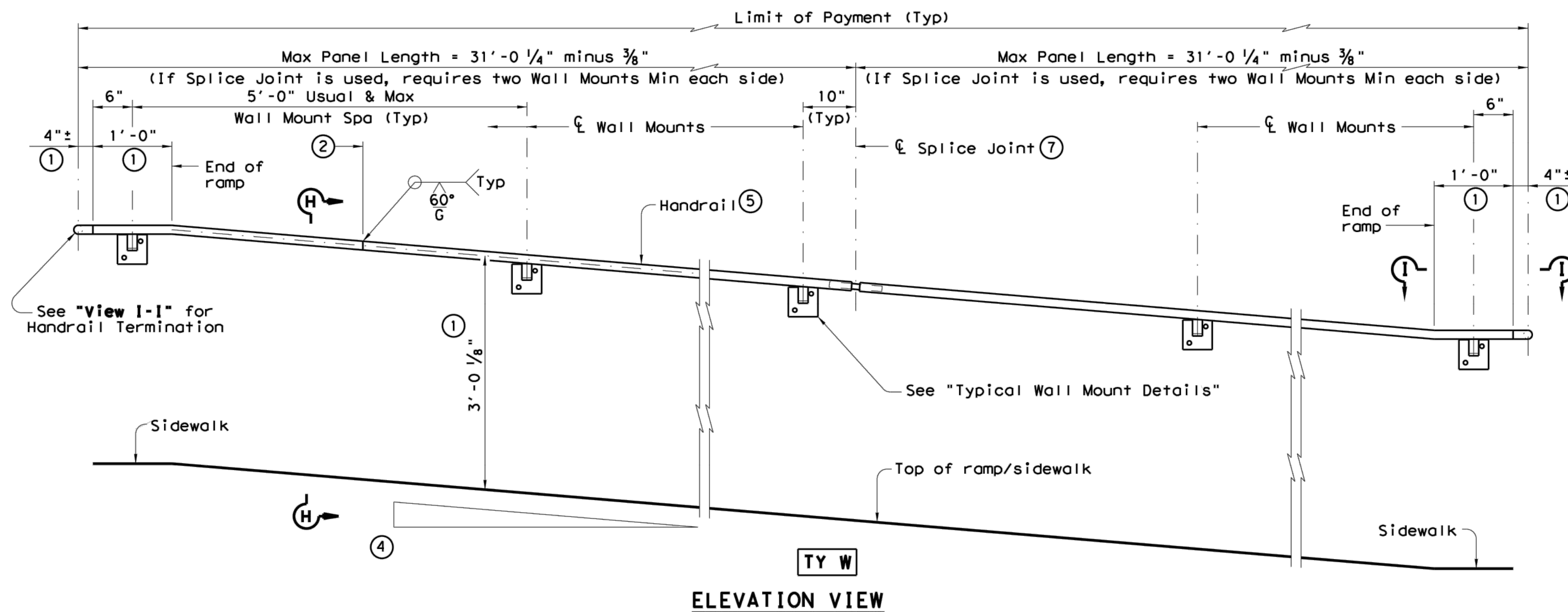
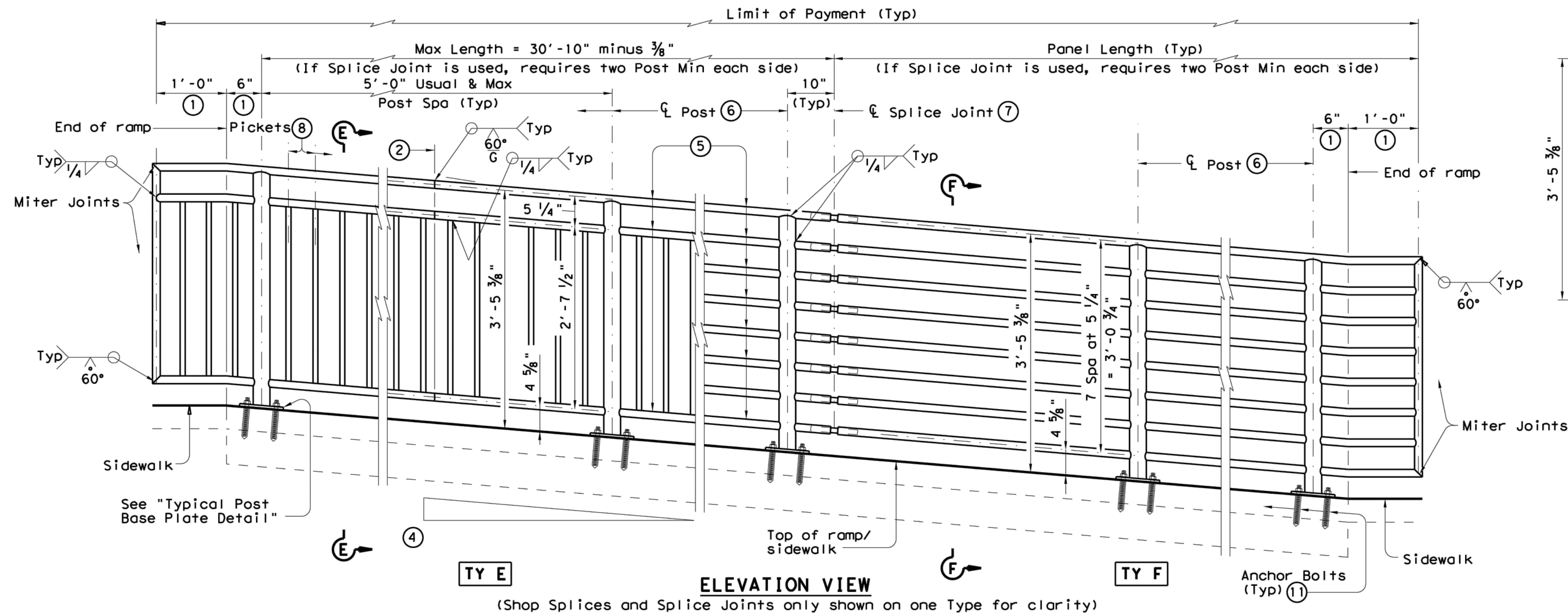
SECTION C-C (Showing Handrail TY C) SECTION D-D (Showing Handrail TY D)

SHEET 1 OF 3

		Design Division Standard	
PEDESTRIAN HANDRAIL DETAILS			
PRD-13		C-20	
FILE: prd13.dgn	DW: TxDOT	CK: AM	DW: JTR
© TxDOT December 2006	CONT	SECT	JOB
REVISIONS			HIGHWAY
REVISED MAY, 2013 (VP)	DIST	COUNTY	SHEET NO.

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- ① Parallel to ground.
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- ④ See Ramp Details located elsewhere in plans for ramp slope and dimensions. Maximum ramp slope will not exceed 8.3 percent. Level landing required for each 30" rise if grade exceeds 5 percent.
- ⑤ 1 1/2" Dia. Standard Pipe (1.900" O.D., 0.145" wall thickness). Parallel to ramp / sidewalk. Provide holes as needed in 1 1/2" Dia. pipe for galvanizing drainage and venting.
- ⑥ 2 1/2" Dia. Standard Pipe (2.875" O.D., 0.203" wall thickness). See "Post Mount Detail" for crimping and trimming post to fit Dia. of top rail. Provide holes as needed in post for galvanizing drainage and venting. Plumb all posts.
- ⑦ See "Handrail Fabrication Details" for Splice Joints.
- ⑧ 5/8" Dia. Round Bar equal spacing at 4 1/2" Max. Plumb all pickets.
- ⑪ See "General Notes" for anchor bolt information.

SHEET 2 OF 3

Texas Department of Transportation
Design Division Standard

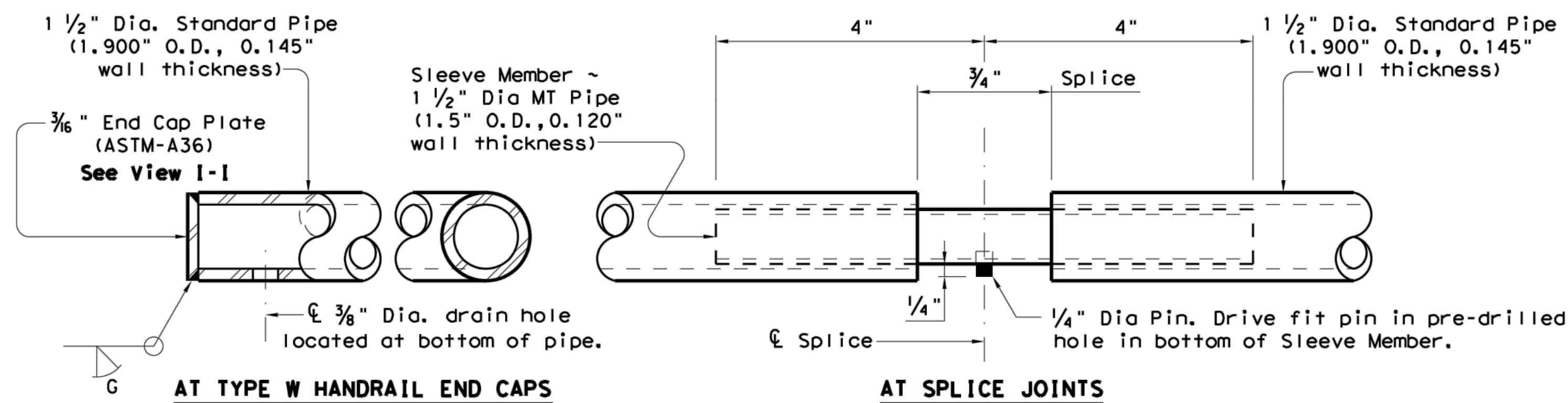
PEDESTRIAN HANDRAIL DETAILS

PRD-13 C-21

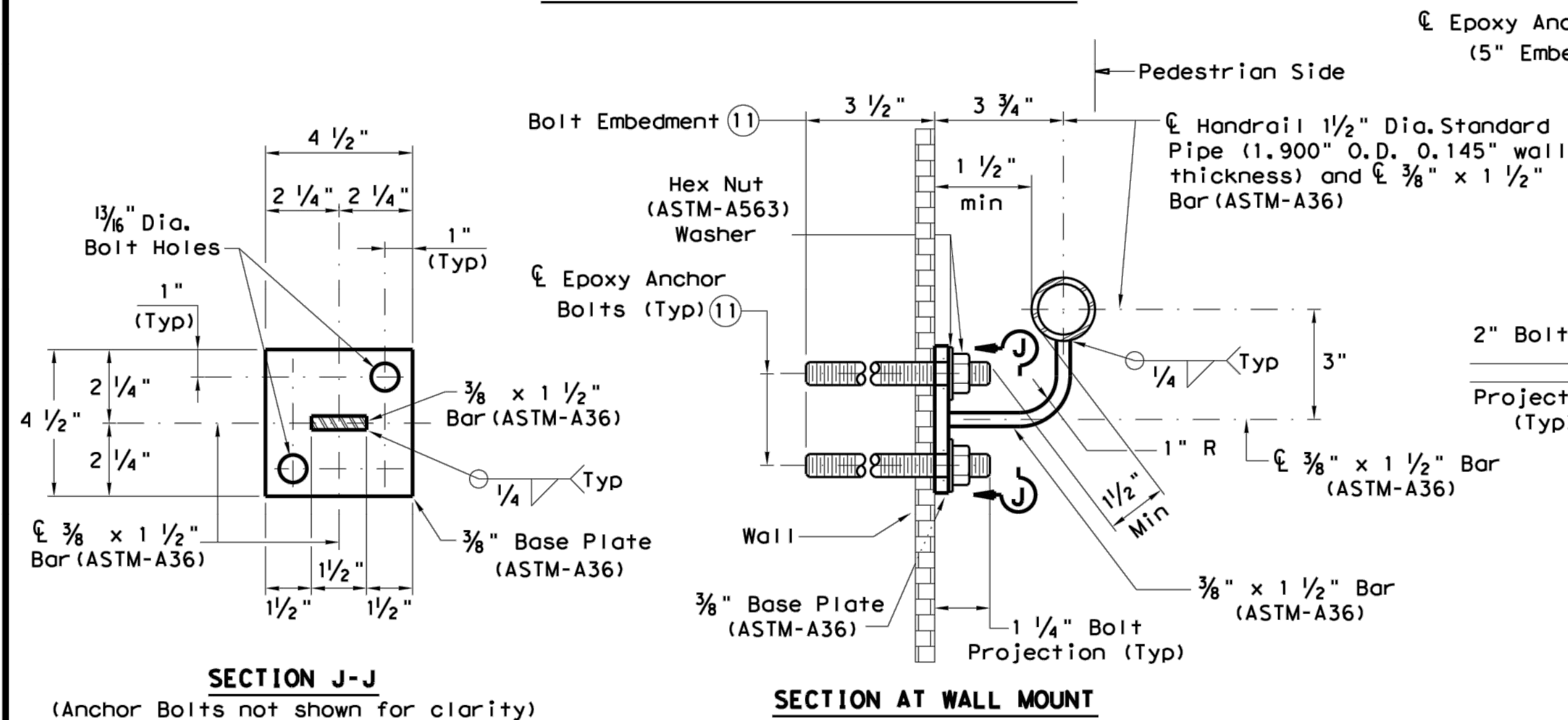
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© TxDOT December 2006	CONT	SECT	JOB	HIGHWAY
REVISIONS				
REVISED MAY, 2013 (VP)	DIST	COUNTY		SHEET NO.

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DATE: FILE:

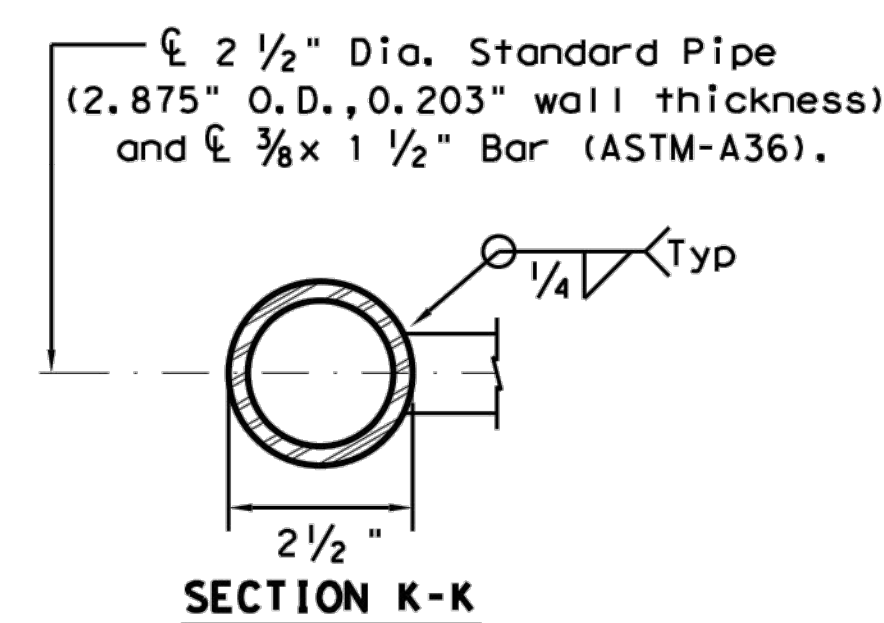
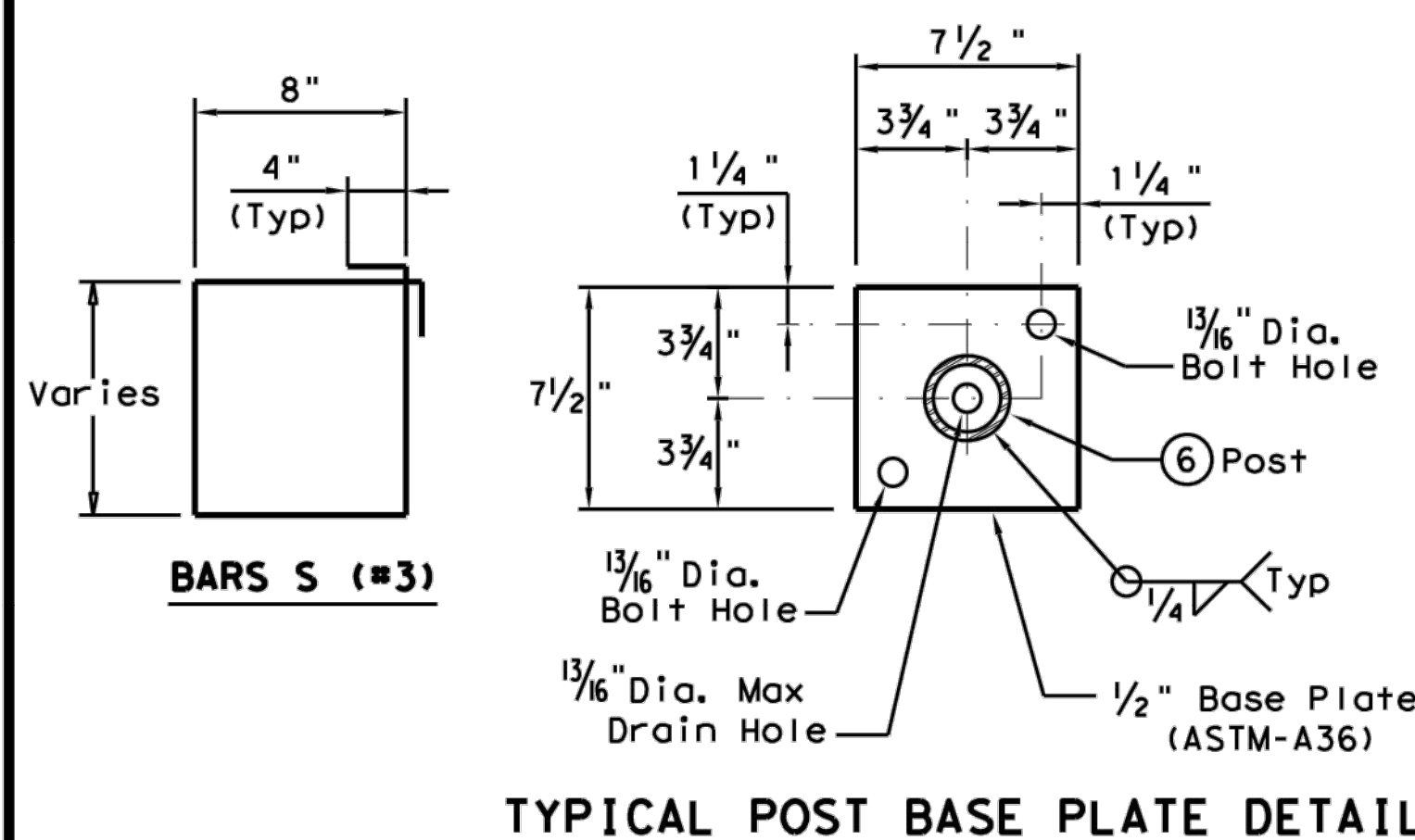


HANDRAIL FABRICATION DETAILS

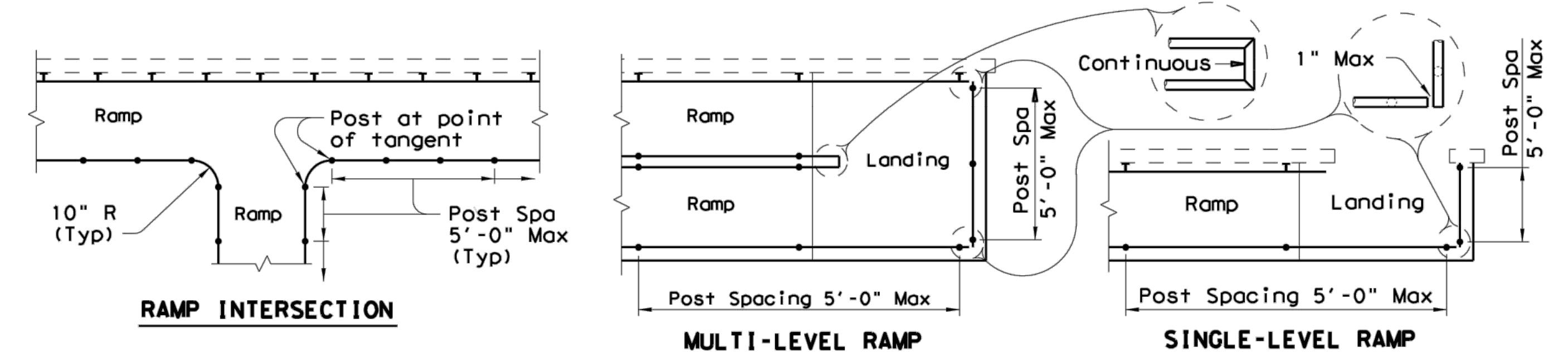
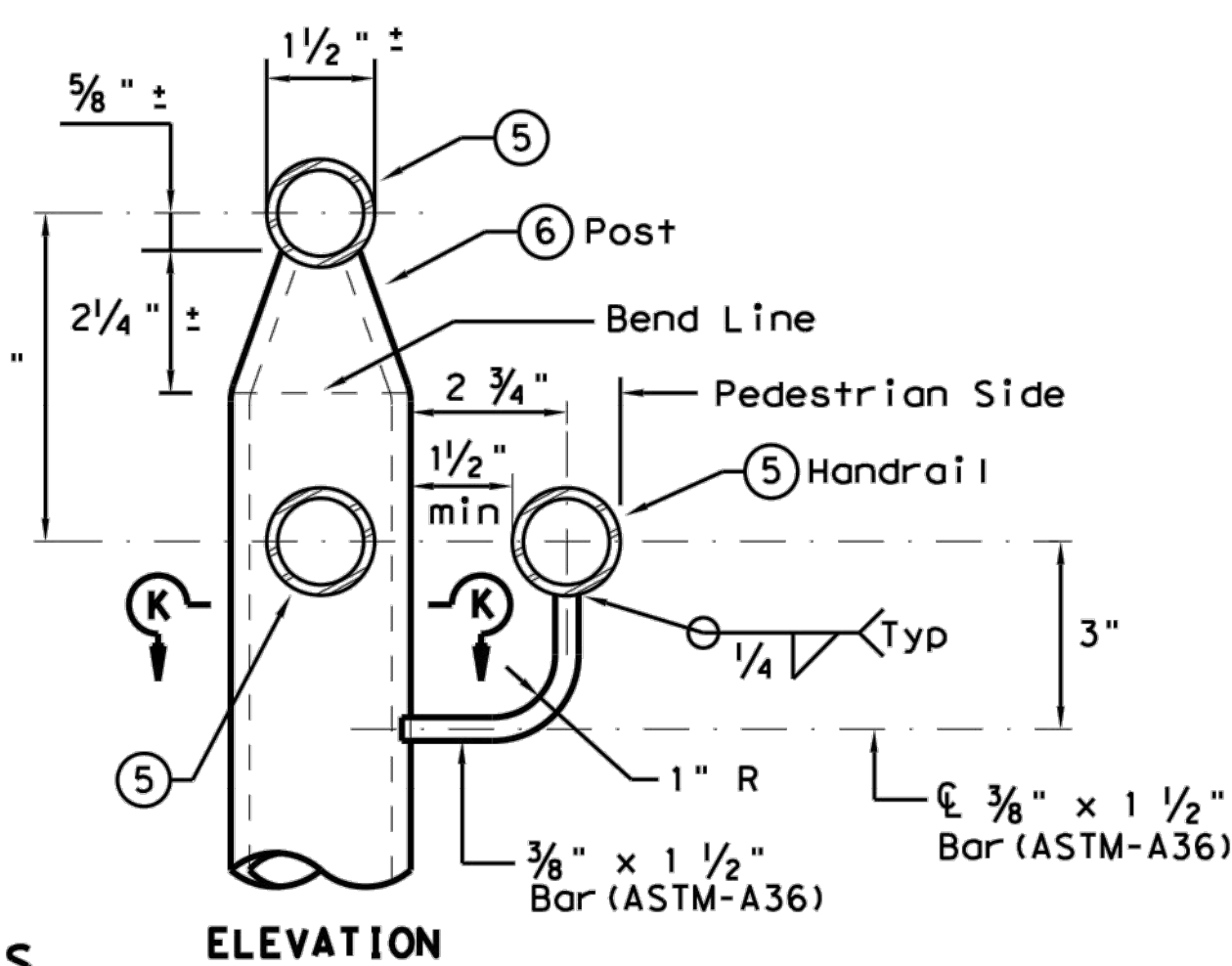


TYPICAL WALL MOUNT DETAILS

- ⑤ 1 1/2" Dia. Standard Pipe (1.900" O.D., 0.145" wall thickness). Parallel to ramp/sidewalk. Provide holes as needed in 1 1/2" Dia. pipe for galvanizing drainage and venting.
- ⑥ 2 1/2" Dia. Standard Pipe (2.875" O.D., 0.203" wall thickness). Plumb all posts. See "Post Mount Detail" for crimping and trimming post to fit the diameter of top rail. Provide holes as needed in post for galvanizing drainage and venting.
- ⑪ See "General Notes" for anchor bolt information.
- ⑫ Bars S(#3) spaced at 12" Max (Spaced 3" from outside edge of overall length of Ramp/Sidewalk).
- ⑬ Provide 1 1/2" end cover to Bars D(#4) from outside edge of overall length of Ramp/Sidewalk.



POST MOUNT DETAILS



PLAN SHOWING RAIL AT RAMP CONDITIONS

GENERAL NOTES

Designed according to ADAAG, Texas Accessibility Standards, Uniform Building Code, and AASHTO LRFD Specifications.

Handrail anchorage details shown on this standard may require modification for select structure types. See appropriate details elsewhere in plans for these modifications.

Pipe will conform to ASTM-A53 Grade B or A500 Grade B. Steel plates and steel bars will conform to ASTM-A36. Mechanical tubing (MT) will conform to ASTM A513 Grade 1015 or higher. Galvanize all steel components except reinforcing steel unless noted otherwise.

Concrete for foundations will be in accordance with Item 531 "Sidewalks". All reinforcing steel must be Grade 60. Bar laps, where required, will be as follows: Uncoated ~ #4 = 1'-5" Epoxy coated ~ #4 = 2'-1"

When the plans require painted steel, follow the requirements for painting galvanized steel in Item 446, "Cleaning and Painting Steel". Sleeve Members will receive galvanization and only get field painted after installation unless directed otherwise by Engineer.

Epoxy Anchor bolts for wall mount and post base plate will be 3/8" Dia. ASTM A36 threaded rods with one hex nut and one hardened steel washer at each bolt. 5/8" Dia. threaded rod embedment depth for wall mounts is 3 1/2" and embedment depth for post base plate is 5".

Embed threaded rods into concrete with a Type III (Class C) epoxy meeting the requirements of DMS-6100, "Epoxies and Adhesives". Mix and dispense adhesive with the manufacturer's static mixing nozzle/dual cartridge system. Core drill holes (percussion drilling not permitted).

At the contractor's option the post base plate anchor bolts may be cast with the Ramp/Sidewalk (See Cast-in-Place Anchor Bolt Options).

Optional cast-in-place anchor bolts will be 5/8" Dia ASTM A307 Grade A bolts (or A36 threaded rods with one tack welded hex nut each) with one hex nut and one hardened steel washer at each bolt. Embedment depth of cast-in-place bolt will be 8" for post base plate.

Handrails and any wall or other surface adjacent to them will be free of any sharp or abrasive elements.

Submit shop drawings to the Engineer unless otherwise noted. For curved handrail applications, fabricate the handrail to the curve if radius is less than 600 ft. Shop drawings are required when rail is fabricated to the curve.

For all handrails, erection drawings will be submitted to the Engineer for approval to ensure proper installation.


Drawings will show handrail mount locations with bolts setting, spacing, ramp slope, and/or splice joint locations, and handrail lengths with identification showing where each handrail goes on the layout.

Payment for concrete sidewalks or curb ramps will be paid for in accordance with Item 531 "Sidewalks".

Payment for all items shown is to be included in unit price bid in accordance with Item 450 "Railing" of the type specified.

All exposed edges will be rounded or chamfered to approximately 1/8" by grinding.

SHEET 3 OF 3

 Texas Department of Transportation		Design Division Standard	
PEDESTRIAN HANDRAIL DETAILS			
PRD-13		C-22	
FILE: prd13.dgn		DN: TxDOT	CK: AM
© TxDOT December 2006		DW: JTR	CK: CGL
REVISIONS		HIGHWAY	
REVISED MAY, 2013 (VP)			
DIST		COUNTY	SHEET NO.



STORE NUMBER: 07464

SWC HORIZON RD. AND RIDGE RD.
ROCKWALL, TEXAS
PROJECT TYPE: EXTERIOR REMODEL
DEAL TYPE: FEE FOR SERVICE

CS PROJECT NUMBER: 76657

CIVIL ENGINEER:



CONSULTANT:

DEVELOPER:

SEAL:

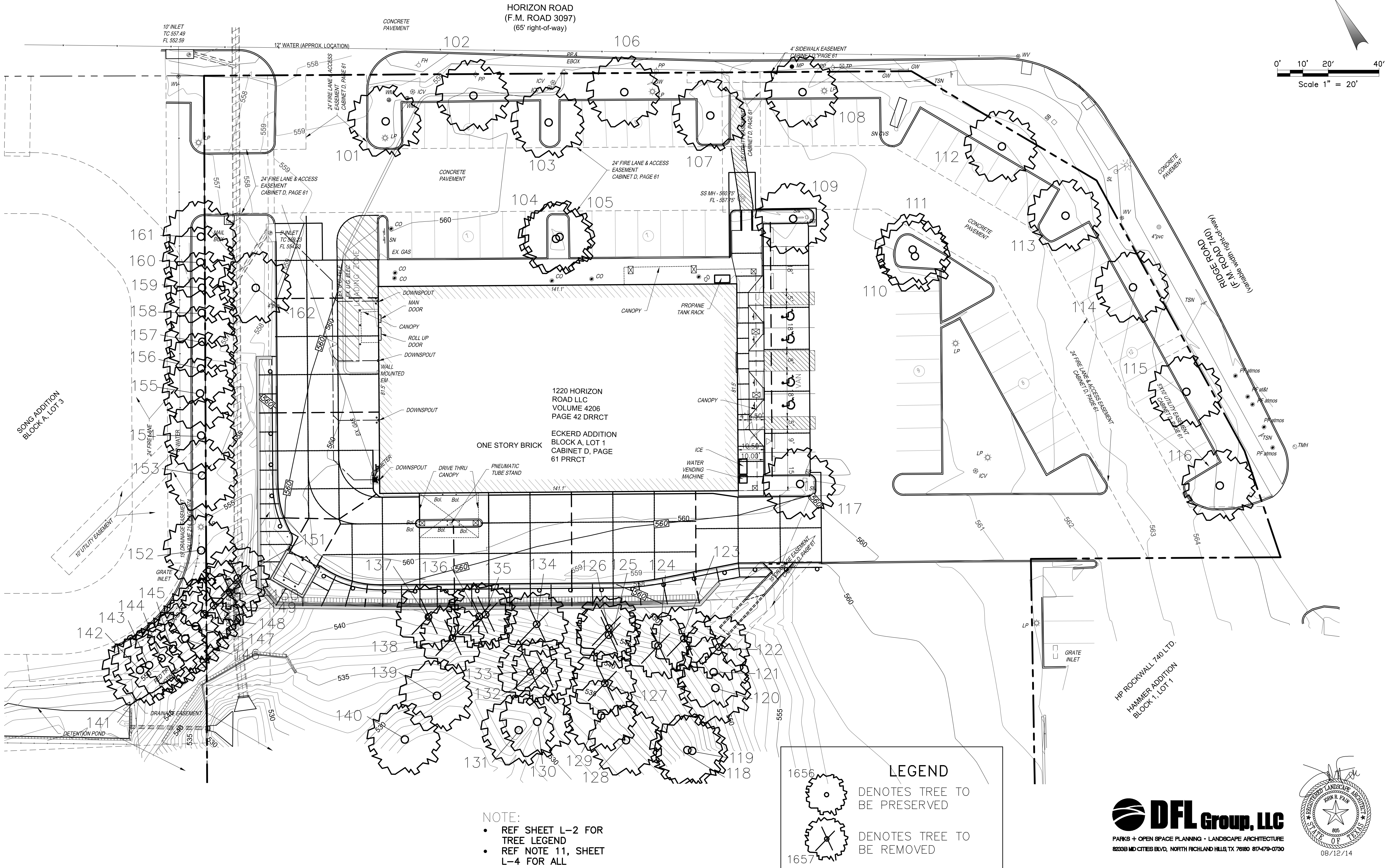
REVISIONS:
8-12-14 ADDENDUM NO. 1
9-29-14 ADDENDUM NO. 2
CHANGE WALL VENEER TO BRICK
3-24-15 CHANGE ORDER NO. 1
4-13-15 ADA RAMPS NO. 2
7-16-15 ASBUILT SET

FILE NAME: 70801-Lan.dwg
JOB NUMBER: 70801.00
DATE: JULY 28, 2014
TITLE:

TREE PRESERVATION

SHEET NUMBER:
L-1

COMMENTS:



NOTE:
• REF SHEET L-2 FOR TREE LEGEND
• REF NOTE 11, SHEET L-4 FOR ALL PRESERVED TREES.

LEGEND

1656 DENOTES TREE TO BE PRESERVED

1657 DENOTES TREE TO BE REMOVED

..... LOCATION OF PROTECTIVE FENCE

DFL Group, LLC
PARKS + OPEN SPACE PLANNING • LANDSCAPE ARCHITECTURE
82338 MID CITIES BLVD, NORTH RICHLAND HILLS, TX 76180 817-479-0790

08/12/14

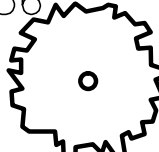
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Plant Survey			
	Cal.	Species	Condition
101	7	ELM	PRESERVE
102	10	OAK	PRESERVE
103	7	ELM	PRESERVE
104	8	ELM	PRESERVE
105	9	ELM	PRESERVE
106	7	ELM	PRESERVE
107	7	ELM	PRESERVE
108	18	ELM	PRESERVE
109	7	ELM	PRESERVE
110	6	OAK	PRESERVE
111	6	OAK	PRESERVE
112	7	OAK	PRESERVE
113	8	ELM	PRESERVE
114	7	PEAR	PRESERVE
115	10	OAK	PRESERVE
116	11	ELM	PRESERVE
117	9	ELM	PRESERVE
118	10	HACKBERRY	PRESERVE
119	7	HACKBERRY	PRESERVE
120	6	ELM	PRESERVE
121	9	CEDAR	PRESERVE
122	10	ELM	REMOVE-MITIGATE
123	6	BOIS D ARC	REMOVE-EXEMPT
124	8	HACKBERRY	REMOVE-EXEMPT
125	10	ELM	REMOVE-MITIGATE

Plant Survey			
	Cal.	Species	Condition
126	8	ELM	REMOVE-MITIGATE
127	5	COTTONWOOD	REMOVE-EXEMPT
128	6	OAK	PRESERVE
129	7	COTTONWOOD	PRESERVE
130	12	CEDAR	PRESERVE
131	13	OAK	PRESERVE
132	5	CEDAR	REMOVE-EXEMPT
133	5	HACKBERRY	REMOVE-EXEMPT
134	25	COTTONWOOD	REMOVE-EXEMPT
135	6	CEDAR	REMOVE-EXEMPT
136	4	CEDAR	REMOVE-EXEMPT
137	7	OAK	REMOVE-MITIGATE
138	7	HACKBERRY	REMOVE-EXEMPT
139	42	OAK	PRESERVE
140	7	CEDAR	PRESERVE
141	NA	PHOTINIA	PRESERVE
142	NA	PHOTINIA	PRESERVE
143	NA	PHOTINIA	PRESERVE
144	NA	PHOTINIA	PRESERVE
145	NA	PHOTINIA	PRESERVE
146	NA	PHOTINIA	PRESERVE
147	NA	PHOTINIA	PRESERVE
148	NA	PHOTINIA	PRESERVE
149	NA	PHOTINIA	REMOVE-EXEMPT
150	NA	PHOTINIA	REMOVE-EXEMPT

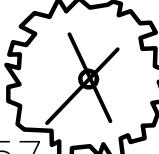
Plant Survey			
	Cal.	Species	Condition
151	NA	PHOTINIA	REMOVE-EXEMPT
152	NA	TREE	OFF SITE
153	NA	TREE	OFF SITE
154	NA	TREE	OFF SITE
155	NA	TREE	OFF SITE
156	NA	TREE	OFF SITE
157	NA	TREE	OFF SITE
158	NA	TREE	OFF SITE
159	NA	TREE	OFF SITE
160	NA	TREE	OFF SITE
161	NA	TREE	OFF SITE
162	9	ELM	PRESERVE
163			
164			
165			
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175			

1656




DENOTES TREE TO BE PRESERVED

1657



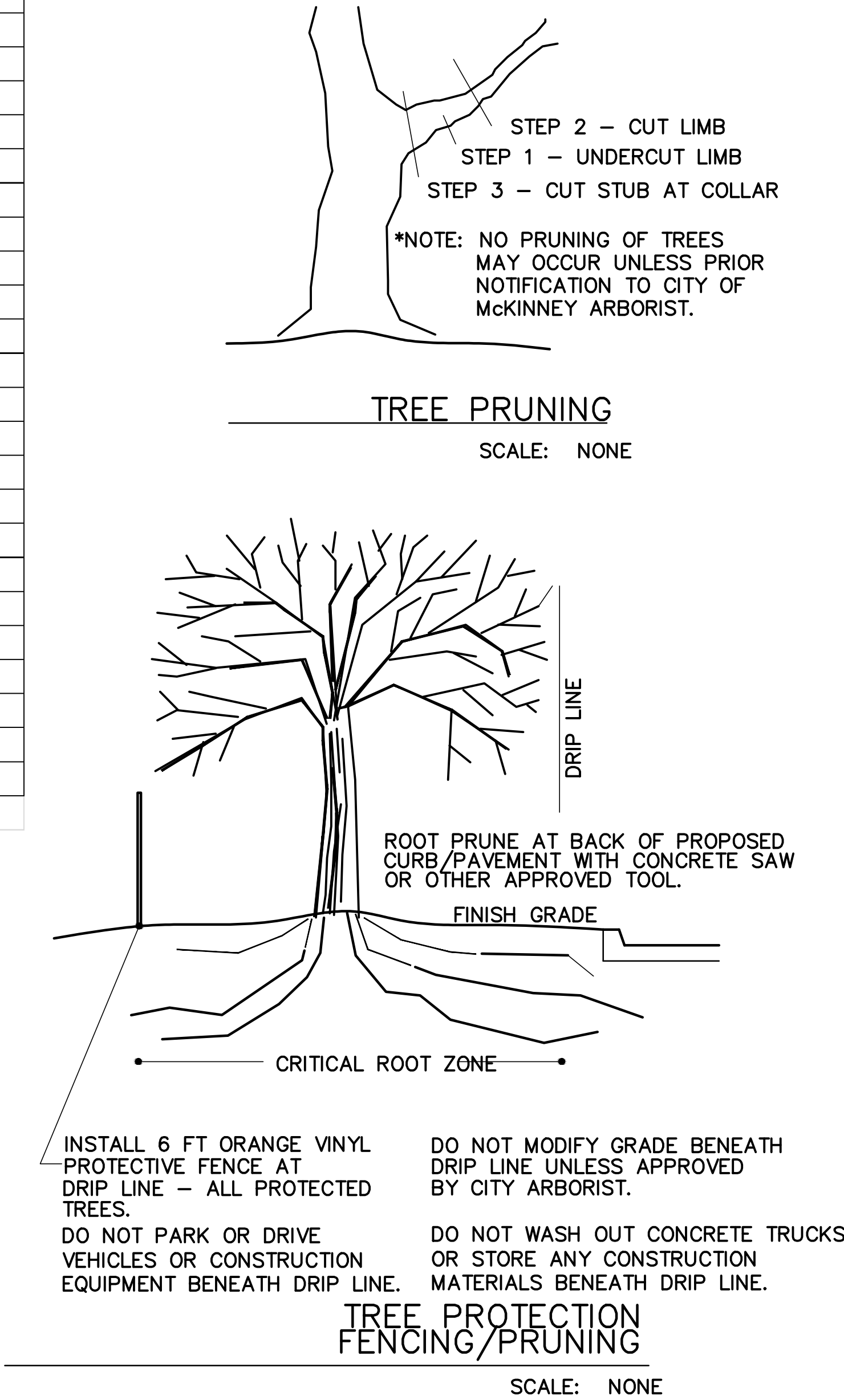
DENOTES TREE TO BE REMOVED



LOCATION OF PROTECTIVE FENCE

- TREE MITIGATION NOTES:
- TREES TO REMOVE (106" TOTAL).
 - 100% REQUIRED MITIGATION ON PROTECTED TREES (35").
 - 35" X 100% = 35" REQUIRED MITIGATION.
 - 9 X 4" NEW TREES = 36" ADDED

REF SHEET L-3 FOR PLAN
REF SHEET L-4 FOR PLANT LEGEND



TEMPORARY IRRIGATION WILL BE REQUIRED TO ESTABLISH TURF IN ALL DISTURBED AREAS WITHOUT A PERMANENT IRRIGATION SYSTEM. SOD TURF IN ALL DISTURBED AREAS AS IDENTIFIED ON GRADING AND EROSION CONTROL PLANS.

HORIZON ROAD
(F.M. ROAD 3097)
(65' right-of-way)

NOTE: INCLUDE (2) TORO SB-90-PC2 STREAM BUBBLERS TO EACH NEW TREE. ATTACH EACH BUBBLER TO TORO 570-6" PDPUP. LOCATE BUBBLERS INSIDE TREE WELL OF EACH TREE ON OPPOSITE SIDES OF THE ROOT BALL. ALL BUBBLERS TO BE ZONED SEPARATELY FROM OTHER HEADS. CONTRACTOR RESPONSIBLE FOR PIPE SIZING, SLEEVING, ETC. AND ALL OTHER REQUIREMENTS TO MAKE CIRCUIT(S) OPERABLE. TOTAL COUNT FOR BUBBLERS AND VALVE(S) NOT SHOWN IN IRRIGATION KEY. IF TREE IS LOCATED IN DRIP ZONE, IN LIEU OF BUBBLER USE (2) RAIN BIRD XSB-180-025 XERI-BUBBLERS W/ SXB-180-SPYK SPIKE TIED INTO EMITTER TUBING.

0' 10' 20' 40'
Scale 1" = 20'

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pharmacy®

STORE NUMBER: 07464

SWC HORIZON RD. AND RIDGE RD.
ROCKWALL, TEXAS
PROJECT TYPE: EXTERIOR REMODEL
DEAL TYPE: FEE FOR SERVICE

CS PROJECT NUMBER: 76657

CIVIL ENGINEER:

Winkelmann & Associates, Inc.

CONSULTING CIVIL ENGINEERS ■ SURVEYORS
6750 HILLCREST PLAZA DR., SUITE 325 (972) 480-7090
DALLAS, TEXAS 75230 (972) 480-7099 FAX
Texas Engineers Registration No. 88
Texas Surveyors Registration No. 100866-00
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CONSULTANT:

DEVELOPER:

SEAL:

REVISIONS:

8-12-14 ADDENDUM NO. 1
9-29-14 ADDENDUM NO. 2
CHANGE WALL VENEER TO BRICK
3-24-15 CHANGE ORDER NO. 1
4-13-15 ADA RAMP NO. 2
7-16-15 ASBUILT SET

FILE NAME: 70801-Lan.dwg

JOB NUMBER: 70801.00

DATE: JULY 28, 2014

TITLE:

LANDSCAPE PLAN

SHEET NUMBER:

L-3

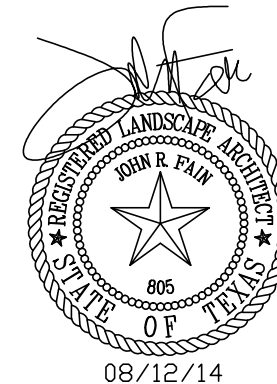
COMMENTS:

IRRIGATION COMMENTS:

- IT IS THE CONTRACTORS RESPONSIBILITY TO VISIT THE SITE BEFORE BIDDING TO CONFIRM CONDITION OF SYSTEM. THIS SHALL INCLUDE ACTIVATING THE SYSTEM, EXCAVATING WHERE NECESSARY AND LOCATING VALVES, HEADS, MAIN LINE AND CONTROL WIRES AND APPLYING FOR PERMIT
- ALL BROKEN/MISSING HEADS SHALL BE REPLACED WITH NEW/UNUSED EQUIPMENT. ALL OPERABLE EXISTING EQUIPMENT SHALL BE PRESERVED AND PROTECTED WHERE POSSIBLE.
- EXISTING METER/DCVA SHALL BE USED. A NEW WYE STRAINER AND BALL VALVE SHALL BE INSTALLED.
- CONTRACTOR SHALL LOCATE ALL EXISTING CONTROL VALVES AND TRACE WIRING BACK TO ORIGINAL CONTROLLER LOCATION. A NEW RAIN/FREEZE SENSOR SHALL BE REQUIRED IF SYSTEM IS NOT EQUIPPED WITH ONE APPROVED BY LAW.
- CONTRACTOR IS RESPONSIBLE FOR MODIFYING EXISTING IRRIGATION SYSTEM TO MEET THE NEEDS OF THE SITE AND ALL APPLICABLE STATUTES, LAWS AND ORDINANCES.
- PRIOR TO BIDDING CONTRACTOR SHALL CONFIRM IF ADDITIONAL BORINGS ARE REQUIRED TO COMPLETE SYSTEM INSTALLATION.
- CONTRACTOR SHALL ADD A CIRCUIT TO PROVIDE BUBBLERS TO NEWLY PLANTED TREES AND DRIP IRRIGATION TO NEW SHRUB/GROUNDCOVER AREAS.

DFL Group, LLC

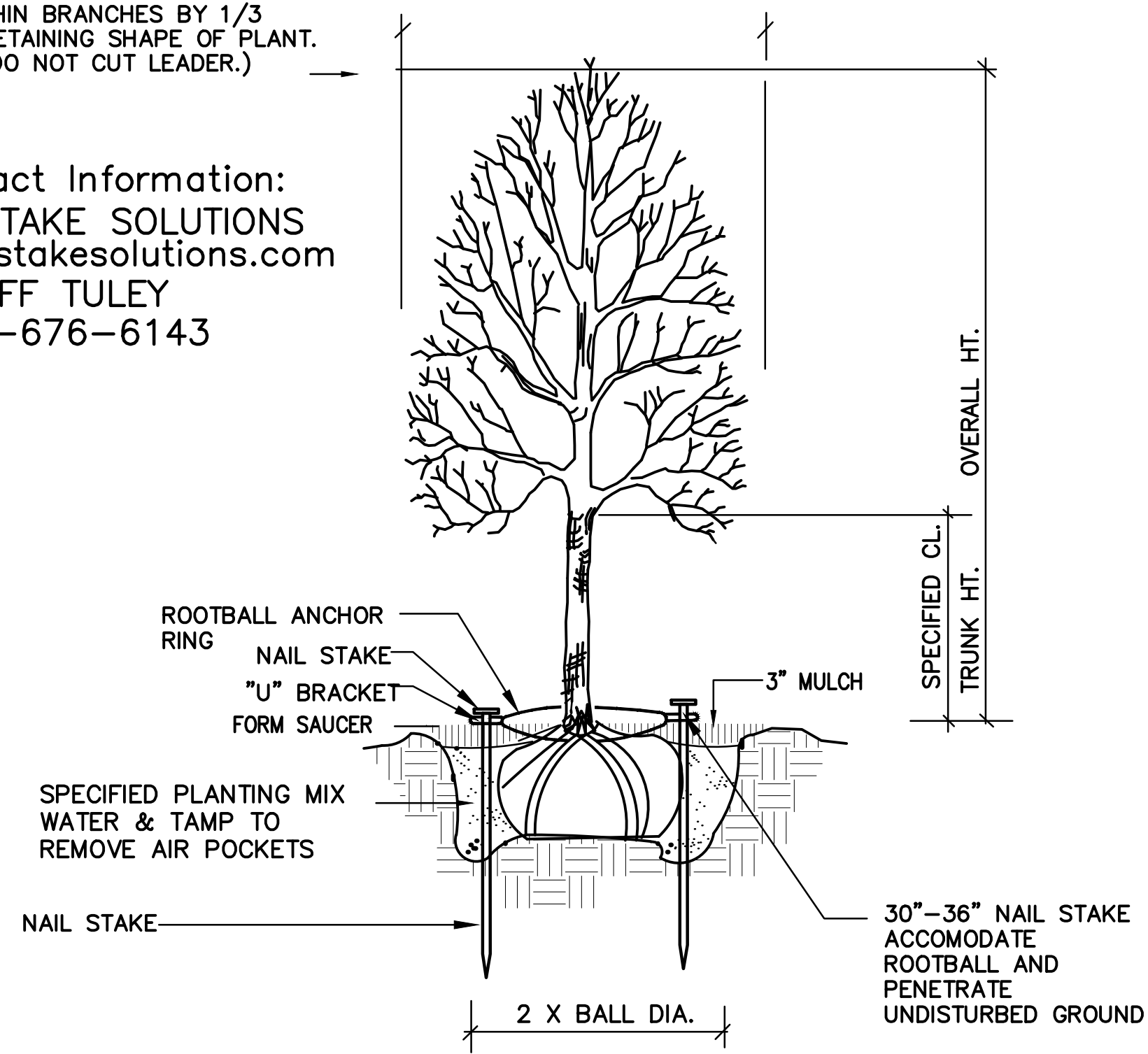
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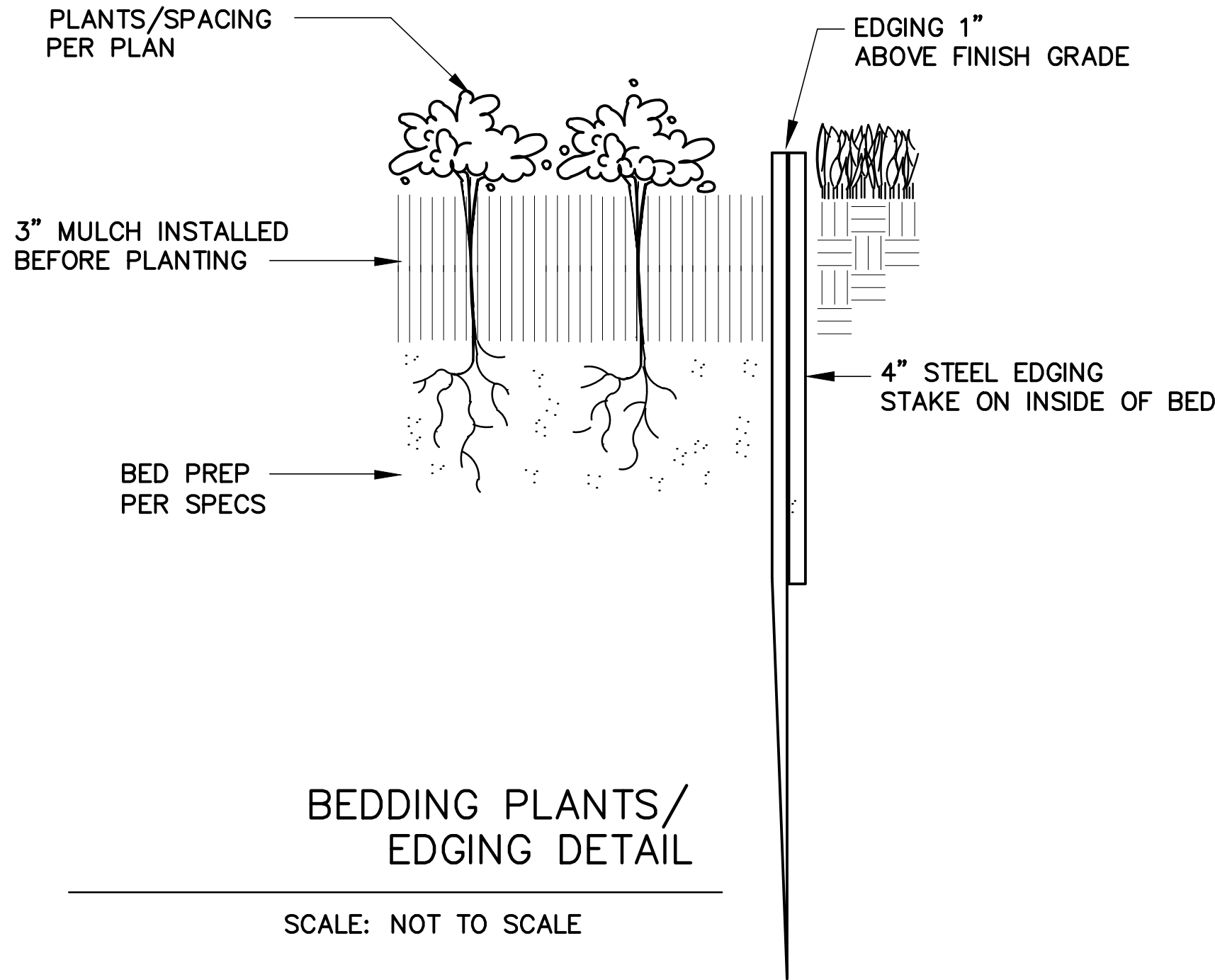
08/12/14

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Contact Information:
TREE STAKE SOLUTIONS
www.treestakesolutions.com
JEFF TULEY
903-676-6143

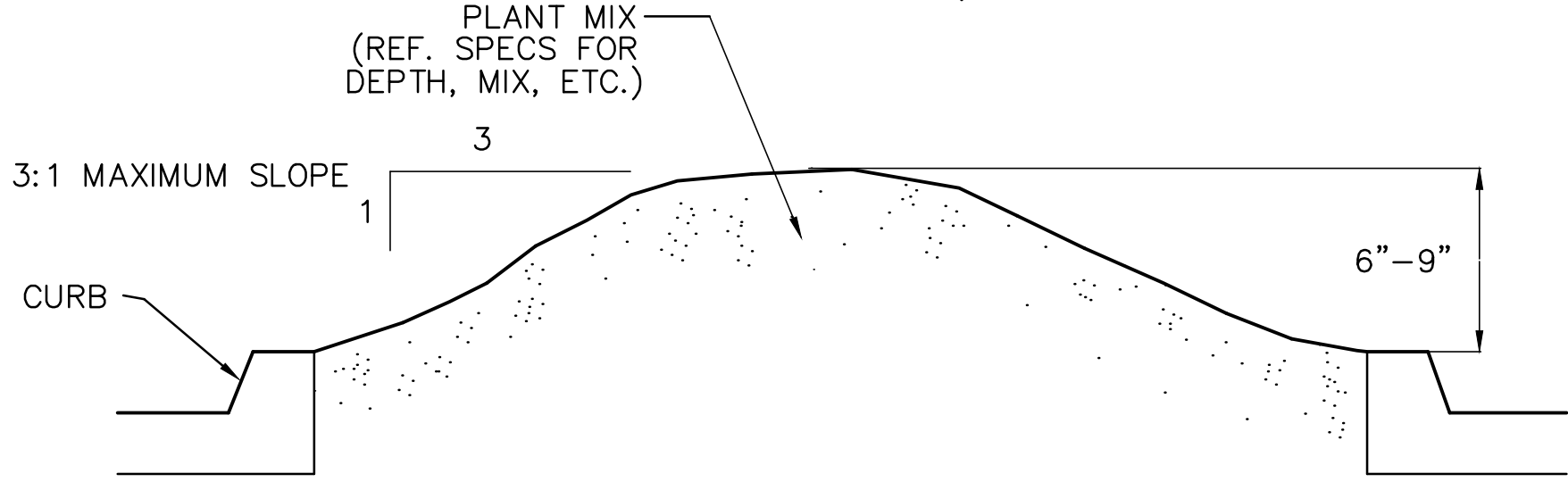


SAFETY STAKE BY TREE STAKE SOLUTIONS
SCALE: NOT TO SCALE



BEDDING PLANTS/
EDGING DETAIL

SCALE: NOT TO SCALE



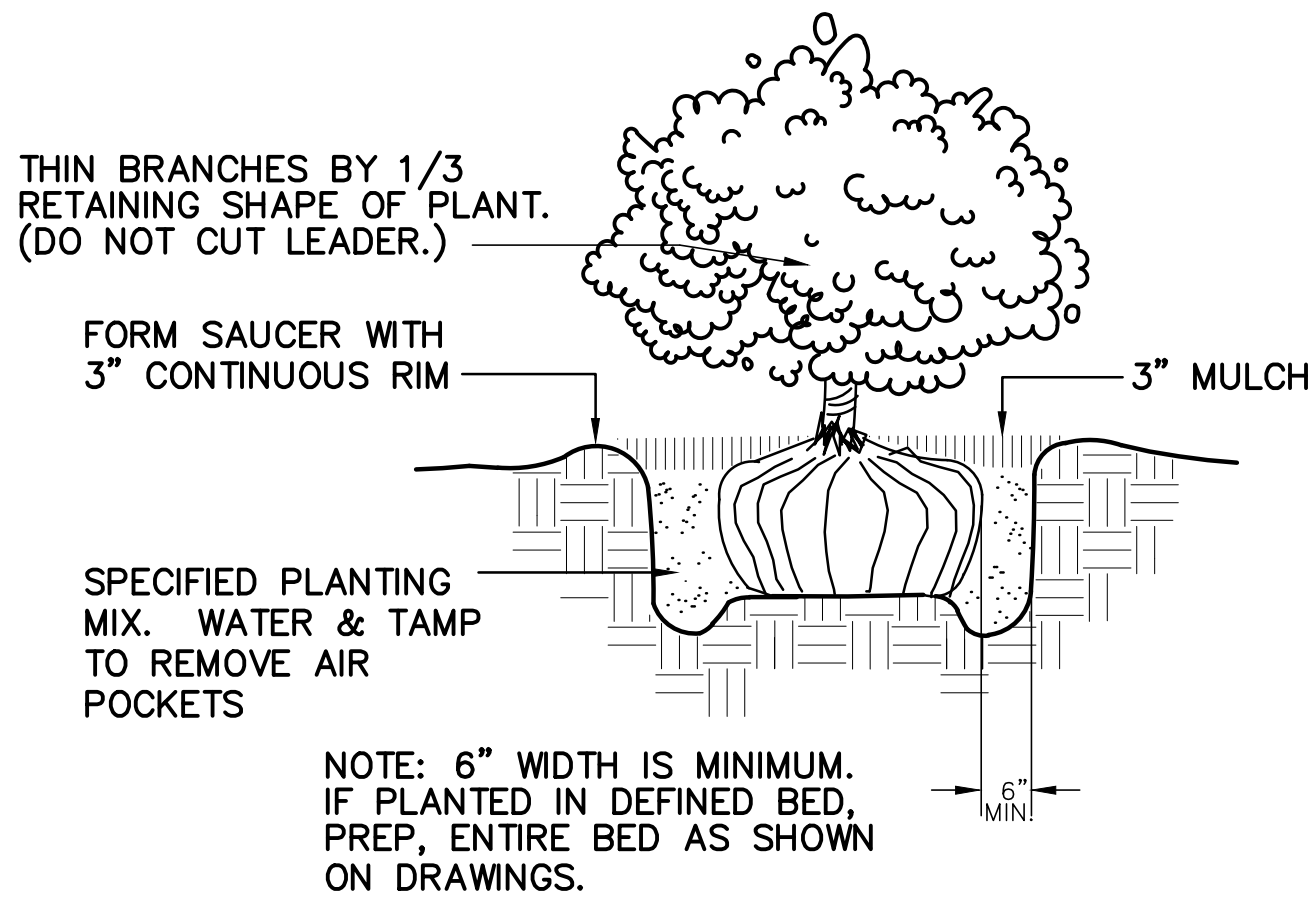
TYPICAL PARKING LOT ISLAND MOUNDING

SCALE: NOT TO SCALE

PLANT LIST

Symbol	Quantity	Code Name	Scientific Name	Common Name	Planting Size	Comments
	3	Qush	Quercus shumardii	Shumard oak	4" -Cal	B & B, Full, Single straight trunk
	3	Ultr	Ulmus crassifolia	Cedar elm	4" -Cal	B & B, Full, Single straight trunk
	3	Ulpa	Ulmus parvifolia	Lacebark elm	4" -Cal	B & B, Full, Single straight trunk
	525	Paqu	Parthenocissus quinquefolia	Virginia creeper	1-Gal	36" O.C.
			Cynodon dactylon	Bermuda	Sod	Solid

NOTE: IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM TREE CALIPER CALIPER MEASUREMENT HEIGHT ABOVE GRADE AS REQUIRED BY CITY.

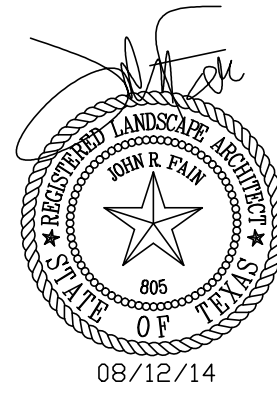


SHRUB PLANTING

SCALE: NOT TO SCALE

PLANTING NOTES:

1. PLANT SIZE, TYPE, AND CONDITION SUBJECT TO APPROVAL OF OWNER'S REPRESENTATIVE.
2. ALL PLANT MATERIAL TO BE NURSERY GROWN STOCK.
3. CONTRACTOR RESPONSIBLE FOR MAINTENANCE OF ALL PLANT MATERIAL UNTIL PROJECT ACCEPTANCE.
4. ALL CONTAINER GROWN PLANTS TO HAVE FULL, VIGOROUS ROOT SYSTEM, COMPLETELY ENCOMPASSING CONTAINER.
5. ALL PLANTS WELL ROUNDED AND FULLY BRANCHED. ALL TREES WITH SPREAD 2/3 OF HEIGHT.
6. CONTRACTOR TO PROVIDE OWNER WITH PREFERRED MAINTENANCE SCHEDULE OF ALL PLANTS AND LAWNS.
7. MAINTAIN/PROTECT VISIBILITY TRIANGLE WITH PLANT MATERIAL PER CITY STANDARDS AT ALL ENTRANCES TO SITE.
8. PREP ENTIRE WIDTH OF ALL DEFINED PLANTING BEDS WITH MIX AS OUTLINED IN SPECS. WHERE SHRUBS ARE LOCATED ALONG CURB, SET SHRUBS BACK FROM CURB 3 FT.
9. SEE DETAIL SHEET FOLLOWING FOR PLANTING DETAILS.
10. CONTRACTOR RESPONSIBLE FOR LOCATION OF ALL UTILITIES, INCLUDING BUT NOT LIMITED TO TELEPHONE, TELECABLE, ELECTRIC, GAS, WATER AND SEWER. ANY DAMAGE TO UTILITIES TO BE REPAIRED BY CONTRACTOR AT NO COST TO OWNER.
11. EXISTING TREES ARE SHOWN TO REMAIN, CONTRACTOR SHALL PRUNE ONLY ON APPROVAL OF CITY ARBORIST. WORK TO INCLUDE REMOVAL OF ALL SUCKER GROWTH; DEAD AND DISEASED BRANCHES AND LIMBS; VINES, BRIARS AND OTHER INVASIVE GROWTH; AND ALL INTERFERING BRANCHES. MAKE ALL CUTS FLUSH TO REMAINING LIMB. RETAIN NATURAL SHAPE OF PLANT. ALL WORK SUBJECT TO APPROVAL OF OWNER'S REPRESENTATIVE.
12. QUANTITIES ARE PROVIDED AS A COURTESY AND NOT INTENDED FOR BID PURPOSES. CONTRACTOR TO VERIFY PRIOR TO PRICING.
13. INSTALL EDGING BETWEEN LAWN AND PLANTING BEDS. REFER TO SPECIFICATIONS. FILE ALL CORNERS SMOOTH.
14. INSTALL CURLEX BLANKET (OR EQUAL) PER MANUFACTURES INSTRUCTIONS ON ALL GROUNDCOVER/SHRUB BEDS WITH A SLOPE OF 4:1 OR GREATER.
15. AT TIME OF PLAN PREPARATION, SEASONAL PLANT AVAILABILITY CANNOT BE DETERMINED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO SECURE AND RESERVE ALL B&B PLANTS WHEN AVAILABLE IN CASE ACTUAL INSTALLATION OCCURS DURING THE OFF-SEASON. PURCHASE AND HOLD B&B PLANTS FOR LATE SEASON INSTALLATION.
16. BERM ALL PARKING LOT ISLANDS AS SHOWN ON ENCLOSED DETAIL SHEET. (BERMS MAY NOT BE SHOWN ON GRADING PLAN.)
17. PRIOR TO PLANTING, CONTRACTOR SHALL STAKE TREE LOCATIONS FOR APPROVAL BY OWNER.



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STORE NUMBER: 07464

SWC HORIZON RD. AND RIDGE RD.
ROCKWALL, TEXAS
PROJECT TYPE: EXTERIOR REMODEL
DEAL TYPE: FEE FOR SERVICE

CS PROJECT NUMBER: 76657

CIVIL ENGINEER:



CONSULTANT:

DEVELOPER:

SEAL:

REVISIONS:
8-12-14 ADDENDUM NO. 1
9-29-14 ADDENDUM NO. 2
CHANGE WALL VENEER TO BRICK
3-24-15 CHANGE ORDER NO. 1
4-13-15 ADA RAMPS NO. 2
7-16-15 ASBUILT SET

FILE NAME: 70801-Lan.dwg

JOB NUMBER: 70801.00

DATE: JULY 28, 2014

TITLE:

PLANTING DETAILS

SHEET NUMBER:

L-4

COMMENTS:

SECTION 02830

TREES SHRUBS, AND GROUNDCOVERS

PART I GENERAL

1.01 DESCRIPTION OF WORK

A. Scope

1. Bed prep
2. Metal edging
3. Topsoil
4. Planting
5. Mulching
6. Guarantee

B. Related Work Specified Elsewhere

1. General Requirements – All locations
2. Section 02740 – Irrigation Trenching
3. Section 02750 – Irrigation
4. Section 02800 – Lawns

1.02 QUALITY ASSURANCE

A. Contractor Qualifications

Minimum of three (3) years experience on projects of similar characteristics and size.

B. Reference Standards:

1. American Joint Committee Of Horticultural Nomenclature: Standardized Plant Names, Second Edition, 1942;
2. American Association Of Nurserymen: American Standard For Nursery Stock, 1973

C. Substitutions

1. Substitutions accepted only upon written approval of Landscape Architect and Owner.
2. Submit substitutions possessing same characteristics as indicated on plans and specifications.

D. Inspection and Testing

1. The project Owner's representative reserves the right to inspect and tag plants at the place of growth with the Contractor.
2. Inspection at place of growth does not preclude the right of rejection due to improper digging or handling.
3. Owner's representative reserves the right to request soil samples and analysis of soil and plant mix. Remove or correct unacceptable soil. Cost of testing by Contractor.

1.03 SUBMITTALS

A. Certificates

1. Submit State and Federal certificates of inspection with invoice. (Only if required by Landscape Architect.)
2. File certificates with Owner's representative prior to material acceptance.

1.04 PRODUCT DELIVERY, STORAGE, & HANDLING

A. Preparation of Delivery

1. Balled & Burlaped (B&B) Plants

- a. Dig and prepare for shipment in manner that will not damage roots, branches, shape, and future development after replanting.
 - b. Ball with firm, natural ball of soil, wrapped tightly with burlap covering entire ball.
 - c. Ball size and ratios: conform to American Association of Nurserymen standards unless otherwise shown on plant list.
2. Pack plant material to protect against climatic & seasonal damage, as well as breakage injuries during transit.
 3. Securely cover plant tops with ventilated tarpaulin or canvas to minimize wind-whipping and drying in transit.
 4. Pack and ventilate to prevent sweating of plants during transit. Give special attention to insure prompt delivery and careful handling to point of delivery at job site.

B. Delivery

1. Deliver fertilizer, fertilizer tablets, peat, mulch, soil additives, and amendment materials to site in original, unopened containers, bearing manufacturer's guaranteed chemical analysis, name, trade name, trademark, and conformance to State law.
2. Deliver plants with legible identification and size labels on example plants.
3. Protect during delivery to prevent damage to root ball or desiccation of leaves.
4. Notify Owner's representative of delivery schedule in advance so plant material may be inspected upon arrival at job site.
5. Deliver plants to job site only when areas are prepared.

C. Storage

1. Protect roots of plant material from drying or other possible injury with wetted mulch or other acceptable material.
2. Protect from weather.
3. Maintain and protect plant material not to be planted immediately upon delivery.

D. Handling

1. Do not drop plants.
2. Do not damage ball, trunk, or crown.
3. Lift and handle plants from bottom of container or ball.

1.05 JOB CONDITIONS

- A. Planting Season: Perform actual planting only when weather and soil conditions are suitable in accordance with locally acceptable practices.
- F. Protection: Before excavations are made, take precautionary measures to protect areas trucked over and where soil is temporarily stacked.

1.06 GUARANTEE

- A. Guarantee new plant material for one year after acceptance of final installation (ie Final Acceptance of project).
- B. Make replacement (one per plant) during one year guarantee period at appropriate season with original plant type, size and planting mixture.
- C. Repair damage to other plants, lawns, & irrigation caused during plant replacement at no cost to Owner.
- D. Use only plant replacements of indicated size and species.

PART II PRODUCTS

2.01 MATERIALS

A. Plant Materials

1. Hardy under climatic conditions similar to locality of project.
2. True to botanical and common name variety.
3. Sound, healthy, vigorous, well branched, and densely foliated when in leaf; with healthy well-developed root system.
4. Free from disease, insects, and defects such as knots, sun-scald, windburn, injuries, disfigurement, or abrasions.
5. Conform to measurements after pruning with branches in normal positions.
6. Conform to American Association of Nurserymen standards unless shown differently on plant list.
7. Trees:
 - a. Single, straight trunks, unless indicated otherwise
 - b. Trees with weak, thin trunks not capable of support will not be accepted.
 - c. All multi-stem trees are to have a minimum of three stems, similar in size and shape, with a spread of approximately 2/3 of the height. All yaupons to be female.
8. Nursery grown stock only.
9. Subject to approval of Landscape Architect.
10. Seasonal color
 - a. Annuals in 4" pots or as specified
 - b. Perennials in 4" pots, clumps, bulbs as specified

B. Topsoil

1. Natural, fertile, friable soils having a textural classification of loam or sandy loam possessing characteristics of soils in vicinity which produce heavy growth of crops, grass, or other vegetation.
2. Free of subsoil, brush, organic litter, objectionable weeds, clods, shale, stones ¾" diameter or larger, stumps, roots or other material harmful to grading, planting, plant growth, or maintenance operations.
3. Presence of vegetative parts of Bermuda grass (Cynodon dactylon), Johnson grass, nut grass (Cyperus rotundus), and other hard to eradicate weeds or grass will be cause for rejection of topsoil.
4. Test topsoil (cost by Contractor):
 - a. Available nitrogen
 - b. Available phosphorus
 - c. Available potash
 - d. Iron
 - e. Ph: 5.5 to 7.0
 - f. Decomposed organic matter: 6–10%

C. Mulch

1. Top Dressing Mulch – Shredded cypress or hard wood only
2. Mulch for soil prep – Shredded pine bark
3. In pre-packaged bags only; bulk shredded material is unacceptable.

- D. Peat Moss: Commercially available baled peat moss or approved equivalent.

E. Staking Material

1. Stakes for tree support

- a. Construction grade yellow pine, stain brown
- b. Size as noted on plans

2. Wires

- a. Padded with rubbed hose to protect tree
- b. Galvanized
- c. With galvanized turnbuckle
- d. Evenly tighten turnbuckles with plant in vertical position.

F. Water

1. Free of oils, acids, alkali, salt, and other substances harmful to plant growth
2. Location: Furnish temporary hoses and connections on site.

G. Sand: Washed builders sand

H. Antidesicant – "Wilt-proof" or equal.

- I. Edging – 3/16" X 4" green, new and unused; with stakes.

2.02 MIXES

A. Planting Mixture

- Existing topsoil – 50%
3. Shredded pine bark – 50%
4. Fertilizer 10:20:10 at 30 lb./1000 SF

B. Planting Mix for Annuals/Perennials

1. Prepare above mix
2. Add 2' of sand

- C. Azalea mix: solid peat moss in hole 9" wider than root ball each direction. Plant in solid peat moss and provide mound at base of plant to allow for drainage.
- D. Japanese maple, dogwood, camellias: Provide 50/50 peat moss to topsoil mix, raise for drainage.

PART III – EXECUTION

- 3.01 UTILITIES – verify location of all utilities prior to initiating construction; repair any damage caused by construction at no cost to owner.

3.02 INSPECTION

- A. Inspect plants for injury and insect infestation; prune prior to installation.
- B. Inspect site to verify suitable job conditions.

3.03 FIELD MEASUREMENTS

- A. Location of all trees and shrubs to staked in the field and approved by Owner's representative prior to installation.
- B. Location of all groundcover and seeding limits as shown on plans.

3.04 EXCAVATION FOR PLANTING

A. Pits

1. Shape – Vertical hand scarified sides and flat bottom.
2. Size for trees – 2 feet wider or twice the root ball, whichever is greater.
3. Size for shrubs – Size of planting bed as shown on drawings.
4. Rototill soil mix thoroughly, full depth.
5. NOTE: If beds are proposed beneath drip line of existing tree canopy, pocket prep plants. Do not roto-till beneath existing trees.

B. Obstructions Below Ground

1. Remove rock or underground obstructions to depth necessary to permit planting.
2. If underground obstructions cannot be removed, notify Owner's representative for instruction.

- C. Excess Soil: Dispense of unacceptable or excess soil away from the project site at Contractor's expense.

3.05 PLANTING

A. General

1. Set plants 2' above existing grade to allow for settling.
2. Set plants plumb and rigidly braced in position until planting mixture has been tamped solidly around ball.
3. Apply soil in accordance with standard industry practice for the region.
4. Thoroughly settle by water jetting and tamping soil in 6' lifts.
5. Prepare 3' dish outside root ball after planting.
6. Thoroughly water all beds and plants.
7. Stake trees and large shrubs as indicated on plans.
8. Apply anti-desicant according to manufacturer's instructions.
9. Apply commercially manufactured root stimulator as directed by printed instruction.
10. Plant and fertilize bedding plants per trade standards.
11. Apply 3" mulch top dressing.

B. Balled Plants

1. Place in pit of planting mixture that has been hand tamped prior to placing plant.
2. Place with burlap intact to ground line. Top of ball to be 2' above surrounding soil to allow for settling.
3. Remove binding at top of ball and lay top of burlap back 6".
4. Do not pull wrapping from under ball, but cut all binding cord.
5. Do not plant if ball is cracked or broken before or during planting process or if stem or trunk is loose.
6. Backfill with planting mixture in 6' lifts.

C. Container Grown Plants

1. Place in pit on planting mixture that has been hand tamped prior to placing plant.
2. Cut cans on two sides with an acceptable can cutter, and remove root ball from can.

Do not injure root ball.

3. Carefully remove plants without injury or damage to root balls.
4. Backfill with planting mixture in 6' lifts.

D. Mulching

1. Cover planting bed evenly with 3" of mulch.
2. Water immediately after mulching.
3. Where mulch has settled, add additional mulch to regain 3" thickness.
4. Hose down planting area with fine spray to wash leaves of plants.

D. Pruning

1. Prune minimum necessary to remove injured twigs and branches, dead wood, and succors; remove approximately 1/3 of twig growth as directed by landscape architect; do not cut leaders or other major branches of plant unless directed by landscape architect.
2. Make cuts flush, leaving no stubs.
3. Paint cuts over 1" diameter with approved tree wound paint.
4. Do not prune evergreens except to remove injured branches.

3.06 EDGING

- A. Stake edging alignment with string line prior to installation. Use framing square to insure right angles are true.
- B. Install all edging straight and true as indicated on drawings. Where edging layout is circular in design, maintain true and constant radii as shown.
- C. When required on slopes, make vertical cuts (approximately 6" on center) on bottom of edging to allow bending without crimping edging.
- D. Install edging so that approximately 1" is exposed on lawn side. Edging should not be visible from bed side after application of mulch.
- E. Align edging with architectural features (ie pavement joints, windows, columns, wall, etc.) when drawings indicate.
- F. Bend all corners, do not cut corners.
- G. Interlock all pieces with pre-fabricated connectors.
- H. Install with all stakes on inside of planting bed.
- I. Remove, file off all sharp corners and burrs.

3.07 CLEAN-UP

A. Sweep and wash all paved surfaces.

Remove all planting and construction debris from site, including rocks, trash and all other miscellaneous materials.

3.08 MAINTENANCE

A. Contractor responsible for routine, and regular maintenance of site until Final Acceptance is awarded by Owner. Work includes:

1. Weeding (weekly)
2. Watering (as required)
3. Pruning
4. Spraying
5. Fertilizing
6. Mulching
7. Mowing (weekly)

B. Provide Owner and Landscape Architect with preferred maintenance schedule in writing. Schedule shall include the above-listed tasks and shall address all frequencies, rates, times, levels, etc.



STORE NUMBER: 07464

SWC HORIZON RD. AND RIDGE RD.
ROCKWALL, TEXAS
PROJECT TYPE: EXTERIOR REMODEL
DEAL TYPE: FEE FOR SERVICE

CS PROJECT NUMBER: 76657

CIVIL ENGINEER:



CONSULTING CIVIL ENGINEERS ■ SURVEYORS
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Texas Engineers Registration No. 88
Texas Surveyors Registration No. 100866-00
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CONSULTANT:

DEVELOPER:

SEAL:

REVISIONS:

- 8–12–14 ADDENDUM NO. 1
9–29–14 ADDENDUM NO. 2
CHANGE WALL VENEER TO BRICK
3–24–15 CHANGE ORDER NO. 1
4–13–15 ADA RAMPS NO. 2
7–16–15 ASBUILT SET

FILE NAME: 70801–Lan.dwg

JOB NUMBER: 70801.00

DATE: JULY 28, 2014

TITLE:

PLANTING SPECS

SHEET NUMBER:

L-5

COMMENTS:



PARKS + OPEN SPACE PLANNING • LANDSCAPE ARCHITECTURE
82238 MID CITIES BLVD, NORTH RICHLAND HILLS, TX 76180 817-479-0790



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SECTION 02800

FINISH GRADING, LAWN WORK, WILD FLOWERS

PART I – GENERAL

1.01 DESCRIPTION

A. Work includes turf establishment (sod, hydromulch, etc.) as described on drawings.

B. Make required analysis and material tests for topsoil, fertilizers, and other materials of similar character per current methods of the Association of Official Agricultural Chemists, when required.

C. Grass seed shall conform to tolerances for germination and purity per applicable standards of U.S. Department of Agriculture.

D. The turf contractor shall have a stand of grass established prior to substantial completion of the project. If this is not possible due to time of year or schedule, he shall maintain and protect the seeded areas until the grass is established.

PART II – PRODUCTS

2.01 TOPSOIL MATERIAL

A. Topsoil material (stockpiled, as specified in Specifications) has been saved for use in finish grading. After sifting out all plant growth, rubbish, and stones, use for areas designated to receive grass. If stockpiled topsoil is not sufficient quantity to complete work, furnish acceptable topsoil from another approved source to provide four inches (4") of topsoil for grass areas unless otherwise noted on drawings. Grass areas shall be defined as the graded areas disturbed during construction not to be paved or built upon.

B. Acceptable topsoil material shall be defined as natural, fertile, agricultural soil, capable of sustaining vigorous plant growth, uniform composition throughout admixture of subsoil, free of stones, lumps, plants, and their roots, sticks, or other extraneous matter; do not deliver while in a frozen or muddy condition.

2.02 FERTILIZER

A. Provide a commercial balanced fertilizer delivered to the job in bags labeled with manufacturer's guaranteed analysis. Store in weatherproof storage, place in such a manner that its effectiveness will not be impaired.

B. Fertilizer shall be a grade containing the percentages of plant food elements by weight as specified elsewhere in these specifications.

C. Availability of various elements shall be per Standards of the Association of Official Agricultural Chemists.

2.03 GRASS SEED

A. Grass seed shall be of the previous season's crop and the date of analysis shown on each bag shall be within nine (9) months of the time of delivery to the project. When requested by the Owner or Representative, the seeding contractor shall furnish a sample of seed from each bag for testing.

B. The seed shall comply with all provisions of the U.S. Department of Agriculture as to labeling, purity, and germination.

2.04 MULCHING

A. Dry straw or hay of good quality, free of seeds of competing plants and at such rate of 1 1/2 – 2 tons per acre; or,

B. Wood cellulose or cane fiber mulch at a rate of 1,000 pounds per acre when the slope is 3/4:1 and steeper; or,

C. A combination of good quality dry straw or hay free of seeds of competing plants at a rate of 2 1/2 tons per acre and wood cellulose or cane fiber mulch at a rate of 500 pounds per acre. This combination shall be used when the slope is flatter than 3/4:1; or,

D. Sericea lespedza seed bearing hay at a rate of 3 tons per acre. This mulch may be applied green or air dried, but must contain mature seed.

E. Manufactured mulch materials, such as soil retention blankets, erosion control netting, or others that may be required on special areas of high water concentration or unstable soils. When these materials are used, follow the manufacturer's recommendations for installation.

2.05 HYDRO–MULCHING

Wood cellulose fiber or cane fiber mulch will be applied with hydraulic seeding and fertilizing equipment. All slurry ingredients shall be mixed to form a homogeneous slurry and spray applied within one hour after the mixture is made.

When wood cellulose or cane fiber mulch is used at the 500 pound per acre rate, straw or hay mulch with asphalt emulsion is applied over this to complete the mulch.

Wood cellulose or cane fiber mulch at the 1,000 pound per acre rate is used alone where other mulch material will not stick.

Wood cellulose or cane fiber mulch is self anchoring.

PART III – EXECUTION

3.01 RESPONSIBILITY

The site grading contractor will be responsible to stockpile acceptable topsoil in a sufficient quantity to provide four inches (4") minimum cover for all grass areas, including but not limited to all curbed islands, and topsoil planting mounds/berms at the appropriate height and width as defined and shown on the landscaping and/or planting drawings. The topsoil and grass areas shall be further defined as any area disturbed during the grading and construction process.

The site grading contractor, shall be responsible to spread the topsoil within all perimeter graded areas and future building areas only.

The site grading contractor shall be responsible for backfilling of all curbed islands and planting mounds/berms. They shall also be responsible for removal of all stones, roots, and raking of all topsoil areas hat are to be seeded and/or planted. It will also be the site grading contractor's responsibility to provide fertilizer, grass seed, and any additional topsoil required and mulching.

3.02 GRASS SEEDING

A. Remove stones, roots, rubbish and other deleterious materials from topsoiled areas that are to be seeded.

B. Immediately prior to sowing seed, scarify ground as necessary; rake until surface is smooth and friable. Sow seed evenly, lightly wood rake into 02800–3

C. ground, then roll ground with suitable roller; water thoroughly with fine spray. During any weather, keep lawn watered with sprinklers or other approved methods. Re–seed any areas not doing well or damaged. At intervals as may be required according to seasonal conditions, mow and water grass and execute necessary weeding until acceptable and full stand of grass has been obtained.

D. Provide permanent grass seeding for lawn areas so indicated. Seed in accordance with the following schedule (unless otherwise directed by Owner or Owner's Representative::

1. Sow areas ready for seeding between March 1 and October 1 with Hulled Common Bermuda at a rate of 85 pounds per acre.

2. Sow areas ready for seeding between October 1 and March 1 with Unhulled Common Bermuda at a rate of 90 pounds per acre, and Annual Rye Grass at the rate of 50 pounds per acre.

3. Apply fertilizer at a rate of 20/25 pounds per 1,000 square feet.

3.03 WILD FLOWERS

A. Areas indicated on plans to receive wild flower coverage shall br fine graded, fertilized, and prepared in a manner similar to traditional turf establishment.

B. Area to be hydromulched with seed mix as follows:

Tickseed	10 pounds/acre
Cosmos	15 pounds/acre
Ox-Eyed Daisy	5 pounds/acre
Side Oats Grama	4 pounds/acre
Showy Primrose	0.5 pounds/acre
Plains Coreopsis	2 pounds/acre
Black Eyed Susan	2 pounds/acre
Indian Blanket	10 pounds/acre
Texas Bluebonnet	4 pounds/acre
Little Bluestem	4 pounds/acre

3.04 MULCH

A. All areas to be seeded shall be mulched.
B. Mulch materials shall be applied uniformly over the seeded area. Mulch shall be straw and shall be at the rate of 1 1/2 – 2 tons per acre.

B. Mulch shall be anchored with an emulsified asphalt binder at the rate of 10 gallons per 1,000 square feet.

3.05 PROTECTION

Provide, at no additional cost to Owner, fencing, railing, wire or other types of protection for topsoiled and seeded areas against trespassing and damage. If lawns are damaged prior to Final Acceptance, treat or replace them as directed. Remove protection when so directed.

3.06 MAINTENANCE

Provide maintenance from start of work until Final Acceptance. Maintenance includes watering of lawns, weeding, mowing, edging, repairs of wash-outs and gullies, repairs to protection, and other necessary work of maintenance. Maintain slopes against erosion.

3.07 REHYDROMULCHING

The Owner's representative will designate areas to be replanted. Areas on which a stand of growing grass is not present in a reasonable length of time, (Bermuda grass seed should be germinating in 6–8 days) shall be prepared, reseeded and remulched, as specified for original planting at no additional cost to Owner. A stand shall be defined as live plants from seed occurring at a rate of not less than 1,000 growing plants per square foot. Replanting required because of faulty operations or negligence on the part of the Contractor shall be performed without cost to Owner.

3.08 FINAL CLEAN–UP

A. At time of final inspection of work, and before final acceptance, clean paved areas that are soiled or stained by operations of work of this section. Clean by sweeping or washing, and remove all defacements or stains.

B. Remove construction equipment, excess material and tools. Cart away from site any debris resulting from work of this section and dispose of as directed.

SECTION 02922
SODDING

PART I – GENERAL

1.01 DESCRIPTION

A. Work Included

- Sod bed preparation
- Fertilizing
- Sodding
- Miscellaneous management practices

B. Related Work Specified Elsewhere

- Finish Grading, Section 02800
- Lawns and Grasses, Section 02930

1.02 REFERENCE STANDARDS

A. Standardized Plant Names

American Joint Committee of Horticultural Nomenclature, Second Edition, 1942.

B. Texas Highway Department – Standard Specifications for Construction, Item 164, Seeding for Erosion Control.

1.03 SUBMITTALS

- Vendors Certification That Sod Meets Texas State Sod Law
- Include labeling requirements.
- Include purity and type.

1.04 PRODUCT DELIVERY, STORAGE AND HANDLING

A. Sod:

- Previous season's crop with date of analysis on each bag.
- Furnish and deliver each variety in separate bags or containers.
- Sod to be cut no more than three days before delivery.

B. Fertilizer:

- Unopened bags labeled with the analysis.
- Conform to Texas Fertilizer Law.

1.05 JOB CONDITIONS

A. Planting Season:

- Only during suitable weather and soil conditions.
- As specifically authorized by the Owner's Representative.

B. Schedule – Only after all other construction is complete.

C. Protect and Maintain Sodded Areas

- From traffic and all other use.
- Until sodding is complete and accepted.

PART II – PRODUCTS

2.01 MATERIALS

A. Sod:

- Sod: As specified on drawings, weed, insect, and disease free having a minimum of 1 inch of topsoil attached to the roots and cut no more than three days prior to installation.
- The sod shall be cut in strips of at least 1/2 sq. yd. and not more than 1 sq. yd. Sod shall be cut into strips not less than 12" in width or more than 9' in length. At the time of harvest, the top growth shall not exceed 3" in length.
- All sod shall conform to the laws of the State and shall be obtained from sources meeting the approval of the Department of Agriculture, Division of Entomology.

B. Fertilizer:

- Uniform in composition, free flowing.
- Suitable for application in approved equipment.
- Analysis of 16–20–0, 16–8–8 or as directed.

C. Water:

- Free of oil, acid, alkali, salts or other substances harmful to growth of grasses.

PART III – EXECUTION

3.01 SOD BED PREPARATION

A. Cultivate to a depth of four (4") inches by disking and tilling with a power tiller.

B. Clear surfaces of all materials:

- Stumps, stones, and other objects larger than one inch (1").
- Roots, brush, wire, stakes, etc.
- Any objects that may interfere with sodding or maintenance.

C. Prepare sod bed:

- Remove soil clods larger than one inch (1").
- Grade areas to smooth, even surface, removing ridges and filling depressions. Final grade to be below finish grade of curbing and edging as shown on details. All grades shall meet approval of Owner's Representative before sodding.

3.02 SODDING

A. Sodding:

- Lightly water prepared grade, lay sod with staggered joints and with edges touching. Topdress with topsoil at edges if necessary to provide smooth surface. On slopes of 2 to 1 and greater, fasten sod in place with wood pegs (two each piece) or other approved method. Sod damaged by storage or during installation shall be rejected. Following settling, topdress with screened, approved topsoil.
- Water and fertilize at 5 lbs. per 1,000 sq. ft.
- Sod shall not be placed during a drought, nor during periods when sod is not normally placed in the area, and shall not be placed on frozen ground. No dry or frozen sod is acceptable.
- The contractor shall keep all keep all sodded areas moist and growing until Final Acceptance. All areas shall be maintained in an acceptable condition until acceptance by Owner.

B. Rolling:

- After placing sod, roll with a hand roller, weighing not more than 100 lbs. per foot of width, in two directions.
- Eliminate all air pockets; finished surface should be free of excessive undulations.

3.05 MAINTENANCE AND MANAGEMENT

A. Includes protection, replanting, maintaining grades, repair of erosion damage. Also includes weekly mowing at 1 1/2" height until final acceptance.

B. Resodding:

- Resod damaged or unacceptable areas.
- Ruts, ridges, and other surface irregularities shall be corrected.



STORE NUMBER: 07464

SWC HORIZON RD. AND RIDGE RD.
ROCKWALL, TEXAS
PROJECT TYPE: EXTERIOR REMODEL
DEAL TYPE: FEE FOR SERVICE

CS PROJECT NUMBER: 76657

CIVIL ENGINEER:



CONSULTANT:

DEVELOPER:

SEAL:

REVISIONS:

- 8–12–14 ADDENDUM NO. 1
- 9–29–14 ADDENDUM NO. 2
CHANGE WALL VENEER TO BRICK
- 3–24–15 CHANGE ORDER NO. 1
- 4–13–15 ADA RAMPS NO. 2
- 7–16–15 ASBUILT SET

FILE NAME: 70801–Lan.dwg

JOB NUMBER: 70801.00

DATE: JULY 28, 2014

TITLE:

TURF SPECS

SHEET NUMBER:

L-6

COMMENTS:



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