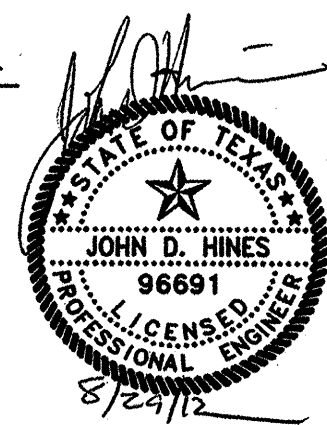


SUBMITTED BY:

John D. Hines
JOHN D. HINES, P.E.
GRAY & ASSOCIATES, INC.
8217 SHOAL CREEK BLVD.
SUITE 200
AUSTIN, TEXAS 78757-7592
(512) 452-0371

August 29, 2012
DATE



CONSTRUCTION PLANS FOR MEADOWS AT KYLE PHASE ONE WATER, WASTEWATER, STREET AND DRAINAGE IMPROVEMENTS

OWNER:
MEADOWS AT KYLE, LTD
C/O D.R. HORTON-AMERICAS BUILDER
12554 RIATA VISTA CIRCLE, 2ND FLOOR
AUSTIN, TEXAS 78727
(512) 533-1467
(512) 533-1429

ENGINEER:
GRAY & ASSOCIATES, INC.
8217 SHOAL CREEK BLVD., SUITE 200
AUSTIN, TEXAS 78757-7592
(512) 452-0371
FAX (512) 454-9933
TBPE FIRM #2946

LEGAL DESCRIPTION:

16.140 ACRES OF LAND OUT OF THE JOHN N. FRANKS SURVEY NO. 17,
ABSTRACT 177 AND NO. 3, ABSTRACT 178 SITUATED IN HAYS COUNTY TEXAS.

REVIEWED BY:

Steve L. Widacki
CITY ENGINEER
CITY OF KYLE, TEXAS

9/19/12
DATE

H. W. L.
DIRECTOR OF PUBLIC WORKS
CITY OF KYLE, TEXAS

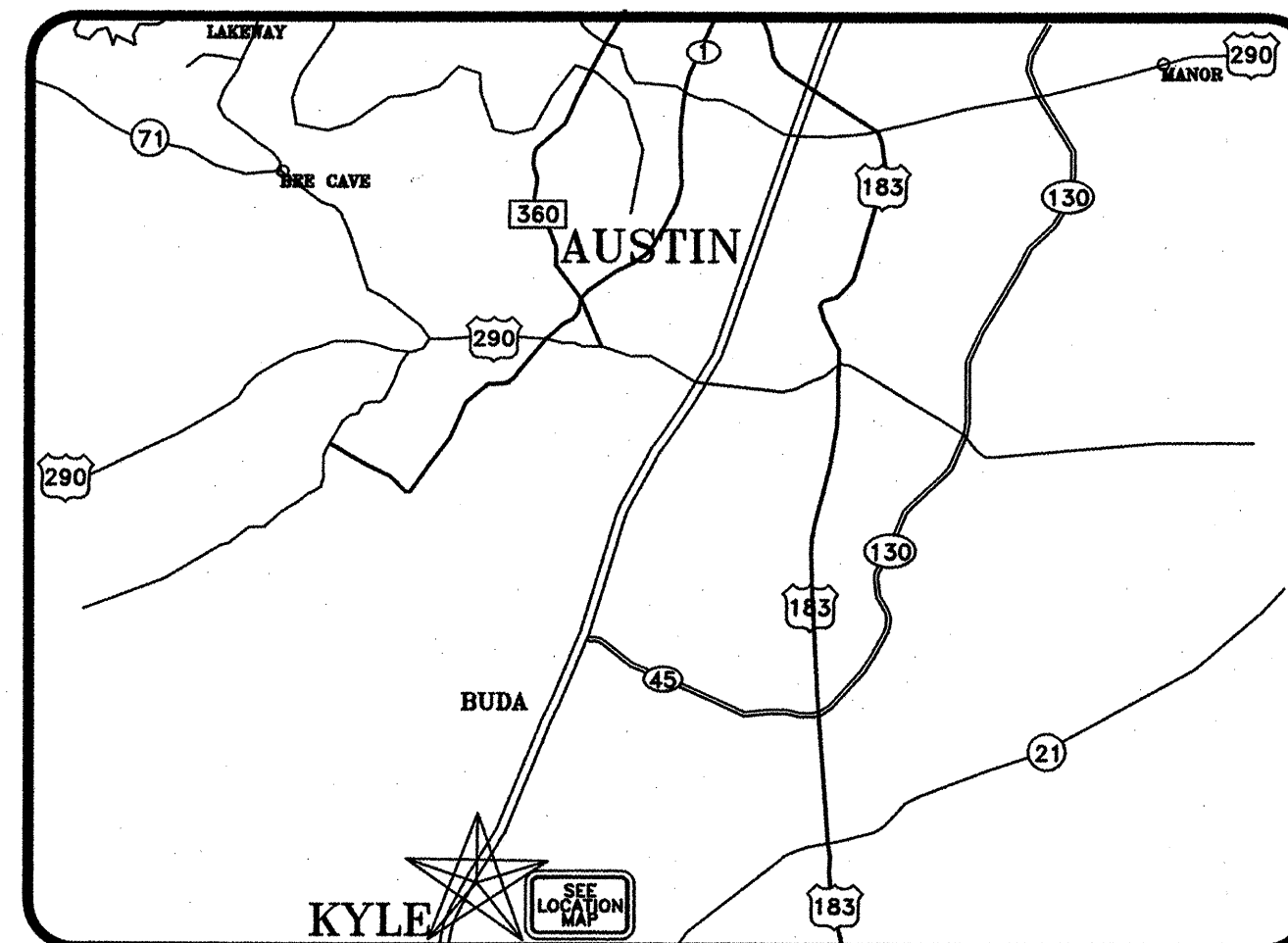
9-21-12
DATE

Emilio Toluis
GENERAL MANAGER
GOFORTH WATER SUPPLY CORPORATION
Goforth Special Utility District
PERMITS:

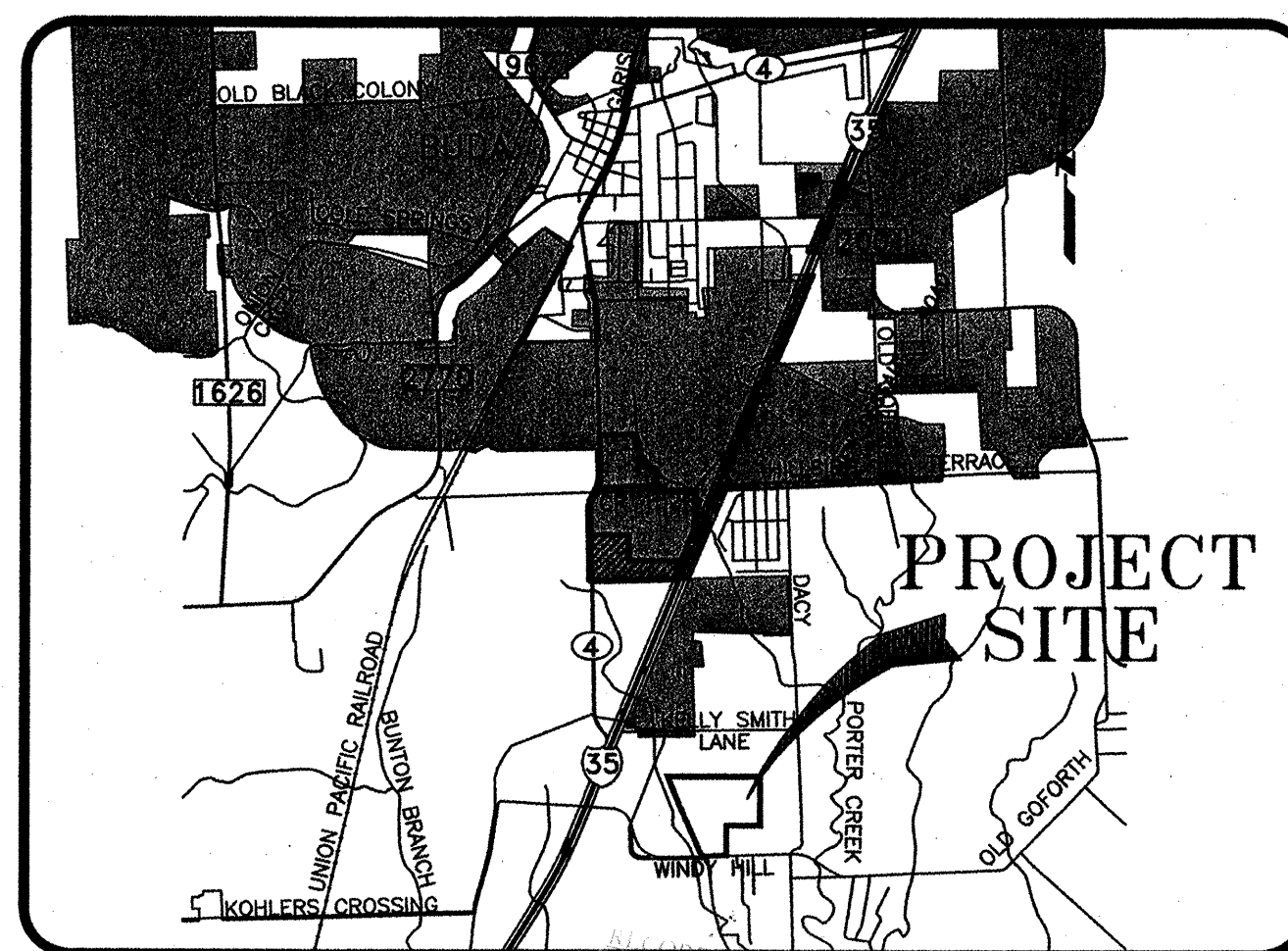
10/22/12
DATE

FP-12-002
DEVELOPMENT PERMIT NO.
City of Kyle

Sept. 18, 2012
SUBMITTAL DATE
Issued



VICINITY MAP
N.T.S.



LOCATION MAP
N.T.S.

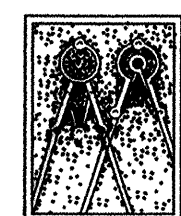
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| 3 | GENERAL NOTES (2 OF 2) |
| 4 | FINAL PLAT (1 OF 2) |
| 5 | FINAL PLAT (2 OF 2) |
| 6 | OVERALL WATER DISTRIBUTION PLAN |
| 7 | OVERALL WASTEWATER COLLECTION PLAN |
| 8 | OVERALL DRAINAGE PLAN (SHEET 1 OF 2) |
| 9 | OVERALL DRAINAGE PLAN (SHEET 2 OF 2) |
| 10 | HYDROLOGY CALCULATIONS (SHEET 1 OF 2) |
| 11 | HYDROLOGY CALCULATIONS (SHEET 2 OF 2) |
| 12 | DETENTION POND |
| 13 | DETENTION POND DETAILS |
| 14 | OVERALL EROSION & SEDIMENTATION CONTROL PLAN |
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NOTES:

- THIS SUBDIVISION IS LOCATED WITHIN THE PLUM CREEK WATERSHED, AND DRAINS DIRECTLY TO A TRIBUTARY OF PORTER CREEK.
- RELEASE OF THIS APPLICATION DOES NOT CONSTITUTE A VERIFICATION OF ALL DATA, INFORMATION AND CALCULATIONS SUPPLIED BY THE APPLICANT. THE ENGINEER OF RECORD IS SOLELY RESPONSIBLE FOR THE COMPLETENESS, ACCURACY AND ADEQUACY OF HIS/HER SUBMITTAL, WHETHER OR NOT THE APPLICATION IS REVIEWED FOR CODE COMPLIANCE BY CITY ENGINEERS.
- A PORTION OF THIS TRACT IS WITHIN THE BOUNDARIES OF THE 100 YEAR FLOODPLAIN ACCORDING TO THE FEDERAL INSURANCE ADMINISTRATION FIRM PANEL #48208C0280F EFFECTIVE DATE SEPTEMBER 2, 2005 FOR HAYS COUNTY, TEXAS.
- WATER SERVICE WILL BE PROVIDED BY GO FORTH WATER SUPPLY CORPORATION.
- WASTEWATER SERVICE WILL BE PROVIDED BY THE CITY OF KYLE, IN ACCORDANCE WITH THE TRI-PARTY DEVELOPMENT AGREEMENT DATED APRIL 11, 2007, AND LAST AMENDED AUGUST 16, 2011.
- NO PORTION OF THIS TRACT IS WITHIN THE EDWARDS AQUIFER RECHARGE OR CONTRIBUTING ZONE.
- THE PROJECT IS IN THE FULL PURPOSE LIMITS OF THE CITY OF KYLE.

N.T.S. This plan has been prepared based on information furnished by others. While this information is believed to be correct, the Engineer is not responsible for its accuracy or completeness. These plans are to be used as a guide only. The user is advised to obtain independent verification of its accuracy before applying it for any purpose.



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LABEL CLEANUP →
(WATER) →
GOFORTH →
WASTEWATER →

| REVISION NO. | DATE MADE | SHEET NO. | MADE BY | ACCEPTED BY | DATE APPROVED |
|--------------|-----------|-----------------|---------|-------------|---------------|
| 1 | 10/1/12 | 14, 14B, 33, 35 | JAH | SW | 10/1/12 |
| 2 | 10/18/12 | 6, 24, 24B, 33 | JAH | SW | 10/18/12 |
| 3 | 11/14/12 | 19 | JAH | SW | 11/26/12 |

CONSTRUCTION PLANS
FOR
MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER, STREET AND
DRAINAGE IMPROVEMENTS
JOB NO: 1283-10465-32

- THE CONTRACTOR SHALL INSTALL EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTIVE FENCING PRIOR TO ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR EXCAVATION).
- THE PLACEMENT OF EROSION/SEDIMENTATION CONTROLS SHALL BE IN ACCORDANCE WITH THE ENVIRONMENTAL CRITERIA MANUAL AND THE APPROVED EROSION AND SEDIMENTATION CONTROL PLAN. THE COA ESC PLAN SHALL BE CONSULTED AND USED AS THE BASIS FOR A TPOES REQUIRED SWPPP. IF A SWPPP IS REQUIRED, IT SHALL BE AVAILABLE FOR REVIEW BY THE CITY OF AUSTIN ENVIRONMENTAL INSPECTOR AT ALL TIMES DURING CONSTRUCTION, INCLUDING AT THE PRE-CONSTRUCTION MEETING. THE CHECKLIST BELOW CONTAINS THE BASIC ELEMENTS THAT SHALL BE REVIEWED FOR PERMIT APPROVAL BY COK EV PLAN REVIEWERS AS WELL AS COK EV INSPECTORS.
- THE PLACEMENT OF TREE/NATURAL AREA PROTECTIVE FENCING SHALL BE IN ACCORDANCE WITH THE CITY OF AUSTIN STANDARD NOTES FOR TREE AND NATURAL AREA PROTECTION AND THE APPROVED GRADING/TREE AND NATURAL AREA PLAN.
- A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD ON-SITE WITH THE CONTRACTOR, DESIGN ENGINEER/PERMIT APPLICANT AND ENVIRONMENTAL INSPECTOR AFTER INSTALLATION OF THE EROSION/SEDIMENTATION CONTROLS AND TREE/NATURAL AREA PROTECTION MEASURES AND PRIOR TO BEGINNING ANY SITE PREPARATION WORK. THE OWNER OR OWNER'S REPRESENTATIVE SHALL NOTIFY THE CITY OF KYLE, AT LEAST THREE DAYS PRIOR TO THE MEETING DATE. COK APPROVED ESC PLAN AND TPOES SWPPP (IF REQUIRED) SHOULD BE REVIEWED BY COK EV INSPECTOR AT THIS TIME.
- ANY MAJOR VARIATION IN MATERIALS OR LOCATIONS OF CONTROLS OR FENCES FROM THOSE SHOWN ON THE APPROVED PLANS WILL REQUIRE A REVISION AND MUST BE APPROVED BY THE REVIEWING ENGINEER, ENVIRONMENTAL SPECIALIST OR CITY ARBORIST. MAJOR REVISIONS MUST BE APPROVED BY THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT. MINOR CHANGES TO BE MADE AS FIELD REVISIONS TO THE EROSION AND SEDIMENTATION CONTROL PLAN MAY BE REQUIRED BY THE ENVIRONMENTAL INSPECTOR DURING THE COURSE OF CONSTRUCTION TO CORRECT CONTROL INADEQUACIES.
- THE CONTRACTOR IS REQUIRED TO PROVIDE A CERTIFIED INSPECTOR WITH EITHER A CERTIFIED PROFESSIONAL IN-EROSION AND SEDIMENT CONTROL (CPESC), CERTIFIED EROSION, SEDIMENT AND STORMWATER INSPECTOR (CESSMI) OR CERTIFIED INSPECTOR OF SEDIMENTATION AND EROSION CONTROLS (CISEC) CERTIFICATION TO INSPECT THE CONTROLS AND FENCES AT WEEKLY INTERVALS AND AFTER SIGNIFICANT RAINFALL EVENTS TO INSURE THAT THEY ARE FUNCTIONING PROPERLY. THE PERSON(S) RESPONSIBLE FOR MAINTENANCE OF CONTROLS AND FENCES SHALL IMMEDIATELY MAKE ANY NECESSARY REPAIRS TO DAMAGED AREAS. SILT ACCUMULATION AT CONTROLS MUST BE REMOVED WHEN THE DEPTH REACHES SIX (6) INCHES.
- PRIOR TO FINAL ACCEPTANCE BY THE CITY, HAUL ROADS AND WATERWAY CROSSINGS CONSTRUCTED FOR TEMPORARY CONTRACTOR ACCESS MUST BE REMOVED, ACCUMULATED SEDIMENT REMOVED FROM THE WATERWAY AND THE AREA RESTORED TO THE ORIGINAL GRADE AND REVEGETATED. ALL LAND CLEARING DEBRIS SHALL BE DISPOSED OF IN APPROVED SPOIL DISPOSAL SITES.
- ALL WORK MUST STOP IF A VOID IN THE ROCK SUBSTRATE IS DISCOVERED WHICH IS; ONE SQUARE FOOT IN TOTAL AREA; BLOWS AIR FROM WITHIN THE SUBSTRATE AND/OR CONSISTENTLY RECEIVES WATER DURING ANY RAIN EVENT. AT THIS TIME IT IS THE RESPONSIBILITY OF THE PROJECT MANAGER TO IMMEDIATELY CONTACT A CITY OF KYLE ENVIRONMENTAL INSPECTOR FOR FURTHER INVESTIGATION.
- TEMPORARY AND PERMANENT EROSION CONTROL: ALL DISTURBED AREAS SHALL BE RESTORED AS NOTED BELOW.
 - ALL DISTURBED AREAS TO BE REVEGETATED ARE REQUIRED TO PLACE A MINIMUM OF SIX (6) INCHES OF TOPSOIL [SEE STANDARD SPECIFICATION ITEM NO.6015.3(A)]. DO NOT ADD TOPSOIL WITHIN THE CRITICAL ROOT ZONE OF EXISTING TREES. THE TOPSOIL SHALL BE COMPOSED OF 4 PARTS OF SOIL MIXED WITH 1 PART COMPOST. BY VOLUME, THE COMPOST SHALL MEET THE DEFINITION OF COMPOST AS DEFINED BY TxDOT SPECIFICATION ITEM 161. THE SOIL SHALL BE LOCALLY AVAILABLE NATIVE SOIL THAT MEETS THE FOLLOWING SPECIFICATIONS: A-649/1/11 ENVIRONMENTAL CRITERIA MANUAL, SEPTEMBER 2011 SUPPLEMENT:
 - SHALL BE FREE OF TRASH, WEEDS, DELETERIOUS MATERIALS, ROCKS, AND DEBRIS.
 - 100% SHALL PASS THROUGH A 1.5-INCH (38-MM) SCREEN.
 - SOIL TO BE A LOAMY MATERIAL THAT MEETS THE REQUIREMENTS OF THE TABLE BELOW IN ACCORDANCE WITH THE USDA TEXTURAL TRIANGLE. SOIL KNOWN LOCALLY AS "RED DEATH" IS NOT AN ALLOWABLE SOIL. TEXTURAL COMPOSITION SHALL MEET THE FOLLOWING CRITERIA:

| TEXTURAL CLASS | MINIMUM | MAXIMUM |
|----------------|---------|---------|
| CLAY | 5% | 50% |
| SILT | 10% | 50% |
| SAND | 15% | 67% |

- SOIL AMENDMENTS SHALL BE WORKED INTO THE EXISTING ONSITE TOPSOIL WITH A DISC OR TILLER TO CREATE A WELL-BLENDED MATERIAL.
- TOPSOIL SALVAGED FROM THE EXISTING SITE MAY OFTEN BE USED, BUT IT SHOULD MEET THE SAME STANDARDS AS SET FORTH IN THESE STANDARDS.

THE VEGETATIVE STABILIZATION OF AREAS DISTURBED BY CONSTRUCTION SHALL BE AS FOLLOWS:

TEMPORARY VEGETATIVE STABILIZATION:

- FROM SEPTEMBER 15 TO MARCH 1, SEEDING SHALL BE WITH COOL SEASON COVER CROPS (WHEAT AT 0.5 POUNDS PER 1000 SF, OATS AT 0.5 POUNDS PER 1000 SF, CEREAL RYE GRAIN AT 0.5 POUNDS PER 1000 SF) WITH A TOTAL RATE OF 1.5 POUNDS PER 1000 SF. COOL SEASON COVER CROPS ARE NOT PERMANENT EROSION CONTROL.
- FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 1 POUNDS PER 1000 SF.
 - FERTILIZER SHALL BE WATER SOLUBLE WITH AN ANALYSIS OF 15-15-15 TO BE APPLIED ONCE AT PLANTING AND ONCE DURING THE PERIOD OF ESTABLISHMENT AT A RATE OF 1/2 POUND PER 1000 SF.
 - HYDROMULCH SHALL COMPLY WITH TABLE 1, BELOW.
 - TEMPORARY EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1 1/2 INCHES HIGH WITH 95% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN 16 SQUARE FEET EXIST.
 - WHEN REQUIRED, NATIVE GRASS SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL.

SEPTEMBER 2011 SUPPLEMENT APPENDIX 9/1/11 A-64A
TABLE 1: HYDROMULCHING FOR TEMPORARY VEGETATIVE STABILIZATION

| MATERIAL | DESCRIPTION | LONGEVITY | TYPICAL APPLICATIONS | APPLICATION RATES |
|--|---|------------|-----------------------------------|---------------------------|
| 100% OR ANY BLEND OF WOOD, CELLULOSE, STRAW, AND/OR COTTON PLANT MATERIAL (EXCEPT NO MULCH SHALL EXCEED 30% PAPER) | 70% OR GREATER WOOD/STRAW 30% OR LESS PAPER OR NATURAL FIBERS | 0-3 MONTHS | MODERATE SLOPES; FROM FLAT TO 3:1 | 1500 TO 2000 LBS PER ACRE |

PERMANENT VEGETATIVE STABILIZATION:

- FROM SEPTEMBER 15 TO MARCH 1, SEEDING IS CONSIDERED TO BE TEMPORARY STABILIZATION ONLY. IF COOL SEASON COVER CROPS EXIST WHERE PERMANENT VEGETATIVE STABILIZATION IS DESIRED, THE GRASSES SHALL BE MOWED TO A HEIGHT OF LESS THAN ONE-HALF (1/2) INCH AND THE AREA SHALL BE RE-SEEDING IN ACCORDANCE WITH 2. BELOW.
- FROM MARCH 2 TO SEPTEMBER 14, SEEDING SHALL BE WITH HULLED BERMUDA AT A RATE OF 1 POUND PER 1000 SF WITH A PURITY OF 95% WITH 85% GERMINATION. BERMUDA GRASS IS A WARM SEASON GRASS AND IS CONSIDERED PERMANENT EROSION CONTROL.
 - FERTILIZER SHALL BE A WATER SOLUBLE WITH AN ANALYSIS OF 15-15-15 TO BE APPLIED ONCE AT PLANTING AND ONCE DURING THE PERIOD OF ESTABLISHMENT AT A RATE OF 1/2 POUND PER 1000 SF.
 - HYDROMULCH SHALL COMPLY WITH TABLE 2, BELOW.
 - THE PLANTED AREA SHALL BE IRRIGATED OR SPRINKLED IN A MANNER THAT WILL NOT ERODE THE TOPSOIL, BUT WILL SUFFICIENTLY SOAK THE SOIL TO A DEPTH OF SIX INCHES. THE IRRIGATION SHALL OCCUR AT DAILY INTERVALS (MINIMUM) DURING THE FIRST TWO MONTHS. RAINFALL OCCURRENCES OF 1/2 INCH OR MORE SHALL POSTPONE THE WATERING SCHEDULE FOR ONE WEEK.
 - PERMANENT EROSION CONTROL SHALL BE ACCEPTABLE WHEN THE GRASS HAS GROWN AT LEAST 1 1/2 INCHES HIGH WITH 95% COVERAGE, PROVIDED NO BARE SPOTS LARGER THAN 16 SQUARE FEET EXIST.
 - WHEN REQUIRED, NATIVE GRASS SEEDING SHALL COMPLY WITH REQUIREMENTS OF THE CITY OF AUSTIN ENVIRONMENTAL CRITERIA MANUAL.

TABLE 2: HYDROMULCHING FOR PERMANENT VEGETATIVE STABILIZATION

| MATERIAL | DESCRIPTION | LONGEVITY | TYPICAL APPLICATIONS | APPLICATION RATES |
|-------------------------------|--|-----------------|---|--|
| BONDED FIBER MATRIX (BFM) | 80% ORGANIC DEFIBRATED FIBERS 10% TACKIFIER | 6 MONTHS | ON SLOPES UP TO 2:1 AND EROSION SOIL CONDITIONS | 2500 TO 4000 LBS PER ACRE (SEE MANUFACTURER'S RECOMMENDATIONS) |
| FIBER REINFORCED MATRIX (FRM) | 65% ORGANIC DEFIBRATED FIBERS 25% REINFORCING FIBERS OR LESS 10% TACKIFIER | UP TO 12 MONTHS | ON SLOPES UP TO 1:1 AND EROSION SOIL CONDITIONS | 3000 TO 4500 LBS PER ACRE (SEE MANUFACTURER'S RECOMMENDATIONS) |

DEVELOPER INFORMATION:

OWNER: CONTINENTAL HOMES OF TEXAS
PHONE #: (512)533-1468
ADDRESS: 12554 RIATA VISTA CIRCLE
AUSTIN, TEXAS 78727

OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS:
GRAY & ASSOCIATES, INC.

JOHN D HINES, P.E. PHONE # (512)452-0371

PERSON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE:
CONTINENTAL HOMES OF TEXAS PHONE # (512)533-1468

PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE:
CONTINENTAL HOMES OF TEXAS PHONE # (512)533-1468

- THE CONTRACTOR SHALL NOT DISPOSE OF SURPLUS EXCAVATED MATERIAL FROM THE SITE WITHOUT NOTIFYING THE CITY OF KYLE AT LEAST 48 HOURS PRIOR WITH THE LOCATION AND A COPY OF THE PERMIT ISSUED TO RECEIVE THE MATERIAL.

CITY OF AUSTIN STANDARD NOTES

FOR TREE AND NATURAL AREA PROTECTION

- ALL TREES AND NATURAL AREAS SHOWN ON PLAN TO BE PRESERVED SHALL BE PROTECTED DURING CONSTRUCTION WITH TEMPORARY FENCING.
- PROTECTIVE FENCES SHALL BE ERECTED ACCORDING TO CITY OF AUSTIN STANDARDS FOR TREE PROTECTION.
- PROTECTIVE FENCES SHALL BE INSTALLED PRIOR TO THE START OF ANY SITE PREPARATION WORK (CLEARING, GRUBBING OR GRADING), AND SHALL BE MAINTAINED THROUGHOUT ALL PHASES OF THE CONSTRUCTION PROJECT.
- EROSION AND SEDIMENTATION CONTROL BARRIERS SHALL BE INSTALLED OR MAINTAINED IN A MANNER WHICH DOES NOT RESULT IN SOIL BUILD-UP WITHIN TREE DRIP LINES.
 - PROTECTIVE FENCES SHALL SURROUND THE TREES OR GROUP OF TREES, AND WILL BE LOCATED AT THE OUTERMOST LIMIT OF BRANCHES (DRIP LINE), FOR NATURAL AREAS, PROTECTIVE FENCES SHALL FOLLOW THE LIMIT OF CONSTRUCTION LINE, IN ORDER TO PREVENT THE FOLLOWING:
 - SOIL COMPACTION IN THE ROOT ZONE AREA RESULTING FROM VEHICULAR TRAFFIC OR STORAGE OF EQUIPMENT OR MATERIALS;
 - ROOT ZONE DISTURBANCES DUE TO GRADE CHANGES (GREATER THAN 6 INCHES CUT OR FILL), OR TRENCHING NOT REVIEWED AND AUTHORIZED BY THE CITY ARBORIST;
 - WOUNDS TO EXPOSED ROOTS, TRUNK OR LIMBS BY MECHANICAL EQUIPMENT;
 - OTHER ACTIVITIES DETRIMENTAL TO TREES SUCH AS CHEMICAL STORAGE, CEMENT TRUCK CLEANING, AND FIRES.
 - EXCEPTIONS TO INSTALLING FENCES AT TREE DRIP LINES MAY BE PERMITTED IN THE FOLLOWING CASES:
 - WHERE THERE IS TO BE AN APPROVED GRADE CHANGE, IMPERMEABLE PAVING SURFACE, TREE WELL, OR OTHER SUCH SITE DEVELOPMENT, ERECT THE FENCE APPROXIMATELY 2 TO 4 FEET BEYOND THE AREA DISTURBED;
 - WHERE PERMEABLE PAVING IS TO BE INSTALLED WITHIN A TREE'S DRIP LINE, ERECT THE FENCE AT THE OUTER LIMITS OF THE PERMEABLE PAVING AREA (PRIOR TO SITE GRADING SO THAT THIS AREA IS GRADED SEPARATELY PRIOR TO PAVING INSTALLATION TO MINIMIZED ROOT DAMAGE);
 - WHERE TREES ARE CLOSE TO PROPOSED BUILDINGS, ERECT THE FENCE TO ALLOW 6 TO 10 FEET OF WORK SPACE BETWEEN THE FENCE AND THE BUILDING;
 - WHERE THERE ARE SEVERE SPACE CONSTRAINTS DUE TO TRACT SIZE, OR OTHER SPECIAL REQUIREMENTS, CONTACT THE CITY AT 262-3024 TO DISCUSS ALTERNATIVES.
- SPECIAL NOTE: FOR THE PROTECTION OF NATURAL AREAS, NO EXCEPTIONS TO INSTALLING FENCES AT THE LIMIT OF CONSTRUCTION LINE WILL BE PERMITTED.

- WHERE ANY OF THE ABOVE EXCEPTIONS RESULT IN A FENCE BEING CLOSER THAN 4 FEET TO A TREE TRUNK, PROTECT THE TRUNK WITH STRAPPED-ON PLANKING TO A HEIGHT OF 8 FT (OR TO THE LIMITS OF LOWER BRANCHING) IN ADDITION TO THE REDUCED FENCING PROVIDED.
- TREES APPROVED FOR REMOVAL SHALL BE REMOVED IN A MANNER WHICH DOES NOT IMPACT TREES TO BE PRESERVED.
- ANY ROOTS EXPOSED BY CONSTRUCTION ACTIVITY SHALL BE PRUNED FLUSH WITH THE SOIL. BACKFILL ROOT AREAS WITH GOOD QUALITY TOP SOIL AS SOON AS POSSIBLE. IF EXPOSED ROOT AREAS ARE NOT BACKFILLED WITHIN 2 DAYS, COVER THEM WITH ORGANIC MATERIAL IN A MANNER WHICH REDUCES SOIL TEMPERATURE AND MINIMIZES WATER LOSS DUE TO EVAPORATION.
- ANY TRENCHING REQUIRED FOR THE INSTALLATION OF LANDSCAPE IRRIGATION SHALL BE PLACED AS FAR FROM EXISTING TREE TRUNKS AS POSSIBLE.
- NO LANDSCAPE TOPSOIL DRESSING GREATER THAN 4 INCHES SHALL BE PERMITTED WITHIN THE DRIP LINE OF TREES. NO SOIL IS PERMITTED ON THE ROOT FLARE OF ANY TREE.
- PRUNING TO PROVIDE CLEARANCE FOR STRUCTURES, VEHICULAR TRAFFIC AND EQUIPMENT SHALL TAKE PLACE BEFORE DAMAGE OCCURS (RIPPING OF BRANCHES, ETC.).
- ALL FINISHED PRUNING SHALL BE DONE ACCORDING TO RECOGNIZED, APPROVED STANDARDS OF THE INDUSTRY (REFERENCE THE NATIONAL ARBORIST ASSOCIATION PRUNING STANDARDS FOR SHADE TREES AVAILABLE ON REQUEST FROM THE CITY ARBORIST).
- DEVIATIONS FROM THE ABOVE NOTES MAY BE CONSIDERED ORDINANCE VIOLATIONS IF THERE IS SUBSTANTIAL NON-COMPLIANCE OR IF A TREE SUSTAINS DAMAGE AS A RESULT.

CITY OF AUSTIN

TREE MITIGATION--SPECIAL CONSTRUCTION TECHNIQUES

(ECM 3.5.4(D.))

IN CONJUNCTION WITH REMEDIAL CARE, MITIGATION FOR TREES REMOVED MAY INCLUDE SPECIAL CONSTRUCTION TECHNIQUES NOT NORMALLY REQUIRED IN STANDARD SPECIFICATIONS. SOME OF THESE TECHNIQUES INCLUDE THE FOLLOWING:

- PRIOR TO EXCAVATION WITHIN TREE DRIP LINES OR THE REMOVAL OF TREES ADJACENT TO OTHER TREES THAT ARE TO REMAIN, MAKE A CLEAN CUT BETWEEN THE DISTURBED AND UNDISTURBED ROOT ZONES WITH A ROCK SAW OR SIMILAR EQUIPMENT TO MINIMIZE ROOT DAMAGE.
- IN CRITICAL ROOT ZONE AREAS THAT CANNOT BE PROTECTED DURING CONSTRUCTION WITH FENCING AND WHERE HEAVY VEHICULAR TRAFFIC IS ANTICIPATED, COVER THOSE AREAS WITH A MINIMUM OF 12 INCHES OF ORGANIC MULCH TO MINIMIZE SOIL COMPACTION. IN AREAS WITH HIGH SOIL PLASTICITY GEOTEXTILE FABRIC, PER STANDARD SPECIFICATION 620S, SHOULD BE PLACED UNDER THE MULCH TO PREVENT EXCESSIVE MIXING OF THE SOIL AND MULCH. ADDITIONALLY, MATERIAL SUCH AS PLYWOOD AND METAL SHEETS, COULD BE REQUIRED BY THE CITY ARBORIST TO MINIMIZE ROOT IMPACTS FROM HEAVY EQUIPMENT. ONCE THE PROJECT IS COMPLETED, ALL MATERIALS SHOULD BE REMOVED, AND THE MULCH SHOULD BE REDUCED TO A DEPTH OF 3 INCHES.
- PERFORM ALL GRADING WITHIN CRITICAL ROOT ZONE AREAS BY HAND OR WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE.
- WATER ALL TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES DEEPLY ONCE A WEEK DURING PERIODS OF HOT, DRY WEATHER. SPRAY TREE CROWNS WITH WATER PERIODICALLY TO REDUCE DUST ACCUMULATION ON THE LEAVES.
- WHEN INSTALLING CONCRETE ADJACENT TO THE ROOT ZONE OF A TREE, USE A PLASTIC VAPOR BARRIER BEHIND THE CONCRETE TO PROHIBIT LEACHING OF LIME INTO THE SOIL.

CITY OF AUSTIN

STANDARD SEQUENCE OF CONSTRUCTION

(ECM APPENDIX P-4)

- TEMPORARY EROSION AND SEDIMENTATION CONTROLS ARE TO BE INSTALLED AS INDICATED ON THE APPROVED SITE PLAN OR SUBDIVISION CONSTRUCTION PLAN AND IN ACCORDANCE WITH THE STORMWATER POLLUTION PREVENTION PLAN (SWPPP) THAT IS REQUIRED TO BE POSTED ON THE SITE. INSTALL TREE PROTECTION AND INITIATE TREE MITIGATION MEASURES.
- THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR MUST CONTACT THE CITY FOR INSPECTION, AT 512-262-3024, 72 HOURS PRIOR TO THE SCHEDULED DATE OF THE REQUIRED ON-SITE PRECONSTRUCTION MEETING.
- THE ENVIRONMENTAL PROJECT MANAGER, AND/OR SITE SUPERVISOR, AND/OR DESIGNATED RESPONSIBLE PARTY, AND THE GENERAL CONTRACTOR WILL FOLLOW THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE. TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE REVISED, IF NEEDED, TO COMPLY WITH CITY INSPECTORS' DIRECTIVES, AND REVISED CONSTRUCTION SCHEDULE RELATIVE TO THE WATER QUALITY PLAN REQUIREMENTS AND THE EROSION PLAN.
- ROUGH GRADE THE POND(S) AT 100% PROPOSED CAPACITY. EITHER THE PERMANENT OUTLET STRUCTURE OR A TEMPORARY OUTLET MUST BE CONSTRUCTED PRIOR TO DEVELOPMENT OF EMBANKMENT OR EXCAVATION THAT LEADS TO PONDING CONDITIONS. THE OUTLET SYSTEM MUST CONSIST OF A SUMP PIT OUTLET AND AN EMERGENCY SPILLWAY MEETING THE REQUIREMENTS OF THE DRAINAGE CRITERIA MANUAL AND/OR THE ENVIRONMENTAL CRITERIA MANUAL, AS REQUIRED. THE OUTLET SYSTEM SHALL BE PROTECTED FROM EROSION AND SHALL BE MAINTAINED THROUGHOUT THE COURSE OF CONSTRUCTION UNTIL INSTALLATION OF THE PERMANENT WATER QUALITY POND(S).
- TEMPORARY EROSION AND SEDIMENTATION CONTROLS WILL BE INSPECTED AND MAINTAINED IN ACCORDANCE WITH THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) POSTED ON THE SITE.
- BEGIN SITE CLEARING/CONSTRUCTION (OR DEMOLITION) ACTIVITIES.
- IN THE BARTON SPRINGS ZONE, THE ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR WILL SCHEDULE A MID-CONSTRUCTION CONFERENCE TO COORDINATE CHANGES IN THE CONSTRUCTION SCHEDULE AND EVALUATE EFFECTIVENESS OF THE EROSION CONTROL PLAN AFTER POSSIBLE CONSTRUCTION ALTERATIONS TO THE SITE. PARTICIPANTS SHALL INCLUDE THE CITY INSPECTOR, PROJECT ENGINEER, GENERAL CONTRACTOR AND ENVIRONMENTAL PROJECT MANAGER OR SITE SUPERVISOR. THE ANTICIPATED COMPLETION DATE AND FINAL CONSTRUCTION SEQUENCE AND INSPECTION SCHEDULE WILL BE COORDINATED WITH THE APPROPRIATE CITY INSPECTOR.

- PERMANENT WATER QUALITY PONDS OR CONTROLS WILL BE CLEANED OUT AND FILTER MEDIA WILL BE INSTALLED PRIOR TO/CONCURRENTLY WITH REVEGETATION OF SITE.
- COMPLETE CONSTRUCTION AND START REVEGETATION OF THE SITE AND INSTALLATION OF LANDSCAPING.
- UPON COMPLETION OF THE SITE CONSTRUCTION AND REVEGETATION OF A PROJECT SITE, THE DESIGN ENGINEER SHALL SUBMIT AN ENGINEER'S LETTER OF CONCURRENCE TO THE WATERSHED PROTECTION AND DEVELOPMENT REVIEW DEPARTMENT INDICATING THAT CONSTRUCTION, INCLUDING REVEGETATION, IS COMPLETE AND IN SUBSTANTIAL CONFORMITY WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
- UPON COMPLETION OF LANDSCAPE INSTALLATION OF A PROJECT SITE, THE LANDSCAPE ARCHITECT SHALL SUBMIT A LETTER OF CONCURRENCE TO THE CITY INDICATING THAT THE REQUIRED LANDSCAPING IS COMPLETE AND IN SUBSTANTIAL CONFORMITY WITH THE APPROVED PLANS. AFTER RECEIVING THIS LETTER, A FINAL INSPECTION WILL BE SCHEDULED BY THE APPROPRIATE CITY INSPECTOR.
- AFTER A FINAL INSPECTION HAS BEEN CONDUCTED BY THE CITY INSPECTOR AND WITH APPROVAL FROM THE CITY INSPECTOR, REMOVE THE TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND COMPLETE ANY NECESSARY FINAL REVEGETATION RESULTING FROM REMOVAL OF THE CONTROLS. CONDUCT ANY MAINTENANCE AND REHABILITATION OF THE WATER QUALITY PONDS OR CONTROLS.

**CITY OF AUSTIN
REMEDIAL TREE CARE NOTES
(APPENDIX P-6)**

- AS A COMPONENT OF AN EFFECTIVE REMEDIAL TREE CARE PROGRAM PER ENVIRONMENTAL CRITERIA MANUAL SECTION 3.5.4, PRESERVED TREES WITHIN THE LIMITS OF CONSTRUCTION MAY REQUIRE SOIL AERATION AND SUPPLEMENTAL NUTRIENTS. SOIL AND/OR FOLIAR ANALYSIS SHOULD BE USED TO DETERMINE THE NEED FOR SUPPLEMENTAL NUTRIENTS. THE CITY ARBORIST MAY REQUIRE THESE ANALYSES AS PART OF A COMPREHENSIVE TREE CARE PLAN. SOIL PH SHALL BE CONSIDERED WHEN DETERMINING THE FERTILIZATION COMPOSITION AS SOIL PH INFLUENCES THE TREE'S ABILITY TO UPTAKE NUTRIENTS FROM THE SOIL. IF ANALYSES INDICATE THE NEED FOR SUPPLEMENTAL NUTRIENTS, THEN HUMATE/NUTRIENT SOLUTIONS WITH MYCORRHIZAE COMPONENTS ARE HIGHLY RECOMMENDED. IN ADDITION, SOIL ANALYSIS MAY BE NEEDED TO DETERMINE IF ORGANIC MATERIAL OR BENEFICIAL MICROORGANISMS ARE NEEDED TO IMPROVE SOIL HEALTH. MATERIALS AND METHODS ARE TO BE APPROVED BY THE CITY (512-262-3024) PRIOR TO APPLICATION. THE OWNER OR GENERAL CONTRACTOR SHALL SELECT A FERTILIZATION CONTRACTOR AND ENSURE COORDINATION WITH THE CITY ARBORIST.
- PRE-CONSTRUCTION TREATMENT SHOULD BE APPLIED IN THE APPROPRIATE SEASON, IDEALLY THE SEASON PRECEDING THE PROPOSED CONSTRUCTION. MINIMALLY, AREAS TO BE TREATED INCLUDE THE ENTIRE CRITICAL ROOT ZONE OF TREES AS DEPICTED ON THE CITY APPROVED PLANS. TREATMENT SHOULD INCLUDE, BUT NOT LIMITED TO, FERTILIZATION, SOIL TREATMENT, MULCHING, AND PROPER PRUNING.
- POST-CONSTRUCTION TREATMENT SHOULD OCCUR DURING FINAL REVEGETATION OR AS DETERMINED BY A QUALIFIED ARBORIST AFTER CONSTRUCTION. CONSTRUCTION ACTIVITIES OFTEN RESULT IN A REDUCTION IN SOIL MACRO AND MICRO PORES AND AN INCREASE IN SOIL BULK DENSITY. TO AMELIORATE THE DEGRADED SOIL CONDITIONS, AERATION VIA WATER AND/OR AIR INJECTED INTO THE SOIL IS NEEDED OR BY OTHER METHODS AS APPROVED BY THE CITY ARBORIST. THE PROPOSED NUTRIENT MIX SPECIFICATIONS AND SOIL AND/OR FOLIAR ANALYSIS RESULTS NEED TO BE PROVIDED TO AND APPROVED BY THE CITY ARBORIST PRIOR TO APPLICATION (FAX # 512-262-3915). CONSTRUCTION WHICH WILL BE COMPLETED IN LESS THAN 90 DAYS MAY USE MATERIALS AT 1/2 RECOMMENDED RATES. ALTERNATIVE ORGANIC FERTILIZER MATERIALS ARE ACCEPTABLE WHEN APPROVED BY THE CITY ARBORIST. WITHIN 7 DAYS AFTER FERTILIZATION IS PERFORMED, THE CONTRACTOR SHALL PROVIDE DOCUMENTATION OF THE WORK PERFORMED TO THE CITY ARBORIST. THIS NOTE SHOULD BE REFERENCED AS ITEM #1 IN THE SEQUENCE OF CONSTRUCTION.

GEOTECHNICAL RECOMMENDATIONS

~PAVEMENT SECTIONS

This record drawing has been prepared in the regular part of our business and the responsibility for its accuracy before application of the document are advised to check the information contained herein.

| STREET CLASSIFICATION | SUBGRADE MATERIAL | RECOMMENDATIONS PAVEMENT THICKNESS SECTIONS | | | | |
|-------------------------|---|---|-----------------------------|--------------------------|----------------------|--------------|
| | | HOT MIX ASPHALTIC CONCRETE (IN) | CRUSHED LIMESTONE BASE (IN) | TENSAR TX-5 GEOTRID (IN) | LINE STABILIZER (IN) | SUBGRADE, IN |
| LOCAL STREETS | MORE THAN 2 FEET OF EXPANSIVE SUBGRADE P>25 | 2.0 | 15 | - | - | - |
| | MORE THAN 2 FEET OF EXPANSIVE SUBGRADE P>25 | 2.0 | 10 | - | 10 | - |
| RESIDENTIAL COLLECTORS | MORE THAN 2 FEET OF EXPANSIVE SUBGRADE P>25 | 2.0 | 20 | - | - | - |
| | MORE THAN 2 FEET OF EXPANSIVE SUBGRADE P>25 | 2.0 | 13 | - | 10 | - |
| NEIGHBORHOOD COLLECTORS | MORE THAN 2 FEET OF EXPANSIVE SUBGRADE P>25 | 2.0 | 13 | X* | - | - |
| | MORE THAN 2 FEET OF EXPANSIVE SUBGRADE P>25 | 2.0 | 27 | - | - | - |
| LOCAL STREETS: | MORE THAN 2 FEET OF EXPANSIVE SUBGRADE P>25 | 2.0 | 18 | - | 10 | - |
| | MORE THAN 2 FEET OF EXPANSIVE SUBGRADE P>25 | 2.0 | 18 | X* | - | - |

* A SINGLE LAYER OF TENSAR GEOTRID MODEL #TX-5 IS TO BE PLACED AT THE BOTTOM OF THE BASE LAYER.

LOCAL STREETS: CHICKADEE COVE, COLLARD DOVE COVE, KINGFISHER LANE

RESIDENTIAL COLLECTOR: PURPLE MARTIN AVE.

NEIGHBORHOOD COLLECTOR: WINDY HILL ROAD

ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER IN APPROVING THESE PLANS. THE CITY OF AUSTIN MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

FILE: H:\Projects\1283\10465 Meadows at Kyle 1 CP\CAD\SHEETS\GEN NOTES.dwg LAYOUT: GENERAL NOTES (2 OF 2) DATE: 5/10/2013 12:40:30 PM BY: JOUSTILLO

PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
FILE NO. GEN NOTES DRAWN BY: HRG
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

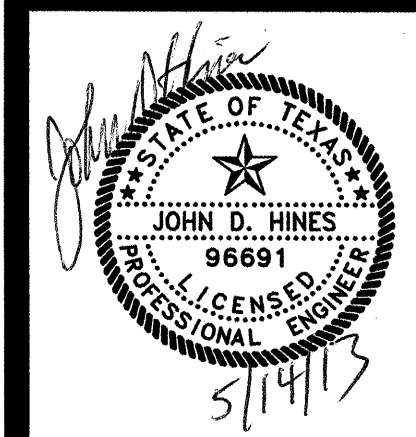
GRAY & ASSOCIATES, INC.
Consulting Engineers
6217 Shoal Creek Blvd., Suite 200
Austin, Texas 78757-7692
(512)468-0571 FAX(512)468-9985

| NO. | DATE | REVISION DESCRIPTION |
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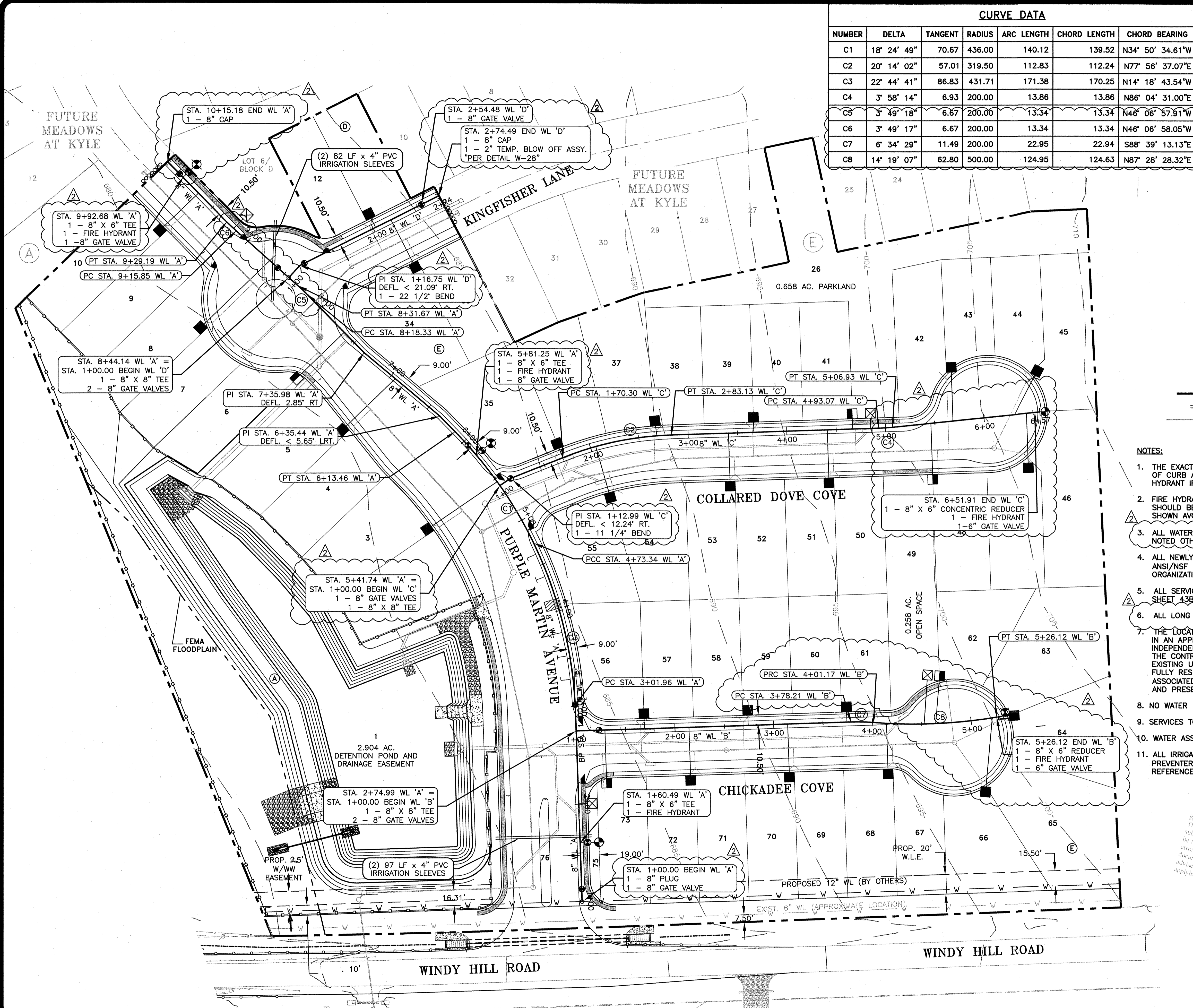
MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS

GENERAL NOTES
(2 OF 2)

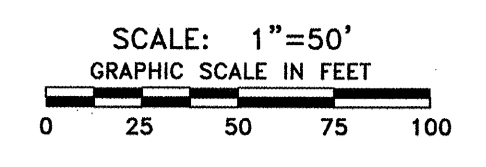
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NOTIFICATION TO THE
RESPONSIBLE ENGINEER IS
A VIOLATION OF THE TEXAS
ENGINEERING PRACTICE ACT.



FILE: H:\Projects\1283\10465 Meadows at Kyle 1 CP\CAD\SHEETS\OVERALL-WATER.dwg LAYOUT: OVERALL WATER DISTRIBUTION PLAN DATE: 10/18/2012 1:53:17 PM BY: BORRERO



| CURVE DATA | | | | | | |
|------------|-------------|---------|--------|------------|--------------|------------------|
| NUMBER | DELTA | TANGENT | RADIUS | ARC LENGTH | CHORD LENGTH | CHORD BEARING |
| C1 | 18° 24' 49" | 70.67 | 436.00 | 140.12 | 139.52 | N34° 50' 34.61"W |
| C2 | 20° 14' 02" | 57.01 | 319.50 | 112.83 | 112.24 | N77° 56' 37.07"E |
| C3 | 22° 44' 41" | 86.83 | 431.71 | 171.38 | 170.25 | N14° 18' 43.54"W |
| C4 | 3° 58' 14" | 6.93 | 200.00 | 13.86 | 13.86 | N86° 04' 31.00"E |
| C5 | 3° 49' 18" | 6.67 | 200.00 | 13.34 | 13.34 | N46° 06' 57.91"W |
| C6 | 3° 49' 17" | 6.67 | 200.00 | 13.34 | 13.34 | N46° 06' 58.05"W |
| C7 | 6° 34' 29" | 11.49 | 200.00 | 22.95 | 22.94 | S88° 39' 13.13"E |
| C8 | 14° 19' 07" | 62.80 | 500.00 | 124.95 | 124.63 | N87° 28' 28.32"E |



| WATER SYMBOLS LEGEND | |
|----------------------|--|
| | PROPOSED FIRE HYDRANT ASSEMBLY |
| | PROPOSED GATE VALVE & BOX |
| | PROPOSED CAP |
| | PROPOSED DOUBLE WATER SERVICE CONN. |
| | PROPOSED SINGLE WATER SERVICE CONN. |
| | PROPOSED 2" IRRIGATION SERVICE CONN. |
| | PHASE BOUNDARY |
| | PROPOSED (2) 4" PVC IRRIGATION SLEEVES |
| | EXISTING 5" CONTOUR |

- NOTES:**
- THE EXACT LOCATION OF ALL GATE VALVES SHALL BE AT THE P.C. OF CURB AT THE INTERSECTIONS OR 4 FEET FROM THE FIRE HYDRANT IF AT THE SAME LOCATION.
 - FIRE HYDRANT LOCATIONS ARE APPROXIMATE, EXACT LOCATION SHOULD BE NEAREST PRACTICAL LOCATION TO THAT WHICH IS SHOWN AVOIDING CURB INLETS, DRIVEWAYS, AND WASTEWATER.
 - ALL WATER LINE TO BE 8" C900 DR 18, CL150 PSI; UNLESS NOTED OTHERWISE.
 - ALL NEWLY INSTALLED PIPE AND FITTINGS MUST CONFORM TO ANSI/NSF STANDARD 61 AND MUST BE CERTIFIED BY AN ORGANIZATION ACCREDITED BY ANSI.
 - ALL SERVICES TO BE INSTALLED PER GOFORTH S.U.D. DETAIL SEE SHEET 43B.
 - ALL LONG SIDE SERVICES TO BE SLEEVED AT SIDEWALK CROSSINGS.
 - THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK, AND AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE ASSOCIATED BY THE CONTRACTOR'S FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.
 - NO WATER METERS LOCATED IN SIDEWALK AREA.
 - SERVICES TO BE LOCATED PER DETAIL SHEET.
 - WATER ASSIGNMENT TAKEN FROM ROW.
 - ALL IRRIGATION METERS WILL REQUIRE SEPARATE RPZ BACKFLOW PREVENTERS (PER GOFORTH'S BACKFLOW PREVENTION POLICY). REFERENCE GOFORTH STD. DETAIL W-26.

RECORD DRAWINGS
 This record drawing has been prepared based on information submitted in part by others. While this information is believed to be reliable, the Engineer is not responsible for its accuracy or for errors or omissions which may have been incorporated into the document as a result. Those relying on this record document are advised to obtain independent verification of its accuracy before applying it for any purpose.

PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
 FILE NO. OVERALL-WATER DRAWN BY: JH, HRG
 DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

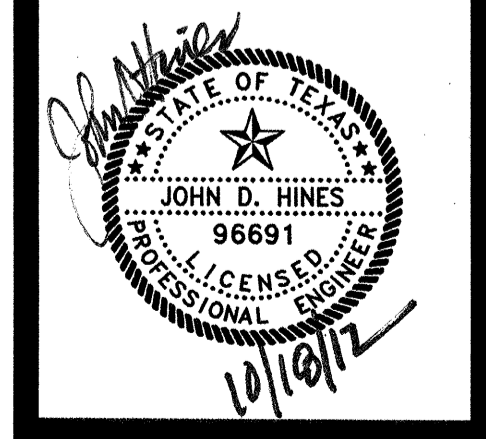
GRAY & ASSOCIATES, INC.
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 (512)462-0971 FAX (512)464-9933
 TEPPE FIRM #2946

| NO. | BY | DATE | REVISION DESCRIPTION |
|-----|----|----------|-------------------------|
| 1 | JH | 10/10/12 | MISCELLANEOUS REVISIONS |

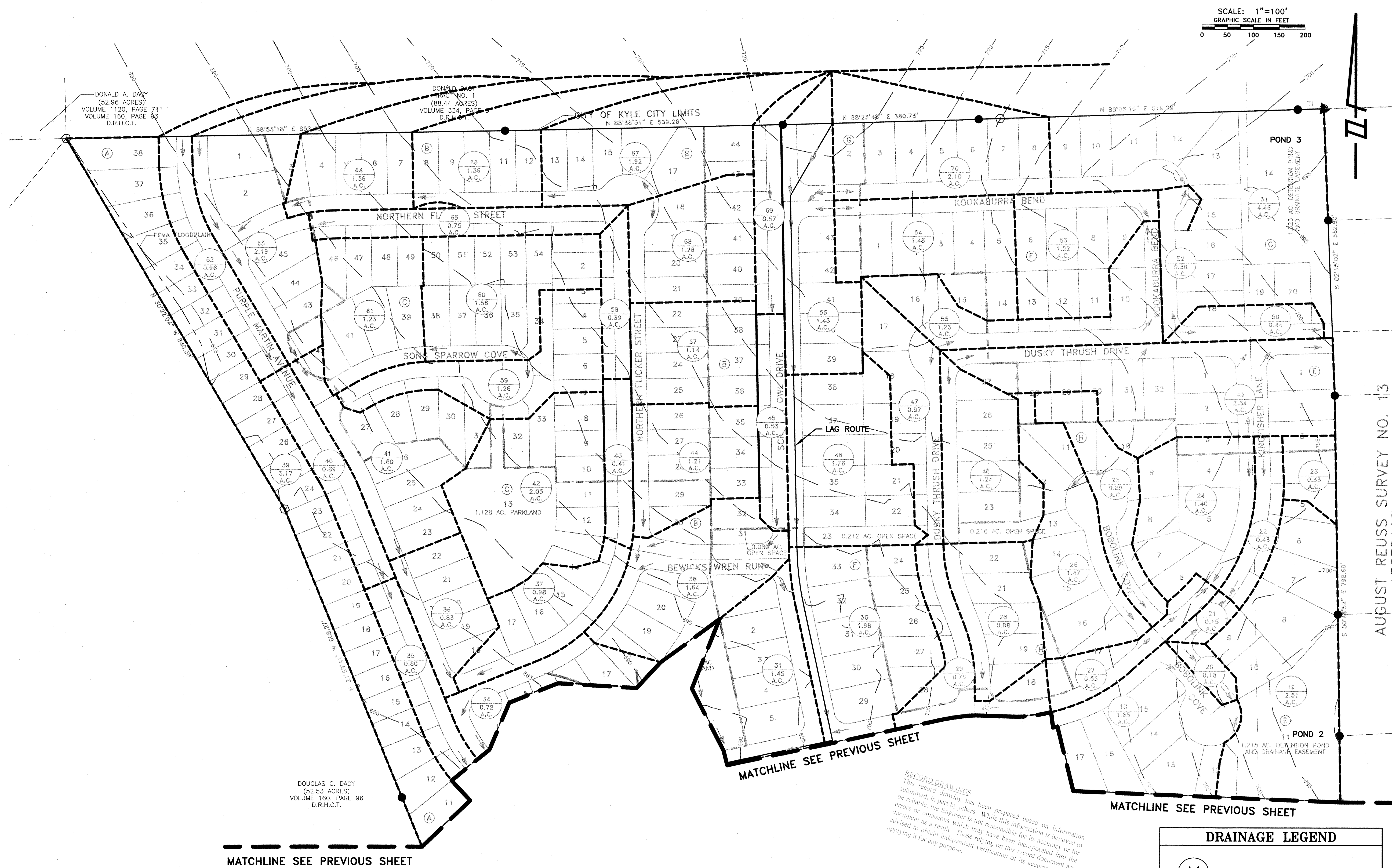
MEADOWS AT KYLE
 PHASE ONE
 WATER, WASTEWATER,
 STREET AND DRAINAGE
 IMPROVEMENTS

OVERALL WATER
 DISTRIBUTION PLAN

NOTICE:
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FILE: H:\Projects\283\10465 Meadows at Kyle 1 CP\CAD\SHEETS\DRAIN-PLAN.dwg LAYOUT: OVERALL DRAINAGE PLAN (SHEET 2 OF 2) DATE: 6/8/2012 9:56:25 AM BY: JBORREGO



SCALE: 1"=100'
GRAPHIC SCALE IN FEET
0 50 100 150 200

DONALD A. DACY
(52.96 ACRES)
VOLUME 1120, PAGE 711
VOLUME 160, PAGE 93
D.R.H.C.T.

DONALD A. DACY
(88.44 ACRES)
VOLUME 334, PAGE 10
D.R.H.C.T.

CITY OF KYLE CITY LIMITS
N 88°38'51" E 539.28'

DOUGLAS C. DACY
(52.53 ACRES)
VOLUME 160, PAGE 96
D.R.H.C.T.

RECORD DRAWINGS
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TIME OF CONCENTRATION TABLE
(Based on TR-55, June 1986)

| BASIN | | TRAVEL PATH COMPONENT | | | | | | | | | | | | | | | | | |
|-------|--------|-----------------------|------|--------|----------|---------------|-----|--------|------|------|------|--------------|------|-----|-----|------------|-------|--------|-------|
| | | SHEET | | | | SHALLOW CONC. | | | | PIPE | | OPEN CHANNEL | | | | CUMULATIVE | | | |
| | | L | V | Slope | 2yr/24hr | t(c) | L | Slope | V | t(c) | L | V | t(c) | L | V | t(c) | Tc | Tc | Lag |
| A | Exist. | 300 | 0.30 | 0.0375 | 3.44 | 30.81 | 300 | 0.0375 | 3.10 | 1.61 | 0 | 10 | 0.00 | 940 | 4.1 | 3.82 | 36.25 | 0.6041 | 21.75 |
| A | Prop. | 150 | 0.30 | 0.0200 | 3.44 | 22.78 | 300 | 0.0200 | 2.80 | 1.79 | 1870 | 10 | 3.12 | 475 | 4.1 | 1.93 | 29.59 | 0.4932 | 17.75 |

DRAINAGE LEGEND

- PROPOSED DRAINAGE AREA
- FUTURE DRAINAGE AREA
- DRAINAGE AREA BOUNDARY
- STANDARD CURB INLET
- STANDARD AREA INLET
- DIRECTION OF DRAINAGE FLOW
- EXISTING 5' CONTOUR

PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
FILE NO. DRAIN-PLAN DRAWN BY: JH, HRG
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

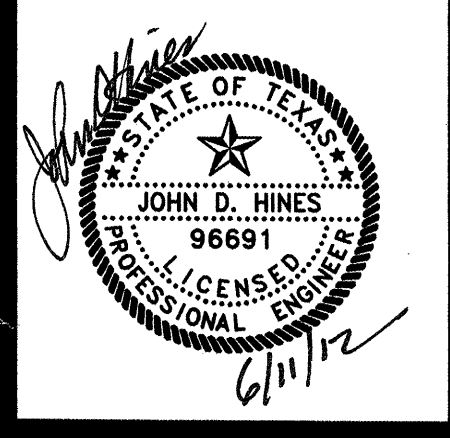
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(512) 466-0871 FAX (512) 464-0883
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| | | | |
| | | | |

**MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS**

**OVERALL DRAINAGE PLAN
(SHEET 2 OF 2)**

NOTICE:
ALTERATION OF A SEALED DRAWING WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS A VIOLATION OF THE TEXAS ENGINEERING PRACTICE ACT.



| | | | | |
|--------------|------|-------|-------|--------|
| | 2 Yr | 10 Yr | 25 Yr | 100 Yr |
| Asphalt | 0.73 | 0.81 | 0.86 | 0.95 |
| Conc. / Roof | 0.75 | 0.83 | 0.88 | 0.97 |
| Grass (0-2%) | 0.21 | 0.25 | 0.29 | 0.36 |
| Grass (2-7%) | 0.29 | 0.35 | 0.39 | 0.46 |

Avg. Imperv. per lot
3,000 sf

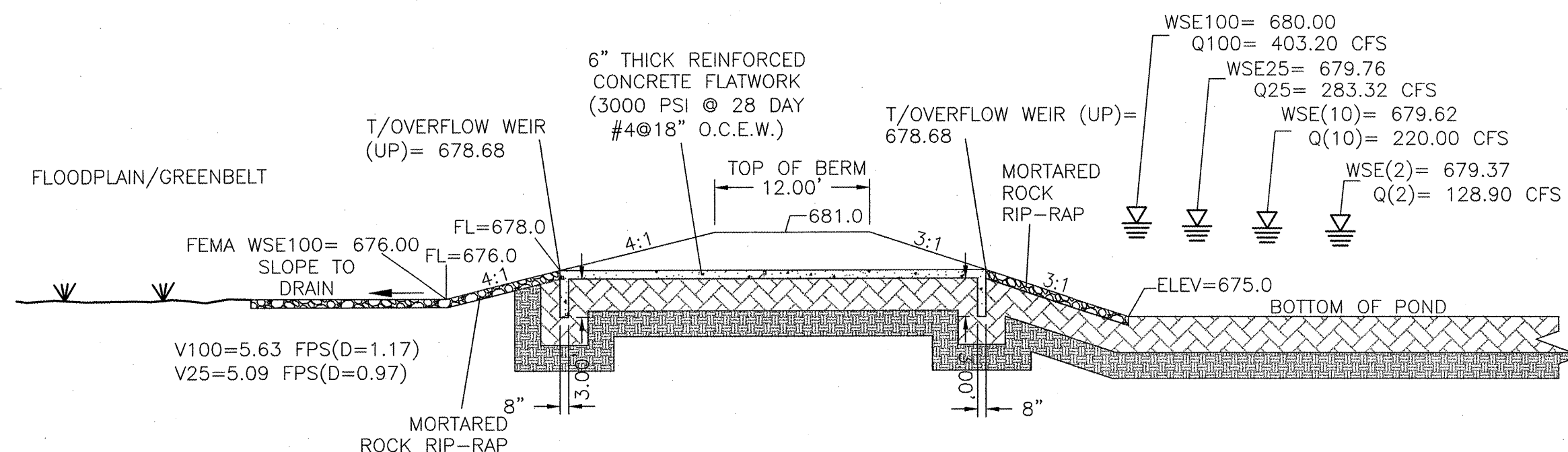
Meadows at Kyle

| Drainage Area | Total Area (Ac) | Total Area (sf) | STREET | | | IMPERVIOUS | | | GRASS | | | Composite 2 Yr "C" | Composite 25 Yr "C" | Composite 100 Yr "C" | REMARKS | | |
|---------------|-----------------|-----------------|--------------------|------------------|------------------|-----------------|-------------------|------------------|------------------|-----------------|-----------------|--------------------|---------------------|----------------------|---------|-----------------|----------------|
| | | | Street Length (lf) | Area Street (sf) | Area Street (Ac) | Area Street (%) | Num Homes in Area | Area Imper. (sf) | Area Imper. (Ac) | Area Imper. (%) | Area Grass (sf) | | | | | Area Grass (Ac) | Area Grass (%) |
| 1 | 1.04 | 45,302 | 0 | 0.00 | 0.0% | 7.0 | 21,000 | 0.48 | 46.4% | 24,302 | 0.56 | 53.6% | 0.50 | 0.62 | 0.70 | | |
| 1A | 4.29 | 186,872 | 1,050 | 21,000 | 0.48 | 11.2% | 0.0 | 0.00 | 0.0% | 165,872 | 3.81 | 88.8% | 0.34 | 0.44 | 0.52 | | |
| 2 | 0.81 | 35,284 | 415 | 8,300 | 0.19 | 23.5% | 1.5 | 4,500 | 0.10 | 12.8% | 22,484 | 0.52 | 63.7% | 0.45 | 0.56 | 0.64 | |
| 2A | 0.28 | 12,197 | 0 | 0.00 | 0.0% | 0.0 | 0.00 | 0.00 | 0.0% | 12,197 | 0.28 | 100.0% | 0.29 | 0.39 | 0.46 | | |
| 3 | 1.12 | 48,787 | 150 | 3,000 | 0.07 | 6.1% | 4.0 | 12,000 | 0.28 | 24.6% | 33,787 | 0.78 | 69.3% | 0.43 | 0.54 | 0.62 | |
| 3A | 1.16 | 50,530 | 0 | 0.00 | 0.0% | 0.0 | 0.00 | 0.00 | 0.0% | 50,530 | 1.16 | 100.0% | 0.29 | 0.39 | 0.46 | | |
| 4 | 1.17 | 50,965 | 290 | 5,800 | 0.13 | 11.4% | 7.5 | 22,500 | 0.52 | 44.1% | 22,665 | 0.52 | 44.5% | 0.54 | 0.66 | 0.74 | |
| 5 | 0.64 | 27,878 | 300 | 10,500 | 0.24 | 37.7% | 1.5 | 4,500 | 0.10 | 16.1% | 12,878 | 0.30 | 46.2% | 0.53 | 0.65 | 0.73 | |
| 6 | 0.28 | 12,197 | 275 | 9,625 | 0.22 | 78.9% | 0.0 | 0.00 | 0.00 | 2,572 | 0.06 | 21.1% | 0.64 | 0.76 | 0.85 | | |
| 7 | 4.09 | 178,160 | 0 | 0.00 | 0.0% | 0.0 | 27,000 | 0.62 | 15.2% | 151,160 | 3.47 | 84.8% | 0.36 | 0.46 | 0.54 | | |
| 8 | 0.61 | 26,572 | 450 | 9,000 | 0.21 | 33.9% | 0.0 | 0.00 | 0.00 | 17,572 | 0.40 | 66.1% | 0.44 | 0.55 | 0.63 | | |
| 9 | 0.96 | 41,818 | 350 | 7,000 | 0.16 | 16.7% | 3.0 | 9,000 | 0.21 | 21.5% | 25,818 | 0.59 | 61.7% | 0.46 | 0.57 | 0.65 | |
| 10 | 1.07 | 46,609 | 525 | 10,500 | 0.24 | 22.5% | 4.5 | 13,500 | 0.31 | 29.0% | 22,609 | 0.52 | 48.5% | 0.52 | 0.64 | 0.72 | |
| 10A | 0.24 | 10,454 | 0 | 0.00 | 0.0% | 0.0 | 0.00 | 0.00 | 0.0% | 10,454 | 0.24 | 100.0% | 0.29 | 0.39 | 0.46 | | |
| 11 | 1.21 | 52,708 | 360 | 7,200 | 0.17 | 13.7% | 6.5 | 19,500 | 0.45 | 37.0% | 26,008 | 0.60 | 49.3% | 0.52 | 0.64 | 0.72 | |
| 12 | 0.73 | 31,799 | 200 | 4,000 | 0.09 | 12.6% | 3.5 | 10,500 | 0.24 | 33.0% | 17,299 | 0.40 | 54.4% | 0.50 | 0.61 | 0.69 | |
| 12A | 0.44 | 19,166 | 0 | 0.00 | 0.0% | 0.0 | 0.00 | 0.00 | 0.0% | 19,166 | 0.44 | 100.0% | 0.29 | 0.39 | 0.46 | | |
| 13 | 0.41 | 17,860 | 300 | 6,000 | 0.14 | 33.6% | 0.0 | 0.00 | 0.00 | 11,860 | 0.27 | 66.4% | 0.44 | 0.55 | 0.62 | | |
| 14 | 0.55 | 23,958 | 250 | 5,000 | 0.11 | 20.9% | 2.0 | 6,000 | 0.14 | 25.0% | 12,958 | 0.30 | 54.1% | 0.50 | 0.61 | 0.69 | |
| 15 | 1.04 | 45,302 | 275 | 5,500 | 0.13 | 12.1% | 5.0 | 15,000 | 0.34 | 33.1% | 24,802 | 0.57 | 54.7% | 0.50 | 0.61 | 0.69 | |
| 16 | 1.15 | 50,094 | 250 | 5,000 | 0.11 | 10.0% | 4.0 | 12,000 | 0.28 | 24.0% | 33,094 | 0.76 | 66.1% | 0.44 | 0.55 | 0.63 | |
| 16A | 0.18 | 7,841 | 0 | 0.00 | 0.0% | 0.0 | 0.00 | 0.00 | 0.0% | 7,841 | 0.18 | 100.0% | 0.29 | 0.39 | 0.46 | | |
| 17 | 0.79 | 34,412 | 225 | 4,500 | 0.10 | 13.1% | 4.0 | 12,000 | 0.28 | 34.9% | 17,912 | 0.41 | 52.1% | 0.51 | 0.62 | 0.70 | |
| 18 | 1.65 | 71,874 | 550 | 11,000 | 0.25 | 15.3% | 5.5 | 16,500 | 0.38 | 23.0% | 44,374 | 1.02 | 61.7% | 0.46 | 0.57 | 0.65 | |
| 19 | 2.51 | 109,336 | 0 | 0.00 | 0.0% | 0.0 | 18,000 | 0.41 | 16.5% | 91,336 | 2.10 | 83.5% | 0.37 | 0.47 | 0.54 | | |
| 20 | 0.18 | 7,841 | 200 | 4,000 | 0.09 | 51.0% | 0.0 | 0.00 | 0.0% | 3,841 | 0.09 | 49.0% | 0.51 | 0.63 | 0.71 | | |
| 21 | 0.15 | 6,534 | 150 | 3,000 | 0.07 | 45.9% | 0.0 | 0.00 | 0.0% | 3,534 | 0.08 | 54.1% | 0.49 | 0.61 | 0.68 | | |
| 22 | 0.43 | 18,731 | 350 | 7,000 | 0.16 | 37.4% | 0.0 | 0.00 | 0.0% | 11,731 | 0.27 | 62.6% | 0.45 | 0.57 | 0.64 | | |
| 23 | 0.33 | 14,375 | 0 | 0.00 | 0.0% | 0.0 | 6,000 | 0.14 | 41.7% | 8,375 | 0.19 | 58.3% | 0.48 | 0.59 | 0.67 | | |
| 24 | 1.40 | 60,984 | 325 | 6,500 | 0.15 | 10.7% | 6.0 | 18,000 | 0.41 | 29.5% | 36,484 | 0.84 | 59.8% | 0.47 | 0.58 | 0.66 | |
| 25 | 0.85 | 37,026 | 350 | 7,000 | 0.16 | 18.9% | 2.0 | 6,000 | 0.14 | 16.2% | 24,026 | 0.55 | 64.9% | 0.45 | 0.56 | 0.64 | |
| 26 | 1.47 | 64,033 | 350 | 7,000 | 0.16 | 10.9% | 5.0 | 15,000 | 0.34 | 23.4% | 42,033 | 0.96 | 65.6% | 0.45 | 0.56 | 0.63 | |
| 27 | 0.55 | 23,958 | 400 | 8,000 | 0.18 | 33.4% | 1.0 | 3,000 | 0.07 | 12.5% | 12,958 | 0.30 | 54.1% | 0.49 | 0.61 | 0.69 | |
| 28 | 0.99 | 43,124 | 320 | 6,400 | 0.15 | 14.8% | 4.5 | 13,500 | 0.31 | 31.3% | 23,224 | 0.53 | 53.9% | 0.50 | 0.61 | 0.69 | |
| 29 | 0.79 | 34,412 | 475 | 9,500 | 0.22 | 27.6% | 1.0 | 3,000 | 0.07 | 8.7% | 21,912 | 0.50 | 63.7% | 0.45 | 0.56 | 0.64 | |
| 30 | 1.98 | 86,249 | 525 | 10,500 | 0.24 | 12.2% | 9.5 | 28,500 | 0.65 | 33.0% | 47,249 | 1.08 | 54.8% | 0.50 | 0.61 | 0.69 | |
| 31 | 1.45 | 63,162 | 525 | 10,500 | 0.24 | 16.6% | 4.5 | 13,500 | 0.31 | 21.4% | 39,162 | 0.90 | 62.0% | 0.46 | 0.57 | 0.65 | |
| 32 | 1.12 | 48,787 | 375 | 7,500 | 0.17 | 15.4% | 6.0 | 18,000 | 0.41 | 36.9% | 23,287 | 0.53 | 47.7% | 0.53 | 0.64 | 0.72 | |
| 33 | 1.28 | 55,757 | 200 | 4,000 | 0.09 | 7.2% | 3.5 | 10,500 | 0.24 | 18.8% | 41,257 | 0.95 | 74.0% | 0.41 | 0.52 | 0.59 | |
| 34 | 0.72 | 31,363 | 425 | 8,500 | 0.20 | 27.1% | 2.5 | 7,500 | 0.17 | 23.9% | 15,363 | 0.35 | 49.0% | 0.52 | 0.63 | 0.71 | |
| 35 | 0.60 | 26,136 | 500 | 10,000 | 0.23 | 38.3% | 0.0 | 0.00 | 0.0% | 16,136 | 0.37 | 61.7% | 0.46 | 0.57 | 0.65 | | |
| 36 | 0.83 | 36,155 | 300 | 6,000 | 0.14 | 16.6% | 4.5 | 13,500 | 0.31 | 37.3% | 16,655 | 0.38 | 46.1% | 0.53 | 0.65 | 0.73 | |
| 37 | 0.98 | 42,689 | 450 | 9,000 | 0.21 | 21.1% | 4.0 | 12,000 | 0.28 | 28.1% | 21,689 | 0.50 | 50.8% | 0.51 | 0.63 | 0.71 | |
| 38 | 1.64 | 71,438 | 850 | 17,000 | 0.39 | 23.8% | 4.5 | 13,500 | 0.31 | 18.9% | 40,938 | 0.94 | 57.3% | 0.48 | 0.59 | 0.67 | |
| 39 | 3.17 | 138,085 | 0 | 0.00 | 0.0% | 0.0 | 84,000 | 1.93 | 60.8% | 54,085 | 1.24 | 39.2% | 0.57 | 0.69 | 0.77 | | |
| 40 | 0.69 | 30,056 | 630 | 12,600 | 0.29 | 41.9% | 0.0 | 0.00 | 0.0% | 17,456 | 0.40 | 58.1% | 0.47 | 0.59 | 0.67 | | |
| 41 | 1.60 | 69,696 | 450 | 9,000 | 0.21 | 12.9% | 8.5 | 25,500 | 0.59 | 36.6% | 35,196 | 0.81 | 50.5% | 0.52 | 0.63 | 0.71 | |
| 42 | 2.05 | 89,298 | 0 | 0.00 | 0.0% | 0.0 | 8.5 | 25,500 | 0.59 | 28.6% | 63,798 | 1.46 | 71.4% | 0.42 | 0.53 | 0.61 | |
| 43 | 0.41 | 17,860 | 420 | 8,400 | 0.19 | 47.0% | 0.0 | 0.00 | 0.0% | 9,460 | 0.22 | 53.0% | 0.50 | 0.61 | 0.69 | | |
| 44 | 1.21 | 52,708 | 260 | 5,200 | 0.12 | 9.9% | 7.5 | 22,500 | 0.52 | 42.7% | 25,008 | 0.57 | 47.4% | 0.53 | 0.65 | 0.73 | |
| 45 | 0.53 | 23,087 | 450 | 9,000 | 0.21 | 39.0% | 0.0 | 0.00 | 0.0% | 14,087 | 0.32 | 61.0% | 0.46 | 0.57 | 0.65 | | |
| 46 | 1.76 | 76,666 | 350 | 7,000 | 0.16 | 9.1% | 8.5 | 25,500 | 0.59 | 33.3% | 44,166 | 1.01 | 57.6% | 0.48 | 0.60 | 0.67 | |
| 47 | 0.97 | 42,253 | 450 | 9,000 | 0.21 | 21.3% | 2.5 | 7,500 | 0.17 | 17.8% | 25,753 | 0.59 | 60.9% | 0.47 | 0.58 | 0.65 | |
| 48 | 1.24 | 54,014 | 350 | 7,000 | 0.16 | 13.0% | 5.0 | 15,000 | 0.34 | 27.8% | 32,014 | 0.73 | 59.3% | 0.47 | 0.59 | 0.67 | |
| 49 | 2.54 | 110,642 | 775 | 15,500 | 0.36 | 14.0% | 10.0 | 30,000 | 0.69 | 27.1% | 65,142 | 1.50 | 58.9% | 0.48 | 0.59 | 0.67 | |
| 50 | 0.44 | 19,166 | 310 | 6,200 | 0.14 | 32.3% | 1.0 | 3,000 | 0.07 | 15.7% | 9,966 | 0.23 | 52.0% | 0.50 | 0.62 | 0.70 | |
| 51 | 4.48 | 195,149 | 300 | 6,000 | 0.14 | 3.1% | 9.5 | 28,500 | 0.65 | 14.6% | 160,649 | 3.69 | 82.3% | 0.37 | 0.48 | 0.55 | |
| 52 | 0.38 | 16,553 | 300 | 6,000 | 0.14 | 36.2% | 0.0 | 0.00 | 0.0% | 10,553 | 0.24 | 63.8% | 0.45 | 0.56 | 0.64 | | |
| 53 | 1.22 | 53,143 | 300 | 6,000 | 0.14 | 11.3% | 6.5 | 19,500 | 0.45 | 36.7% | 27,643 | 0.63 | 52.0% | 0.51 | 0.62 | 0.70 | |
| 54 | 1.48 | 64,469 | 350 | 7,000 | 0.16 | 10.9% | 7.0 | 21,000 | 0.48 | 32.6% | 36,469 | 0.84 | 56.6% | 0.49 | 0.60 | 0.68 | |
| 55 | 1.23 | 53,579 | 725 | 14,500 | 0.33 | 27.1% | 3.0 | 9,000 | 0.21 | 16.8% | 30,079 | 0.69 | 56.1% | 0.49 | 0.60 | 0.68 | |
| 56 | 1.45 | 63,162 | 600 | 12,000 | 0.28 | 19.0% | 5.0 | 15,000 | 0.34 | 23.7% | 36,162 | 0.83 | 57.3% | 0.48 | 0.60 | 0.67 | |
| 57 | 1.14 | 49,658 | 200 | 4,000 | 0.09 | 8.1% | 7.5 | 22,500 | 0.52 | 45.3% | 23,158 | 0.53 | 46.6% | 0.53 | 0.65 | 0.73 | |
| 58 | 0.39 | 16,988 | 350 | 7,000 | 0.16 | 41.2% | 0.0 | 0.00 | 0.0% | 9,988 | 0.23 | 58.8% | 0.47 | 0.58 | 0.66 | | |
| 59 | 1.26 | 54,886 | 410 | 8,200 | 0.19 | 14.9% | 5.0 | 15,000 | 0.34 | 27.3% | 31,686 | 0.73 | 57.7% | 0.48 | 0.59 | 0.67 | |
| 60 | 1.56 | 67,954 | 200 | 4,000 | 0.09 | 5.9% | 11.5 | 34,500 | 0.79 | 50.8% | 29,454 | 0.68 | 43.3% | 0.55 | 0.67 | 0.75 | |
| 61 | 1.23 | 53,579 | 200 | 4,000 | 0.09 | 7.5% | 7.5 | 22,500 | 0.52 | 42.0% | 27,079 | 0.62 | 50.5% | 0.52 | 0.63 | 0.71 | |
| 62 | 0.96 | 41,818 | 700 | 14,000 | 0.32 | 33.5% | 0.0 | 0.00 | 0.0% | 27,818 | 0.64 | 66.5% | 0.44 | 0.55 | 0.62 | | |
| 63 | 2.19 | 95,396 | 750 | 15,000 | 0.34 | 15.7% | 6.0 | 18,000 | 0.41 | 18.9% | 62,396 | 1.43 | 65.4% | 0.45 | 0.56 | 0.63 | |
| 64 | 1.36 | 59,242 | 260 | 5,200 | 0.12 | 8.8% | 4.5 | 13,500 | 0.31 | 22.8% | 40,542 | 0.93 | 68.4% | 0.43 | 0.54 | 0.62 | |
| 65 | 0.75 | 32,670 | 625 | 12,500 | 0.29 | 38.3% | 0.5 | 1,500 | 0.03 | 4.6% | 18,670 | 0.43 | 57.1% | 0.48 | 0.59 | 0.67 | |
| 66 | 1.36 | 59,242 | 275 | 5,500 | 0.13 | 9.3% | 5.0 | 15,000 | 0.34 | 25.3% | 38,742 | 0.89 | 65.4% | 0.45 | 0.56 | 0.63 | |
| 67 | 1.92 | 83,635 | 240 | 4,800 | 0.11 | 5.7% | 6.5 | 19,500 | 0.45 | 23.3% | 59,335 | 1.36 | | | | | |

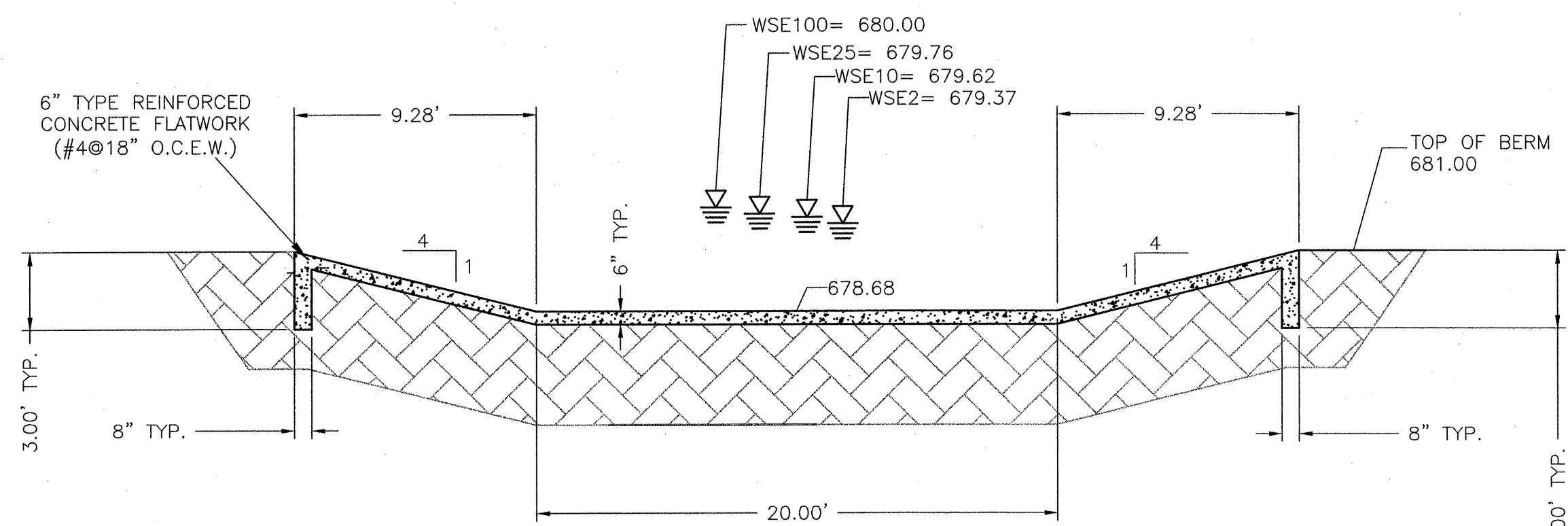
Meadows at Kyle
Inlet Flow Calculations

| Basin | | Area (Ac) | Area (sf) | Sheet Flow | | | | Grass Shallow Conc. Flow | | | | Street Shallow Conc. Flow | | | | 2-year | | | 25-year | | | 100-year | | | |
|-----------|-----------|-----------|------------|------------|------|-------|----------------------|--------------------------|------|-------|----------------------|---------------------------|------|-------|----------------------|----------------------|------|-----------|---------|------|-----------|----------|------|-----------|---------|
| | | | | L (ft) | n | S (%) | T _c (min) | L (ft) | n | S (%) | T _c (min) | L (ft) | n | S (%) | T _c (min) | T _c (min) | C | I (in/hr) | Q (cfs) | C | I (in/hr) | Q (cfs) | C | I (in/hr) | Q (cfs) |
| 1A to 1 | ENTRY CUL | 5.33 | 232,174.80 | 300 | 0.30 | 5.00% | 9.58 | 150 | 0.30 | 5.00% | 3.35 | 550 | 0.02 | 5.00% | 0.82 | 13.76 | 0.37 | 4.04 | 8.00 | 0.48 | 7.21 | 18.34 | 0.55 | 9.26 | 27.15 |
| 2A to 2 | INLET A-1 | 1.09 | 47,480.40 | 300 | 0.30 | 5.00% | 9.58 | 150 | 0.30 | 5.00% | 3.35 | 350 | 0.02 | 4.00% | 0.58 | 13.52 | 0.41 | 4.07 | 1.82 | 0.52 | 7.27 | 4.11 | 0.59 | 9.32 | 6.03 |
| 3A to 3 | INLET A-3 | 2.28 | 99,316.80 | 300 | 0.30 | 5.00% | 9.58 | 150 | 0.30 | 5.00% | 3.35 | 75 | 0.02 | 4.00% | 0.13 | 13.06 | 0.36 | 4.14 | 3.38 | 0.46 | 7.37 | 7.79 | 0.54 | 9.44 | 11.55 |
| 4 | INLET A-2 | 1.17 | 50,965.20 | 175 | 0.30 | 2.00% | 8.84 | | | | | 200 | 0.02 | 4.00% | 0.33 | 9.17 | 0.54 | 4.77 | 3.03 | 0.66 | 8.45 | 6.52 | 0.74 | 10.69 | 9.27 |
| 5 | INLET B-2 | 0.64 | 27,878.40 | 75 | 0.30 | 2.00% | 3.79 | | | | | 200 | 0.02 | 1.00% | 0.67 | 5.00 | 0.53 | 5.76 | 1.95 | 0.65 | 10.11 | 4.18 | 0.73 | 12.54 | 5.84 |
| 6 | INLET B-1 | 0.28 | 12,196.80 | | | | | | | | | 250 | 0.02 | 1.00% | 0.83 | 5.00 | 0.64 | 5.76 | 1.03 | 0.76 | 10.11 | 2.15 | 0.85 | 12.54 | 2.97 |
| 7 | POND | 4.09 | 178,160.40 | 150 | 0.30 | 2.00% | 7.58 | | | | | | | | | 7.58 | 0.36 | 5.10 | 7.50 | 0.46 | 9.01 | 17.10 | 0.54 | 11.32 | 24.88 |
| 8 | INLET D-1 | 0.61 | 26,571.60 | 25 | 0.30 | 2.00% | 1.26 | | | | | 350 | 0.02 | 1.00% | 1.17 | 5.00 | 0.44 | 5.76 | 1.54 | 0.55 | 10.11 | 3.39 | 0.63 | 12.54 | 4.79 |
| 9 | INLET D-2 | 0.96 | 41,817.60 | 150 | 0.30 | 2.00% | 7.58 | | | | | 300 | 0.02 | 1.00% | 1.00 | 8.58 | 0.46 | 4.89 | 2.17 | 0.57 | 8.65 | 4.77 | 0.65 | 10.92 | 6.83 |
| 10A to 10 | INLET C-2 | 1.43 | 62,290.80 | 250 | 0.30 | 4.00% | 8.93 | | | | | 450 | 0.02 | 4.00% | 0.75 | 9.68 | 0.46 | 4.68 | 3.10 | 0.58 | 8.29 | 6.82 | 0.65 | 10.51 | 9.81 |
| 11 | INLET C-1 | 1.21 | 52,707.60 | 225 | 0.30 | 4.00% | 8.04 | | | | | 275 | 0.02 | 4.00% | 0.46 | 8.49 | 0.52 | 4.91 | 3.09 | 0.64 | 8.68 | 6.67 | 0.72 | 10.95 | 9.48 |
| 12A to 12 | INLET C-3 | 1.17 | 50,965.20 | 275 | 0.30 | 4.00% | 9.82 | | | | | 200 | 0.02 | 4.00% | 0.33 | 10.15 | 0.42 | 4.59 | 2.25 | 0.53 | 8.15 | 5.03 | 0.60 | 10.34 | 7.30 |
| 13 | INLET D-1 | 0.41 | 17,859.60 | 25 | 0.30 | 2.00% | 1.26 | | | | | 250 | 0.02 | 0.50% | 1.18 | 5.00 | 0.44 | 5.76 | 1.03 | 0.55 | 10.11 | 2.27 | 0.62 | 12.54 | 3.21 |
| 14 | INLET D-2 | 0.55 | 23,958.00 | 125 | 0.30 | 2.00% | 6.31 | | | | | 175 | 0.02 | 3.00% | 0.34 | 6.65 | 0.50 | 5.32 | 1.45 | 0.61 | 9.37 | 3.15 | 0.69 | 11.73 | 4.45 |
| 15 | INLET | 1.04 | 45,302.40 | 125 | 0.30 | 2.00% | 6.31 | | | | | 225 | 0.02 | 3.00% | 0.43 | 6.75 | 0.50 | 5.29 | 2.73 | 0.61 | 9.33 | 5.91 | 0.69 | 11.69 | 8.97 |
| 16A to 16 | INLET | 1.33 | 57,934.80 | 200 | 0.30 | 4.00% | 7.14 | 125 | 0.30 | 2.00% | 4.42 | 200 | 0.02 | 4.00% | 0.33 | 11.90 | 0.42 | 4.31 | 2.42 | 0.53 | 7.66 | 5.42 | 0.61 | 9.78 | 7.91 |
| 17 | INLET | 0.79 | 34,412.40 | 125 | 0.30 | 2.00% | 6.31 | | | | | 200 | 0.02 | 3.00% | 0.38 | 6.70 | 0.51 | 5.30 | 2.13 | 0.62 | 9.35 | 4.60 | 0.70 | 11.71 | 6.49 |
| 18 | INLET | 1.65 | 71,874.00 | 150 | 0.30 | 2.00% | 7.58 | | | | | 400 | 0.02 | 3.00% | 0.77 | 8.35 | 0.46 | 4.94 | 3.77 | 0.57 | 8.73 | 8.27 | 0.65 | 11.01 | 11.84 |
| 19 | INLET | 2.51 | 109,335.60 | 300 | 0.30 | 3.00% | 12.37 | | | | | | | | | 12.37 | 0.37 | 4.24 | 3.89 | 0.47 | 7.54 | 8.91 | 0.54 | 9.64 | 13.16 |
| 20 | INLET | 0.18 | 7,840.80 | 25 | 0.30 | 2.00% | 1.26 | | | | | 100 | 0.02 | 2.00% | 0.24 | 5.00 | 0.51 | 5.76 | 0.53 | 0.63 | 10.11 | 1.15 | 0.71 | 12.54 | 1.60 |
| 21 | INLET | 0.15 | 6,534.00 | 25 | 0.30 | 2.00% | 1.26 | | | | | 100 | 0.02 | 2.00% | 0.24 | 5.00 | 0.49 | 5.76 | 0.42 | 0.61 | 10.11 | 0.92 | 0.68 | 12.54 | 1.29 |
| 22 | INLET | 0.43 | 18,730.80 | 25 | 0.30 | 2.00% | 1.26 | | | | | 250 | 0.02 | 2.00% | 0.59 | 5.00 | 0.45 | 5.76 | 1.12 | 0.57 | 10.11 | 2.46 | 0.64 | 12.54 | 3.47 |
| 23 | INLET | 0.33 | 14,374.80 | 100 | 0.30 | 3.00% | 4.12 | | | | | | | | | 5.00 | 0.48 | 5.76 | 0.92 | 0.59 | 10.11 | 1.98 | 0.67 | 12.54 | 2.79 |
| 24 | INLET | 1.40 | 60,984.00 | 200 | 0.30 | 3.00% | 8.25 | | | | | 225 | 0.02 | 2.00% | 0.53 | 8.78 | 0.47 | 4.85 | 3.21 | 0.58 | 8.58 | 7.02 | 0.66 | 10.84 | 10.06 |
| 25 | INLET | 0.85 | 37,026.00 | 200 | 0.30 | 2.00% | 10.10 | | | | | 300 | 0.02 | 2.00% | 0.71 | 10.81 | 0.45 | 4.48 | 1.70 | 0.56 | 7.96 | 3.78 | 0.64 | 10.12 | 5.47 |
| 26 | INLET | 1.47 | 64,033.20 | 200 | 0.30 | 2.00% | 10.10 | | | | | 325 | 0.02 | 2.00% | 0.77 | 10.87 | 0.45 | 4.47 | 2.93 | 0.56 | 7.94 | 6.49 | 0.63 | 10.10 | 9.40 |
| 27 | INLET | 0.55 | 23,958.00 | 75 | 0.30 | 2.00% | 3.79 | | | | | 300 | 0.02 | 3.33% | 0.55 | 5.00 | 0.49 | 5.76 | 1.57 | 0.61 | 10.11 | 3.38 | 0.69 | 12.54 | 4.74 |
| 28 | INLET | 0.99 | 43,124.40 | 150 | 0.30 | 2.50% | 6.78 | | | | | 225 | 0.02 | 2.00% | 0.53 | 7.31 | 0.50 | 5.16 | 2.55 | 0.61 | 9.11 | 5.53 | 0.69 | 11.44 | 7.84 |
| 29 | INLET | 0.79 | 34,412.40 | 100 | 0.30 | 2.00% | 5.05 | | | | | 250 | 0.02 | 2.00% | 0.59 | 5.64 | 0.45 | 5.58 | 1.99 | 0.56 | 9.81 | 4.36 | 0.64 | 12.21 | 6.17 |
| 30 | INLET | 1.98 | 86,248.80 | 225 | 0.30 | 4.00% | 8.04 | | | | | 350 | 0.02 | 3.00% | 0.67 | 8.71 | 0.50 | 4.86 | 4.77 | 0.61 | 8.60 | 10.38 | 0.69 | 10.87 | 14.81 |
| 31 | INLET | 1.45 | 63,162.00 | 300 | 0.30 | 2.50% | 13.55 | | | | | | | | | 13.55 | 0.46 | 4.07 | 2.72 | 0.57 | 7.26 | 6.03 | 0.65 | 9.31 | 8.78 |
| 32 | INLET E-1 | 1.12 | 48,787.20 | 125 | 0.30 | 2.00% | 6.31 | | | | | 300 | 0.02 | 2.00% | 0.71 | 7.02 | 0.53 | 5.23 | 3.09 | 0.64 | 9.22 | 6.64 | 0.72 | 11.56 | 9.37 |
| 33 | INLET E-1 | 1.28 | 55,756.80 | 300 | 0.30 | 3.33% | 11.74 | | | | | 150 | 0.02 | 1.00% | 0.50 | 12.24 | 0.41 | 4.25 | 2.22 | 0.52 | 7.57 | 5.00 | 0.59 | 9.68 | 7.32 |
| 34 | INLET | 0.72 | 31,363.20 | 150 | 0.30 | 2.00% | 7.58 | | | | | 300 | 0.02 | 1.50% | 0.82 | 8.39 | 0.52 | 4.93 | 1.84 | 0.63 | 8.71 | 3.98 | 0.71 | 10.99 | 5.66 |
| 35 | INLET | 0.60 | 26,136.00 | 25 | 0.30 | 2.00% | 1.26 | | | | | 350 | 0.02 | 1.00% | 1.17 | 5.00 | 0.46 | 5.76 | 1.58 | 0.57 | 10.11 | 3.46 | 0.65 | 12.54 | 4.87 |
| 36 | INLET | 0.83 | 36,154.80 | 125 | 0.30 | 2.00% | 6.31 | | | | | 225 | 0.02 | 1.00% | 0.75 | 7.06 | 0.53 | 5.22 | 2.32 | 0.65 | 9.20 | 4.97 | 0.73 | 11.54 | 7.01 |
| 37 | INLET | 0.98 | 42,688.80 | 100 | 0.30 | 2.00% | 5.05 | | | | | 275 | 0.02 | 2.00% | 0.65 | 5.70 | 0.51 | 5.56 | 2.79 | 0.63 | 9.78 | 6.01 | 0.71 | 12.18 | 8.44 |
| 38 | INLET | 1.64 | 71,438.40 | 250 | 0.30 | 3.50% | 9.55 | | | | | 150 | 0.02 | 3.00% | 0.29 | 9.83 | 0.48 | 4.65 | 3.67 | 0.59 | 8.24 | 8.04 | 0.67 | 10.45 | 11.54 |
| 39 | INLET | 3.17 | 138,085.20 | 100 | 0.30 | 3.33% | 3.91 | | | | | | | | | 5.00 | 0.57 | 5.76 | 10.40 | 0.69 | 10.11 | 22.06 | 0.77 | 12.54 | 30.63 |
| 40 | INLET | 0.69 | 30,056.40 | 25 | 0.30 | 2.00% | 1.26 | | | | | 400 | 0.02 | 1.00% | 1.33 | 5.00 | 0.47 | 5.76 | 1.88 | 0.59 | 10.11 | 4.10 | 0.67 | 12.54 | 5.76 |
| 41 | INLET | 1.60 | 69,696.00 | 225 | 0.30 | 2.00% | 11.36 | | | | | 150 | 0.02 | 2.00% | 0.35 | 11.72 | 0.52 | 4.33 | 3.57 | 0.63 | 7.71 | 7.77 | 0.71 | 9.84 | 11.17 |
| 42 | INLET | 2.05 | 89,298.00 | 300 | 0.30 | 3.33% | 11.74 | 150 | 0.30 | 3.33% | 4.11 | | | | | 15.85 | 0.42 | 3.79 | 3.27 | 0.53 | 6.78 | 7.36 | 0.61 | 8.73 | 10.84 |
| 43 | INLET | 0.41 | 17,859.60 | 25 | 0.30 | 2.00% | 1.26 | | | | | 250 | 0.02 | 3.00% | 0.48 | 5.00 | 0.50 | 5.76 | 1.17 | 0.61 | 10.11 | 2.53 | 0.69 | 12.54 | 3.55 |
| 44 | INLET | 1.21 | 52,707.60 | 225 | 0.30 | 4.00% | 8.04 | | | | | 150 | 0.02 | 3.50% | 0.27 | 8.30 | 0.53 | 4.95 | 3.17 | 0.65 | 8.74 | 6.83 | 0.73 | 11.03 | 9.69 |
| 45 | INLET | 0.53 | 23,086.80 | 25 | 0.30 | 2.00% | 1.26 | | | | | 350 | 0.02 | 3.33% | 0.64 | 5.00 | 0.46 | 5.76 | 1.41 | 0.57 | 10.11 | 3.07 | 0.65 | 12.54 | 4.33 |
| 46 | INLET | 1.76 | 76,665.60 | 200 | 0.30 | 3.00% | 8.25 | | | | | 275 | 0.02 | 3.33% | 0.50 | 8.75 | 0.48 | 4.85 | 4.13 | 0.60 | 8.59 | 9.01 | 0.67 | 10.85 | 12.88 |
| 47 | INLET | 0.97 | 42,253.20 | 125 | 0.30 | 2.00% | 6.31 | | | | | 300 | 0.02 | 4.00% | 0.50 | 6.81 | 0.47 | 5.28 | 2.38 | 0.58 | 9.30 | 5.21 | 0.65 | 11.66 | 7.40 |
| 48 | INLET | 1.24 | 54,014.40 | 125 | 0.30 | 2.00% | 6.31 | | | | | 275 | 0.02 | 3.50% | 0.49 | 6.80 | 0.47 | 5.28 | 3.11 | 0.59 | 9.31 | 6.78 | 0.67 | 11.66 | 9.62 |
| 49 | INLET | 2.54 | 110,642.40 | 200 | 0.30 | 2.00% | 10.10 | | | | | 250 | 0.02 | 4.00% | 0.42 | 10.52 | 0.48 | 4.53 | 5.48 | 0.59 | 8.04 | 12.02 | 0.67 | 10.22 | 17.31 |
| 50 | INLET | 0.44 | 19,166.40 | 50 | 0.30 | 2.00% | 2.53 | | | | | 175 | 0.02 | 4.00% | 0.29 | 5.00 | 0.50 | 5.76 | 1.28 | 0.62 | 10.11 | 2.75 | 0.70 | 12.54 | 3.85 |
| 51 | INLET | 4.48 | 195,148.80 | 150 | 0.30 | 4.00% | 5.36 | | | | | 250 | 0.02 | 4.00% | 0.42 | 5.77 | 0.37 | 5.54 | 9.20 | 0.48 | 9.75 | 20.79 | 0.55 | 12.15 | 29.91 |
| 52 | INLET | 0.38 | 16,552.80 | 25 | 0.30 | 2.00% | 1.26 | | | | | 200 | 0.02 | 4.00% | 0.33 | 5.00 | 0.45 | 5.76 | 0.98 | 0.56 | 10.11 | 2.15 | 0.64 | 12.54 | 3.04 |
| 53 | INLET | 1.22 | 53,143.20 | 225 | 0.30 | 3.00% | 9.28 | | | | | 200 | 0.02 | 4.00% | 0.33 | 9.61 | 0.51 | 4.69 | 2.91 | 0.62 | 8.31 | 6.32 | 0.70 | 10.53 | 9.03 |
| 54 | INLET | 1.48 | 64,468.80 | 150 | 0.30 | 2.00% | 7.58 | | | | | 225 | 0.02 | 3.00% | 0.43 | 8.01 | 0.49 | 5.01 | 3.61 | 0.60 | 8.85 | 7.87 | 0.68 | 11.14 | 11.20 |
| 55 | INLET | 1.23 | 53,578.80 | 150 | 0.30 | 2.00% | 7.58 | | | | | | | | | | | | | | | | | | |

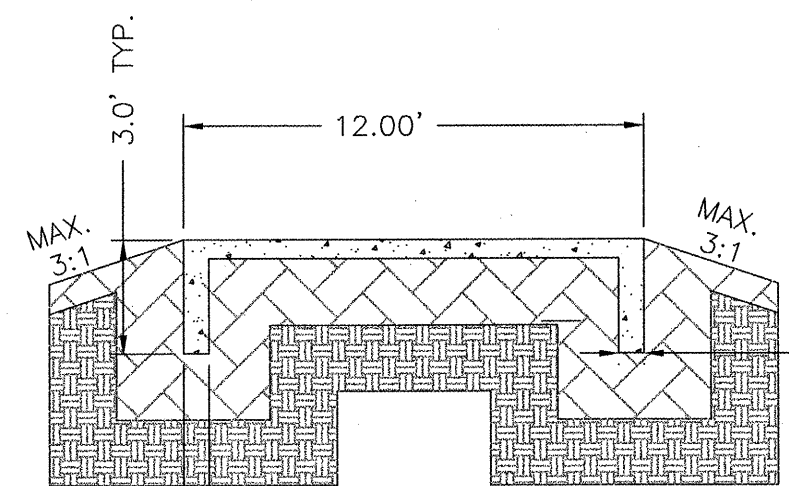
FILE: H:\Projects\1283\10465 Meadows at Kyle 1 CP\CAD\SHEETS\POND.dwg LAYOUT: DETENTION POND DETAILS DATE: 9/17/2012 1:22:52 PM BY: JOSTILLO



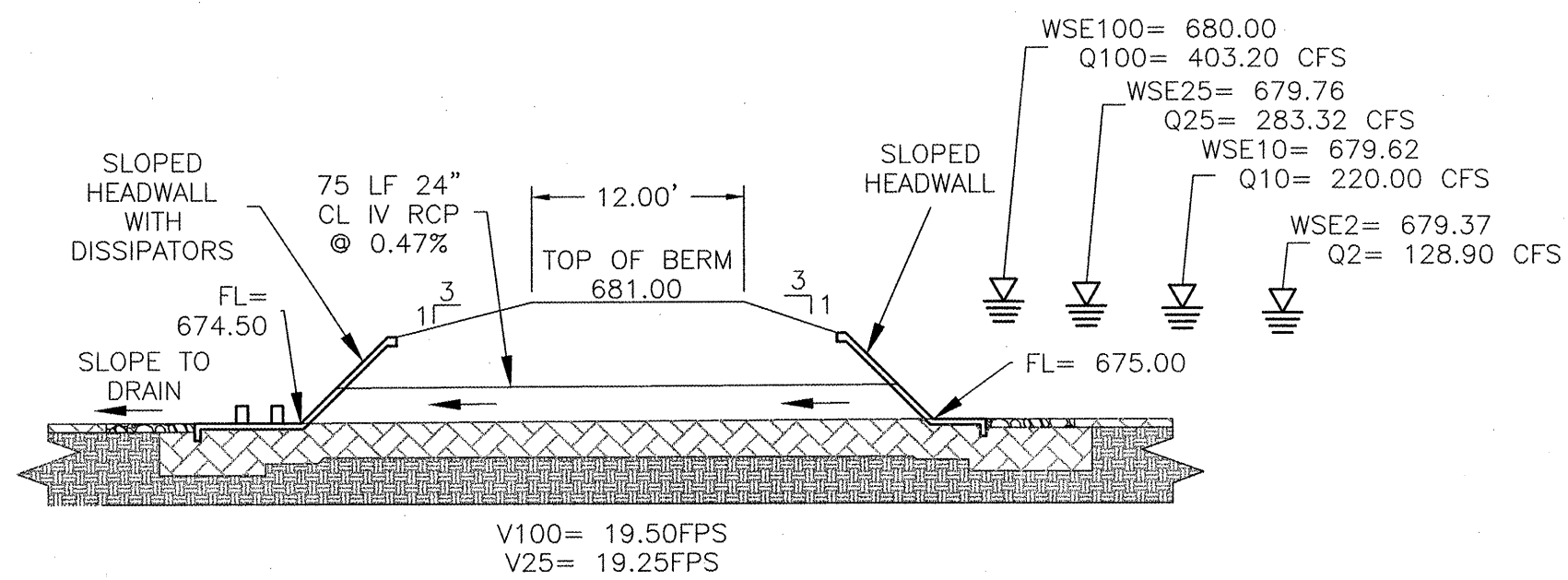
SECTION A-A
SCALE: 1" = 10'



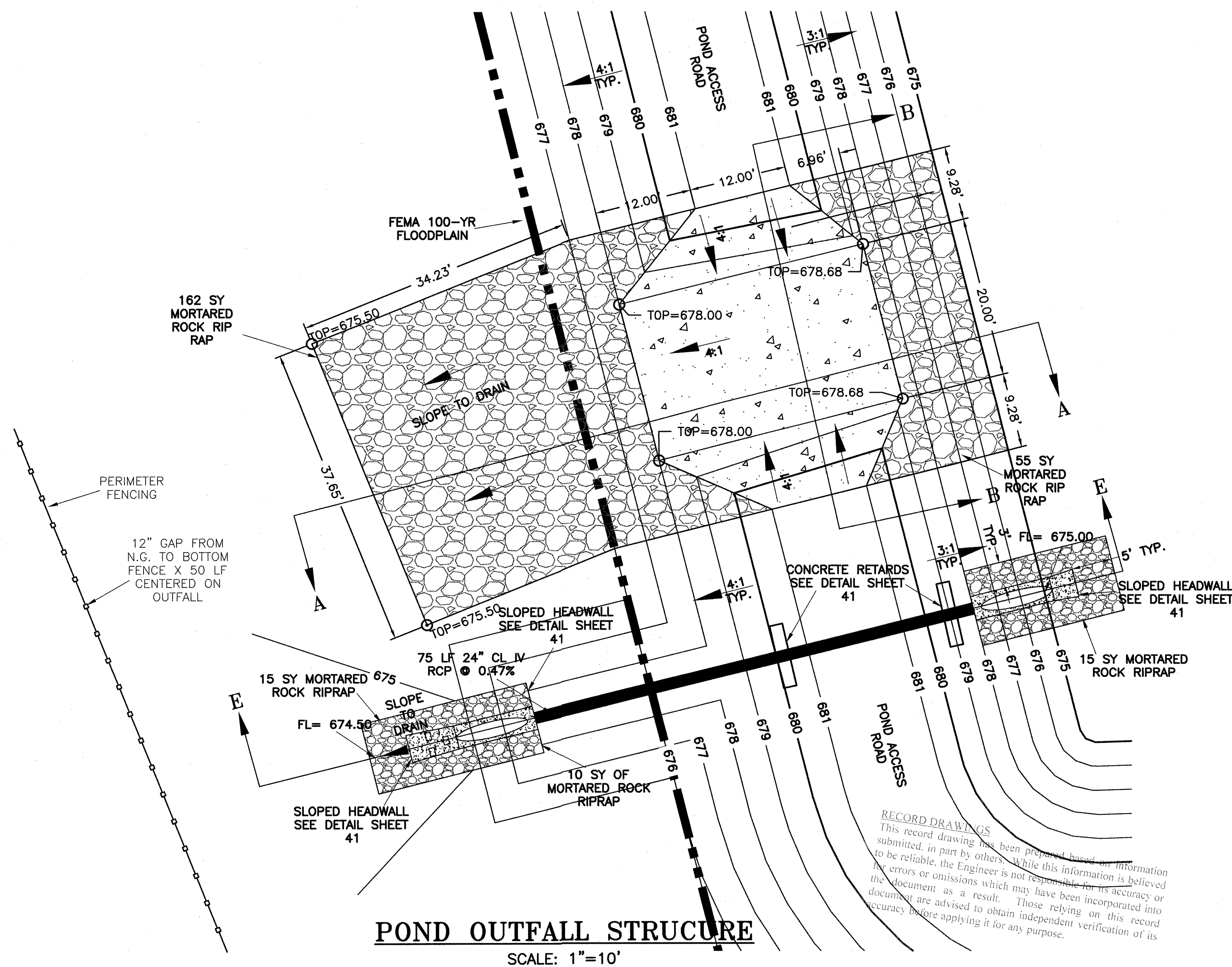
SECTION B-B
SCALE: 1" = 5'



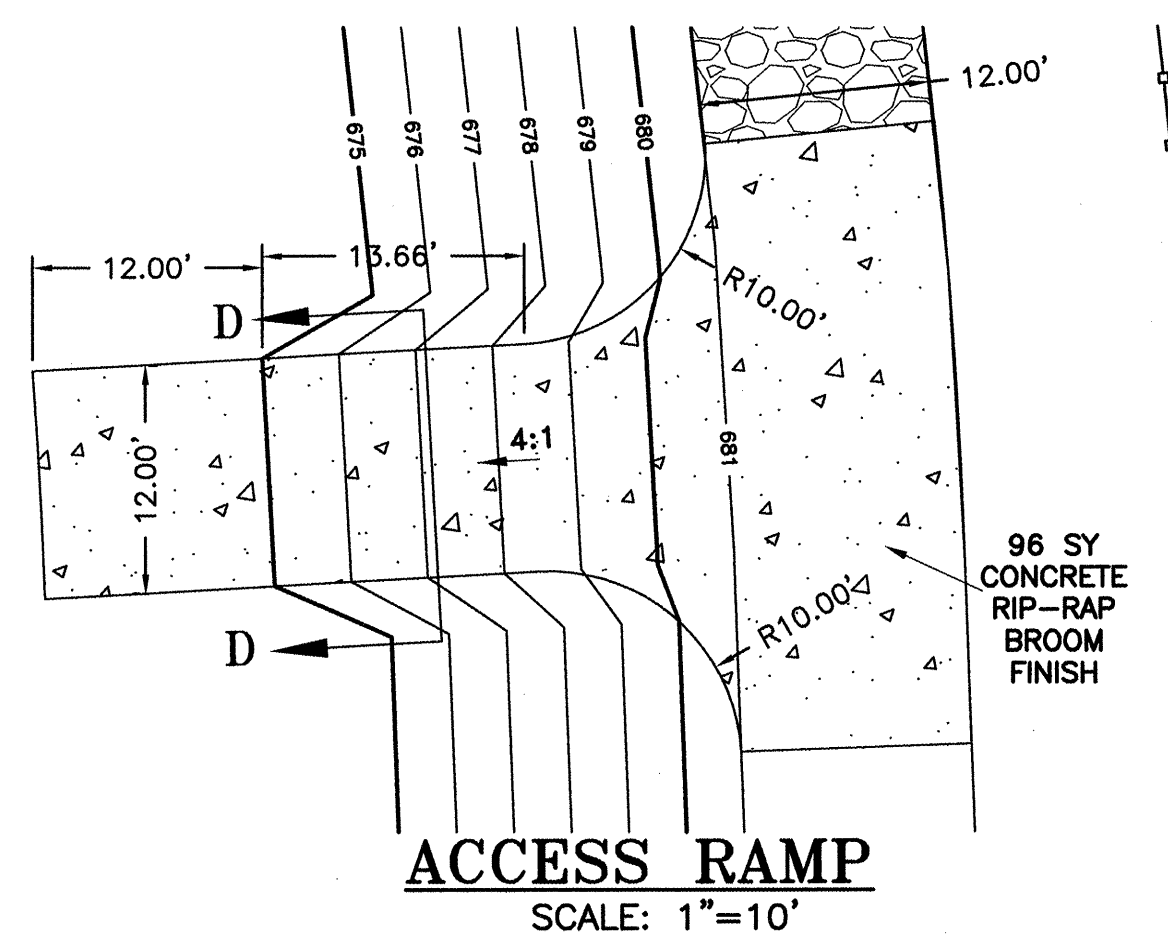
SECTION D-D
SCALE: 1" = 5'



SECTION E-E
SCALE: N.T.S.



POND OUTFALL STRUCTURE
SCALE: 1" = 10'



ACCESS RAMP
SCALE: 1" = 10'

| MAK Pond 1 - Hydraulic HEC HMS Summary | | | | | | |
|--|----------------------|----------------------|----------------------|----------------|----------------|-------------------------------------|
| Hydrologic Element | Existing | Developed | Proposed | Existing | Developed | Detention Req'd |
| | Peak Discharge (cfs) | Peak Discharge (cfs) | Peak Discharge (cfs) | Volume (Ac-ft) | Volume (Ac-ft) | [Existing-Developed] Volume (Ac-ft) |
| 100-Year Storm | 274.80 | 327.80 | 244.57 | 36.80 | 42.70 | 6.10 |
| 25-Year Storm | 186.90 | 235.10 | 168.21 | 24.60 | 30.50 | 5.90 |
| 10-Year Storm | 137.40 | 179.60 | 124.21 | 18.00 | 23.30 | 5.30 |
| 2-Year Storm | 53.00 | 86.00 | 48.20 | 7.10 | 11.30 | 4.20 |

| DETENTION/STORAGE FACILITIES POND 1 | |
|-------------------------------------|----------------|
| Description | Volume (Ac-ft) |
| Pond 1* | 4.430 |
| Storm Sewer - MAK1 | 0.272 |
| Storm Sewer - Future | 0.371 |
| Streets - MAK1 | 0.572 |
| Streets - Future | 1.170 |
| Total | 6.815 |

*Design volume with 1' of freeboard.
Total capacity to top of bank=6.55 ac-ft.

Det. Volume Req'd = 6.10 ac-ft
Det. Volume Prop. = 6.82 ac-ft

LEGEND

COMPACTED SELECT FILL 95% STD. PROCTOR

NOTES:

- POND EXCAVATION/LINER (IF APPLICABLE) SOIL STABILIZATION, LIME TREATMENT, ETC TO FOLLOW THE GEOTECHNICAL INVESTIGATION BY MIA DATED APRIL 10, 2012, REF. NO. 11105001.038
- ALL CONCRETE TO BE MINIMUM 3000 PSI @ 28 DAY AND SUBGRADE STABILIZED PRIOR TO PLACEMENT.
- POND TO BE SURFACED WITH A MINIMUM OF 4-INCHES OF TOPSOIL AND STABILIZED WITH 90% VEGETATIVE GROWTH CAPABLE OF PREVENTING EROSION PRIOR TO ACCEPTANCE BY THE OWNER AND ENGINEER.

PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
FILE NO. POND DRAWN BY:
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

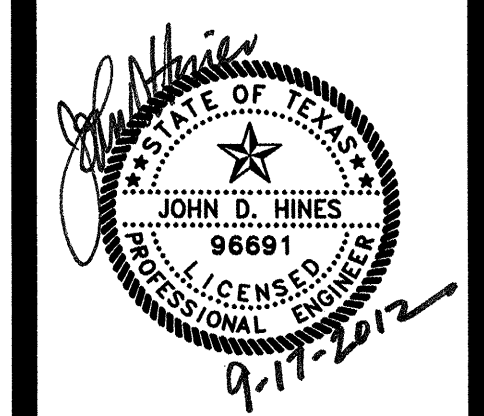
GRAY & ASSOCIATES, INC.
Consulting Engineers
8217 Shoal Creek Blvd., Suite 200
Austin, Texas 78757-7692
(612) 652-0871 FAX (612) 454-9933
TYPE FIRM #5946

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

**MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS**

DETENTION POND DETAILS

NOTICE:
ALTERATION OF A SEALED DRAWING WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS A VIOLATION OF THE TEXAS ENGINEERING PRACTICE ACT.



FILE: H:\Projects\1283\10465 Meadows at Kyle 1 OF 3\CAD\SHEETS\EROSION & SEDIMENTATION CONTROL PLAN DATE: 9/26/2012 11:05:26 AM BY: JCASTILLO

SCALE: 1"=50'
GRAPHIC SCALE IN FEET
0 25 50 75 100

- LEGEND**
- LIMITS OF CONSTRUCTION
 - SF - SILT FENCE
 - [Hatched Box] STABILIZED CONSTRUCTION ENTRANCE
 - [Line with Triangle] INLET PROTECTION
 - [Dashed Line] PROPOSED MAJOR CONTOUR
 - [Solid Line] PROPOSED MINOR CONTOUR
 - [Hatched Box] INTERCEPTOR DIKE
 - [Circle with X] ROCK BERM
 - [Square with X] PERMANENT FENCE
 - [Arrow] FLOW DIRECTION

- NOTE:**
1. THERE ARE NO TREES WITHIN PHASE I THAT REQUIRE TREE PROTECTION.
 2. IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING. (ECM 1.4.4.B.3, SECTION 5, 1.)
 3. ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN-COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS. (LDC 25-8-183)
 4. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(A), OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
 5. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY (ECM 1.4.4.D.4)
 6. INITIATE FINAL STABILIZATION WITHIN 7 DAYS OF ACHIEVING FINAL GRADE.
 7. ANY DIRT, MUD, ROCKS, DEBRIS, ETC. THAT IS SPILLED, TRACKED, OR OTHERWISE DEPOSITED ON ANY EXISTING PAVED STREETS SHALL BE CLEANED IMMEDIATELY BY THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE.
 8. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO AREAS WITHIN THE R.O.W., EASEMENTS, SPOILS DISPOSAL AND STAGING AREAS ONLY.
 9. TREE PROTECTION FENCING SHALL BE PROVIDED FOR ANY HARDWOOD TREES WITHIN 20' OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THESE IMPROVEMENTS.
 10. STORM INLET SEDIMENT TRAPS PLACED IN PROPOSED INLETS ARE TO BE REMOVED AND REPLACED W/ TRI-DIKES AFTER ALL IMPROVEMENTS HAVE BEEN COMPLETED PRIOR TO THE SUBDIVISION ACCEPTANCE.
 11. DIVERSION DIKE TO REMAIN IN-PLACE AND SHALL BE REMOVED WITH FUTURE DEVELOPMENT.

PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
FILE NO. EROSION PLAN DRAWN BY: JH, HRG
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

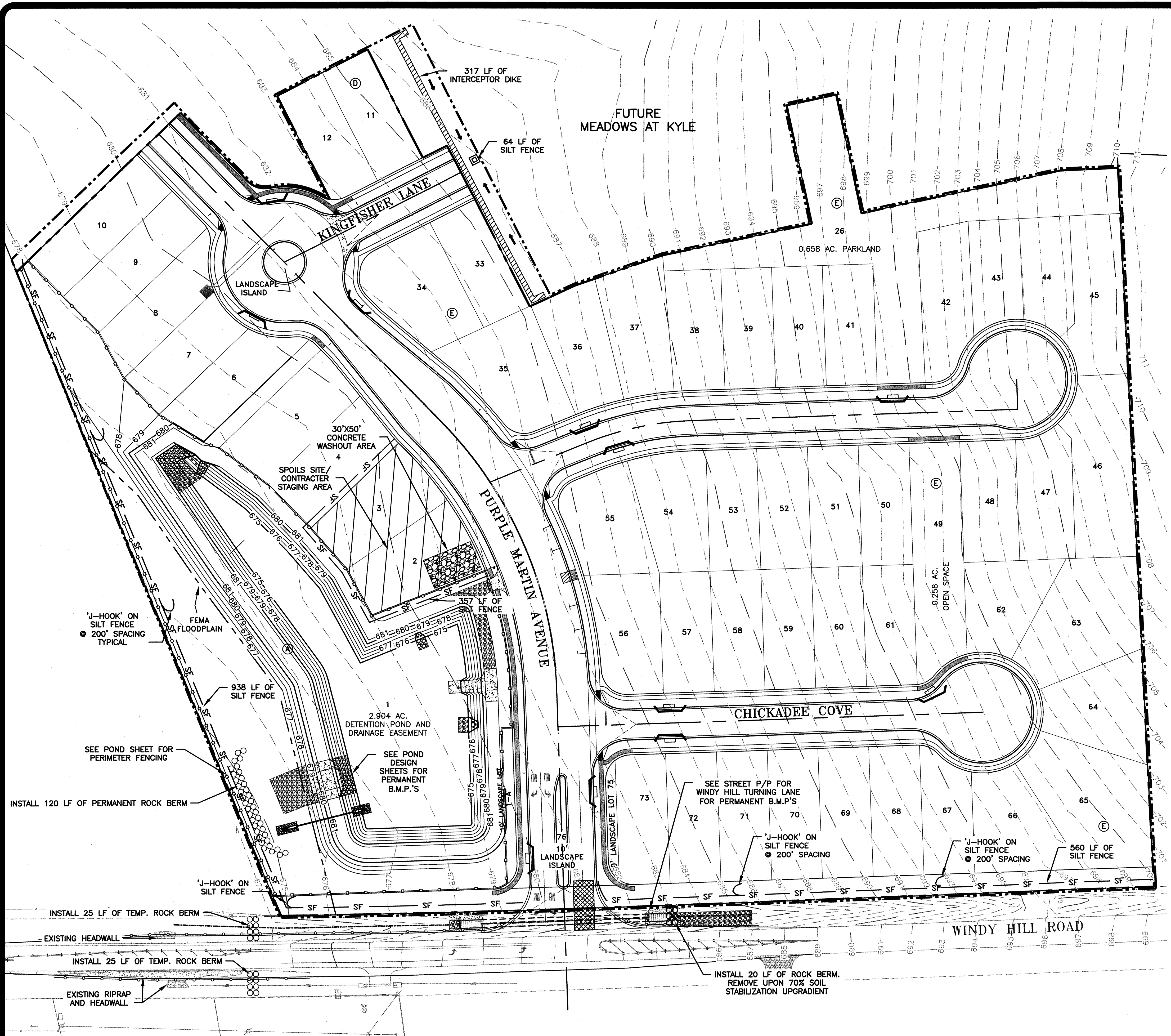
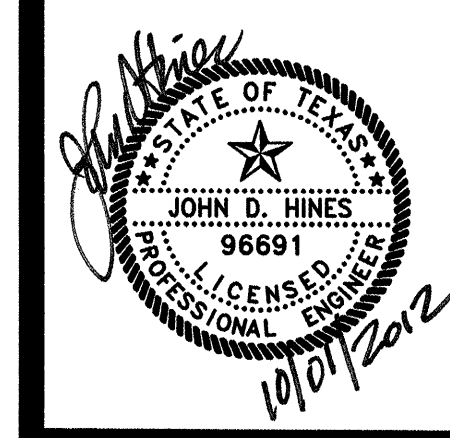
GRAY & ASSOCIATES, INC.
Consulting Engineers
8217 Shoal Creek Blvd., Suite 200
Austin, Texas 78757-7692
(512)465-0871 FAX (512)464-9983
TYPE FIRM #5946

| NO. | DATE | REVISION DESCRIPTION | CORRECT LABEL |
|-----|---------|----------------------|---------------|
| 1 | 9/26/12 | | |

**MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS**

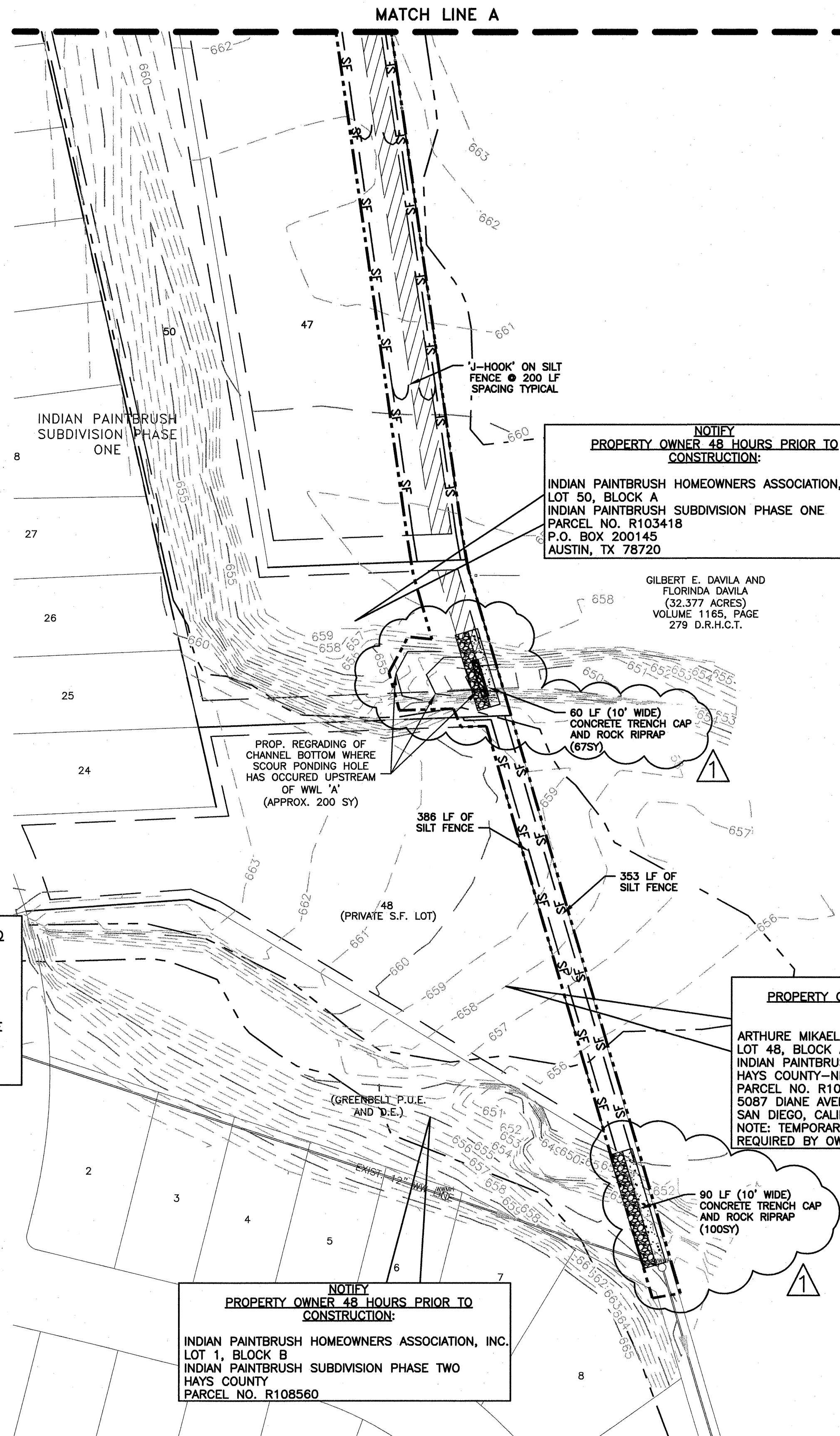
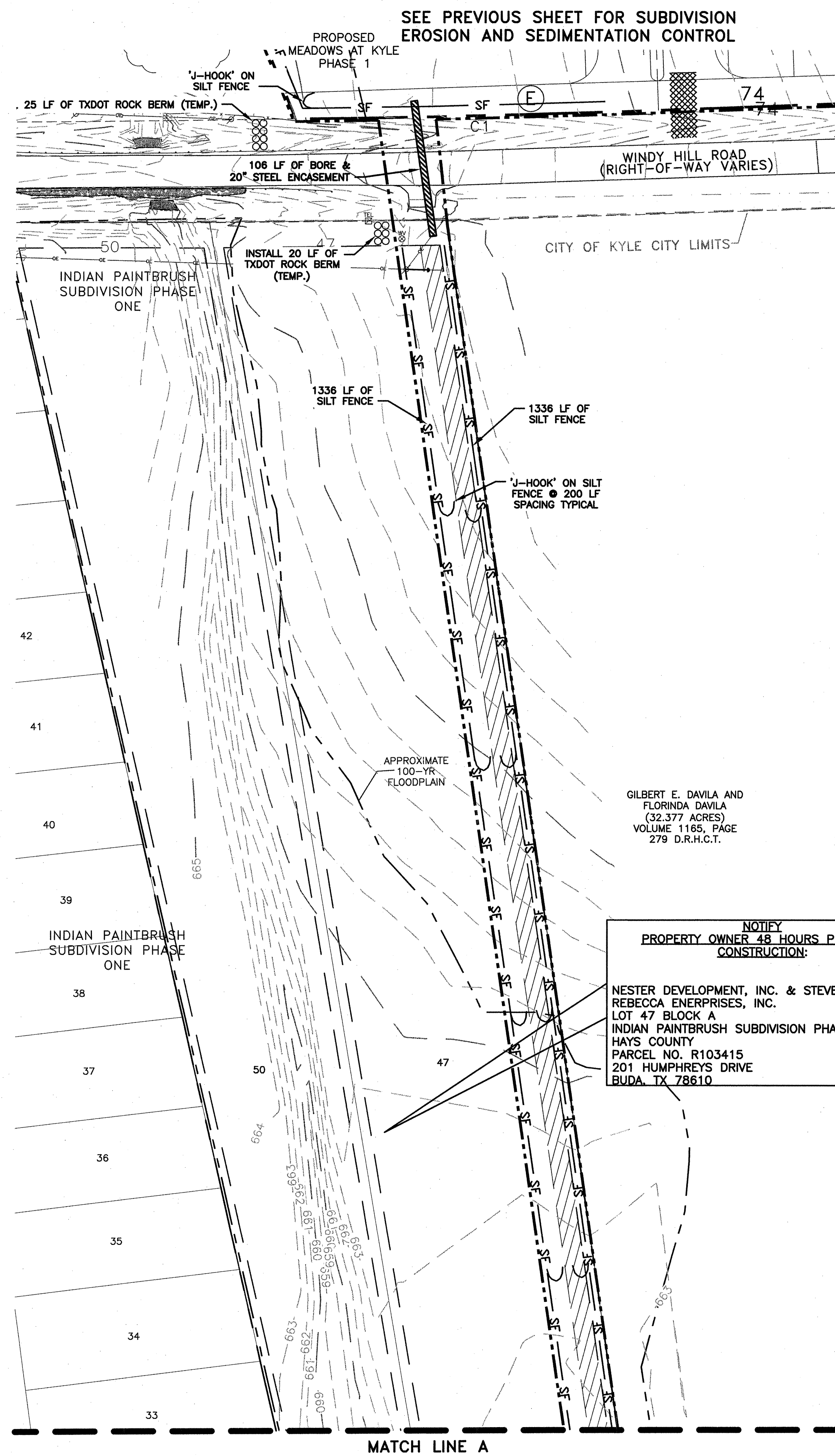
**OVERALL EROSION &
SEDIMENTATION CONTROL
PLAN**

NOTICE:
ALTERATION OF A SEALED DRAWING WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS A VIOLATION OF THE TEXAS ENGINEERING PRACTICE ACT.



RECORD DRAWINGS
This record drawing has been prepared based on information submitted, in part by others. While this information is believed to be reliable, the Engineer is not responsible for its accuracy or for errors or omissions which may have been incorporated into the document as a result. Those relying on this record document are advised to obtain independent verification of its accuracy before applying it for any purpose.

FILE: H:\Projects\1283\10465 Meadows at Kyle 1 CP\CAD\SHEETS\EROS-OFF-WW-A-PLAN.dwg LAYOUT: OVERALL EROSION & SEDIMENTATION CONTROL (OFFSITE WWL 'A') DATE: 5/10/2013 12:50:11 PM BY: JCASTILLO



SCALE: 1"=50'
GRAPHIC SCALE IN FEET
0 25 50 75 100

LEGEND

- LIMITS OF CONSTRUCTION
- SF - SILT FENCE
- [Hatched Box] STABILIZED CONSTRUCTION ENTRANCE
- [Bracket] INLET PROTECTION
- - - EXISTING MAJOR CONTOUR
- - - EXISTING MINOR CONTOUR
- [Hatched Box] INTERCEPTOR DIKE
- [Circle with X] ROCK BERM
- [Square] PERMANENT FENCE

NOTE:

1. IF DISTURBED AREA IS NOT TO BE WORKED ON FOR MORE THAN 14 DAYS, DISTURBED AREA NEEDS TO BE STABILIZED BY REVEGETATION, MULCH, TARP OR REVEGETATION MATTING (ECM 1.4.4.B.3, SECTION 5, 1.)
2. CITY INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN-COMPLIANCE WITH THE CITY OF AUSTIN RULES AND REGULATIONS. (LDC 25-8-183)
3. CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING AS PER ECM 1.4.5(A), OR AS DIRECTED BY THE CITY INSPECTOR.
4. THE CONTRACTOR WILL CLEAN UP SPOILS THAT MIGRATE ONTO THE ROADS A MINIMUM OF ONCE DAILY (ECM 1.4.4.D.4)
5. INITIATE FINAL STABILIZATION WITHIN 7 DAYS OF ACHIEVING FINAL GRADE.
6. ANY DIRT, MUD, ROCKS, DEBRIS, ETC. THAT IS SPILLED, TRACKED, OR OTHERWISE DEPOSITED ON ANY EXISTING PAVED STREETS SHALL BE CLEANED IMMEDIATELY BY THE CONTRACTOR, AT THE CONTRACTOR'S EXPENSE.
7. CONSTRUCTION ACTIVITY SHALL BE LIMITED TO AREAS WITHIN THE R.O.W., EASEMENTS, SPOILS DISPOSAL AND STAGING AREAS ONLY.
8. TREE PROTECTION FENCING SHALL BE PROVIDED FOR ANY HARDWOOD TREES WITHIN 20' OF CONSTRUCTION ACTIVITIES ASSOCIATED WITH THESE IMPROVEMENTS AND LOCATED ON AUTHORIZED PROPERTY.
9. STORM INLET SEDIMENT TRAPS PLACED IN PROPOSED INLETS ARE TO BE REMOVED AND REPLACED W/ TRI-DIKES AFTER ALL IMPROVEMENTS HAVE BEEN COMPLETED PRIOR TO THE SUBDIVISION ACCEPTANCE.

NOTIFY PROPERTY OWNER 48 HOURS PRIOR TO CONSTRUCTION:
NESTER DEVELOPMENT, INC. & STEVEN & REBECCA ENTERPRISES, INC.
LOT 47 BLOCK A
INDIAN PAINTBRUSH SUBDIVISION PHASE ONE
HAYS COUNTY
PARCEL NO. R103415
201 HUMPHREYS DRIVE
BUDA, TX 78610

NOTIFY PROPERTY OWNER 48 HOURS PRIOR TO CONSTRUCTION:
INDIAN PAINTBRUSH HOMEOWNERS ASSOCIATION, INC.
LOT 50, BLOCK A
INDIAN PAINTBRUSH SUBDIVISION PHASE ONE
PARCEL NO. R103418
P.O. BOX 200145
AUSTIN, TX 78720

GILBERT E. DAVILA AND FLORINDA DAVILA
(32.377 ACRES)
VOLUME 1165, PAGE 279 D.R.H.C.T.

NOTIFY PROPERTY OWNER 48 HOURS PRIOR TO CONSTRUCTION:
ARTHURE MIKAEIAN
LOT 48, BLOCK A
INDIAN PAINTBRUSH SUBDIVISION PHASE ONE
HAYS COUNTY-NEAR CR131
PARCEL NO. R103416
5087 DIANE AVENUE
SAN DIEGO, CALIFORNIA 92117
NOTE: TEMPORARY CHAIN LINK FENCE MAY BE REQUIRED BY OWNER.

NOTIFY PROPERTY OWNER 48 HOURS PRIOR TO CONSTRUCTION:
INDIAN PAINTBRUSH HOMEOWNERS ASSOCIATION, INC.
LOT 1, BLOCK B
INDIAN PAINTBRUSH SUBDIVISION PHASE TWO
HAYS COUNTY
PARCEL NO. R108560

RECORD DRAWINGS
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PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
FILE#069-OFF-WW-A-PLAN DRAWN BY: HRG
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

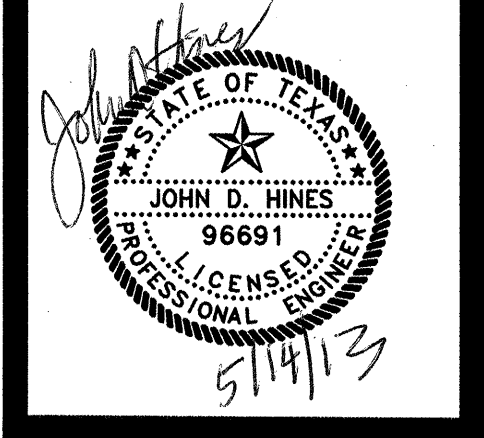
GRAY & ASSOCIATES, INC.
Consulting Engineers
8217 Shoat Creek Blvd., Suite 200
Austin, Texas 78757-7692
(512)452-0371 FAX (512)454-9933
TYPE FROM #2946

| NO. | BY | DATE | REVISION DESCRIPTION |
|-----|----|---------|-------------------------|
| 1 | JH | 9/29/12 | CORRECT EROSION CONTROL |

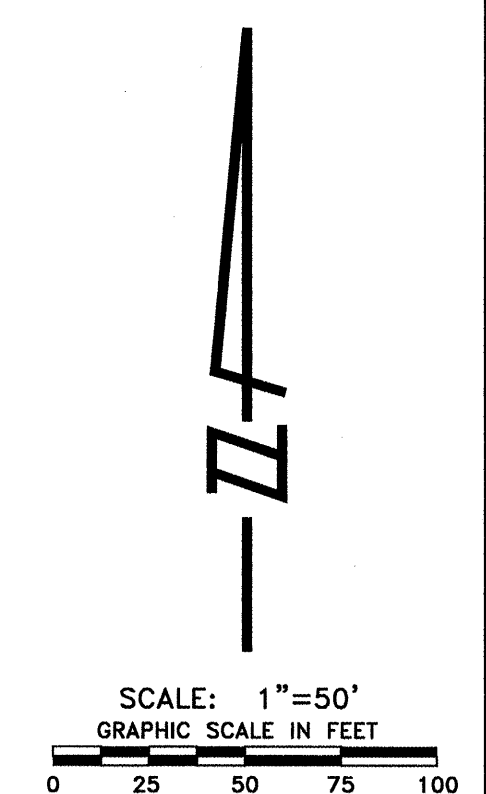
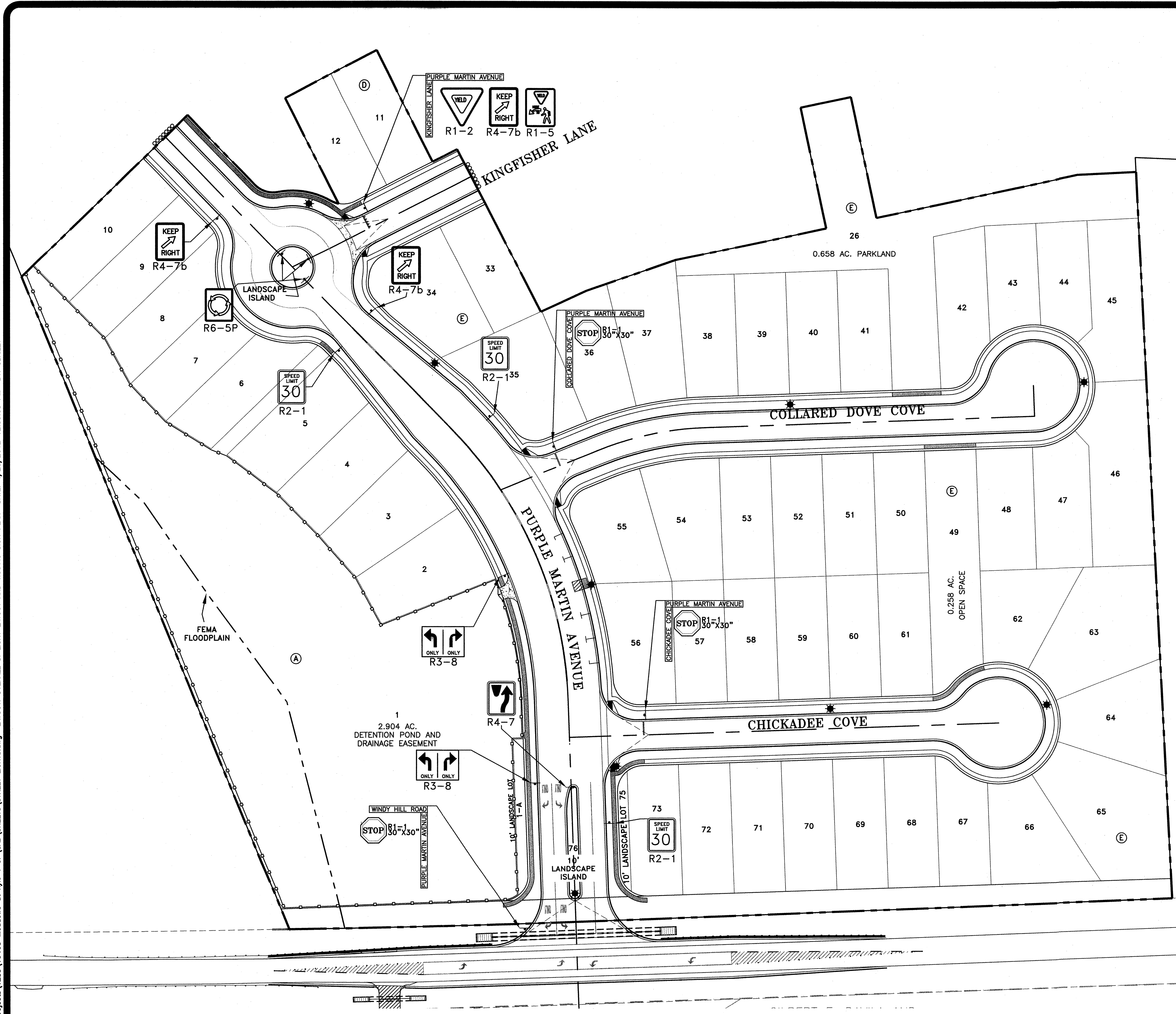
**MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS**

**OVERALL EROSION
& SEDIMENTATION
CONTROL
(OFFSITE WWL 'A')**

NOTICE:
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FILE: H:\Projects\1283\10465 Meadows at Kyle 1 CP\CAD\SHEETS\STREET LIGHTS.dwg LAYOUT: OVERALL S. LIGHT LAYOUT AND TRAFFIC SIGN PLAN DATE: 4/23/2012 12:59:08 PM BY: CRAILEY



RECORD DRAWINGS
 This record drawing has been prepared based on information submitted, in part by others. While this information is believed to be reliable, the Engineer is not responsible for its accuracy or for errors or omissions which may have been incorporated into the document as a result. Those relying on this record document are advised to obtain independent verification of its accuracy before applying it for any purpose.

NOTES:

1. THE STREET NAMES SHALL BE DISPLAYED ON STANDARD INTERSECTION STREET MARKERS ERRECTED AT EACH STREET INTERSECTION (SEE DETAIL SHEETS FOR MORE INFORMATION).
2. ALL PAVEMENT MARKINGS, PAINT, TRAFFIC BUTTONS, TRAFFIC CONTROL AND SIGNAL WORK SHALL CONFORM TO CURRENT TEXAS DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS AND THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD).
3. LANE CLOSURES ARE ONLY ALLOWED FROM 9AM TO 4PM MONDAY THRU FRIDAY. LANE CLOSURES ARE NOT ALLOWED IF PAVEMENT IS WET OR ICY.
4. CONSTRUCTION WORK WITH HAYS COUNTY R.O.W. MUST BE SCHEDULED MONDAY THRU FRIDAY DURING DAYLIGHT HOURS.
5. CONTRACTOR TO CONTACT HAYS COUNTY AT LEAST 48 HOURS PRIOR TO WORKING IN THE R.O.W.
6. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR KEEPING THE ROADWAY FREE OF MUD, ROCKS, AND OTHER FOREIGN DEBRIS. IF THE ROADWAY BECOMES UNSAFE FOR TRAFFIC, THE CONTRACTOR MUST CLEAN THE ROADWAY IMMEDIATELY AND SUSPEND WORK IF NECESSARY.
7. THE GENERAL CONTRACTOR MUST PROVIDE ONSITE PARKING DURING ALL PHASES OF CONSTRUCTION. PARKING WILL NOT BE ALLOWED WITHIN COUNTY R.O.W.
8. THE CONTRACTOR SHALL PROVIDE 4:1 SAFETY WEDGE AT EDGE OF PAVEMENT DROPOFFS 2 INCHES OR MORE LEFT OPEN OVERNIGHT.

LEGEND

- ★ PROPOSED STREET LIGHT
- PROPOSED STREET SIGN
- PROPOSED STREET END BARRICADE
- PROPOSED 12" STOP BAR
- △ PROPOSED PAVEMENT TRANSITIONS (CROWN TO FLAT)

PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
 FILE NO. STREET LIGHTS DRAWN BY: HRG
 DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

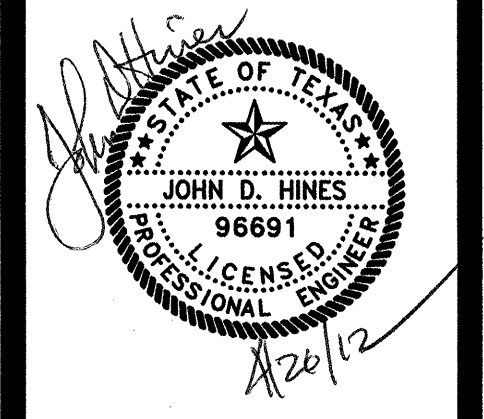
GRAY & ASSOCIATES, INC.
 Consulting Engineers
 8217 Shoal Creek Blvd., Suite 200
 Austin, Texas 78757-6882
 (512)462-0777 FAX #2946

| NO. | BY | DATE | REVISION DESCRIPTION |
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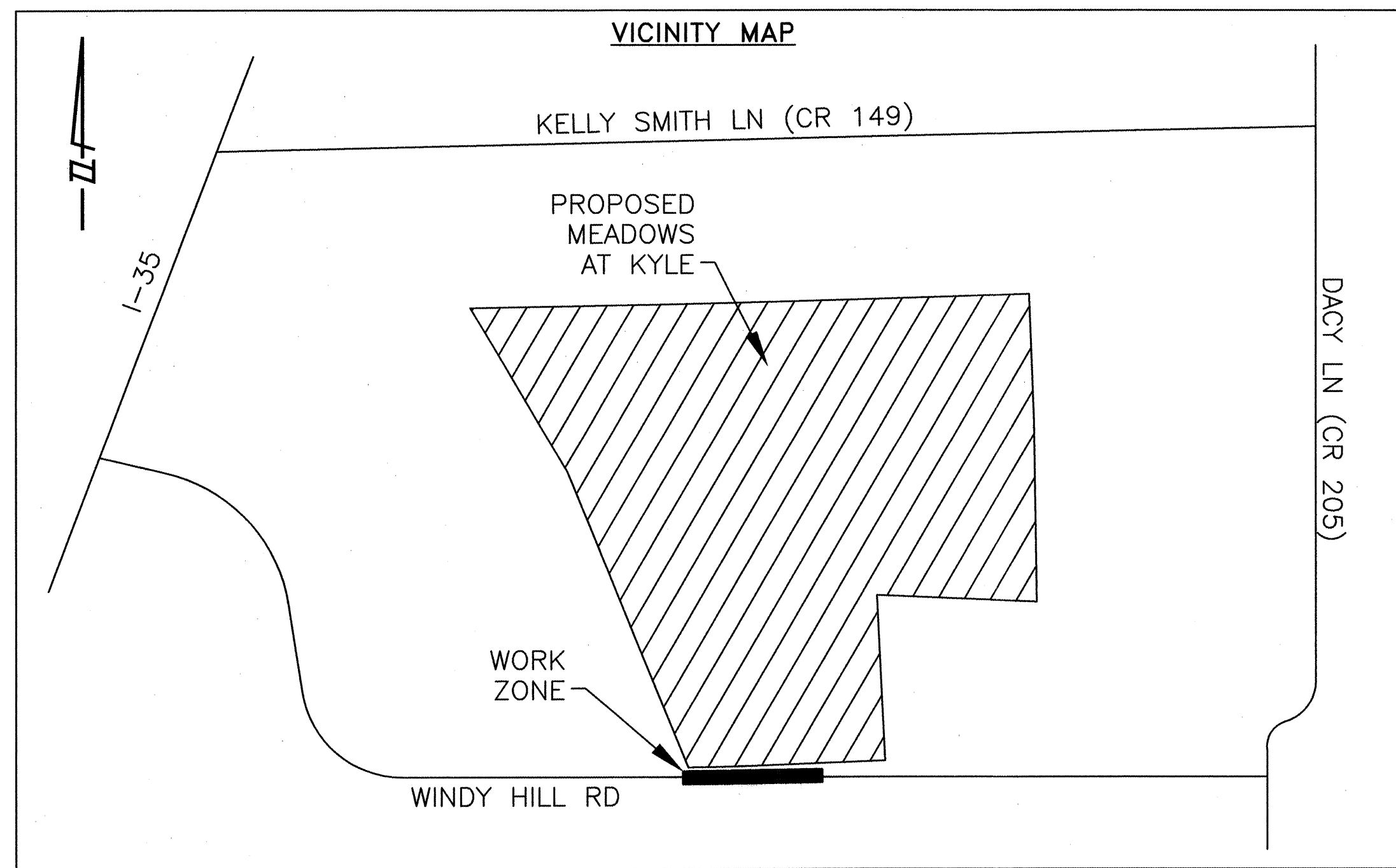
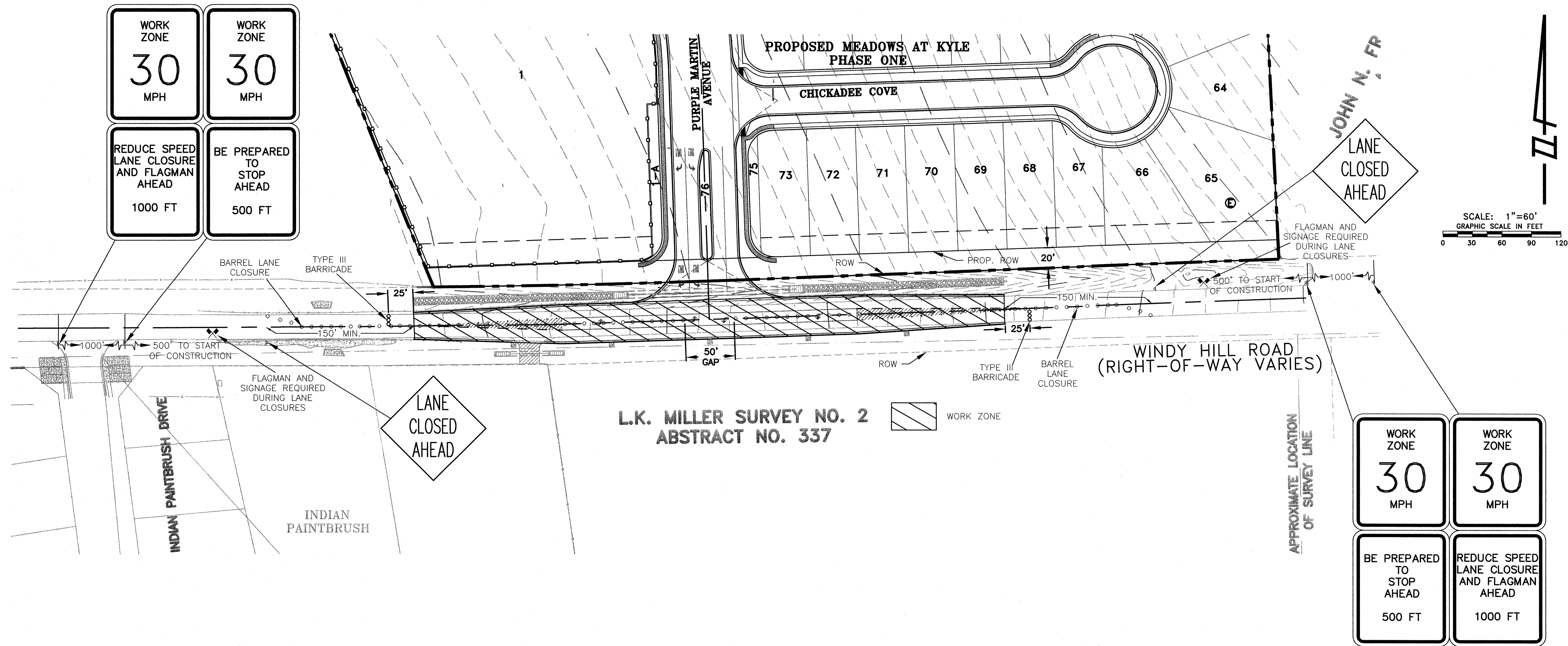
**MEADOWS AT KYLE
 PHASE ONE
 WATER, WASTEWATER,
 STREET AND DRAINAGE
 IMPROVEMENTS**

**OVERALL STREET LIGHT
 LAYOUT AND TRAFFIC
 SIGN PLAN**

NOTICE:
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FILE: H:\Projects\1283\10465 Meadows at Kyle 1 CP\CAD\SHEETS\TRAFFIC CONTROL.dwg LAYOUT: TRAFFIC CONTROL PLAN WINDY HILL ROAD KYLE TX DATE: 4/20/2012 11:08:14 AM BY: JCASTILLO



L.K. MILLER SURVEY NO. 2
ABSTRACT NO. 337

SEQUENCE OF CONSTRUCTION

1. INSTALL TEMPORARY EROSION CONTROL MEASURES ACCORDING TO THE PLANS AND SPECIFICATIONS PRIOR TO ANY CLEARING, GRADING, EXCAVATING, ETC.
2. HOLD PRE-CONSTRUCTION MEETING CONFERENCE WITH CONTRACTOR, GOFORTH W.S.C., CITY OF KYLE, AND DESIGN ENGINEER/PERMIT APPLICANT.
3. BEGIN CONSTRUCTION OF PROJECT AS FOLLOWS: REMOVAL OF DEBRIS (SEE SHEET 10), PLACE MATERIALS, EXCAVATE, INSTALL UTILITIES, INSTALL STORM SEWER, INSTALL STREET IMPROVEMENTS.
4. INSPECT TEMPORARY EROSION CONTROLS ON A REGULAR BASIS AND ADJUST THE CONTROLS AND/OR REMOVE ANY SEDIMENT BUILD UP.
5. ENSURE THAT ALL UNDERGROUND UTILITY CROSSINGS ARE COMPLETED.
6. INSTALL ALL SIGNS, PAVEMENT MARKINGS AND LIGHTS ACCORDING TO PLANS.
7. CLEAN SITE AND REVEGETATE ALL GRADED AND DISTURBED AREAS.
8. REMOVE TEMPORARY EROSION/SEDIMENTATION CONTROL MEASURES. COMPLETE ANY NECESSARY FINAL DRESS UP OF ANY AREAS DISTURBED.

NOTES:

1. ROADWAY LOCATIONS ARE APPROXIMATE BASED ON AVAILABLE GIS DATA.
2. PRIOR TO BEGINNING ANY CONSTRUCTION, THE TEMPORARY EROSION CONTROL ITEMS SHALL BE IN PLACE.
3. THE CONTRACTOR SHALL NOTIFY CITY OF KYLE AT 262-3958 (PLANNING AND ENGINEERING SERVICES DIVISION) AT LEAST 48 HOURS PRIOR TO START OF CONSTRUCTION AND TO SCHEDULE A MANDATORY PRECONSTRUCTION CONFERENCE.
4. CONTRACTOR SHALL NOT STOCKPILE MATERIAL WITHIN THE 100-YEAR FLOOD PLAIN OR AREAS OUTSIDE OF PERMIT BOUNDARIES. ANY REGULATORY PERMITS REQUIRED FOR DISPOSAL OF EXCESS EXCAVATED MATERIAL OFF THE PERMIT SITE MUST BE OBTAINED FROM THE APPLICABLE JURISDICTIONS. DISPOSAL OF SOLID WASTE MATERIALS, AS DEFINED BY STATE LAW (LITTER, TIRES, DECOMPOSABLE WASTES, ETC.) IS PROHIBITED IN PERMANENT FILL SITES.
5. ANY EXISTING PAVEMENT, CURBS, SIDEWALKS, OR DRAINAGE STRUCTURES WITHIN PUBLIC RIGHT-OF-WAY, WHICH ARE DAMAGED, REMOVED, OR SILTED, WILL BE REPAIRED BY THE CONTRACTOR AT HIS/HER EXPENSE BEFORE APPROVAL OF THE CONSTRUCTION.
6. THE ONE-CALL UTILITY SYSTEM WILL BE USED: DIAL 1-800-545-6005 AND THE TEXAS UNDERGROUND FACILITY NOTIFICATION CORPORATION AT LEAST 48 HOURS BEFORE YOU DIG.
7. THIS PROJECT IS LOCATED ON FLOOD INSURANCE RATE MAP 48208C0280F FOR HAYS COUNTY, DATED SEPT. 2, 2005.
8. THE CONTRACTOR SHALL INSTALL ALL TRAFFIC MARKING AND SIGNAGE PER CURRENT TxDOT MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES. ONE LANE OF WINDY HILL REQUIRED TO REMAIN OPEN AT ALL TIMES.
9. THE LOCATION OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY AND HAVE NOT BEEN INDEPENDENTLY VERIFIED BY THE OWNER OR ITS REPRESENTATIVE.
10. ALL DIMENSIONS ARE FACE OF CURB UNLESS OTHERWISE NOTED.

RECORD DRAWINGS
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PROJECT NO. 1283-10465 | DESIGNED BY: JH, HRG
FILE NO. TRAFFIC CONTROL DRAWN BY: HRG
DATE: FEBRUARY 2012 | CHECKED BY: JH, JMB

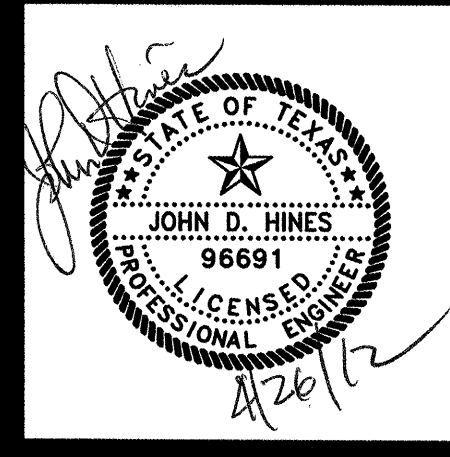
GRAY & ASSOCIATES, INC.
Consulting Engineers
8217 Shoal Creek Blvd., Suite 200
Austin, Texas 78757-0982
(512) 466-0000 FAX (512) 466-0985
TDP# TEXA #2946

| NO. | BY | DATE | REVISION DESCRIPTION |
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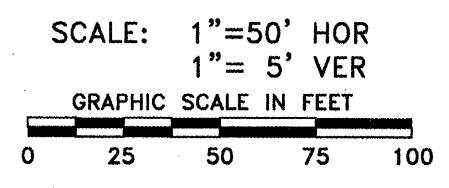
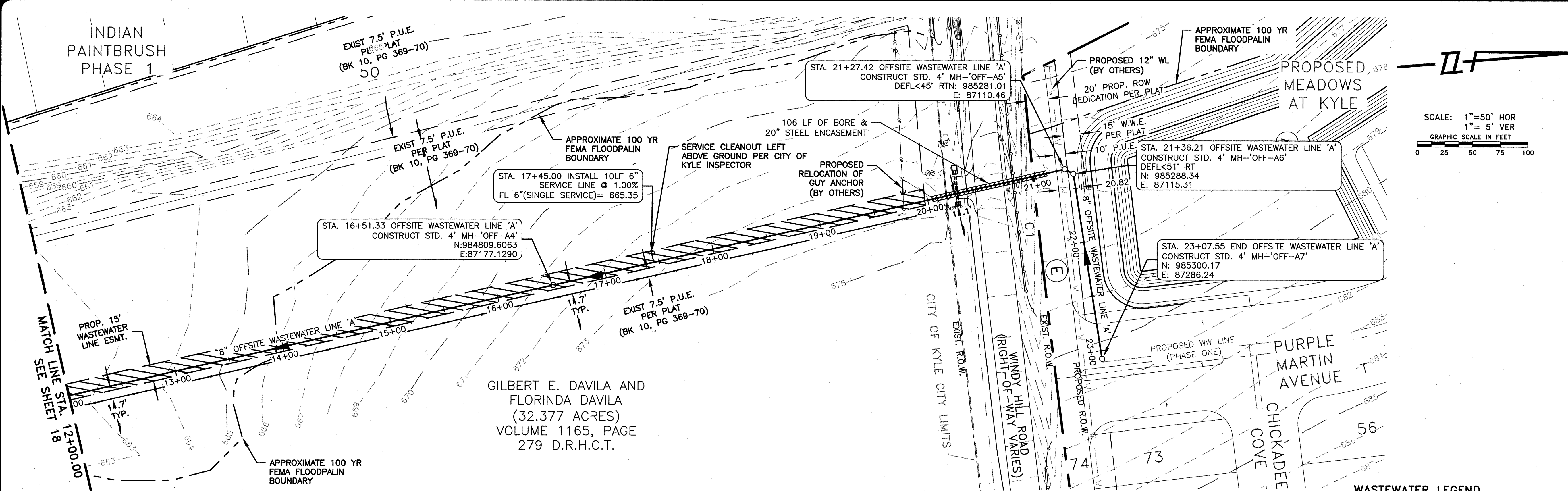
MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS

TRAFFIC CONTROL PLAN
WINDY HILL ROAD KYLE
TX

NOTICE:
ALTERATION OF A SEALED DRAWING WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS A VIOLATION OF THE TEXAS ENGINEERING PRACTICE ACT.



FILE: H:\Projects\1283\10464 Meadows at Kyle\CAD\Sheets\OFF-WW-A.dwg LAYOUT: STA 12+00.00 TO END DATE: 5/10/2013 1:10:07 PM BY: JCASTILLO



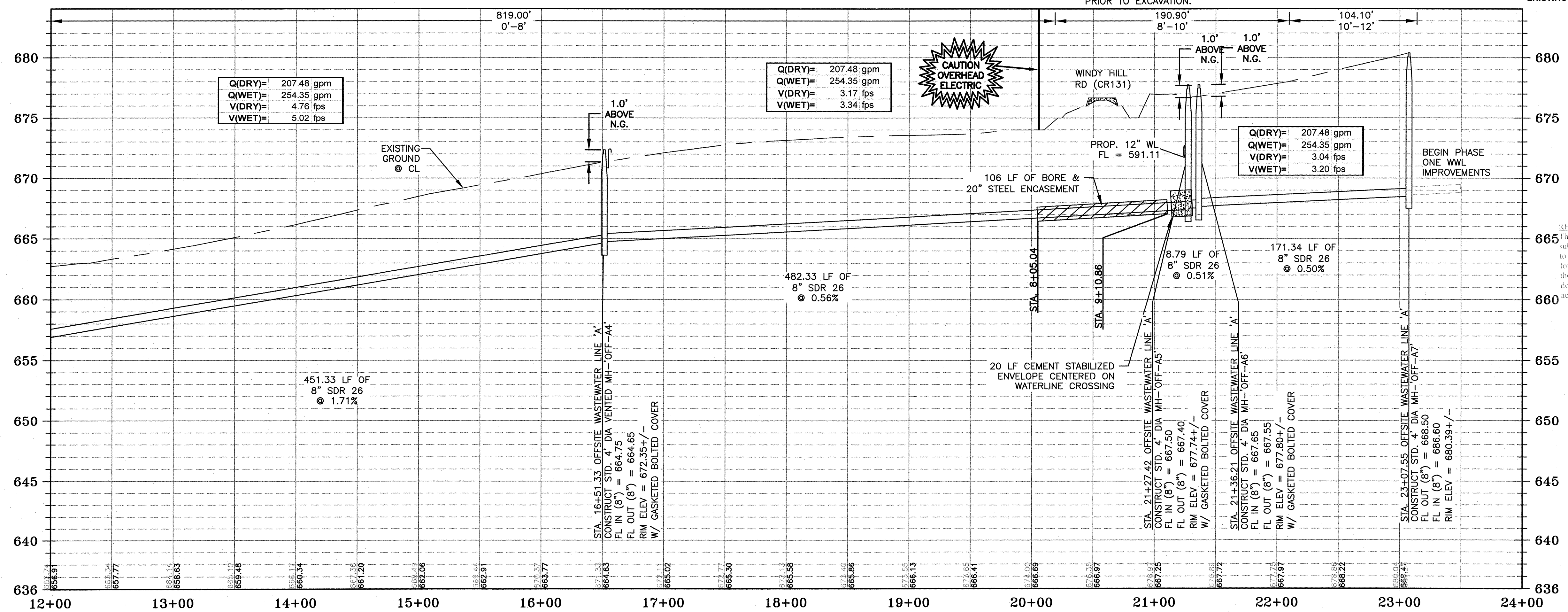
OFFSITE WASTEWATER LINE 'A'

NOTE:

1. ALL MANHOLES SHALL BE VACUUM TESTED.
2. ALL MANHOLES NOT IN PAVED SURFACE TO BE BOLTED AND GASKETED.
3. CONTRACTOR TO VERIFY EXISTING UTILITIES, GRADES, AND ACTUAL DEPTHS PRIOR TO EXCAVATION.

WASTEWATER LEGEND

- PROPOSED WASTEWATER LINE W/MANHOLE
- EXISTING WASTEWATER LINE W/ MANHOLE
- ⊥ PROPOSED PLUG
- 663- EXISTING CONTOUR

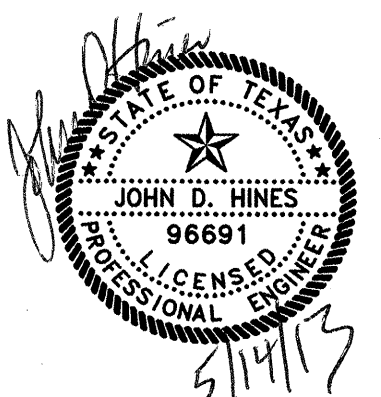


RECORD DRAWINGS
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**MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS**

**OFFSITE WASTEWATER
LINE 'A' STA 12+00.00
TO END**

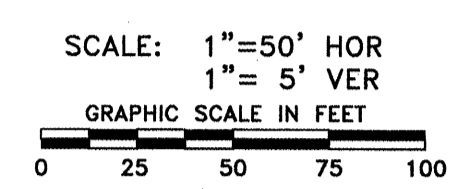
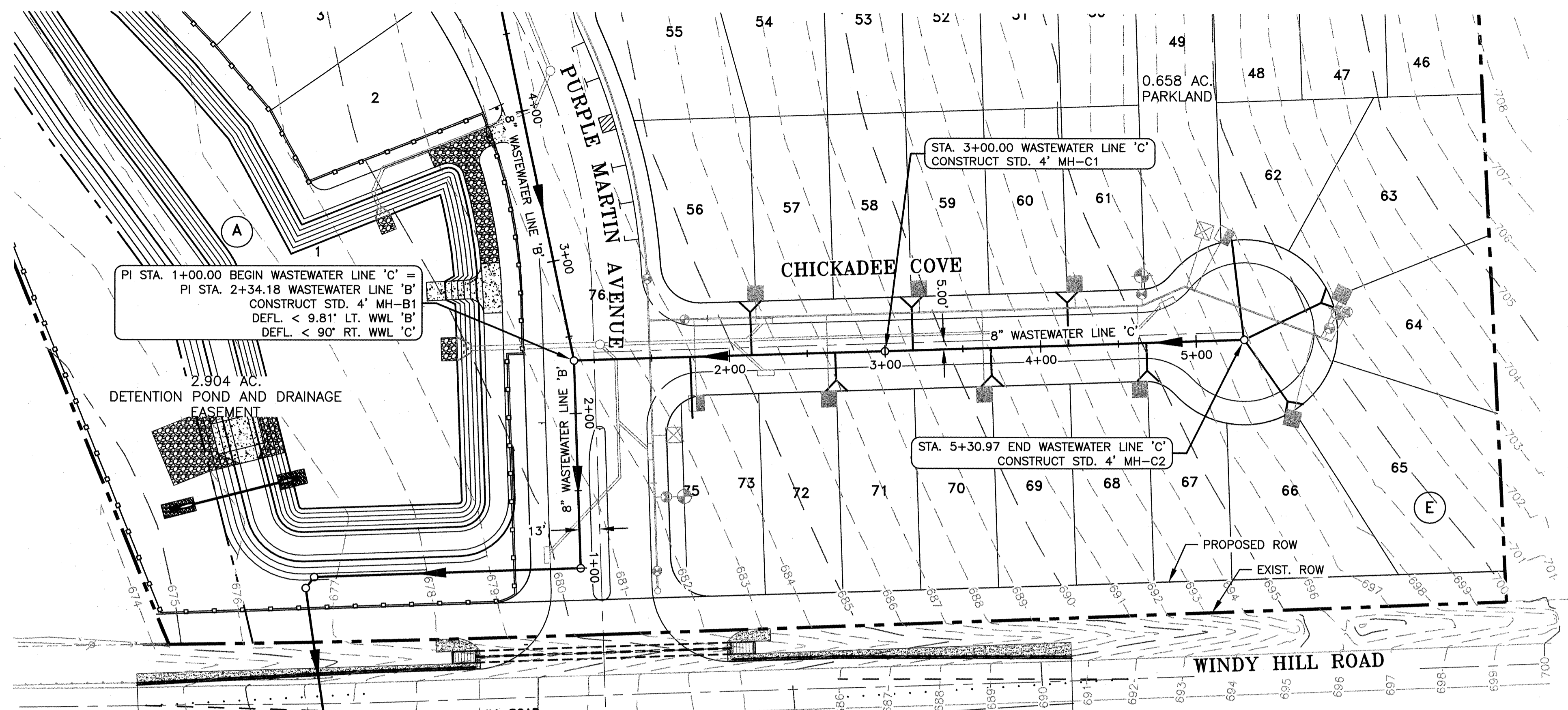
NOTICE:
ALTERATION OF A SEALED DRAWING WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS A VIOLATION OF THE TEXAS ENGINEERING PRACTICE ACT.



PROJECT NO. 1283-10465 DESIGNED BY: JH, HRC
FILE NO. OFF-WW-A DRAWN BY: HRC
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

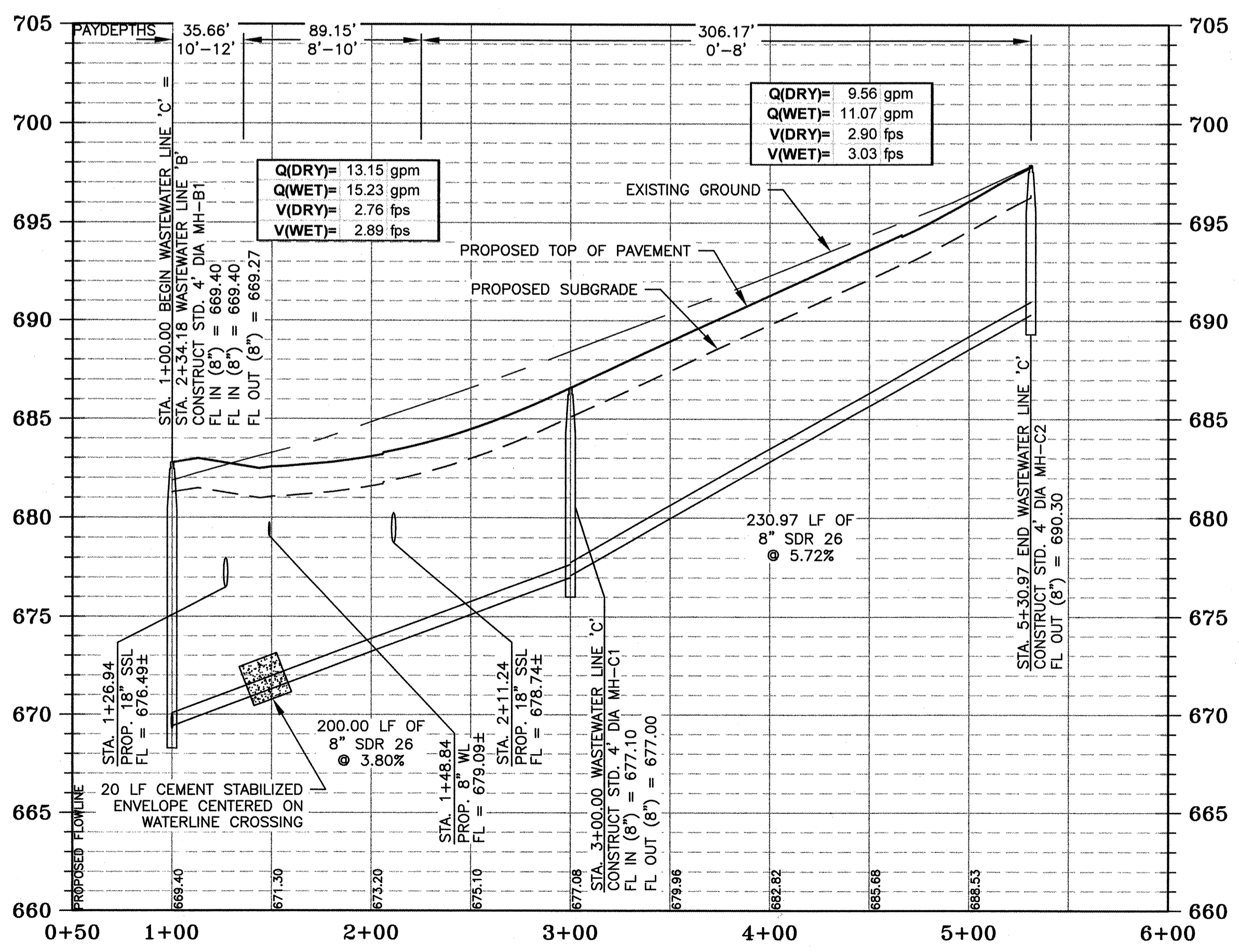
GRAY & ASSOCIATES, INC.
Consulting Engineers
9217 Shoal Creek Blvd., Suite 200
Austin, Texas 78757-7692
(512)452-0371 FAX(512)454-9953
TDFE TRM #2946

FILE: H:\Projects\1283\10465 Meadows at Kyle 1 CP\CAD\SHEETS\WW LINE 'C'.dwg LAYOUT: WASTEWATER LINE 'C' STA. 1+00 TO END DATE: 4/23/2012 1:00:06 PM BY: CBAILEY



| LEGEND | |
|--------|--|
| | PROP. WASTEWATER LINE WITH PROP. MANHOLE |
| | PROP. WASTEWATER PLUG |
| | PROP. SINGLE WASTEWATER SERVICE |
| | PROP. DOUBLE WASTEWATER SERVICE |
| | EXIST. WASTEWATER LINE WITH EXIST. MANHOLE |
| | EXIST. WASTEWATER SERVICE |
| | R.O.W. CENTERLINE |

WASTEWATER LINE 'C'



NOTES:

1. WATER AND STORM SEWER LINES ARE SHOWN ON THE WASTEWATER PLAN AND PLAN/ PROFILE SHEETS FOR REFERENCE ONLY. ALL STORMSEWER, WATERLINES, VALVES, FIRE HYDRANT ASSEMBLIES SHALL BE INSTALLED AT THE LOCATIONS THAT ARE INDICATED ON THE APPROPRIATE STORM SEWER PLAN/PROFILE AND WATER DISTRIBUTION PLANS ONLY.
2. SEE WATER DISTRIBUTION PLANS FOR ADDITIONAL INFORMATION REGARDING SERVICE LOCATIONS.
3. ALL MANHOLES SHALL BE VACUUM TESTED.
4. FOR ACTUAL SERVICE LOCATIONS, SEE WASTEWATER DETAIL SHEETS.
5. ALL EXISTING MANHOLE LIDS TO BE ADJUSTED TO MATCH FINAL PAVEMENT GRADE AND FINISHED GROUND WHEN OUTSIDE THE STREET. REMOVE EXISTING MANHOLE VENTS AND GROUT AND SEAL MANHOLE INTERIORS.
6. CONTRACTOR TO VERIFY ACTUAL DEPTH OF ALL EXISTING UTILITIES TO BE EXTENDED OR TIED INTO PRIOR TO EXCAVATING.
7. ALL MANHOLES NOT IN PAVED SURFACE TO BE BOLTED AND GASKETED.
8. MANHOLES 5-FEET FROM CENTERLINE, UNLESS NOTED OTHERWISE.

RECORD DRAWINGS
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PROJECT NO. 1283-10465 DESIGNED BY: JH, HRC
FILE NO. WW LINE 'C' DRAWN BY: HRC
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

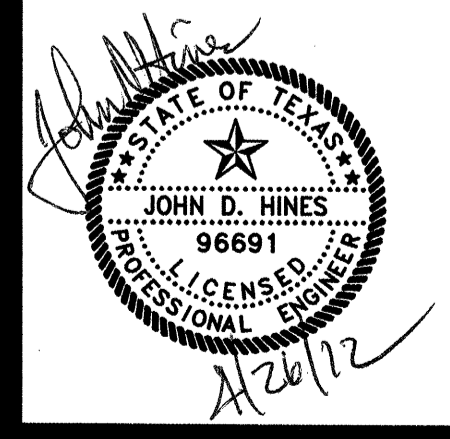
GRAY & ASSOCIATES, INC.
Consulting Engineers
6217 Shoal Creek Blvd., Suite 200
Austin, Texas 78757-7692
(512)462-0371 FAX:(512)464-9833
TYPE FIRM #2946

| NO. | BY | DATE | REVISION DESCRIPTION |
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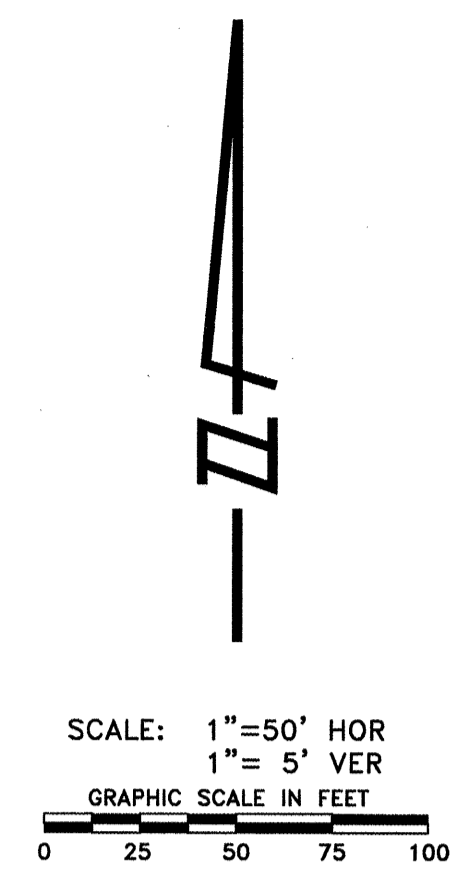
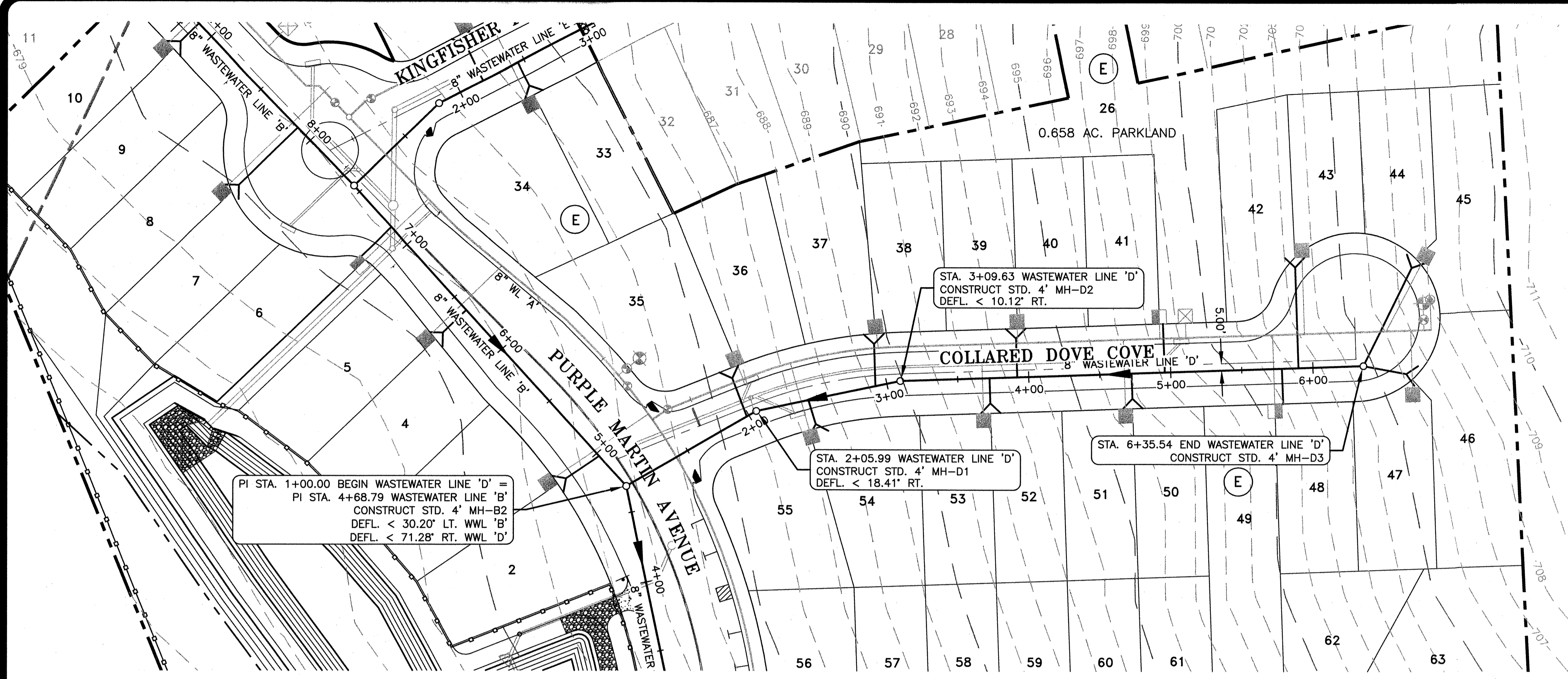
MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS

WASTEWATER LINE 'C' STA.
1+00 TO END

NOTICE:
ALTERATION OF A SEALED DRAWING WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS A VIOLATION OF THE TEXAS ENGINEERING PRACTICE ACT.



FILE: H:\Projects\1283\10465 Meadows at Kyle 1 CP\CAD\SHEETS\WW LINE 'D'.dwg LAYOUT: WASTEWATER LINE 'D' STA. 1+00 TO END DATE: 4/23/2012 1:00:23 PM BY: CBAILEY



RECORD DRAWINGS
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PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
FILE NO. WW LINE 'D' DRAWN BY: JH, HRG
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

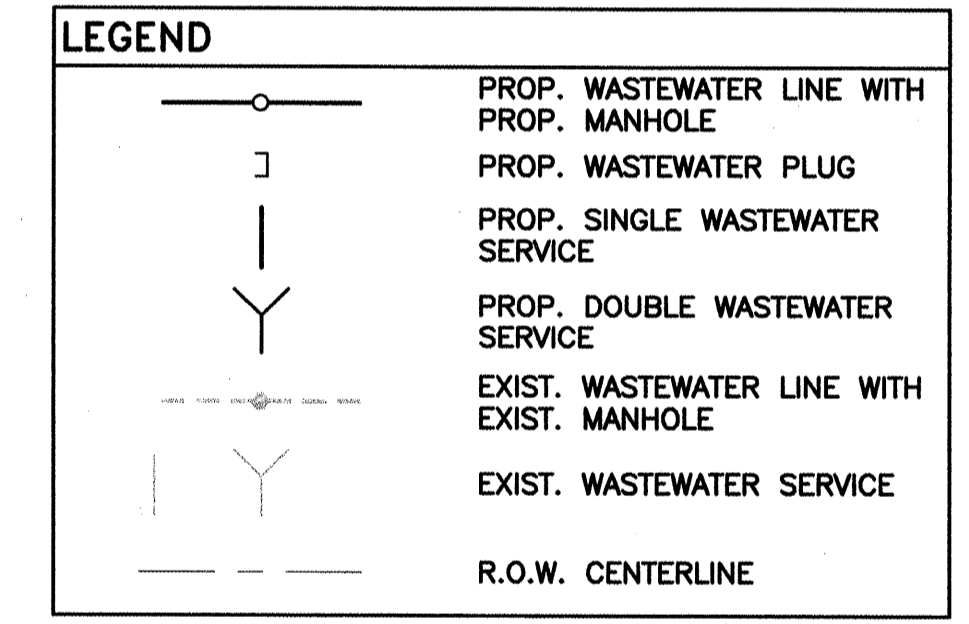
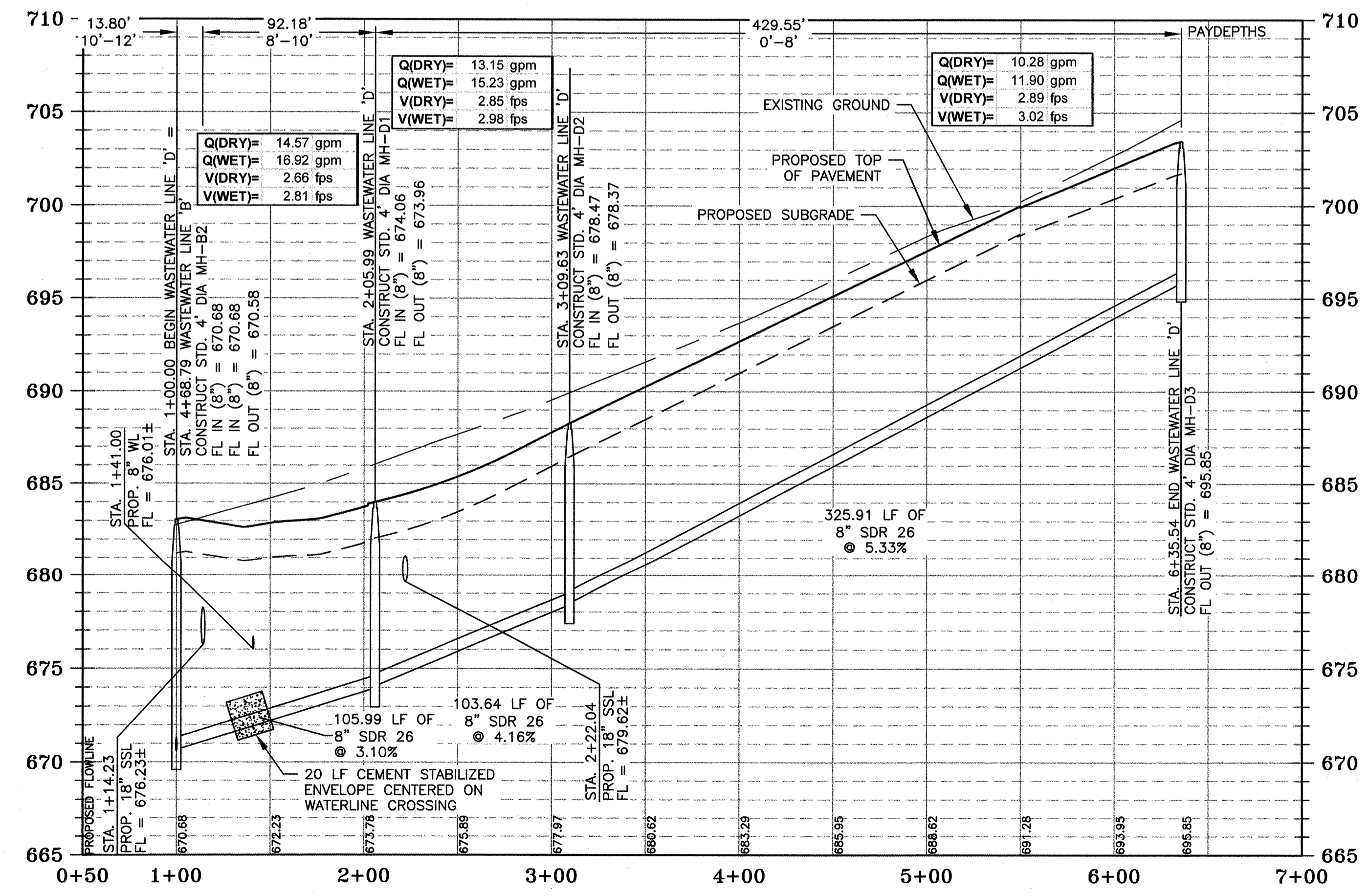
GRAY & ASSOCIATES, INC.
Consulting Engineers
8217 Shoal Creek Blvd., Suite 200
Austin, Texas 78757-7692
(512)462-0871 FAX (512)464-9953
TBP# TRM #2946

| NO. | BY | DATE | REVISION DESCRIPTION |
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MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS

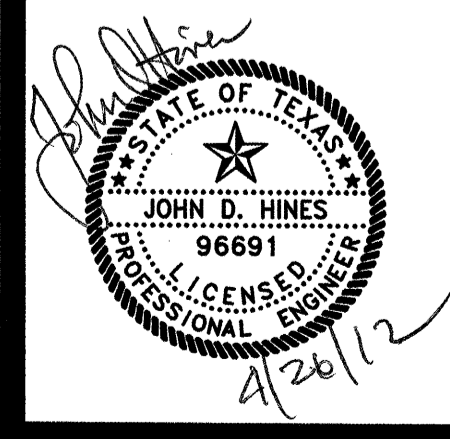
WASTEWATER LINE 'D' STA.
1+00 TO END

WASTEWATER LINE 'D'

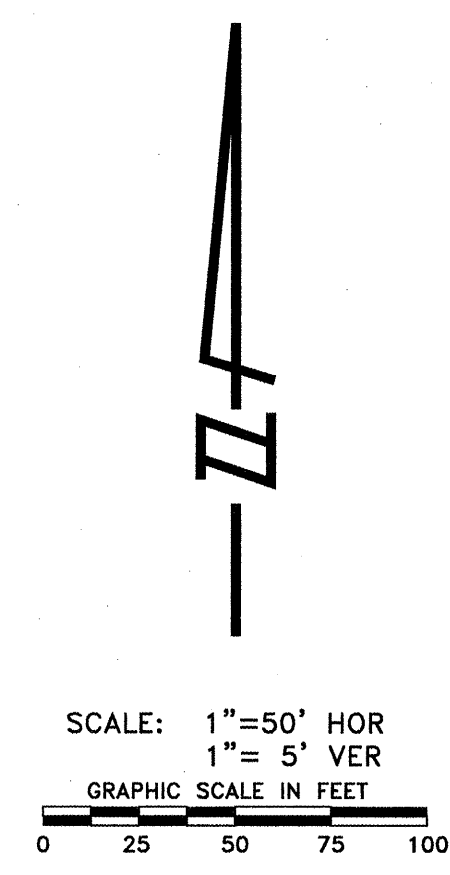
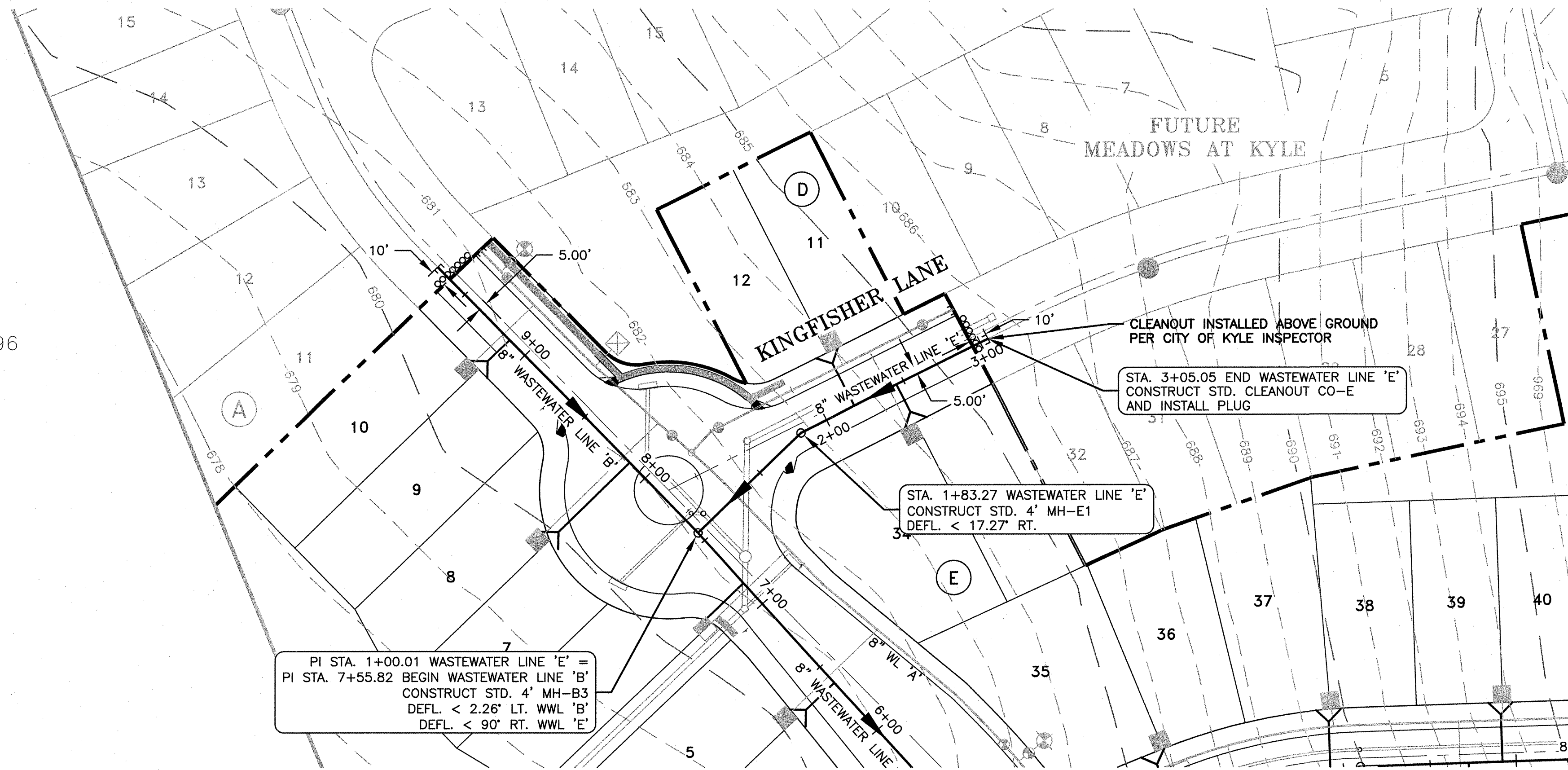


- NOTES:**
1. WATER AND STORM SEWER LINES ARE SHOWN ON THE WASTEWATER PLAN AND PLAN/ PROFILE SHEETS FOR REFERENCE ONLY. ALL STORMSEWER, WATERLINES, VALVES, FIRE HYDRANT ASSEMBLIES SHALL BE INSTALLED AT THE LOCATIONS THAT ARE INDICATED ON THE APPROPRIATE STORM SEWER PLAN/PROFILE AND WATER DISTRIBUTION PLANS ONLY.
 2. SEE WATER DISTRIBUTION PLANS FOR ADDITIONAL INFORMATION REGARDING SERVICE LOCATIONS.
 3. ALL MANHOLES SHALL BE VACUUM TESTED.
 4. FOR ACTUAL SERVICE LOCATIONS, SEE WASTEWATER DETAIL SHEETS.
 5. ALL EXISTING MANHOLE LIDS TO BE ADJUSTED TO MATCH FINAL PAVEMENT GRADE AND FINISHED GROUND WHEN OUTSIDE THE STREET. REMOVE EXISTING MANHOLE VENTS AND GROUT AND SEAL MANHOLE INTERIORS.
 6. CONTRACTOR TO VERIFY ACTUAL DEPTH OF ALL EXISTING UTILITIES TO BE EXTENDED OR TIED INTO PRIOR TO EXCAVATING.
 7. ALL MANHOLES NOT IN PAVED SURFACE TO BE BOLTED AND GASKETED.
 8. MANHOLES 5- FEET FROM CENTERLINE, UNLESS NOTED OTHERWISE.

NOTICE:
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DOUGLAS C. DACY
(52.53 ACRES)
VOLUME 160, PAGE 96
D.R.H.C.T.



PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
FILE NO. WW LINE 'E' DRAWN BY: HRG
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

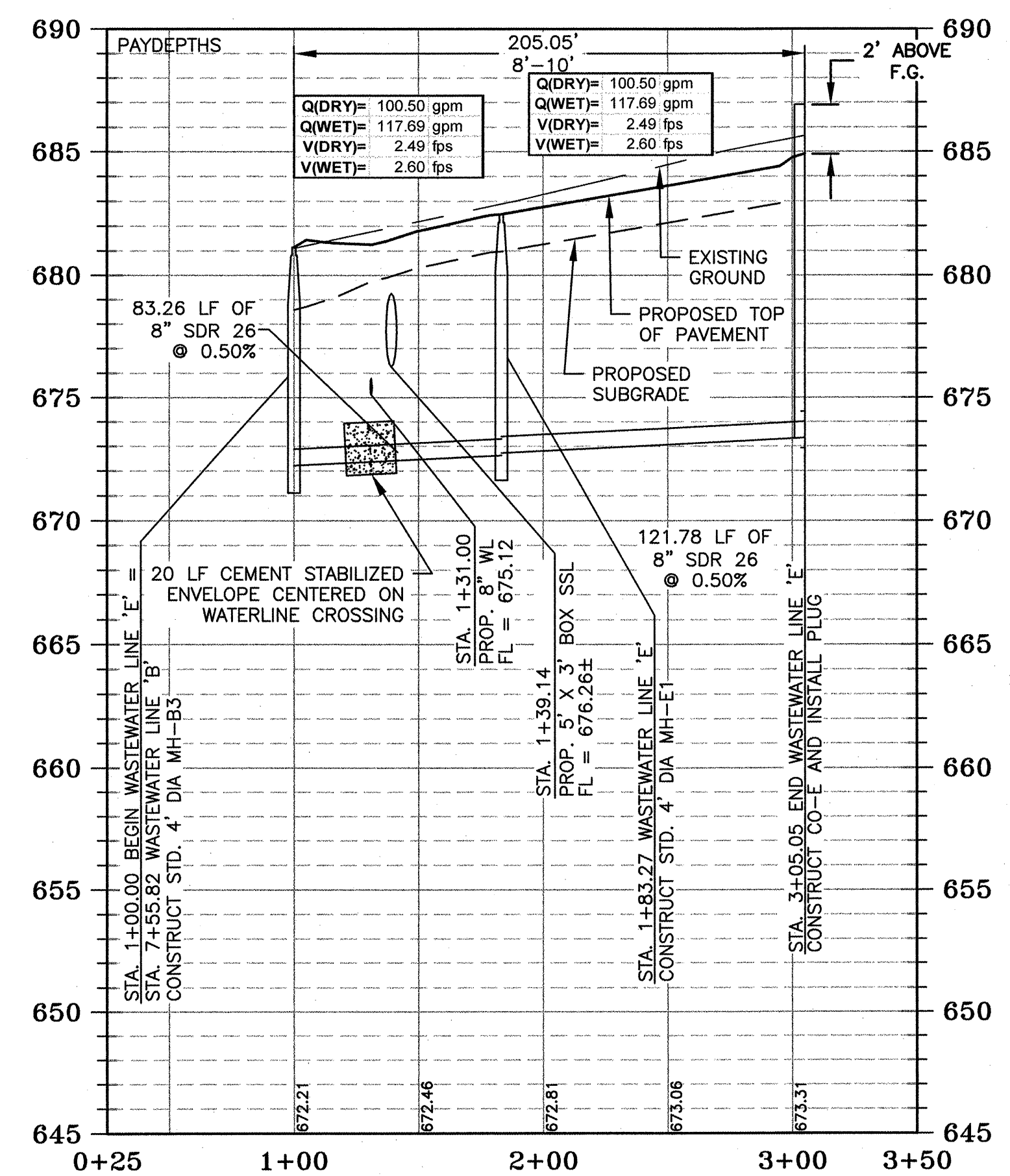
GRAY & ASSOCIATES, INC.
Consulting Engineers
8217 Shoal Creek Blvd., Suite 200
Austin, Texas 78757-7692
(612)662-0371 FAX (612)664-9953
TDFE FIRM #9946

| NO. | BY | DATE | REVISION DESCRIPTION |
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MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS

WASTEWATER LINE 'E' STA.
1+00 TO END

WASTEWATER LINE 'E'



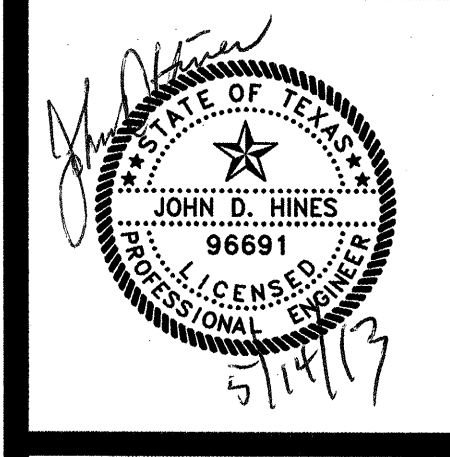
LEGEND

| | |
|--|--|
| | PROP. WASTEWATER LINE WITH PROP. MANHOLE |
| | PROP. WASTEWATER PLUG |
| | PROP. SINGLE WASTEWATER SERVICE |
| | PROP. DOUBLE WASTEWATER SERVICE |
| | EXIST. WASTEWATER LINE WITH EXIST. MANHOLE |
| | EXIST. WASTEWATER SERVICE |
| | R.O.W. CENTERLINE |

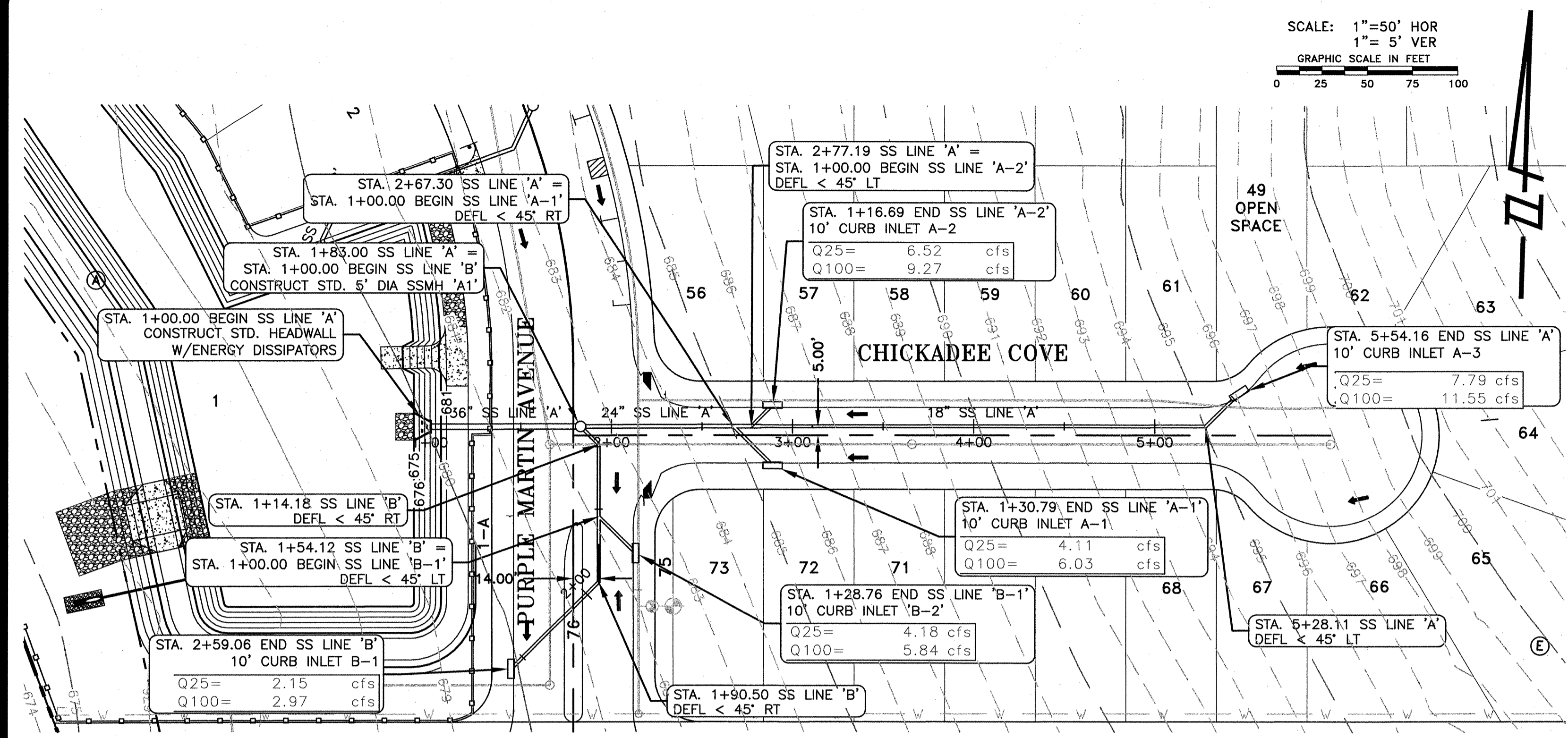
- NOTES:
1. WATER AND STORM SEWER LINES ARE SHOWN ON THE WASTEWATER PLAN AND PLAN/ PROFILE SHEETS FOR REFERENCE ONLY. ALL STORMSEWER, WATERLINES, VALVES, FIRE HYDRANT ASSEMBLIES SHALL BE INSTALLED AT THE LOCATIONS THAT ARE INDICATED ON THE APPROPRIATE STORM SEWER PLAN/PROFILE AND WATER DISTRIBUTION PLANS ONLY.
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 3. ALL MANHOLES SHALL BE VACUUM TESTED.
 4. FOR ACTUAL SERVICE LOCATIONS, SEE WASTEWATER DETAIL SHEETS.
 5. ALL EXISTING MANHOLE LIDS TO BE ADJUSTED TO MATCH FINAL PAVEMENT GRADE AND FINISHED GROUND WHEN NOTIFICATION TO THE RESPONSIBLE ENGINEER IS A VIOLATION OF THE TEXAS ENGINEERING PRACTICE ACT.
 6. CONTRACTOR TO VERIFY ACTUAL DEPTH OF ALL EXISTING UTILITIES TO BE EXTENDED OR TIED INTO PRIOR TO EXCAVATING.
 7. ALL MANHOLES NOT IN PAVED SURFACE TO BE BOLTED AND GASKETED.
 8. MANHOLES 5- FEET FROM CENTERLINE, UNLESS NOTED OTHERWISE.

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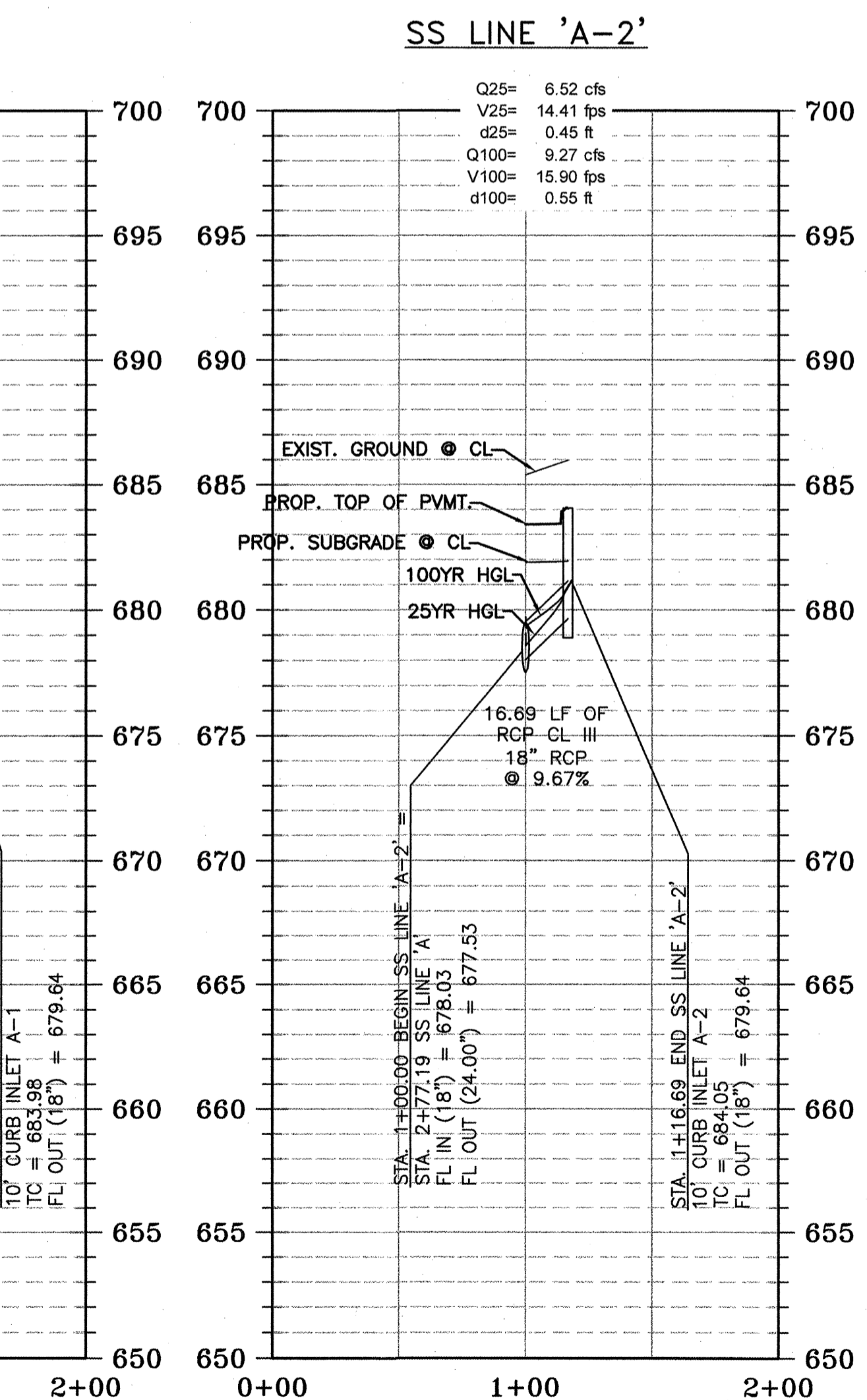
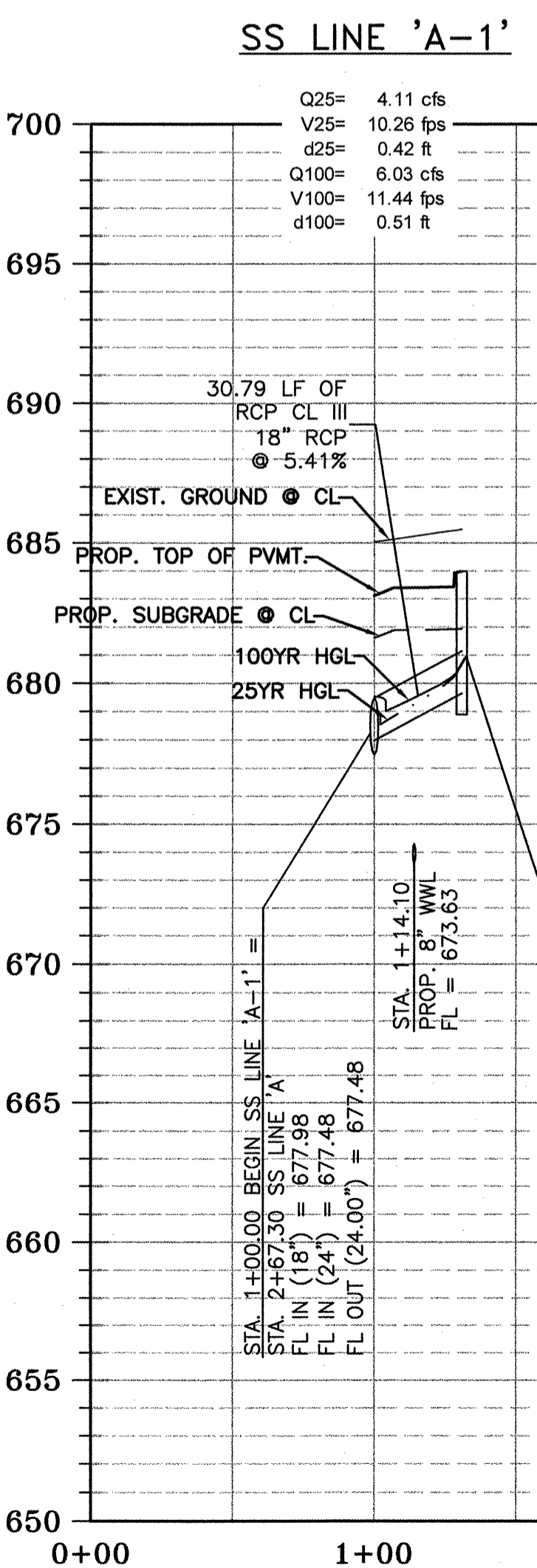
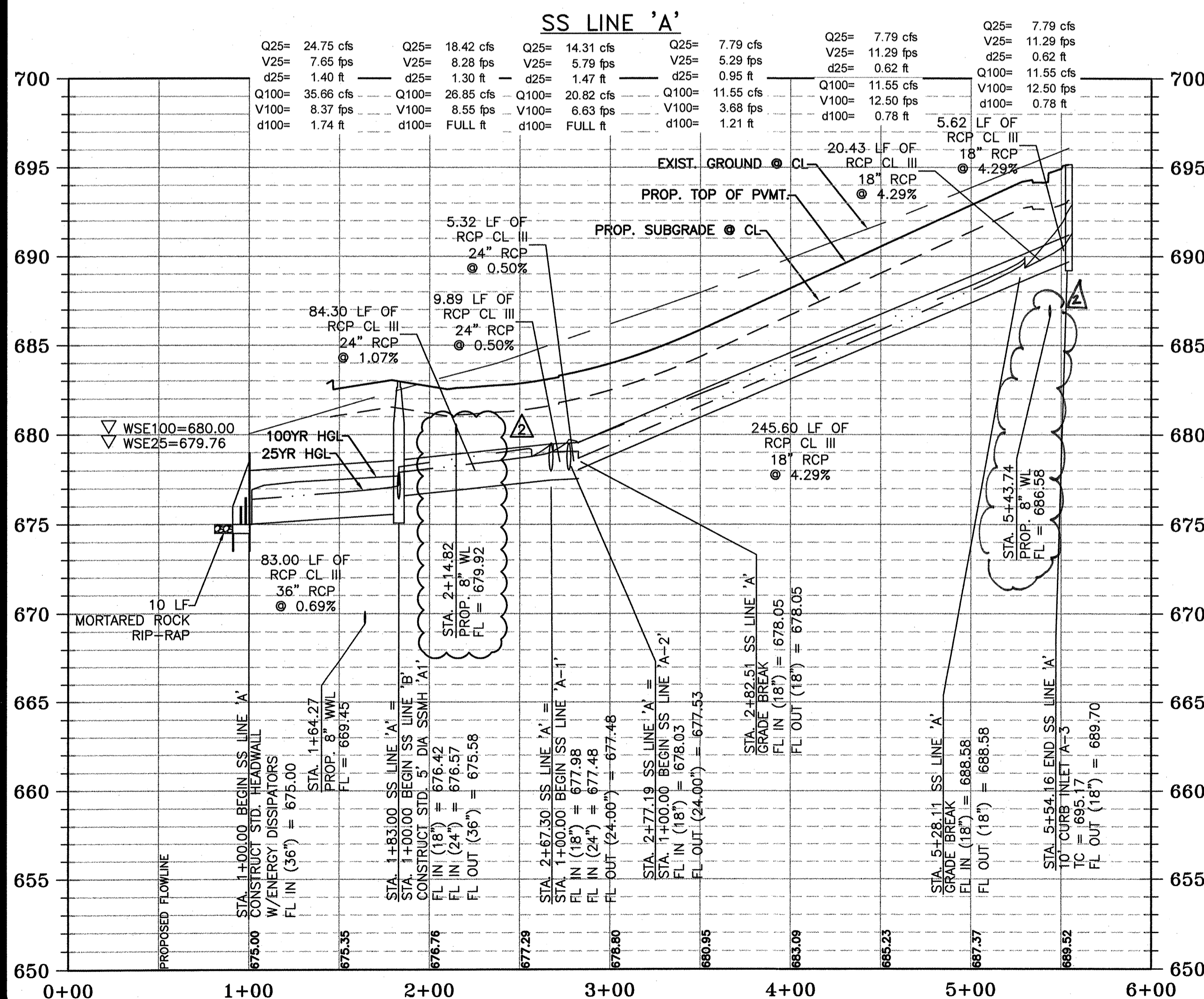
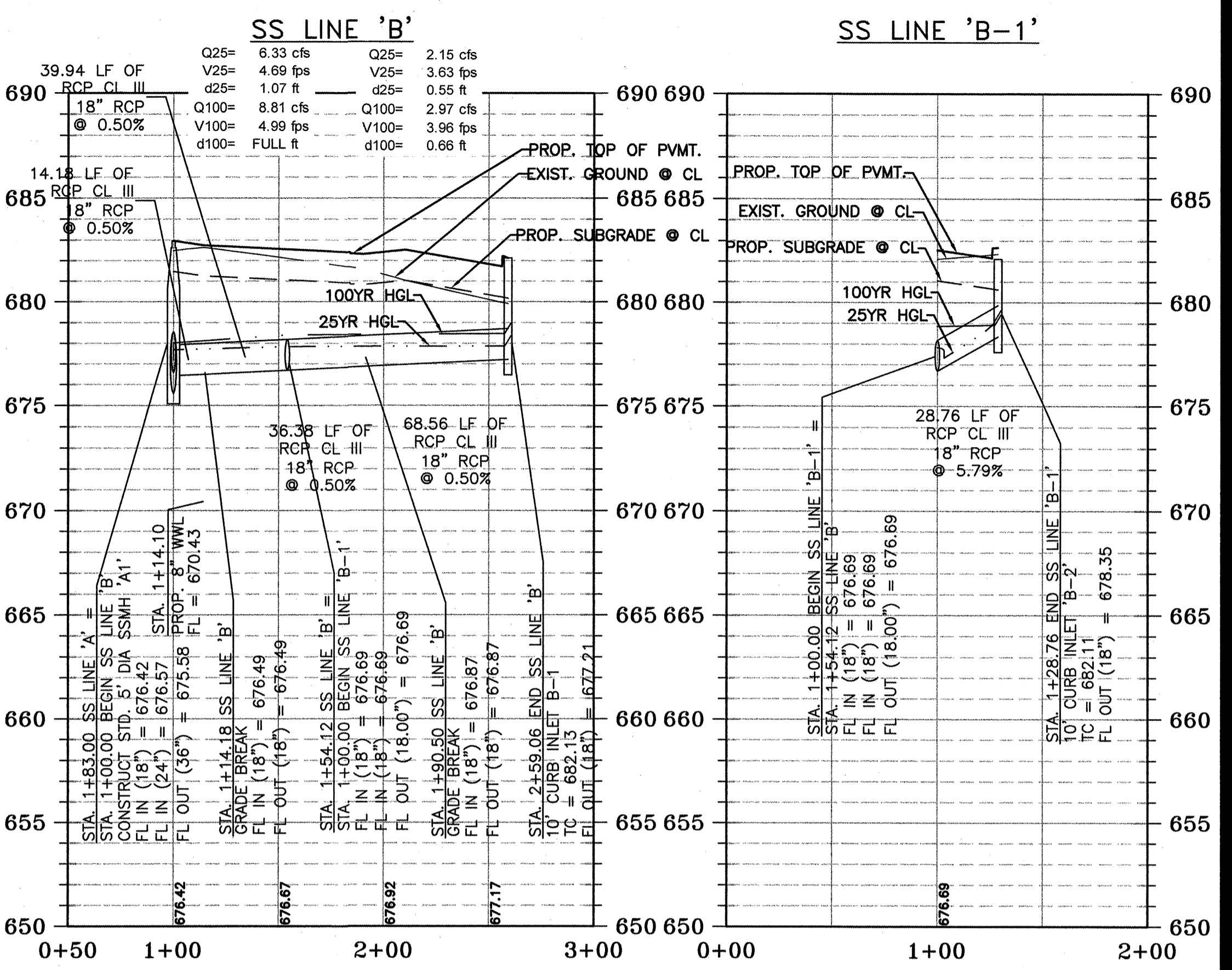
NOTICE:
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FILE: H:\Projects\1283\10465 Meadows at Kyle 1 CP\CAD\SHEETS\WW LINE 'E'.dwg LAYOUT: WASTEWATER LINE 'E' STA. 1+00 TO END DATE: 5/10/2013 1:19:52 PM BY: JCASTILLO



SCALE: 1"=50' HOR
1"= 5' VER
GRAPHIC SCALE IN FEET
0 25 50 75 100



NOTES:

1. STORM SEWER ALIGNMENT 5-FEET FROM STREET CENTERLINE, UNLESS SHOWN OTHERWISE.
2. STREET GRADES AND TOP OF INLET LABELS FOR REFERENCE ONLY. SEE STREET PLAN AND PROFILE SHEETS FOR DESIGN DATA. TOP OF INLETS TO MATCH PROPOSED STREET GRADES.
3. ALL STORM SEWER PIPE TO BE CLASS III RCP, UNLESS NOTED OTHERWISE.

RECORD DRAWINGS
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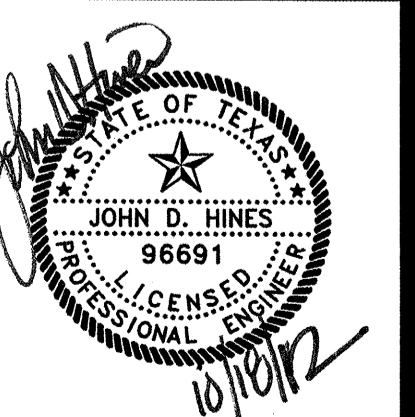
PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
FILE NO. SS LN-A DRAWN BY: JH, HRG
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

| NO. | BY | DATE | REVISION DESCRIPTION |
|-----|----|----------|-------------------------|
| 1 | JH | 10/19/12 | MISCELLANEOUS REVISIONS |

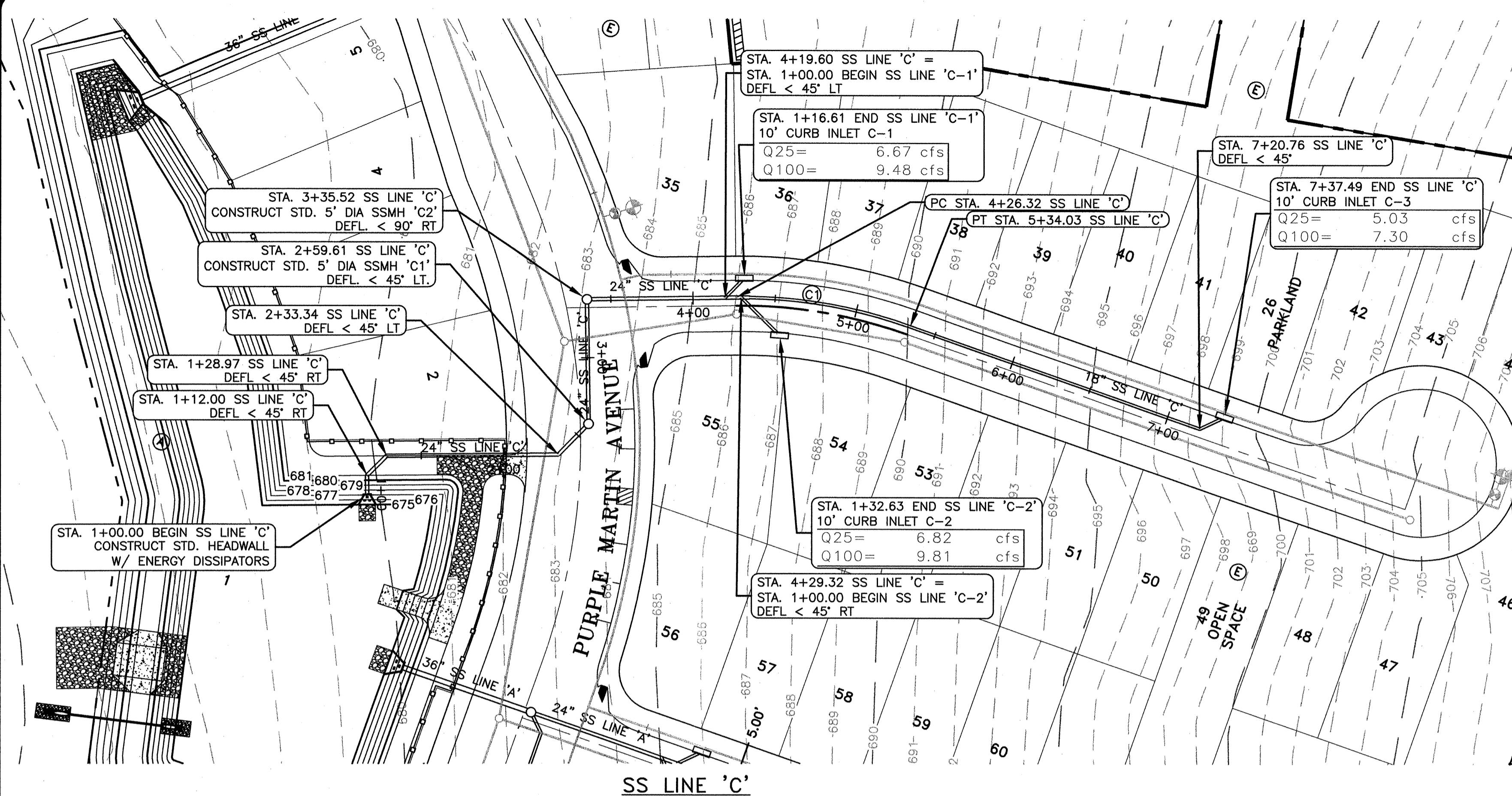
MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS

STORM SEWER LINES
'A', 'A-1', 'A-2', 'B' & 'B-1'
STA 1+00.00 TO END

NOTICE:
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FILE: H:\Projects\1283\10465 Meadows at Kyle 1 CP\CAD\SHEETS\SSIN-C.dwg LAYOUT: STORM SEWER LINE 'C' STA 1+00.0000 TO 7+14.2684 DATE: 4/20/2012 11:05:32 AM BY: JCASILLIO

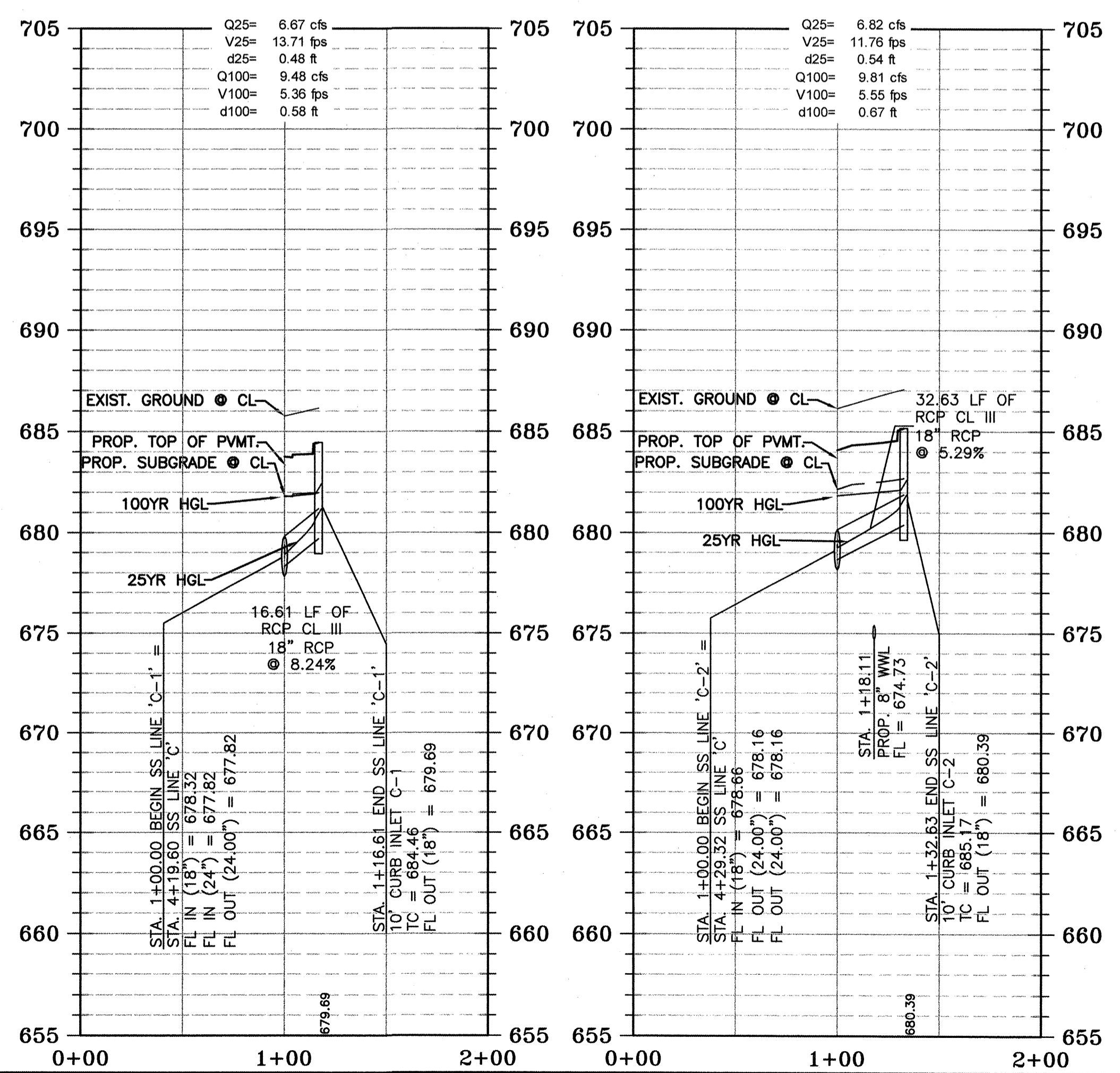
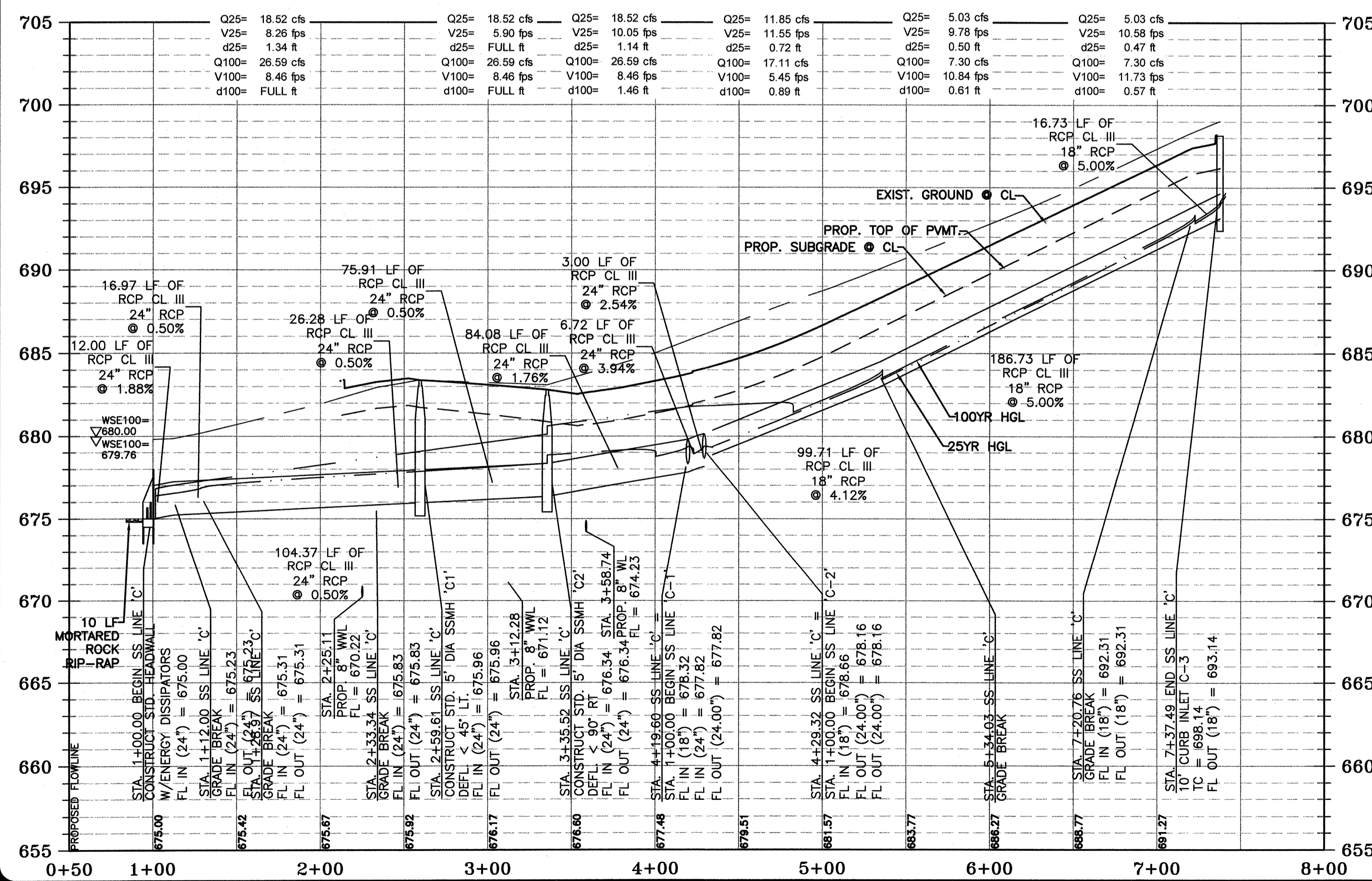


NOTES:

1. STORM SEWER ALIGNMENT 5-FEET FROM STREET CENTERLINE, UNLESS SHOWN OTHERWISE.
2. STREET GRADES AND TOP OF INLET LABELS FOR REFERENCE ONLY. SEE STREET PLAN AND PROFILE SHEETS FOR DESIGN DATA. TOP OF INLETS TO MATCH PROPOSED STREET GRADES.
3. ALL STORM SEWER PIPE TO BE CLASS III RCP, UNLESS NOTED OTHERWISE.

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| CURVE DATA | | | | | | |
|------------|-------------|---------|--------|------------|--------------|------------------|
| NUMBER | DELTA | TANGENT | RADIUS | ARC LENGTH | CHORD LENGTH | CHORD BEARING |
| C1 | 20° 14' 02" | 54.42 | 305.00 | 107.71 | 107.15 | N77° 56' 37.07"E |



PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
FILE NO. SSIN-C DRAWN BY: JH, HRG
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

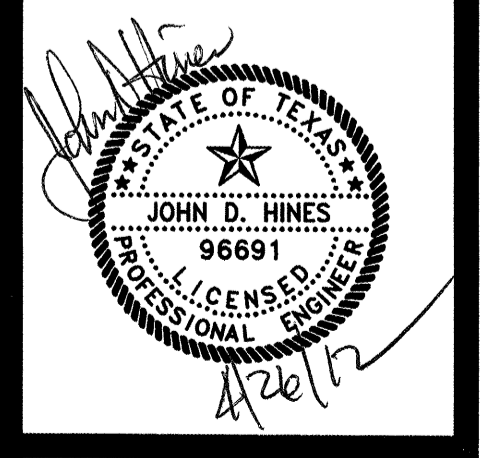
GRAY & ASSOCIATES, INC.
Consulting Engineers
8217 Shoal Creek Blvd., Suite 200
Austin, Texas 78737-7692
(512)452-0871 FAX (512)454-9833
TBE FIRM #2946

| NO. | BY | DATE | REVISION DESCRIPTION |
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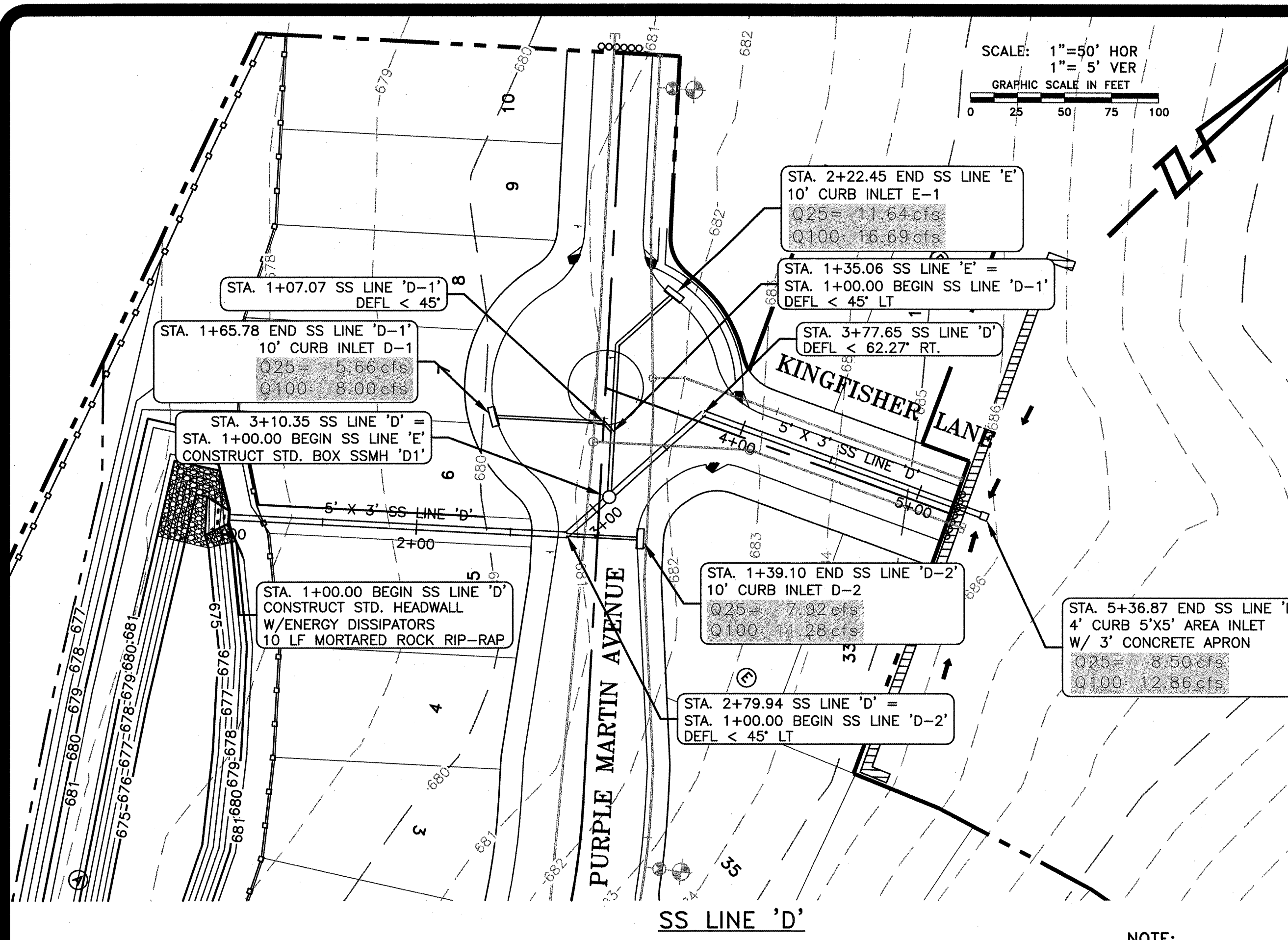
MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS

STORM SEWER LINES
'C', 'C-1', & 'C-2'
STA 1+00.00 TO END

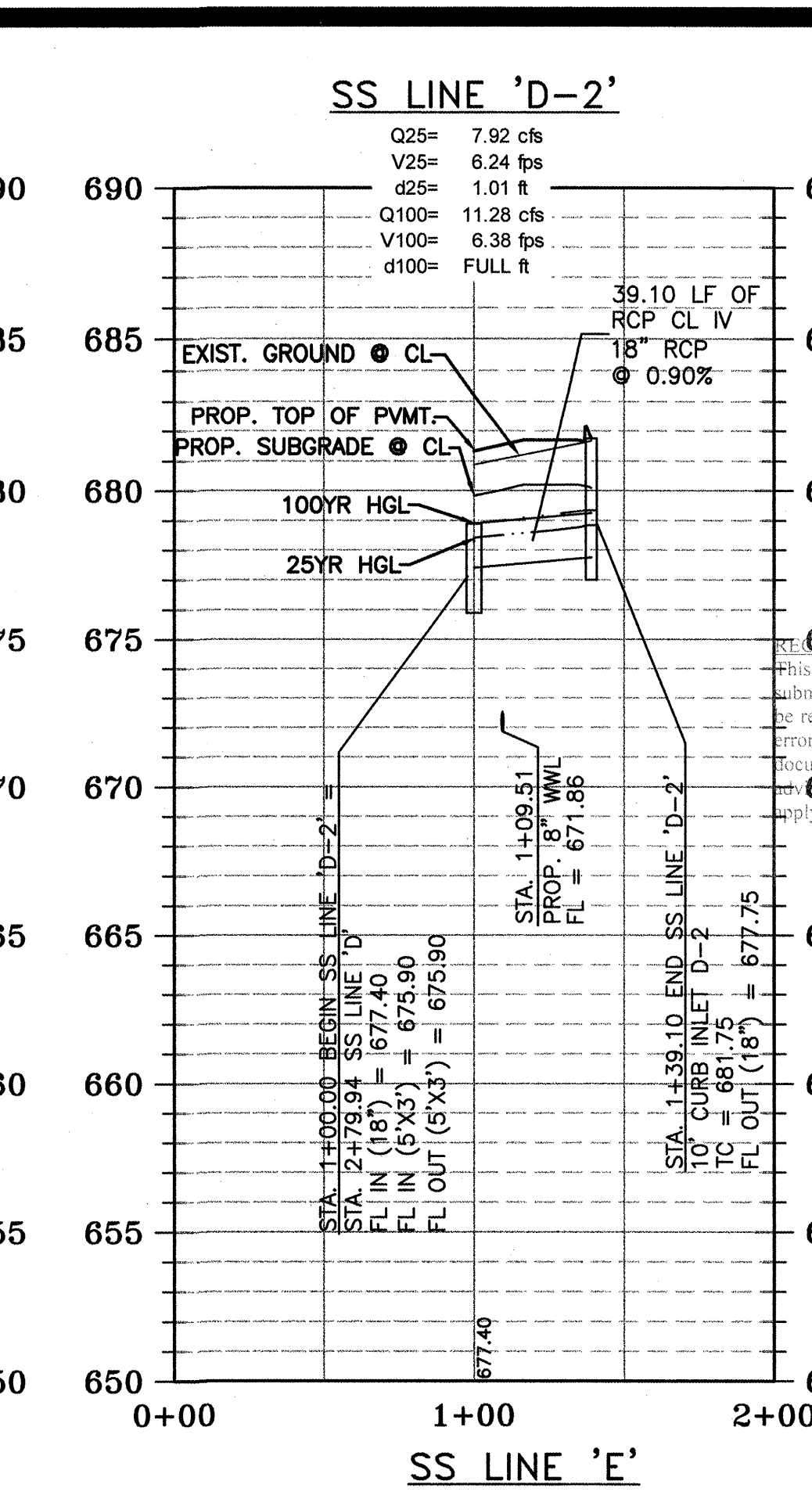
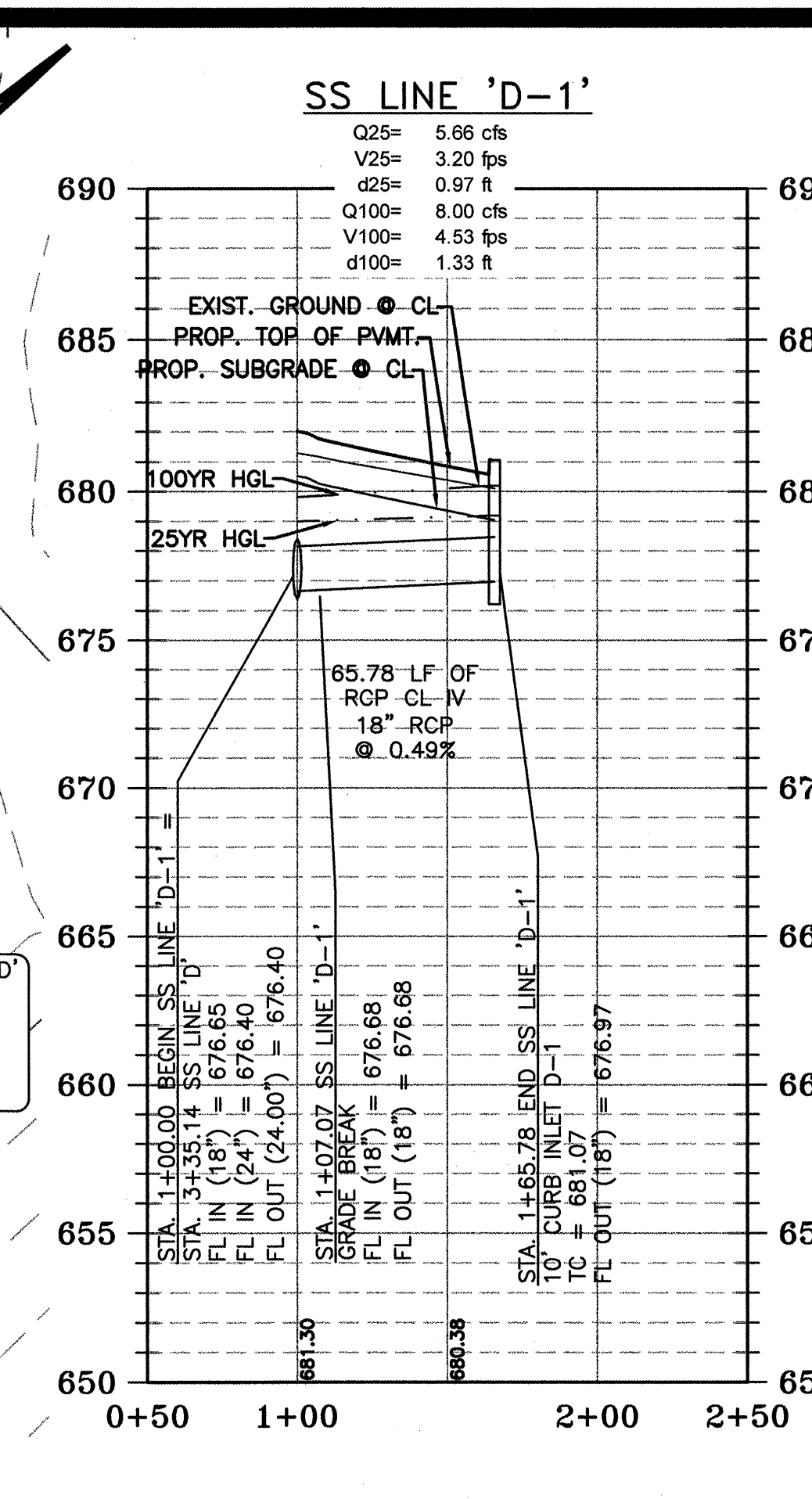
NOTICE:
ALTERATION OF A SEALED
DRAWING WITHOUT PROPER
NOTIFICATION TO THE
RESPONSIBLE ENGINEER IS
A VIOLATION OF THE TEXAS
ENGINEERING PRACTICE ACT.



FILE: H:\Projects\1283\10465 Meadows at Kyle 1 (P)\CAD\SHEETS\SSLN-D.dwg LAYOUT: STORM SEWER LINE 'D' STA 1+00.000 TO 5+33.3897 DATE: 10/10/2012 2:45:28 PM BY: JOCASTILLO



SCALE: 1" = 50' HOR
1" = 5' VER
GRAPHIC SCALE IN FEET

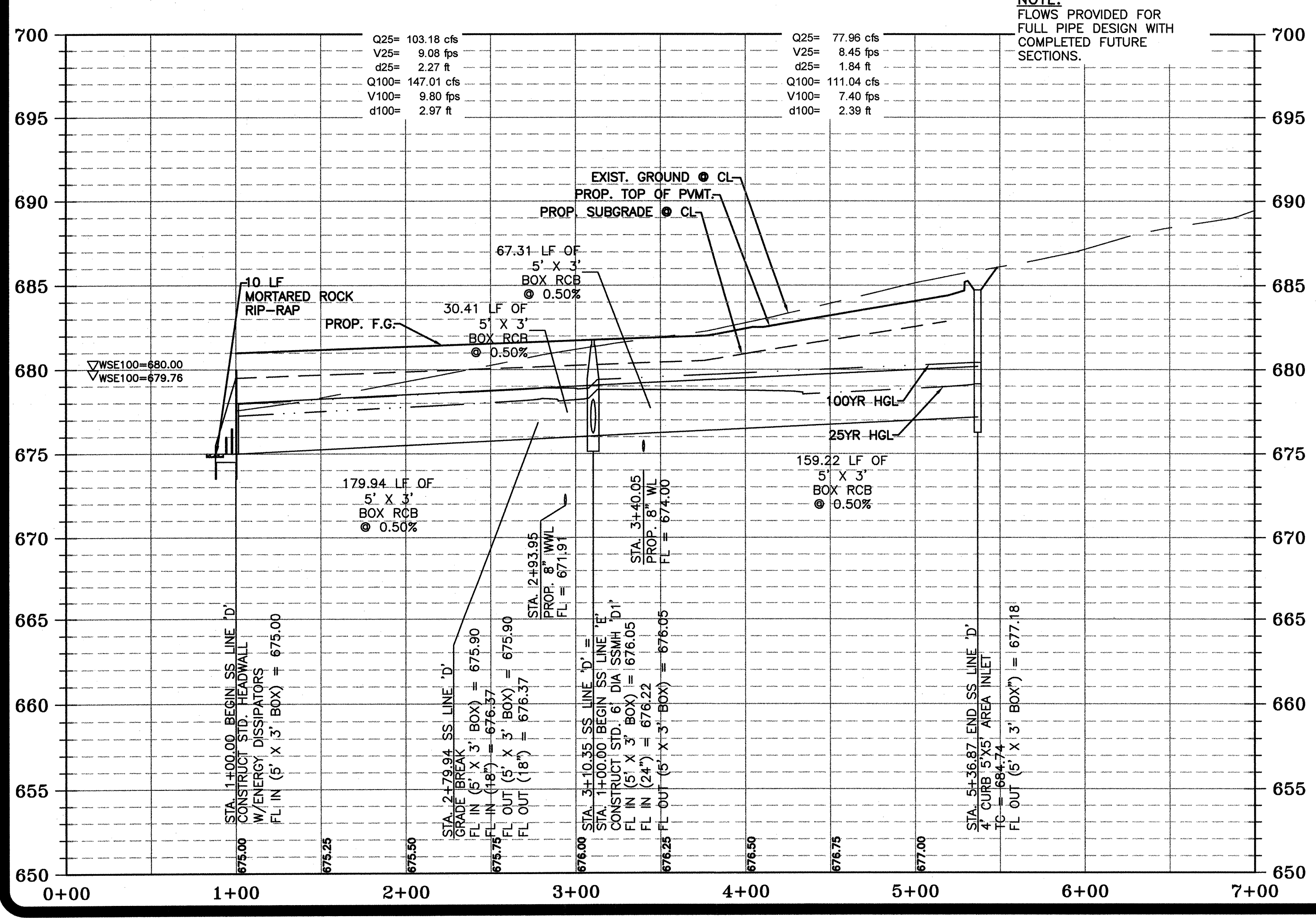


NOTES:

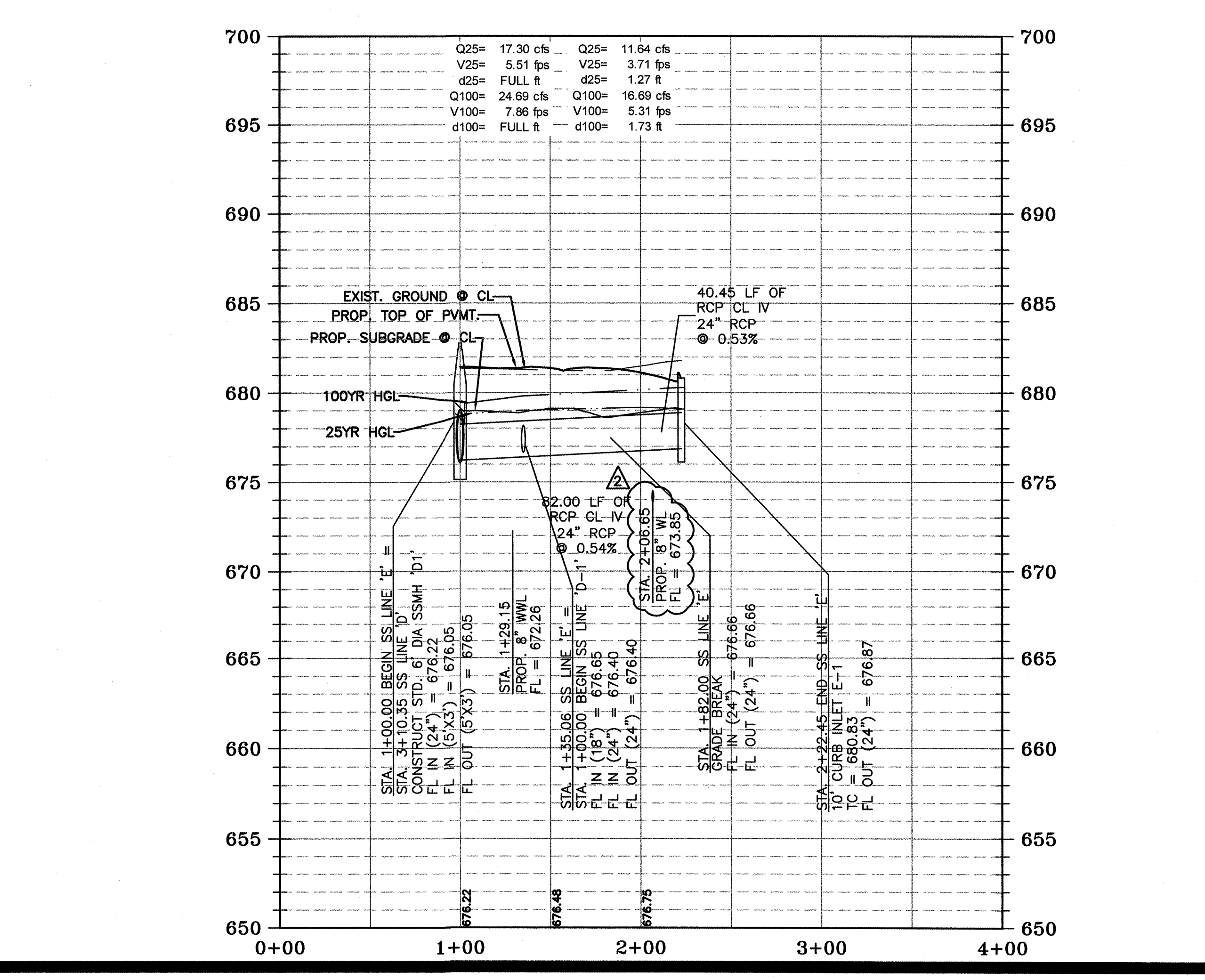
1. STORM SEWER ALIGNMENT 5- FEET FROM STREET CENTERLINE, UNLESS SHOWN OTHERWISE.
2. STREET GRADES AND TOP OF INLET LABELS FOR REFERENCE ONLY. SEE STREET PLAN AND PROFILE SHEETS FOR DESIGN DATA, TOP OF INLETS TO MATCH PROPOSED STREET GRADES.
3. ALL STORM SEWER PIPE TO BE CLASS III RCP, UNLESS NOTED OTHERWISE.

PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
FILE NO. SSLN-D DRAWN BY:
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

GRAY & ASSOCIATES, INC.
Consulting Engineers
8217 Shoal Creek Blvd., Suite 200
Austin, Texas 78757-7592
(512)452-0371 FAX(512)454-9983
TYPE FIRM #5946



NOTE:
FLOWS PROVIDED FOR
FULL PIPE DESIGN WITH
COMPLETED FUTURE
SECTIONS.



MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS

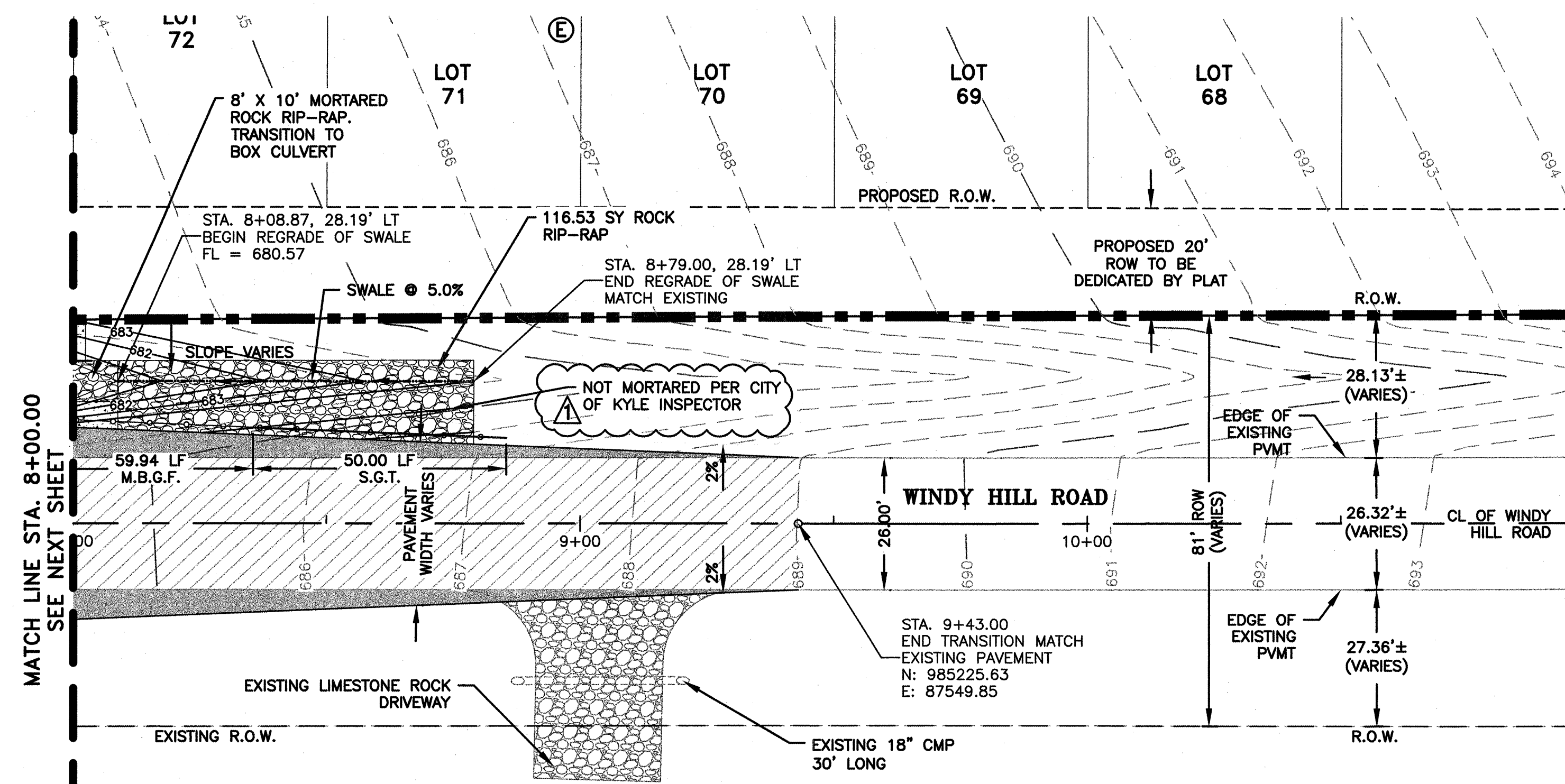
STORM SEWER LINES
'D', 'D-1', 'D-2', 'E' & 'E-1'
STA 1+00.00 TO END

NOTICE:
ALTERATION OF A SEALED
DRAWING WITHOUT PROPER
NOTIFICATION TO THE
RESPONSIBLE ENGINEER IS
A VIOLATION OF THE TEXAS
ENGINEERING PRACTICE ACT.

STATE OF TEXAS
JOHN D. HINES
96691
PROFESSIONAL ENGINEER
10/10/12

SHEET 26 OF 44

FILE: H:\Projects\1283\10465 Meadows at Kyle 1 CP\CAD\SHEETS\WINDY HILL ROAD LEFT TURN LANE PLAN AND PROFILE (3 OF 3) DATE: 8/29/2012 12:01:08 PM BY: JBORRERO



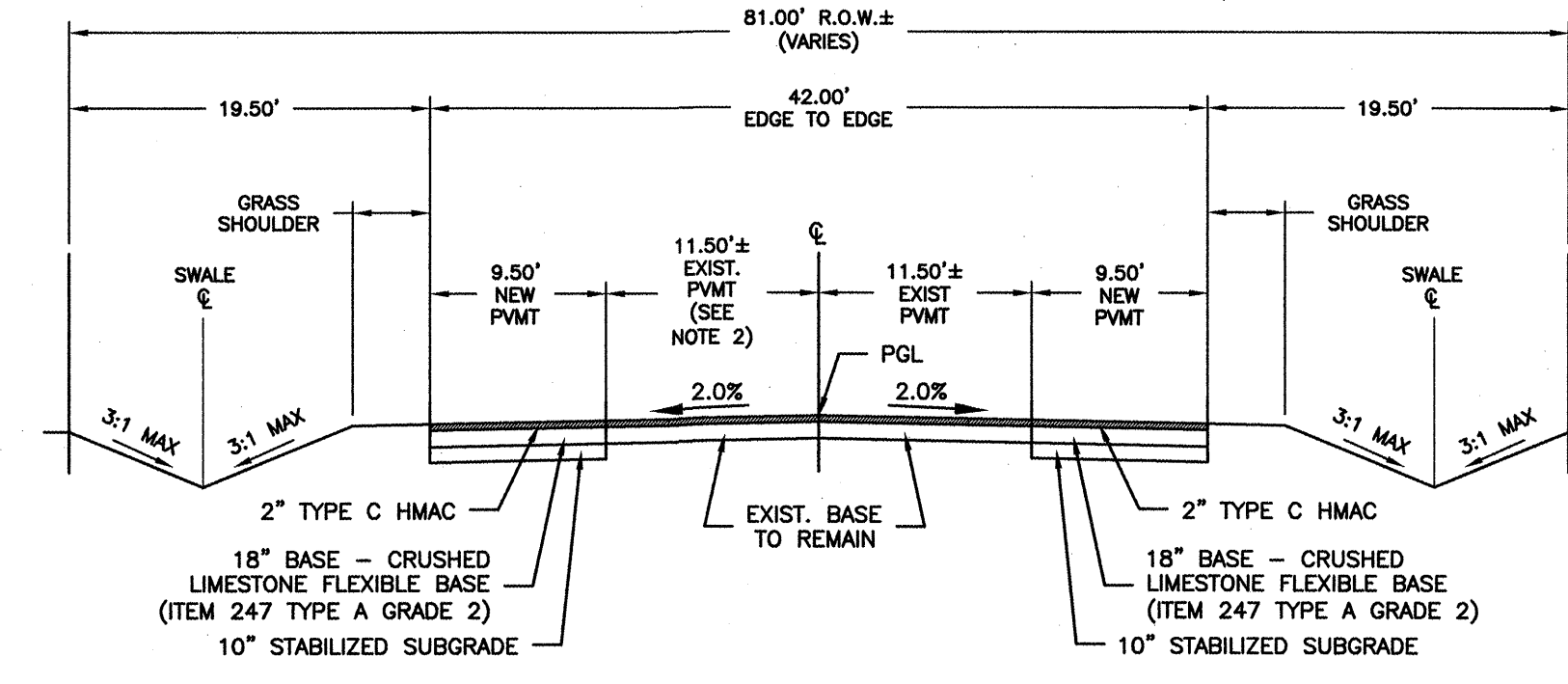
SCALE: 1"=20' HOR
1"=2' VER
GRAPHIC SCALE IN FEET

LEGEND

- 687 --- EXISTING GRADE
- 687 — PROPOSED GRADE
- X --- X --- EXISTING FENCE
- ⊗ UTILITY POLE
- ⊗ WV WATER VALVE
- ← GUY ANCHOR
- TEL TELEPHONE PEDESTAL
- ▨ PROPOSED PAVEMENT EXPANSION
- ▨ EXISTING PAVEMENT HMAC REMOVED & REPLACED. BASE TO REMAIN

ABBREVIATIONS

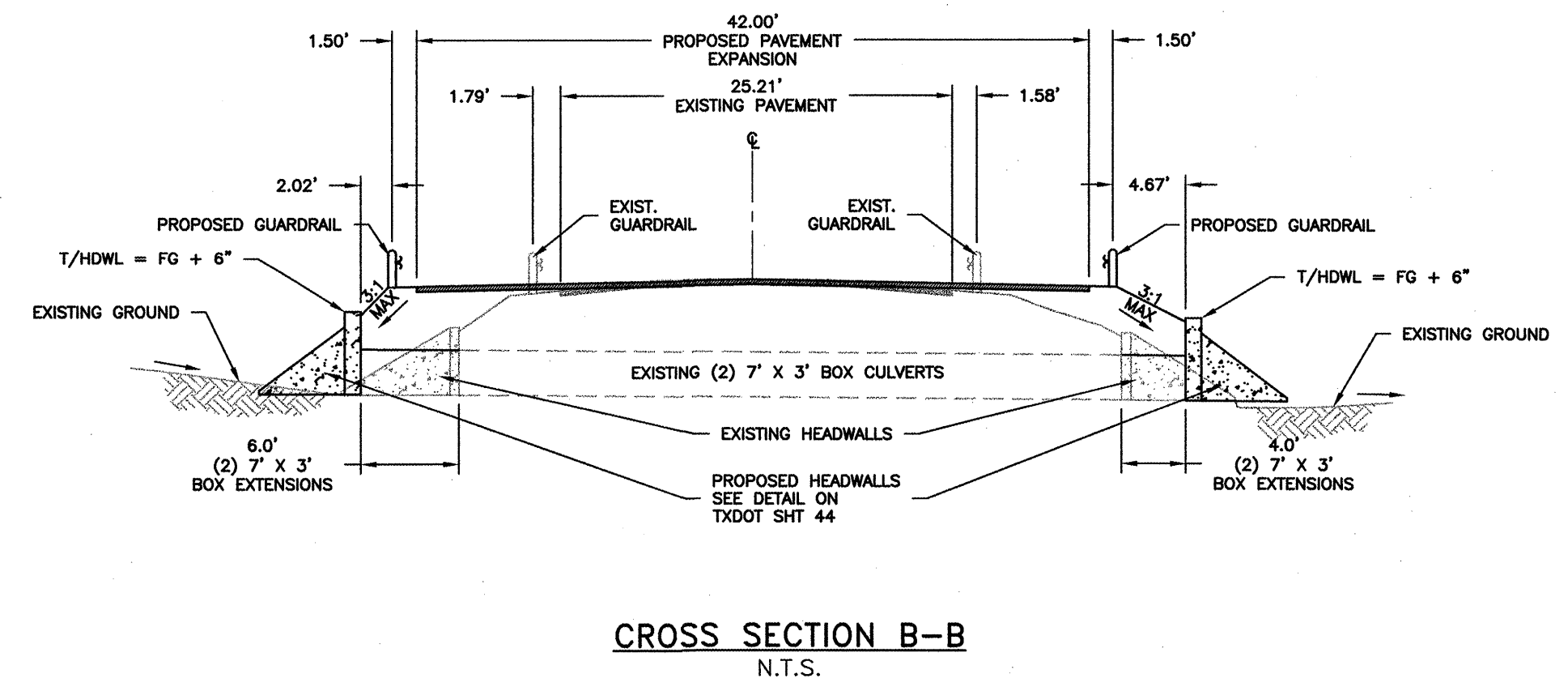
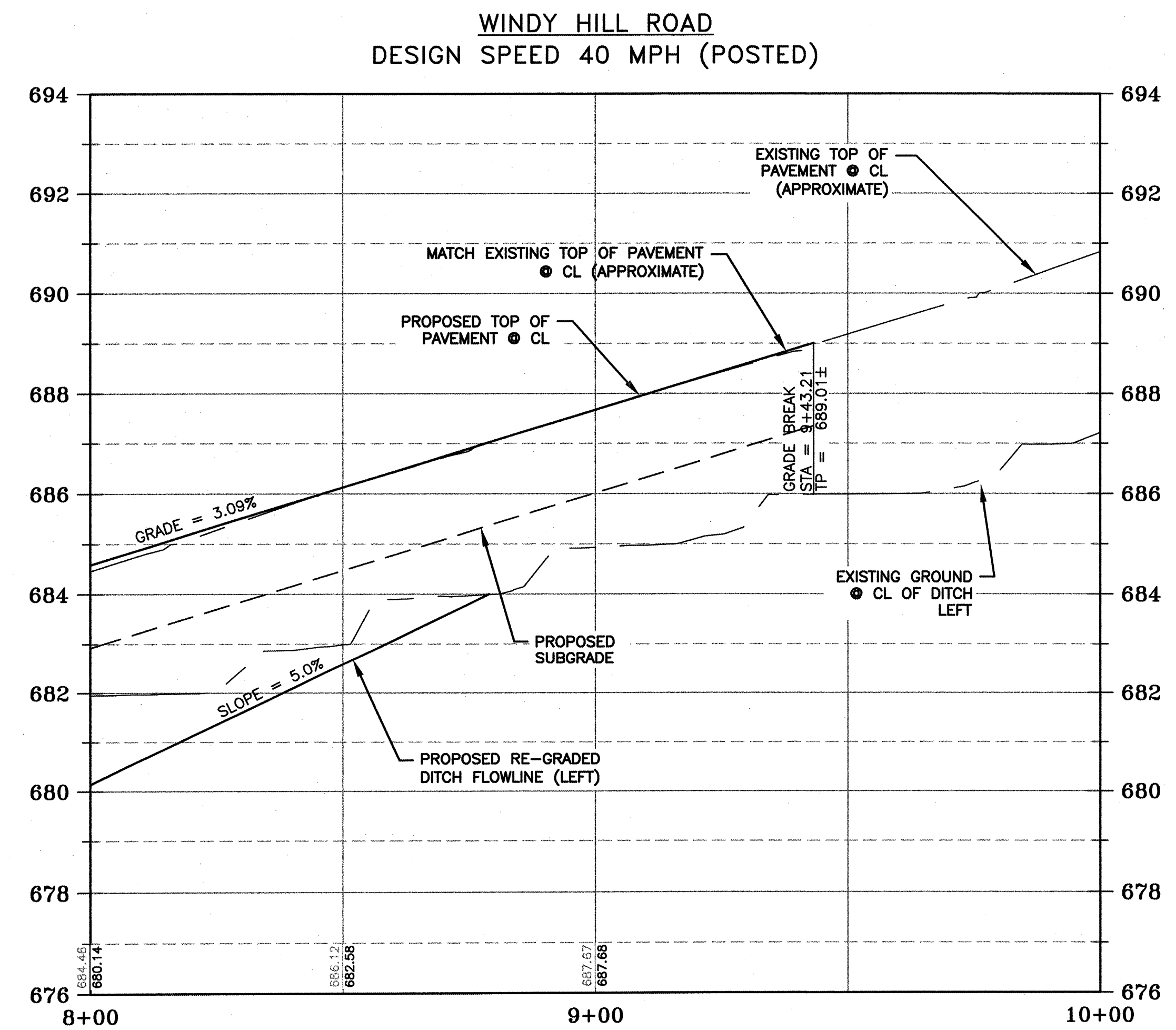
- LF LINEAR FEET
- TS TURN-DOWN SECTION
- M.B.G.F. METAL BEAM GUARD FENCE
- S.G.T. SAFETY GUARD TREATMENT
- PUE PUBLIC UTILITY EASEMENTS
- ⊕ CENTERLINE
- PGL PROPOSED GRADE LINE
- HDWL HEADWALL
- FG FINISHED GRADE
- LT/RT LEFT/RIGHT



NOTES:

- 1.) MATERIAL AND CONSTRUCTION REFERENCES TO FOLLOW CURRENT TXDOT SPECIFICATIONS AND STANDARD DETAILS.
- 2.) EXISTING ASPHALT PAVEMENT TO BE REMOVED AND MINIMUM 2" REPLACEMENT. BASE TO REMAIN, AND RECOMPACTED (MIN. 95% STD. PROCTOR).

RECORD DRAWINGS
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PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
FILE NO. WINDY HILL RD DRAWN BY: JH, HRG
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

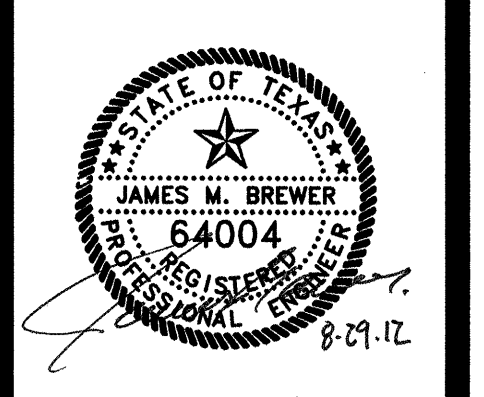
GRAY & ASSOCIATES, INC.
Professional Engineering Firm
6217 Shiloh, Suite 200
Austin, Texas 78757-7592
(512) 462-0371 FAX (512) 454-9833
TYPE FIRM #2946

| NO. | BY | DATE | REVISION DESCRIPTION |
|-----|----|---------|----------------------|
| 1 | JH | 2/14/12 | As-Built |

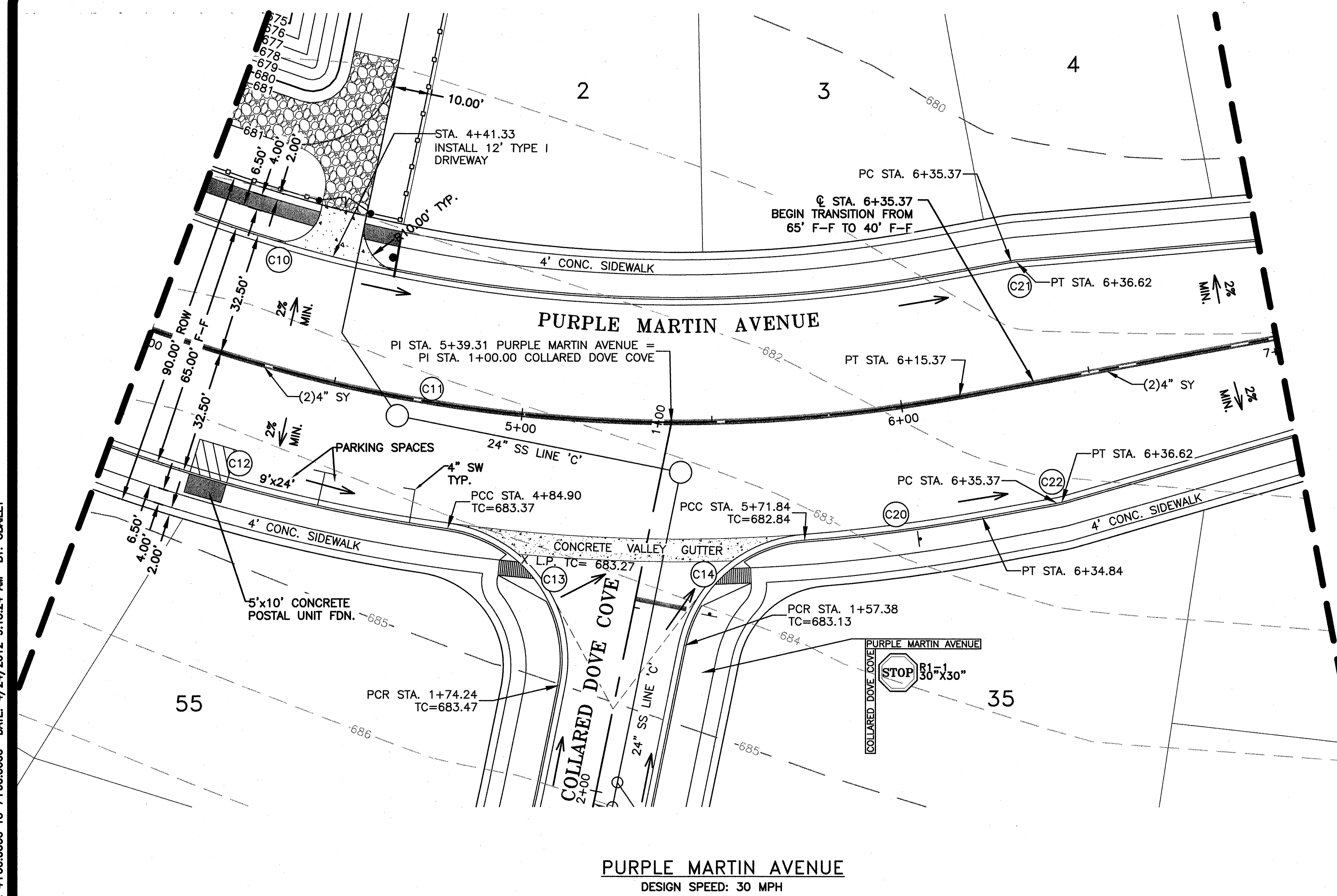
**MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS**

**WINDY HILL ROAD
LEFT TURN LANE
PLAN AND PROFILE
(3 OF 3)**

NOTICE:
DRAWING WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS A VIOLATION OF THE TEXAS ENGINEERING PRACTICE ACT.

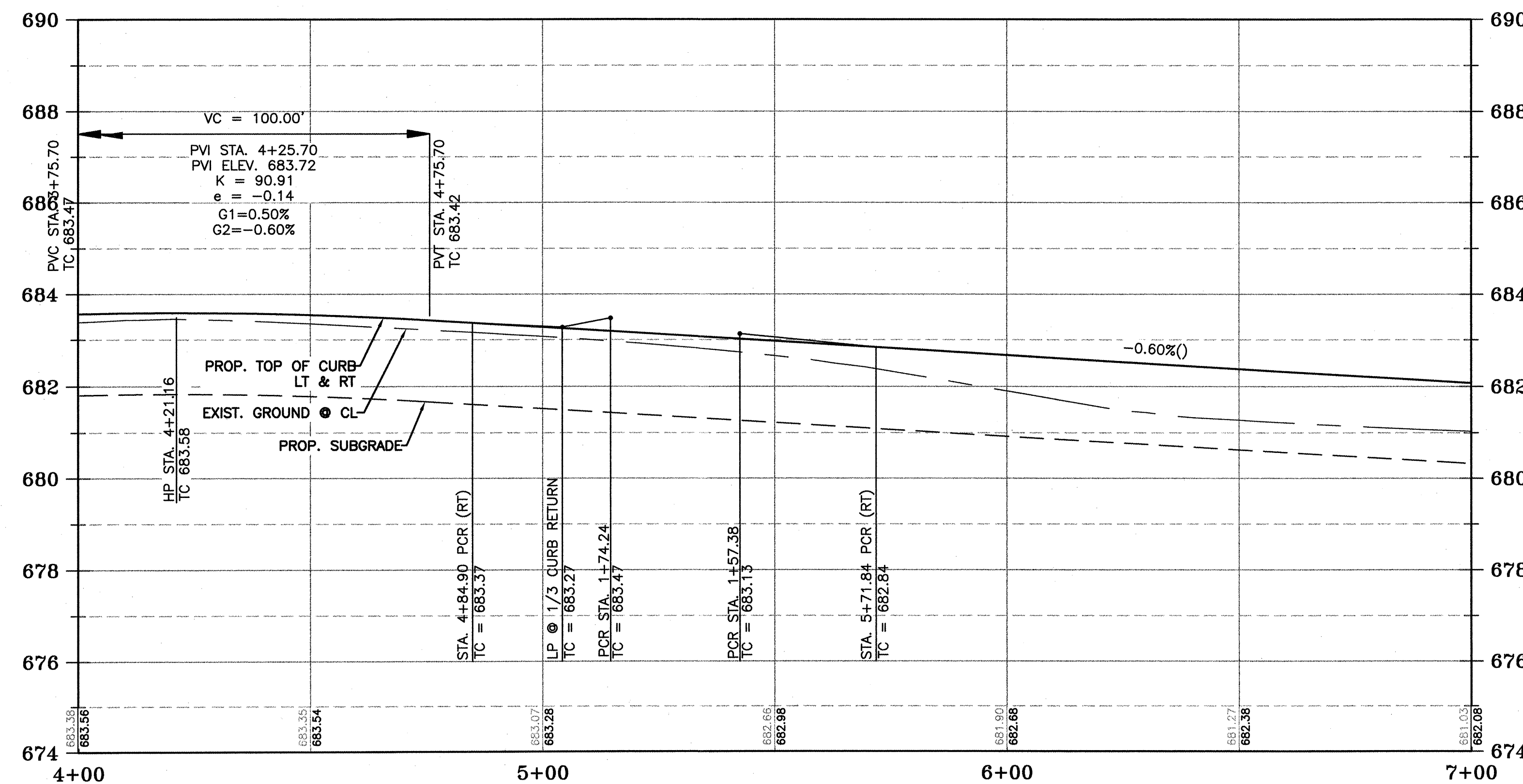
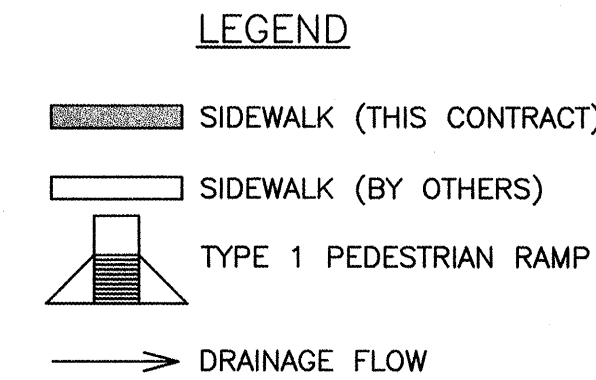


FILE: H:\Projects\283\10465 Meadows at Kyle 1 CP\CAD\SHEETS\PURPLE MARTIN.dwg LAYOUT: PURPLE MARTIN STA 4+00.0000 TO 7+00.0000 DATE: 4/24/2012 9:15:24 AM BY: CBMALEY

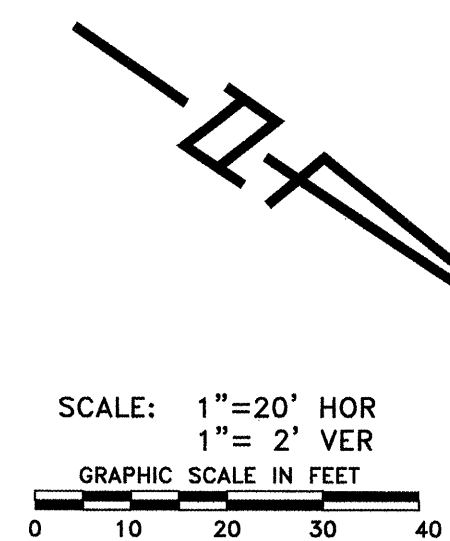


| CURVE DATA | | | | | | |
|------------|-------------|---------|--------|------------|--------------|------------------|
| NUMBER | DELTA | TANGENT | RADIUS | ARC LENGTH | CHORD LENGTH | CHORD BEARING |
| C10 | 42° 15' 57" | 142.05 | 367.50 | 271.10 | 264.99 | N23° 04' 20.57"W |
| C11 | 42° 15' 57" | 154.61 | 400.00 | 295.07 | 288.43 | N23° 04' 20.57"W |
| C12 | 22° 02' 57" | 84.26 | 432.50 | 166.44 | 165.41 | N14° 29' 29.76"W |
| C13 | 93° 20' 35" | 37.10 | 35.00 | 57.02 | 50.92 | N21° 09' 18.96"E |
| C14 | 74° 12' 14" | 26.47 | 35.00 | 45.33 | 42.23 | N75° 04' 16.85"W |
| C20 | 6° 14' 09" | 23.56 | 432.50 | 47.07 | 47.05 | N41° 05' 14.49"W |
| C21 | 5° 42' 28" | 0.62 | 12.50 | 1.25 | 1.24 | N41° 21' 04.92"W |
| C22 | 5° 42' 28" | 0.62 | 12.50 | 1.25 | 1.24 | N47° 03' 33.78"W |

- NOTES:**
1. ALL DIMENSIONS TO FACE OF CURB.
 2. ALL PAVEMENT MARKINGS PER CURRENT TEXAS M.U.T.C.D., PART III MARKINGS.
 3. ALL STRIPING TO BE THERMO PLASTIC.
 4. SIDEWALKS ADJACENT TO SINGLE FAMILY LOTS TO BE CONSTRUCTED CONCURRENTLY WITH EACH SINGLE FAMILY HOUSE.
 5. ALL PEDESTRIAN RAMPS TYPE I, UNLESS NOTED OTHERWISE.
 6. INLETS SHOWN IN PROFILE ARE FOR SYMBOLIC REFERENCE ONLY, TOP OF INLET TO MATCH TOP OF CURB STREET GRADES.



RECORD DRAWINGS
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PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
 FILE NO. PURPLE MARTIN DRAWN BY: JH, HRG
 DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

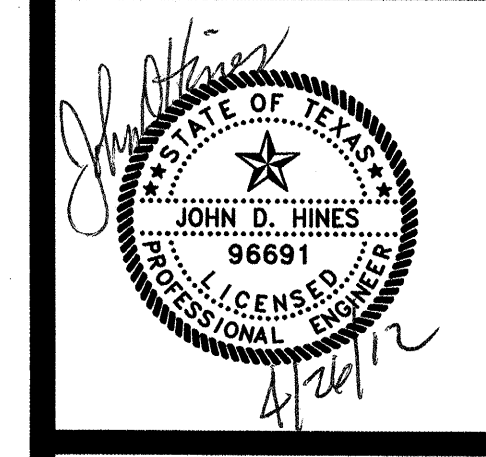
GRAY & ASSOCIATES, INC.
 Consulting Engineers
 8817 School Creek
 Houston, TX 77057-7992
 (512)452-0871 FAX (512)454-9883
 TBPE FIRM #2846

| NO. | BY | DATE | REVISION DESCRIPTION |
|-----|----|------|----------------------|
| | | | |
| | | | |
| | | | |

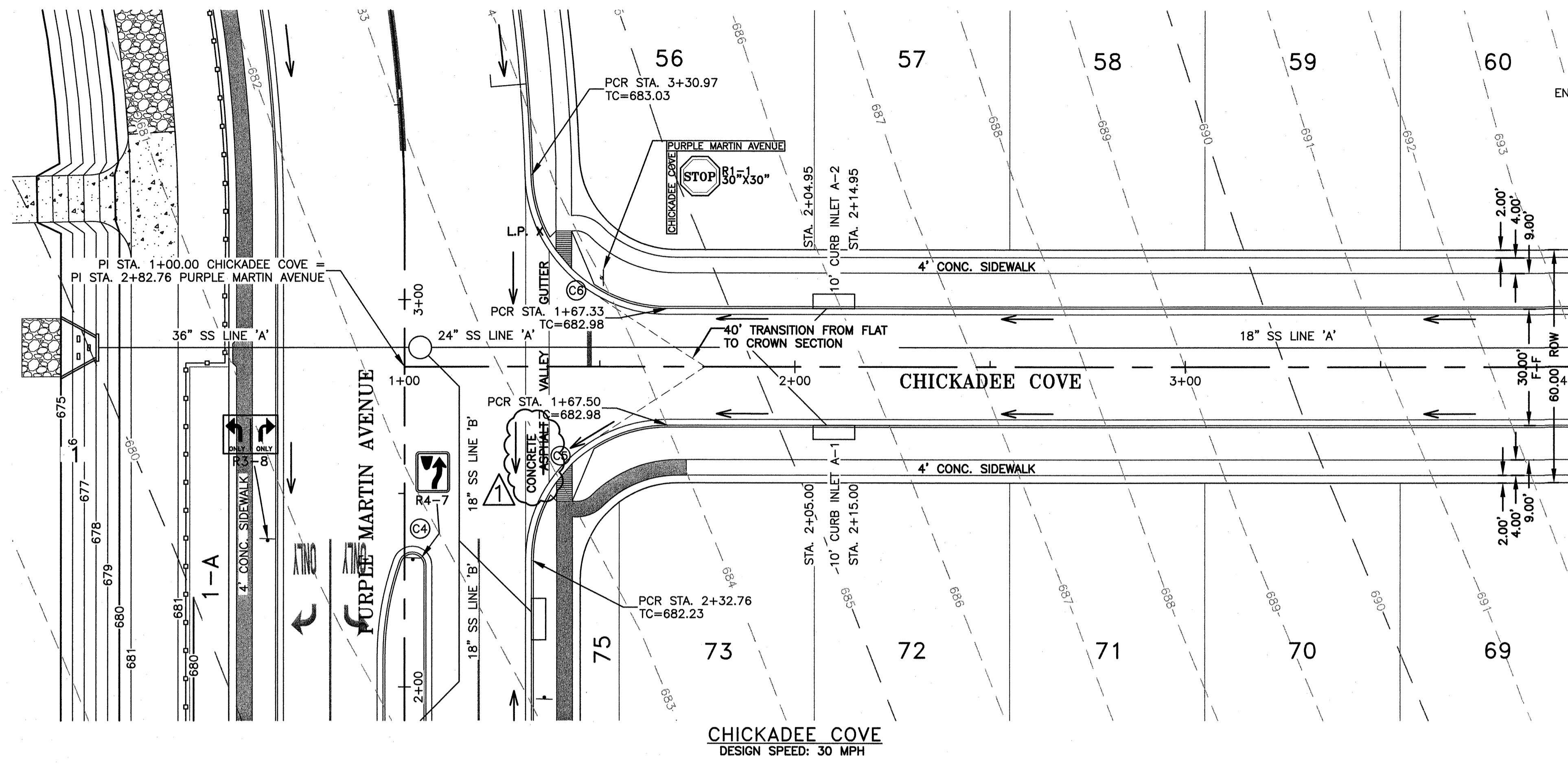
**MEADOWS AT KYLE
 PHASE ONE
 WATER, WASTEWATER,
 STREET AND DRAINAGE
 IMPROVEMENTS**

**PURPLE MARTIN AVENUE
 STA. 4+00.00 TO 7+00.00**

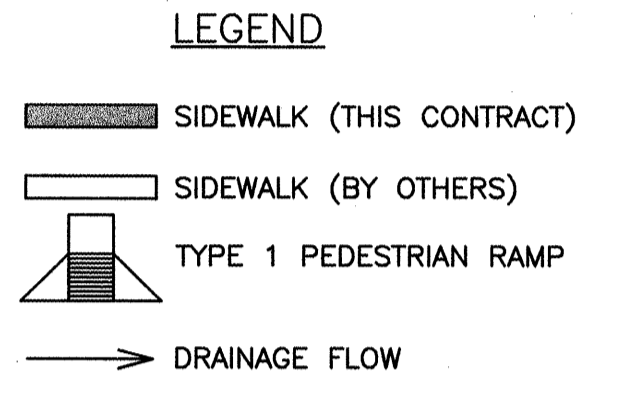
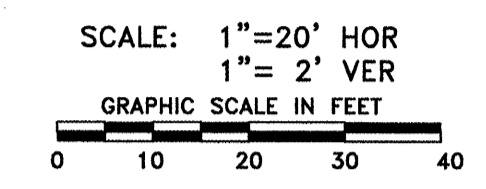
NOTICE:
 ALTERATION OF A SEALED DRAWING WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS A VIOLATION OF THE TEXAS ENGINEERING PRACTICE ACT.



FILE: H:\Projects\1283\10465 Meadows at Kyle 1 (P)\CAD\SHEETS\CHICKADEE.dwg LAYOUT: CHICKADEE COVE STA 1+00.0000 TO 4+00.0000 DATE: 9/26/2012 11:43:08 AM BY: JCASTILLO

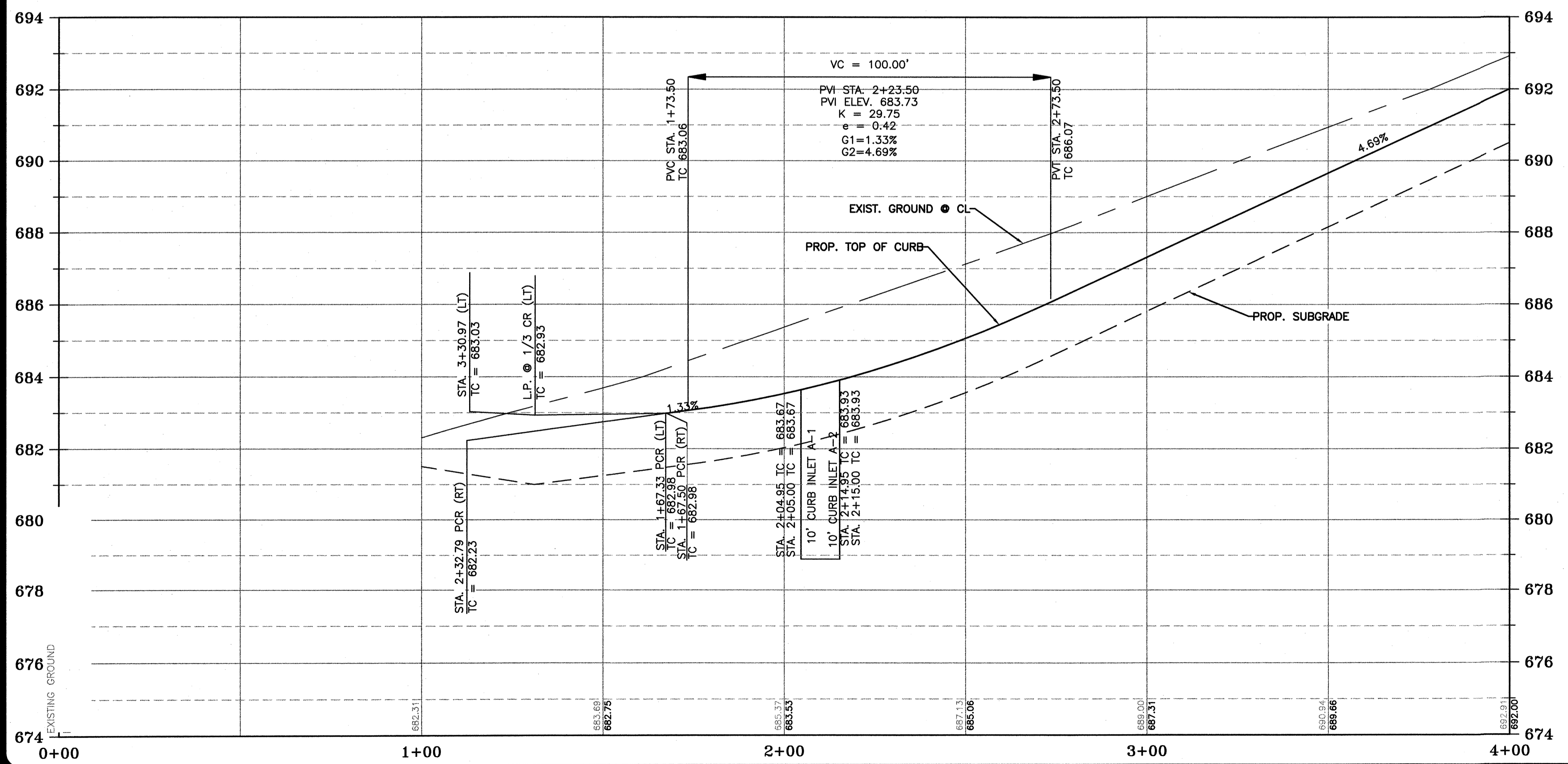


- NOTES:
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 2. ALL PAVEMENT MARKINGS PER CURRENT TEXAS M.U.T.C.D., PART III MARKINGS.
 3. ALL STRIPING TO BE THERMO PLASTIC.
 4. SIDEWALKS ADJACENT TO SINGLE FAMILY LOTS TO BE CONSTRUCTED CONCURRENTLY WITH EACH SINGLE FAMILY HOUSE.
 5. ALL PEDESTRIAN RAMPS TYPE I, UNLESS NOTED OTHERWISE.
 6. INLETS SHOWN IN PROFILE ARE FOR SYMBOLIC REFERENCE ONLY, TOP OF INLET TO MATCH TOP OF CURB STREET GRADES.



CURVE DATA

| NUMBER | DELTA | TANGENT | RADIUS | ARC LENGTH | CHORD LENGTH | CHORD BEARING |
|--------|-------------|---------|--------|------------|--------------|------------------|
| C5 | 90° 00' 00" | 35.00 | 35.00 | 54.98 | 49.50 | N43° 03' 37.91"E |
| C6 | 88° 28' 21" | 34.08 | 35.00 | 54.04 | 48.83 | N47° 42' 11.65"W |



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PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
FILE NO. CHICKADEE DRAWN BY: JH, HRG
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

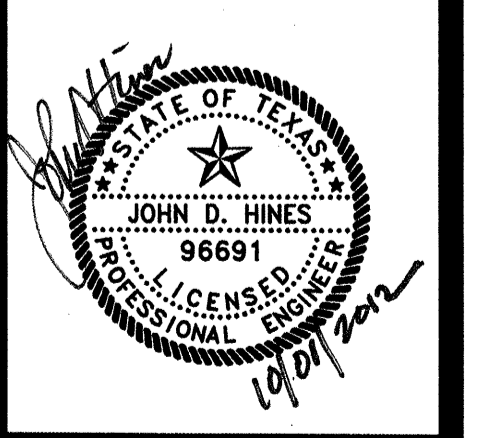
GRAY & ASSOCIATES, INC.
Consulting Engineers
8217 Shoal Creek Blvd., Suite 200
Austin, Texas 78757-7592
(512)452-0371 FAX (512)454-9833
TYPE FIRM #2946

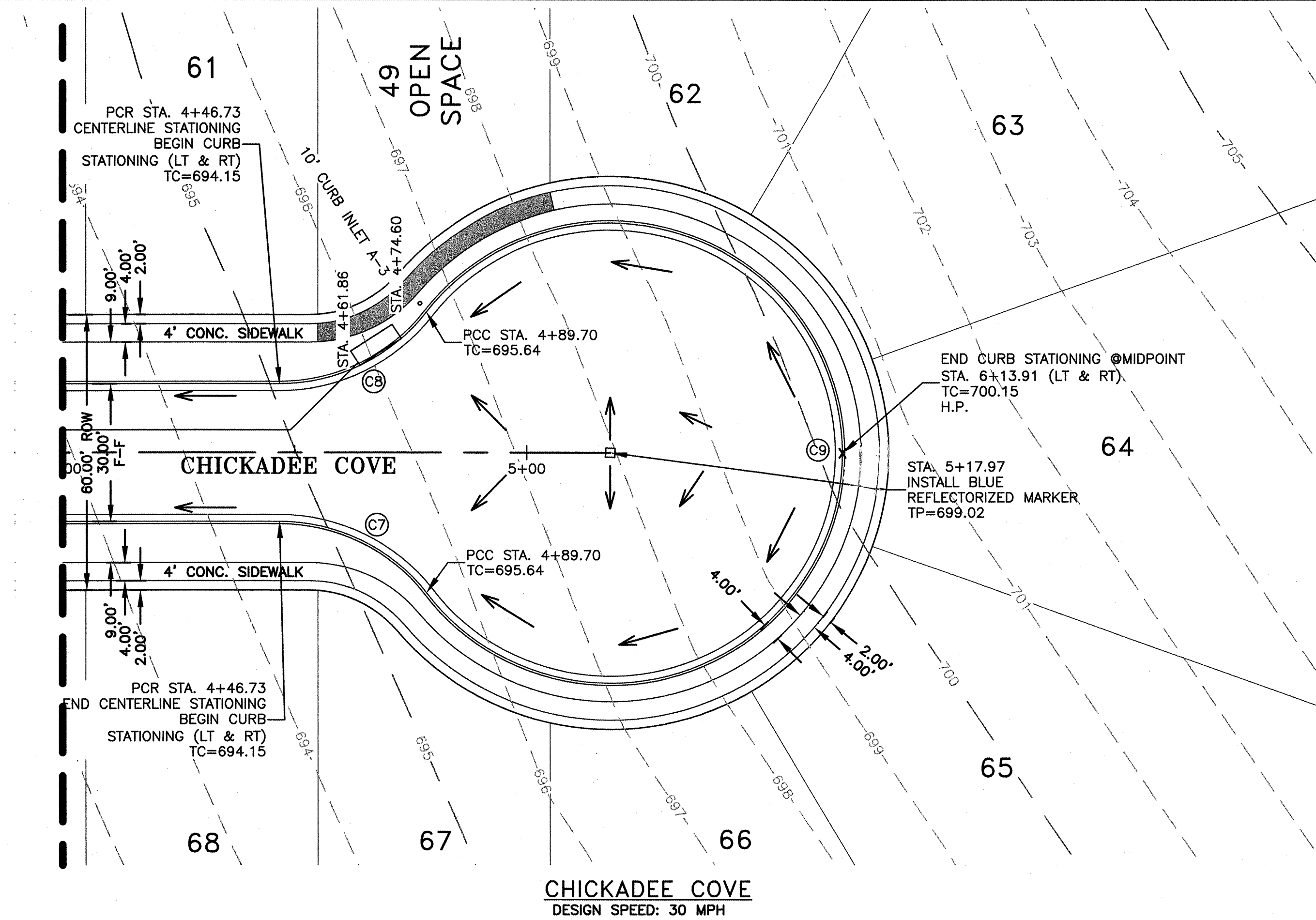
| NO. | BY | DATE | REVISION DESCRIPTION |
|-----|----|---------|----------------------|
| 1 | JH | 9/26/12 | CORRECT LABEL |

MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS

CHICKADEE COVE
STA 1+00.00 TO
4+00.00

NOTICE:
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NOTES:

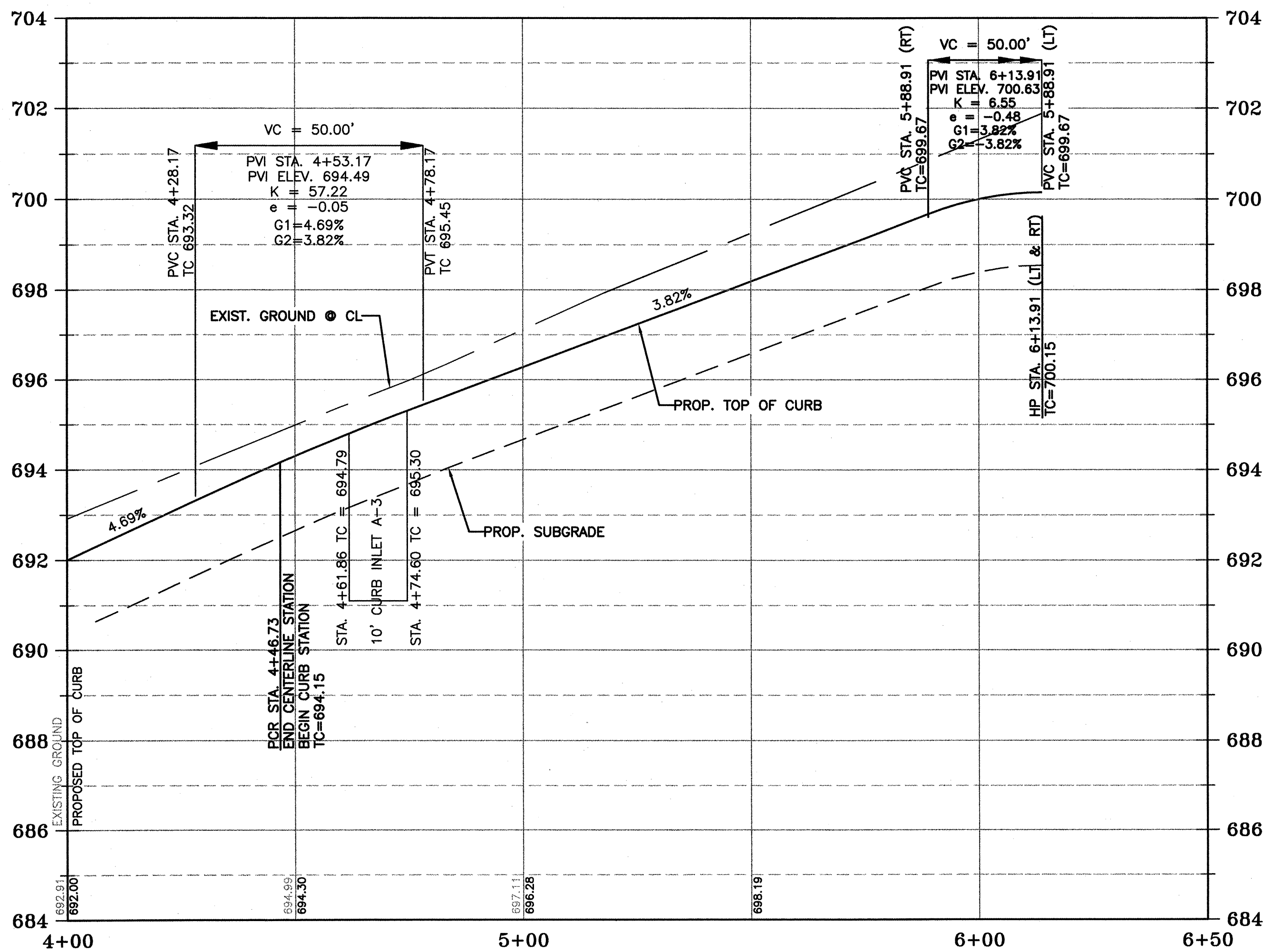
1. ALL DIMENSIONS TO FACE OF CURB.
2. ALL PAVEMENT MARKINGS PER CURRENT TEXAS M.U.T.C.D., PART III MARKINGS.
3. ALL STRIPING TO BE THERMO PLASTIC.
4. SIDEWALKS ADJACENT TO SINGLE FAMILY LOTS TO BE CONSTRUCTED CONCURRENTLY WITH EACH SINGLE FAMILY HOUSE.
5. ALL PEDESTRIAN RAMPS TYPE I, UNLESS NOTED OTHERWISE.
6. INLETS SHOWN IN PROFILE ARE FOR SYMBOLIC REFERENCE ONLY, TOP OF INLET TO MATCH TOP OF CURB STREET GRADES.

LEGEND

- SIDEWALK (THIS CONTRACT)
- SIDEWALK (BY OTHERS)
- TYPE 1 PEDESTRIAN RAMP
- DRAINAGE FLOW

CURVE DATA

| NUMBER | DELTA | TANGENT | RADIUS | ARC LENGTH | CHORD LENGTH | CHORD BEARING |
|--------|--------------|---------|--------|------------|--------------|------------------|
| C7 | 52' 19' 48" | 19.65 | 40.00 | 36.53 | 35.28 | S65° 46' 27.89"E |
| C8 | 52' 19' 48" | 19.65 | 40.00 | 36.53 | 35.28 | S61° 53' 43.70"W |
| C9 | 284' 39' 37" | 38.60 | 50.00 | 248.41 | 61.11 | N1° 56' 22.09"W |



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PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
 FILE NO. CHICKADEE DRAWN BY: JH, HRG
 DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

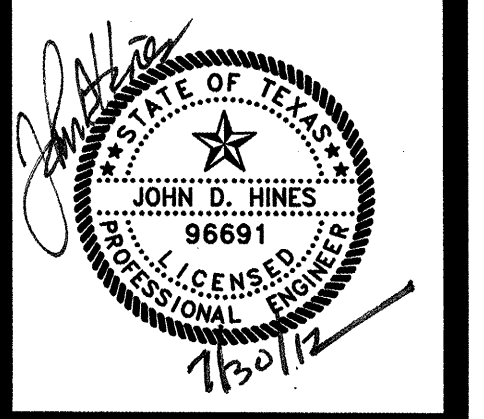
GRAY & ASSOCIATES, INC.
 Consulting Engineers
 8217 Shoal Creek Blvd., Suite 200
 Austin, Texas 78757-7592
 (512)455-0371 FAX (512)454-9833
 TBP# FIRM #2946

| NO. | BY | DATE | REVISION DESCRIPTION |
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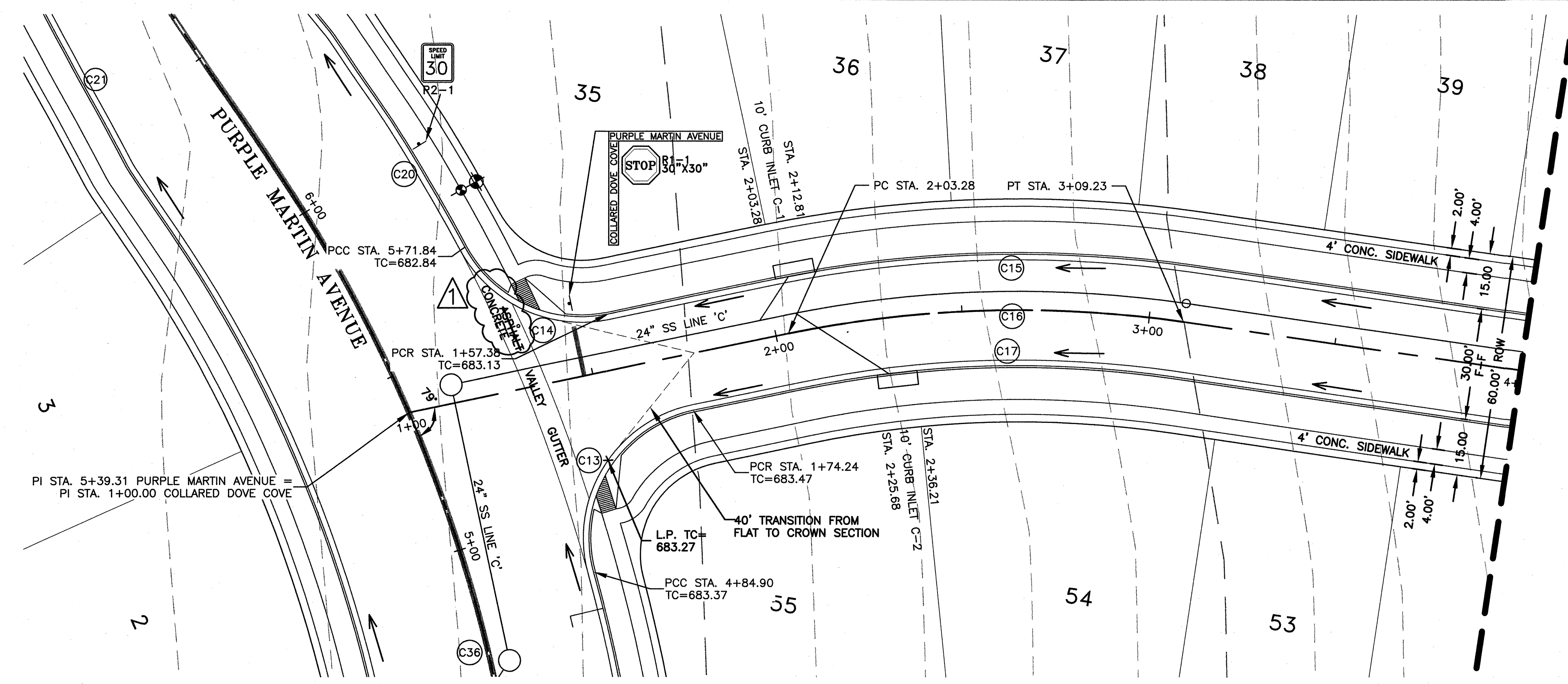
MEADOWS AT KYLE
 PHASE ONE
 WATER, WASTEWATER,
 STREET AND DRAINAGE
 IMPROVEMENTS

CHICKADEE COVE STA
 4+00.00 TO END

NOTICE:
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 DRAWING WITHOUT PROPER
 NOTIFICATION TO THE
 RESPONSIBLE ENGINEER IS
 A VIOLATION OF THE TEXAS
 ENGINEERING PRACTICE ACT.

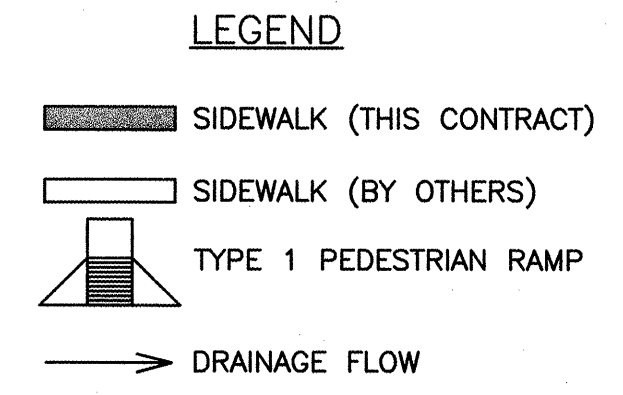
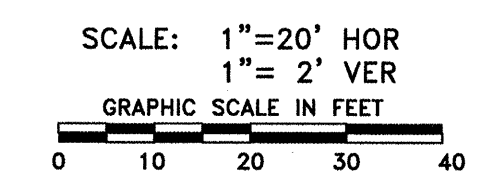


FILE: H:\Projects\1283\10465 Meadows at Kyle 1 CP\CAD\SHEETS\COLLARED DOVE.dwg LAYOUT: COLLARED DOVE STA 1+00.0000 TO 4+00.0000 DATE: 9/26/2012 11:47:48 AM BY: JOCASTILLO



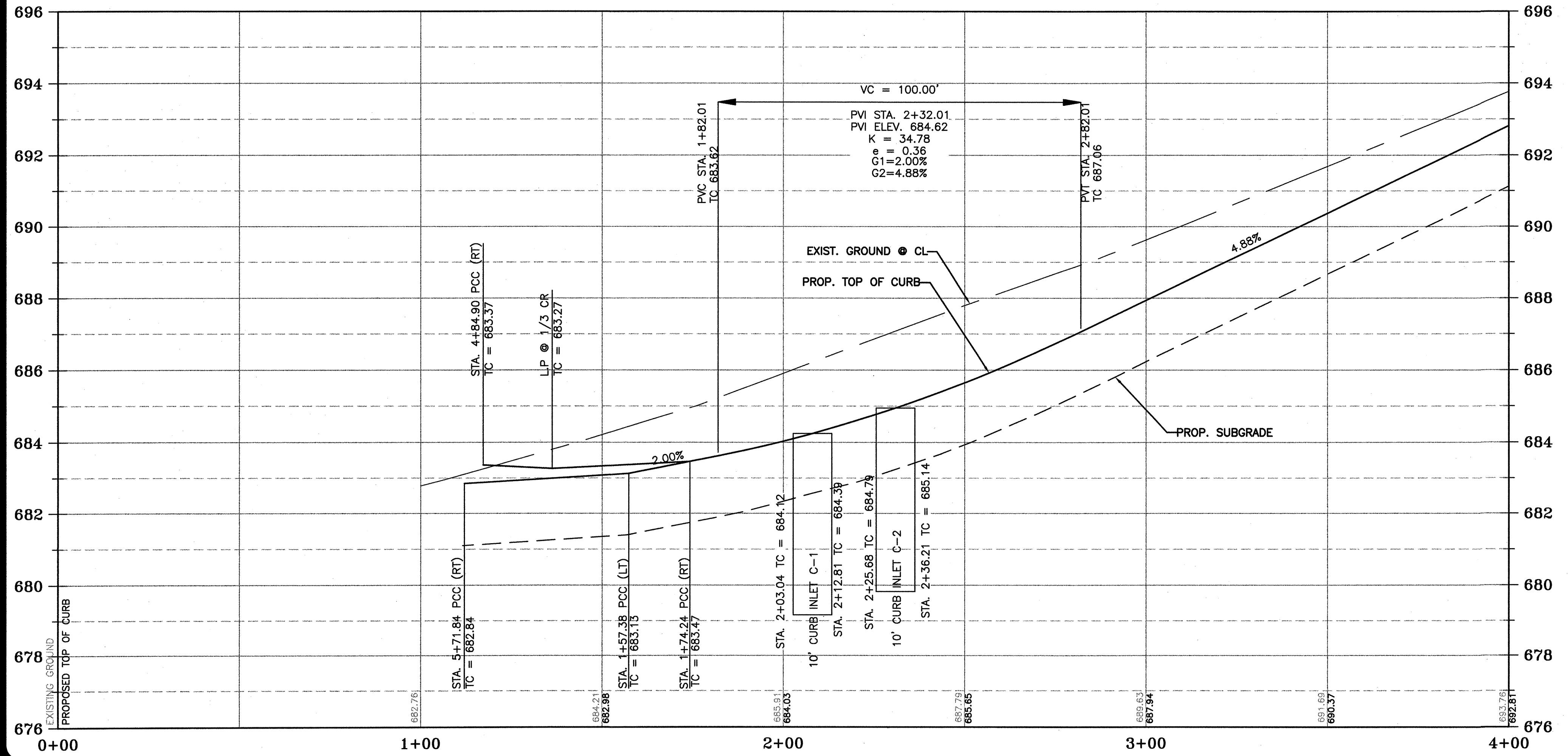
COLLARED DOVE COVE
DESIGN SPEED: 30 MPH

- NOTES:**
1. ALL DIMENSIONS TO FACE OF CURB.
 2. ALL PAVEMENT MARKINGS PER CURRENT TEXAS M.U.T.C.D., PART III MARKINGS.
 3. ALL STRIPING TO BE THERMO PLASTIC.
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CURVE DATA

| NUMBER | DELTA | TANGENT | RADIUS | ARC LENGTH | CHORD LENGTH | CHORD BEARING |
|--------|-------------|---------|--------|------------|--------------|------------------|
| C13 | 93° 20' 35" | 37.10 | 35.00 | 57.02 | 50.92 | N21° 09' 18.96"E |
| C14 | 74° 12' 14" | 26.47 | 35.00 | 45.33 | 42.23 | N75° 04' 16.85"W |
| C15 | 20° 14' 02" | 56.21 | 315.00 | 111.24 | 110.66 | S77° 56' 37.07"W |
| C16 | 20° 14' 02" | 53.53 | 300.00 | 105.94 | 105.39 | N77° 56' 37.07"E |
| C17 | 20° 14' 02" | 50.85 | 285.00 | 100.85 | 100.12 | N77° 56' 37.07"E |



RECORD DRAWINGS
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PROJECT NO. 1283-10465 DESIGNED BY: JH, HRC
FILE NO. COLLARED DOVE DRAWN BY: HRC
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

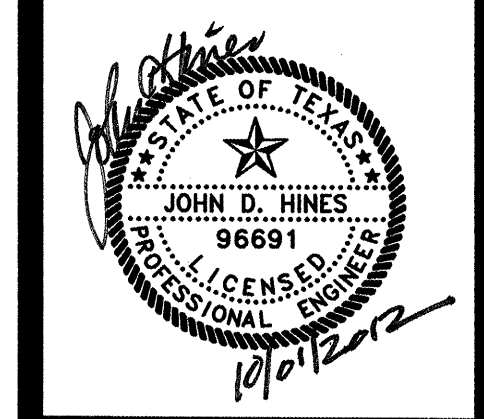
GRAY & ASSOCIATES, INC.
Consulting Engineers
6217 Shoal Creek Blvd., Suite 200
Austin, Texas 78757-7692
(512)452-0371 FAX (512)454-9653
TYPE FIRM #2946

| NO. | BY | DATE | REVISION DESCRIPTION |
|-----|----|---------|----------------------|
| 1 | JH | 9/26/12 | CORRECT LABEL |

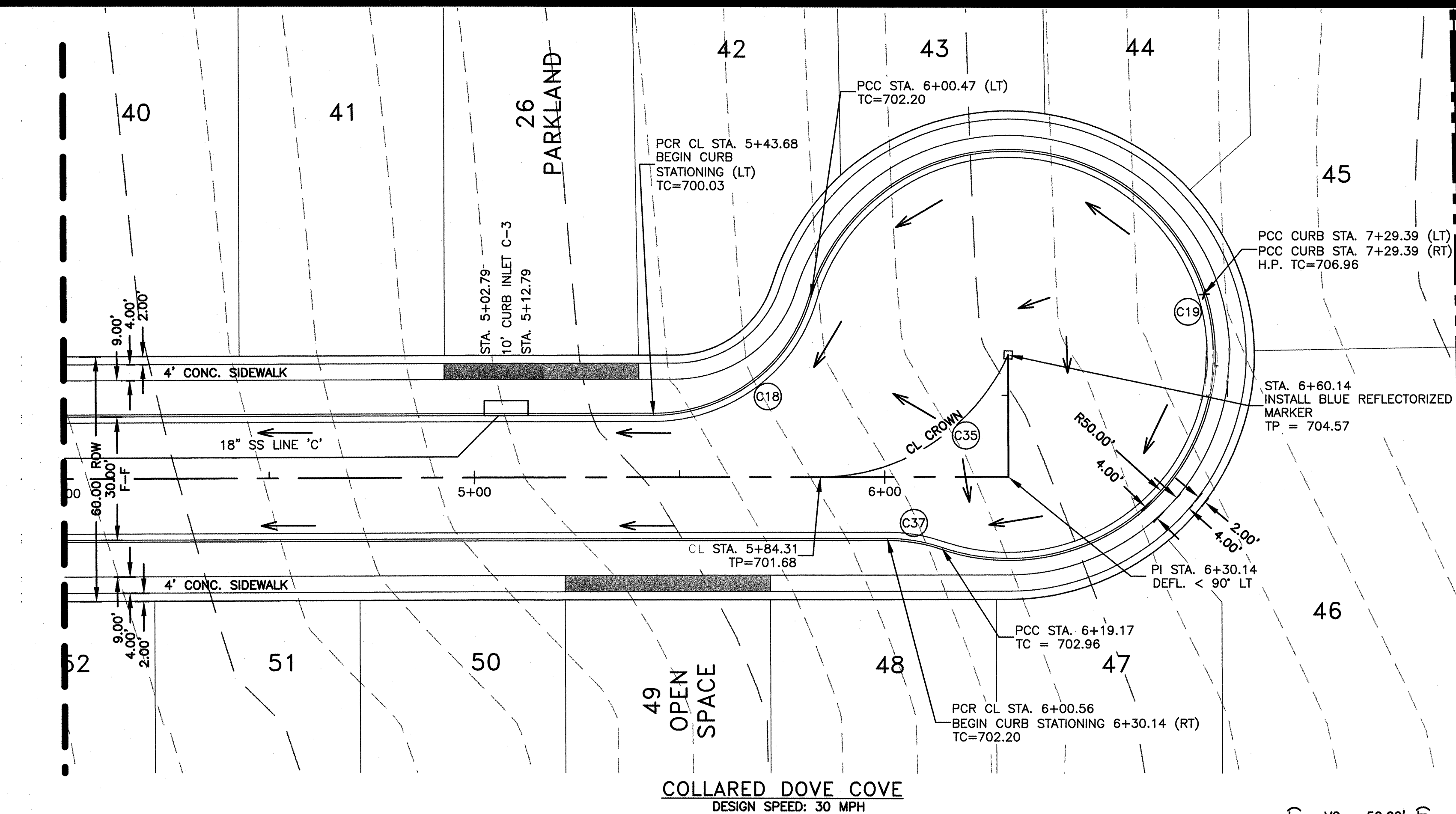
**MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS**

**COLLARED DOVE COVE
STA 1+00.00 TO 4+00.00**

NOTICE:
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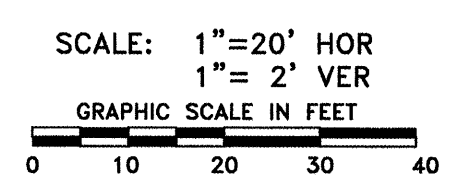


FILE: H:\Projects\1283\10465 Meadows at Kyle 1 CIP\CAD\SHEETS\COLLARED DOVE.dwg LAYOUT: COLLARED DOVE STA 4+00.0000 TO 6+60.1402 DATE: 6/15/2012 10:13:42 AM BY: JBORREGO



COLLARED DOVE COVE
DESIGN SPEED: 30 MPH

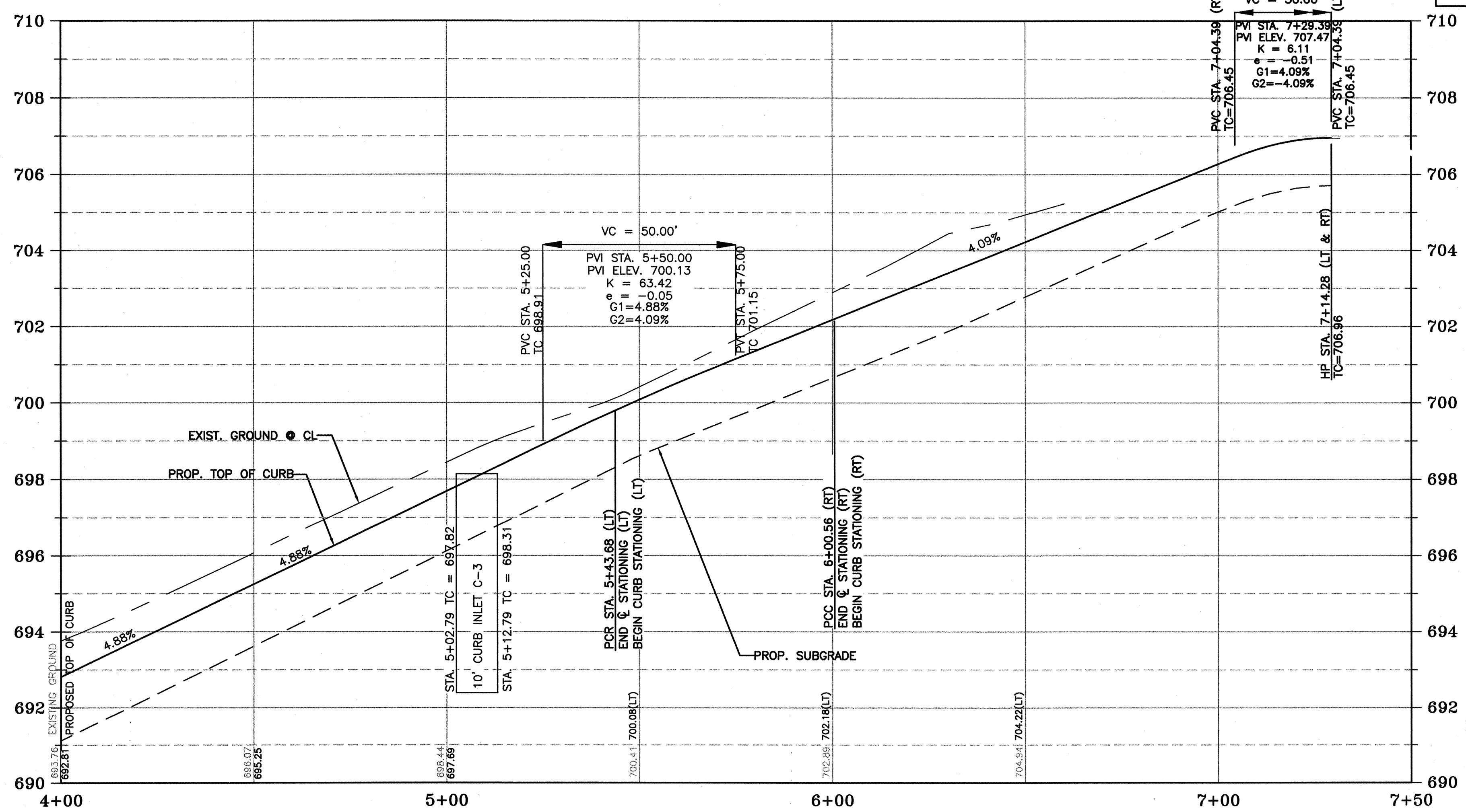
- NOTES:**
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LEGEND

- SIDEWALK (THIS CONTRACT)
- SIDEWALK (BY OTHERS)
- TYPE 1 PEDESTRIAN RAMP
- DRAINAGE FLOW

| CURVE DATA | | | | | | |
|------------|--------------|---------|--------|------------|--------------|------------------|
| NUMBER | DELTA | TANGENT | RADIUS | ARC LENGTH | CHORD LENGTH | CHORD BEARING |
| C18 | 73° 52' 21" | 30.07 | 40.00 | 51.57 | 48.07 | S51° 07' 27.62"W |
| C19 | 273° 03' 38" | 47.40 | 50.00 | 238.29 | 68.80 | N29° 16' 53.73"W |
| C35 | 66° 25' 19" | 32.73 | 50.00 | 57.96 | 54.77 | N54° 50' 58.18"E |
| C37 | 19° 11' 17" | 6.76 | 40.00 | 13.40 | 13.33 | S82° 20' 43.45"E |



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PROJECT NO. 1283-10465 DESIGNED BY: JH, HRC
FILE NO. COLLARED DOVE DRAWN BY: JH, HRC
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

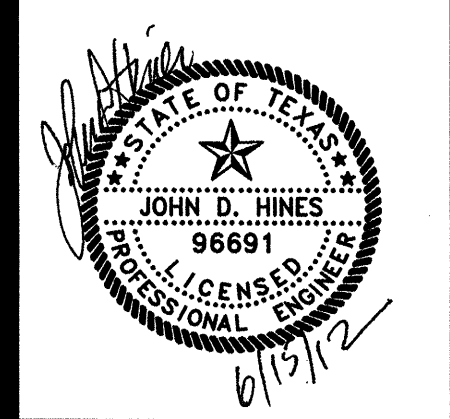
GRAY & ASSOCIATES, INC.
Consulting Engineers
8217 Shiloh, Suite 200
Austin, Texas 78757-7982
(512)452-0871 FAX (512)454-9883
TRPE FIRM #2946

| NO. | BY | DATE | REVISION DESCRIPTION |
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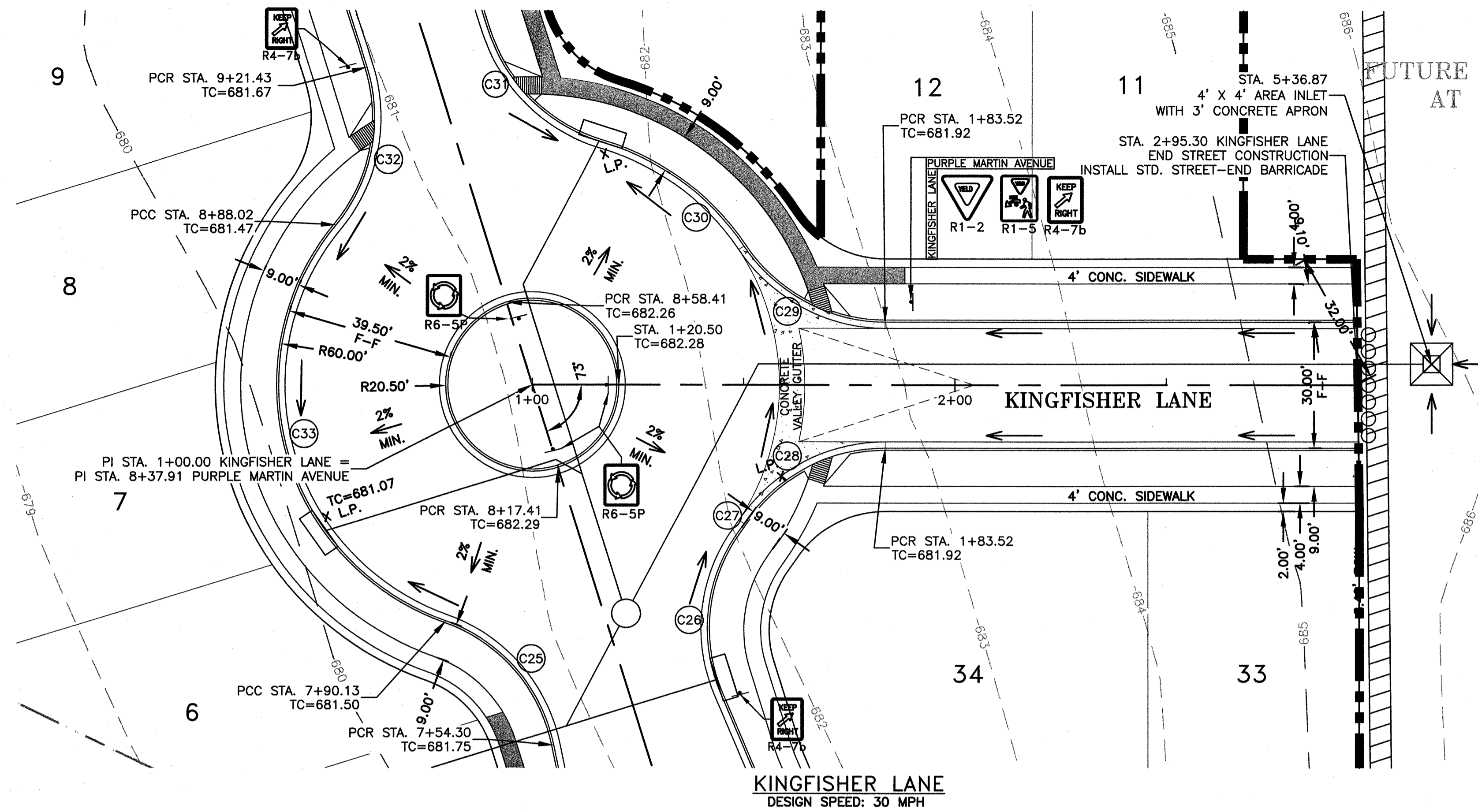
**MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS**

**COLLARED DOVE COVE
STA 4+00.00 TO END**

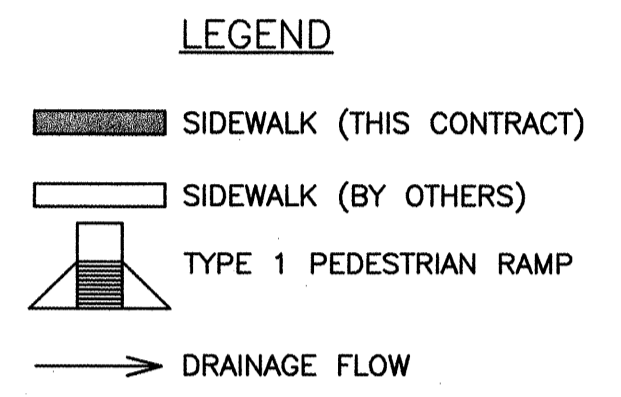
NOTICE:
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FILE: H:\Projects\1283\10465 Meadows at Kyle 1 CP\CAD\SHEETS\KINGFISHER.dwg LAYOUT: KINGFISHER LANE STA 1+00.000 TO 2+95.2964 DATE: 6/11/2012 1:11:36 PM BY: JBORREGO

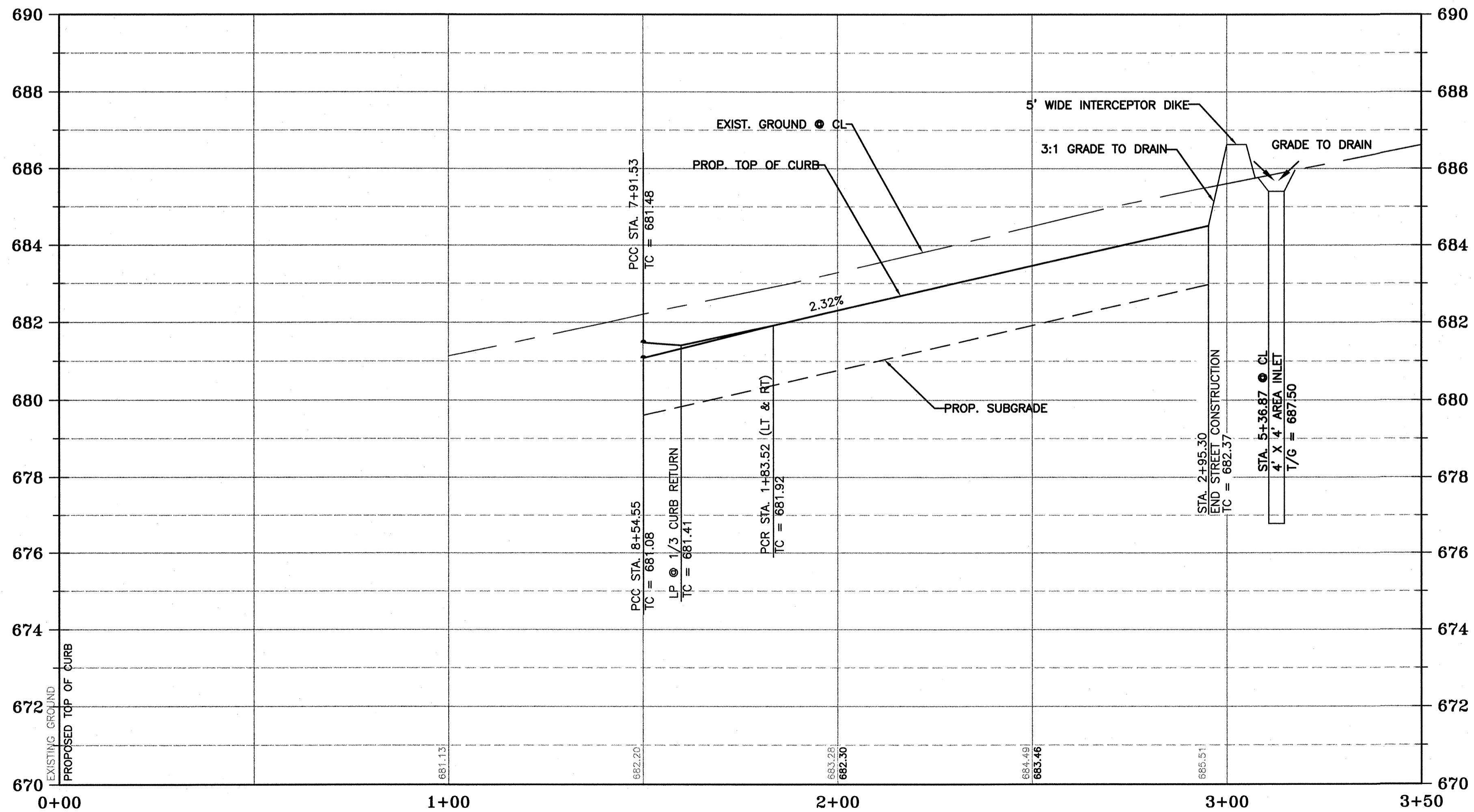


- NOTES:**
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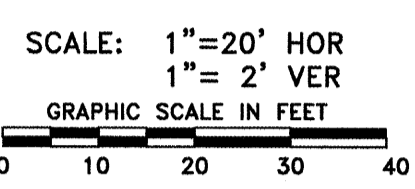


CURVE DATA

| NUMBER | DELTA | TANGENT | RADIUS | ARC LENGTH | CHORD LENGTH | CHORD BEARING |
|--------|-------------|---------|--------|------------|--------------|------------------|
| C28 | 60° 00' 00" | 20.21 | 35.00 | 36.65 | 35.00 | N33° 03' 35.65"E |
| C29 | 60° 00' 00" | 20.21 | 35.00 | 36.65 | 35.00 | N86° 56' 24.35"W |



RECORD DRAWINGS
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PROJECT NO. 1283-10465 DESIGNED BY: JH, HRC
 FILE NO. KINGFISHER DRAWN BY: JH, HRC
 DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

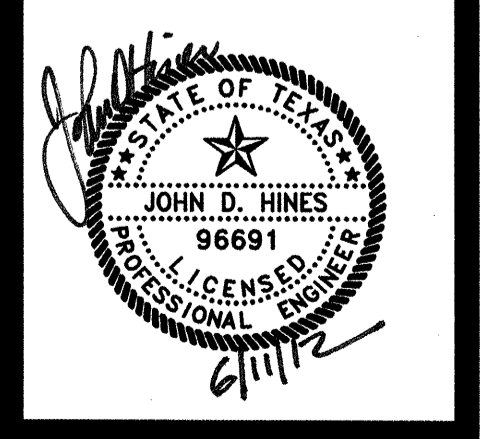
GRAY & ASSOCIATES, INC.
 Consulting Engineers
 8217 Shoal Creek Blvd., Suite 200
 Austin, Texas 78737
 (512) 452-7100 FAX (512) 452-9833
 TSP# 1283 #2946

| NO. | BY | DATE | REVISION DESCRIPTION |
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MEADOWS AT KYLE
 PHASE ONE
 WATER, WASTEWATER,
 STREET AND DRAINAGE
 IMPROVEMENTS

KINGFISHER LANE STA
 1+00.00 TO END

NOTICE:
 ALTERATION OF A SEALED DRAWING WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS A VIOLATION OF THE TEXAS ENGINEERING PRACTICE ACT.



FILE: H:\Projects\283\10465 Meadows at Kyle 1 CP\CAD\SHEETS\DETAILS.dwg LAYOUT: EROSION CONTROL DETAILS DATE: 4/24/2012 2:44:43 PM BY: CBALLEY

NOTES:

1. MATERIAL THE FABRIC MUST CORRESPOND TO THE FOLLOWING REQUIREMENTS:

| PROPERTY | ASTM TEST METHOD | REQUIREMENTS |
|--------------------------------------|------------------|---|
| FABRIC WEIGHT | D 3776 | ≥3.0 OUNCES/SQUARE YD |
| ULTRAVIOLET (UV) RADIATION STABILITY | D 4355 | 70% STRENGTH RETAIN(M) MIN. AFTER 500 HOURS IN XENON ARC DEVICE |
| MUEN BURST STRENGTH | D 3786 | ≥120 POUND PER SQUARE INCH |
| WATER FLOW RATE | D 4491 | ≥275 GALLONS/MINUTE/SQUARE FEET |

2. THIS MATERIAL SHOULD HAVE A MAXIMUM EXPECTED USEFUL LIFE OF APPROXIMATELY EIGHTEEN (18) MONTHS. THE INLET PROTECTION DEVICES SHOULD BE CONSTRUCTED IN A MANNER THAT WILL FACILITATE CLEAN OUT AND DISPOSAL OF TRAPPED SEDIMENT WHILE MINIMIZING INTERFERENCE WITH CONSTRUCTION ACTIVITIES. THEY SHOULD ALSO BE CONSTRUCTED SUCH THAT ANY PONDING OF STORM WATER WILL NOT CAUSE EXCESSIVE R.O.W. FLOODING (I.E. 4 INCHES OF STANDING WATER) OR DAMAGE TO THE STRUCTURE OR ADJACENT AREAS.

3. COVERAGE THE FABRIC/WIRE SHOULD COMPLETELY COVER THE OPENING OF THE INLET AND DEVICES SHOULD BE INSTALLED WITHOUT PROTRUDING PARTS THAT COULD BE A TRAFFIC, WORKER, OR PEDESTRIAN HAZARD. WHERE SECTIONS OF THE FABRIC OVERLAP, THEY SHALL OVERLAP AT LEAST THREE (3) INCHES.

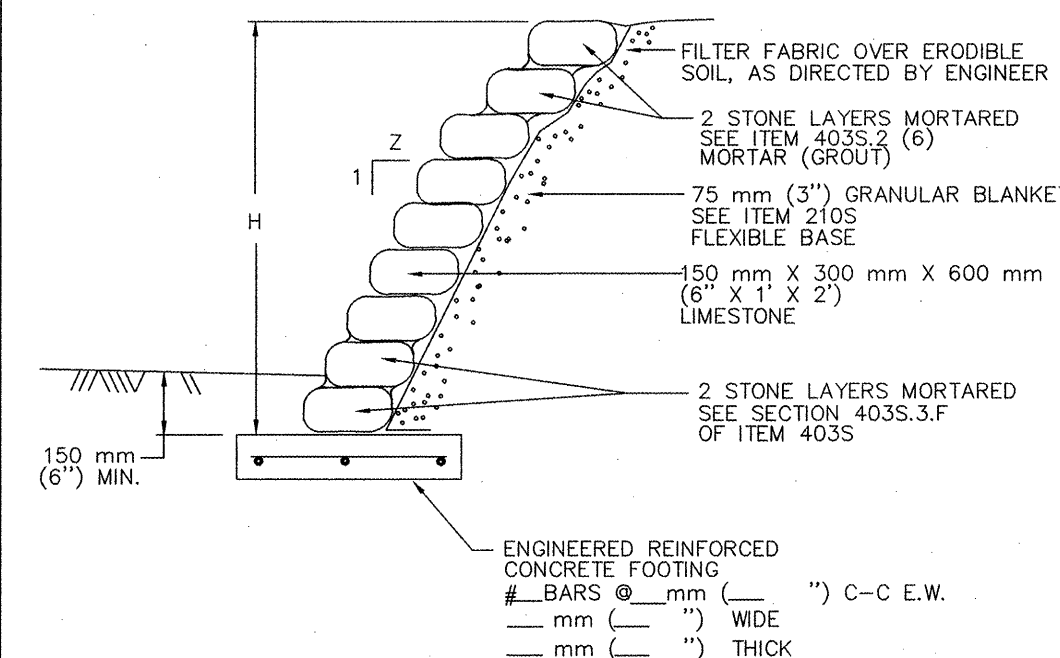
4. THE INLET FILTER SHALL BE ATTACHED IN A WAY THAT THEY CAN EASILY BE REMOVED AND ARE NOT SECURED OR ATTACHED BY THE USE OF SAND BAGS. THE INLET FILTER MUST BE REMOVED UPON COMPLETION OF WORK. IF REMOVAL DAMAGES THE CONCRETE CURB, THE CURB MUST BE REPAIRED IMMEDIATELY.

5. DAILY INSPECTION SHALL BE MADE BY THE CONTRACTOR AND SILT ACCUMULATION MUST BE REMOVED WHEN THE DEPTH REACHES 50 MM (2 INCHES) INCHES OR ONE THIRD THE HEIGHT OF THE INLET THROAT, AND DISPOSED OF IN A MANNER WHICH WILL NOT CAUSE ADDITIONAL SILTATION.

6. CONTRACTOR SHALL MONITOR THE PERFORMANCE OF INLET PROTECTION DURING EACH RAINFALL EVENT AND IMMEDIATELY REMOVE THE INLET PROTECTIONS IF THE STORMWATER BEGINS TO OVERTOP THE CURB.

7. INLET PROTECTIONS SHALL BE REMOVED AS SOON AS THE SOURCE OF SEDIMENT HAS ACHIEVED FINAL STABILIZATION CONDITIONS.

| | | |
|---|-----------------------------------|---|
| CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT | FILTER DIKE CURB INLET PROTECTION | STANDARD NO. 628S-2 |
| RECORD COPY SIGNED BY MAPI VIGIL | 10/30/09 ADOPTED | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. |



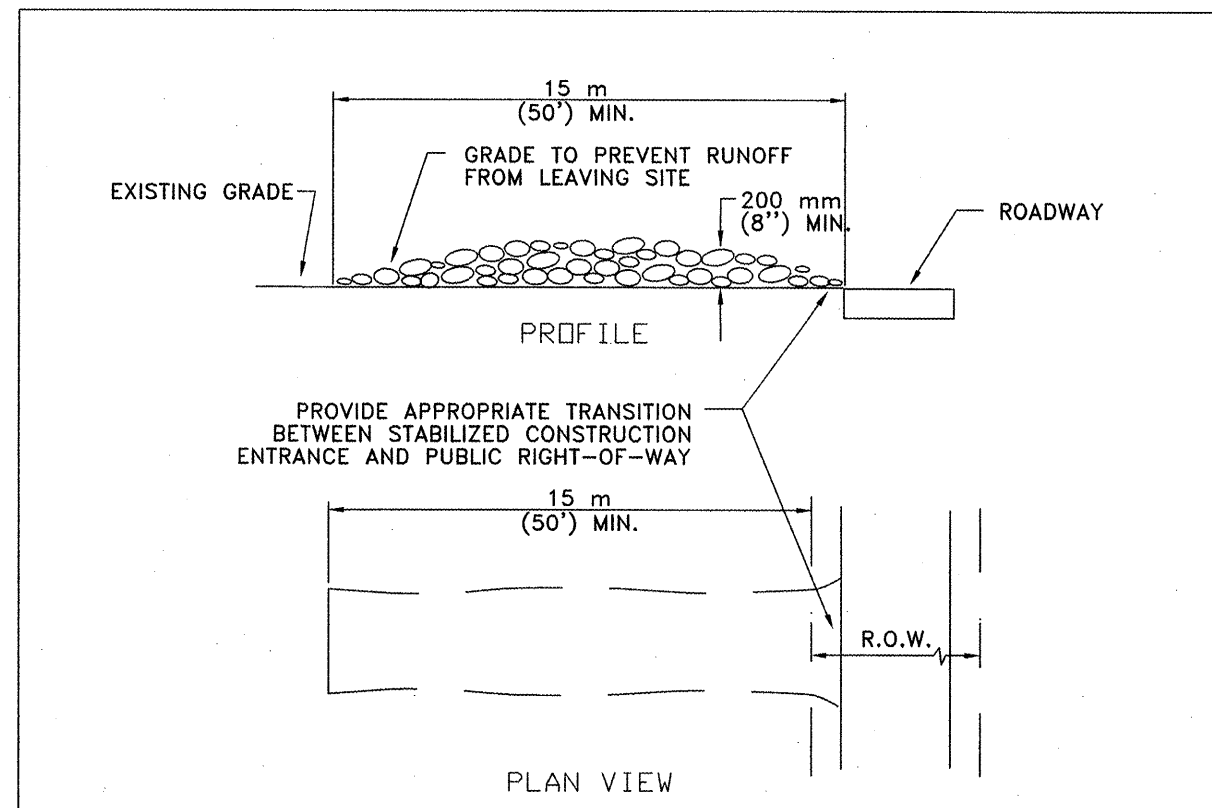
THIS STANDARD APPLIES ONLY UNDER THE FOLLOWING CONDITIONS:

- H AND Z ARE SPECIFIED ON THE DRAWING.
- GROUNDWATER IS NO HIGHER THAN THE BOTTOM OF THE FOOTING.
- THE MATERIAL BELOW THE FOOTING IS FIRM AND STABLE.
- THE MATERIAL BEHIND THE WALL HAS A LEVEL SURFACE.
- THE MATERIAL IN FRONT OF THE WALL HAS A SLOPE NO STEEPER THAN 4 HORIZONTAL TO 1 VERTICAL.
- THE FACE OF THE WALL IS NO STEEPER THAN 1 HORIZONTAL TO 2 VERTICAL.
- SURCHARGE LOADS BEHIND THE WALL ARE NO CLOSER THAN DISTANCE H FROM THE TOP OF WALL.

NOTES:

- DESIGN AND CONSTRUCTION OF ROCK WALL SHALL CONFORM TO THE REQUIREMENTS OF CITY CODE 16-7-2, PLACEMENT OF FENCES IN STREET CORNER AREAS, AND THE CITY OF AUSTIN TRANSPORTATION CRITERIA MANUAL FOR MINIMUM SIGHT DISTANCE.
- CONCRETE SHALL CONFORM TO ITEM 403S, "CONCRETE FOR STRUCTURES".

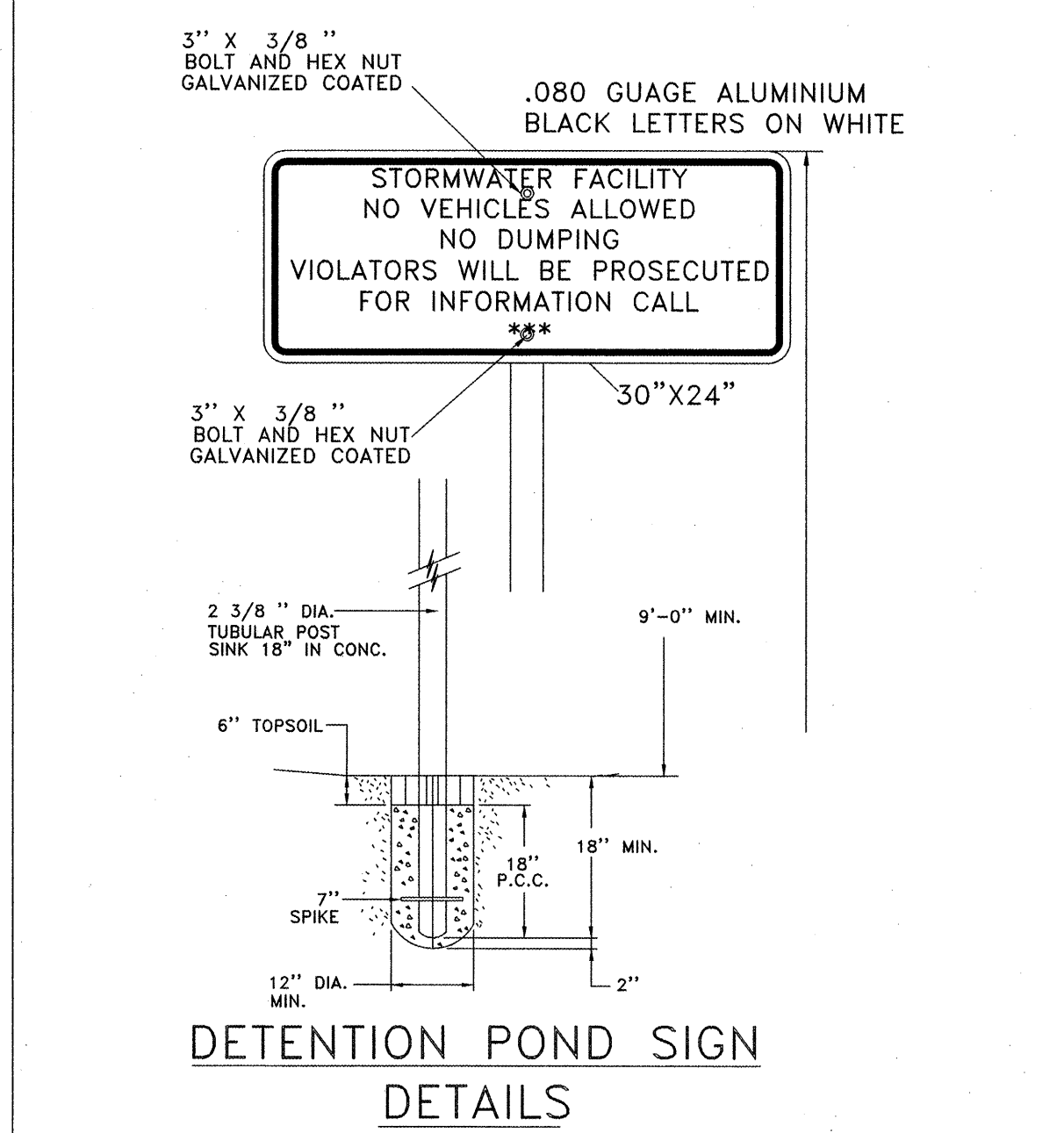
| | | |
|---------------------------------------|--|---|
| DEPARTMENT OF PUBLIC WORKS | DRY STACK ROCK WALL FOR SLOPE PROTECTION | STANDARD NO. 623S-1 |
| RECORD COPY SIGNED BY BILL GARDNER | 03/13/06 ADOPTED | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. |



NOTES:

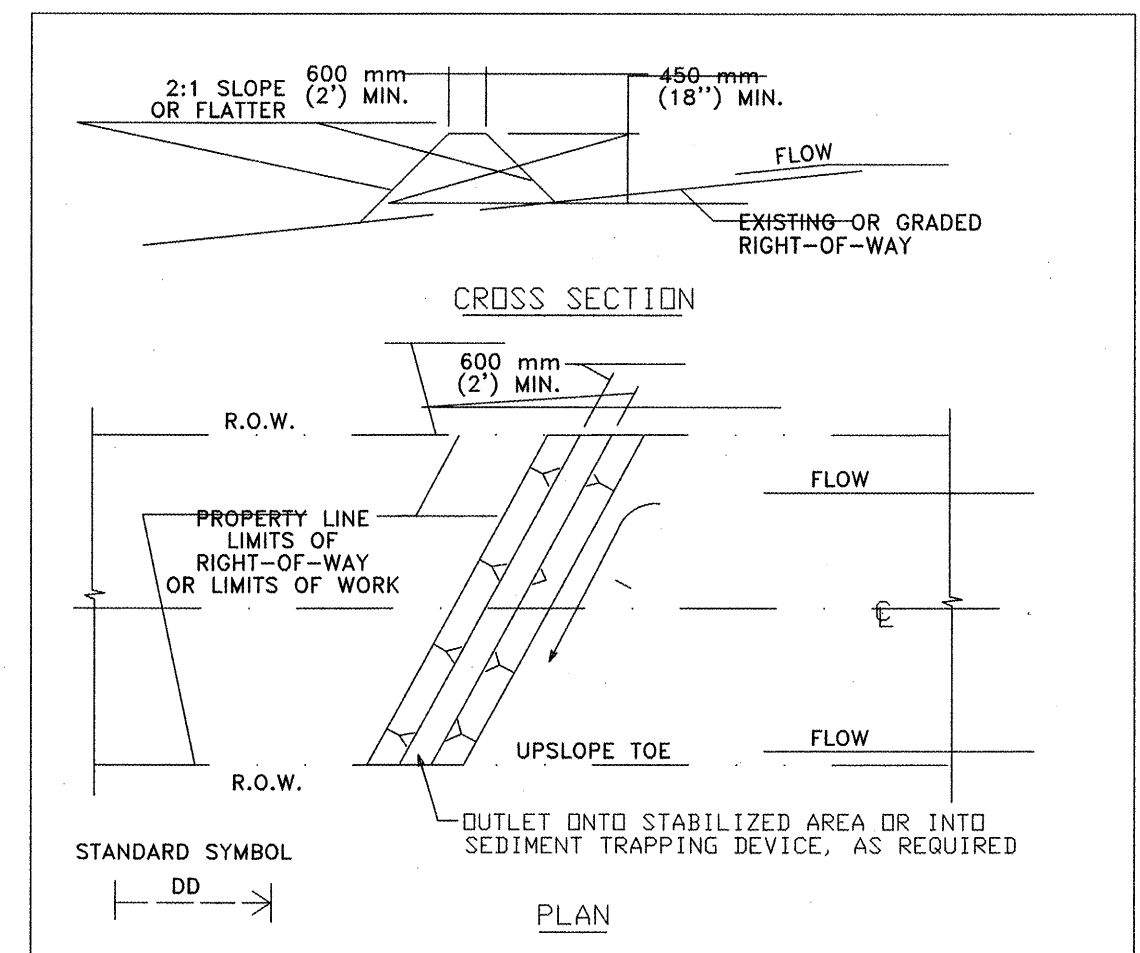
- STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.
- LENGTH: AS EFFECTIVE BUT NOT LESS THAN 15 m (50').
- THICKNESS: NOT LESS THAN 200 mm (8").
- WIDTH: NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.
- WASHING: WHEN NECESSARY, VEHICLE WHEELS SHALL BE CLEANED TO REMOVE SEDIMENT PRIOR TO ENTRANCE ONTO PUBLIC ROADWAY. WHEN WASHING IS REQUIRED, IT SHALL BE DONE ON AN AREA STABILIZED WITH CRUSHED STONE AND DRAINS INTO AN APPROVED TRAP OR SEDIMENT BASIN. ALL SEDIMENT SHALL BE PREVENTED FROM ENTERING ANY STORM DRAIN, DITCH OR WATERCOURSE USING APPROVED METHODS.
- MAINTENANCE: THE ENTRANCE SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY. THIS MAY REQUIRE PERIODIC TOP DRESSING WITH ADDITIONAL STONE AS CONDITIONS DEMAND, AS WELL AS REPAIR AND CLEAN OUT OF ANY MEASURE DEVICES USED TO TRAP SEDIMENT. ALL SEDIMENTS THAT IS SPILLED, DROPPED, WASHED OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY.
- DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

| | | |
|---|----------------------------------|---|
| CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT | STABILIZED CONSTRUCTION ENTRANCE | STANDARD NO. 641S-1 |
| RECORD COPY SIGNED BY J. PATRICK MURPHY | 5/23/00 ADOPTED | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. |



*** - REPLACE WITH PHONE NUMBER OF HOME OWNERS ASSOCIATION.

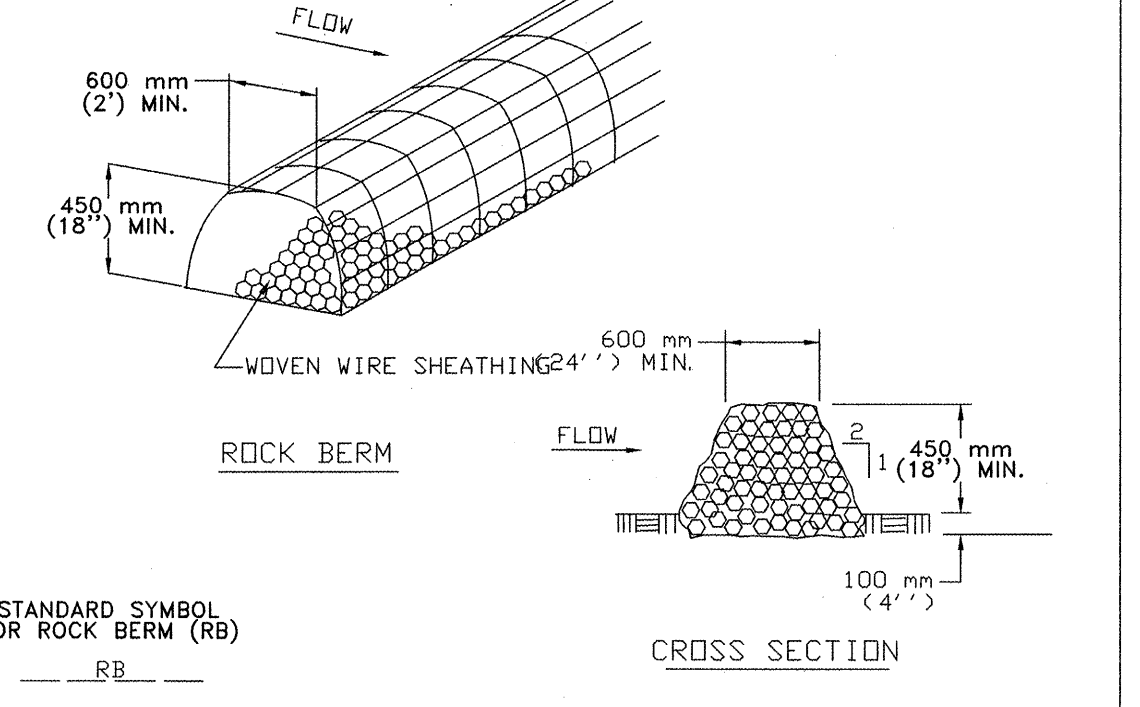
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|---|----------------------|---|
| CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT | ROCK BERM | STANDARD NO. 639S-1 |
| RECORD COPY SIGNED BY MORGAN BYARS | 8/24/2010 ADOPTED | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. |



GENERAL NOTES:

- ALL DIKES SHALL BE MACHINE COMPACTED.
- ALL DIVERSION DIKES SHALL HAVE POSITIVE DRAINAGE TO AN OUTLET.
- a. DIVERTED RUNOFF FROM A PROTECTED OR STABILIZED AREA SHALL HAVE ITS OUTLET FLOW DIRECTED TO AN UNDISTURBED STABILIZED AREA OR INTO A LEVEL SPREADER OR GRADE STABILIZATION STRUCTURE. b. DIVERTED RUNOFF FROM A DISTURBED OR EXPOSED AREA SHALL BE CONVEYED TO A SEDIMENT TRAPPING DEVICE SUCH AS A ROCK BERM, BRUSH BERM, STONE OUTLET STRUCTURE, SEDIMENT TRAP OR SEDIMENT BASIN OR TO AN AREA PROTECTED BY ANY OF THESE PRACTICES.
- UNLESS OTHERWISE SPECIFIED, EROSION STABILIZATION SHALL BE OPEN GRADED ROCK 75-125 mm (3-5") IN DIAMETER PLACED IN A 75 mm (3") THICK LAYER AND EMBEDDED INTO THE SOIL.
- INSPECTION SHALL BE CONDUCTED WEEKLY OR AFTER EACH RAINFALL EVENT.

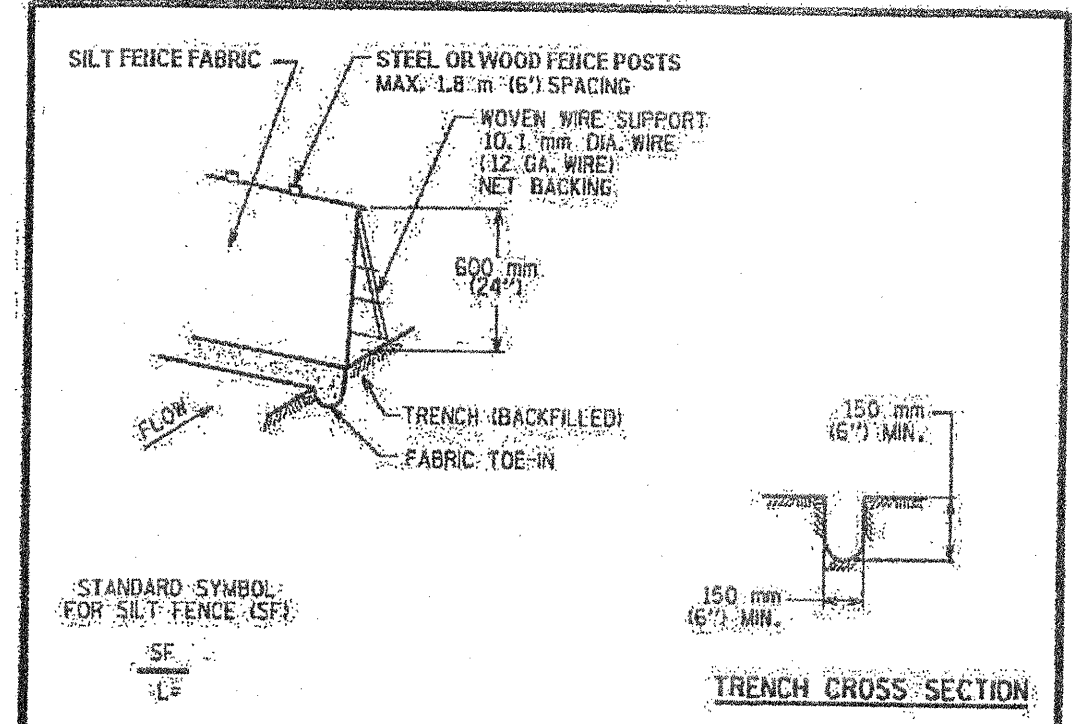
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|---|--------------------|---|
| CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT | INTERCEPTOR DIKE | STANDARD NO. 630S-1 |
| RECORD COPY SIGNED BY J. PATRICK MURPHY | 3/27/00 ADOPTED | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. |



NOTES:

- USE ONLY OPEN GRADED ROCK 75 TO 125 mm (3 TO 5") DIAMETER FOR ALL CONDITIONS.
- THE ROCK BERM SHALL BE SECURED WITH A WOVEN WIRE SHEATHING HAVING MAXIMUM 25 mm (1") OPENING AND MINIMUM WIRE DIAMETER OF 12.9 mm (20 GAUGE).
- THE ROCK BERM SHALL BE INSPECTED DAILY OR AFTER EACH RAIN, AND THE STONE AND/OR FABRIC CORE-WOVEN SHEATHING SHALL BE REPLACED WHEN THE STRUCTURE CEASES TO FUNCTION AS INTENDED, DUE TO SEDIMENT ACCUMULATION AMONG THE ROCKS, WASHOUT, CONSTRUCTION TRAFFIC DAMAGE, ETC.
- IF SEDIMENT REACHES A DEPTH EQUAL TO ONE-THIRD THE HEIGHT OF THE BERM OR 150 mm (6"), WHICHEVER IS LESS, THE SEDIMENT SHALL BE REMOVED AND DISPOSED OF ON AN APPROVED SITE AND IN A MANNER THAT WILL NOT CREATE A SEDIMENTATION PROBLEM.
- WHEN THE SITE IS COMPLETELY STABILIZED, THE BERM AND ACCUMULATED SEDIMENT SHALL BE REMOVED AND DISPOSED OF IN AN APPROVED MANNER.

| | | |
|---|----------------------|---|
| CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT | ROCK BERM | STANDARD NO. 639S-1 |
| RECORD COPY SIGNED BY MORGAN BYARS | 8/24/2010 ADOPTED | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. |



1. STEEL OR WOOD POSTS WHICH SUPPORT THE SILT FENCE SHALL BE INSTALLED ON A SLIGHT ANGLE TOWARD THE ANTICIPATED RUNOFF SOURCE. POST MUST BE EMBEDDED A MINIMUM OF 300 mm (12 INCHES). IF WOOD POSTS CANNOT ACHIEVE 300 mm (12 INCHES) DEPTH, USE STEEL POSTS.

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 MUST BE A MINIMUM OF 150 mm (6 INCHES) DEEP AND 150 mm (6 INCHES) WIDE TO ALLOW FOR THE SILT FENCE FABRIC TO BE Laid IN THE GROUND AND BACKFILLED WITH COMPACTED MATERIAL.

4. SILT FENCE SHOULD BE SECURELY FASTENED TO EACH STEEL OR WOOD SUPPORT POST OR TO WOVEN WIRE, WHICH IS IN TURN ATTACHED TO THE STEEL OR WOOD FENCE POST.

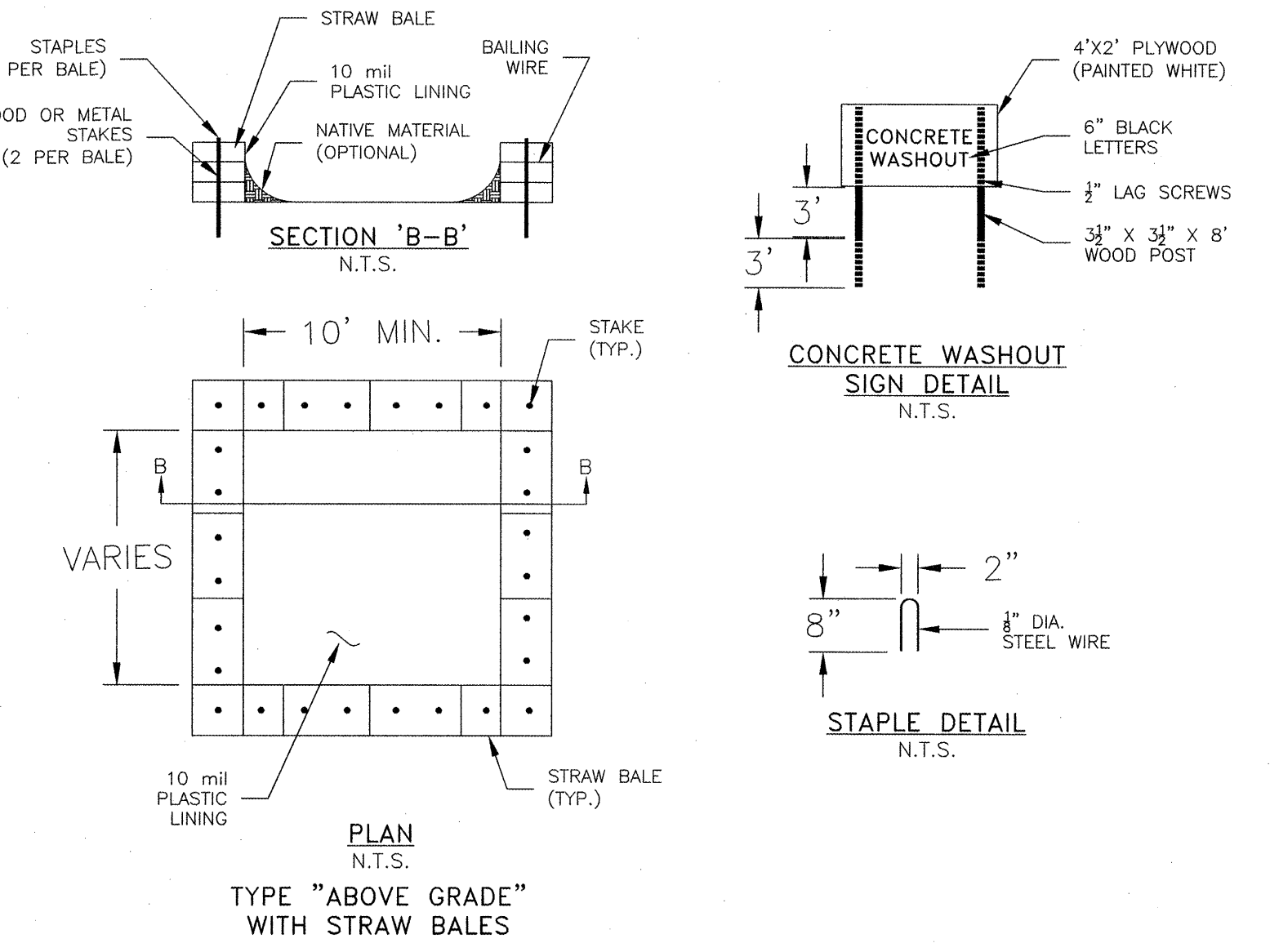
5. INSPECTION SHALL BE MADE WEEKLY OR AFTER EACH RAINFALL EVENT AND REPAIR OR REPLACEMENT SHALL BE MADE PROMPTLY AS NEEDED.

6. SILT FENCE SHALL BE REMOVED WHEN THE SITE IS COMPLETELY STABILIZED SO AS NOT TO BLOCK OR IMPEDE STORM FLOW OR DRAINAGE.

7. ACCUMULATED SILT SHALL BE REMOVED WHEN IT REACHES A DEPTH OF 150 mm (6 INCHES). THE SILT SHALL BE DISPOSED OF ON AN APPROVED SITE AND IN SUCH A MANNER THAT WILL NOT CONTRIBUTE TO ADDITIONAL SILTATION.

| | | |
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| CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT | SILT FENCE | STANDARD NO. 642S-1 |
| RECORD COPY SIGNED BY M. J. GARDNER | 10/30/09 ADOPTED | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. |

CONCRETE WASHOUT DETAIL



NOTES:

- ACTUAL LAYOUT DETERMINED IN THE FIELD.
- THE CONCRETE WASHOUT SIGN SHALL BE INSTALLED WITHIN 30' OF THE TEMPORARY CONCRETE WASHOUT FACILITY.

| | | |
|---|-------------------------|---|
| CITY OF AUSTIN WATERSHED PROTECTION DEPARTMENT | CONCRETE WASHOUT DETAIL | STANDARD NO. 639S-1 |
| RECORD COPY SIGNED BY MORGAN BYARS | 8/24/2010 ADOPTED | THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD. |

RECORD DRAWINGS
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PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
FILE NO. 1283-10465 DRAWN BY: JH, HRG
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

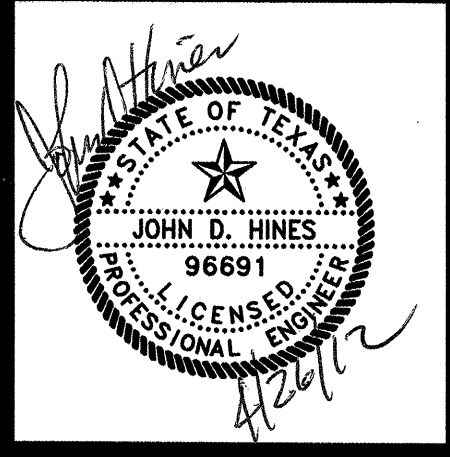
GRAY & ASSOCIATES, INC.
Consulting Engineers
8217 South Loop West, Suite 200
Austin, Texas 78757-7988
(612) 462-0871 FAX (612) 464-9838
TRPE FIRM #2946

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MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS

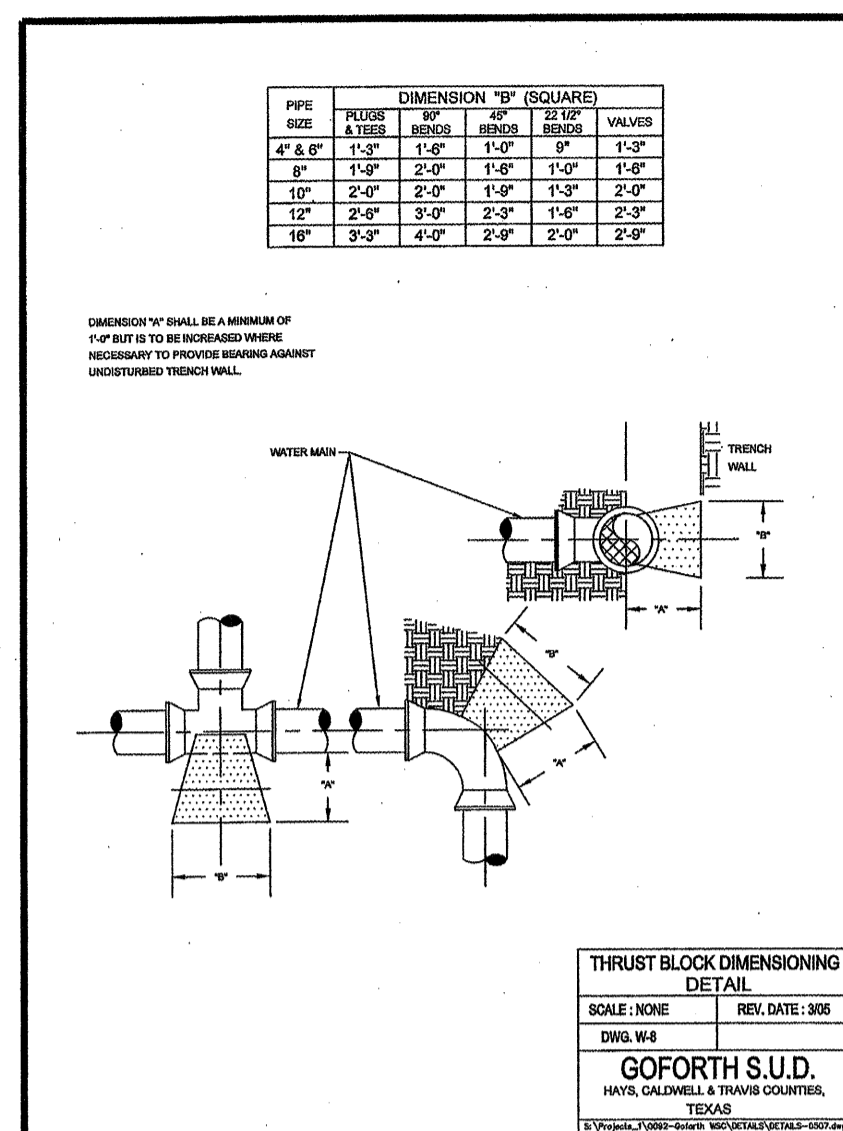
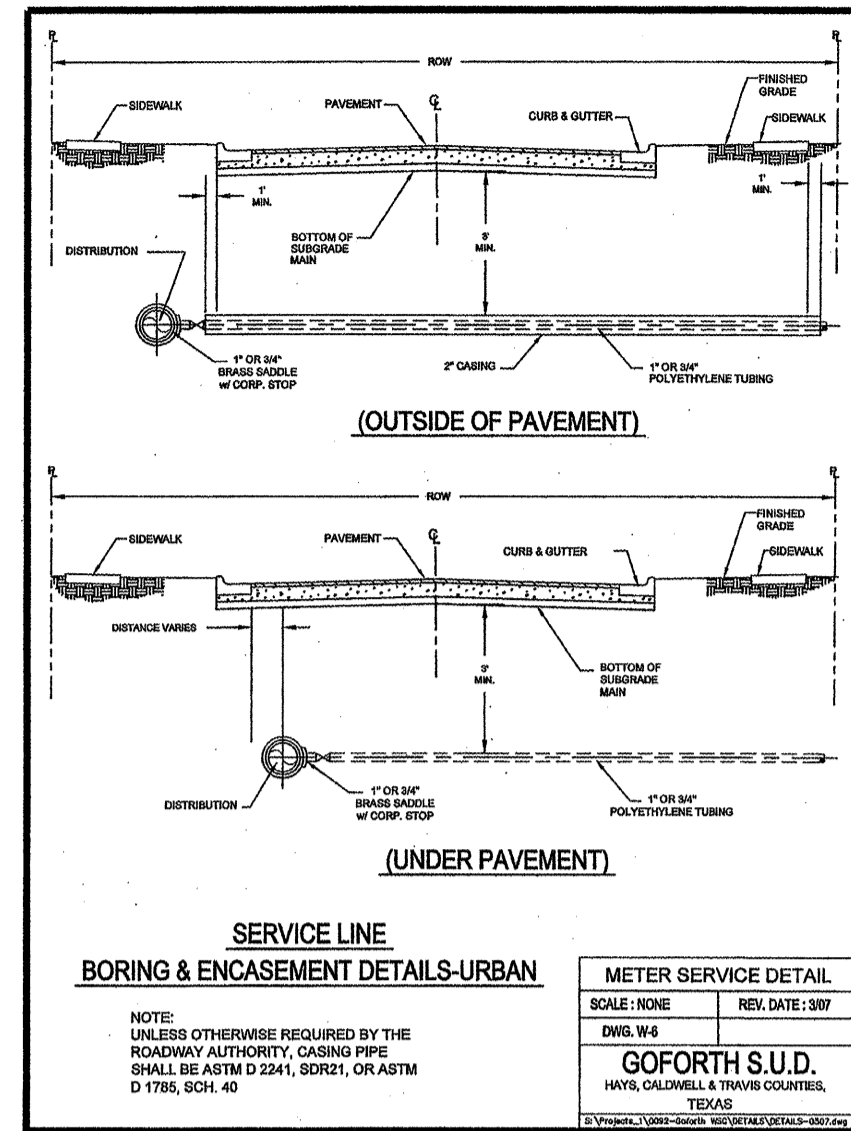
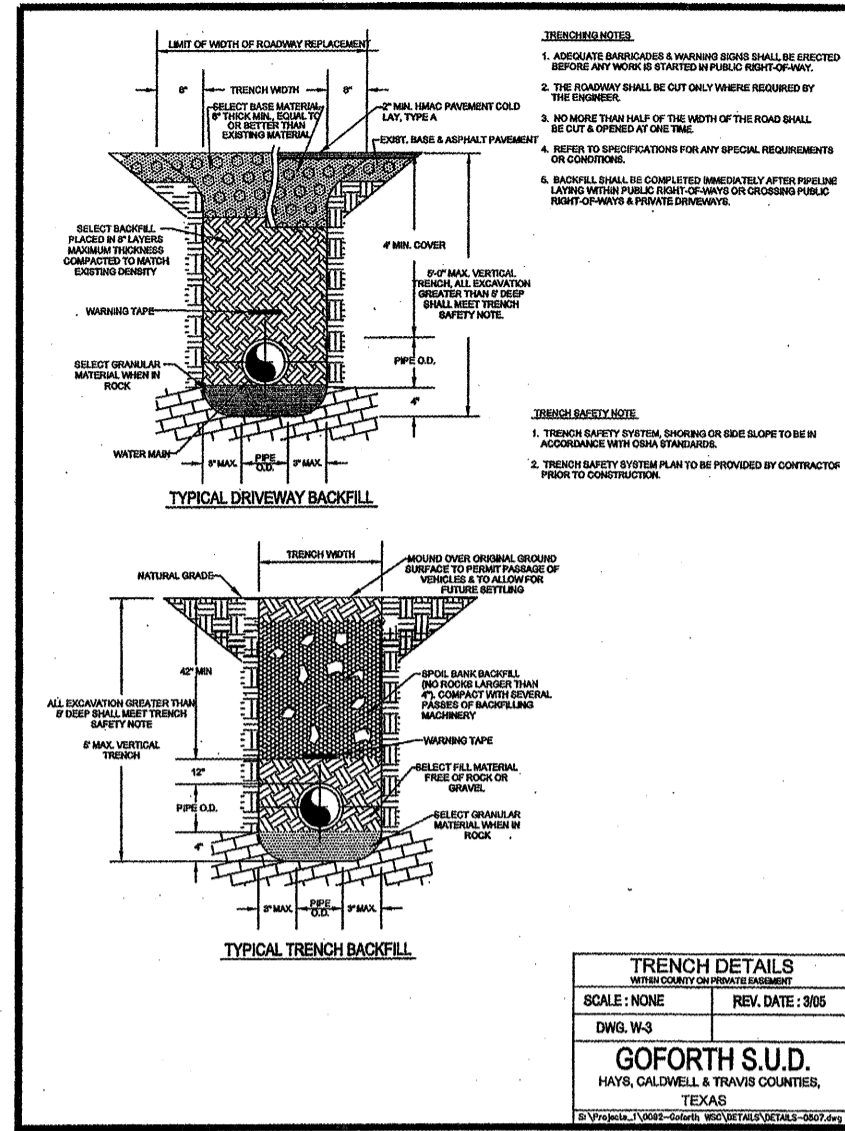
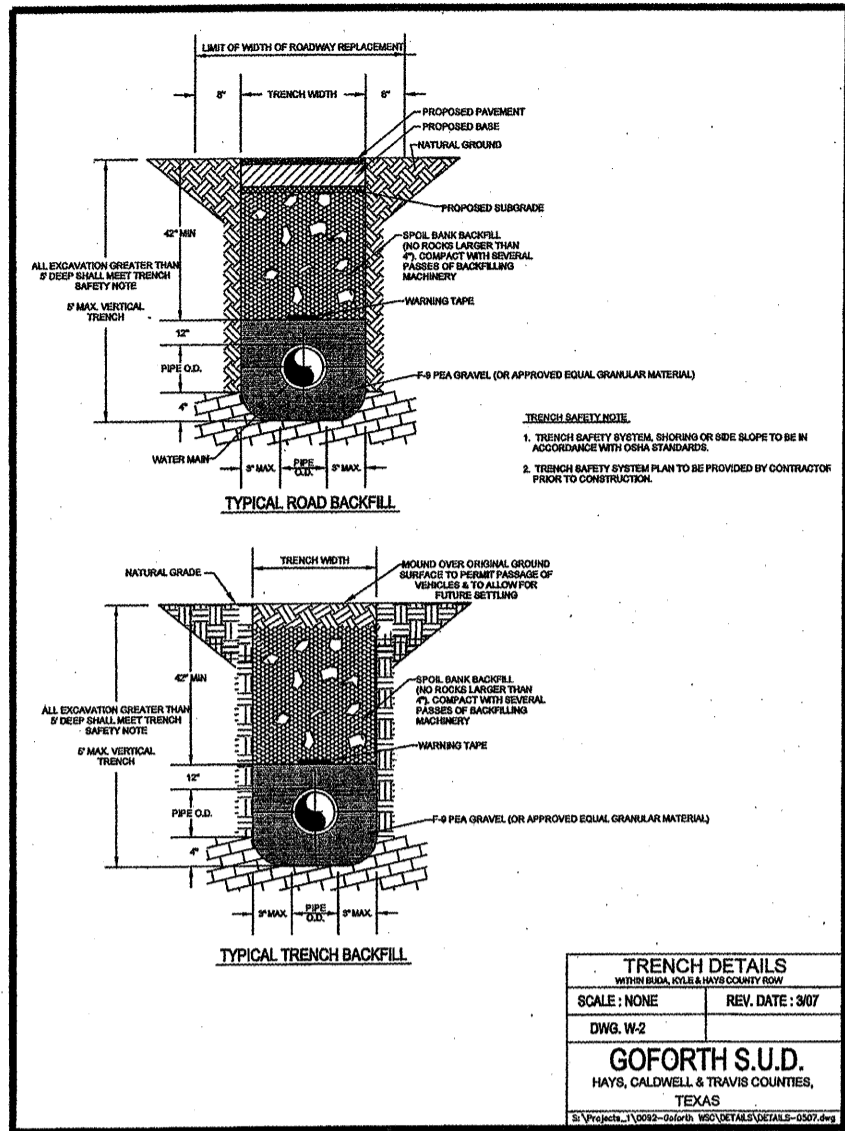
EROSION CONTROL
DETAILS

NOTICE:
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ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN APPROVING THESE PLANS, THE CITY OF KYLE MUST RELY UPON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.

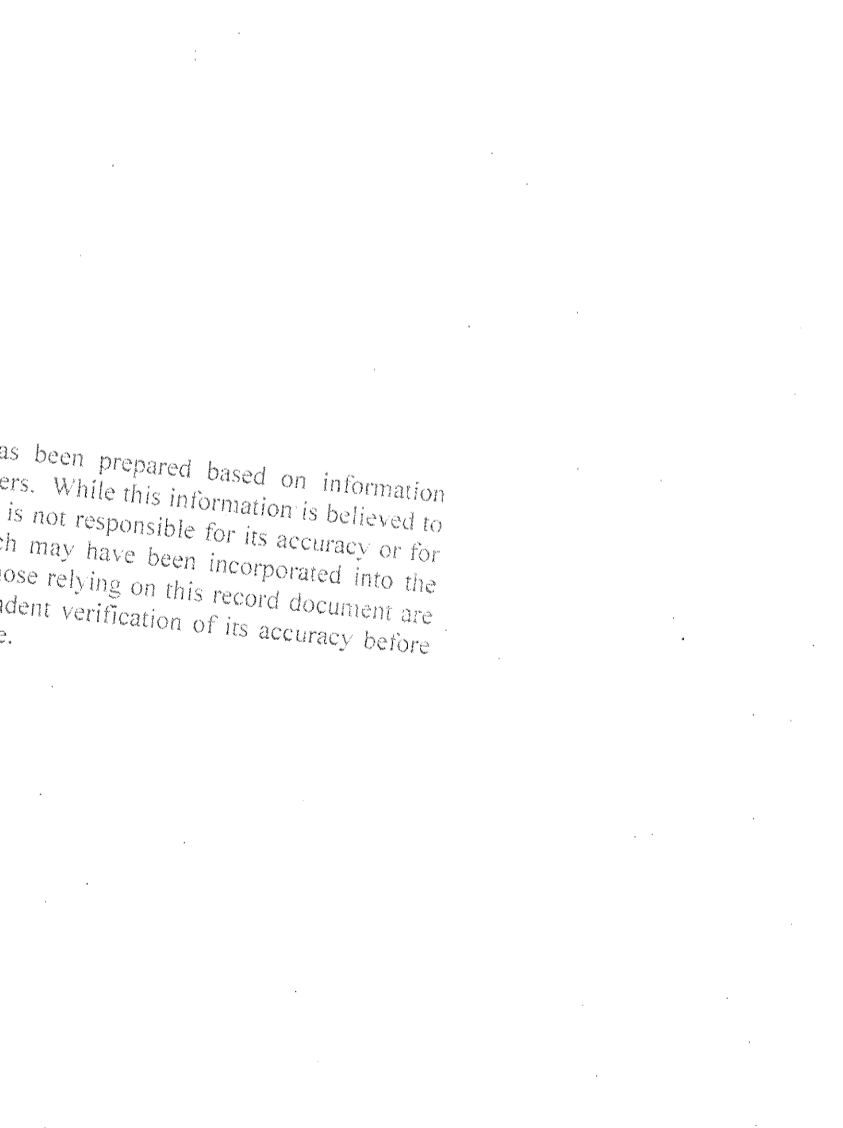
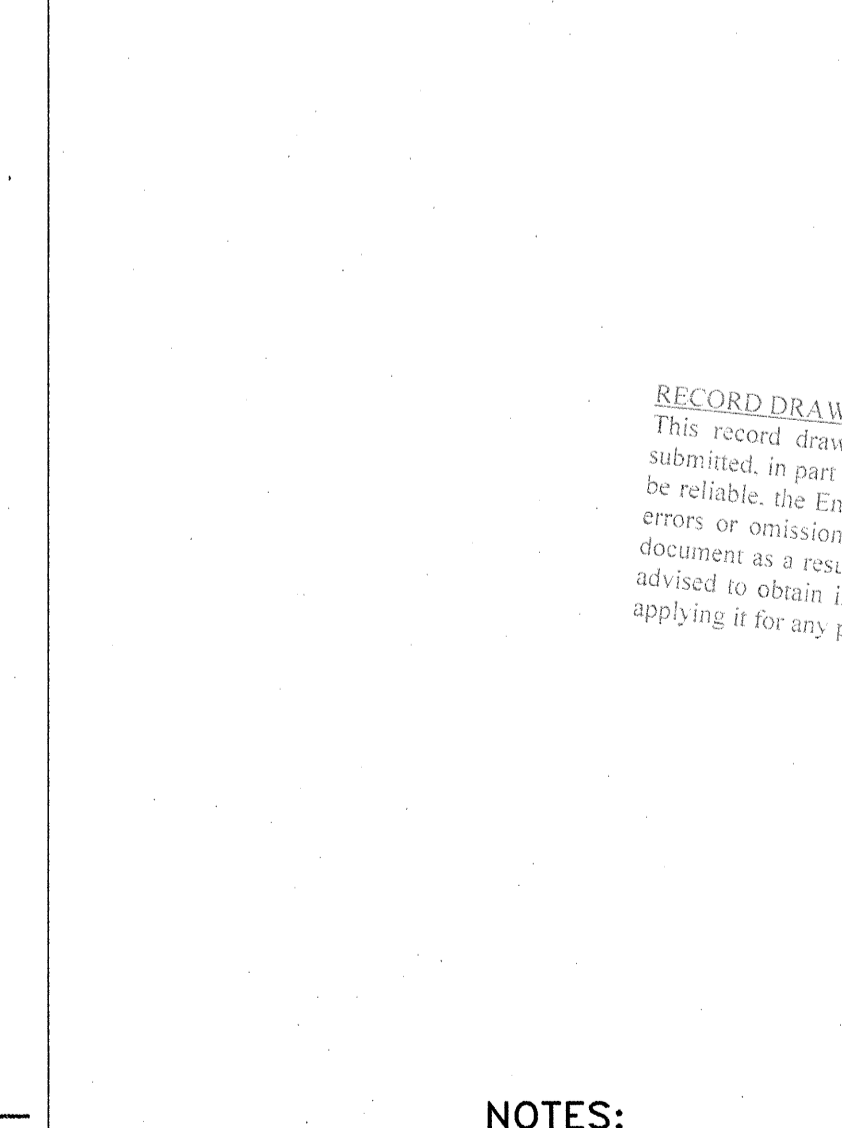
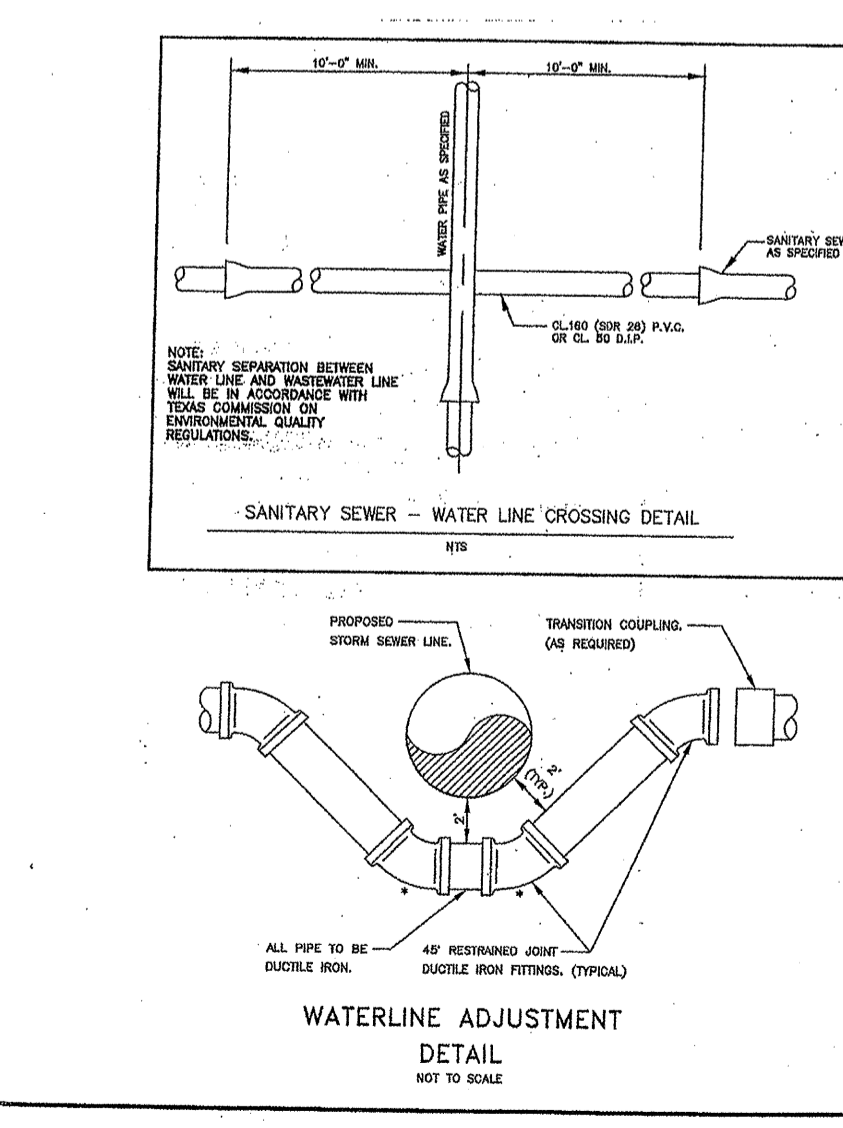
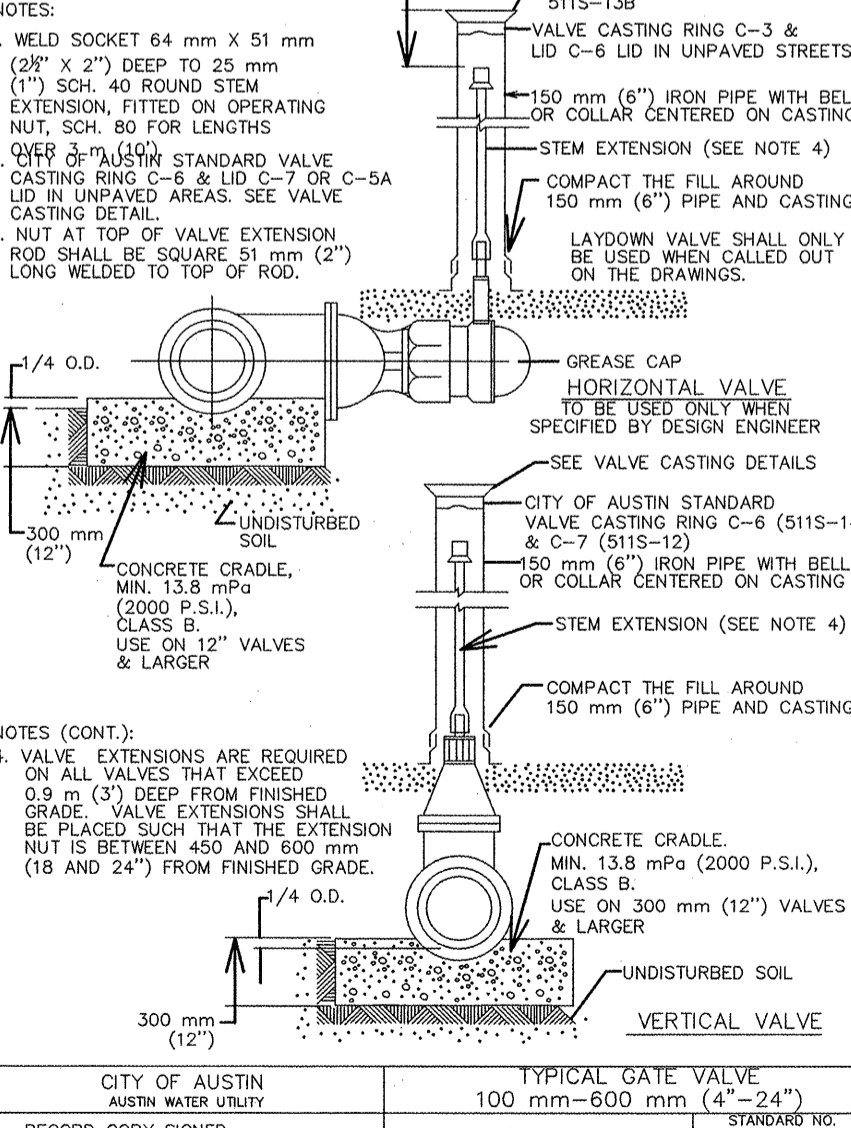
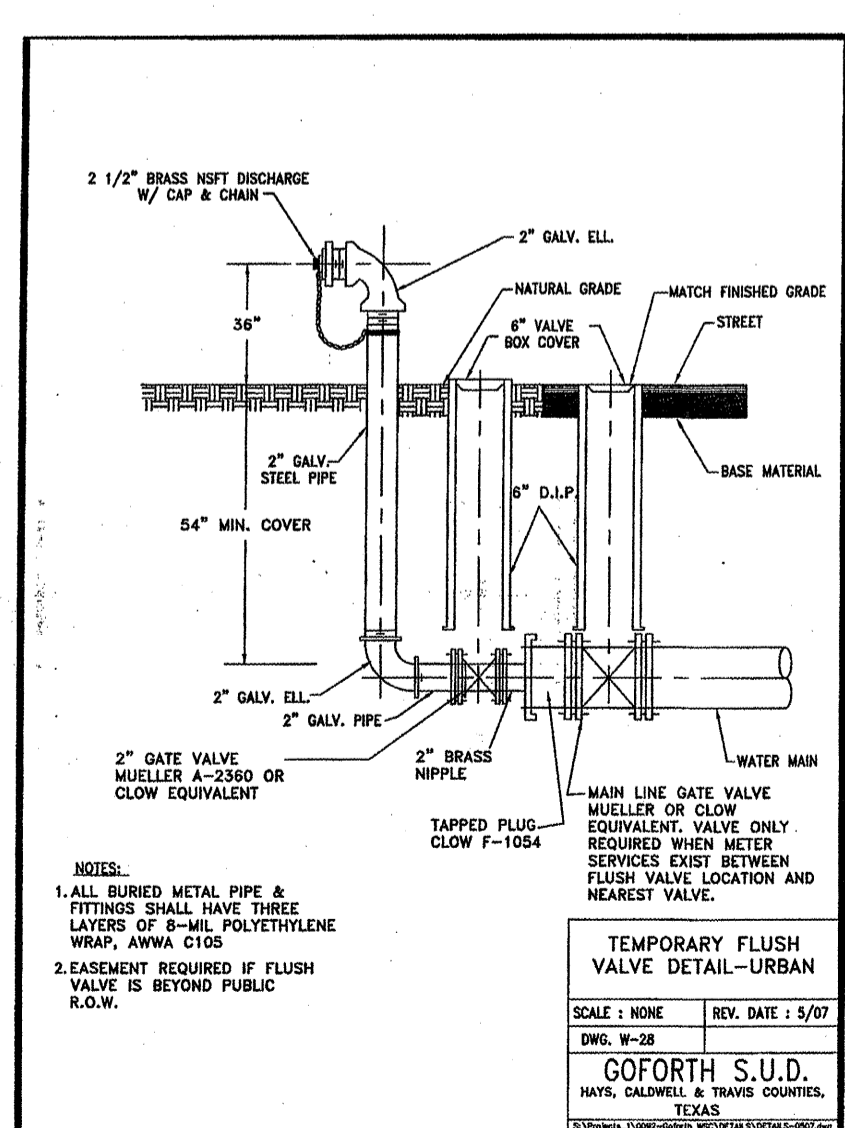
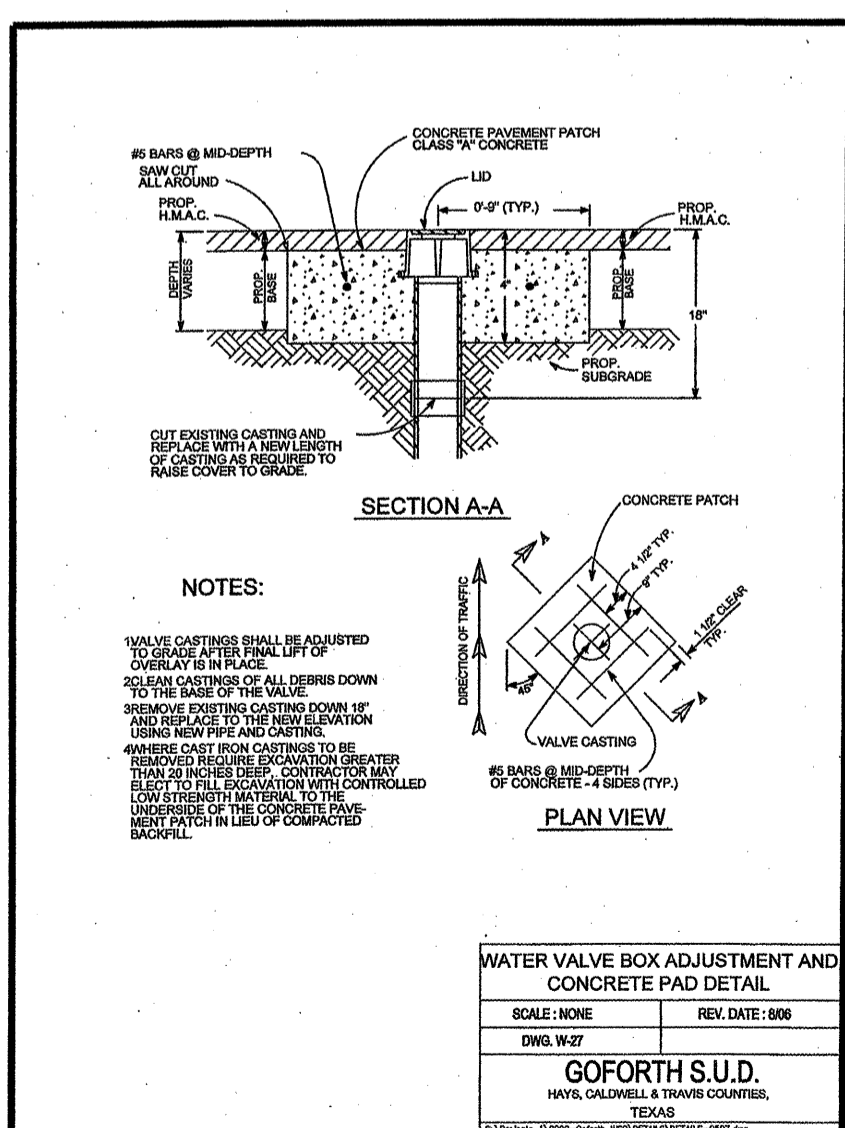
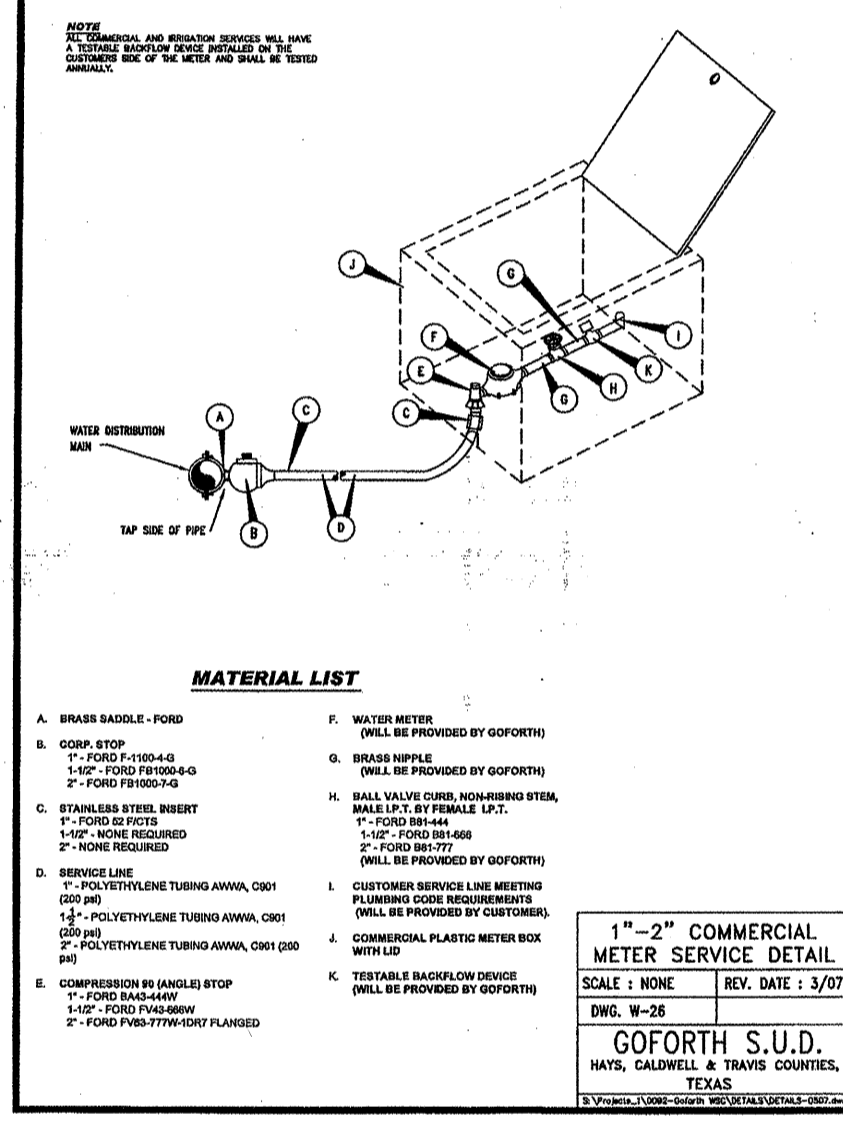
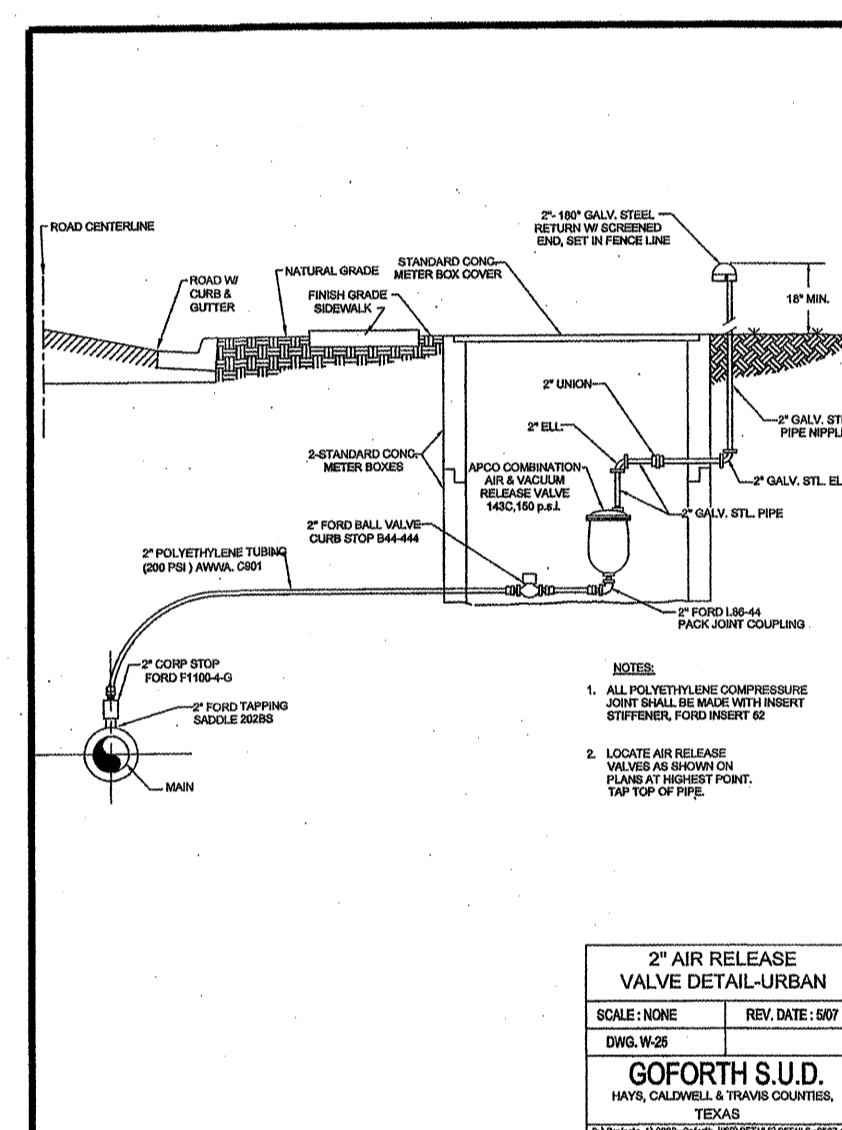
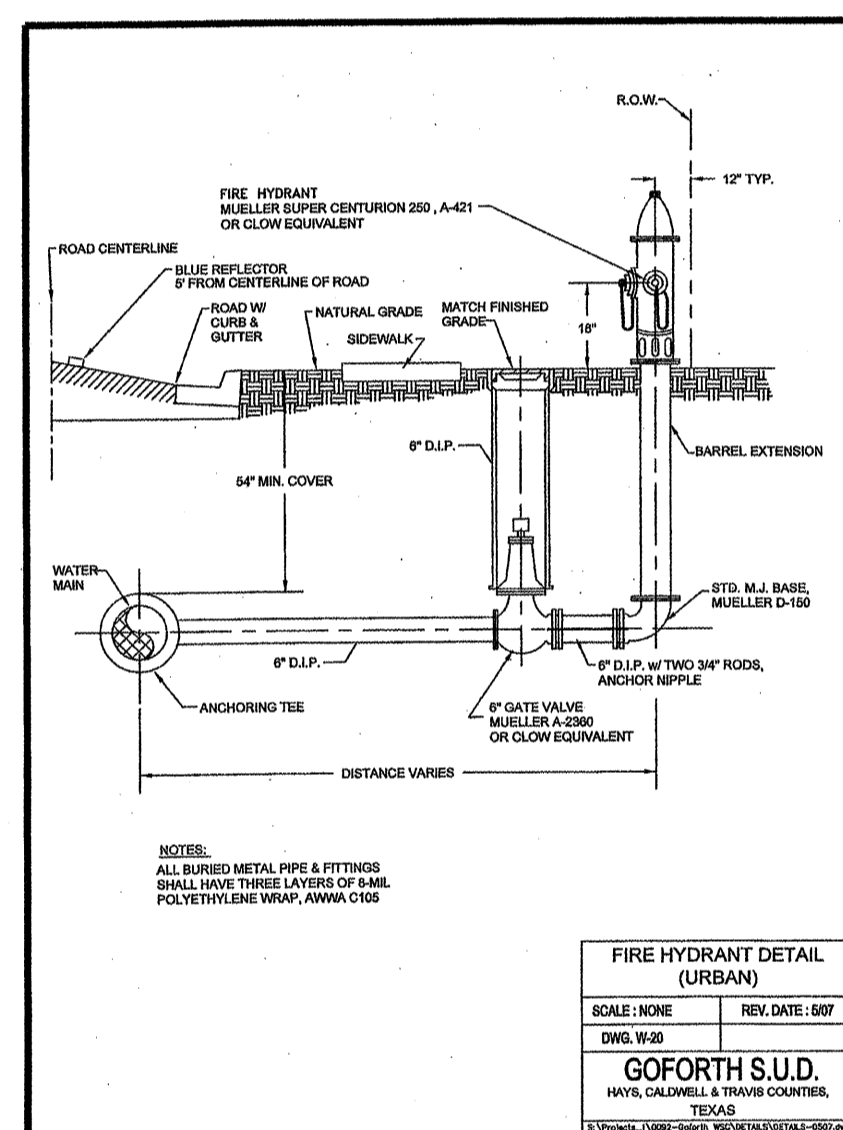
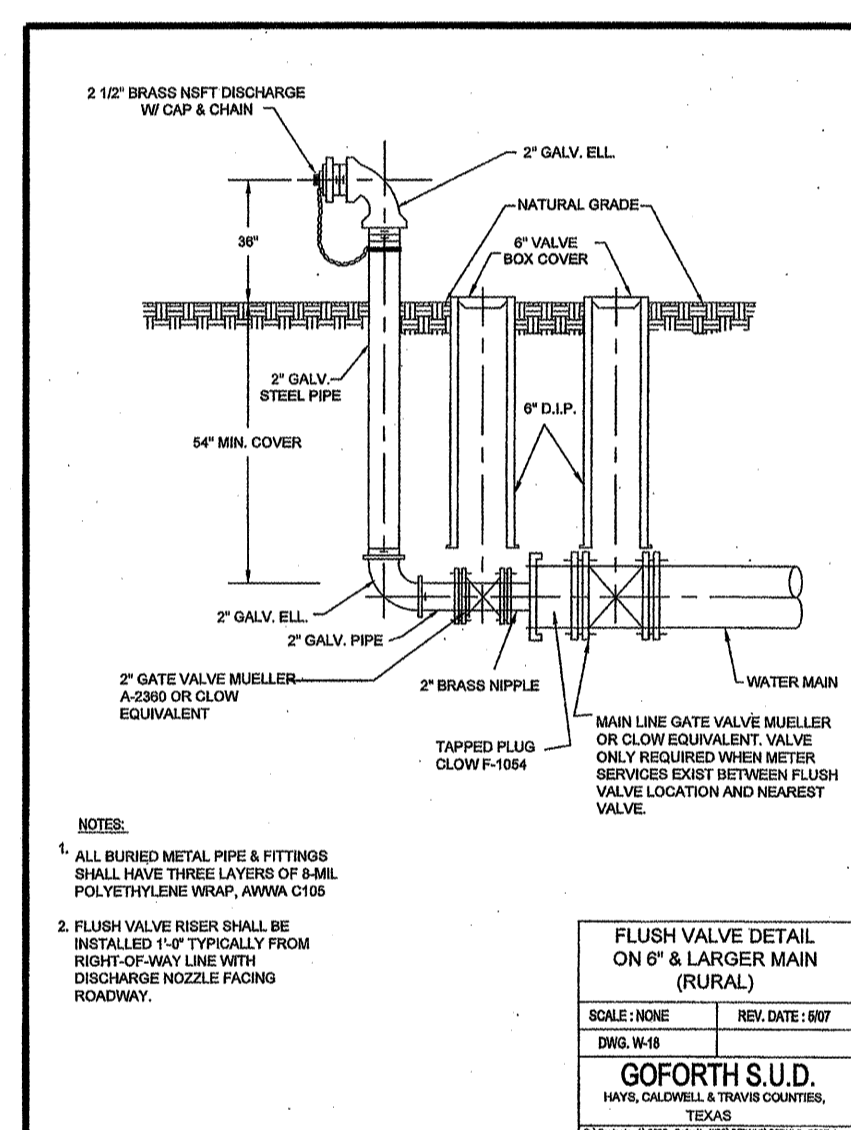
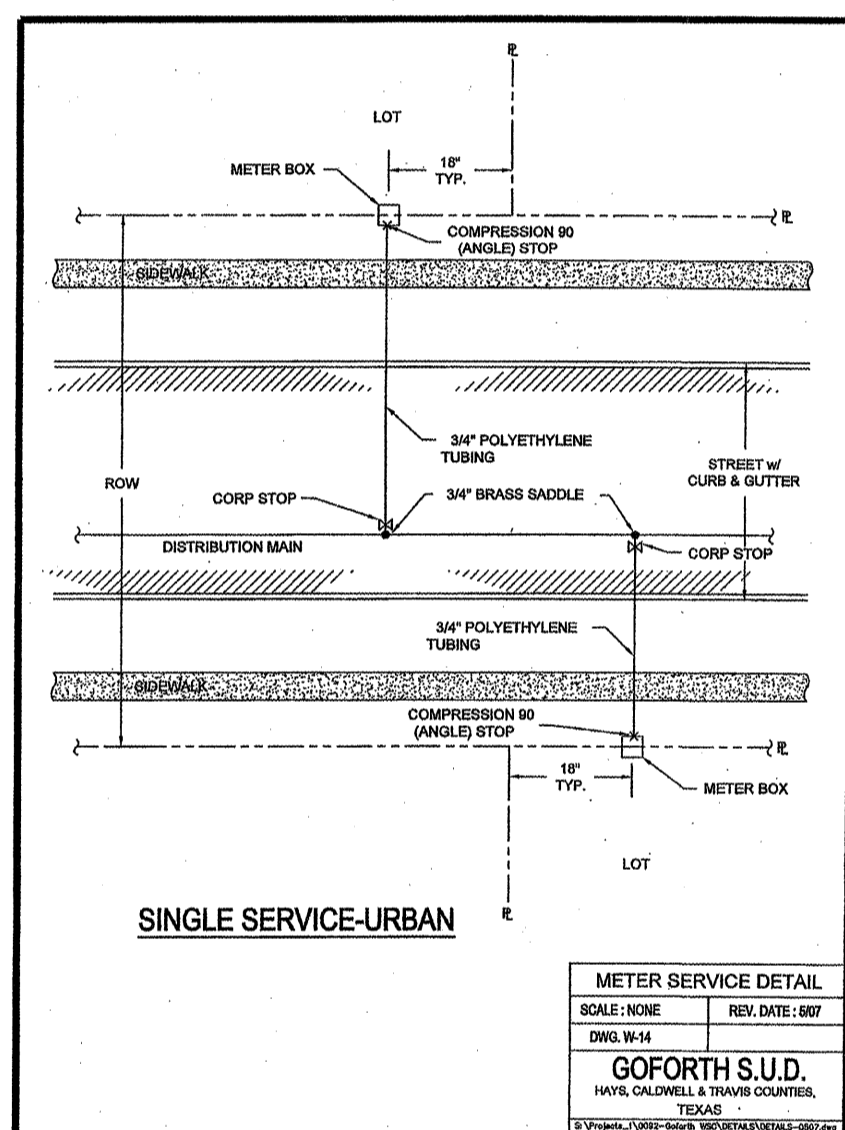
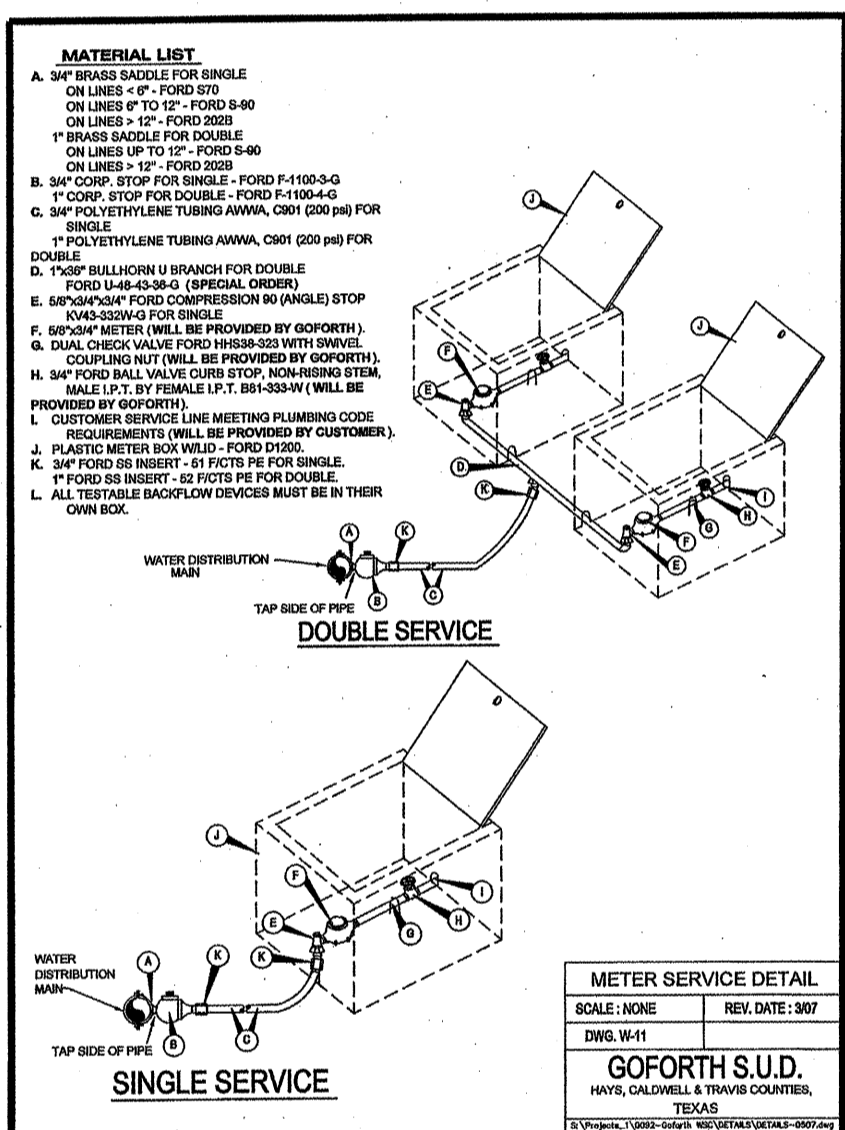
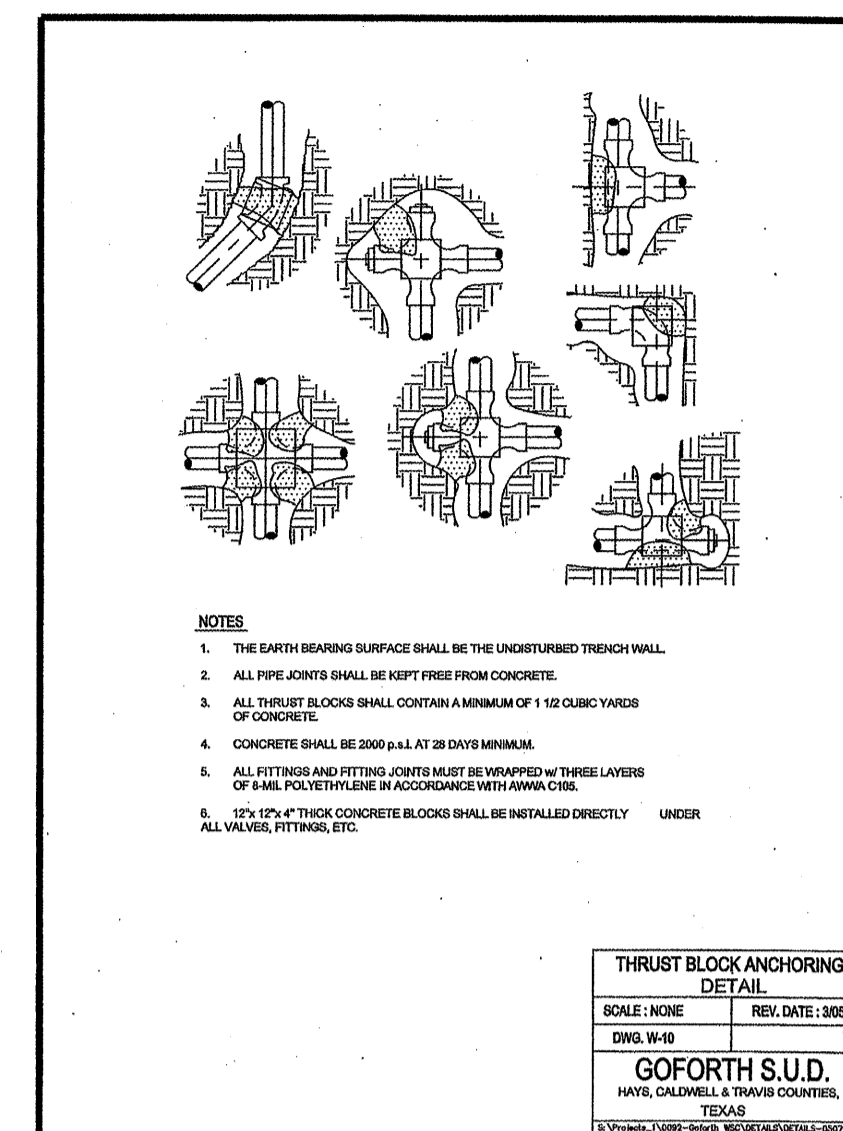
FILE: H:\Projects\1283\10465\MEADOWS AT KYLE\1 CR\CAD\DETAILS\DETAILS.dwg LAYOUT: GOFORTH S.U.D. WATER DETAILS DATE: 10/18/2012 2:30:40 PM BY: JBORREGO



MAXIMUM ALLOWABLE PIPE DEFLECTIONS

| PIPE SIZE | DEFLECTION IN ONE JOINT, INCHES | DEFLECTION IN ONE JOINT, FEET | RADIUS OF CURVE, FEET | DEFLECTION IN ONE JOINT, INCHES | DEFLECTION IN ONE JOINT, FEET | RADIUS OF CURVE, FEET |
|-----------|---------------------------------|-------------------------------|-----------------------|---------------------------------|-------------------------------|-----------------------|
| 3 | 1.00 | 8'-18" | 31 | 1.25 | 8' | 18 |
| 4 | 1.50 | 8'-18" | 31 | 1.25 | 8' | 18 |
| 6 | 2.10 | 7'-7" | 27 | 1.45 | 8' | 18 |
| 8 | 2.80 | 6'-2 1/2" | 20 | 1.95 | 8' | 18 |
| 10 | 3.50 | 5'-0 1/2" | 20 | 1.95 | 8' | 18 |
| 12 | 4.20 | 6'-2 1/2" | 20 | 1.95 | 8' | 18 |

TRENCH DETAILS
SCALE: NONE REV. DATE: 3/07
DWG. NO. 4
GOFORTH S.U.D.
HAYS, CALDWELL & TRAVIS COUNTIES,
TEXAS



PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
FILE NO. 10/10/12 REVISION DETAILS
DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

NO. BY DATE REVISION DESCRIPTION

MEADOWS AT KYLE
PHASE ONE
WATER, WASTEWATER,
STREET AND DRAINAGE
IMPROVEMENTS

GOFORTH S.U.D.
WATER DETAILS

STATE OF TEXAS
JOHN D. HINES
96691
LICENSED PROFESSIONAL ENGINEER

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(619)462-0871 FAX(619)464-9833
TIPP'S FIRM #2946

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SHEET 43B OF 44

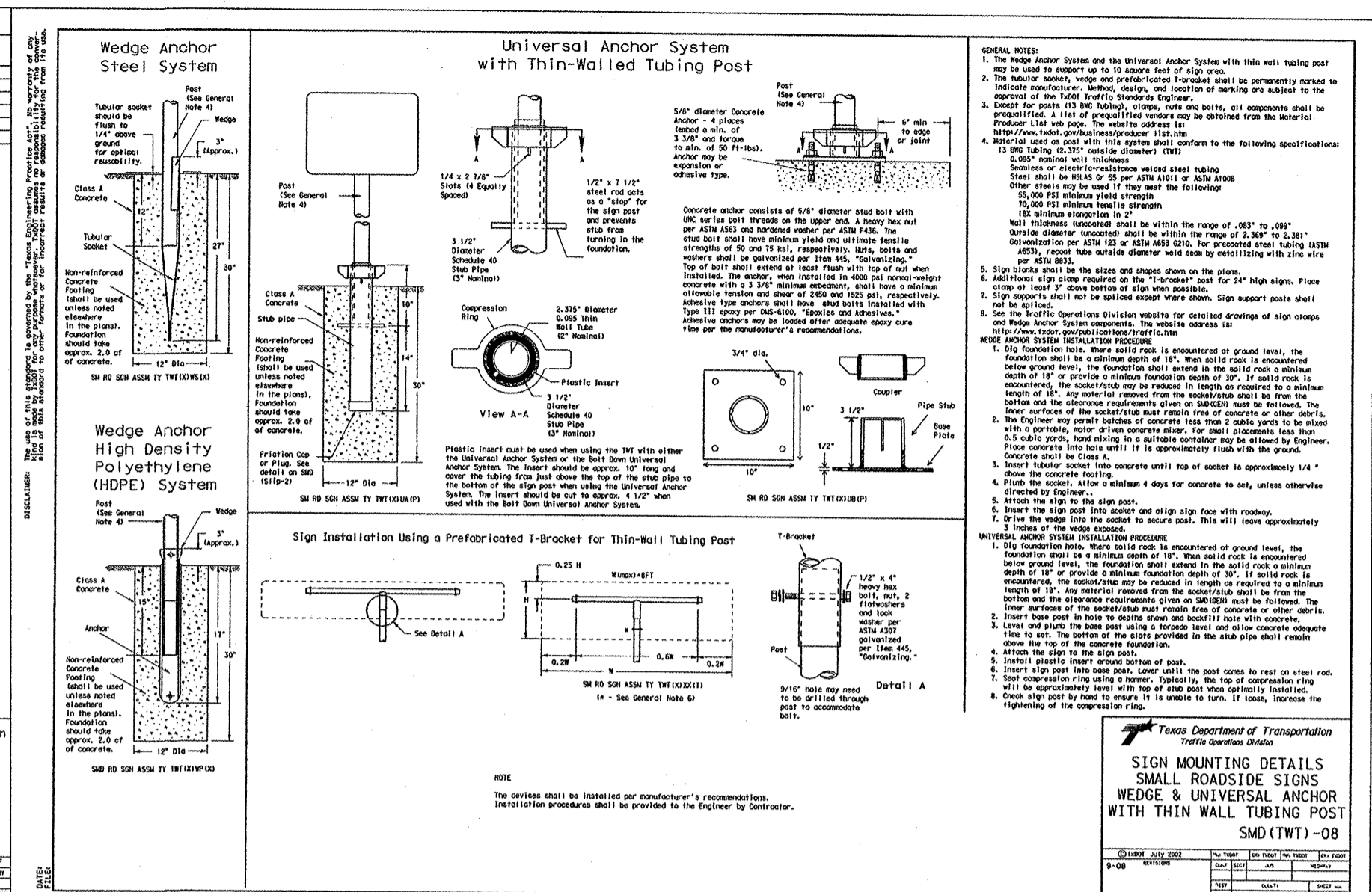
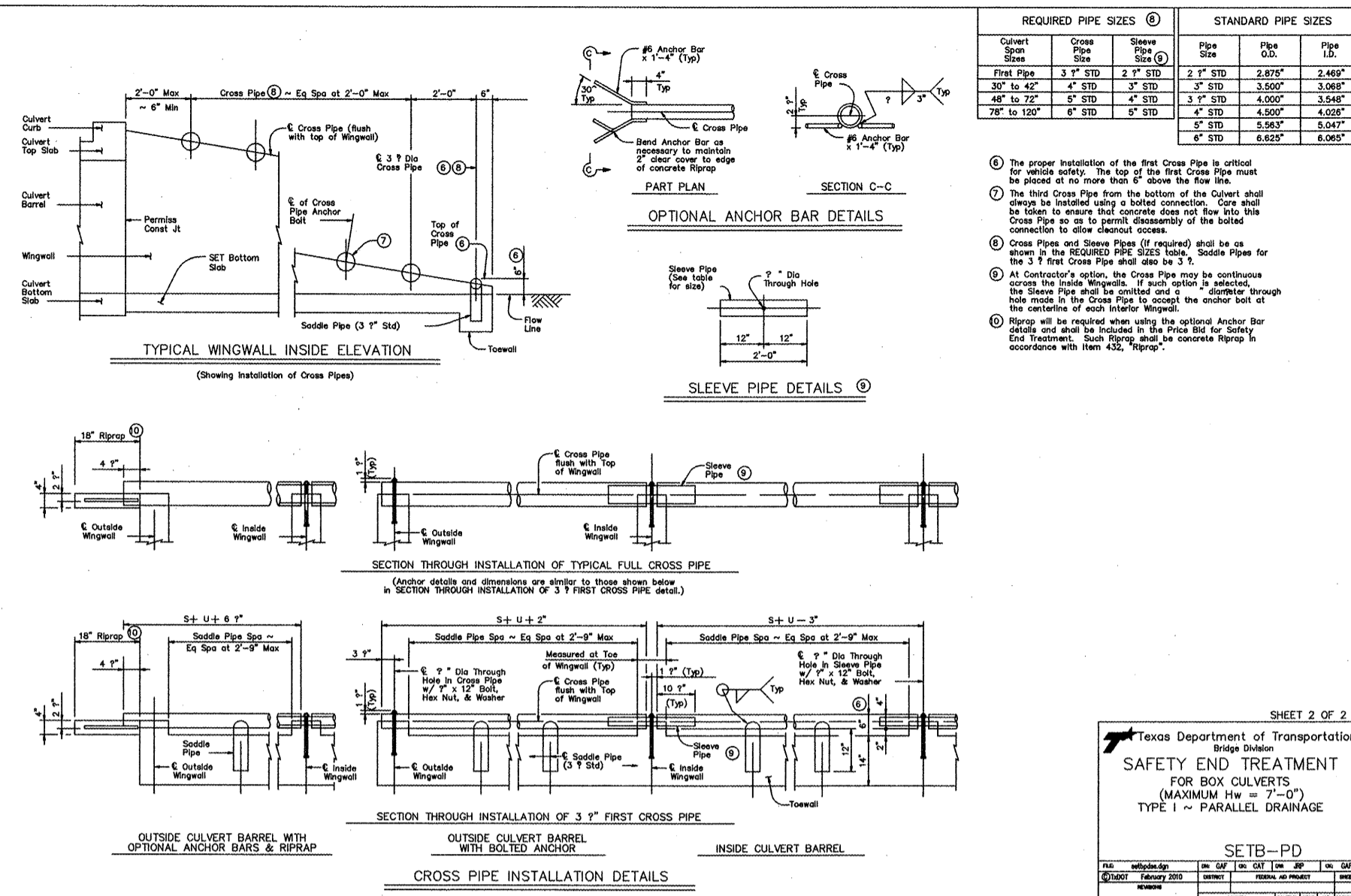
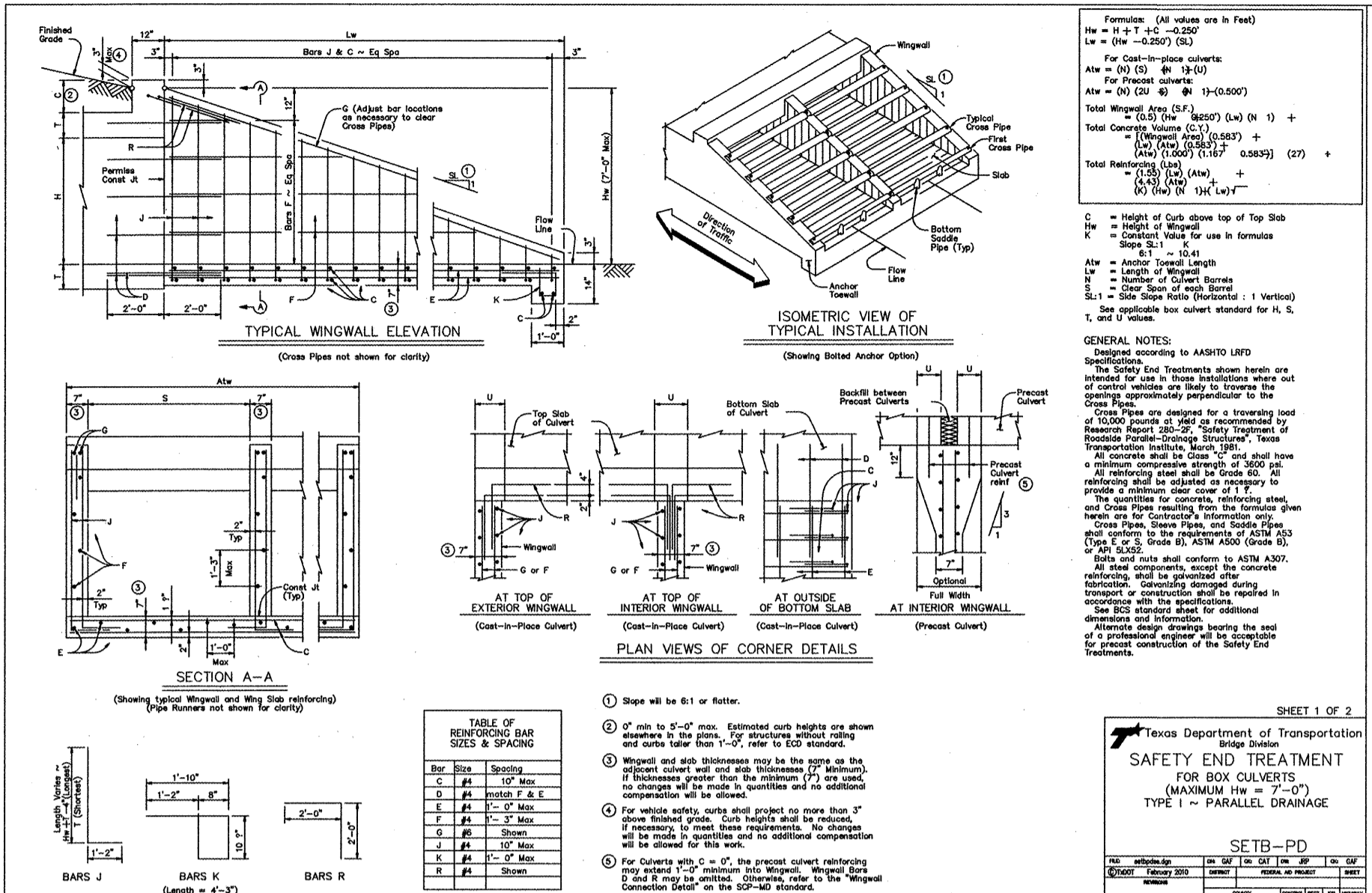


TABLE OF REINFORCING BAR SIZES & SPACING

| Span | 12" Dia | 18" Dia | 24" Dia | 30" Dia | 36" Dia | 42" Dia |
|------|---------|---------|---------|---------|---------|---------|
| 12' | 12" | 18" | 24" | 30" | 36" | 42" |
| 18' | 12" | 18" | 24" | 30" | 36" | 42" |
| 24' | 12" | 18" | 24" | 30" | 36" | 42" |
| 30' | 12" | 18" | 24" | 30" | 36" | 42" |
| 36' | 12" | 18" | 24" | 30" | 36" | 42" |
| 42' | 12" | 18" | 24" | 30" | 36" | 42" |

SECTION DIMENSIONS

| Span | 12" Dia | 18" Dia | 24" Dia | 30" Dia | 36" Dia | 42" Dia |
|------|---------|---------|---------|---------|---------|---------|
| 12' | 12" | 18" | 24" | 30" | 36" | 42" |
| 18' | 12" | 18" | 24" | 30" | 36" | 42" |
| 24' | 12" | 18" | 24" | 30" | 36" | 42" |
| 30' | 12" | 18" | 24" | 30" | 36" | 42" |
| 36' | 12" | 18" | 24" | 30" | 36" | 42" |
| 42' | 12" | 18" | 24" | 30" | 36" | 42" |

REINFORCING BAR SIZES & SPACING

| Span | 12" Dia | 18" Dia | 24" Dia | 30" Dia | 36" Dia | 42" Dia |
|------|---------|---------|---------|---------|---------|---------|
| 12' | 12" | 18" | 24" | 30" | 36" | 42" |
| 18' | 12" | 18" | 24" | 30" | 36" | 42" |
| 24' | 12" | 18" | 24" | 30" | 36" | 42" |
| 30' | 12" | 18" | 24" | 30" | 36" | 42" |
| 36' | 12" | 18" | 24" | 30" | 36" | 42" |
| 42' | 12" | 18" | 24" | 30" | 36" | 42" |

SECTION A-A
 (TOP AND BOTTOM SLAB JOINT REINFORCEMENT)

SECTION DIMENSIONS

| Span | 12" Dia | 18" Dia | 24" Dia | 30" Dia | 36" Dia | 42" Dia |
|------|---------|---------|---------|---------|---------|---------|
| 12' | 12" | 18" | 24" | 30" | 36" | 42" |
| 18' | 12" | 18" | 24" | 30" | 36" | 42" |
| 24' | 12" | 18" | 24" | 30" | 36" | 42" |
| 30' | 12" | 18" | 24" | 30" | 36" | 42" |
| 36' | 12" | 18" | 24" | 30" | 36" | 42" |
| 42' | 12" | 18" | 24" | 30" | 36" | 42" |

REINFORCING BAR SIZES & SPACING

| Span | 12" Dia | 18" Dia | 24" Dia | 30" Dia | 36" Dia | 42" Dia |
|------|---------|---------|---------|---------|---------|---------|
| 12' | 12" | 18" | 24" | 30" | 36" | 42" |
| 18' | 12" | 18" | 24" | 30" | 36" | 42" |
| 24' | 12" | 18" | 24" | 30" | 36" | 42" |
| 30' | 12" | 18" | 24" | 30" | 36" | 42" |
| 36' | 12" | 18" | 24" | 30" | 36" | 42" |
| 42' | 12" | 18" | 24" | 30" | 36" | 42" |

SECTION A-A
 (TOP AND BOTTOM SLAB JOINT REINFORCEMENT)

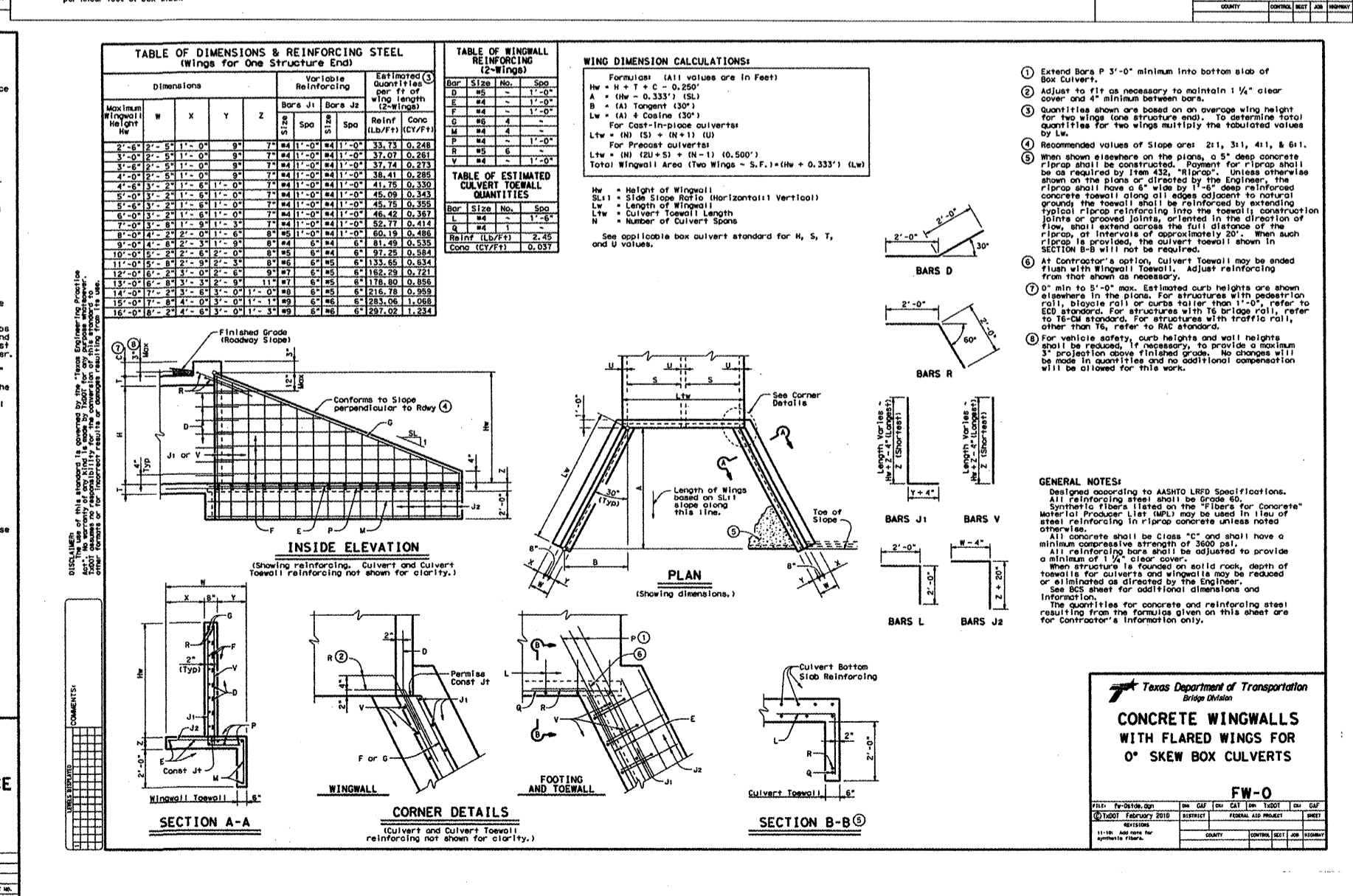
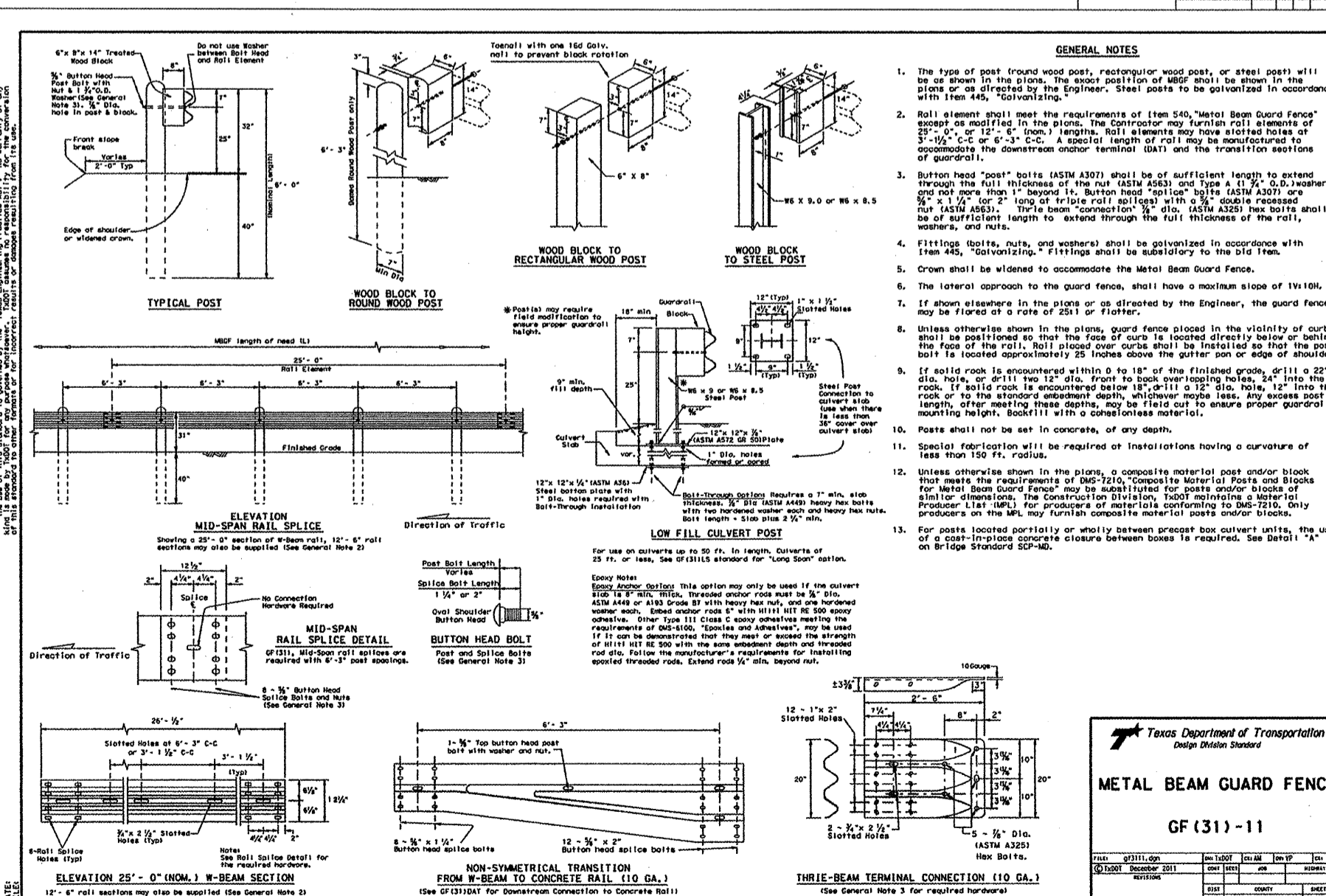
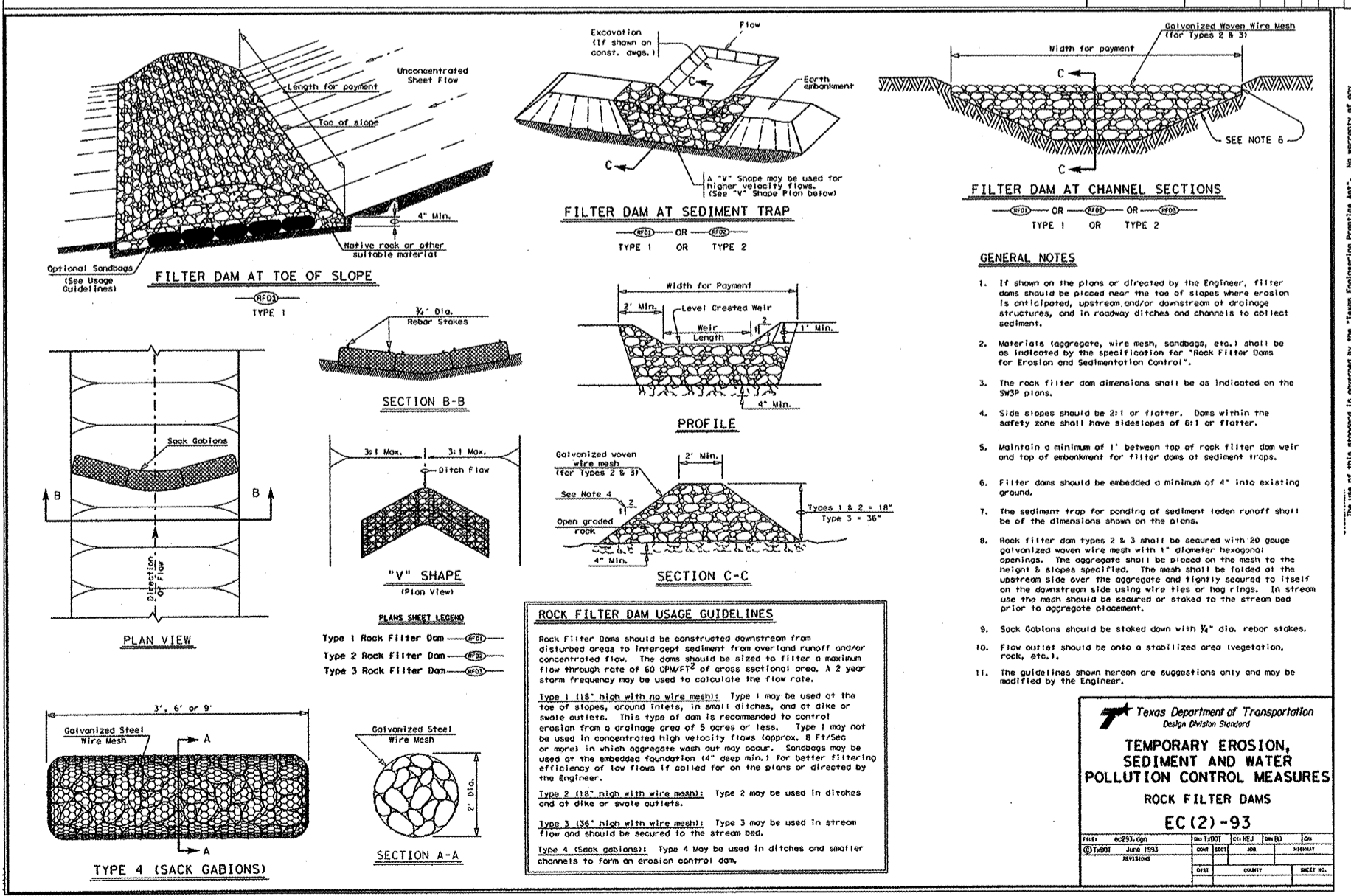
SECTION DIMENSIONS

| Span | 12" Dia | 18" Dia | 24" Dia | 30" Dia | 36" Dia | 42" Dia |
|------|---------|---------|---------|---------|---------|---------|
| 12' | 12" | 18" | 24" | 30" | 36" | 42" |
| 18' | 12" | 18" | 24" | 30" | 36" | 42" |
| 24' | 12" | 18" | 24" | 30" | 36" | 42" |
| 30' | 12" | 18" | 24" | 30" | 36" | 42" |
| 36' | 12" | 18" | 24" | 30" | 36" | 42" |
| 42' | 12" | 18" | 24" | 30" | 36" | 42" |

REINFORCING BAR SIZES & SPACING

| Span | 12" Dia | 18" Dia | 24" Dia | 30" Dia | 36" Dia | 42" Dia |
|------|---------|---------|---------|---------|---------|---------|
| 12' | 12" | 18" | 24" | 30" | 36" | 42" |
| 18' | 12" | 18" | 24" | 30" | 36" | 42" |
| 24' | 12" | 18" | 24" | 30" | 36" | 42" |
| 30' | 12" | 18" | 24" | 30" | 36" | 42" |
| 36' | 12" | 18" | 24" | 30" | 36" | 42" |
| 42' | 12" | 18" | 24" | 30" | 36" | 42" |

SECTION A-A
 (TOP AND BOTTOM SLAB JOINT REINFORCEMENT)



PROJECT NO. 1283-10465 DESIGNED BY: JH, HRG
 FILE NO. DETAILS DRAWN BY: JH, JMB
 DATE: FEBRUARY 2012 CHECKED BY: JH, JMB

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MEADOWS AT KYLE
 PHASE ONE
 WATER, WASTEWATER,
 STREET AND DRAINAGE
 IMPROVEMENTS

TXDOT DETAILS

NOTICE: ALTERATION OF A SEALED DRAWING WITHOUT PROPER NOTIFICATION TO THE RESPONSIBLE ENGINEER IS A VIOLATION OF THE TEXAS ENGINEERING PRACTICE ACT.

STATE OF TEXAS
 JOHN D. HINES
 9669
 LICENSED PROFESSIONAL ENGINEER