

GENERAL NOTES:

- 1. ALL CONSTRUCTION SHALL COMPLY WITH THE STONEGATE VILLAGE METROPOLITAN DISTRICT SPECIFICATIONS...
2. THE CONTRACTOR SHALL CONTACT ALL APPROPRIATE UTILITY COMPANIES...
3. THE DISTRICT ENGINEER AND OTHER APPROVING AGENCIES ARE TO BE NOTIFIED AT LEAST 48 HOURS PRIOR TO CONSTRUCTION...
4. THE CONTRACTOR SHALL OBTAIN, AT HIS EXPENSE, ALL PERMITS WHICH ARE NECESSARY TO PERFORM THE PROPOSED WORK...
5. ALL CONCRETE SHALL BE A MINIMUM OF CLASS B, 6-SACK, TYPE II, 3000 POUND COMPRESSION STRENGTH...
6. THE DESIGN ENGINEER SHALL SUBMIT ONE (1) SET OF ROLLED "AS-BUILT" BLUELINE PRINTS TO THE DESIGNATED TOWN AUTHORITY...
7. ALL BACKFILL MATERIAL SHALL BE COMPACTED TO ALL APPLICABLE TOWN AND DISTRICT STANDARDS...
8. ALL CURBS SHALL BE CAREFULLY AND FIRMLY BACKFILLED BY THE CONTRACTOR...
9. REFER TO OVERLOT GRADING AND EROSION CONTROL PLAN FOR GRADING NOTES...
10. EXPANSION JOINTS WILL BE PLACED IN ALL SIDEWALKS AND CURB AND GUTTER AT PCs, PTs, AND AT ANY FIXED OBJECT...
11. THE APPLICANT IS 470 COMPARK, LLC...
12. THE UTILITY CONTRACTOR THAT INSTALLS SANITARY SEWER, STORM SEWER, AND WATER SHALL AFTER PROPERLY COMPLETING THE WORK...
13. ALL TESTING AND INSPECTION FOR COMPLIANCE WITH TOWN OF PARKER STANDARDS SHALL BE COMPLETED PRIOR TO PROBATIONARY ACCEPTANCE...
14. THE DESIGN ENGINEER SHALL SUBMIT ONE (1) SET OF ROLLED "AS-BUILT" BLUELINE PRINTS AND ELECTRONIC FILES TO THE DISTRICT ENGINEER...
15. TRENCHES SHALL BE EXCAVATED AND THE PIPE EXPOSED FOR THE INSPECTION AT ANY LOCATION ON THE PROJECT IF SO ORDERED BY THE INSPECTOR...
16. CONTRACTOR WILL BE HELD RESPONSIBLE FOR THE PROPER FUNCTIONING OF LINES (WATER AND SEWER) FOR UP TO TWO (2) YEARS FROM THE DATE OF PROBATIONARY ACCEPTANCE...
17. SURFACE GRADES ARE TO BE WITHIN PLUS OR MINUS ONE FOOT OF FINISHED GRADE AND VERIFICATION OF COMPACTION RESULTS OBTAINED PRIOR TO THE INSTALLATION OF WATER AND SEWER LINES...
18. NO WORK SHALL BE BACKFILLED UNTIL THE CONSTRUCTION HAS BEEN INSPECTED AND APPROVED FOR BACKFILLING BY THE DISTRICT ENGINEER OR REPRESENTATIVE OF THE DISTRICT ENGINEER...
19. ALL SERVICES WILL BE PERMANENTLY MARKED ON CURB FACE AS FOLLOWS:
"x" FOR SANITARY SERVICE SEWERS
"v" FOR WATER SERVICES
20. NO TREES SHALL BE ALLOWED IN EASEMENTS OR WITHIN 8' OF ANY WATER OR SANITARY SEWER MAINS IN RIGHT-OF-WAY...
21. SOURCE BENCHMARKS:
DOUGLAS COUNTY BM 1.115010
A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF THE CENTERLINE OF COMPARK BOULEVARD.
ELEVATION = 5752.84 (NAVD 88)
SITE BENCHMARKS:
1. A NO. 5 REBAR WITH 2" ALUMINUM CAP STAMPED "LS 28286, 2001" FOUND AT THE SOUTHWEST CORNER OF SECTION 6, T6S, R66W LOCATED ON THE WEST LINE OF FIRST STREET APPROXIMATELY 1000 FEET NORTH OF ELM AVENUE.
ELEVATION = 5845.51
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22. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE LOCATION, PROTECTION AND REPAIR OF ALL UTILITIES ENCOUNTERED DURING CONSTRUCTION...
23. T.C. INDICATES TOP BACK OF WALK GRADE FOR COMBINATION CURB, GUTTER, AND SIDEWALK, OR TOP BACK OF CURB FOR OTHER CURB AND GUTTER TYPES.
24. ALL DIMENSIONS AND RADII ARE TO FLOWLINE UNLESS OTHERWISE NOTED.
25. THE CONTRACTOR SHALL FURNISH THE ENGINEER WITH A SET OF "AS-BUILT" PLANS MARKED WITH ALL DEVIATIONS FROM THE CONSTRUCTION PLANS PRIOR TO INITIAL ACCEPTANCE.
26. ALL STATIONING IS ON CENTERLINE OF RIGHT OF WAY UNLESS OTHERWISE NOTED.

CONSTRUCTION NOTES:

- 1. ALL MATERIALS AND CONSTRUCTION SHALL BE IN CONFORMANCE WITH THE LATEST EDITION OF THE COLORADO DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION...
2. ALL MATERIALS AND WORKMANSHIP SHALL BE SUBJECT TO INSPECTION BY THE TOWN OF PARKER PUBLIC WORKS DEPARTMENT...
3. A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED A MINIMUM OF 48 HOURS AND A MAXIMUM OF 96 HOURS PRIOR TO THE START OF CONSTRUCTION...
4. A DEVELOPMENT REVIEW ENGINEER SHALL BE CONTACTED A MINIMUM OF 24 HOURS PRIOR TO A NECESSARY INSPECTION...
5. LOCATION OF EXISTING UTILITIES SHALL BE VERIFIED BY THE CONTRACTOR PRIOR TO ACTUAL CONSTRUCTION...
6. THE CONTRACTOR SHALL HAVE ONE (1) SIGNED COPY OF THE PLANS, APPROVED BY THE TOWN OF PARKER PUBLIC WORKS DIRECTOR...
7. ALL PROPOSED STREET CUTS TO EXISTING PAVEMENTS FOR UTILITIES, STORM SEWER, OR FOR OTHER PURPOSES ARE LISTED AND REFERENCED BELOW:
WATER TIE-IN SEE OFFSITE SANITARY SEWER AND WATER CONSTRUCTION PLANS
SANITARY SEWER CONNECTION SEE OFFSITE SANITARY SEWER AND WATER CONSTRUCTION PLANS
STORM SEWER CONNECTION SEE ROADWAY AND STORM DRAINAGE CONSTRUCTION PLANS
8. A PLAN FOR TRAFFIC CONTROL DURING CONSTRUCTION SHALL BE SUBMITTED TO THE TOWN OF PARKER FOR ACCEPTANCE...
9. ALL TRENCHES SHALL BE ADEQUATELY SUPPORTED AND THE SAFETY OF WORKERS PROVIDED FOR AS REQUIRED...
10. COMPACTION OF ALL TRENCHES MUST BE ATTAINED AND COMPACTION TEST RESULTS SUBMITTED TO THE DEVELOPMENT REVIEW ENGINEER...
11. THE CONTRACTOR IS RESPONSIBLE FOR IMPLEMENTING AND MAINTAINING EROSION AND SEDIMENT CONTROL MEASURES AT ALL TIMES DURING CONSTRUCTION...
12. THE CONTRACTOR SHALL PROVIDE, ERECT, AND MAINTAIN PROPER TRAFFIC CONTROL DEVICES UNTIL THE SITE IS OPEN TO TRAFFIC...
13. PLANS ARE APPROVED FOR A PERIOD OF ONE (1) YEAR FROM THE DATE SHOWN ON THE TOWN OF PARKER SIGNATURE BLOCK...
14. REPAIR OF ANY DAMAGE TO EXISTING IMPROVEMENTS OR LANDSCAPING IS THE RESPONSIBILITY OF THE CONTRACTOR.
15. ALL DAMAGED EXISTING CURB, GUTTER, AND SIDEWALK SHALL BE REPAIRED PRIOR TO ACCEPTANCE OF COMPLETED IMPROVEMENTS.
16. ALL CONSTRUCTION ACTIVITIES MUST COMPLY WITH THE STATE OF COLORADO PERMITTING PROCESS FOR "STORMWATER DISCHARGES ASSOCIATED WITH CONSTRUCTION ACTIVITY"...
17. IF DEWATERING IS REQUIRED, A STATE CONSTRUCTION DEWATERING DISCHARGE PERMIT IS REQUIRED...
18. ALL REFERENCES TO BOOKS, PAGES, MAPS, AND RECEPTION NUMBER ARE PUBLIC DOCUMENTS ON FILE WITH THE COUNTY CLERK AND RECORDER'S OFFICE.

PARKER STANDARD STORM DRAINAGE INFRASTRUCTURE NOTES

- 1. ALL STORM DRAINAGE IMPROVEMENTS ARE SUBJECT TO COMPLIANCE WITH THE COLORADO DEPARTMENT OF TRANSPORTATION (CDOT) CURRENT EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION...
2. THE CONTRACTOR SHALL COMPLY WITH THE "COLORADO WATER QUALITY CONTROL ACT" (TITLE 25, ARTICLE 8 CRS)...
3. INSPECTIONS: CONSTRUCTION SHALL NOT BEGIN UNTIL A GRADING PERMIT HAS BEEN ISSUED FOR THE PROJECT...
4. THE CONTRACTOR SHALL NOTIFY THE TOWN OF PARKER ENGINEERING DEPARTMENT (PUBLIC WORKS) TO SCHEDULE INSPECTIONS A MINIMUM OF 48 HOURS PRIOR TO THE CONSTRUCTION OF ALL DRAINAGE INFRASTRUCTURE...

- 4. STRUCTURAL BACKFILL (CDOT CLASS 1) SHALL BE COMPACTED TO CDOT STANDARD SPECIFICATIONS 203.03. STRUCTURAL BACKFILL (CDOT CLASS 2) SHALL CONFORM TO CDOT STANDARD SPECIFICATION 203.07...
5. ALL EXCAVATIONS SHALL MEET OSHA REQUIREMENTS.
6. TESTING: PROBATIONARY ACCEPTANCE OF STORM DRAINAGE IMPROVEMENTS WILL BE CONTINGENT UPON SATISFACTORY TESTING RESULTS...
7. ALLOWABLE STORM SEWER CONDUIT MATERIAL WITHIN THE TOWN OF PARKER SHALL BE LIMITED TO REINFORCED CONCRETE PIPE (RCP) CONFORMING TO CDOT STANDARD SPECIFICATION 706.02.
8. ALL RCP JOINTS SHALL BE MANUFACTURED IN ACCORDANCE WITH ASTM C443. RUBBER GASKETS SHALL BE USED ON ALL PIPE JOINTS CONFORMING TO ASTM C443...
9. JOINT RESTRAINTS AND TOE-WALLS CONFORMING TO CDOT M&S STANDARD PLAN NO. M-601-11 SHALL BE USED ON ALL RCP FLARED END SECTION OUTFALLS.
10. EPOXY COATED REBAR SHALL BE USED AS REINFORCING STEEL ON ALL STORM INLETS...
11. CDOT CLASS D CONCRETE SHALL BE USED FOR ALL CONCRETE DRAINAGE STRUCTURES.
12. PRE-CAST INLETS AND MANHOLE BASES SHALL NOT BE USED WITHIN THE TOWN OF PARKER RIGHT-OF-WAY...
13. TWO (2) MANHOLE ACCESS JOINTS ARE REQUIRED ON ALL TYPE "R" CURB INLETS GREATER THAN OR EQUAL TO TEN (10) FEET IN LENGTH...
14. ALL GROUTING (BOULDERS, RIPRAP) SHALL BE IN ACCORDANCE WITH THE REVISION OF SECTION 506 OF THE CDOT STANDARD SPECIFICATIONS...
15. ALL BOULDERS AND RIPRAP SHALL BE SELECTED AND PLACED IN ACCORDANCE WITH THE REVISION OF SECTION 506 OF THE CDOT STANDARD SPECIFICATIONS...
16. CONTRACTOR SHALL REFER TO THE TOWN OF PARKER'S CONSTRUCTION BEST MANAGEMENT PRACTICES DETAILS AND NOTES FOR ALL REQUIREMENTS RELATING TO RE-VEGETATION, SEDIMENT AND EROSION CONTROL REQUIREMENTS FOR CONSTRUCTION ACTIVITIES.

- A) 1 TEST FOR SUB-GRADE AND 1 TEST FOR BACKFILL AT EVERY ABOVE-GROUND APPURTENANCE (MANHOLES, INLETS, ETC.)
B) 1 TEST EVERY 200 LF OF MAINLINE TRENCHES EVERY 1-FOOT OF BACKFILL LIFT AND WITHIN 1 FOOT FROM ALL STRUCTURES.
11. CDOT CLASS D CONCRETE SHALL BE USED FOR ALL CONCRETE DRAINAGE STRUCTURES.
12. PRE-CAST INLETS AND MANHOLE BASES SHALL NOT BE USED WITHIN THE TOWN OF PARKER RIGHT-OF-WAY, WITH THE EXCEPTION OF CDOT TYPE C AND D INLETS.
13. TWO (2) MANHOLE ACCESS JOINTS ARE REQUIRED ON ALL TYPE "R" CURB INLETS GREATER THAN OR EQUAL TO TEN (10) FEET IN LENGTH AS PRESENTED IN CDOT M&S STANDARD PLAN NO. M-604-12.
14. ALL GROUTING (BOULDERS, RIPRAP) SHALL BE IN ACCORDANCE WITH THE REVISION OF SECTION 506 OF THE CDOT STANDARD SPECIFICATIONS AS PRESENTED IN THE SDECM.
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SIGNAGE & STRIPING NOTES

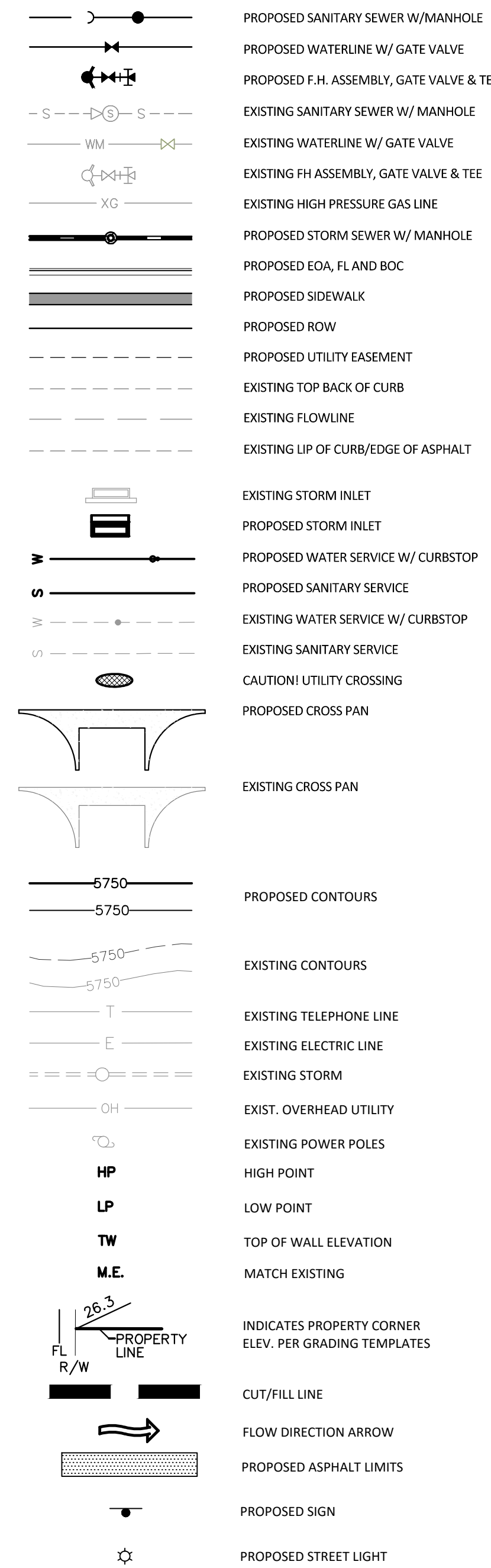
- 1. SEE SIGNAGE & STRIPING PLAN FOR NOTES.

ROADWAY NOTES:

- 1. PAVING SHALL NOT COMMENCE UNTIL A SOILS REPORT AND PAVEMENT DESIGN IS APPROVED BY THE ENGINEERING DIVISION AND SUB-GRADE COMPACTION TESTS ARE SUBMITTED TO AND APPROVED BY THE DEVELOPMENT REVIEW ENGINEER.
2. STANDARD TOWN OF PARKER HANDICAP RAMPS ARE TO BE CONSTRUCTED AT ALL CURB RETURNS AND AT ALL "T" INTERSECTIONS.
3. ALL STATIONING IS BASED ON CENTERLINE OF ROADWAYS UNLESS OTHERWISE NOTED.
4. ALL ELEVATIONS ARE ON USGS DATUM WITH DATE. RANGE POINT OR MONUMENT SHALL BE SHOWN ON THE CONSTRUCTION PLANS.
5. EXCEPT WHERE OTHERWISE PROVIDED FOR IN THESE PLANS AND SPECIFICATIONS, THE COLORADO DEPARTMENT OF HIGHWAYS STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION, THE COLORADO DEPARTMENT OF HIGHWAYS M-STANDARDS, AND THE TOWN OF PARKER ROADWAY DESIGN AND CONSTRUCTION CRITERIA MANUAL, LATEST EDITION, SHALL APPLY.

Please add the following note:
The Urban Drainage and Flood Control District (UDFCD) may conduct site visits during project construction within or near the channel to observe construction for conformance with the approved plans and specifications. Coordination with the UDFCD Construction Manager is required 48 hours prior to any construction on the proposed channel, detention, or pipe outfall improvements. Contact Mike Sarmento, UDFCD Construction Manager, 303-455-6277, msarmento@udfcd.org.

MASTER LEGEND



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TOWN OF PARKER APPROVALS

THE TOWN OF PARKER REVIEW CONSTITUTES GENERAL COMPLIANCE WITH THE TOWN'S STANDARDS AND APPROVED VARIANCES, SUBJECT TO THESE PLANS BEING STAMPED, SIGNED, AND DATED BY THE PROFESSIONAL ENGINEER OF RECORD...
PROJ. MGR.: RIM
PROJ. ASSOC.: ASD
DRAWN BY: ETG
DATE: 11/2015

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Table with columns: DRAWN BY, DATE, REVISIONS, and a grid for revision tracking.

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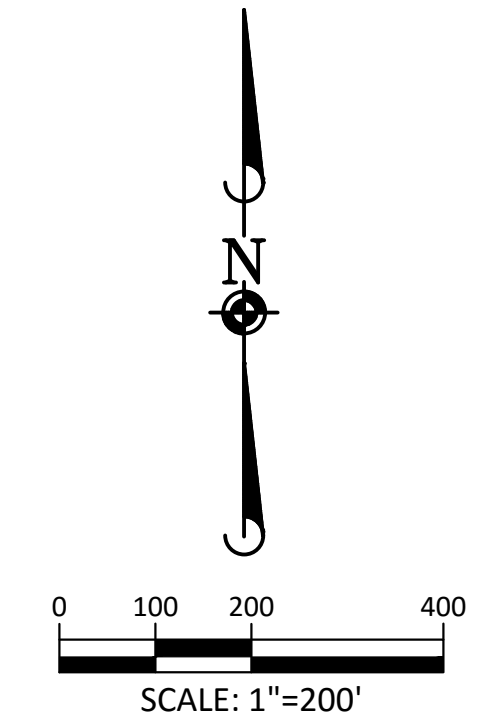
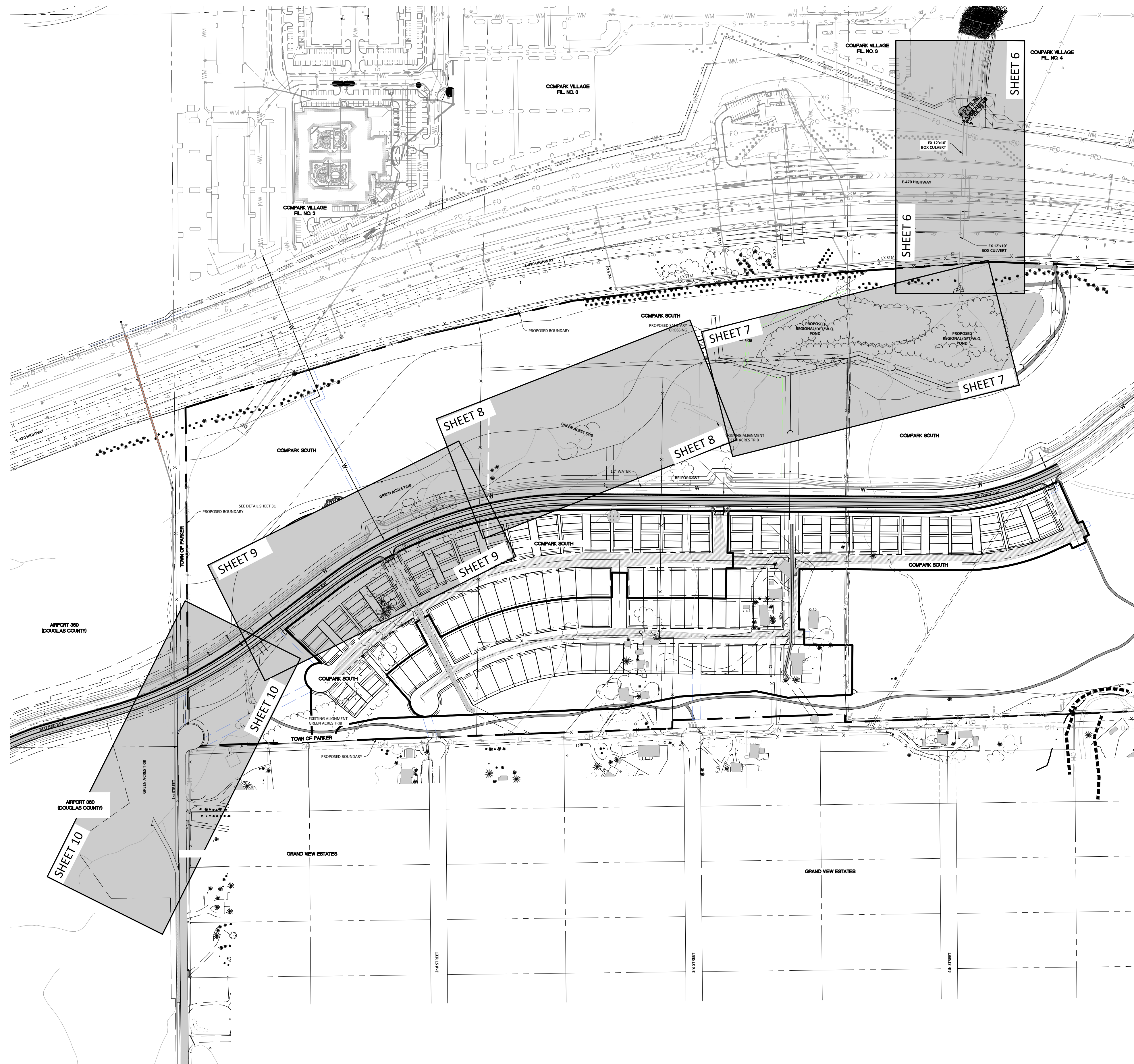
COMPARK VILLAGE SOUTH GREEN ACRES TRIBUTARY
TOWN OF PARKER, COLORADO
GENERAL NOTES
CLCPKC3

SHEET
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CLCPKC3

PENDING APPROVAL

Plotted: 11/17/2015 3:34 PM. Draw Name: P:\Check3\Compark02_GeneralNotes.dwg. Updated By: v.adrucker

Plotted: 11/17/2015 3:46 PM. Draw Name: P:\C\pkc3\CompSouth02_GreenAcres\Trib\Drawings\Plan Set\Town\CLCPKC3_Drainage_Index.dwg. Updated By: dbatz



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TOWN OF PARKER, DIRECTOR OF ENGINEERING _____ DATE _____

DATE	REVISIONS
C 10/2015	3RD SUBMITTAL
B 06/2016	2ND SUBMITTAL
A 11/2015	1ST SUBMITTAL

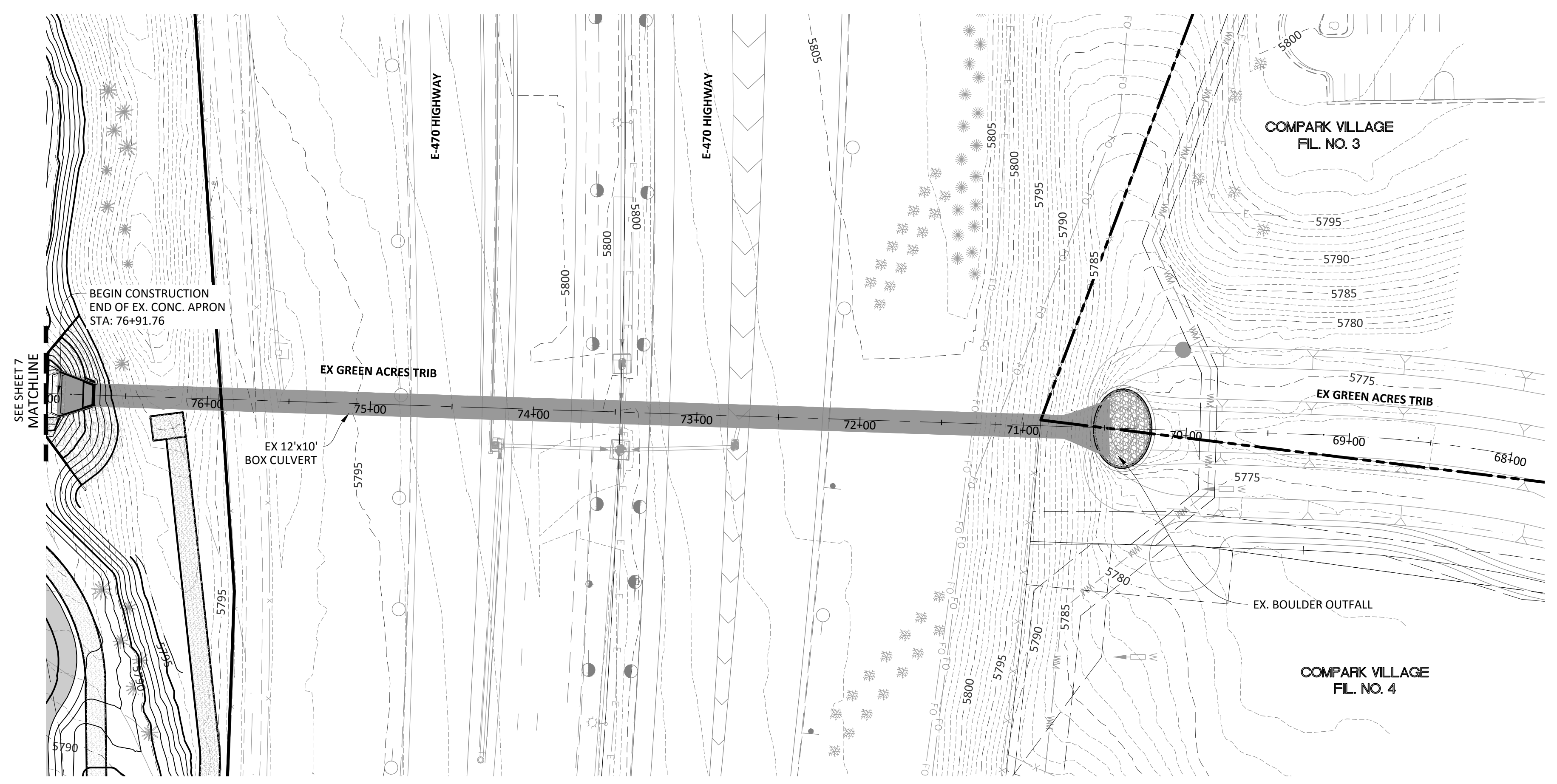
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COMPARK VILLAGE SOUTH GREEN ACRES TRIBUTARY
TOWN OF PARKER, COLORADO
SHEET INDEX

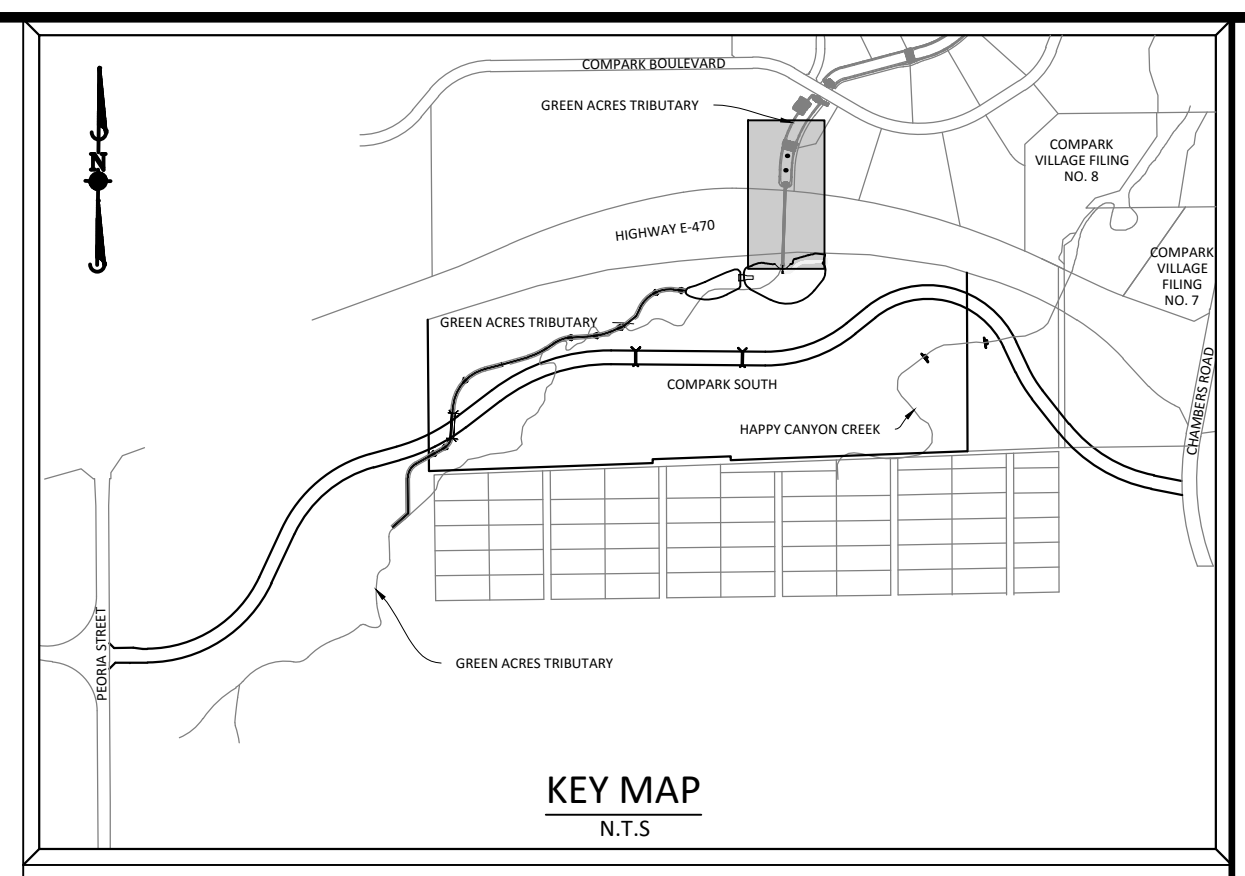
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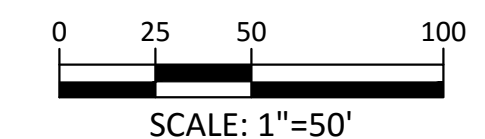
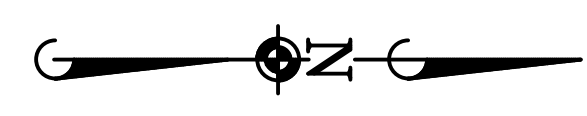
PENDING APPROVAL



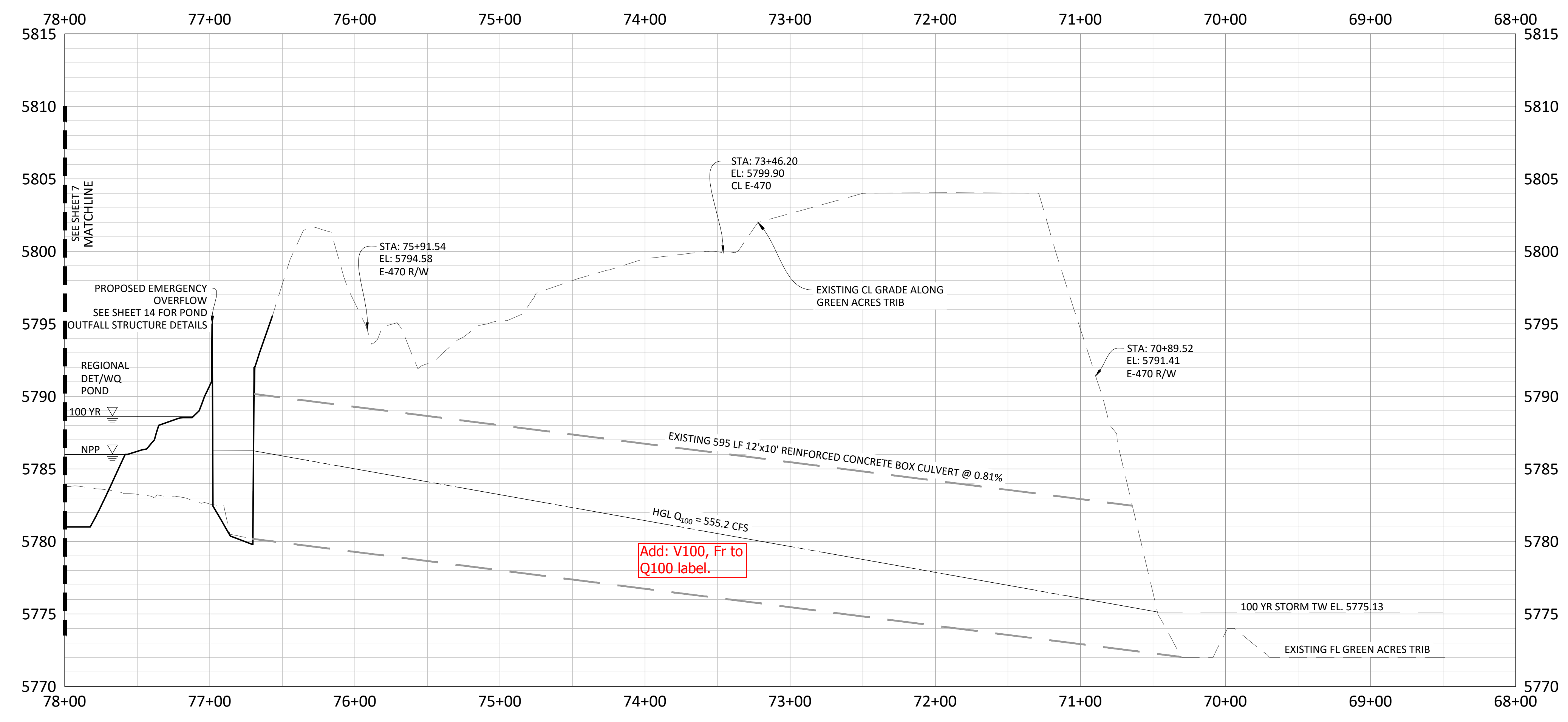
PLAN: DRAINAGE CHANNEL



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PROFILE: DRAINAGE CHANNEL

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06/20/16	2ND SUBMITTAL
11/20/15	1ST SUBMITTAL

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DRAINAGE PLAN & PROFILE

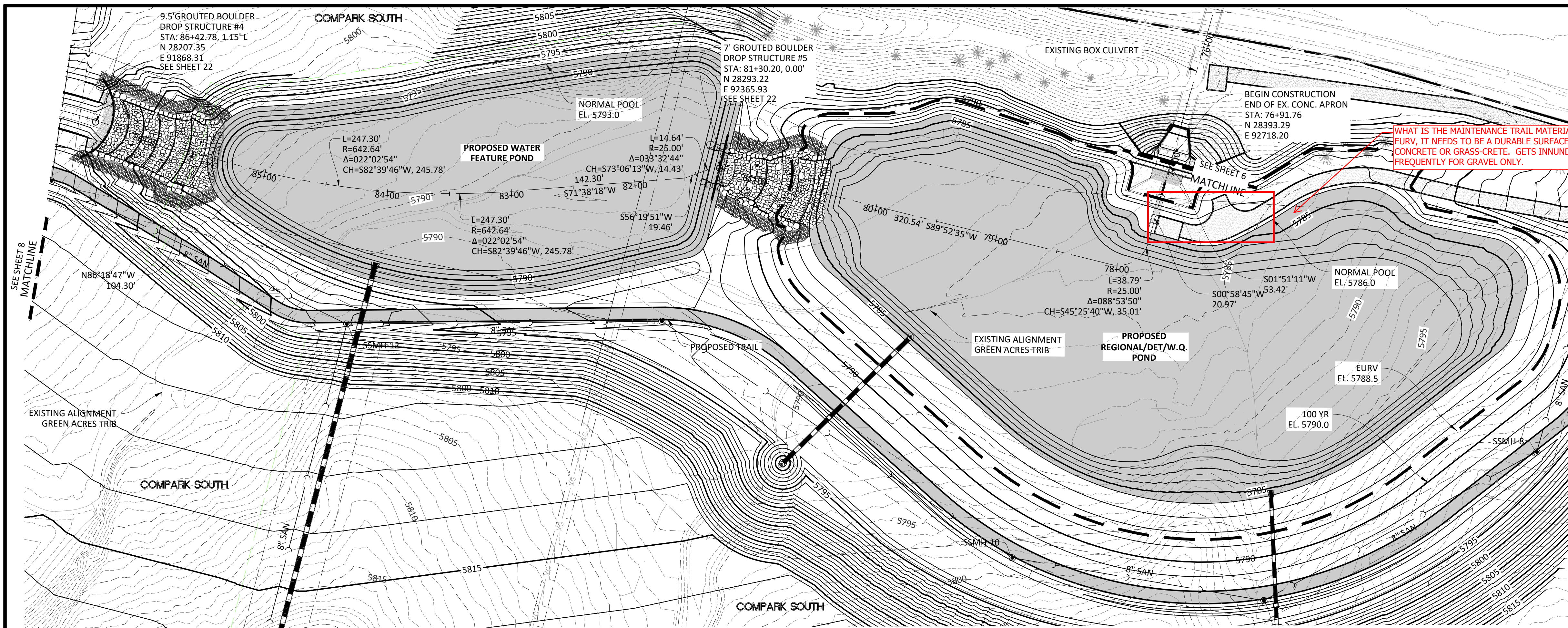
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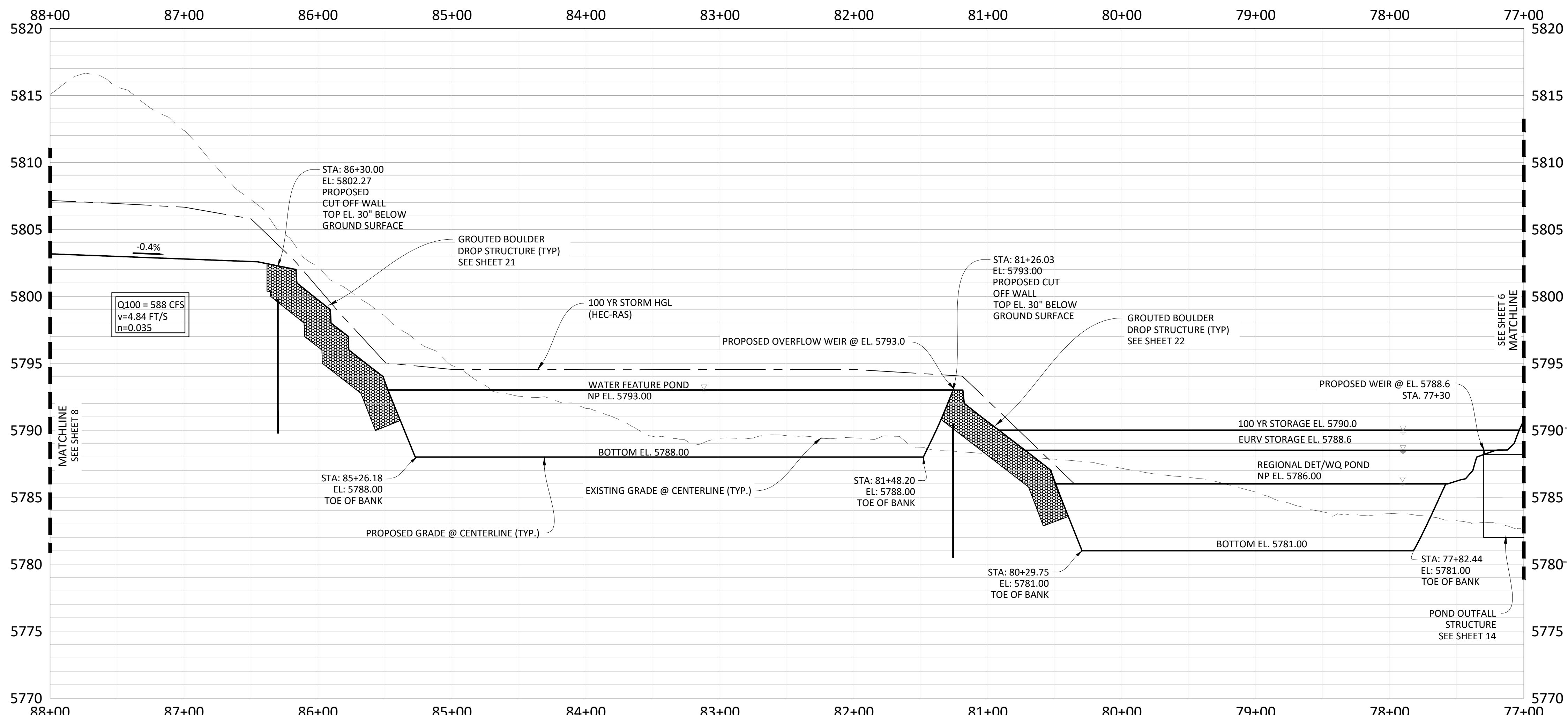
CLCPKC3

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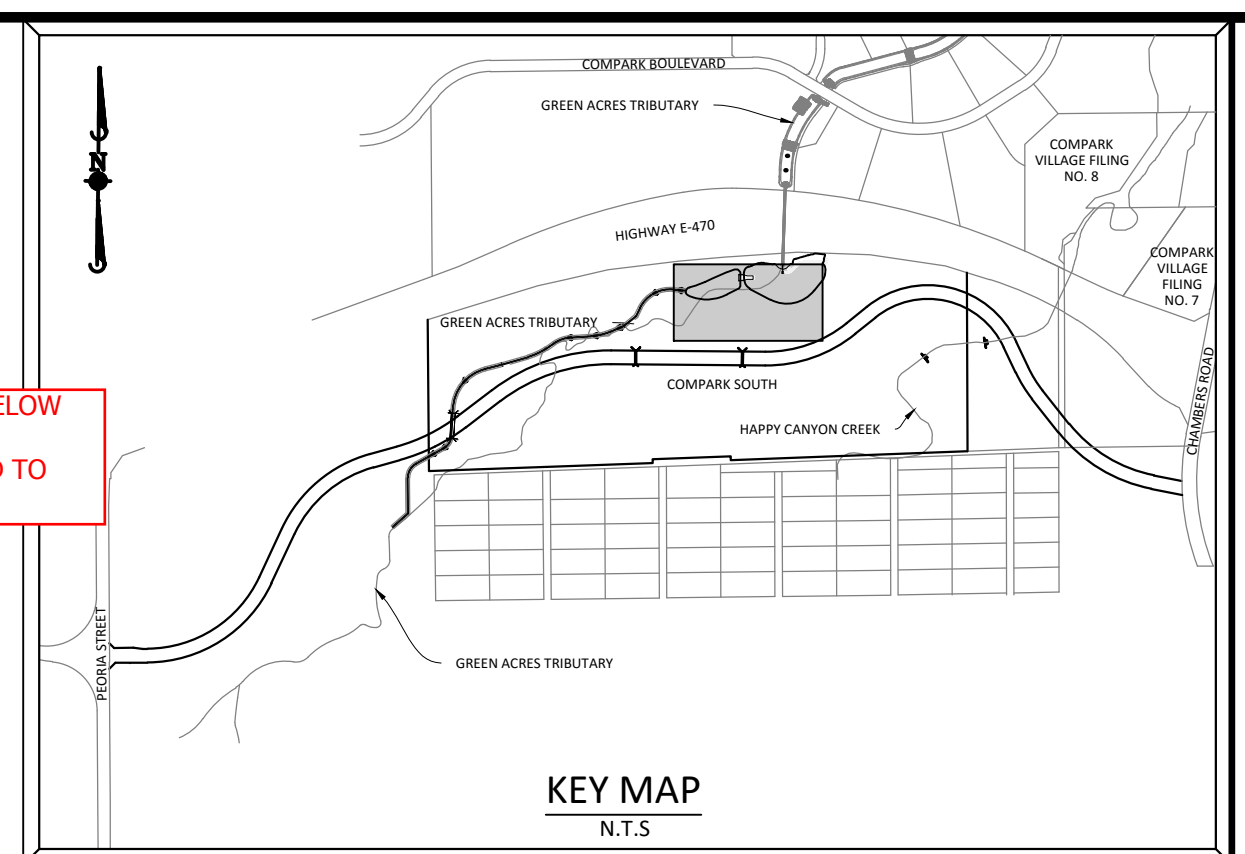
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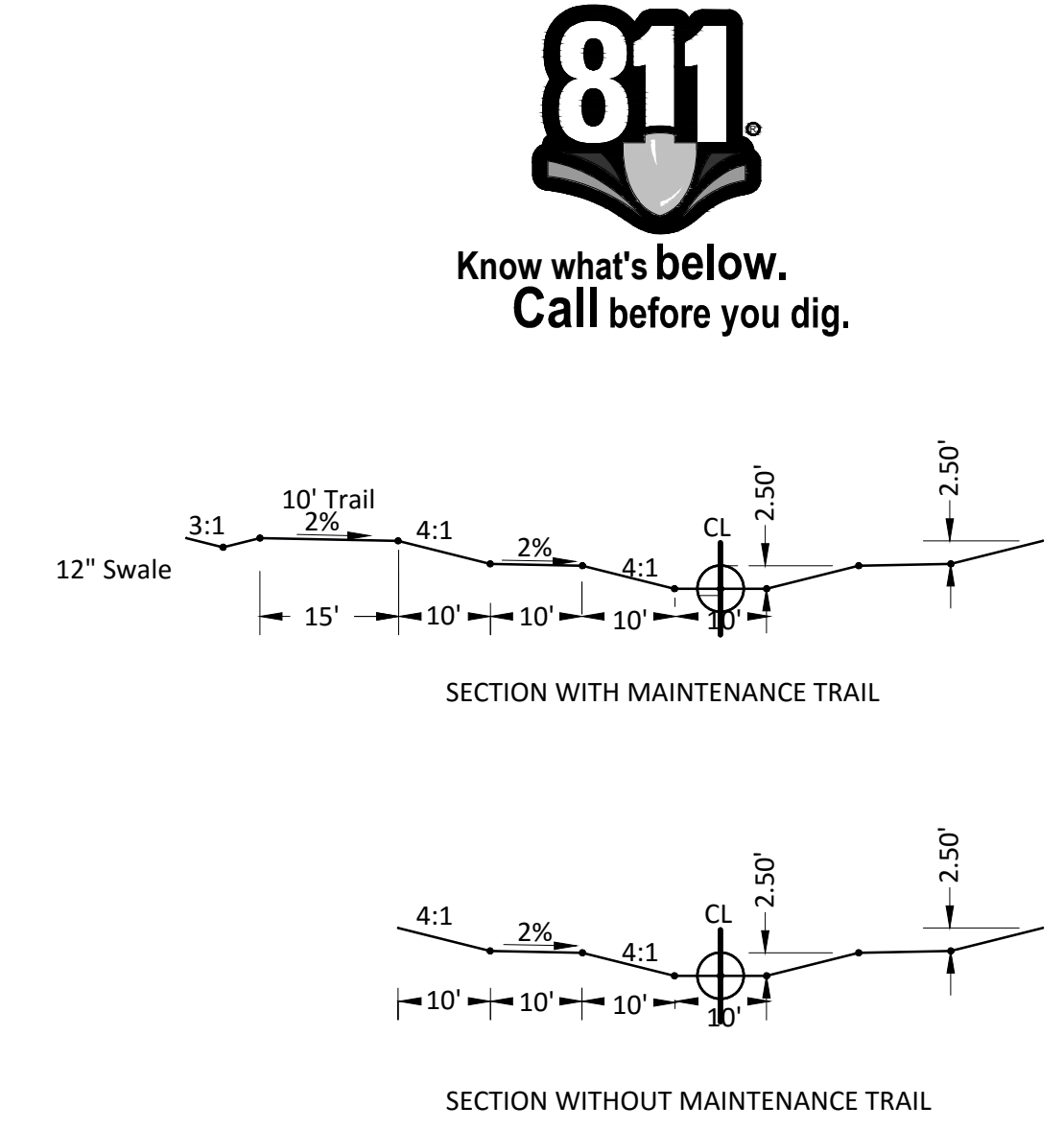
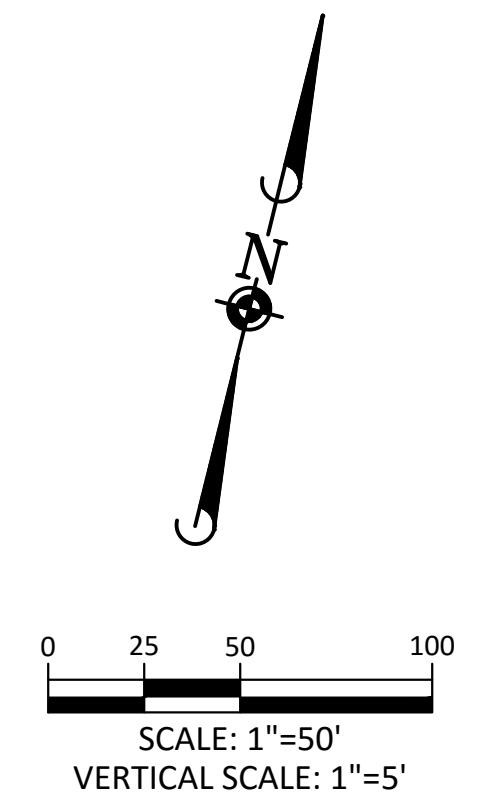
PLAN: DRAINAGE CHANNEL



PROFILE: DRAINAGE CHANNEL



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GAT CHANNEL TYPICAL SECTIONS

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11/20/15	1ST SUBMITTAL

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 DRAINAGE PLAN & PROFILE

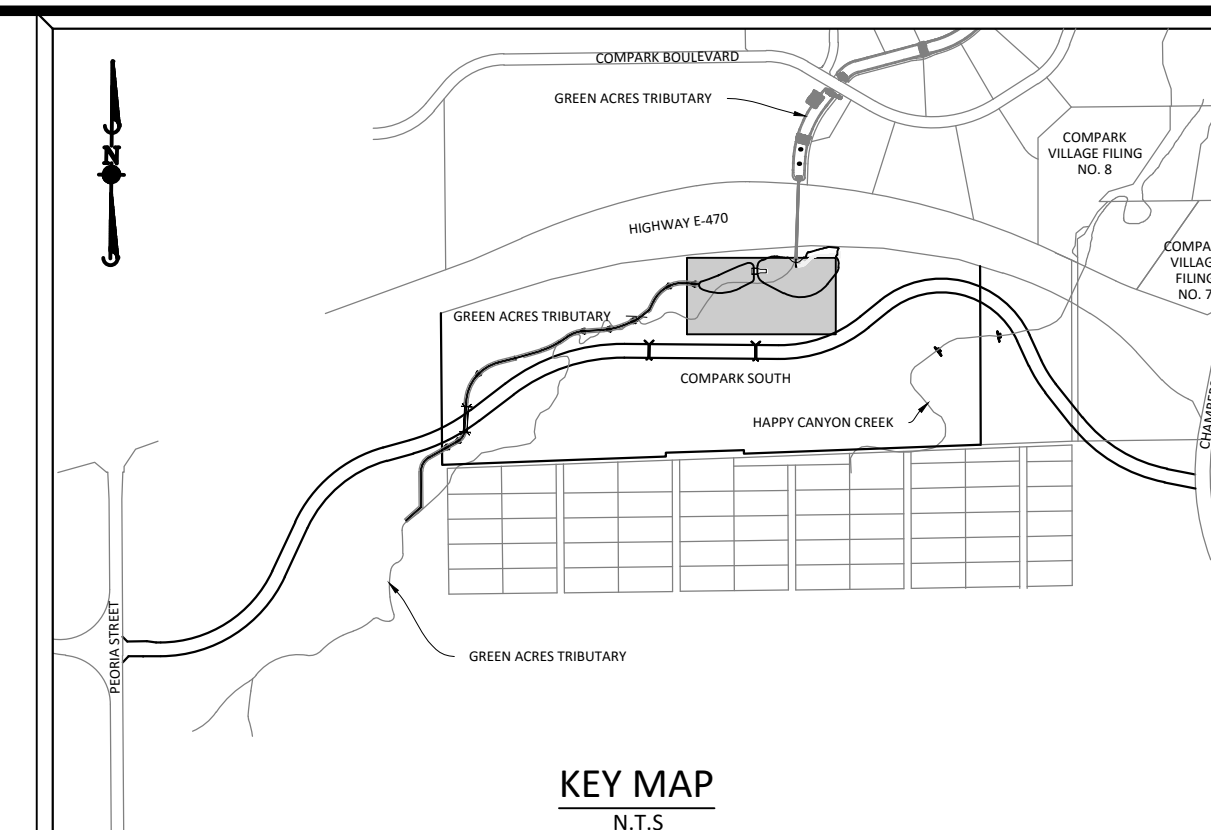
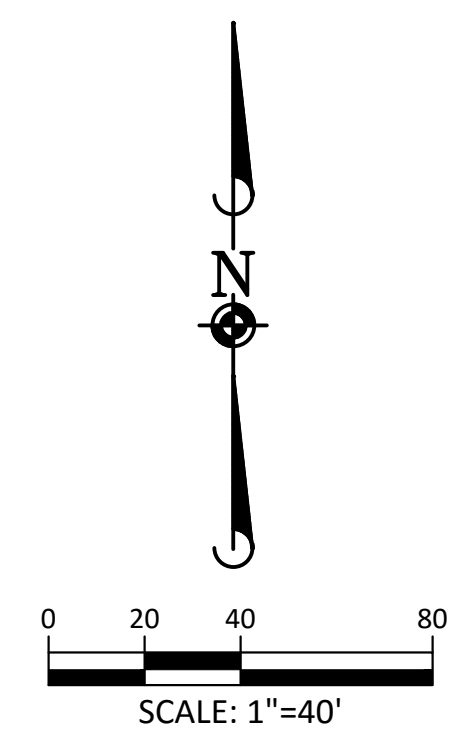
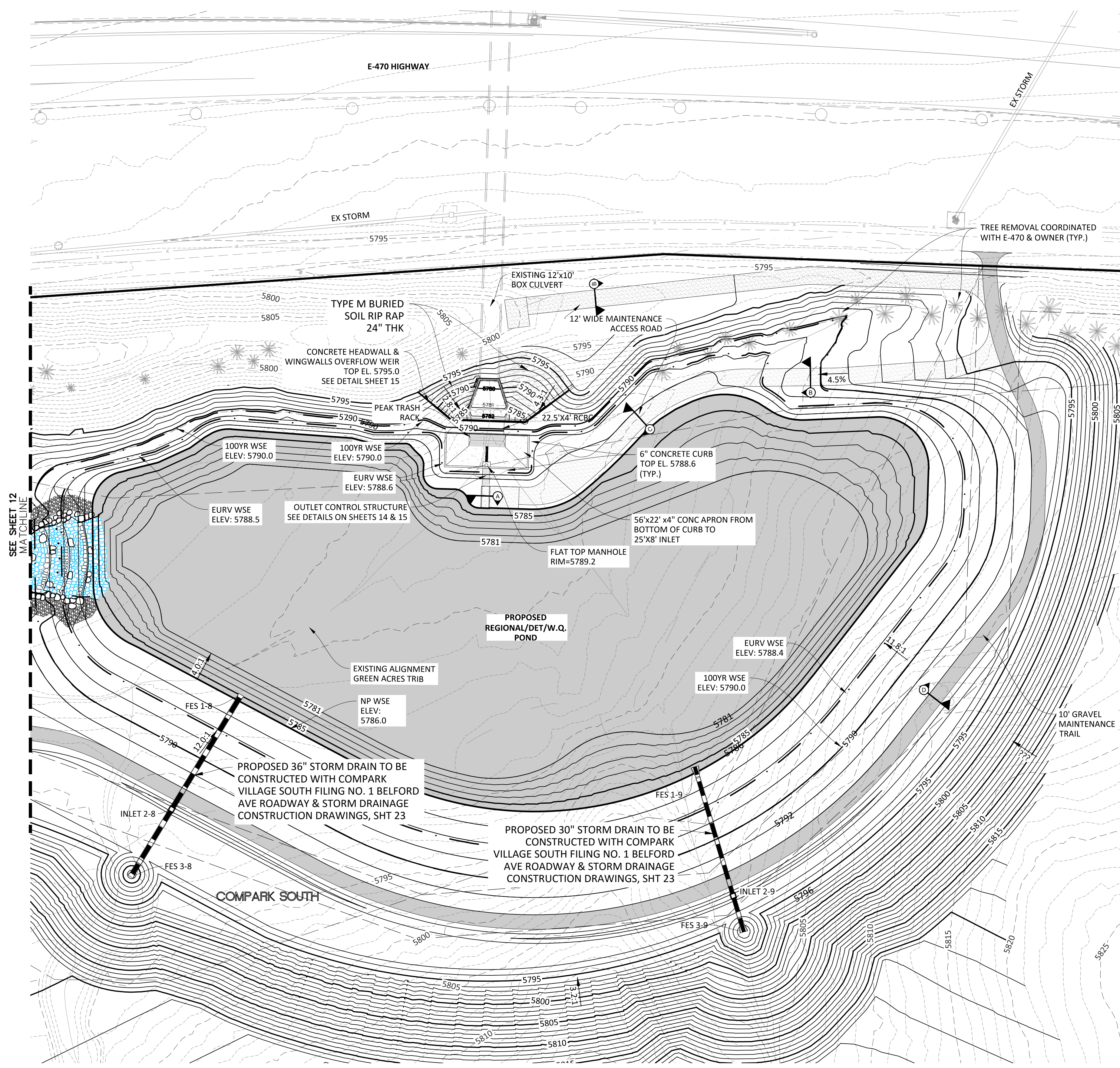
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 PROJ. ASSOC.: ASD
 DRAWN BY: ETG
 DATE: 11/2015

SHEET
7 OF 33

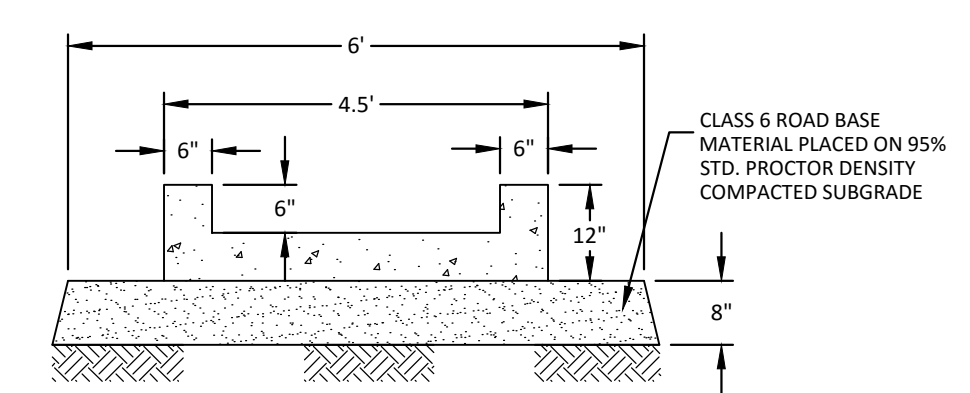
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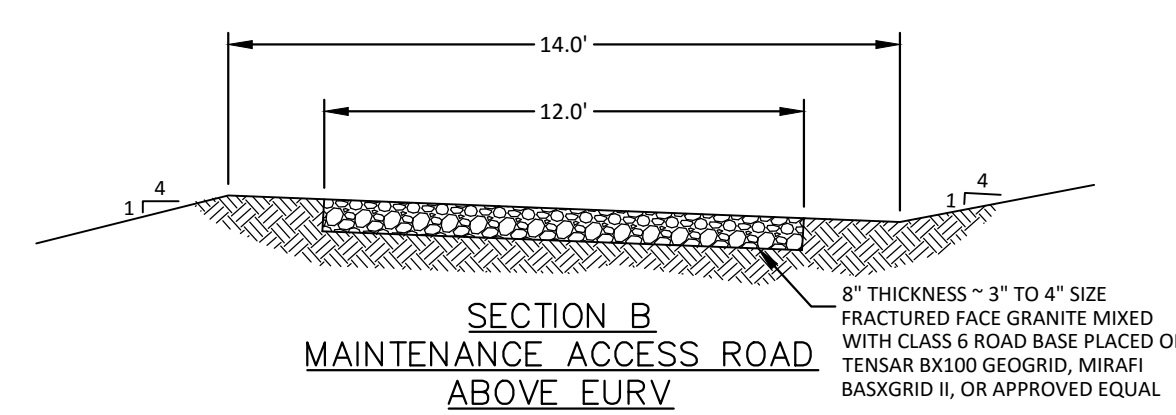
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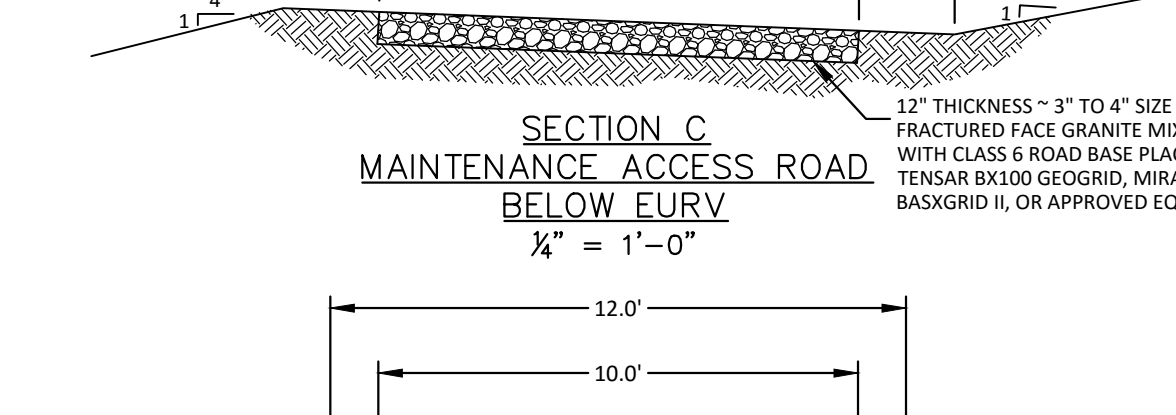
SOURCE BENCHMARKS:
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 A DOUGLAS COUNTY GIS MONUMENT SET IN CONCRETE LOCATED APPROXIMATELY 130 FEET SOUTHWESTERLY OF THE CENTERLINE OF CHAMBERS ROAD AND 95 FEET NORTHWESTERLY OF THE CENTERLINE OF COMPAK BOULEVARD. ELEVATION = 5752.84 (NAVD 88)



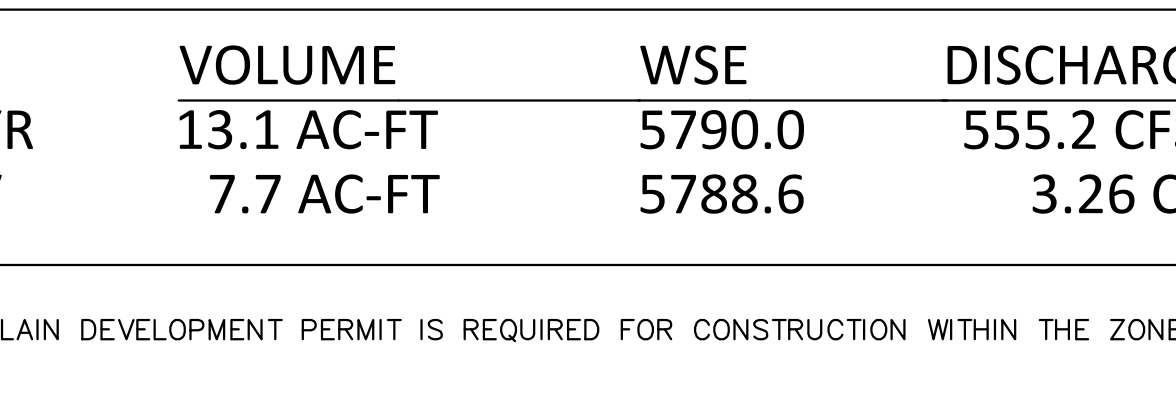
SECTION A
 4.5' WIDE TRICKLE CHANNEL
 $\frac{1}{2}'' = 1'-0''$
 NOTE: USE 4 POUNDS PER CU. YD. OR FIBRE MESH TO REINFORCE CONCRETE



SECTION B
 MAINTENANCE ACCESS ROAD ABOVE EURV
 $\frac{1}{4}'' = 1'-0''$



SECTION C
 MAINTENANCE ACCESS ROAD BELOW EURV
 $\frac{1}{4}'' = 1'-0''$



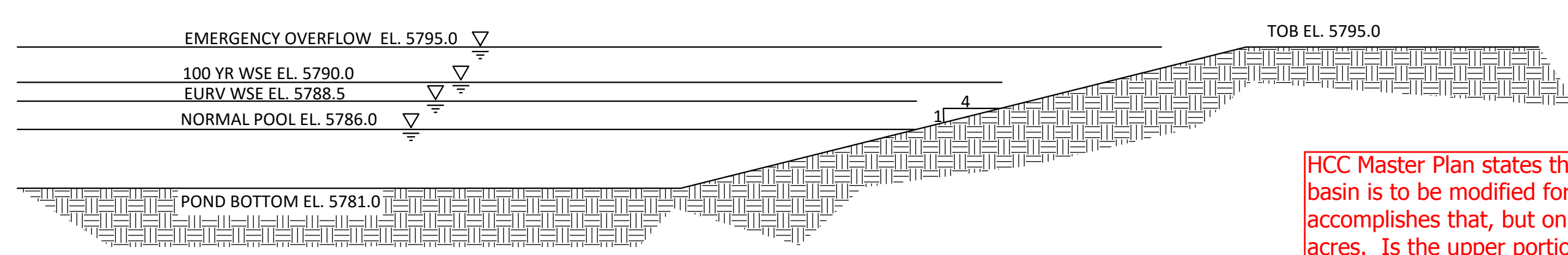
SECTION D
 GRAVEL MAINTENANCE TRAIL
 $\frac{1}{4}'' = 1'-0''$

	VOLUME	WSE	DISCHARGE
100 YR EURV	13.1 AC-FT	5790.0	555.2 CFS
	7.7 AC-FT	5788.6	3.26 CFS

Q100 = 588 CFS
 $v=4.84 \text{ FT/S}$
 $n=0.035$

Master Planned Q100=543 cfs.
 What is the driving the design to only reduce from 588 to 555 cfs?

NOTE: A FLOODPLAIN DEVELOPMENT PERMIT IS REQUIRED FOR CONSTRUCTION WITHIN THE ZONE A OF THE GREEN ACRES TRIBUTARY
 A POND LINER MAY BE REQUIRED. GEOTECH TO PROVIDE ANALYSIS/DESIGN ONCE ROUGH GRADING IS COMPLETE



TYPICAL POND SECTION
 SCALE: 1"=10'

HCC Master Plan states that this basin is to be modified for FSD. It accomplishes that, but only for 189 acres. Is the upper portion of the watershed treated somewhere else?



TOWN OF PARKER APPROVALS

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GREEN ACRES TRIBUTARY COLORADO DETAIL PLAN

PROJ. MGR.: RJM
 PROJ. ASSOC.: ASD
 DRAWN BY: ETG
 DATE: 11/2015

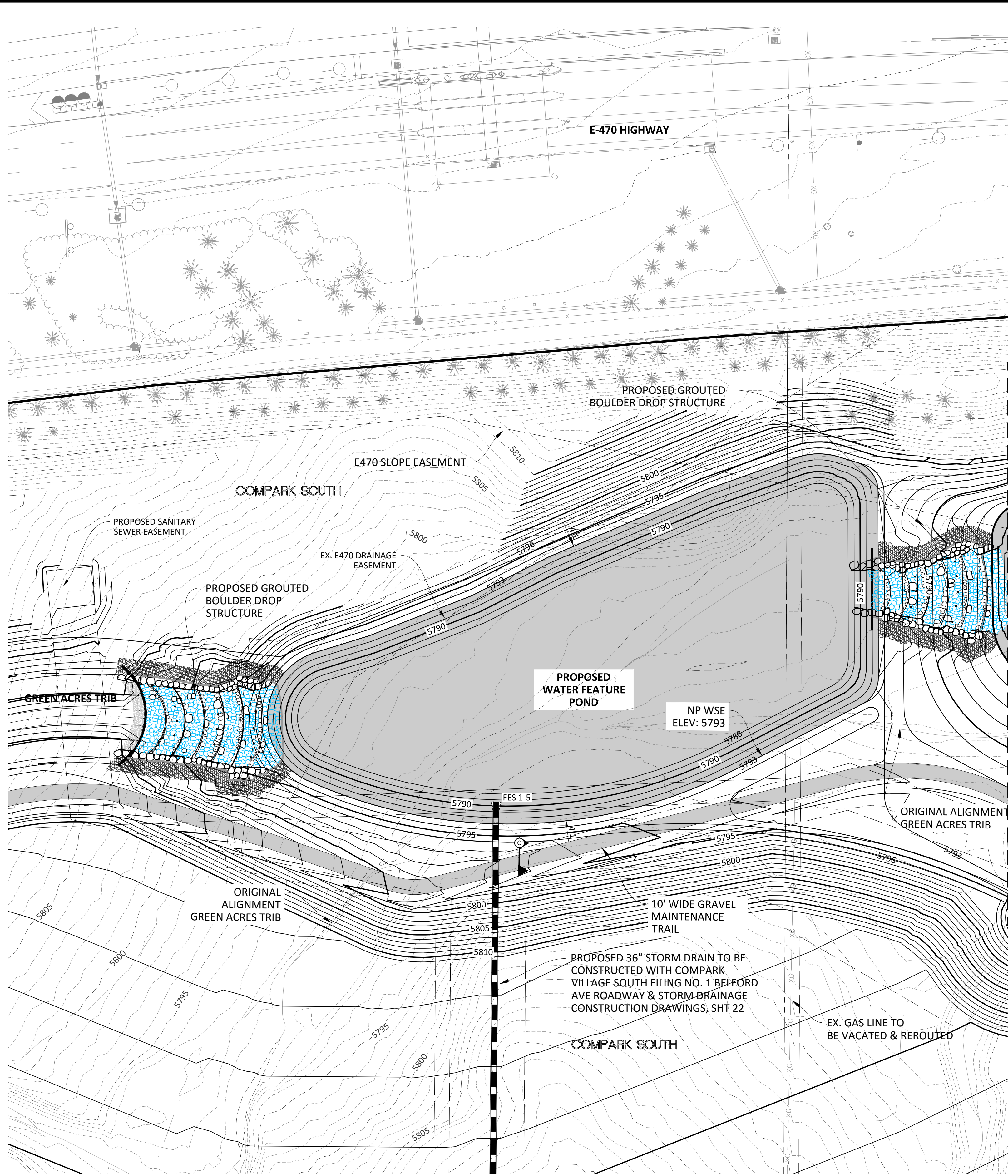
SHEET **11 OF 33**

CLCPKC3

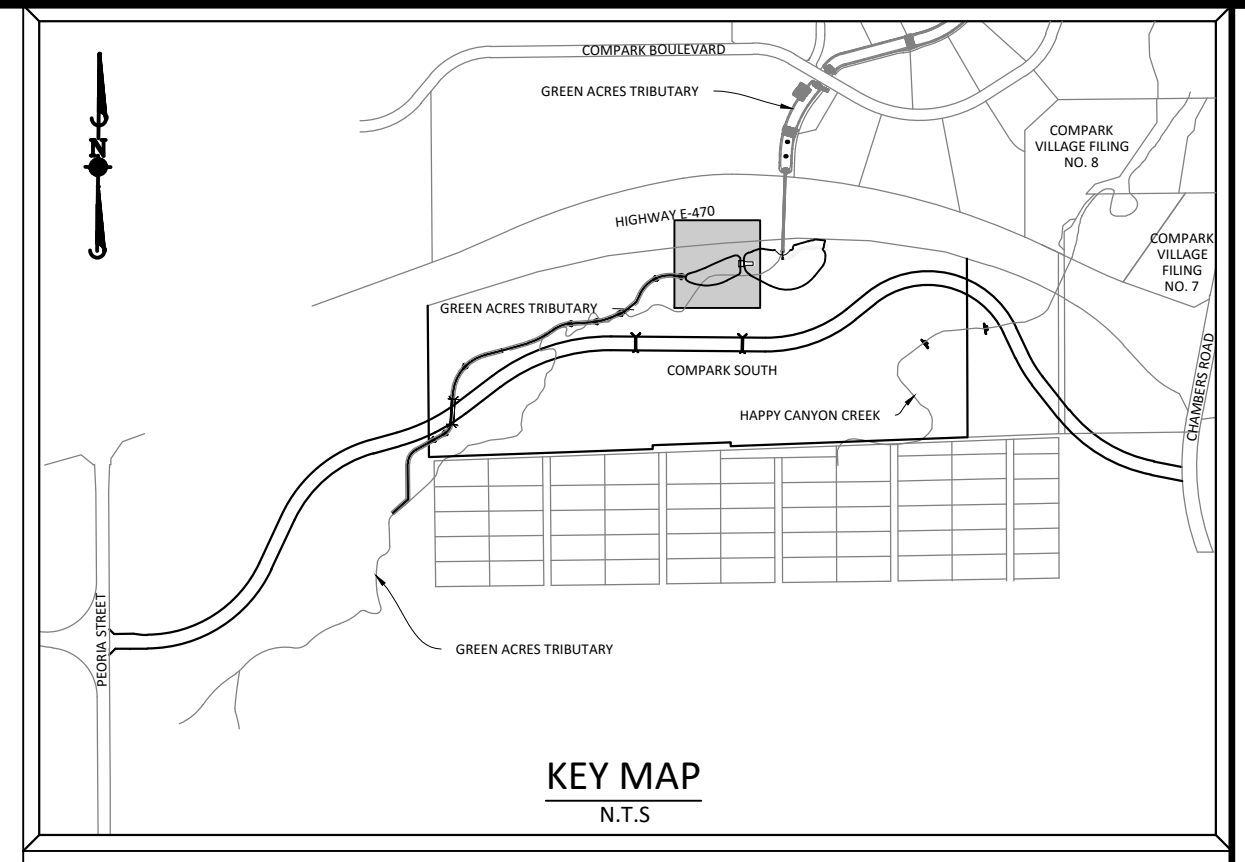
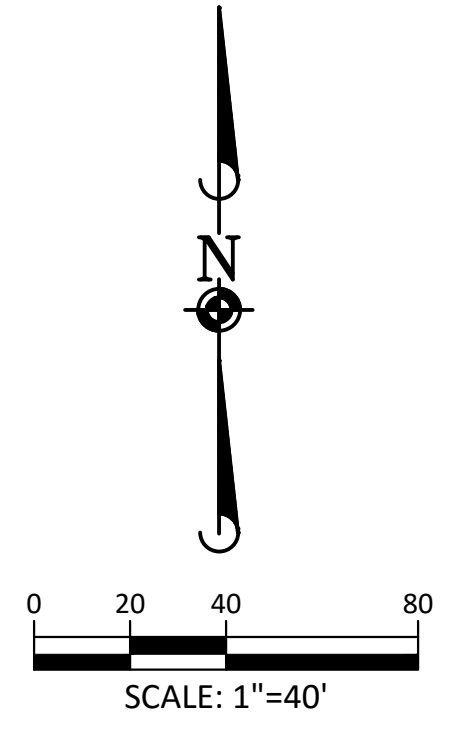
DATE: 11/2015
 10/2016 3RD SUBMITTAL
 06/2016 2ND SUBMITTAL
 11/2015 1ST SUBMITTAL

EG

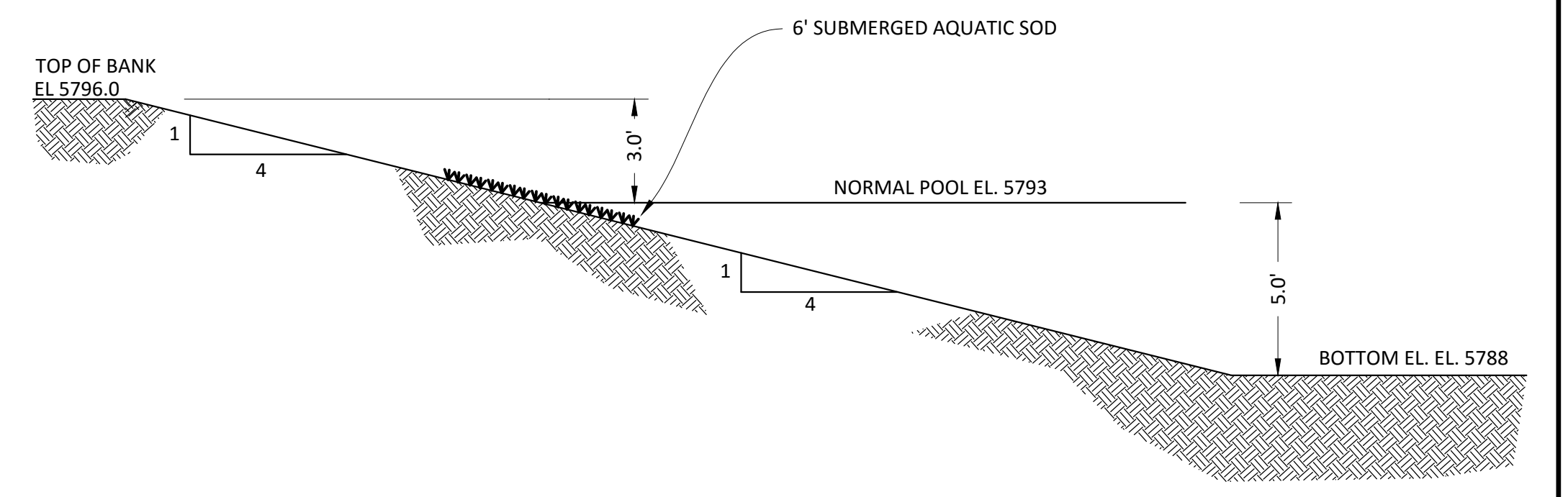
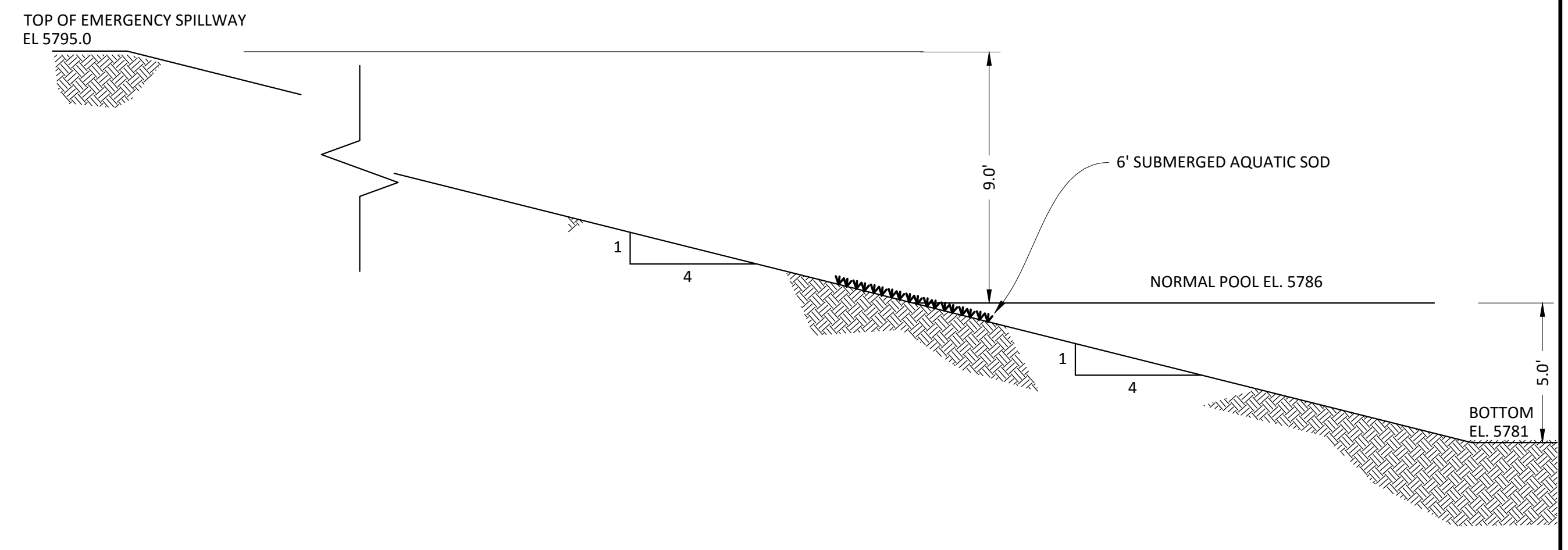
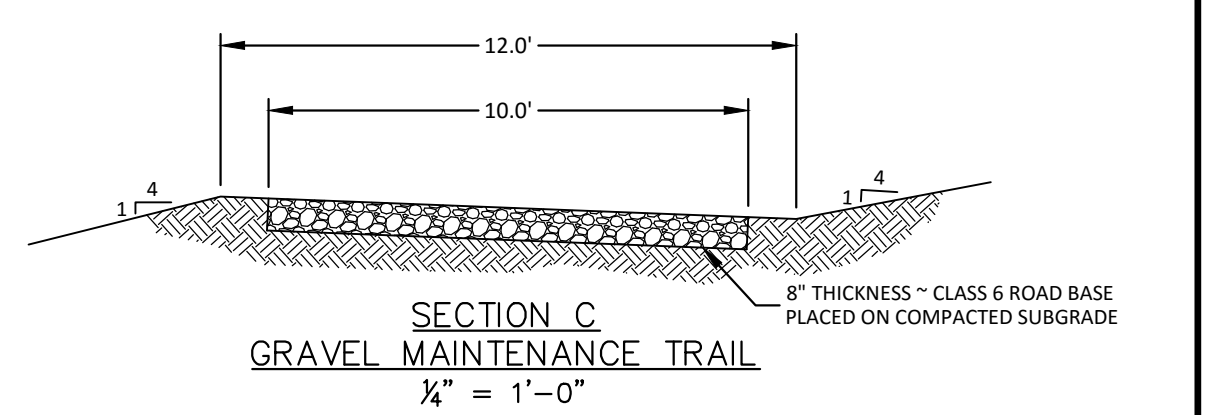
PENDING APPROVAL



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Know what's below.
 Call before you dig.

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10/2015	1ST SUBMITTAL
06/2016	2ND SUBMITTAL
10/2016	3RD SUBMITTAL

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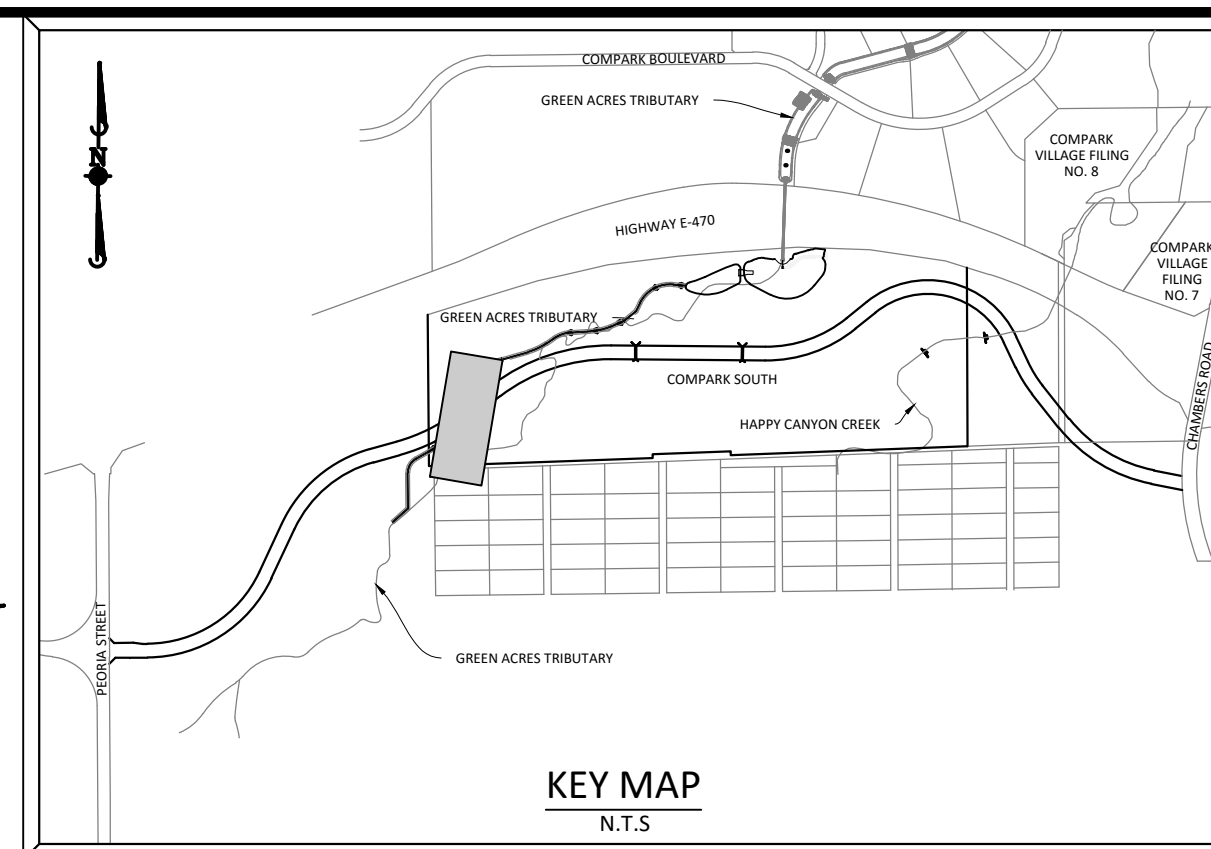
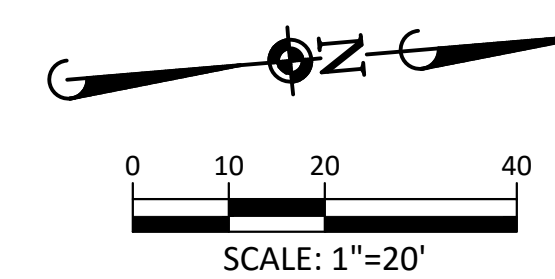
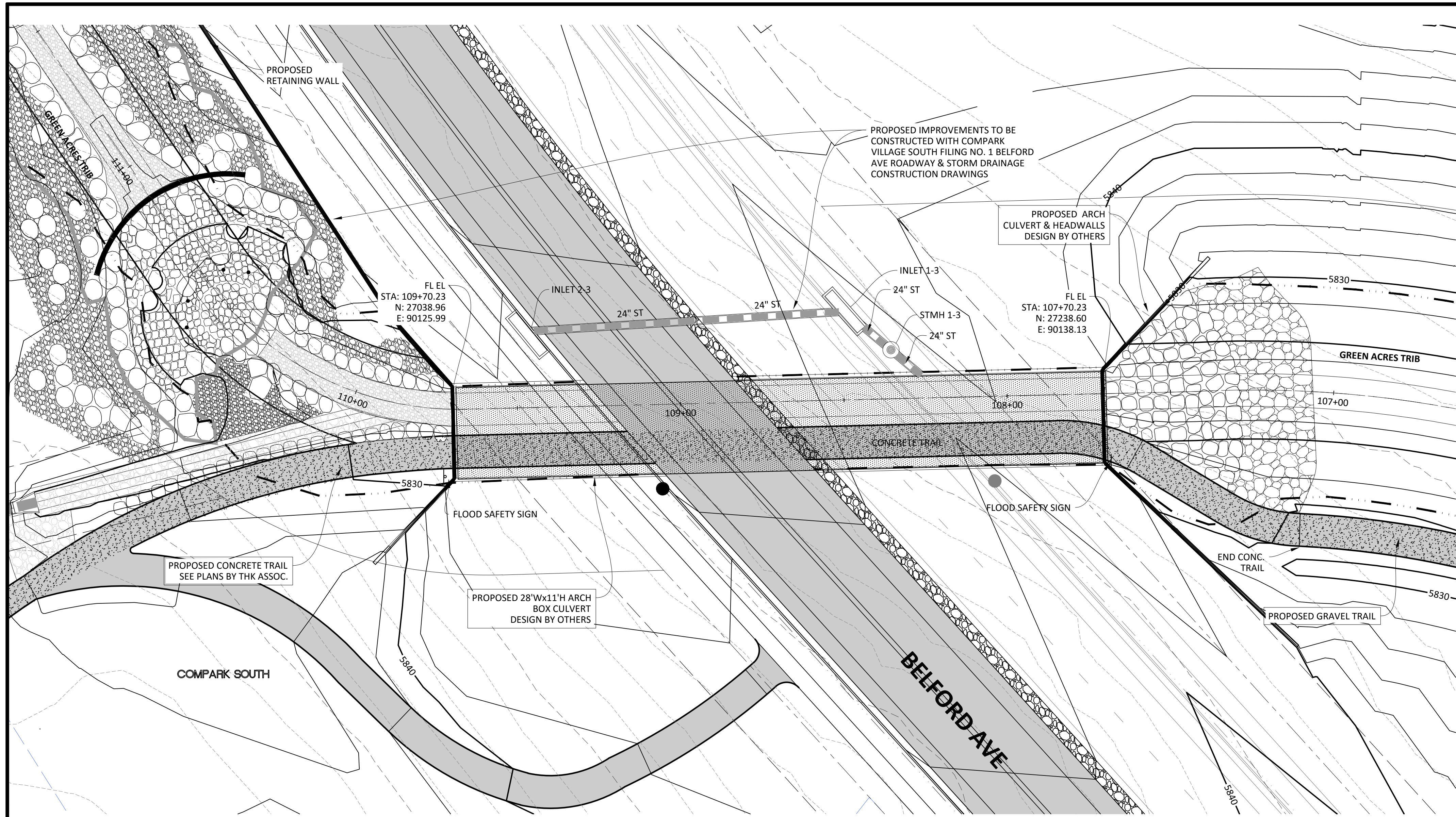
COMPARK VILLAGE SOUTH GREEN ACRES TRIBUTARY
TOWN OF PARKER, COLORADO
DETENTION POND PLAN

PROJ. MGR.: RIM
 PROJ. ASSOC.: ASD
 DRAWN BY: ETG
 DATE: 11/2015

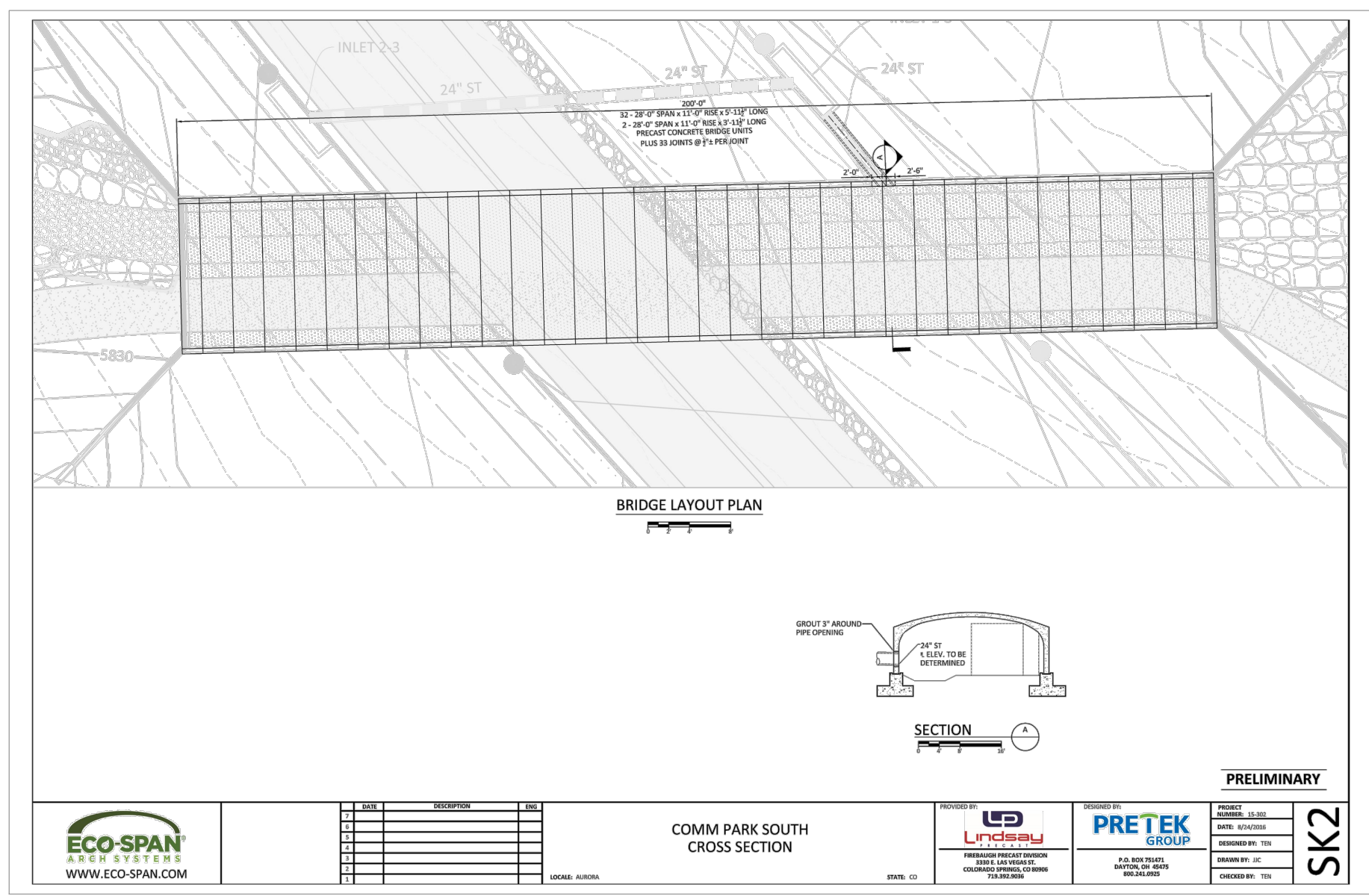
SHEET
12 OF 33
 CLCPKC3

PENDING APPROVAL

Plotted: 11/17/2016 4:14 PM. Draw Name: P:\Projects\3\ComparkSouth\02_GreenAcres\Trib\Drawings\Plan_Sett\Town\CLCPKC3_Drainage-Pond Plan (2).dwg. Updated By: aDrucker



SOURCE BENCHMARKS:
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ECO-SPAN ARCH SYSTEMS

COMM PARK SOUTH BRIDGE #1

LOCATION : AURORA CO

PREPARED FOR : Mark Wilson, THK Assoc.

PROJECT ID# : 217067134

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ARCH UNITS	Arch-Rise Section
Number of Cells	20.0 FT
Span	20.0 FT
Bridge Length	200.0 FT
Mean Rise	11.0 FT
Clear Rise	11.0 FT
Oblique Walkway Area	300 SF
Number of Cells	2
Clear Height	22.0 FT

WINGWALLS	Arch-Rise Section
WV1 Angle	45 DEG
WV1 Length	28.5 FT
WV1 Height	10.5 FT
WV1 Drop	7.0 FT
WV2 Angle	45 DEG
WV2 Length	28.5 FT
WV2 Height	13.5 FT
WV2 Drop	7.0 FT

PRETEK GROUP **INSTANT DESIGN**

ARCH LAYOUT PLAN

ARCH SPAN

WV1 Angle	WV2 Angle	WV3 Angle	WV4 Angle	WV5 Angle	WV6 Angle	Span
45 DEG	45 DEG	45 DEG	45 DEG	45 DEG	45 DEG	20.0 FT
28.5 FT	28.5 FT	28.5 FT	28.5 FT	28.5 FT	28.5 FT	20.0 FT
10.5 FT	10.5 FT	10.5 FT	10.5 FT	10.5 FT	10.5 FT	20.0 FT
7.0 FT	7.0 FT	7.0 FT	7.0 FT	7.0 FT	7.0 FT	20.0 FT

ECO-SPAN ARCH SYSTEMS **PRETEK GROUP** **INSTANT DESIGN**

FIGURE 1 - WINGWALL BACKFILL LIMITS

FIGURE 2 - PRECAST ARCH BACKFILL LIMITS

GROUP	DESCRIPTION	MIN. BACKFILL	MAX. BACKFILL
1	PERCENT FINISHING	10 MAX	10 MAX
2	PERCENT FINISHING	10 MAX	10 MAX
3	PERCENT FINISHING	10 MAX	10 MAX
4	PERCENT FINISHING	10 MAX	10 MAX
5	PERCENT FINISHING	10 MAX	10 MAX

TABLE 1 - ACCEPTABLE BACKFILL

GROUP	DESCRIPTION	MIN. BACKFILL	MAX. BACKFILL
1	PERCENT FINISHING	10 MAX	10 MAX
2	PERCENT FINISHING	10 MAX	10 MAX
3	PERCENT FINISHING	10 MAX	10 MAX
4	PERCENT FINISHING	10 MAX	10 MAX
5	PERCENT FINISHING	10 MAX	10 MAX

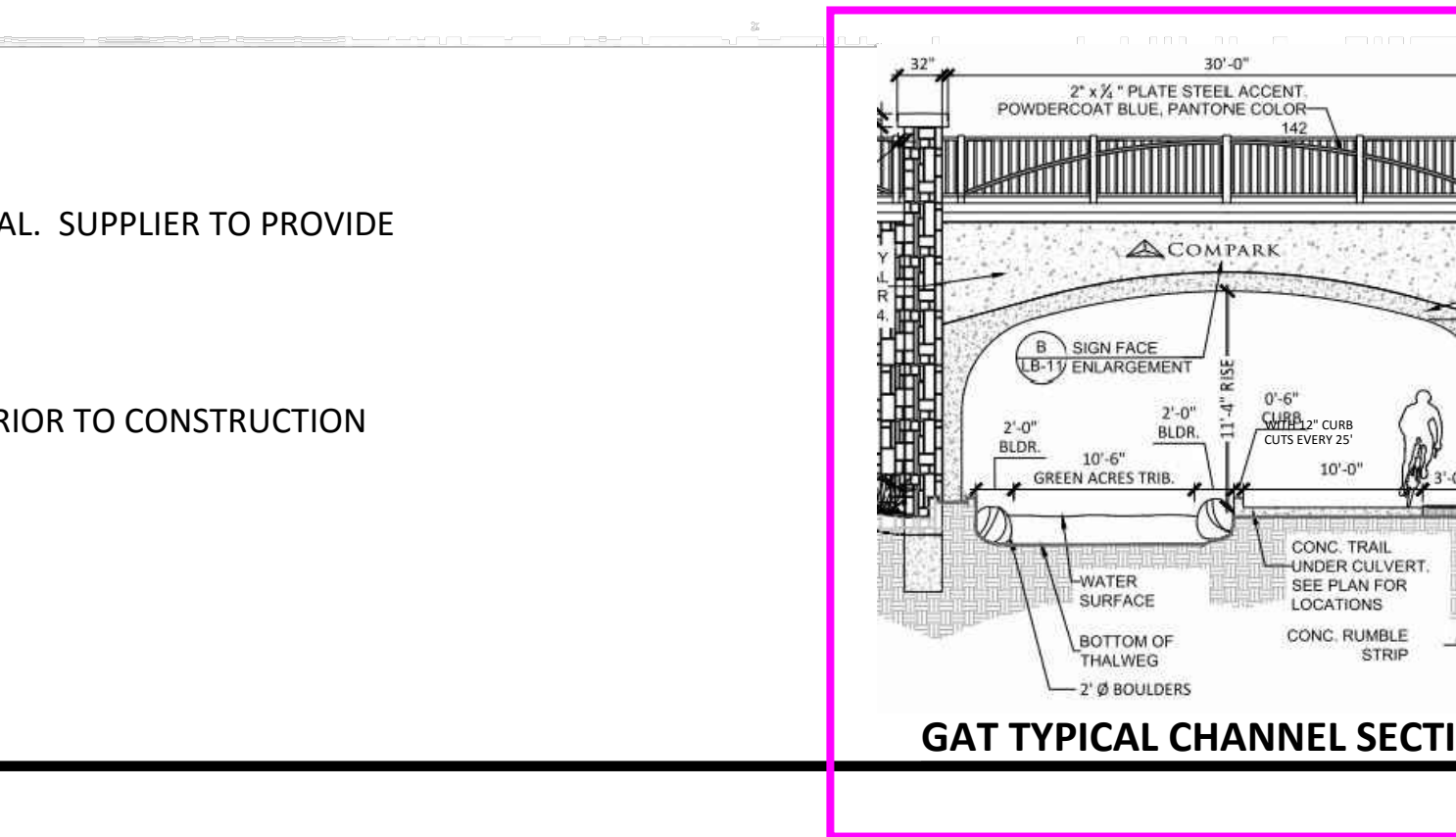
ECO-SPAN ARCH SYSTEMS **PRETEK GROUP** **INSTANT DESIGN**

COMM PARK SOUTH BRIDGE #1

Tom Nicholson
 PRETEK GROUP
 4000 S. WATSON ST., SUITE 100
 DENVER, CO 80231
 (303) 758-0000

PROJECT ID# 217067134
 SHEET NO 2 OF 6
 DATE: 10/20/2015

NOTE:
 PRECAST ARCH CULVERT TO BE ECO-SPAN OR APPROVED EQUAL. SUPPLIER TO PROVIDE DESIGN
 FOUNDATION DESIGN TO BE PROVIDED BY CONTRACTOR
 CONTRACTOR TO SUBMIT SHOP DRAWINGS FOR APPROVAL PRIOR TO CONSTRUCTION
 LIMIT PE CERTIFICATION TO CIVIL

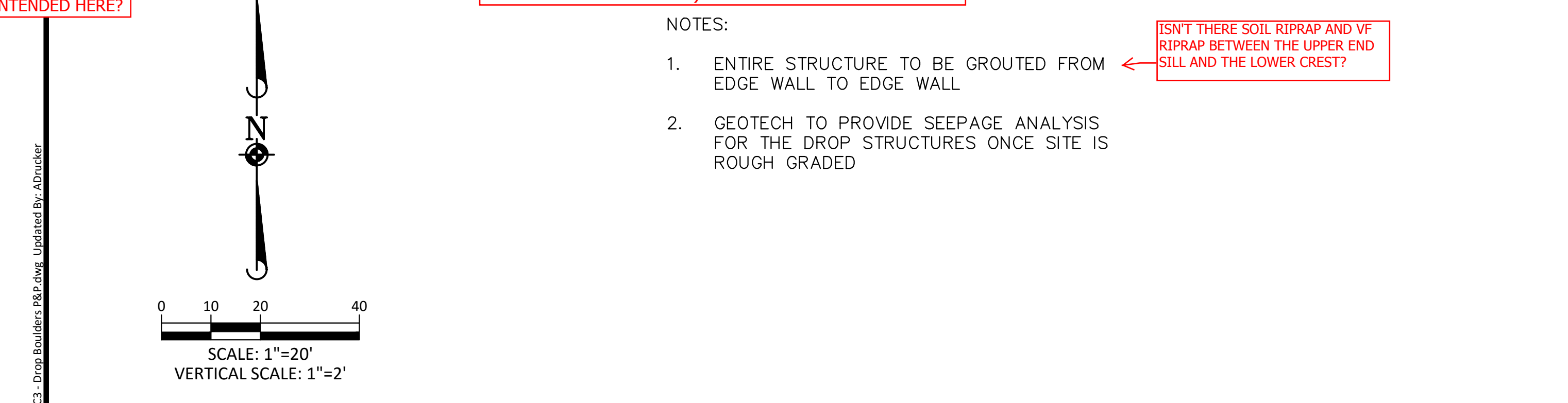
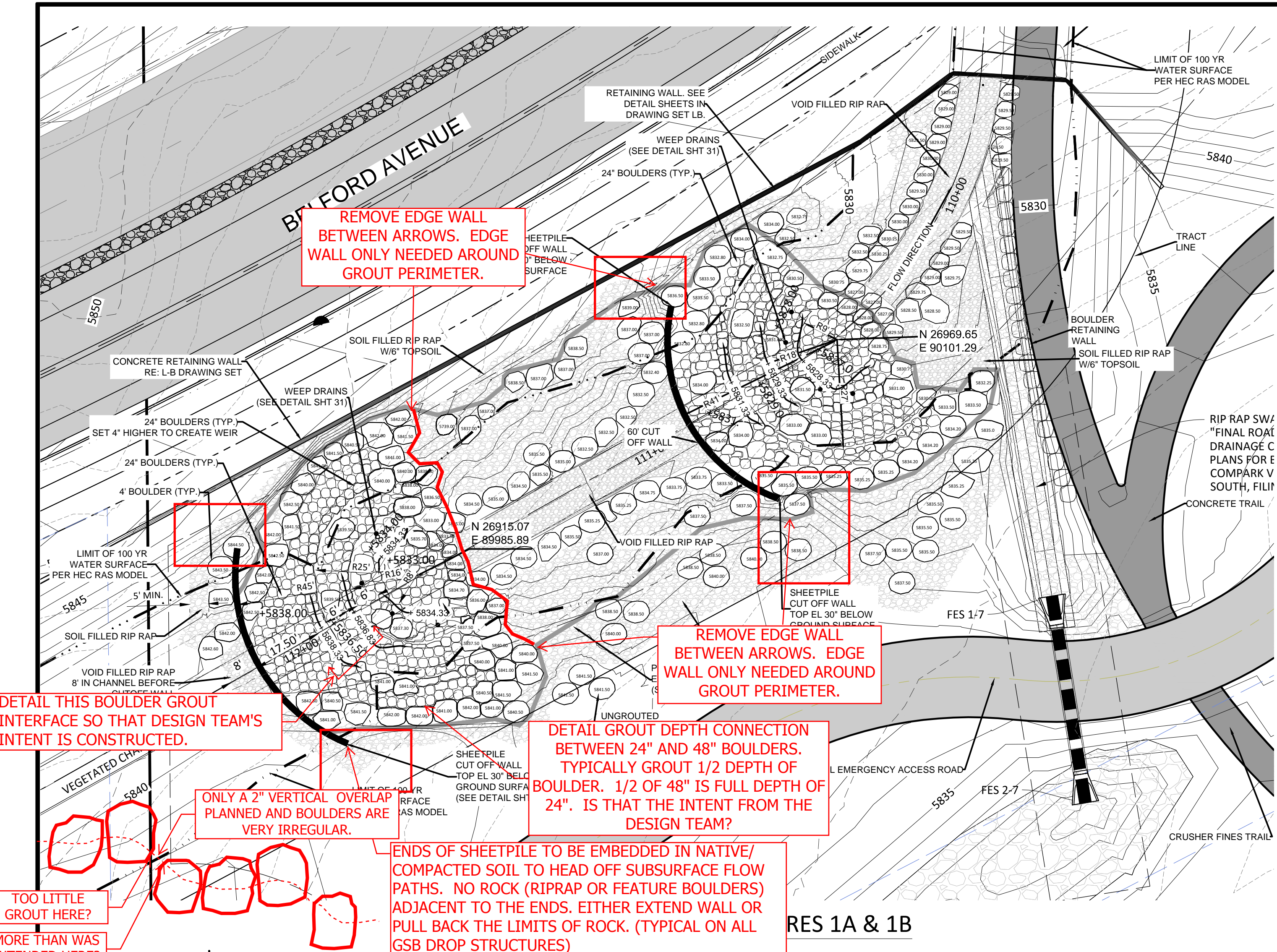


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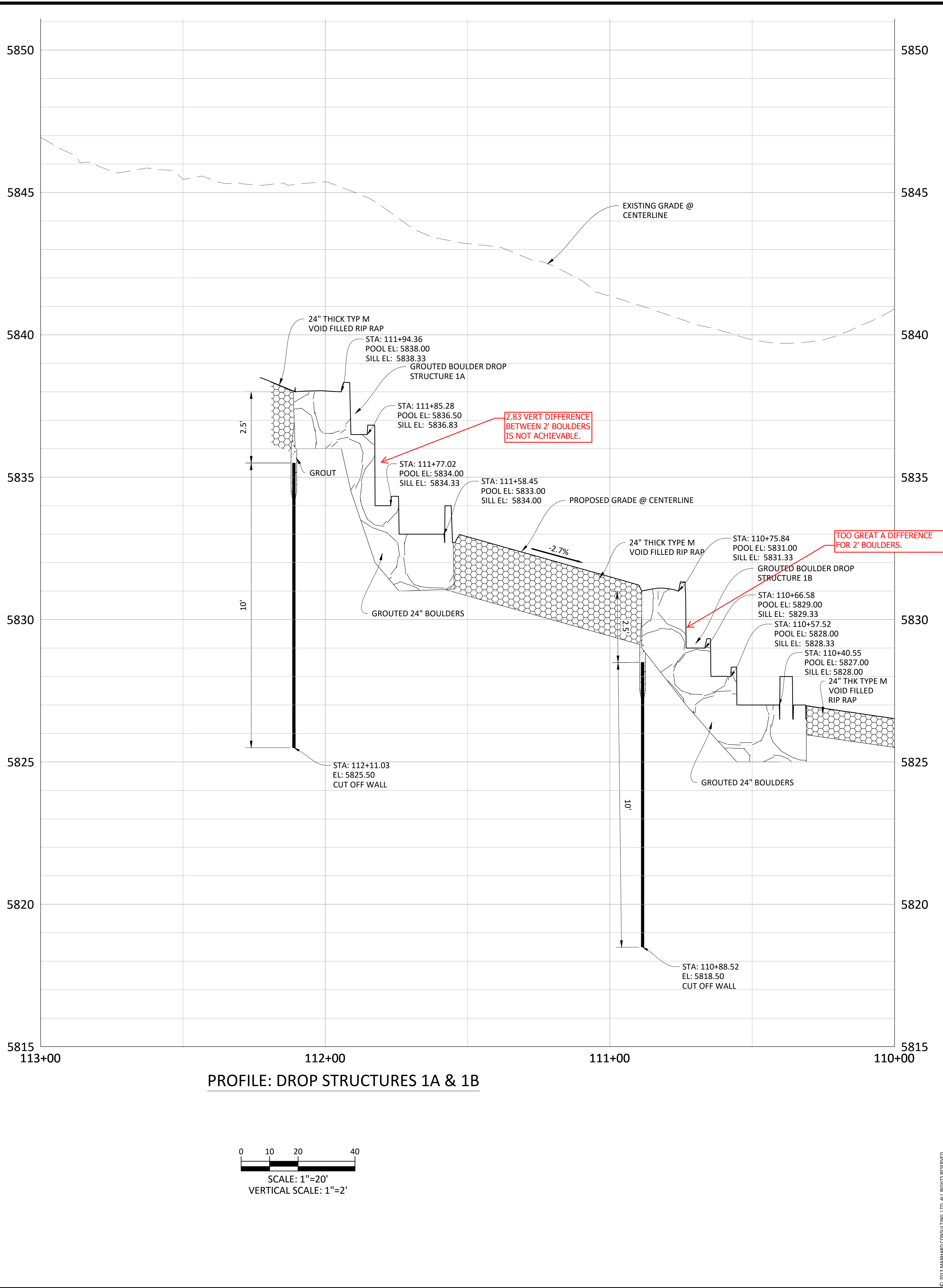


NOTES:

- ENTIRE STRUCTURE TO BE GROUTED FROM EDGE WALL TO EDGE WALL
- GEOTECH TO PROVIDE SEEPAGE ANALYSIS FOR THE DROP STRUCTURES ONCE SITE IS ROUGH GRADED

ISN'T THERE SOIL RIPRAP AND VF RIPRAP BETWEEN THE UPPER END SILL AND THE LOWER CREST?

There is a lot of elevation detail in the drop plans and profiles. Please add sections through cutoff walls, typical through face of drop from bank to bank, and along the end sill. Same for all drop structure enlargement sheets.



DATE	REVISIONS
06/20/16	2ND SUBMITTAL
11/20/15	1ST SUBMITTAL

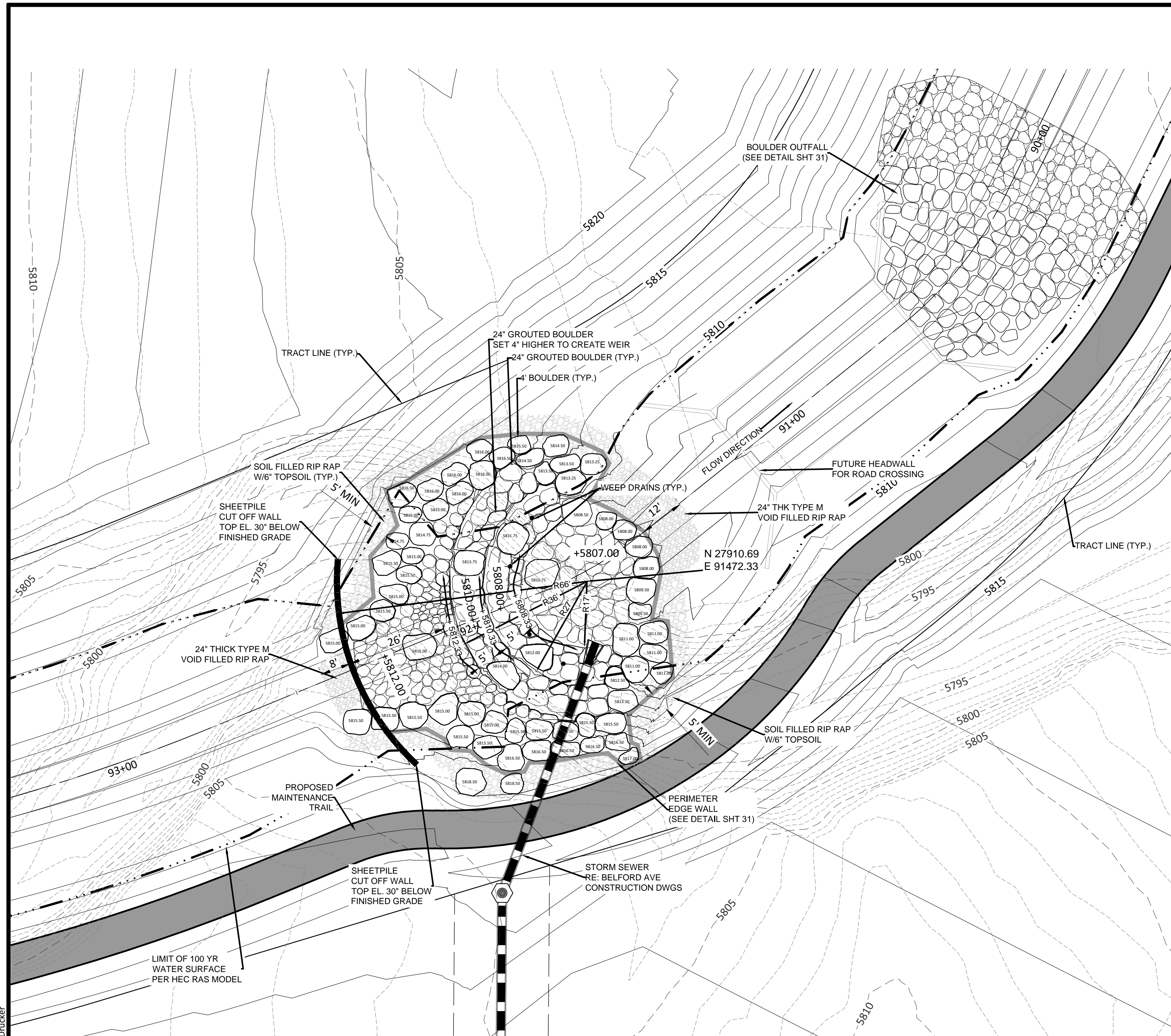
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COMPARK VILLAGE SOUTH GREEN ACRES TRIBUTARY
 TOWN OF PARKER, COLORADO
 DROP STRUCTURE 1A & 1B PLAN & PROFILE

PROJ. MGR.: RIM
 PROJ. ASSOC.: ASD
 DRAWN BY: ETG
 DATE: 11/20/15

SHEET
18 OF 33
 CLCPKC3

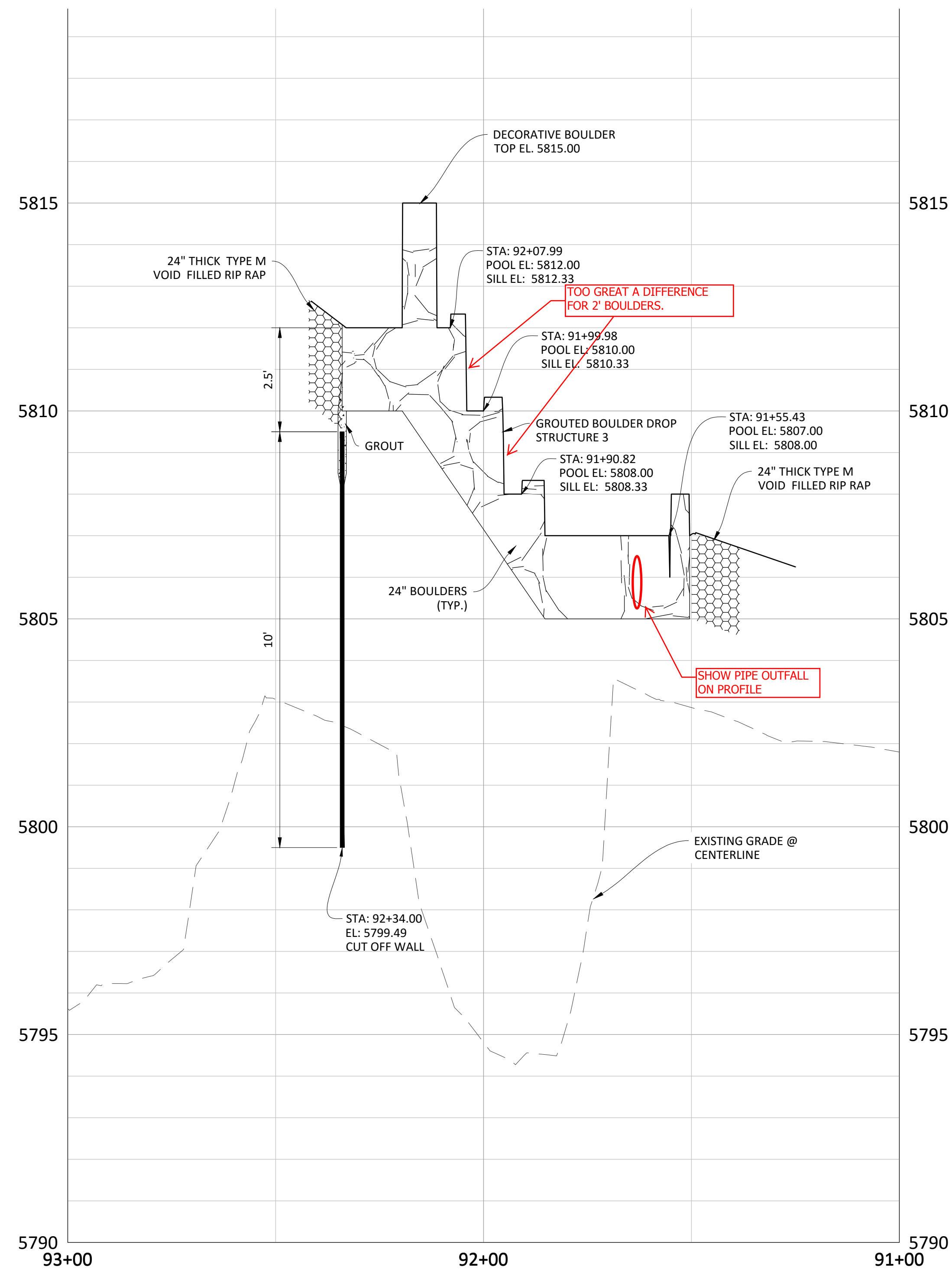
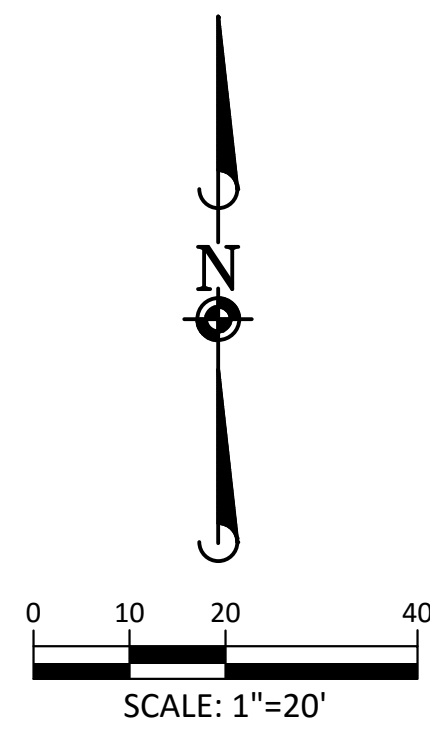
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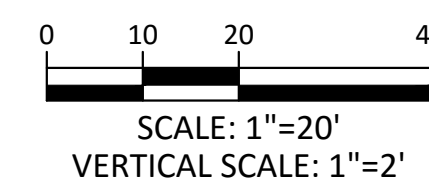
PLAN: DROP STRUCTURE 3

NOTES:

1. ENTIRE STRUCTURE TO BE GROUTED FROM EDGE WALL TO EDGE WALL
2. GEOTECH TO PROVIDE SEEPAGE ANALYSIS FOR THE DROP STRUCTURES ONCE SITE IS ROUGH GRADED



PROFILE: DROP STRUCTURE 3



Plotted: 11/17/2015 4:26 PM. Draw Name: P:\C\proj33\CompSouth02\GreenAcres\Trib\W\W\Final Drawings\Plan Set\Town\CLCPK3 - Drop Boulders P&S.dwg. Updated By: ABrucker

DATE	REVISIONS
06/2016	2ND SUBMITTAL
11/2015	1ST SUBMITTAL

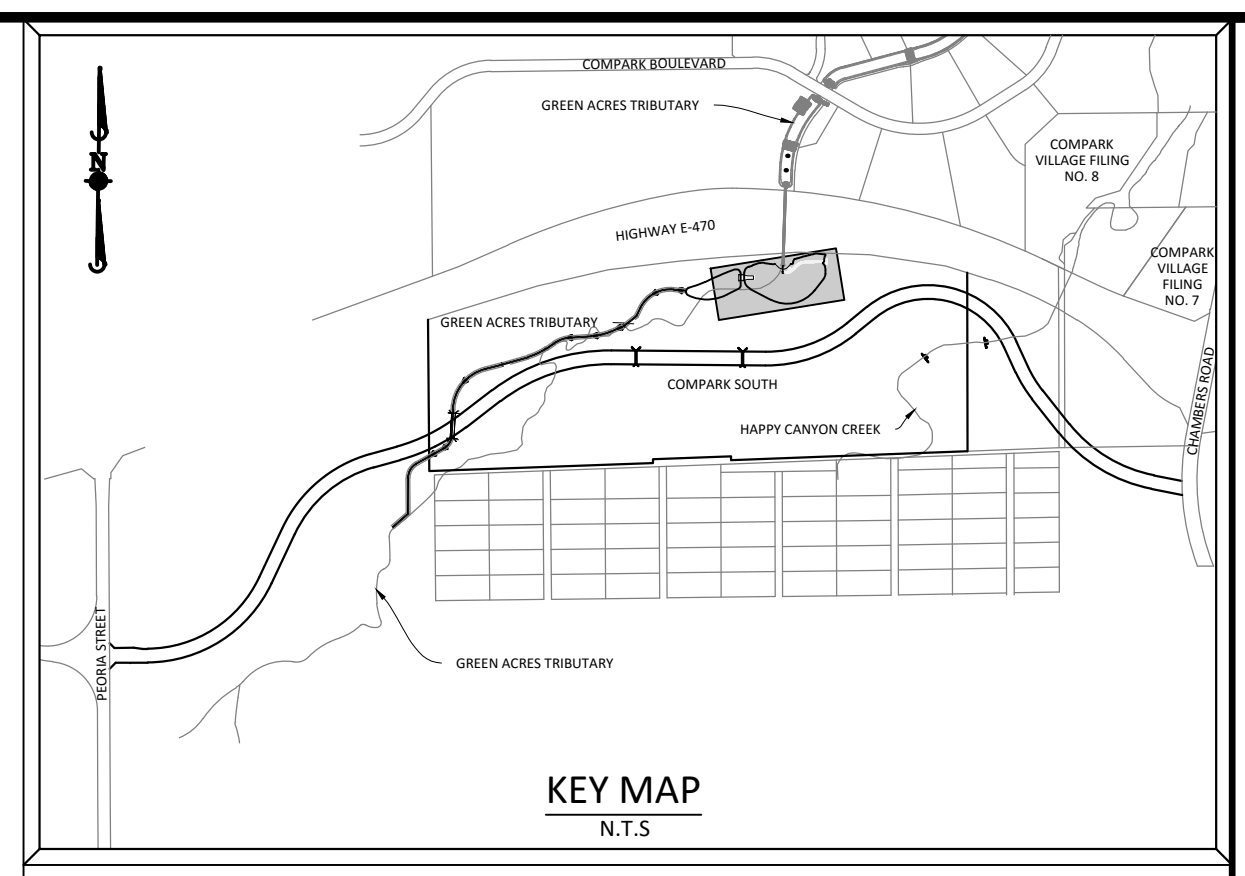
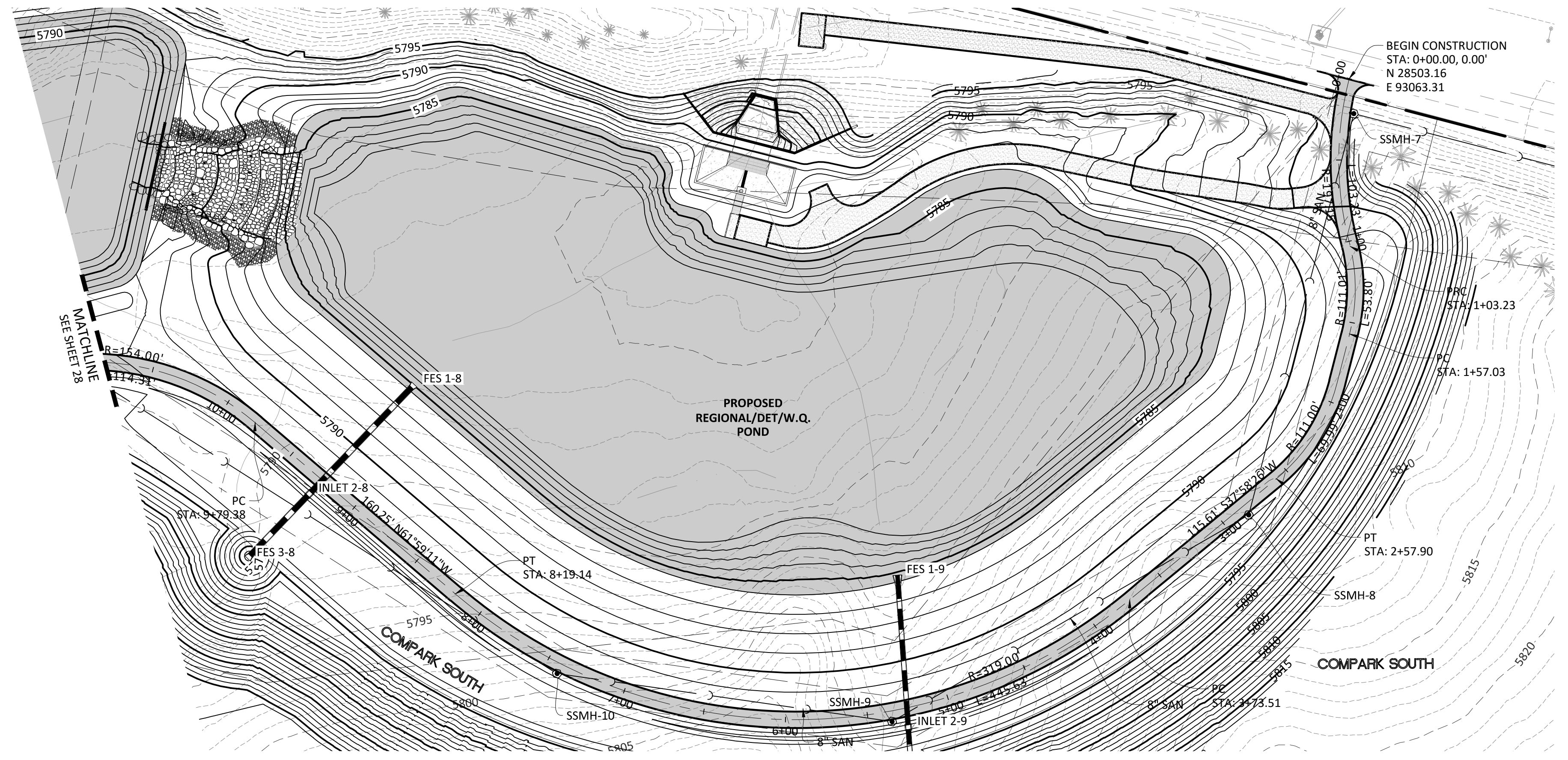
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 TOWN OF PARKER, COLORADO
 DROP STRUCTURE 3 PLAN & PROFILE

PROJ. MGR.: RIM
 PROJ. ASSOC.: ASD
 DRAWN BY: ETG
 DATE: 11/2015

SHEET
20 OF **33**
 CLCPK3

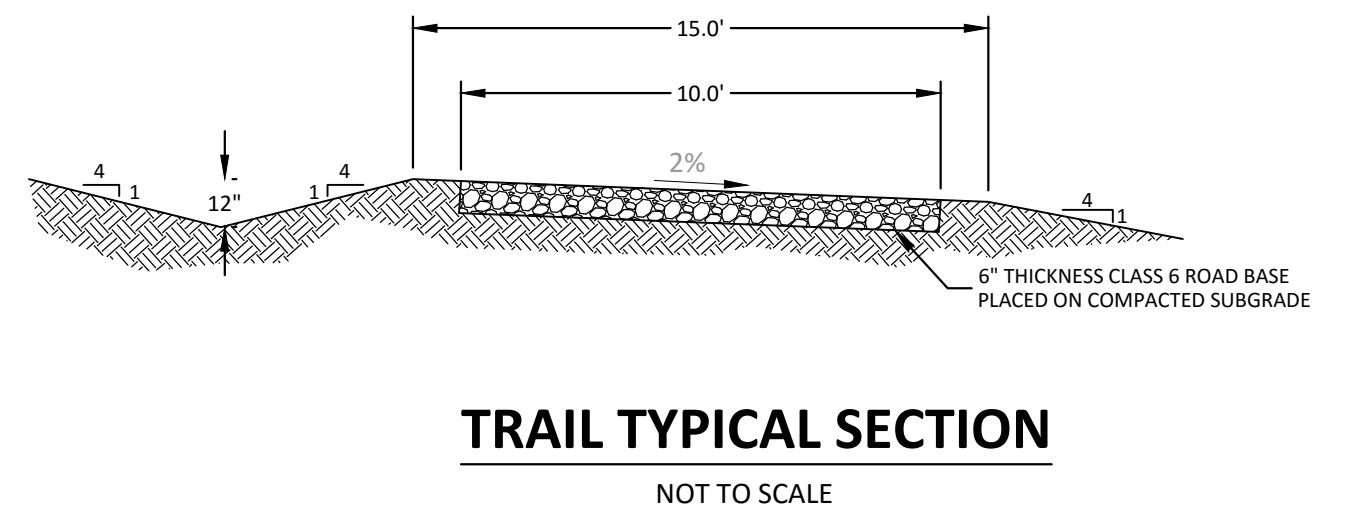
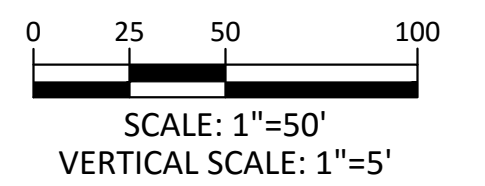
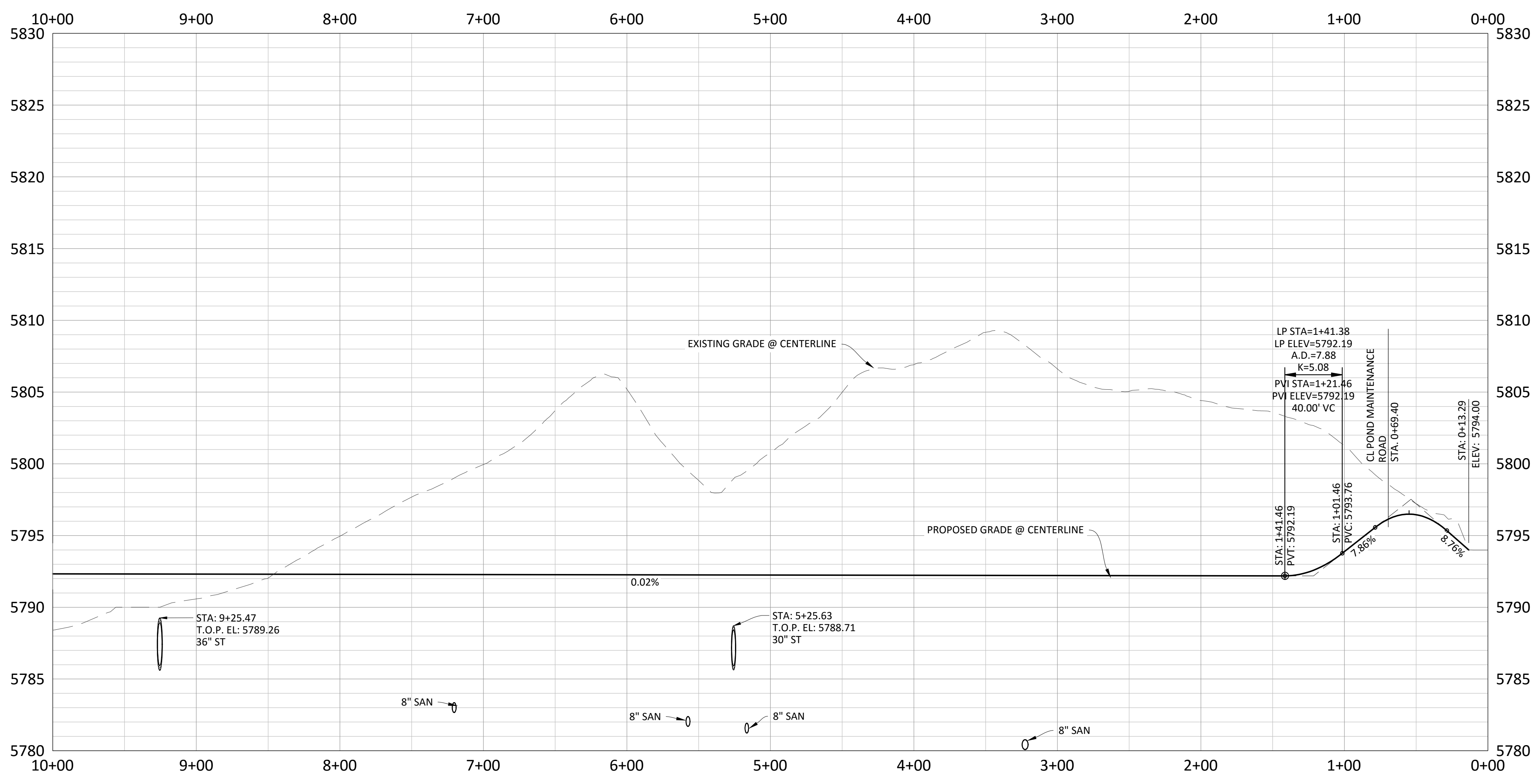
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SOURCE BENCHMARKS:
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DATE	REVISIONS
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COMPARK VILLAGE SOUTH GREEN ACRES TRIBUTARY
 TOWN OF PARKER, COLORADO
 MAINTENANCE TRAIL PLAN & PROFILE

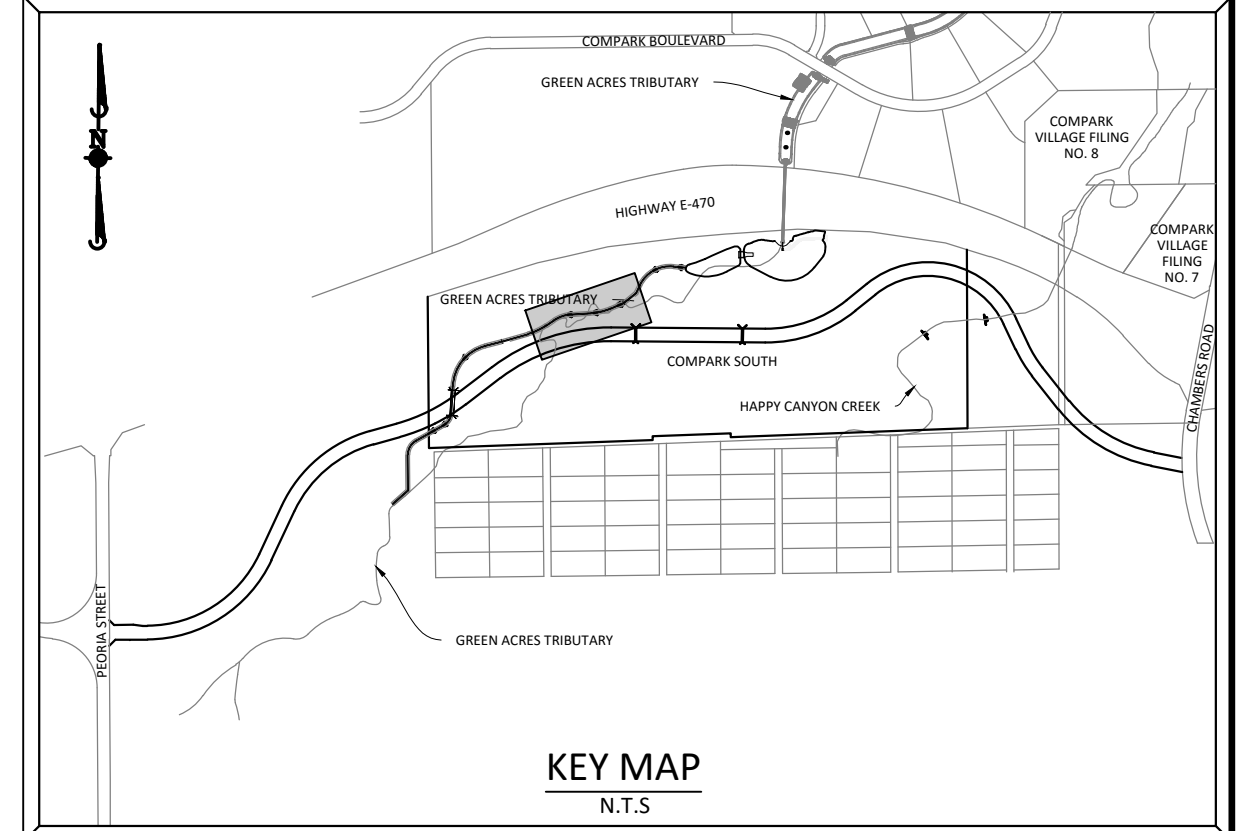
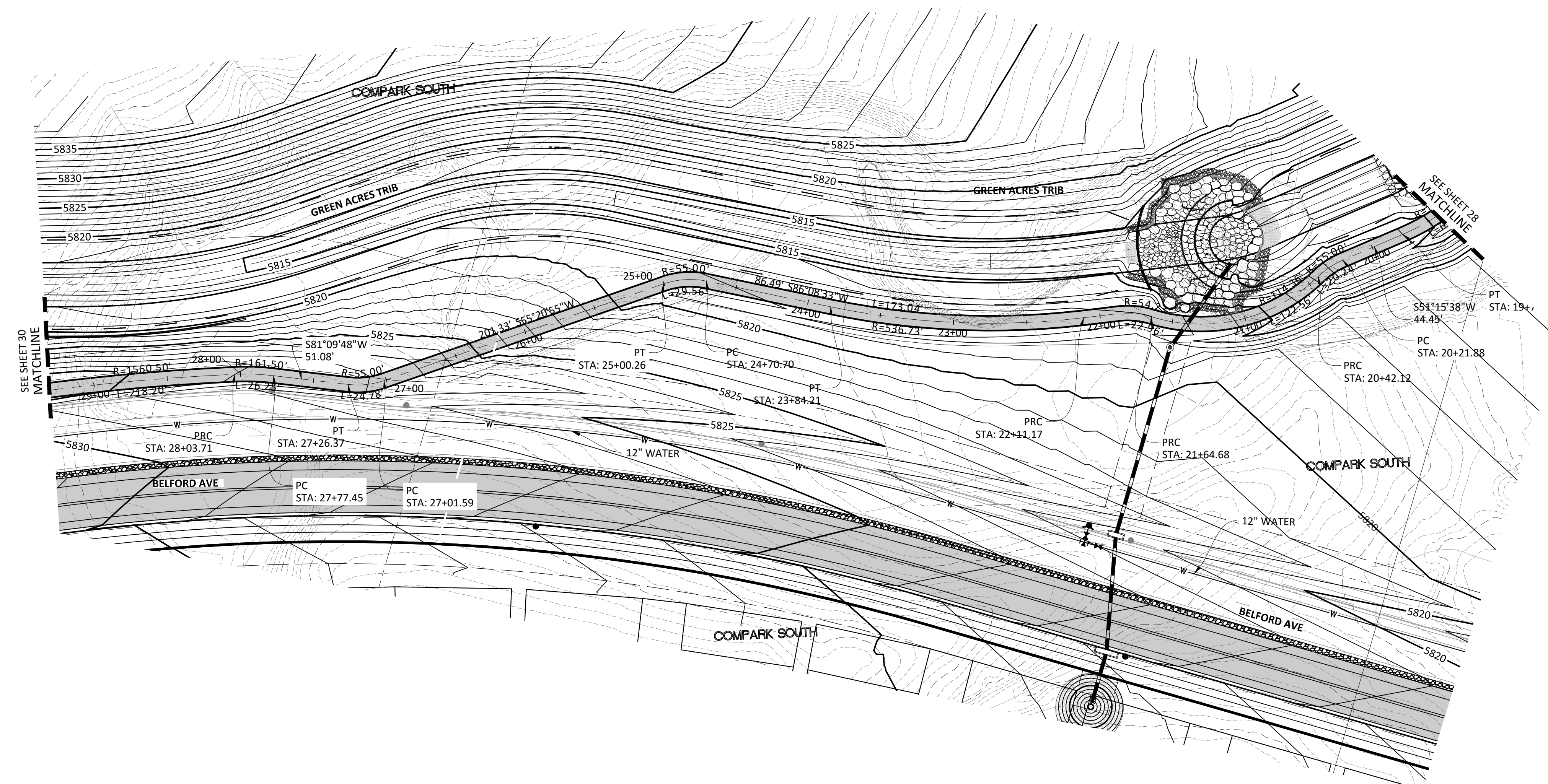
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 DRAWN BY: ETG
 DATE: 11/2015

SHEET
27 OF **33**
 CLCPKC3

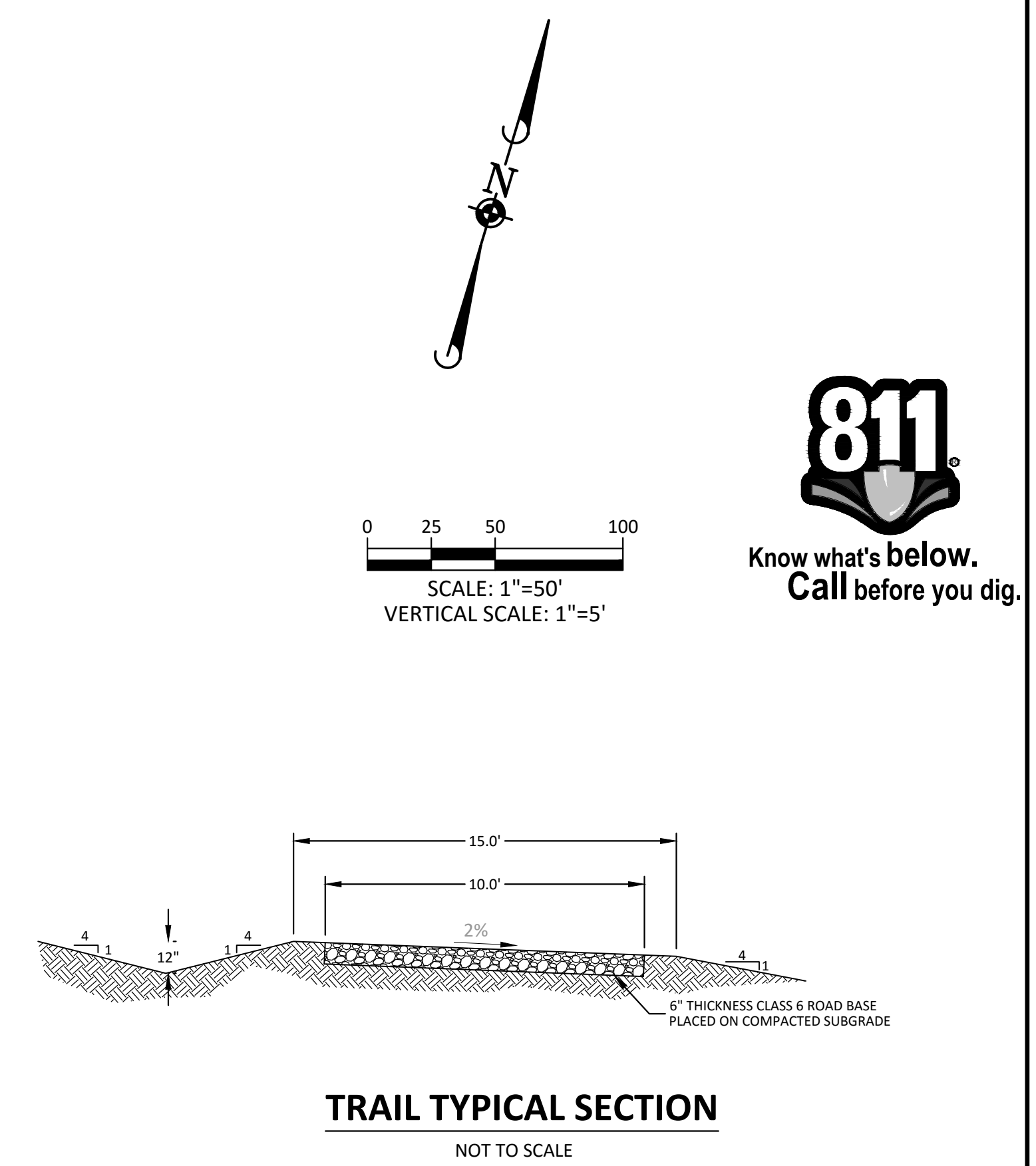
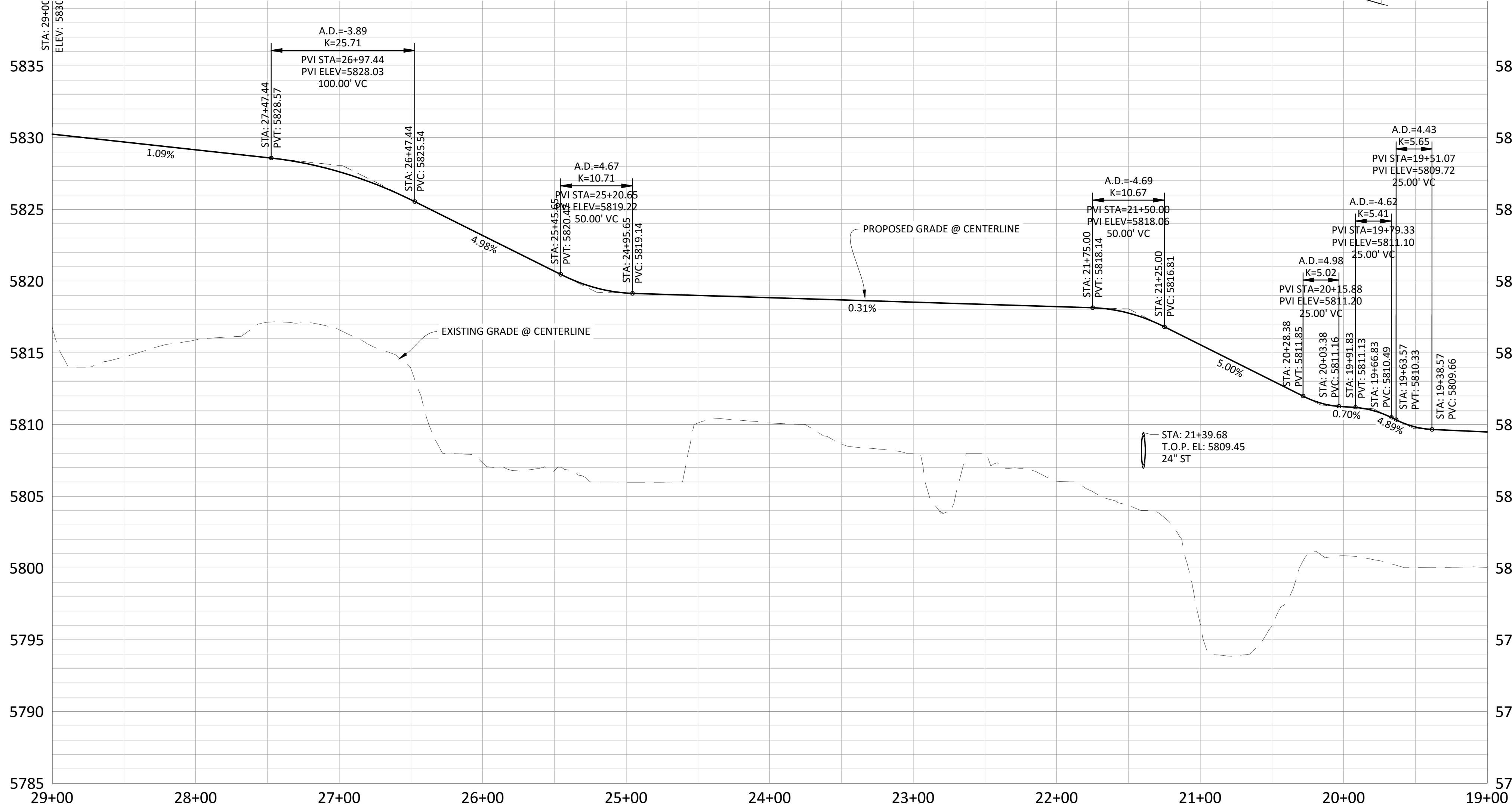
TOWN OF PARKER, DIRECTOR OF ENGINEERING DATE

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Project: 11/2015-446-04 Draw Name: P:\Projects\CompSouth\GreenAcres\Trail\Plan Set\Drawings\CompSouthGreenAcresTrail\86-10.dwg Updated By: A.Drucker



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THIS REVIEW DOES NOT CONSTITUTE APPROVAL OF ANY PRIVATE ON-SITE IMPROVEMENTS WHICH MAY BE SHOWN. CONSTRUCTION CANNOT COMMENCE UNTIL ALL REQUIRED DRAINAGE/TRAFFIC REPORT(S), FINAL DEVELOPMENT PLAN(S), SPECIAL REVIEW(S), GRADING PERMIT, AND/OR OTHER PERMITS ARE COMPLETE, APPROVED AND ON FILE WITH THE TOWN OF PARKER.

TOWN OF PARKER, DIRECTOR OF ENGINEERING DATE

DATE	REVISIONS
10/20/16	3RD SUBMITTAL
06/20/16	2ND SUBMITTAL
11/20/15	1ST SUBMITTAL

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811
Know what's below. Call before you dig.

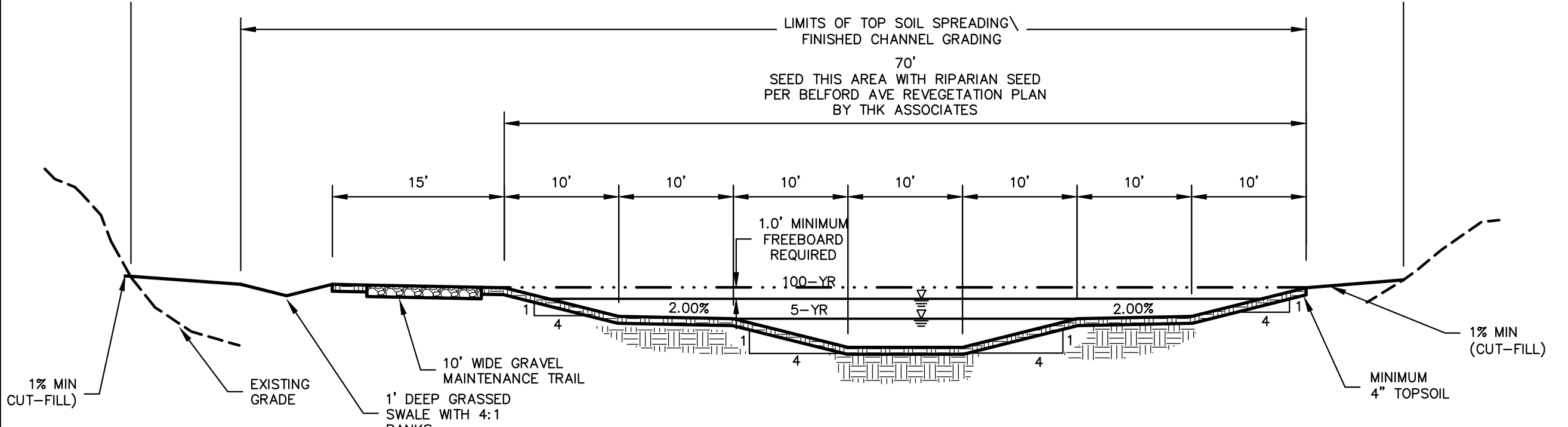
COMPARK VILLAGE SOUTH GREEN ACRES TRIBUTARY
TOWN OF PARKER, COLORADO
MAINTENANCE TRAIL PLAN & PROFILE

PROJ. MGR.: RIM
PROJ. ASSOC.: ASD
DRAWN BY: ETG
DATE: 11/2015

SHEET
29 OF 33
CLCPKC3

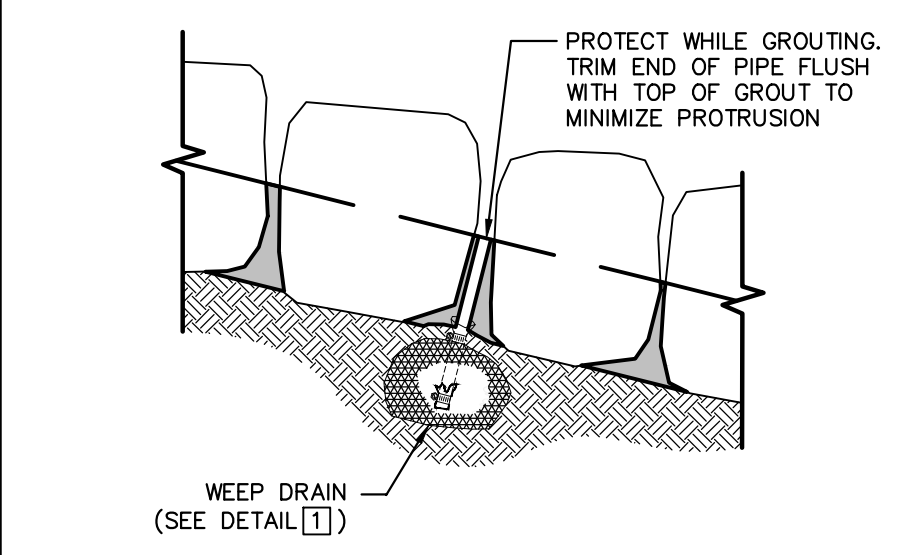
PENDING APPROVAL

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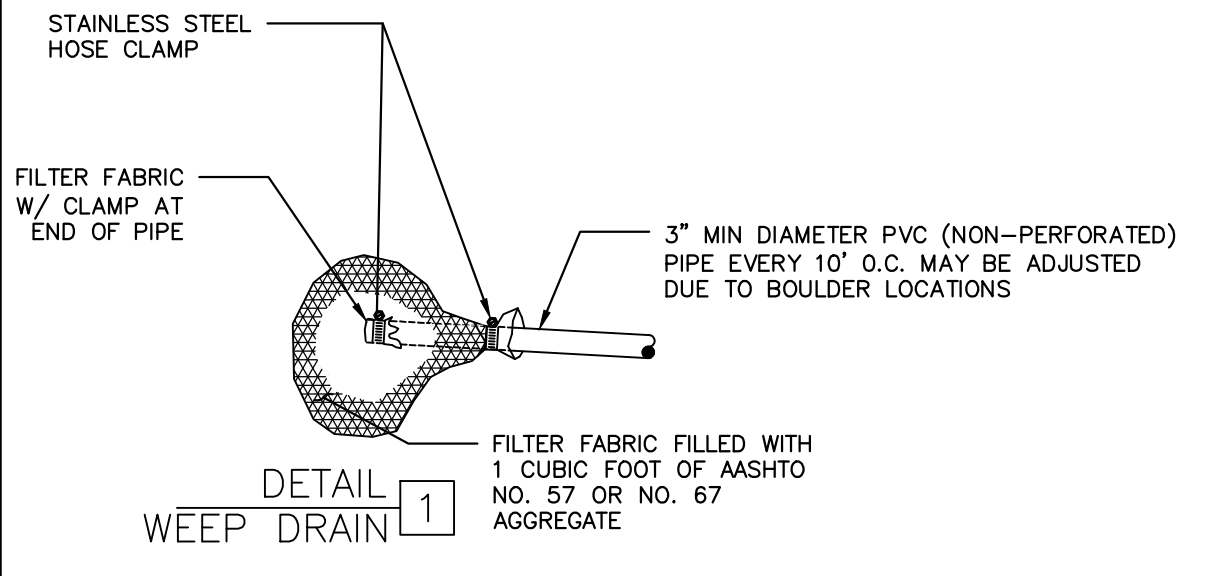


NOTE: BEGIN CHANNEL CONSTRUCTION AT STA: 118+76. TRANSITION FROM NATURAL CHANNEL SECTION TO TYPICAL CHANNEL SECTION.

TYPICAL CHANNEL SECTION—LOOKING UPSTREAM GREEN ACRES TRIBUTARY NTS



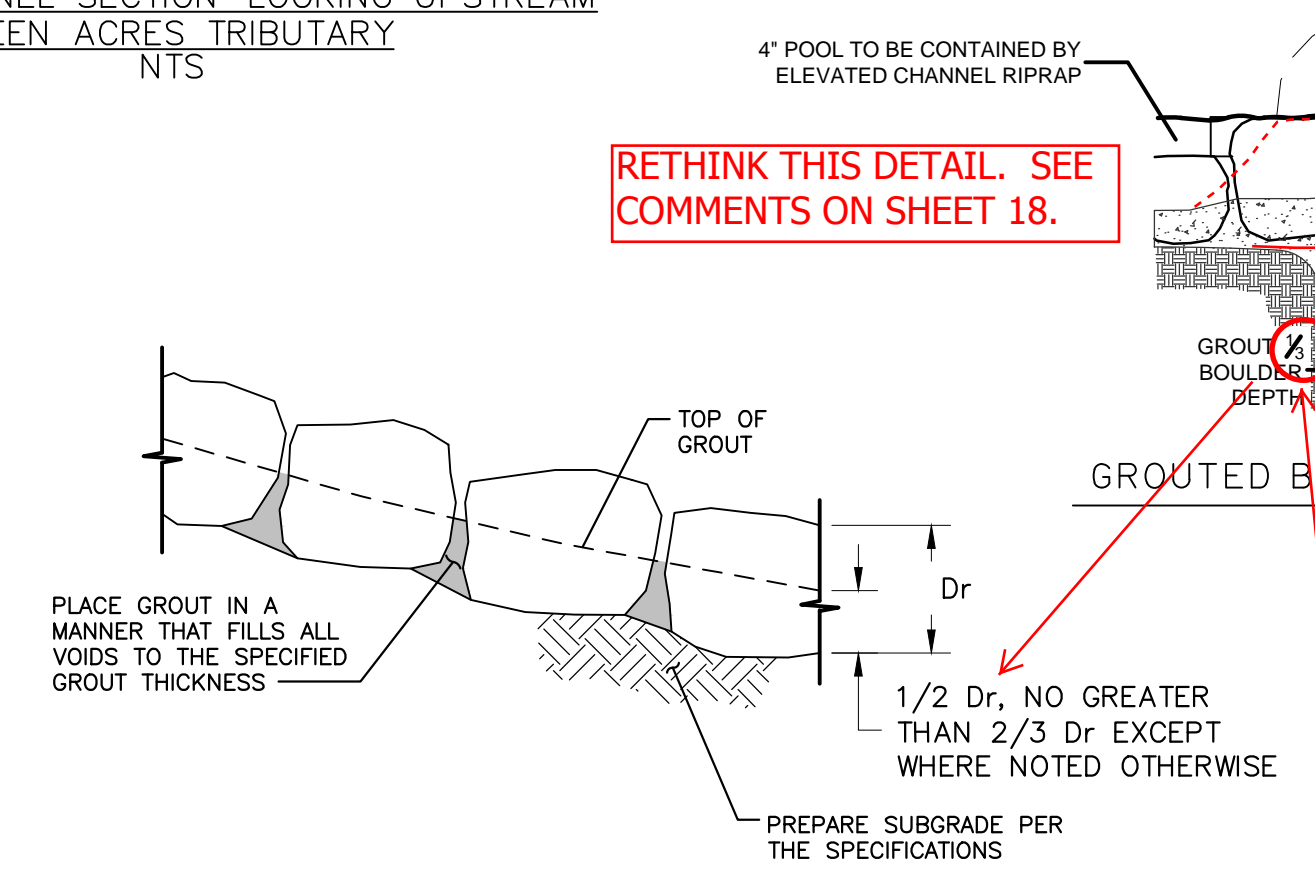
GROUTED BOULDERS



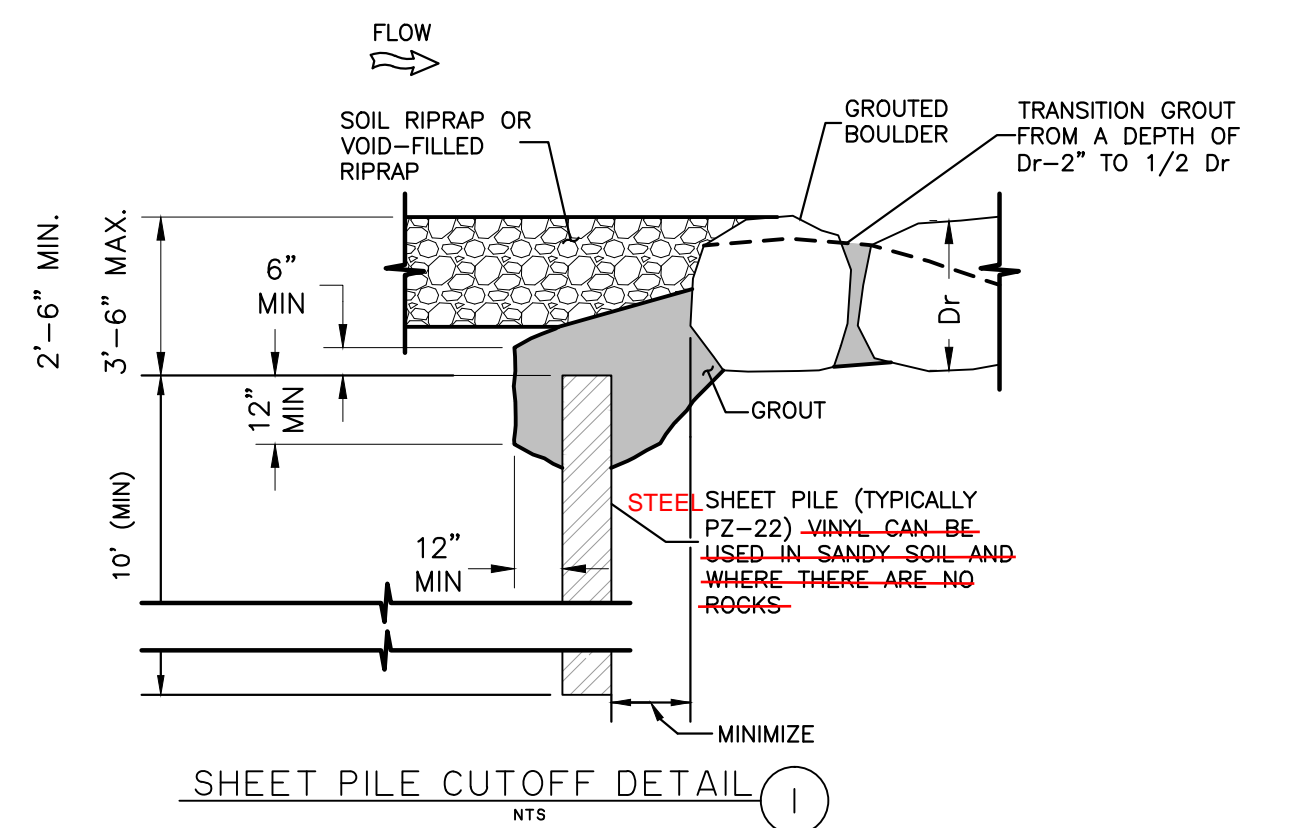
DETAIL 1 WEEP DRAIN

NOTE: INSTALL WEEP DRAINS FOR DROPS AND WALLS 5' AND GREATER AT 10' O.C. AT ELEVATIONS AND LOCATIONS SHOWN ON THE DRAWINGS

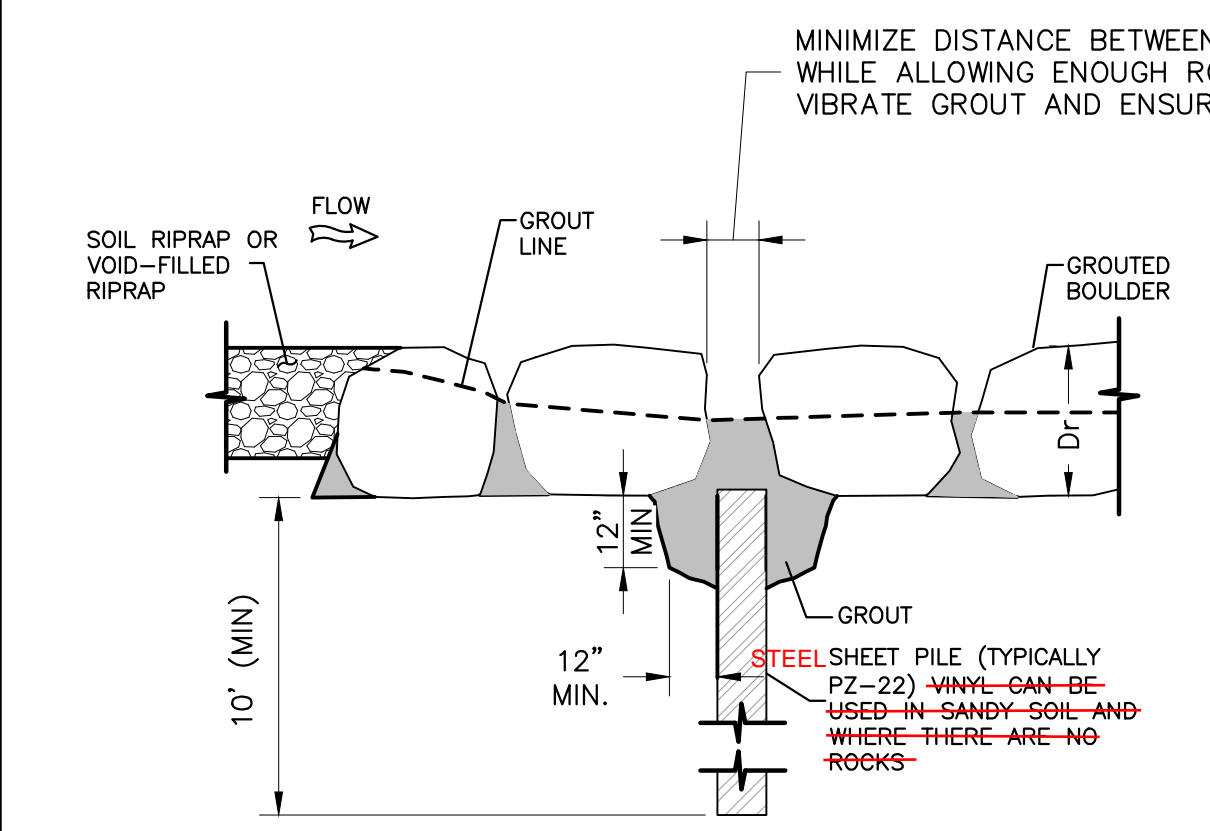
WEEP DRAIN DETAIL 2



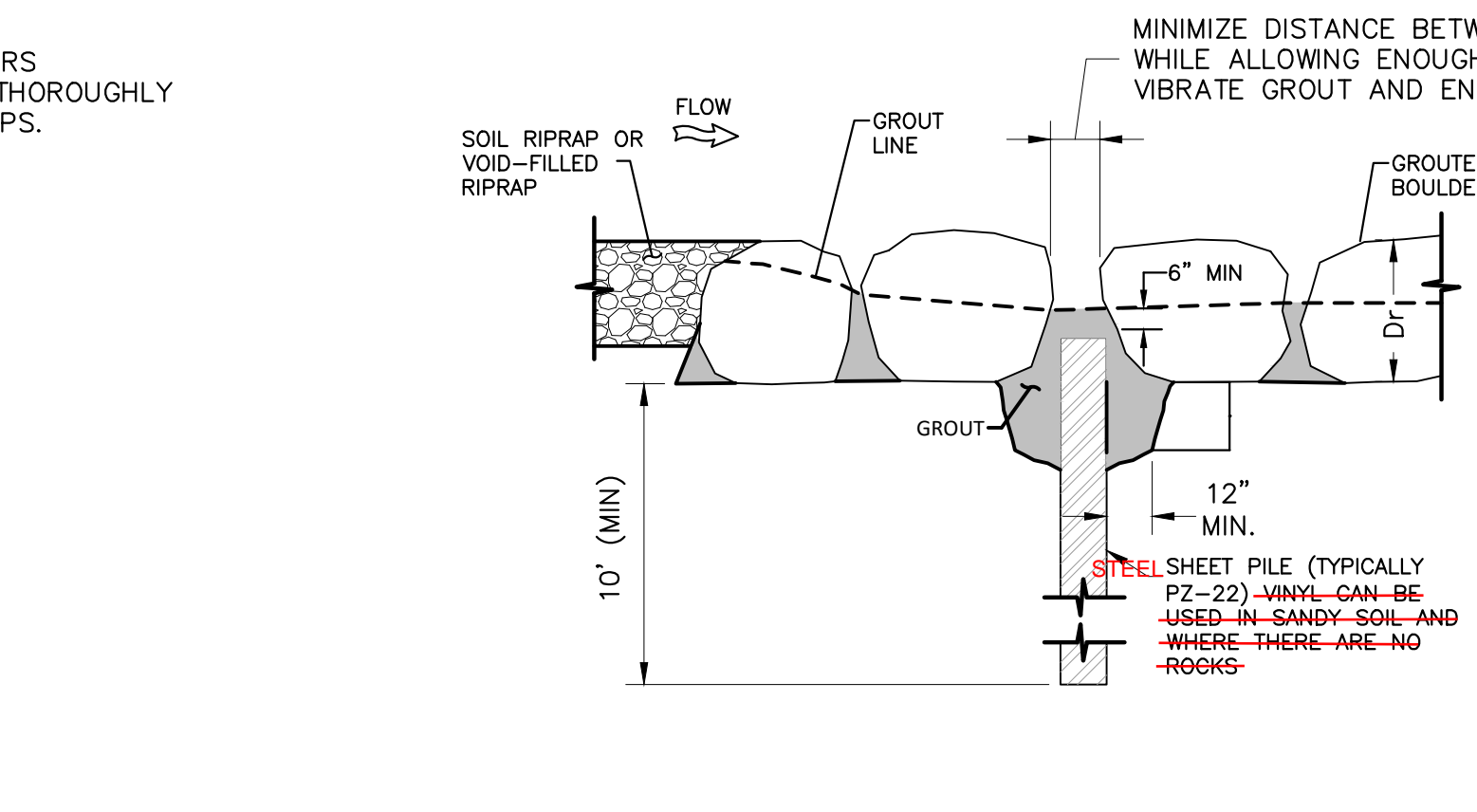
GROUTED BOULDER WEIR DETAIL



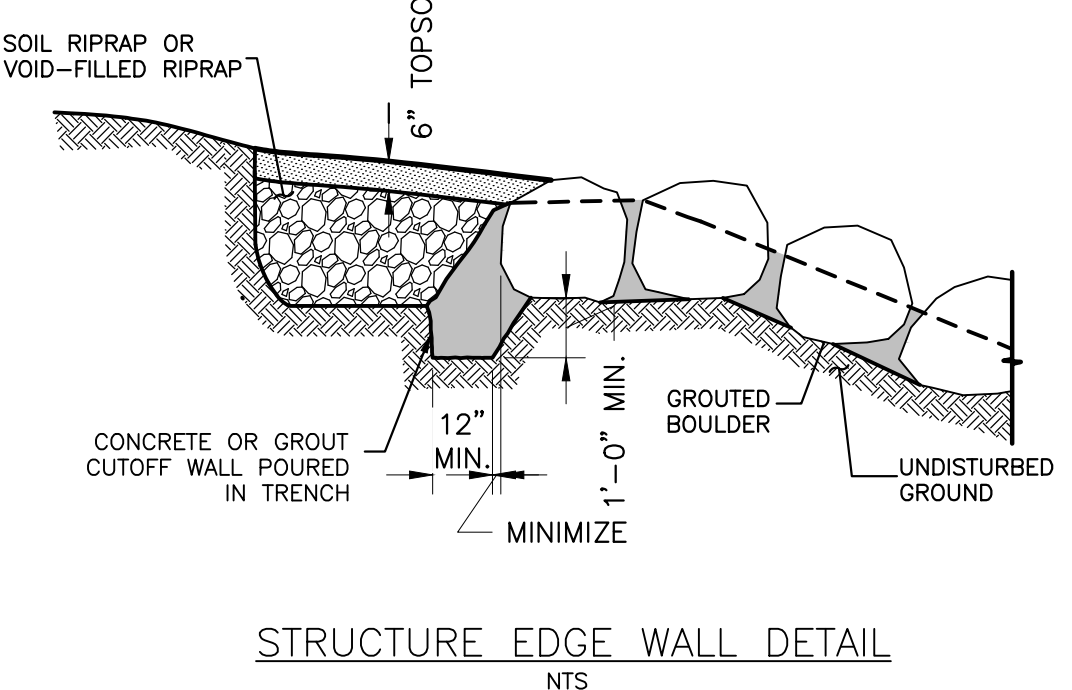
SHEET PILE CUTOFF DETAIL 1



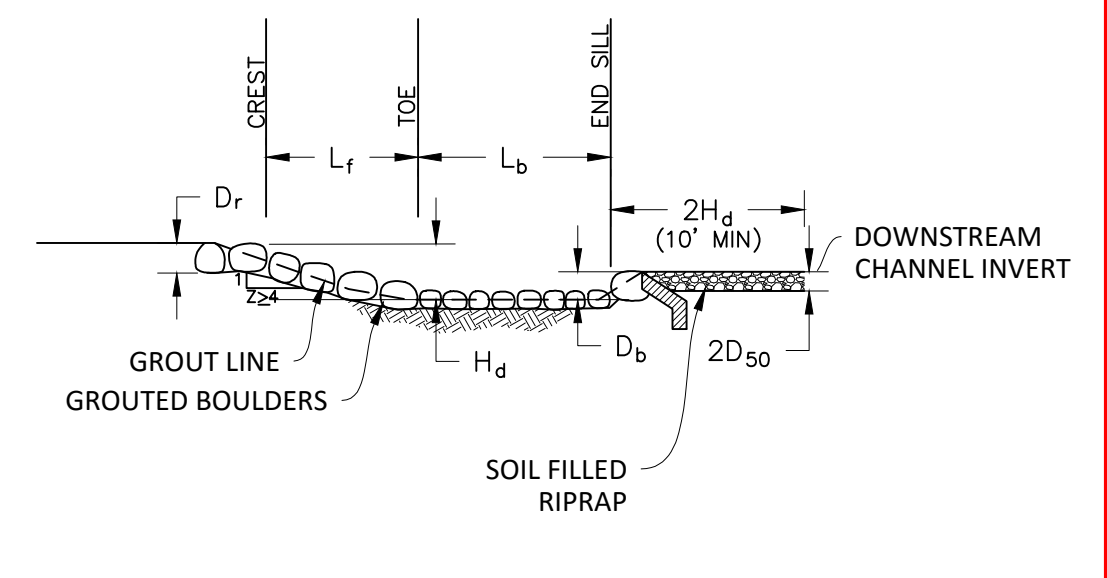
SHEET PILE CONNECTION BETWEEN BOULDERS (SMALLER THAN 24")



SHEET PILE CONNECTION BETWEEN BOULDERS (GREATER THAN 24")



STRUCTURE EDGE WALL DETAIL



PROFILE A1 GROUTED BOULDER DROP WITH DEPRESSED STILLING BASIN

GROUT & BOULDER NOTES

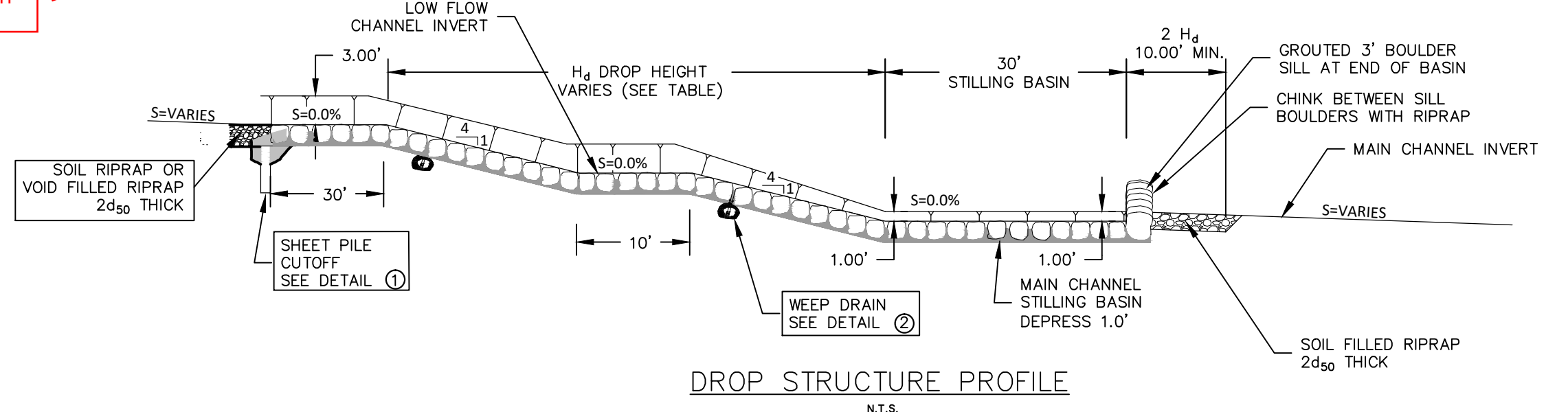
- | MATERIAL SPECIFICATIONS | PLACEMENT SPECIFICATIONS |
|--|--|
| 1. ALL GROUT SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH EQUAL TO 3200 PSI. | 1. PLACE BOULDERS WITH THE REQUIRED BOULDER HEIGHT VERTICAL. SEE PLANS BY THK ASSOCIATES FOR BOULDER SIZES AND HEIGHTS. PLACE BOULDERS AS TIGHTLY TOGETHER AS POSSIBLE (WITHOUT TOUCHING) WHILE PROVIDING ENOUGH ROOM BETWEEN THEM TO THOROUGHLY VIBRATE THE GROUT AND TO ENSURE NO GAPS IN THE GROUT. THE SMALL DIMENSION OF A 2x4 MAY BE USED AS A GUIDE TO CHECK MINIMUM SPACING. |
| 2. ONE CUBIC YARD OF GROUT SHALL HAVE A MINIMUM OF SIX (6) SACKS OF TYPE II PORTLAND CEMENT. | 2. BOULDERS ARE TO BE PLACED ONE BOULDER DEEP WITH TOPS OF BOULDERS DESCENDING AT IRREGULAR INTERVALS. |
| 3. A MAXIMUM OF 25% TYPE F FLY ASH MAY BE SUBSTITUTED FOR THE PORTLAND CEMENT. | 3. ROCKS SHALL BE SELECTED AND PLACED SUCH THAT A RELATIVELY FLAT HORIZONTAL SURFACE IS EXPOSED. |
| 4. THE AGGREGATE SHALL BE COMPRISED OF 70% NATURAL SAND (FINES) AND 30% 3/4-INCH ROCK (COARSE). | 4. DURING ROCK PLACEMENT, CONTRACTOR SHALL COORDINATE LOCATION AND ORIENTATION WITH OWNER, ENGINEER AND LANDSCAPE ARCHITECT. |
| 5. THE GROUT SLUMP SHALL BE BETWEEN 4-INCHES TO 6-INCHES. | 5. PRIOR TO GROUTING ROCK IN PLACE, CONTRACTOR SHALL NOTIFY OWNER, ENGINEER AND LANDSCAPE ARCHITECT FOR FINAL APPROVAL. |
| 6. AIR ENTRAINMENT SHALL BE BETWEEN 5.5% AND 7.5%. | 6. AFTER INSPECTION AND APPROVAL, GROUT SHALL BE ADDED TO A LEVEL APPROXIMATELY 1/2 THE BOULDER HEIGHT. |
| 7. TO CONTROL SHRINKAGE AND CRACKING, 1.5 POUNDS OF FIBERMESH, OR EQUIVALENT, SHALL BE USED PER CUBIC YARD OF GROUT. | 7. BEFORE GROUTING, CLEAR DIRT AND MATERIAL FROM ROCK THAT COULD PREVENT THE GROUT FROM BINDING TO THE ROCK. KEEP BOULDERS FROM TOUCHING, AVOID SLIDING BOULDERS AGAINST SUBGRADE TO PROPERLY POSITION. |
| 8. COLOR ADDITIVE IN REQUIRED AMOUNTS SHALL BE USED WHEN SO SPECIFIED BY CONTRACT. | 8. SPECIAL PROCEDURES WILL BE REQUIRED FOR GROUT PLACEMENT WHEN THE AIR TEMPERATURES ARE LESS THAN 40°F OR GREATER THAN 90°F. CONTRACTOR SHALL OBTAIN PRIOR APPROVAL FROM THE DESIGN ENGINEER OF THE PROCEDURES TO BE USED FOR PROTECTING THE GROUT. |
| | 9. GROUT SHALL BE DELIVERED BY MEANS OF A LOW PRESSURE (LESS THAN 10 PSI) GROUT PUMP USING A 2-INCH DIAMETER (MAXIMUM) NOZZLE. |
| | 10. FULL DEPTH PENETRATION OF THE GROUT INTO THE BOULDER VOIDS SHALL BE ACHIEVED BY INJECTING GROUT STARTING WITH THE NOZZLE NEAR THE BOTTOM AND RAISING IT AS THE GROUT FILLS, WHILE VIBRATING GROUT INTO PLACE USING A PENCIL VIBRATOR. |
| | 11. ALL GROUT BETWEEN BOULDERS SHALL BE TREATED WITH A BROOM FINISH. |
| | 12. AFTER GROUT PLACEMENT, EXPOSED BOULDER FACES SHALL BE CLEANED AND FREE OF GROUT. |
| | 13. ALL FINISHED GROUT SURFACES SHALL BE SPRAYED WITH A CLEAR LIQUID MEMBRANE CURING COMPOUND AS SPECIFIED IN ASTM C309. |
| | 14. GROUTED BASIN WILL NOT BE DRAINED AND WILL BE PERMITTED TO COLLECT SEDIMENT. |

RETHINK THIS DETAIL. SEE COMMENTS ON SHEET 18.

LIKELY THAT WATER WILL NOT POOL AS INTENDED WITHOUT GROUTING TO THE TOP OF THE WEIR BOULDER RIDGE LINE BECAUSE THERE WON'T BE ENOUGH RESISTANCE IN THE SPACES BETWEEN THE BOULDERS (THEY CAN'T BE TOUCHING).

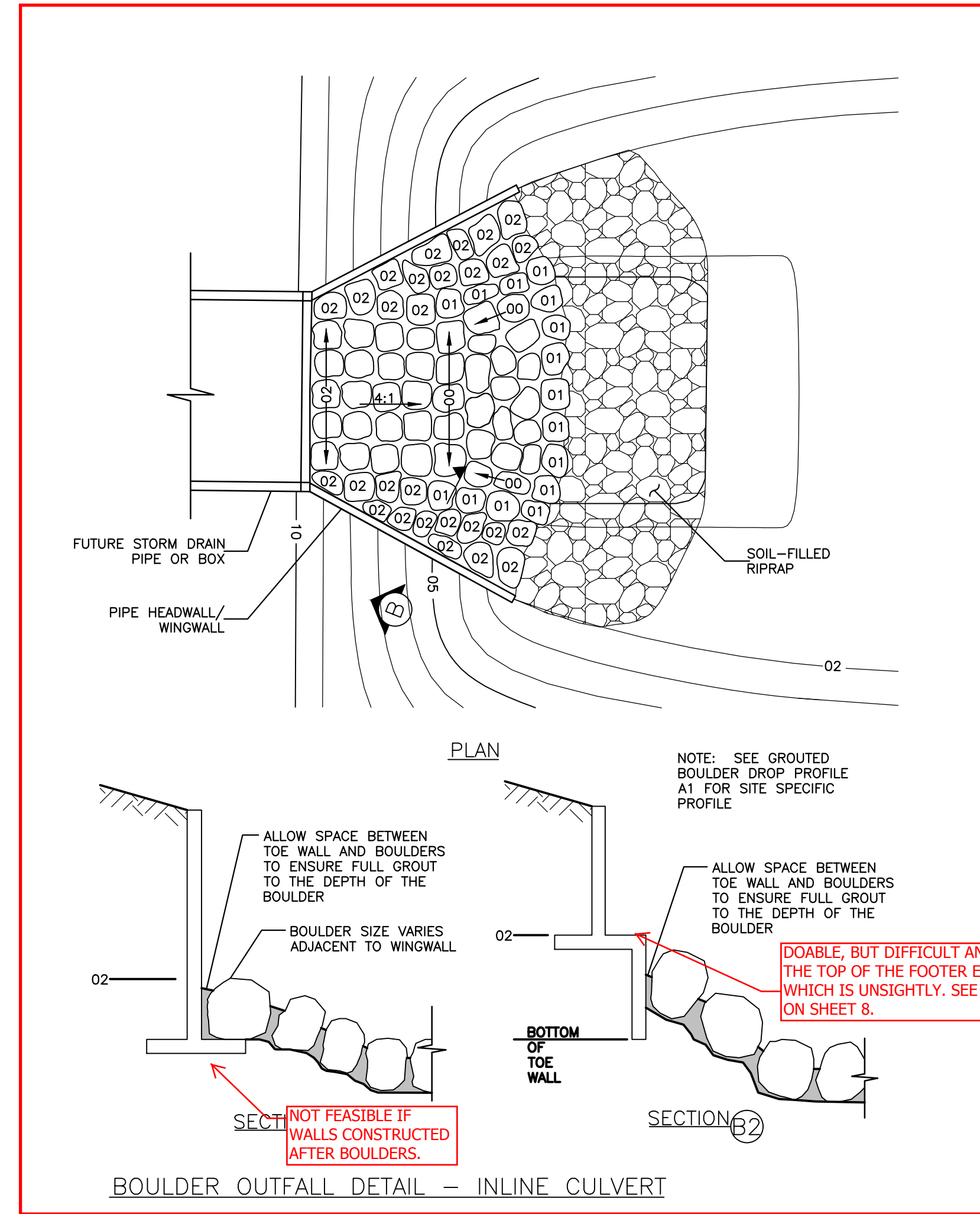
BOULDER NEEDS ENOUGH SUBGRADE TO SUPPORT THE WEIGHT OF THE BOULDER UNTIL GROUT IS PLACED. THIS CREATES A THIN GROUT POTENTIAL WHEN ADJACENT BOULDERS HAVE TOO LARGE OF A VERTICAL DIFFERENCE.

SHOULD BE TYPICALLY 1/2 BOULDER DEPTH MINIMUM.



DROP STRUCTURE PROFILE

STA	H _d
81+19	7.0'
86+30	9.5'
92+05	6.0'
102+65	5.5'
110+74	4.0'
111+91	5.0'



BOULDER OUTFALL DETAIL - INLINE CULVERT

Plotted: 11/7/2015 4:49 PM. Draw Name: S:\Projects\3\CompSouth02-GreenAcresTrib\Draws\Final\Drawings\Plan_South\CLCPKC3-Boisage-Gen_Details-1.dwg. Updated By: A.Drusler

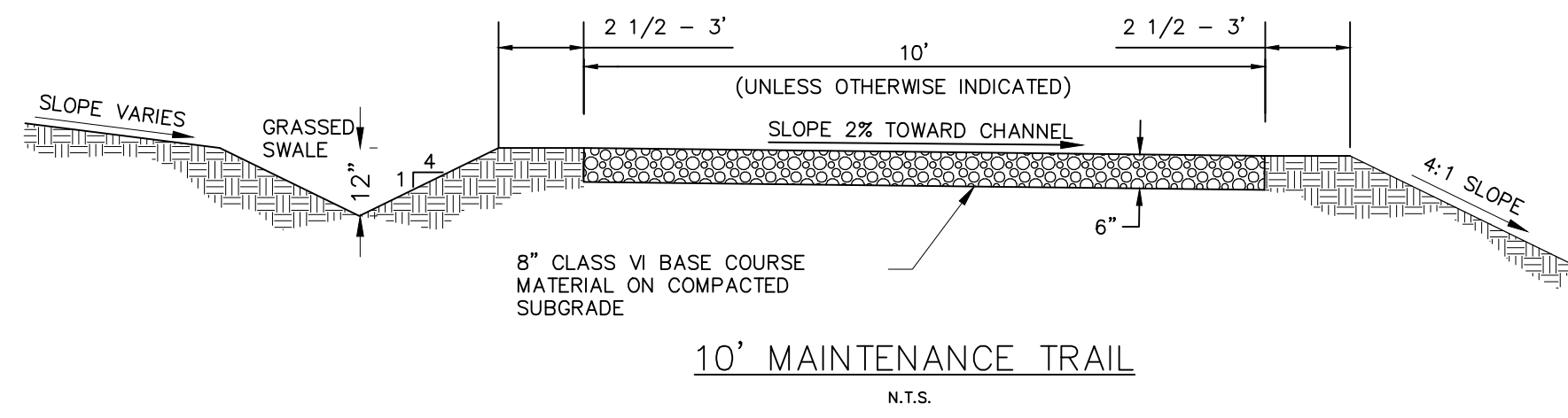
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COMPARK VILLAGE SOUTH GREEN ACRES TRIBUTARY
 TOWN OF PARKER, COLORADO
 GENERAL DETAILS

PROJ MGR: RJM
 PROJ ASSOC: ASD
 DRAWN BY: ETG
 DATE: 11/2015

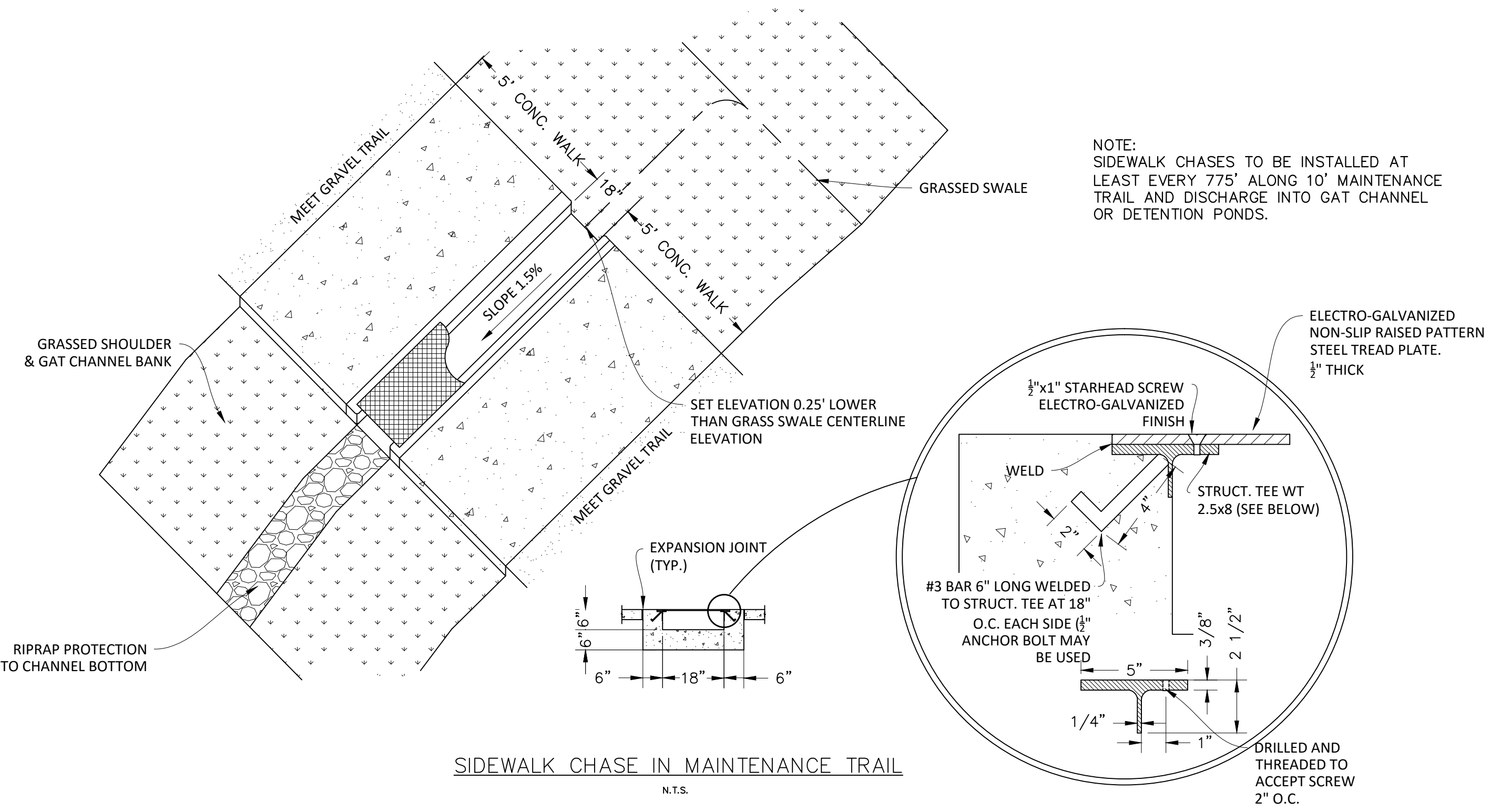
SHEET
31 OF 33
 CLCPKC3

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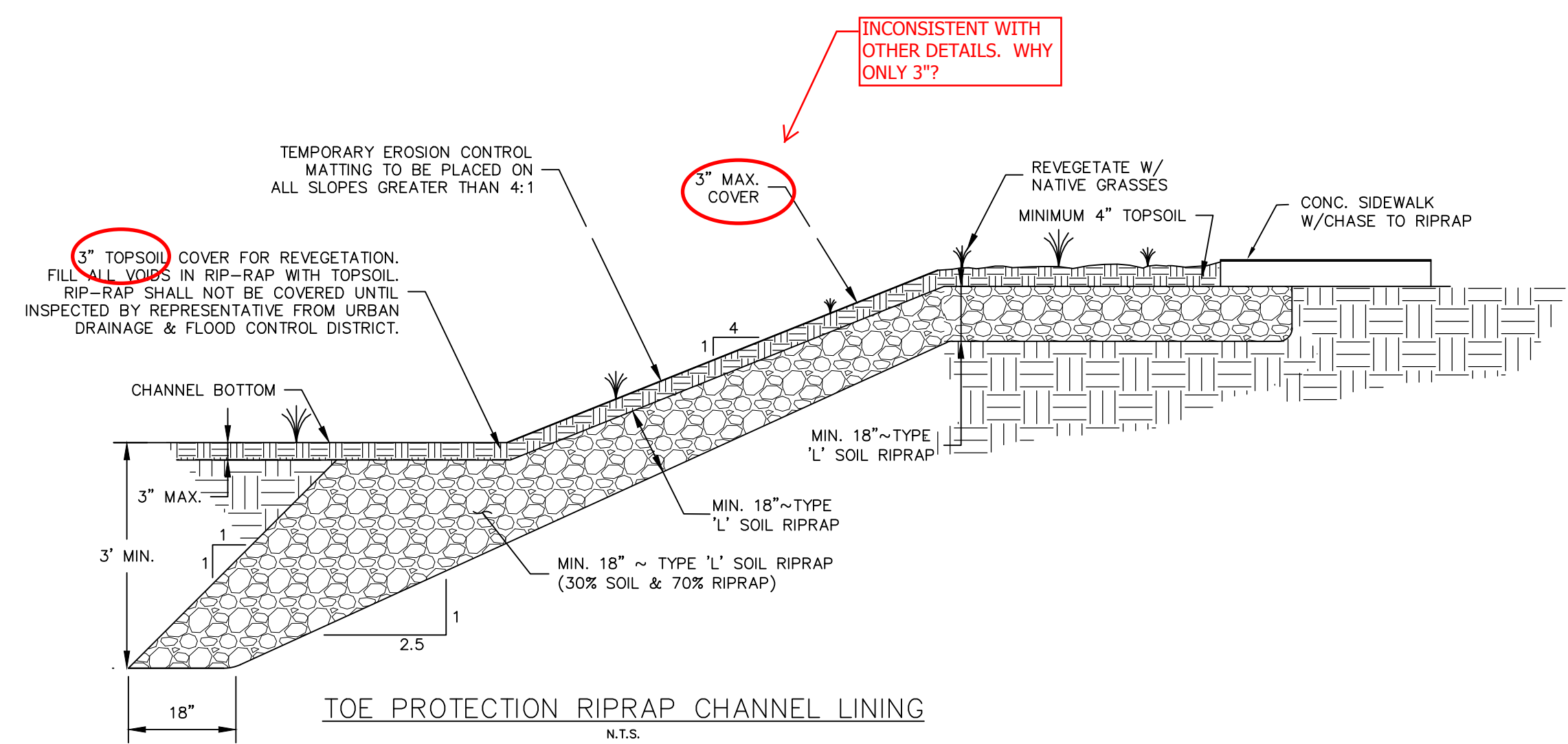


10' MAINTENANCE TRAIL
N.T.S.

RIPRAP DETAIL AND NOTES?
VOID FILLED RIPRAP DETAIL AND NOTES?
INCLUDE THOSE FROM THE CRITERIA MANUAL.
WHO IS SUPERVISING AND MAKING FIELD ADJUSTMENTS ON VFR?



SIDEWALK CHASE IN MAINTENANCE TRAIL
N.T.S.



TOE PROTECTION RIPRAP CHANNEL LINING
N.T.S.

NO.	DATE	REVISIONS
A	11/2015	1ST SUBMITTAL
B	06/2016	2ND SUBMITTAL
C	10/2016	3RD SUBMITTAL

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COMPARK VILLAGE SOUTH GREEN ACRES TRIBUTARY
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 GENERAL DETAILS

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 PROJ. ASSOC.: ASD
 DRAWN BY: ETG
 DATE: 11/2015
 SHEET
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 CLCPKC3

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Plotfile: 11/1/2016 4:49 PM Draw Name: B:\Projects\3\CompSouth02-GreenAcres\Trib\Man\Enr\Drawings\Plan\SA\Town\CLCPKC3-Details-Gen\Detail-1.dwg Updated By: A.Drusker

