



Date: March 14, 2025

Tomas Rodriguez
MWM Design Group, INC.
305 E Huntland DR, STE #200
Austin, Texas 78752
512-453-0767

RE: Western Hills Athletic Club Addition (4801 Rollingwood Drive) – Zoning & Drainage Review Acceptance Letter

The above-referenced report and plans were reviewed by the City for compliance with City Zoning and Drainage Ordinances.

ZONING

K Friese + Associates, Inc. (KFA) has reviewed the permit submittal for the above referenced project for compliance with the City of Rollingwood Code of Ordinances.

The applicant has submitted information demonstrating compliance with the City Zoning Ordinances, in particular Section 107 Division 2. All comments to the architect/builder were cleared.

All responsibility for the adequacy of the information contained in the application remains with the applicant. In recommending acceptance, KFA must rely upon the adequacy of the work of the applicant.

DRAINAGE

K Friese + Associates, Inc. (KFA) has reviewed the permit submittal for the above referenced project for compliance with the City of Rollingwood Drainage Code of Ordinances.

The applicant has submitted information demonstrating compliance with the City Drainage Ordinances, in particular Article IV, Division 1, Stormwater Drainage Regulations.

All responsibility for the adequacy of the above referenced report and plans remains with the engineer of record. In recommending acceptance, KFA must rely upon the adequacy of the work of the engineer of record.

All submittals should be submitted to the City of Rollingwood and should include at a minimum of 1 pdf copy of the plans. A comment response letter shall be provided. Please contact Development Services at developmentervices@rollingwoodtx.gov if you have any further questions.

Regards,

K Friese + Associates, Inc.

Western Hills Athletic Club

4801 Rollingwood Drive
Rollingwood, Texas 78746

SUBMITTAL DATE:
OCTOBER 10, 2024

OWNER:
WESTERN HILLS ATHLETIC CLUB
4801 ROLLINGWOOD DR
ROLLINGWOOD, TEXAS 78746

LANDSCAPE ARCHITECT:
MWM DESIGN GROUP, INC.
9001 N IH35, SUITE 102
AUSTIN, TX. 78753

CONTACT:
CATHERINE SCOTT, PRESIDENT
(512) 327-6373

CONTACT:
DAVID CAZARES, ASLA, LEED AP
(512) 453-0767

CIVIL ENGINEER / AGENT:
MWM DESIGN GROUP, INC.
9001 N IH35, SUITE 102
AUSTIN, TX. 78753

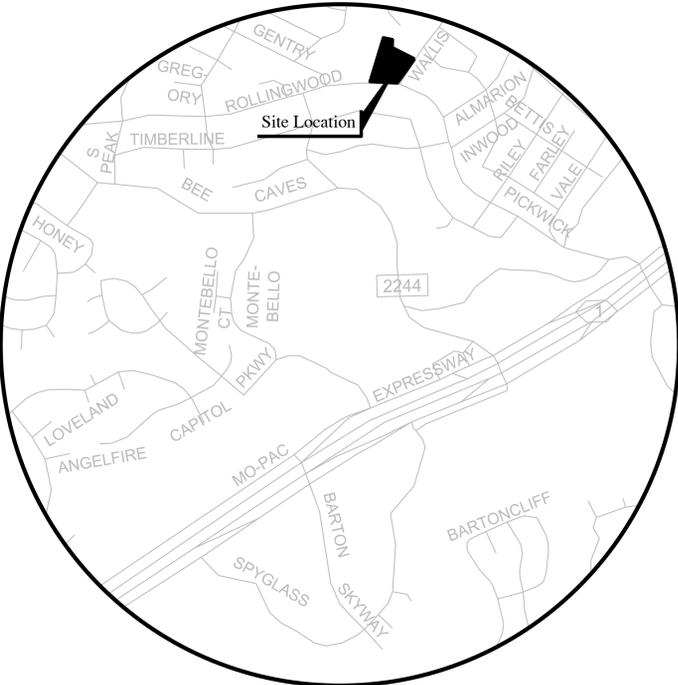
STRUCTURAL ENGINEER:
ENCOTECH ENGINEERING CONSULTANTS
8500 BLUFFSTONE COVE, SUITE B-103
AUSTIN, TX. 78759

CONTACT:
TOMAS RODRIGUEZ, P.E., R.A.S.
(512) 453-0767

CONTACT:
HAMZAH KHATAW, P.E.
(512) 338-1101

NOTES:

1. THIS SITE LIES WITHIN THE ROLLINGWOOD FULL PURPOSE JURISDICTION.
2. NO PORTION OF THIS SITE IS WITHIN THE 100 YEAR FLOODPLAIN AS PER FEMA FIRM PANEL #48453C0445K, DATED JANUARY 22, 2020.
3. NO CRITICAL ENVIRONMENTAL FEATURES ARE KNOWN TO EXIST WITHIN 150' OF THE PROJECT SITE.
4. THIS SITE IS LOCATED OVER THE EDWARD'S AQUIFER RECHARGE ZONE.
5. TREES GREATER THAN 8" IN DIAMETER ARE KNOWN TO EXIST ON THIS SITE.
6. AS PART OF THE SITE PLAN, THE STORM WATER POLLUTION PREVENTION PLAN (SWPPP) IS REQUIRED TO BE ON SITE AT ALL TIMES.



LOCATION MAP

LEGAL DESCRIPTION: LOT 1, WESTERN HILLS ATHLETIC CLUB ADDITION
 ZONED: PARK ZONING DISTRICT (P)
 PROPOSED IMPERVIOUS COVER: 65,591.55 SF, 46.88%
 WATERSHED: LADY BIRD LAKE & EANES CREEK CLASSIFICATION: SUBURBAN

INDEX OF SHEETS		
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24	S-003	CODE REQUIRED SPECIAL INSPECTIONS
25	S-101	RETAINING WALL PLAN
26	S-102	TENNIS COURT PLAN
27	S-200	TYPICAL CONCRETE DETAILS
28	S-201	TYPICAL CONCRETE DETAILS
29	S-202	TYPICAL CONCRETE DETAILS
30	S-203	CONCRETE DETAILS

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.

SUBMITTED BY:

TOMAS RODRIGUEZ, P.E., R.A.S. DATE
 MWM DESIGN GROUP
 9001 N IH35, SUITE 102
 AUSTIN, TX. 78753
 (512)453-0767

APPROVED BY: _____ DATE
 FOR DIRECTOR OF PLANNING AND
 DEVELOPMENT REVIEW DEPARTMENT

SITE DEVELOPMENT PERMIT NUMBER

ACCEPTED FOR CONSTRUCTION:

Bernard Brandon 3/14/25
 CITY ENGINEER, CITY OF ROLLINGWOOD DATE

ACCEPTED FOR CONSTRUCTION:

Jane Rodriguez 3/14/25
 CITY PLANNER, CITY OF ROLLINGWOOD DATE

NOTE: THE CITY ENGINEER'S SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES THE CITY ENGINEER AND CITY STAFF HAS REVIEWED THIS DOCUMENT AND HAS FOUND IT TO BE IN GENERAL CONFORMANCE WITH THE CITY OF ROLLINGWOOD CODE OF ORDINANCES OR APPROVED VARIANCES TO THOSE REGULATIONS. THE CITY ENGINEER, THROUGH THE ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY OTHER THAN STATED ABOVE, FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS. RESPONSIBILITY FOR THE ENGINEERING ADEQUACY OF THE FACILITIES DEPICTED IN THIS DOCUMENT LIES SOLELY WITH THE REGISTERED PROFESSIONAL ENGINEER WHOSE SEAL AND SIGNATURE IS AFFIXED TO THIS DOCUMENT.

NOTE: THE CITY PLANNER'S SIGNATURE AFFIXED TO THIS DOCUMENT INDICATES THE CITY PLANNER AND CITY STAFF HAS REVIEWED THIS DOCUMENT AND HAS FOUND IT TO BE IN GENERAL CONFORMANCE WITH THE CITY OF ROLLINGWOOD CODE OF ORDINANCES OR APPROVED VARIANCES TO THOSE REGULATIONS. THE CITY PLANNER, THROUGH THE ACCEPTANCE OF THIS DOCUMENT, ASSUMES NO RESPONSIBILITY OTHER THAN STATED ABOVE, FOR THE COMPLETENESS AND/OR ACCURACY OF THESE DOCUMENTS. RESPONSIBILITY FOR THE CODE COMPLIANCE ADEQUACY OF THE FACILITIES DEPICTED IN THIS DOCUMENT LIES SOLELY WITH THE REGISTERED PROFESSIONAL WHOSE SEAL AND SIGNATURE IS AFFIXED TO THIS DOCUMENT.



NO.	DATE	DESCRIPTION	BY



The bar above measures one inch on the original drawing. Adjust scales accordingly.

COVER SHEET

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/4/2024
JOB NO: 863-02

000

1 OF 30

CONTRACTOR NOTES:

- THE INFORMATION SHOWN ON THESE DRAWINGS INDICATING TYPE AND LOCATION OF UNDERGROUND, SURFACE, AND AERIAL UTILITIES IS NOT GUARANTEED TO BE EXACT OR COMPLETE. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE EXACT TYPE AND LOCATION OF ALL UTILITIES AFFECTED BY CONSTRUCTION FOR THIS PROJECT IN ORDER TO AVOID DAMAGING THOSE UTILITIES. THE CONTRACTOR SHALL: A) IMMEDIATELY ARRANGE FOR REPAIR AND RESTORATION OF CONTRACTOR-DAMAGED UTILITIES, AND B) PAY FOR SAME AT NO EXTRA COST TO THE OWNER.
- THE BIDDER (CONTRACTOR AFTER AWARD) SHALL IMMEDIATELY NOTIFY THE ENGINEER OF ANY UNREPORTED OBSTACLES OR DISCREPANCIES THAT MAY IMPEDE OR PREVENT THE PROPER CONSTRUCTION OF THIS PROJECT.
- WHERE REMOVAL OF BASE AND PAVEMENT IS NECESSARY FOR THIS PROJECT ALL BASE AND PAVEMENT SHALL BE REPLACED IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS AND STANDARD SPECIFICATIONS. ALL PAVEMENT CUTS SHALL BE SAW CUT PRIOR TO PLACEMENT OF H.M.A.C. AND COORDINATED WITH CITY OF ROLLINGWOOD AND CITY INSPECTORS.
- SLOPES OF ROADWAY CUTS AND EMBANKMENTS DAMAGED BY ANY OPERATION OF THE CONTRACTOR DURING THE EXECUTION OF THIS PROJECT SHALL BE REPAIRED AND RESTORED TO THE ORIGINAL PRE-CONSTRUCTION CONDITION IN ACCORDANCE WITH ALL APPLICABLE PROVISIONS OF THE STANDARD SPECIFICATIONS. BACK FILL AND FILL PLACED DURING REMEDIAL GRADING SHALL BE COMPACTED TO A DENSITY EQUAL TO OR GREATER THAN THAT OF THE ORIGINAL CONDITIONS AND TO THE SATISFACTION OF THE ENGINEER AND GOVERNING AUTHORITIES.
- BEFORE DISCONNECTING ANY WATER LINE OR GAS LINE, CONTRACTOR MUST PROVIDE FORTY-EIGHT (48) HOUR NOTICE TO THE OWNER EXCEPT IN THE CASE OF A BONA FIDE EMERGENCY.
- CONTRACTOR SHALL COMPLY WITH CONSTRUCTION SEQUENCING WHICH IS SPECIFIED ON THIS SHEET.
- ALL CONSTRUCTION SHALL FOLLOW THE LATEST VERSIONS OF THE CONSTRUCTION DOCUMENTS AND SPECIFICATIONS, UNLESS NOTED OTHERWISE.
- UPON REQUEST, COMPUTER AIDED DESIGN (CAD) FILES CAN BE MADE AVAILABLE TO THE CONTRACTOR FOR THE PURPOSES OF CONSTRUCTION STAKING.
- CONTRACTOR TO PROVIDE A 24-HOUR (MINIMUM) NOTICE TO ENGINEER PRIOR TO ALL UTILITY INSTALLATION TO ALLOW FOR VISUAL OBSERVATION OF TRENCH EXCAVATION, BEDDING, PIPE MATERIAL, AND BACKFILL.

PAVEMENT:

- CONCRETE PAVEMENT SHALL BE FURNISHED AND INSTALLED IN COMPLIANCE WITH THE CONSTRUCTION DOCUMENTS STANDARD SPECIFICATIONS.
- CONTRACTOR SHALL PROVIDE A 24-HOUR (MINIMUM) NOTICE TO ENGINEER PRIOR TO ALL CONCRETE POURS TO ALLOW FOR VISUAL OBSERVATION OF FORMWORK AND REBAR PLACEMENT.

EXCAVATION AND BACKFILL:

- ALL EXCAVATION FOR THIS PROJECT SHALL BE UNCLASSIFIED.
- CONTRACTOR/REPAIR CREW MUST NOTIFY INSPECTOR AT LEAST TWENTY FOUR (24) HOURS PRIOR TO BEGINNING PERMANENT BACK FILL OPERATIONS.
- BACKFILL DENSITY SHALL BE AS SPECIFIED IN STANDARD SPECIFICATIONS. TEST METHODS SHALL BE AS SPECIFIED IN THE STANDARD SPECIFICATIONS UNLESS INDICATED OTHERWISE IN WRITING BY THE ENGINEER.
- THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS.

HANDICAP ACCESSIBILITY:

- ACCESSIBLE ROUTES MUST HAVE A RUNNING-SLOPE NO GREATER THAN 5% UNLESS DESIGNED AS A RAMP.
- ACCESSIBLE ROUTES MUST HAVE A CROSS-SLOPE NO GREATER THAN 2%.
- THE MAXIMUM RUNNING SLOPE OF A RAMP IN NEW CONSTRUCTION IS 8.33%.
- TAS AND ADA CRITERIA SHALL GOVERN.

SAFETY:

- CONTRACTOR SHALL MAINTAIN THE JOB SITE IN A SAFE, NEAT AND WORKMANLIKE MANNER AT ALL TIMES. JOB SITE SAFETY SHALL NOT BE COMPROMISED. ANY UNATTRACTIVE NUISANCE SHALL BE REMOVED OR CAMOUFLAGED BY CONTRACTOR WHEN DIRECTED BY THE OWNER OR ENGINEER.
- ALL HOLES, TRENCHES, AND OTHER HAZARDOUS AREAS SHALL BE ADEQUATELY PROTECTED BY BARRICADES, FENCING, LIGHTS, AND/OR OTHER PROTECTIVE DEVICES AT ALL TIMES.
- REMOVAL OF EXCAVATED MATERIALS AND DAILY CLEANUP OPERATIONS SHALL BE PERFORMED TO THE SPECIFICATIONS AND TO THE SATISFACTION OF THE OWNER AND ENGINEER.
- CONTRACTOR SHALL MAINTAIN A SUPERINTENDENT UPON THE PROJECT AT ALL TIMES WORK IS IN PROGRESS.

TRAFFIC CONTROL NOTES:

- THE CONTRACTOR SHALL MAINTAIN CLEAR PASSAGE FOR LOCAL TRAFFIC AT ALL TIMES DURING THE CONSTRUCTION OF THIS PROJECT.
- ALL TRAFFIC CONTROL DEVICES, SIGNS, BARRICADES, WARNING SIGNS, AND FLAG MEN OPERATIONS SHALL BE PLACED, CONSTRUCTED, EXECUTED AND MAINTAINED IN ACCORDANCE WITH THE TEXAS MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES (TMUTCD).
- WHERE PORTABLE SIGNS REQUIRE THE USE OF WEIGHTS, SANDBAGS SHALL BE USED. THE USE OF SOLID OBJECTS SUCH AS CONCRETE, ROCKS, IRON, ETC. SHALL NOT BE PERMITTED.
- INSTALLATION OF CONSTRUCTION BARRICADING AND SIGNING SHALL BE COORDINATED THROUGH THE CITY OF ROLLINGWOOD RIGHT OF WAY MANAGEMENT AT (512) 974-1150 (OR APPLICABLE REGULATORY ENTITY).
- ALL TRAFFIC CONTROL SIGNS SHALL REMAIN IN PLACE UNLESS OTHERWISE SHOWN ON THE PLANS. IF SIGNS REQUIRE RELOCATION, CONTRACTOR SHALL CONTACT THE APPLICABLE REGULATORY ENTITY.
- CONTRACTOR MUST RESTORE ALL PAVEMENT MARKINGS DISTURBED DURING CONSTRUCTION. CONTRACTOR SHALL OBSERVE ALL APPLICABLE MATERIALS, SPECIFICATIONS, AND INSTALLATION REQUIREMENTS INCLUDING SPECIAL ATTENTION TO MAINTAINING PROPER DIMENSIONS AND ALIGNMENT.

TRENCH SAFETY:

- IN ACCORDANCE WITH THE LAWS OF THE STATE OF TEXAS AND THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION (OSHA) REGULATIONS, ALL TRENCHES OVER 5 FEET IN DEPTH IN EITHER HARD AND COMPACT OR SOFT AND UNSTABLE SOILS SHALL BE SLOPED, SHORED, SHEETED, BRACED OR OTHERWISE SUPPORTED. FURTHERMORE, ALL TRENCHES LESS THAN 5 FEET IN DEPTH SHALL ALSO BE EFFECTIVELY PROTECTED WHEN HAZARDOUS GROUND MOVEMENT MAY BE EXPECTED.
- IN ACCORDANCE WITH THE U.S. OSHA REGULATIONS, WHEN EMPLOYEES ARE REQUIRED TO BE IN TRENCHES 4 FOOT DEEP OR MORE, ADEQUATE MEANS OF EXIT, SUCH AS A LADDER OR STEPS, MUST BE PROVIDED AND LOCATED SO AS TO REQUIRE NO MORE THAN 25 FEET OF LATERAL TRAVEL.

ORDINANCE REQUIREMENTS

- IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE RELEASED SITE PLAN. ANY ADDITIONAL IMPROVEMENTS WILL REQUIRE A SITE PLAN AMENDMENT AND APPROVAL FROM THE DEVELOPMENT SERVICES DEPARTMENT.
- APPROVAL OF THIS SITE PLAN DOES NOT INCLUDE BUILDING CODE APPROVAL; FIRE CODE APPROVAL; OR BUILDING, DEMOLITION, OR RELOCATION PERMITS APPROVAL. A CITY DEMOLITION OR RELOCATION PERMIT CAN ONLY BE ISSUED ONCE THE HISTORIC REVIEW PROCESS IS COMPLETED.
- ALL SIGNS MUST COMPLY WITH THE REQUIREMENTS OF THE LAND DEVELOPMENT CODE.
- THE OWNER IS RESPONSIBLE FOR ALL COSTS OF RELOCATION OF, OR DAMAGE TO, UTILITIES.
- ADDITIONAL ELECTRIC EASEMENTS MAY BE REQUIRED AT A LATER DATE.
- A SITE DEVELOPMENT PERMIT MUST BE ISSUED PRIOR TO AN APPLICATION FOR BUILDING PERMIT FOR NONCONSOLIDATED OR LAND USE COMMISSION APPROVED SITE PLANS.
- WATER AND WASTEWATER SERVICE WILL BE PROVIDED BY THE CITY OF ROLLINGWOOD.
- NO CERTIFICATE OF OCCUPANCY MAY BE ISSUED FOR THE PROPOSED RESIDENTIAL CONDOMINIUM PROJECT UNTIL THE OWNER OR OWNERS OF THE PROPERTY HAVE COMPLIED WITH CHAPTER 81 AND 82 OF THE PROPERTY CODE OF THE STATE OF TEXAS OR ANY OTHER STATUTES ENACTED BY THE STATE CONCERNING CONDOMINIUMS.
- FOR CONSTRUCTION WITHIN THE RIGHT-OF-WAY, A R.O.W. EXCAVATION PERMIT IS REQUIRED.

COMPATIBILITY

- HIGHLY REFLECTIVE MATERIALS WILL NOT BE USED, MATERIALS MAY NOT EXCEED 20% REFLECTIVITY. THIS REQUIREMENT SHALL NOT APPLY TO SOLAR PANELS OR TO COPPER OR PAINTED METAL ROOFS.
- THE NOISE LEVEL OF MECHANICAL EQUIPMENT WILL NOT EXCEED 70 D.B.A. AT THE PROPERTY LINE ADJACENT TO RESIDENTIAL USES.
- ALL EXTERIOR LIGHTING SHALL BE HOODED OR SHIELDED FROM THE VIEW OF ADJACENT RESIDENTIAL USES, OR PROPERTY ZONED RESIDENTIAL.
- EXTERIOR LIGHTING ABOVE THE SECOND FLOOR IS PROHIBITED WHEN ADJACENT TO RESIDENTIAL PROPERTY.
- ALL DUMPSTERS AND ANY PERMANENTLY PLACED REFUSE RECEPTACLES WILL BE LOCATED AT A MINIMUM OF TWENTY (20) FEET FROM A PROPERTY USED OR ZONED AS SF-5 OR MORE RESTRICTIVE.

FIRE DEPARTMENT

- THE ROLLINGWOOD FIRE DEPARTMENT REQUIRES ASPHALT OR CONCRETE PAVEMENT PRIOR TO CONSTRUCTION AS AN "ALL-WEATHER DRIVING SURFACE."
- HYDRANTS MUST BE INSTALLED WITH THE CENTER OF THE FOUR-INCH OPENING AT LEAST 18 INCHES ABOVE FINISHED GRADE. THE FOUR-INCH OPENING MUST FACE THE DRIVEWAY OR STREET WITH THREE- TO SIX-FOOT SETBACKS FROM THE CURBLINE(S). NO OBSTRUCTION IS ALLOWED WITHIN THREE FEET OF ANY HYDRANT AND THE FOUR-INCH OPENING MUST BE TOTALLY UNOBSTRUCTED FROM THE STREET.
- ALL INSTALLATIONS WHOSE FIRE PROTECTION FACILITIES ARE INSTALLED BY THE DEVELOPER, SUCH FACILITIES SHALL INCLUDE ALL SURFACE ACCESS ROADS WHICH SHALL BE INSTALLED AND MADE SERVICEABLE PRIOR TO AND DURING THE TIME OF CONSTRUCTION, WHERE ALTERNATIVE METHODS OF PROTECTION, AS APPROVED BY THE FIRE CHIEF, ARE PROVIDED, THE ABOVE MAY BE MODIFIED OR WAIVED.
- ALL PERVIOUS/DECORATIVE PAVING SHALL BE ENGINEERED AND INSTALLED FOR 80,000 LB. LIVE-VEHICLE LOADS. ANY PERVIOUS/DECORATIVE PAVING WITHIN 100 FEET OF ANY BUILDING MUST BE APPROVED BY THE FIRE DEPARTMENT.
- COMMERCIAL DUMPSTERS AND CONTAINERS WITH AN INDIVIDUAL CAPACITY OF 1.5 CUBIC YARDS OR GREATER SHALL NOT BE STORED OR PLACED WITHIN TEN FEET OF OPENINGS, COMBUSTIBLE WALLS, OR COMBUSTIBLE EAVE LINES. CITY OF ROLLINGWOOD CONSOLIDATED SITE PLAN APPLICATION INSTRUCTIONS REV 7/18/2018 | PAGE 30 OF 38
- FIRE LANES DESIGNATED ON SITE PLAN SHALL BE REGISTERED WITH CITY OF ROLLINGWOOD FIRE MARSHAL'S OFFICE AND INSPECTED FOR FINAL APPROVAL.
- VERTICAL CLEARANCE REQUIRED FOR FIRE APPARATUS IS 14 FEET FOR FULL WIDTH OF ACCESS DRIVE.

GENERAL CONSTRUCTION NOTES:

- ALL RESPONSIBILITY FOR THE ADEQUACY OF THESE PLANS REMAINS WITH THE ENGINEER WHO PREPARED THEM. IN REVIEWING THESE PLANS, THE CITY OF ROLLINGWOOD MUST RELY ON THE ADEQUACY OF THE WORK OF THE DESIGN ENGINEER.
- CONTRACTOR SHALL CALL TEXAS 811 (811 OR 1-800-344-8377) FOR UTILITY LOCATIONS PRIOR TO ANY WORK IN CITY EASEMENTS OR STREET R.O.W.
- CONTRACTOR SHALL NOTIFY THE CITY OF ROLLINGWOOD TO SUBMIT REQUIRED DOCUMENTATION, PAY CONSTRUCTION INSPECTION FEES, AND TO SCHEDULE THE REQUIRED SITE AND SUBDIVISION PRE-CONSTRUCTION MEETING. THIS MEETING MUST BE HELD PRIOR TO ANY CONSTRUCTION ACTIVITIES WITHIN THE R.O.W. OR PUBLIC EASEMENTS. PLEASE VISIT [HTTP://AUSTINTEXAS.GOV/PAGE/COMMERCIAL-SITE-AND-SUBDIVISION-INSPECTIONS](http://austintexas.gov/page/commercial-site-and-subdivision-inspections) FOR A LIST OF SUBMITTAL REQUIREMENTS, INFORMATION CONCERNING FEES, AND CONTACT INFORMATION.
- FOR SLOPES OR TRENCHES GREATER THAN FIVE FEET IN DEPTH, A NOTE MUST BE ADDED STATING: "ALL CONSTRUCTION OPERATIONS SHALL BE ACCOMPLISHED IN ACCORDANCE WITH APPLICABLE REGULATIONS OF THE U.S. OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION." (OSHA STANDARDS MAY BE PURCHASED FROM THE GOVERNMENT PRINTING OFFICE; INFORMATION AND RELATED REFERENCE MATERIALS MAY BE PURCHASED FROM OSHA, 611 EAST 6TH STREET, ROLLINGWOOD TEXAS.)
- ALL SITE WORK MUST ALSO COMPLY WITH ENVIRONMENTAL REQUIREMENTS.
- UPON COMPLETION OF THE PROPOSED SITE IMPROVEMENTS AND PRIOR TO THE FOLLOWING, THE ENGINEER SHALL CERTIFY IN WRITING THAT THE PROPOSED DRAINAGE, FILTRATION AND DETENTION FACILITIES WERE CONSTRUCTED IN CONFORMANCE WITH THE APPROVED PLANS; RELEASE OF THE CERTIFICATE OF OCCUPANCY BY THE DEVELOPMENT SERVICES DEPARTMENT (INSIDE THE CITY LIMITS); OR INSTALLATION OF AN ELECTRIC OR WATER METER (IN THE FIVE-MILE ETJ)

DEVELOPER INFORMATION

WESTERN HILLS ATHLETIC CLUB
OWNER (512) 327-6373
PHONE #

4801 ROLLINGWOOD DR, ROLLINGWOOD, TX 78746
OWNER ADDRESS

CATHERINE SCOTT (512) 327-6373
OWNER'S REPRESENTATIVE RESPONSIBLE FOR PLAN ALTERATIONS
PHONE #

JOSH MCKAY (512) 426-1483
PERSON OR FIRM RESPONSIBLE FOR EROSION/SEDIMENTATION CONTROL MAINTENANCE
PHONE #

JOSH MCKAY (512) 426-1483
PERSON OR FIRM RESPONSIBLE FOR TREE/NATURAL AREA PROTECTION MAINTENANCE
PHONE #

AMERICANS WITH DISABILITIES ACT

THE CITY OF ROLLINGWOOD HAS REVIEWED THIS PLAN FOR COMPLIANCE WITH CITY DEVELOPMENT REGULATIONS ONLY. THE APPLICANT, PROPERTY OWNER, AND OCCUPANT OF THE PREMISES ARE RESPONSIBLE FOR DETERMINING WHETHER THE PLAN COMPLIES WITH ALL OTHER LAWS, REGULATIONS, AND RESTRICTIONS WHICH MAY BE APPLICABLE TO THE PROPERTY AND ITS USE.

BENCHMARK INFORMATION

COORDINATE BASIS: GRID AZIMUTH FOR TEXAS CENTRAL ZONE STATE PLANE
COORDINATES, BASED ON GPS SOLUTIONS FROM THE NATIONAL GEODETIC SURVEY (NGS)
ON-LINE POSITIONING USER SERVICE (OPUS).

BENCHMARKS:

B.M. #1 - SQUARE CUT ON B.O.C., NORTH SIDE OF ROLLINGWOOD DR.
+/-105 FEET WEST OF WALLIS DR.
ELEV.=628.77'

B.M. #3 - SQUARE CUT ON B.O.C. ON THE WEST SIDE OF WALLIS DR.
+/-190 FEET NORTH OF ROLLINGWOOD DR.
ELEV.=631.07'

TEXAS COMMISSION ON ENVIRONMENTAL QUALITY

WATER POLLUTION ABATEMENT PLAN

GENERAL CONSTRUCTION NOTES

- IF A WRITTEN NOTICE OF CONSTRUCTION MUST BE SUBMITTED TO THE TCEQ REGIONAL OFFICE AT LEAST 48 HOURS PRIOR TO THE START OF ANY REGULATED ACTIVITIES. THIS NOTICE MUST INCLUDE:
 - THE NAME OF THE APPROVED PROJECT;
 - THE ACTIVITY START DATE; AND
 - THE CONTACT INFORMATION OF THE PRIME CONTRACTOR.
- ALL CONTRACTORS CONDUCTING REGULATED ACTIVITIES ASSOCIATED WITH THIS PROJECT MUST BE PROVIDED WITH COMPLETE COPIES OF THE APPROVED WATER POLLUTION ABATEMENT PLAN (WPAP) AND THE TCEQ LETTER INDICATING THE SPECIFIC CONDITIONS OF ITS APPROVAL. DURING THE COURSE OF THESE REGULATED ACTIVITIES, THE CONTRACTORS ARE REQUIRED TO KEEP ON-SITE COPIES OF THE APPROVED PLAN AND APPROVAL LETTER.
- IF ANY SENSITIVE FEATURE(S) (CAVES, SOLUTION CAVITY, SINK HOLE, ETC.) IS DISCOVERED DURING CONSTRUCTION, ALL REGULATED ACTIVITIES NEAR THE SENSITIVE FEATURE MUST BE SUSPENDED IMMEDIATELY. THE APPROPRIATE TCEQ REGIONAL OFFICE MUST BE IMMEDIATELY NOTIFIED OF ANY SENSITIVE FEATURES ENCOUNTERED DURING CONSTRUCTION. CONSTRUCTION ACTIVITIES MAY NOT BE RESUMED UNTIL THE TCEQ HAS REVIEWED AND APPROVED THE APPROPRIATE PROTECTIVE MEASURES IN ORDER TO PROTECT ANY SENSITIVE FEATURE AND THE EDWARDS AQUIFER FROM POTENTIALLY ADVERSE IMPACTS TO WATER QUALITY.
- NO TEMPORARY OR PERMANENT HAZARDOUS SUBSTANCE STORAGE TANK SHALL BE INSTALLED WITHIN 150 FEET OF A WATER SUPPLY SOURCE, DISTRIBUTION SYSTEM, WELL, OR SENSITIVE FEATURE.
- PRIOR TO BEGINNING ANY CONSTRUCTION ACTIVITY, ALL TEMPORARY EROSION AND SEDIMENTATION (E&S) CONTROL MEASURES MUST BE PROPERLY INSTALLED AND MAINTAINED IN ACCORDANCE WITH THE APPROVED PLANS AND MANUFACTURERS SPECIFICATIONS. IF INSPECTIONS INDICATE A CONTROL HAS BEEN USED INAPPROPRIATELY, OR INCORRECTLY, THE APPLICANT MUST REPLACE OR MODIFY THE CONTROL FOR THE SITUATION. THESE CONTROLS MUST REMAIN IN PLACE UNTIL THE DISTURBED AREAS HAVE BEEN PERMANENTLY STABILIZED.
- ANY SEDIMENT THAT ESCAPES THE CONSTRUCTION SITE MUST BE COLLECTED AND PROPERLY DISPOSED OF BEFORE THE NEXT RAIN EVENT TO ENSURE IT IS NOT WASHED INTO SURFACE STREAMS, SENSITIVE FEATURES, ETC.
- SEDIMENT MUST BE REMOVED FROM THE SEDIMENT TRAPS OR SEDIMENTATION BASINS NOT LATER THAN WHEN IT OCCUPIES 50% OF THE BASIN'S DESIGN CAPACITY.
- LITTER, CONSTRUCTION DEBRIS, AND CONSTRUCTION CHEMICALS EXPOSED TO STORMWATER SHALL BE PREVENTED FROM BEING DISCHARGED OFFSITE.
- ALL SPOILS (EXCAVATED MATERIAL) GENERATED FROM THE PROJECT SITE MUST BE STORED ON-SITE WITH PROPER E&S CONTROLS. FOR STORAGE OR DISPOSAL OF SPOILS AT ANOTHER SITE ON THE EDWARDS AQUIFER RECHARGE ZONE, THE OWNER OF THE SITE MUST RECEIVE APPROVAL OF A WATER POLLUTION ABATEMENT PLAN FOR THE PLACEMENT OF FILL MATERIAL OR MASS GRADING PRIOR TO THE PLACEMENT OF SPOILS AT THE OTHER SITE.
- IF PORTIONS OF THE SITE WILL HAVE A TEMPORARY OR PERMANENT CEASE IN CONSTRUCTION ACTIVITY LASTING LONGER THAN 14 DAYS, SOIL STABILIZATION IN THOSE AREAS SHALL BE INITIATED AS SOON AS POSSIBLE PRIOR TO THE 14TH DAY OF INACTIVITY. IF ACTIVITY WILL RESUME PRIOR TO THE 21ST DAY, STABILIZATION MEASURES ARE NOT REQUIRED. IF DROUGHT CONDITIONS OR INCLEMENT WEATHER PREVENT ACTION BY THE 14TH DAY, STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS POSSIBLE.
- THE FOLLOWING RECORDS SHALL BE MAINTAINED AND MADE AVAILABLE TO THE TCEQ UPON REQUEST:
 - THE DATES WHEN MAJOR GRADING ACTIVITIES OCCUR;
 - THE DATES WHEN CONSTRUCTION ACTIVITIES TEMPORARILY OR PERMANENTLY CEASE ON A PORTION OF THE SITE; AND
 - THE DATES WHEN STABILIZATION MEASURES ARE INITIATED.
- THE HOLDER OF ANY APPROVED EDWARD AQUIFER PROTECTION PLAN MUST NOTIFY THE APPROPRIATE REGIONAL OFFICE IN WRITING AND OBTAIN APPROVAL FROM THE EXECUTIVE DIRECTOR PRIOR TO INITIATING ANY OF THE FOLLOWING:
 - ANY PHYSICAL OR OPERATIONAL MODIFICATION OF ANY WATER POLLUTION ABATEMENT STRUCTURE(S), INCLUDING BUT NOT LIMITED TO PONDS, DAMS, BERMS, SEWAGE TREATMENT PLANTS, AND DIVERSIONARY STRUCTURES;
 - ANY CHANGE IN THE NATURE OR CHARACTER OF THE REGULATED ACTIVITY FROM THAT WHICH WAS ORIGINALLY APPROVED OR A CHANGE WHICH WOULD SIGNIFICANTLY IMPACT THE ABILITY OF THE PLAN TO PREVENT POLLUTION OF THE EDWARDS AQUIFER;
 - ANY DEVELOPMENT OF LAND PREVIOUSLY IDENTIFIED AS UNDEVELOPED IN THE ORIGINAL WATER POLLUTION ABATEMENT PLAN.

AUSTIN REGIONAL OFFICE
12100 PARK 35 CIRCLE, BUILDING A
AUSTIN, TEXAS 78753-1808
PHONE (512) 339-2929
FAX (512) 339-3795

SAN ANTONIO REGIONAL OFFICE
14250 JUDSON ROAD
SAN ANTONIO, TEXAS 78233-4480
PHONE (210) 490-3096
FAX (210) 545-4329



TBP# 1116
10/4/2024



NO.	DATE	DESCRIPTION	BY



The bar above measures one inch on the original drawing. Adjust scales accordingly.

GENERAL NOTES

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/4/2024
JOB NO: 863-02

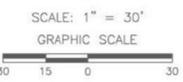
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2 OF 30



LOCATION MAP NOT TO SCALE

A SURVEY OF ALL OF LOT 1, WESTERN HILLS ATHLETIC CLUB ADDITION, A SUBDIVISION OF RECORD IN TRAVIS COUNTY, TEXAS ACCORDING TO THE MAP OR PLAT THEREOF RECORDED IN VOLUME 79, PAGE 355 OF THE THE PLAT RECORDS OF TRAVIS COUNTY, TEXAS, SAVE AND EXCEPT A 2,411 SQUARE FEET TRACT DESCRIBED IN VOLUME 11901, PAGE 1260 OF THE REAL PROPERTY RECORDS OF TRAVIS COUNTY, TEXAS.

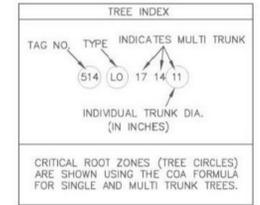


TREE LIST				
16901 HB 7 4	20027 CE 8	20055 LO 8 7	20082 LO 21	20118 CDR 7
16902 CE 6 4	20028 CE 9	20056 CDR 13	20083 LO 17	20119 CDR 7
16903 LO 9	20029 CB 14	20057 LO 16 12	20084 LO 12	20120 CDR 9
16904 LO 7	20030 CB 14	20058 CDR 14	20086 LO 11	20121 LO 7
16905 LO 9	20032 HB 13	20059 LO 13	20088 LO 14	20122 CDR 6
16906 LO 8	20033 CB 9	20060 CDR 7	20089 LO 12	20123 CDR 8
16907 CE 7 4	20034 CB 11 7 5	20061 CE 6	20090 LO 16	20124 CDR 6
16908 LO 13	20035 CB 7	20062 CDR 8	20093 LO 18	20125 LO 13
16909 LO 7	20036 CB 8	20063 LO 17	20094 LO 12	20126 LO 9
16910 CB 9	20038 CB 15	20064 CDR 10	20095 LO 10	20127 LO 8
16911 CB 7	20039 CDR 10	20065 PD 19 16	20096 LO 11	20128 CDR 6
16912 LIC 8 6	20040 CE 8	20066 CDR 6 9	20097 LO 9	20129 CDR 12
16913 BE 8	20041 CE 13	20067 LO 7	20098 LO 12	20130 CDR 7
16914 BE 6	20042 CE 12	20068 LO 10	20099 LO 15	20131 CDR 7
16915 BE 6	20043 CE 10 8	20069 LO 11 8	20100 LO 12	20132 CDR 7
16916 WLNT 7	20044 LO 10	20070 CDR 7	20101 LO 13	20133 CE 9
16917 WLNT 6	20045 LO 8	20071 CE 6	20102 LO 19 17	20134 CE 10
16918 WLNT 6	20046 LO 13	20072 CB 7	20103 LO 20	20135 LO 13 10
20018 LO 23 21 19 19	20047 LO 12	20074 LO 15	20105 CE 15	20136 HB 6
20017 CE 18	20048 LO 13	20075 LO 18	20106 LO 10	20137 CDR 6
20018 LO 20	20049 HB 8	20076 LO 15	20107 LO 12	20138 CE 8
20021 LO 19	20050 CE 10	20077 LO 17	20108 LO 7	20139 CDR 8
20023 PEC 17	20051 LO 11	20078 LO 17	20109 LO 12	20140 HB 9
20024 LO 18	20052 LO 12	20079 LO 19	20114 CE 9	20141 PEC 11
20025 LO 13	20053 LO 10	20080 LO 18	20116 CDR 10	20142 PEC 10
20028 LO 8 5	20054 LO 17 16	20081 LO 11	20117 LO 9	20143 CDR 6
				20144 LO 10 9
				20145 LO 13
				20146 CDR 10
				20147 LO 6
				20148 LO 18 13
				20149 CE 10 5
				20150 CE 14
				20151 CB 10
				20152 CB 13
				20155 LIG 9 6 6
				20158 CB 8
				20159 CB 20
				20160 CE 10
				20161 CE 9 8
				20162 LO 20
				20163 CE 11
				20164 LO 22
				20165 LO 22
				20166 LO 21
				20167 LO 18
				20168 LO 24
				20169 LO 19
				20170 CE 17
				20171 LO 19 19
				20173 CE 14

BENCHMARK NOTE:
 B.M. #1 - SQUARE CUT ON B.O.C. NORTH SIDE OF ROLLINGWOOD DR.
 +/-105 FEET WEST OF WALLIS DR.
 ELEV.=628.77'
 B.M. #3 - SQUARE CUT ON B.O.C. ON THE WEST SIDE OF WALLIS DR.
 +/-190 FEET NORTH OF ROLLINGWOOD DR.
 ELEV.=631.07'

MANHOLE AND INLET NOTE:
 THIS SURVEY SHOWS FIELD MEASURED SIZES AND DEPTHS AS OBSERVED FROM GROUND LEVEL OPENINGS. EXACT MEASUREMENTS AND DEPTHS, PARTICULARLY IN CRITICAL AREAS, SHOULD BE VERIFIED WITH UTILITY RECORD MAPS AND/OR FIELD VERIFICATION PRIOR TO FINAL PLANNING OR CONSTRUCTION.

TREE LEGEND	
BE	BOX ELDER
CB	CHINA BERRY
CDR	CEDAR
CE	CEDAR ELM
HB	HACKBERRY
LIG	LIGUSTRUM
LO	LIVE OAK
PEC	PECAN
WLNT	WALNUT



LEGEND	
●	1/2" REBAR FOUND
▲	CALCULATED POINT
⊙	3/4" IRON PIPE FOUND
▲	NAIL FOUND
*	COTTON SPINDLE FOUND
⊙	BENCHMARK LOCATION
⊙	WATER METER
⊙	WATER VALVE
⊙	FIRE HYDRANT
⊙	SPRINKLER CONTROL VALVE
⊙	UTILITY POLE
—	GUY WIRE
—	OVERHEAD UTILITIES
⊙	LIGHT POLE
⊙	WASTEWATER CLEANOUT
⊙	WASTEWATER MANHOLE
⊙	STORMSEWER MANHOLE
⊙	HANDICAP PARKING SPACE
⊙	AC PAD
⊙	GAS UTILITY
⊙	ELECTRIC UTILITY
—	SIGN
—	EDGE OF PAVEMENT
—	WROUGHT IRON FENCE
—	CHAIN LINK FENCE
⊙	PUMP BOX
⊙	PUMP

FLOOD-PLAIN NOTE:
 The tract shown hereon lies within Zone "X" (areas determined to be outside 500-year flood-plain), as identified by the Federal Emergency Management Agency, Federal Insurance Administration, as shown on map no. 484530445, dated January 08, 2016, for Travis County, Texas and incorporated areas. If this site is not within an identified special flood hazard area, this flood statement does not imply that the property and/or the structures thereon will be free from flooding or flood damage. This flood statement shall not create liability on the part of the surveyor.

TITLE COMMITMENT NOTE:
 This Survey was prepared without the benefit of a Commitment for Title, and may be subject to additional easements or restrictions not shown hereon. No additional easement research was done for the purpose of this survey.

NOTE FROM PREVIOUS SURVEY (9/26/07):
 The Travis CAD map 01_0909 (01/04/2006) shows what appears to be additional R.O.W. for Rollingwood Drive and Wallis Drive. There was no monumented evidence in the field of a R.O.W. dedication along the north line of Rollingwood Drive. After researching Travis CAD and the Travis County Clerk records, we were not able to locate any documents reflecting additional street frontage conveyed to the City of Rollingwood. Since no title research was provided by the client, there was not enough data to accurately determine the position of the intersection of the north R.O.W. of Rollingwood Drive and the west R.O.W. of Wallis Drive, so the position is represented on the map by a calculated point for the purposes of this survey.

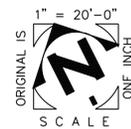
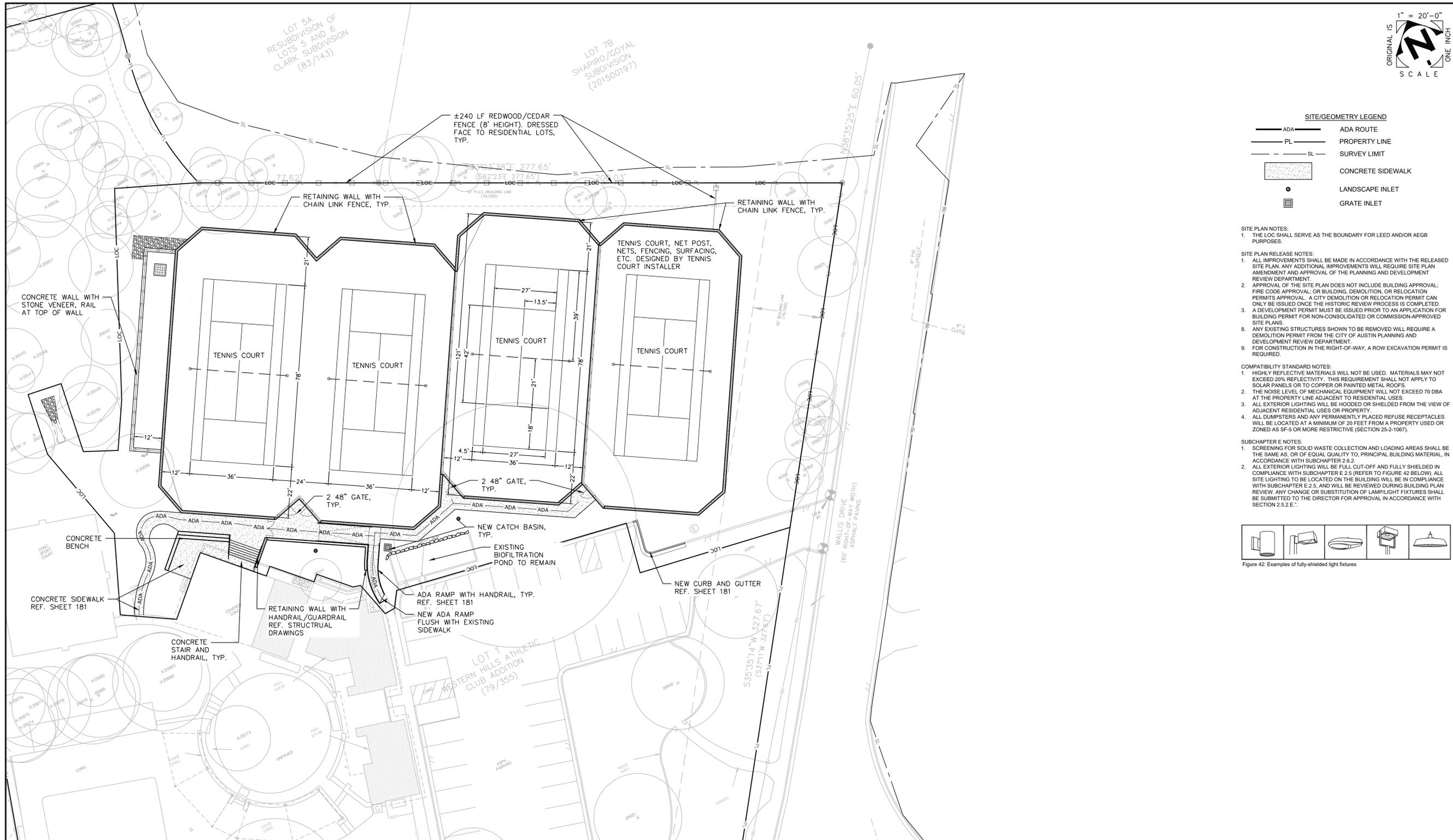
SURVEYOR'S CERTIFICATE:
 CERTIFIED TO: Julie Martinez
 Western Hills Athletic Club
 PROPERTY ADDRESS: Rollingwood Drive @ Wallis Drive
 DATE OF SURVEY: 09/26/07; Topographic and Tree Survey Updated 09/20/17, Updated 4/27/18
 BEARING BASIS: Grid azimuth for Texas Central Zone state plane coordinates, based on GPS solutions from The National Geodetic Survey (NGS) On-line Positioning User Service (OPUS).
 ATTACHMENTS: none
 I hereby certify that a survey of the property shown hereon was actually made upon the ground under my direction and supervision on the date shown, and that to the best of my professional knowledge and belief: there are no apparent encroachments, overlapping of improvements, discrepancies, deed line conflicts, visible utility lines or roads in place, except as shown hereon, and that this property abuts or adjoins a dedicated road right-of-way or access easement, unless noted hereon.

Robert C. Watts, Jr. Date
 Registered Professional Land Surveyor
 State of Texas No. 4995

CURVE TABLE						
NO.	DELTA	RADIUS	TAN	ARC	CHORD	BEARING (RECORD CHORD)
C1	4°35'35"	315.81'	12.67'	25.32'	25.31'	S10°15'58"W (S11°47'W 25.28')
C2	29°33'56"	122.57'	32.34'	63.25'	62.55'	S02°21'10"E (S00°43'E 62.57')

Professional Land Surveying, Inc.
 Surveying and Mapping
 3500 McCall Lane
 Austin, Texas 78744
 512-443-1724
 Firm No. 10124500

PROJECT NO.: 585-001
 DRAWING NO.: 585-001-BASE
 PLOT DATE: 05/10/18
 PLOT SCALE: 1"=30'
 DRAWN BY: RGH/MAW/EBD
 SHEET 01 OF 01



- SITE/GEOMETRY LEGEND**
- ADA — ADA ROUTE
 - PL — PROPERTY LINE
 - SL — SURVEY LIMIT
 - ▨ CONCRETE SIDEWALK
 - LANDSCAPE INLET
 - GRATE INLET

- SITE PLAN NOTES:**
- THE LOC SHALL SERVE AS THE BOUNDARY FOR LEED AND/OR AEGB PURPOSES.
- SITE PLAN RELEASE NOTES:**
- ALL IMPROVEMENTS SHALL BE MADE IN ACCORDANCE WITH THE RELEASED SITE PLAN. ANY ADDITIONAL IMPROVEMENTS WILL REQUIRE SITE PLAN AMENDMENT AND APPROVAL OF THE PLANNING AND DEVELOPMENT REVIEW DEPARTMENT.
 - APPROVAL OF THE SITE PLAN DOES NOT INCLUDE BUILDING APPROVAL, FIRE CODE APPROVAL, OR BUILDING, DEMOLITION, OR RELOCATION PERMITS APPROVAL. A CITY DEMOLITION OR RELOCATION PERMIT CAN ONLY BE ISSUED ONCE THE HISTORIC REVIEW PROCESS IS COMPLETED. A DEVELOPMENT PERMIT MUST BE ISSUED PRIOR TO AN APPLICATION FOR BUILDING PERMIT FOR NON-CONSOLIDATED OR COMMISSION-APPROVED SITE PLANS.
 - ANY EXISTING STRUCTURES SHOWN TO BE REMOVED WILL REQUIRE A DEMOLITION PERMIT FROM THE CITY OF AUSTIN PLANNING AND DEVELOPMENT REVIEW DEPARTMENT.
 - FOR CONSTRUCTION IN THE RIGHT-OF-WAY, A ROW EXCAVATION PERMIT IS REQUIRED.
- COMPATIBILITY STANDARD NOTES:**
- HIGHLY REFLECTIVE MATERIALS WILL NOT BE USED. MATERIALS MAY NOT EXCEED 20% REFLECTIVITY. THIS REQUIREMENT SHALL NOT APPLY TO SOLAR PANELS OR TO COPPER OR PAINTED METAL ROOFS.
 - THE NOISE LEVEL OF MECHANICAL EQUIPMENT WILL NOT EXCEED 70 DBA AT THE PROPERTY LINE ADJACENT TO RESIDENTIAL USES.
 - ALL EXTERIOR LIGHTING WILL BE HOODED OR SHIELDED FROM THE VIEW OF ADJACENT RESIDENTIAL USES OR PROPERTY.
 - ALL DUMPSTERS AND ANY PERMANENTLY PLACED REFUSE RECEPTACLES WILL BE LOCATED AT A MINIMUM OF 20 FEET FROM A PROPERTY USED OR ZONED AS SF-6 OR MORE RESTRICTIVE (SECTION 25-2-1067).
- SUBCHAPTER E NOTES:**
- SCREENING FOR SOLID WASTE COLLECTION AND LOADING AREAS SHALL BE THE SAME AS, OR OF EQUAL QUALITY TO, PRINCIPAL BUILDING MATERIAL, IN ACCORDANCE WITH SUBCHAPTER 6.6.2.
 - ALL EXTERIOR LIGHTING WILL BE FULL CUT-OFF AND FULLY SHIELDED IN COMPLIANCE WITH SUBCHAPTER E.2.5 (REFER TO FIGURE 42 BELOW). ALL SITE LIGHTING TO BE LOCATED ON THE BUILDING WILL BE IN COMPLIANCE WITH SUBCHAPTER E.2.5, AND WILL BE REVIEWED DURING BUILDING PLAN REVIEW. ANY CHANGE OR SUBSTITUTION OF LAMPLIGHT FIXTURES SHALL BE SUBMITTED TO THE DIRECTOR FOR APPROVAL IN ACCORDANCE WITH SECTION 2.5.2.E.1.

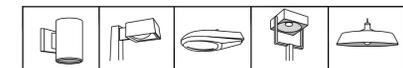
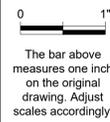


Figure 42: Examples of fully-shielded light fixtures



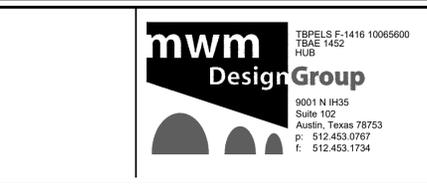
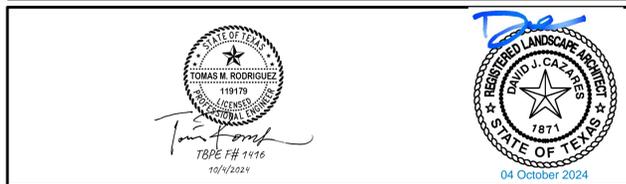
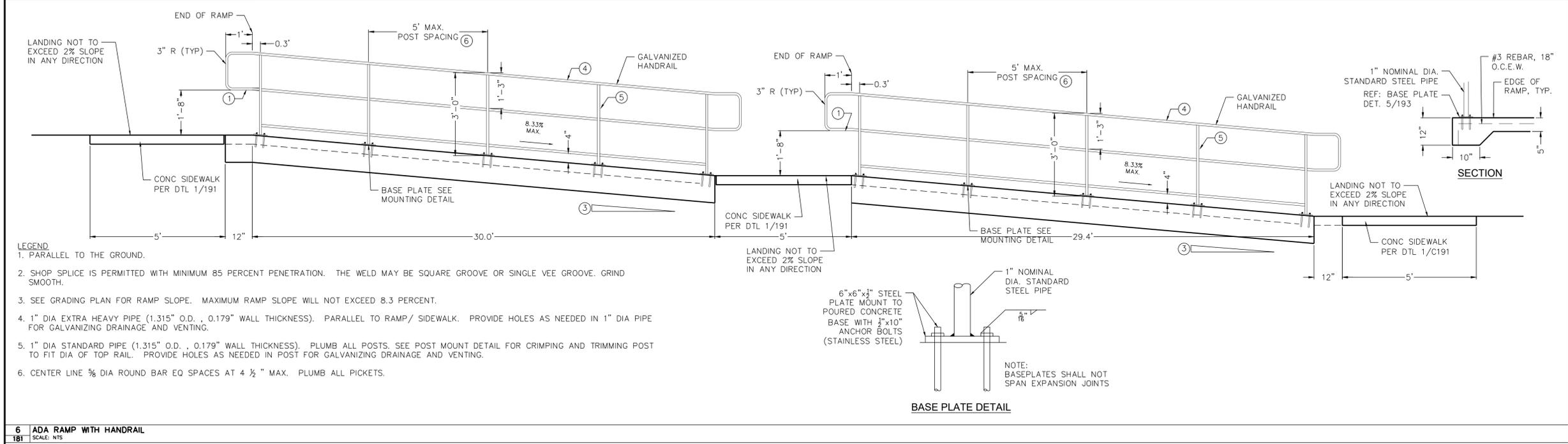
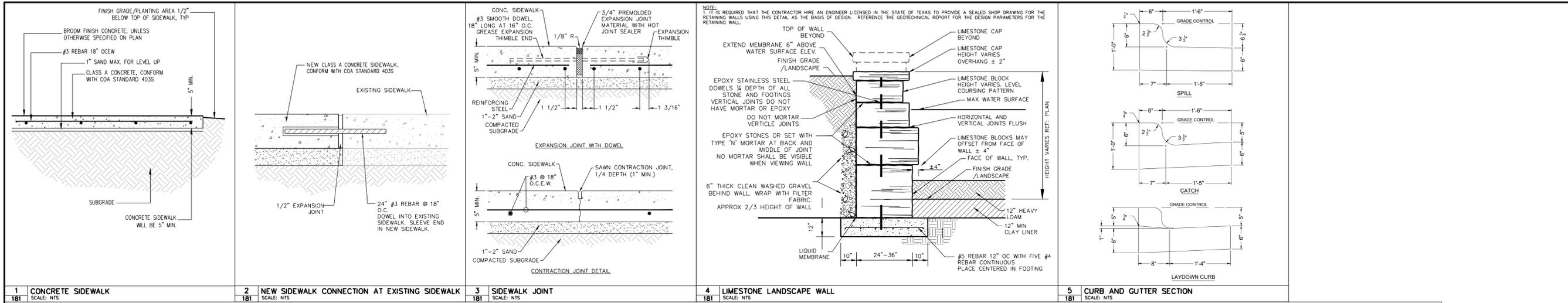
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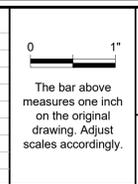
SITE PLAN

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/4/2024
JOB NO: 863-02
101
4 OF 30



NO.	DATE	DESCRIPTION	BY



SITE DETAILS

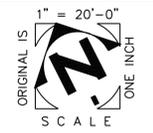
Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/4/2024
JOB NO: 863-02

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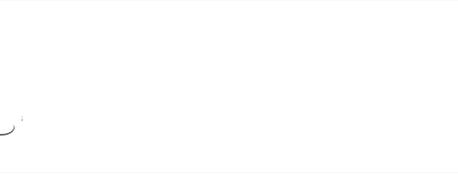
EROSION/SEDIMENTATION LEGEND

— LOC —	LIMIT OF CONSTRUCTION
— RB — RB — RB — RB —	REINFORCED ROCK BERM REF: COA DET. 639S-1
— IP — IP — IP — IP — IP — IP —	INLET PROTECTION REF: COA DET. 628S-2
— T — T — T — T — T — T —	TREE PROTECTION FENCE REF: COA DET. 610S-1, 610S-2, 610S-4, 610S-5
— MS — MS —	MULCH SOCK REF: COA DET. 648S-1

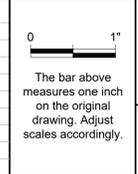
- NOTES:**
- CONTRACTOR TO ADJUST EROSION CONTROL AS REQUIRED FOR FIELD CONDITIONS TO MEET THE INTENT OF THE CONSTRUCTION DOCUMENTS AND SWPPP.
 - ALL SEDIMENT SPILLED, DROPPED, WASHED, OR TRACKED ONTO PUBLIC ROADWAY MUST BE REMOVED IMMEDIATELY BY THE CONTRACTOR.
 - THE STABILIZED CONSTRUCTION ENTRANCES SHALL BE MAINTAINED IN A CONDITION THAT WILL PREVENT TRACKING OR FLOWING OF SEDIMENT ONTO PUBLIC ROADWAY.
 - ENVIRONMENTAL INSPECTOR HAS THE AUTHORITY TO ADD AND/OR MODIFY EROSION/SEDIMENTATION CONTROLS ON SITE TO KEEP PROJECT IN COMPLIANCE WITH THE CITY RULES AND REGULATIONS.
 - CONTRACTOR SHALL UTILIZE DUST CONTROL MEASURES DURING SITE CONSTRUCTION SUCH AS IRRIGATION TRUCKS AND MULCHING OR AS DIRECTED BY THE ENVIRONMENTAL INSPECTOR.
 - 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.
 - PRIOR TO EXCAVATION WITHIN TREE DRIP LINES, OR THE REMOVAL OF 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 TWELVE (12) INCHES OF ORGANIC MULCH TO BE PRODUCED ON SITE, TO MINIMIZE SOIL COMPACTION.
 - PERFORM ALL GRADING WITHIN CRITICAL ROOT ZONE AREAS WITH SMALL EQUIPMENT TO MINIMIZE ROOT DAMAGE.
 - WATER ALL TREES MOST HEAVILY IMPACTED BY CONSTRUCTION ACTIVITIES DEEPLY AS NECESSARY DURING PERIOD 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.
 - THE STAGING AND SPOILS AREA SHALL ONLY BE ALLOWED DURING THE CONSTRUCTION PERIOD. NO SPOILS SHALL REMAIN STAGED AFTER COMPLETION OF THE PROJECT.
 - UNLESS OTHERWISE NOTED IN THE LANDSCAPE PLAN, ALL DISTURBED AREAS SHALL BE REVEGETATED WITH NATIVE GRASSES (REFER TO NOTE SHEET FOR SPECS). ALL DISTURBED AREAS WITH SLOPES 5:1 OR STEEPER, WHICH ARE NOT ARMORED OTHERWISE, SHALL HAVE A SOIL RETENTION BLANKET (CURLIX II OR APPROVED EQUAL) INSTALLED TO ASSIST WITH REVEGETATION.
 - CONCRETE REMOVAL SHALL OCCUR AT NEAREST JOINT.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR MAINTAINING AND INSPECTING, ON A REGULAR BASIS, ALL EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES INCLUDING THE SILT FENCES, CONSTRUCTION ENTRANCES, ROCK FILTER DAMS, ETC. DURING CONSTRUCTION/DEMOLITION AND INCLUDING THE REMOVAL AND PROPER DISPOSAL OF ANY ACCUMULATED SILT AND DEBRIS.
 - THE CONTRACTOR SHALL NOT BEGIN ANY WORK UNTIL TREE PROTECTION AND THE EROSION AND SEDIMENT CONTROL BEST MANAGEMENT PRACTICES SUCH AS SILT FENCE, CONSTRUCTION ENTRANCES, ROCK FILTER DAMS, ETC. HAVE BEEN INSTALLED.
 - INCREASED STORMWATER PEAK FLOWS DURING CONSTRUCTION MUST BE MITIGATED WITH TEMPORARY BEST MANAGEMENT PRACTICES TO PREVENT HARM TO NEIGHBORING PROPERTIES.
 - THE PERMANENT STORMWATER DETENTION POND OR AN EQUIVALENT DETENTION POND, AS APPROVED BY THE CITY ENGINEER, SHALL BE PROVIDED FOR THE CONSTRUCTION PHASE AND ROUGH CUT PRIOR TO ROUGH GRADING OF SITE.
 - NO ROUGH CUTTING OR SITE CLEARING SHALL BE PERMITTED WITHOUT AN APPROVED TEMPORARY AND PERMANENT SEDIMENT AND SOIL EROSION CONTROL PLAN (BMPs) AS PART OF THE BUILDING PERMIT PROCESS. NO PERMANENT CERTIFICATE OF OCCUPANCY SHALL BE ISSUED BEFORE ALL APPROVED BMPs HAVE BEEN INSTALLED AND ESTABLISHED AS NECESSARY TO EFFECTIVELY CONTROL SEDIMENT AND SOIL EROSION.
 - NO ROUGH CUTTING OR SITE CLEARING SHALL BE PERMITTED UNTIL THE CONSTRUCTION OF TEMPORARY EROSION AND SEDIMENTATION CONTROLS AND TREE PROTECTION ARE IN PLACE.
 - ALL CONSTRUCTION SHALL REQUIRE THE CONTRACTOR TO TAKE SPECIAL CARE WHEN GRADING IN THE VICINITY OF CRITICAL ROOT ZONES, INCLUDING ROOT ZONES FOR OFF-SITE TREES WITH ROOT ZONES THAT OVERLAP PROPERTY BOUNDARIES. ANY PERMITTED CONSTRUCTION REQUIRING TREE REMOVAL THAT WILL NEGATIVELY ALTER DRAINAGE FLOWS AS DETERMINED BY THE CITY ENGINEER SHALL REQUIRE APPROVAL BY THE CITY ENGINEER OR SPECIFIC MITIGATION FOR THE AREA AFFECTED.
 - REFER TO GENERAL NOTES SHEET FOR SEQUENCE OF CONSTRUCTION.

- KEY NOTES:**
- ADD PLANKING TO TREE TRUNKS PER COA 610S-1, 610S-4.
 - 18" MULCH SOCK PER COA 648S-1.

Item	Qty	Unit
Mulch Sock	506	LF
Rock Berm	47	LF
Construction Entrance	1	EA
Tree Protection	785	LF
Concrete Cleanout	1	EA



NO.	DATE	DESCRIPTION	BY



EROSION-SEDIMENTATION CONTROL & TREE PROTECTION PLAN

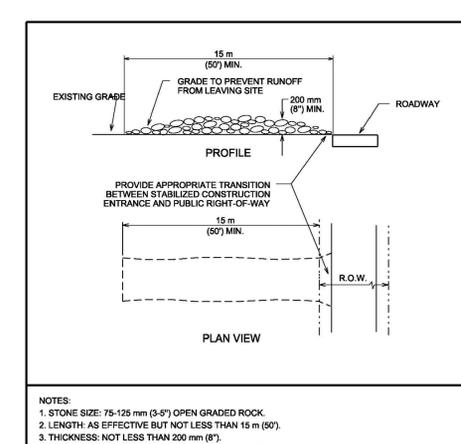
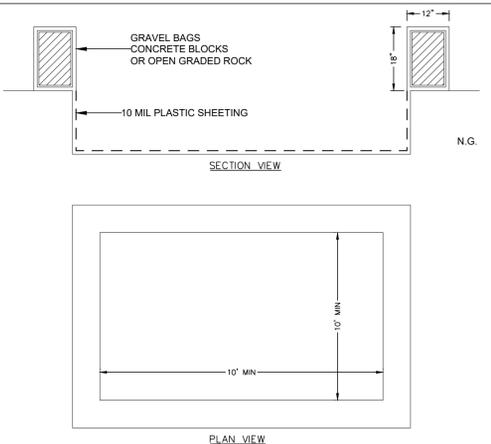
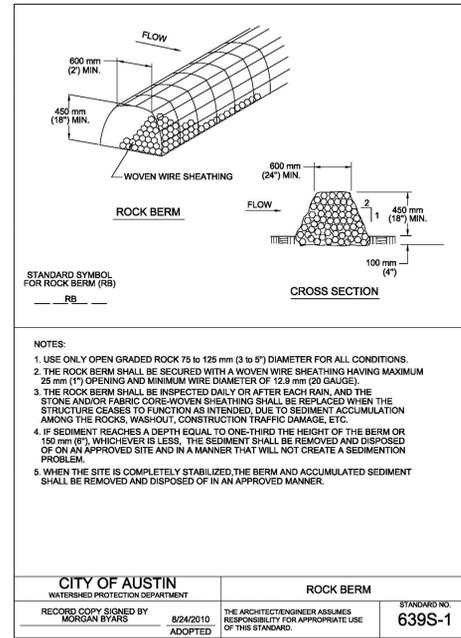
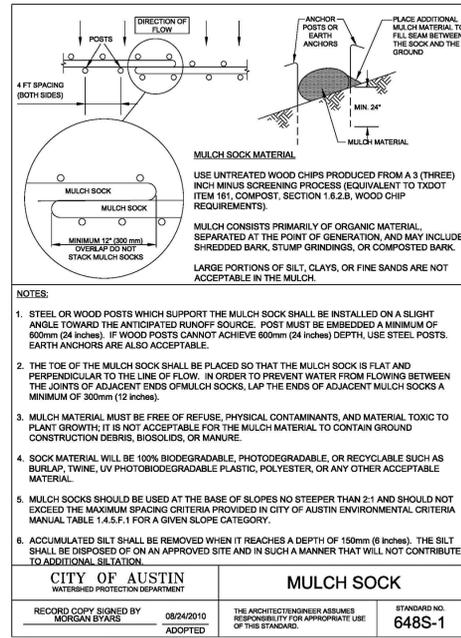
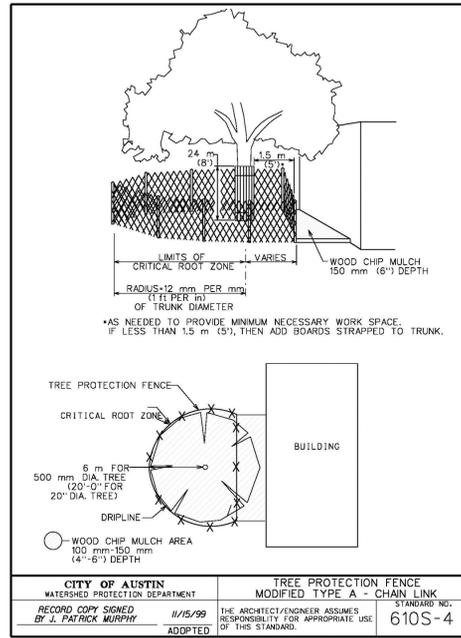
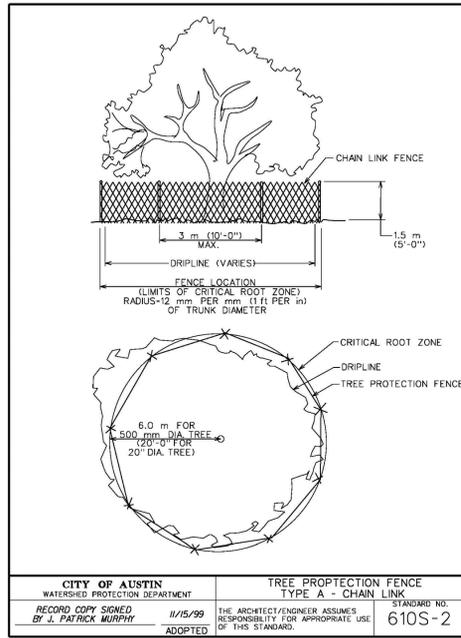
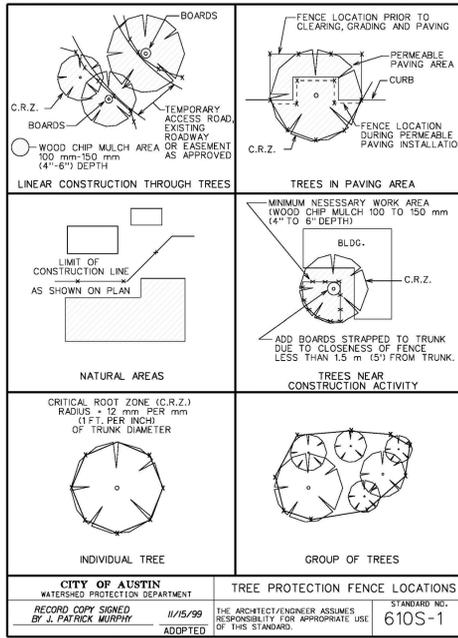
Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/11/2024
JOB NO: 863-02

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7 OF 30

File: Y:\863-02-WHAC_Revision_1\CAD_Sheets\231 E-S Control & TP.dwg 22x34



1. THE EXCAVATION FOR THE CONCRETE TRUCK WASHOUT SHALL BE A MINIMUM OF 10 FEET WIDE AND OF SUFFICIENT LENGTH AND DEPTH TO ACCOMMODATE 7 GALLONS OF WASHOUT WATER AND CONCRETE PER TRUCK PER DAY AND/OR 50 GALLONS OF WASHOUT WATER AND CONCRETE PER PUMP TRUCK PER DAY.

2. IN THE EVENT THAT THE CONCRETE TRUCK WASHOUT IS CONSTRUCTED ABOVE GROUND, IT SHALL BE 10 FEET WIDE AND 10 FEET LONG WITH THE SAME REQUIREMENTS FOR CONTAINMENT AS DESCRIBED IN ITEM 1.

3. THE CONTAINMENT AREA SHALL BE LINED WITH 10 MIL PLASTIC SHEETING WITHOUT HOLES OR TEARS, WHERE THERE ARE SEAMS, THESE SHALL BE SECURED ACCORDING TO MANUFACTURERS DIRECTIONS.

4. THE BERM CONSISTING OF GRAVEL BAGS, CONCRETE BLOCKS OR OPEN GRADED ROCK SHALL BE NO LESS THAN 18 INCHES HIGH AND NO LESS THAN 12 INCHES WIDE.

5. THE PLASTIC SHEETING SHALL BE OF SUFFICIENT SIZE SO THAT IT WILL OVERLAP THE TOP OF THE CONTAINMENT AREA AND BE WRAPPED AROUND THE GRAVEL BAGS, CONCRETE BLOCKS OR OPEN GRADED ROCK AT LEAST 2 TIMES.

6. THE GRAVEL BAGS OR CONCRETE BLOCKS SHALL BE PLACED ABUTTING EACH OTHER TO FORM A CONTINUOUS BERM AROUND THE OUTER PERIMETER OF THE CONTAINMENT AREA.

7. THE WASHOUT MATERIAL IN THE CONTAINMENT AREA SHALL NOT EXCEED 50% OF CAPACITY AT ANY ONE TIME.

8. SOLIDS SHALL BE REMOVED FROM CONTAINMENT AREA AND DISPOSED OF PROPERLY, ANY DAMAGE TO THE PLASTIC SHEETING SHALL BE REPAIRED OR SHEETING REPLACED BEFORE THE NEXT USE.

NOTES:

1. STONE SIZE: 75-125 mm (3-5") OPEN GRADED ROCK.

2. LENGTH AS EFFECTIVE BUT NOT LESS THAN 15 m (50').

3. THICKNESS: NOT LESS THAN 200 mm (8").

4. WIDTH NOT LESS THAN FULL WIDTH OF ALL POINTS OF INGRESS/EGRESS.

5. 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.

6. 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.

7. DRAINAGE: ENTRANCE MUST BE PROPERLY GRADED OR INCORPORATE A DRAINAGE SWALE TO PREVENT RUNOFF FROM LEAVING THE CONSTRUCTION SITE.

1
281

10' x 10' CONCRETE WASHOUT
SCALE: NTS

CITY OF AUSTIN
WATERSHED PROTECTION DEPARTMENT

STABILIZED CONSTRUCTION ENTRANCE

RECORD COPY SIGNED BY J. PATRICK MURPHY 5/23/00 ADOPTED

THE ARCHITECT/ENGINEER ASSUMES RESPONSIBILITY FOR APPROPRIATE USE OF THIS STANDARD.

STANDARD NO. 641S-1

NO.	DATE	DESCRIPTION	BY

0 1"

The bar above measures one inch on the original drawing. Adjust scales accordingly.

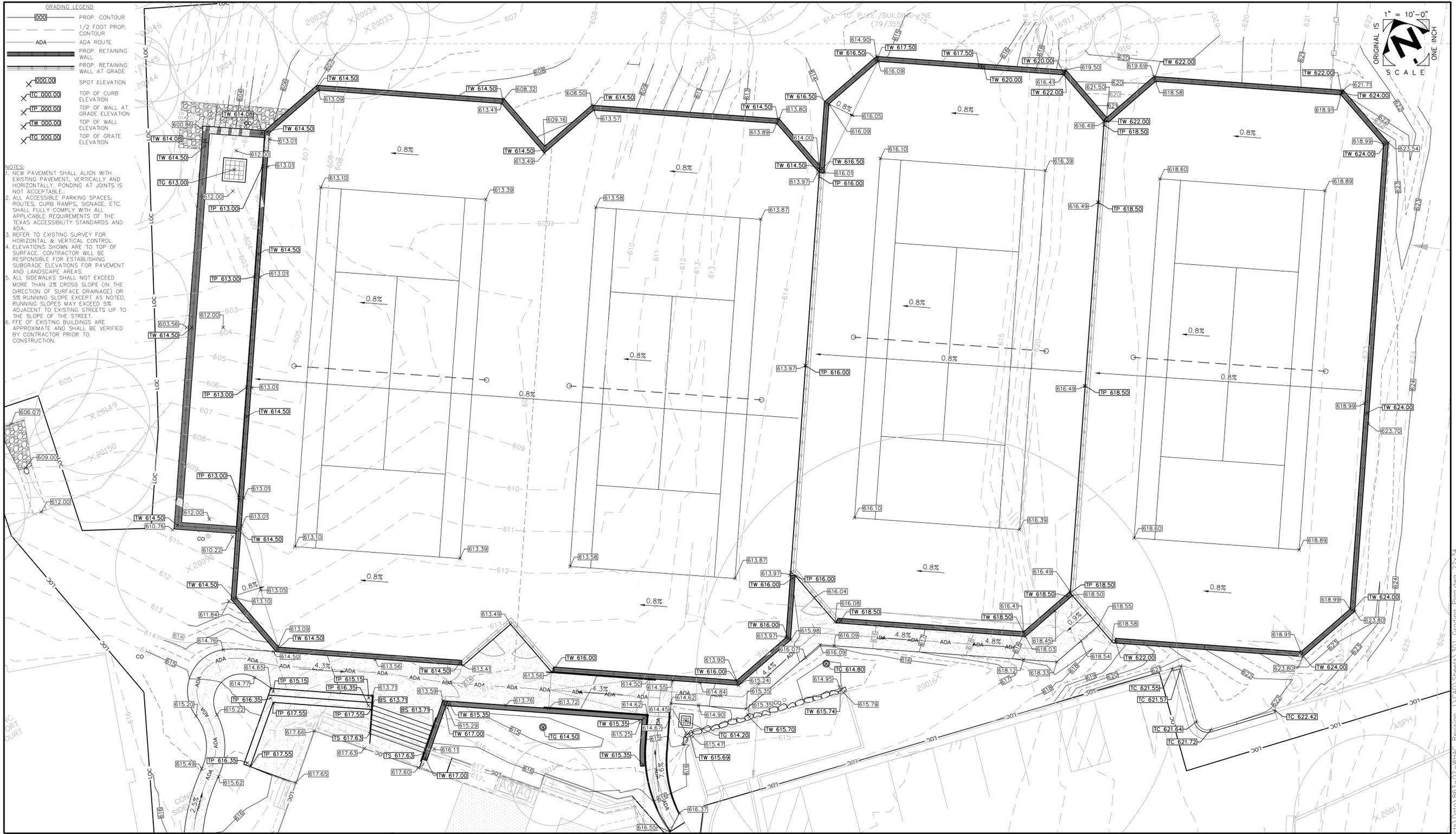
EROSION-SEDIMENTATION CONTROL & TREE PROTECTION DETAILS

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/4/2024
JOB NO: 863-02

281

8 OF 30



- GRADING LEGEND**
- 600 — PROP. CONTOUR
 - 1/2 FOOT PROP. CONTOUR
 - ADA — ADA ROUTE
 - PROP. RETAINING WALL
 - PROP. RETAINING WALL AT GRADE
 - 600.00 — SPOT ELEVATION
 - × TC 000.00 — TOP OF CURB ELEVATION
 - × TP 000.00 — TOP OF WALL AT GRADE ELEVATION
 - × TW 000.00 — TOP OF WALL ELEVATION
 - × TG 000.00 — TOP OF GRADE ELEVATION

- NOTES:**
1. NEW PAVEMENT SHALL ALIGN WITH EXISTING PAVEMENT, VERTICALLY AND HORIZONTALLY. PONDING AT JOINTS IS NOT ACCEPTABLE.
 2. ALL ACCESSIBLE PARKING SPACES, ROUTES, CURB RAMPS, SIGNAGE, ETC. SHALL FULLY COMPLY WITH ALL APPLICABLE REQUIREMENTS OF THE TEXAS ACCESSIBILITY STANDARDS AND ADA.
 3. REFER TO EXISTING SURVEY FOR HORIZONTAL & VERTICAL CONTROL.
 4. ELEVATIONS SHOWN ARE TO TOP OF SURFACE. CONTRACTOR WILL BE RESPONSIBLE FOR ESTABLISHING SUBGRADE ELEVATIONS FOR PAVEMENT AND LANDSCAPE AREAS.
 5. ALL SIDEWALKS SHALL NOT EXCEED MORE THAN 2% CROSS SLOPE (IN THE DIRECTION OF SURFACE DRAINAGE) OR 5% RUNNING SLOPE EXCEPT AS NOTED. RUNNING SLOPES MAY EXCEED 5% ADJACENT TO EXISTING STREETS UP TO THE SLOPE OF THE STREET.
 6. F.F.E. OF EXISTING BUILDINGS ARE APPROXIMATE AND SHALL BE VERIFIED BY CONTRACTOR PRIOR TO CONSTRUCTION.

1" = 10'-0"
 ORIGINAL IS
 SCALE
 ONE INCH



NO.	DATE	DESCRIPTION	BY

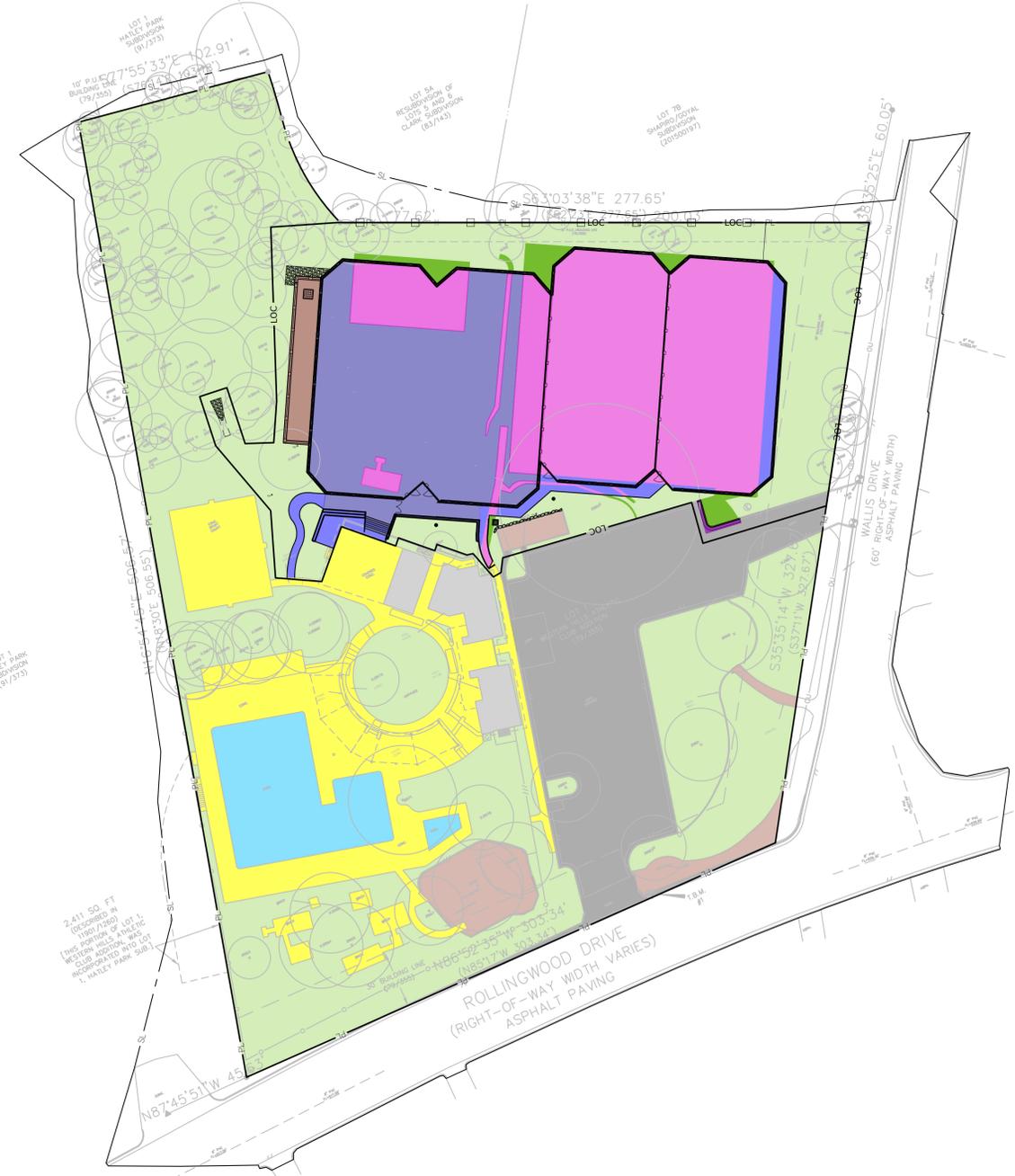
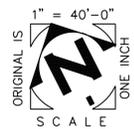
0 1"
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GRADING PLAN

Western Hills Athletic Club
 4801 Rollingwood Drive
 Rollingwood, TX 78746

PLOTTED: 10/4/2024
 JOB NO: 863-02
301
 9 OF 30

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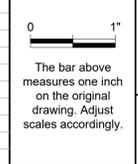


IMPERVIOUS COVER AREAS		
	COLOR	AREA SQ. FT.
EXISTING IMPERVIOUS COVER TO REMAIN: BUILDINGS	[Grey]	2166.36
EXISTING IMPERVIOUS COVER TO REMAIN: ASPHALT PAVEMENT	[Dark Grey]	15720.02
EXISTING IMPERVIOUS COVER TO REMAIN: CONCRETE PAVEMENT	[Yellow]	16041.48
MAINTENANCE OF EXISTING IMPERVIOUS COVER: CONCRETE PAVEMENT	[Pink]	13849.65
MAINTENANCE OF EXISTING IMPERVIOUS COVER: ASPHALT PAVEMENT	[Purple]	79.18
PROPOSED IMPERVIOUS COVER: CONCRETE PAVEMENT	[Light Blue]	2252.56
MAINTENANCE OF EXISTING IMPERVIOUS COVER: CONCRETE DETENTION POND	[Magenta]	4176.85
PROPOSED IMPERVIOUS COVER: CONCRETE DETENTION POND	[Dark Blue]	11305.45
TOTAL IMPERVIOUS COVER		65591.55

PERVIOUS COVER AREAS		
	COLOR	AREA SQ. FT.
EXISTING IMPERVIOUS TO BE REMOVED	[Light Green]	1030.49
EXISTING PERVIOUS COVER	[Light Green]	63438.65
EXISTING PERVIOUS COVER: SWIMMING POOL	[Light Blue]	5117.07
EXISTING PERVIOUS COVER: GRAVEL TRAIL/ PLANTER / BIORETENTION BASIN	[Brown]	3536.85
PROPOSED PERVIOUS COVER: BIORETENTION BASIN	[Dark Brown]	1181.25
TOTAL PERVIOUS COVER		74304.31



NO.	DATE	DESCRIPTION	BY



IMPERVIOUS COVER PLAN

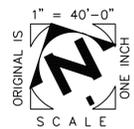
Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/4/2024
JOB NO: 863-02

340

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EXISTING CONDITION CATCHMENTS SUMMARY TABLE

	E-01	E-02	E-03	E-04	E-05	OS-01	OS-02	OS-03	OS-04	OS-04+E4	OS-02+E1	OS-01+E2
AREA (AC)	1.394	1.217	0.131	0.409	0.6	0.172	0.047	0.099	0.033	0.442	1.441	1.389
IMPERVIOUS COVER (%)	34.24	26.73	0	89.7	0	0	13.7	0	0	83.3	23.42	33.57
TC (MIN)	5.636	7.359	7.882	5	5	10.828	5	8.311	5.505	8.106	5.681	8.611
CN	86	85	80	96	80	80	82	80	80	95	86	84
2-YR PEAK FLOW (CFS)	5.46	4.52	0.40	2.10	0.19	0.49	0.16	0.30	0.11	2.07	5.64	4.79
10-YR PEAK FLOW (CFS)	10.29	8.71	0.84	3.53	0.41	1.02	0.33	0.63	0.22	3.52	10.63	9.41
25-YR PEAK FLOW (CFS)	13.99	11.85	1.18	4.61	0.57	1.43	0.46	0.88	0.31	4.6	14.4	12.91
100-YR PEAK FLOW (CFS)	20.94	17.77	1.81	6.65	0.89	2.20	0.71	1.36	0.47	6.66	21.56	19.49

TIME OF CONCENTRATION TABLE

DRAINAGE AREA	SHEET FLOW			SHALLOW CONCENTRATED FLOW			TOTAL TC (MIN)
	LENGTH	SLOPE	TC (MIN)	LENGTH	SLOPE	TC (MIN)	
E-01	100	10.00%	4.292	396.6	9.30%	1.343	5.636
E-02	100	6.30%	6.314	369.5	8.40%	1.045	7.359
E-03	100	7.50%	7.412	135	8.80%	0.470	7.882
E-04	100	7.70%	2.419	145.8	6.20%	0.605	5.00
E-05	78	3.00%	2.892	-	-	-	5.00
OS-01	100	3.00%	10.694	41.88	10.30%	0.135	10.828
OS-02	19.9	7.40%	1.254	-	-	-	5.00
OS-03	100	7.60%	7.373	209.16	5.30%	0.938	8.311
OS-04	100	16.30%	5.434	26.65	15.00%	0.071	5.505
OS-04+E-04	100	7.70%	7.334	250	11.20%	0.772	8.106
OS-02+E-01	100	10.00%	4.292	410	9.30%	1.389	5.681
OS-01+E-02	100	4.37%	7.309	374	8.80%	1.302	8.611

POINT OF ANALYSIS #1

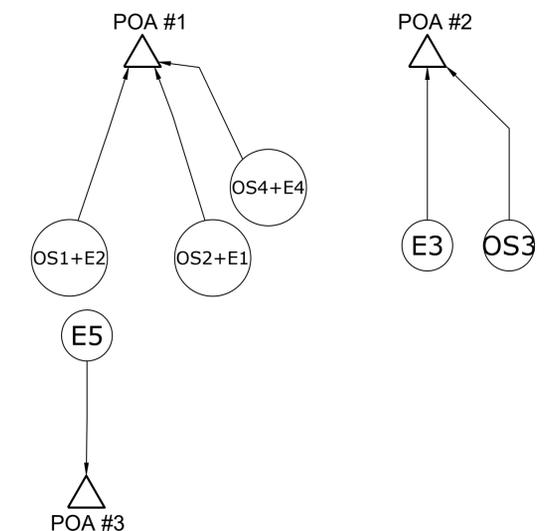
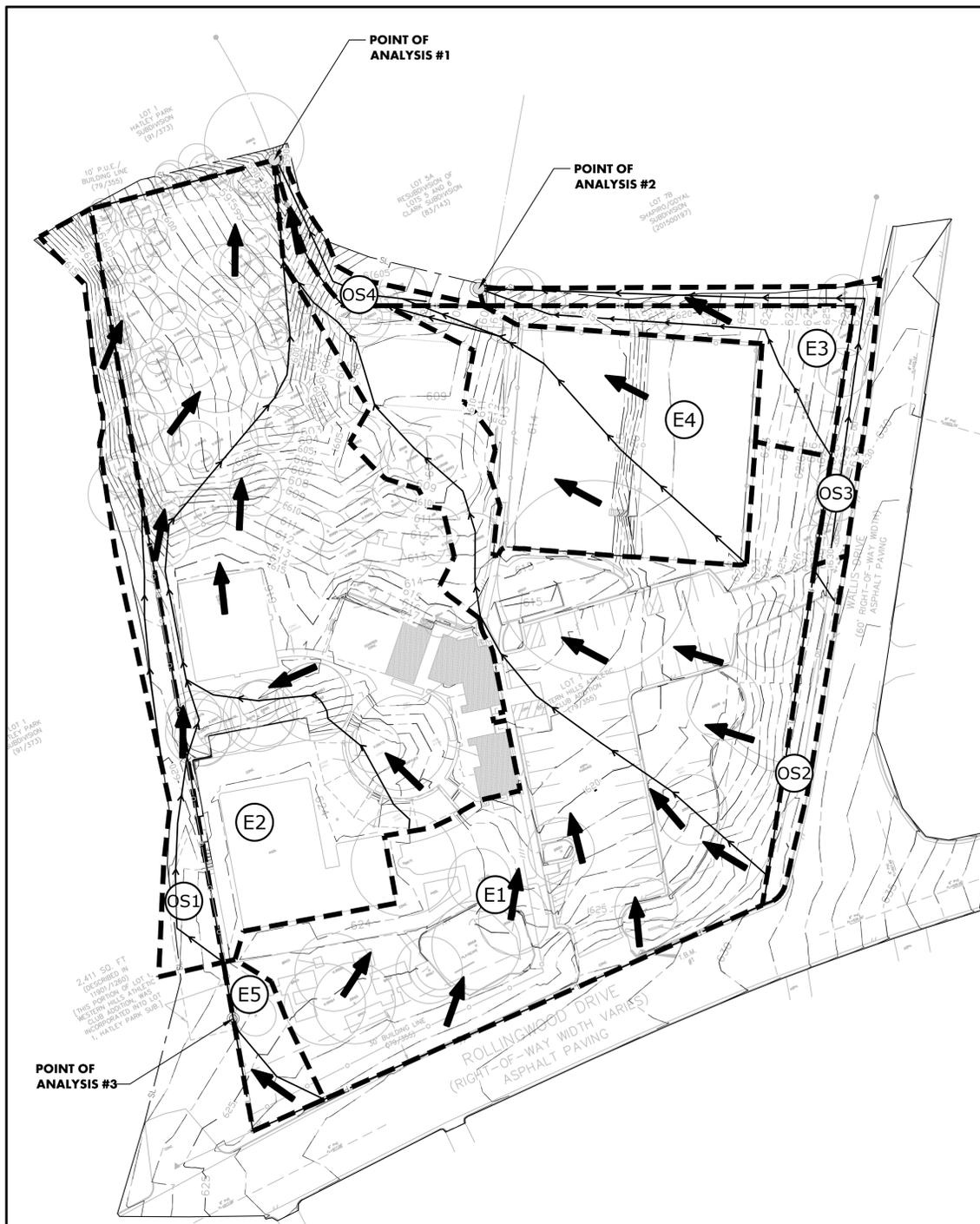
	PRE-DEVELOPMENT	POST-DEVELOPMENT	% REDUCTION
2-YR PEAK FLOW (CFS)	12.5	11.31	9.52
10-YR PEAK FLOW (CFS)	23.56	20.3	13.84
25-YR PEAK FLOW (CFS)	31.87	27.09	15
100-YR PEAK FLOW (CFS)	47.5	39.90	16

POINT OF ANALYSIS #2

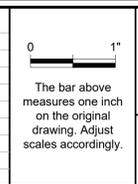
	PRE-DEVELOPMENT	POST-DEVELOPMENT
2-YR PEAK FLOW (CFS)	0.70	0.68
10-YR PEAK FLOW (CFS)	1.47	1.42
25-YR PEAK FLOW (CFS)	2.06	1.99
100-YR PEAK FLOW (CFS)	3.17	3.07

POINT OF ANALYSIS #3

	PRE-DEVELOPMENT	POST-DEVELOPMENT
2-YR PEAK FLOW (CFS)	0.19	0.19
10-YR PEAK FLOW (CFS)	0.41	0.41
25-YR PEAK FLOW (CFS)	0.57	0.57
100-YR PEAK FLOW (CFS)	0.89	0.89



NO.	DATE	DESCRIPTION	BY



EXISTING DRAINAGE AREA MAP

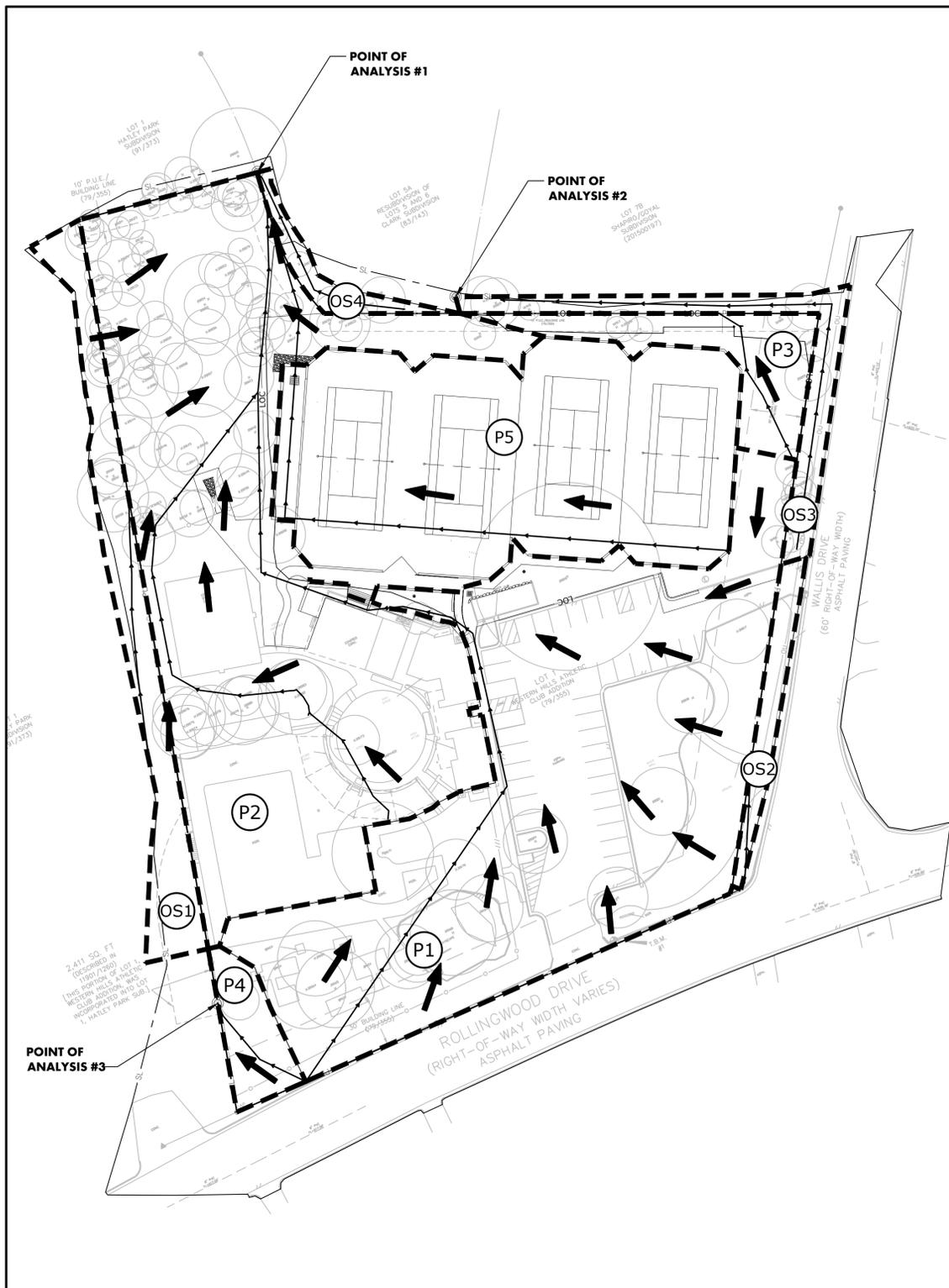
Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/4/2024
JOB NO: 863-02

501

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PROPOSED CONDITION CATCHMENTS SUMMARY TABLE

	P-01	P-02	P-03	P-04	P-05	OS-01	OS-02	OS-03	OS-04	OS-01+P2	OS-02+P1
AREA (AC)	1.135	1.199	0.122	0.600	0.720	0.172	0.047	0.099	0.033	1.371	1.182
IMPERVIOUS COVER (%)	42.00	27.70	0.00	0.00	97.00	0.00	13.70	0.00	0.00	24.22	40.87
TC (MIN)	6.059	7.321	7.283	5.000	3.700	10.828	5.000	8.311	5.505	8.285	8.332
CN	88.00	85.00	80.00	80.00	97.00	80.00	82.00	80.00	80.00	84	87
2-YR PEAK FLOW (CFS)	4.70	4.46	0.38	0.19	3.66	0.49	0.16	0.30	0.11	4.8	4.53
10-YR PEAK FLOW (CFS)	8.63	8.58	0.80	0.41	6.19	1.02	0.33	0.63	0.22	9.42	8.51
25-YR PEAK FLOW (CFS)	11.56	11.68	1.11	0.57	8.06	1.43	0.46	0.88	0.31	12.91	11.48
100-YR PEAK FLOW (CFS)	17.07	17.50	1.71	0.89	11.37	2.20	0.71	1.36	0.47	19.48	17.07

POINT OF ANALYSIS #1

	PRE-DEVELOPMENT	POST-DEVELOPMENT	% REDUCTION
2-YR PEAK FLOW (CFS)	12.5	11.31	9.52
10-YR PEAK FLOW (CFS)	23.56	20.3	13.84
25-YR PEAK FLOW (CFS)	31.87	27.09	15
100-YR PEAK FLOW (CFS)	47.5	39.90	16

POINT OF ANALYSIS #2

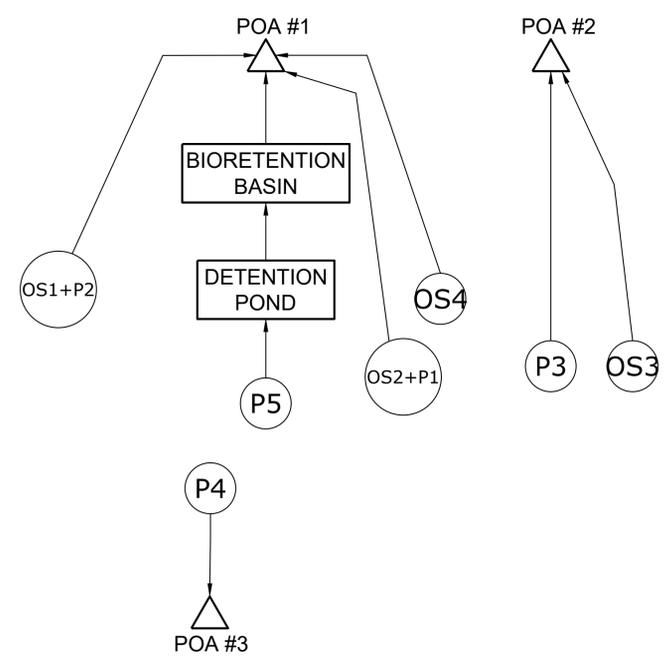
	PRE-DEVELOPMENT	POST-DEVELOPMENT
2-YR PEAK FLOW (CFS)	0.70	0.68
10-YR PEAK FLOW (CFS)	1.47	1.42
25-YR PEAK FLOW (CFS)	2.06	1.99
100-YR PEAK FLOW (CFS)	3.17	3.07

POINT OF ANALYSIS #3

	PRE-DEVELOPMENT	POST-DEVELOPMENT
2-YR PEAK FLOW (CFS)	0.19	0.19
10-YR PEAK FLOW (CFS)	0.41	0.41
25-YR PEAK FLOW (CFS)	0.57	0.57
100-YR PEAK FLOW (CFS)	0.89	0.89

TIME OF CONCENTRATION TABLE

DRAINAGE AREA	SHEET FLOW			SHALLOW CONCENTRATED FLOW			TOTAL TC
	LENGTH	SLOPE	TC	LENGTH	SLOPE	TC	
P-01	100	10.30%	4.483	538	7.60%	1.805	6.288
P-02	100	6.30%	6.031	366	8.60%	1.289	7.321
P-03	93.15	6.80%	7.283	-	-	-	7.283
P-04	78	3.00%	2.892	-	-	-	5.00
P-05	97	0.80%	1.969	350	12.00%	3.21	5.18
OS-01	100	3.00%	10.694	41.88	10.30%	0.135	10.828
OS-02	19.9	7.40%	1.254	-	-	-	5.00
OS-03	100	7.60%	7.373	209.16	5.30%	0.938	8.311
OS-04	100	16.30%	5.434	26.65	15.00%	0.071	5.505
OS-01+P-02	100	4.37%	6.982	370	8.60%	1.303	8.285
OS-01+P-01	100	10.30%	6.316	538	7.60%	2.016	8.332



DETENTION POND SUMMARY TABLE

STORM EVENT	PEAK FLOW (IN) (CFS)	PEAK FLOW (OUT) (CFS)	WATER SURFACE ELEVATION (FT)	MAX. POND STORAGE (CU-FT)
2-YR	3.66	2	613.6	1,031.00
10-YR	6.08	2.5	613.77	2,905.00
25-YR	7.91	2.92	613.91	4,448.00
100-YR	11.37	3.46	614.15	7,559.00

DETENTION COMPOSITE OUTLET STRUCTURE POND

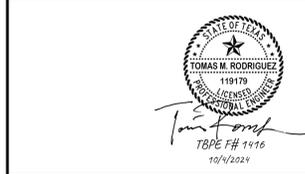
OPENING TYPE	AMOUNT	DIAMETER (FT)	ELEV (FT)
AREA	4	0.5	613

RAIN GARDEN SUMMARY TABLE

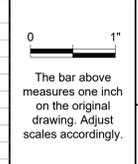
STORM EVENT	PEAK FLOW (IN) (CFS)	PEAK FLOW (OUT) (CFS)	WATER SURFACE ELEVATION (FT)	MAX. POND STORAGE (CU-FT)
2-YR	2	1.99	613.05	1,055.00
10-YR	2.5	2.49	613.06	1,067.00
25-YR	2.92	2.89	613.07	1,077.00
100-YR	3.46	3.45	613.08	1,090.00

COMPOSITE OUTLET STRUCTURE RAIN GARDEN

OPENING TYPE	AMOUNT	DIMENSION (FT)	ELEV (FT)
RECTANGULAR GRATE	1	5 X 5	613



NO.	DATE	DESCRIPTION	BY

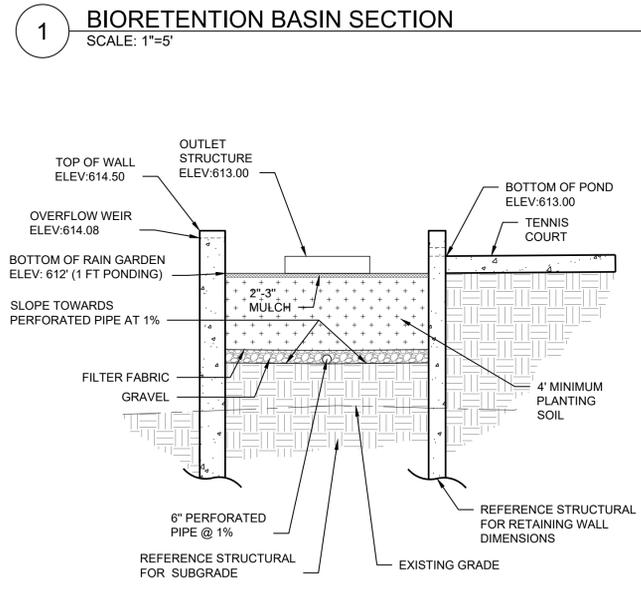
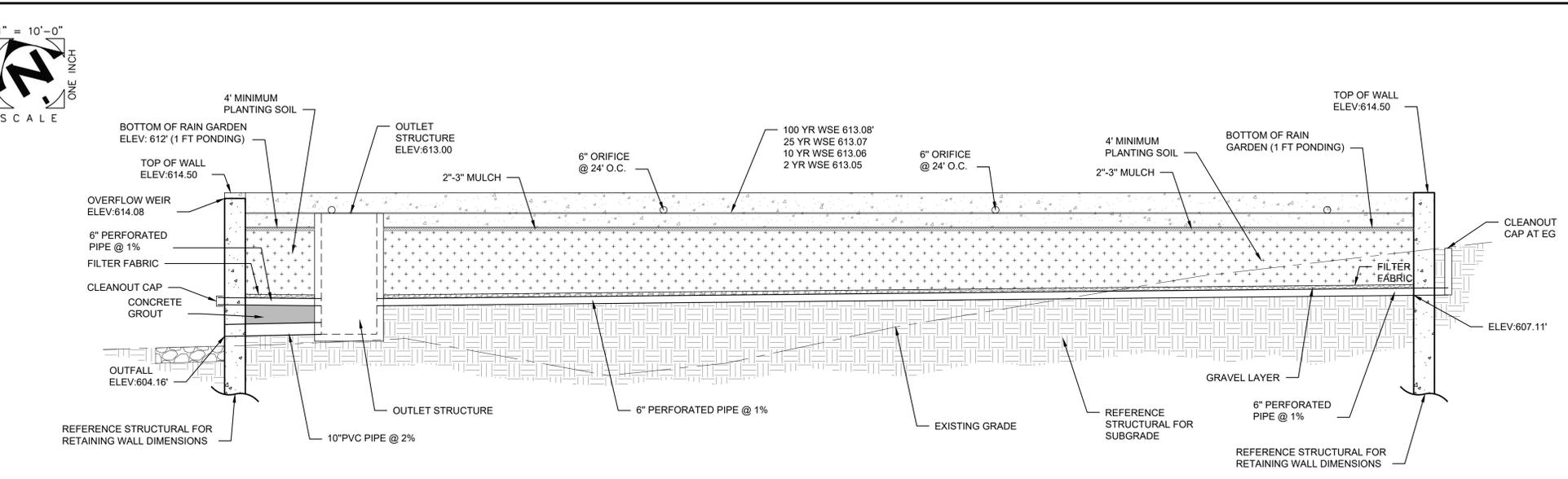
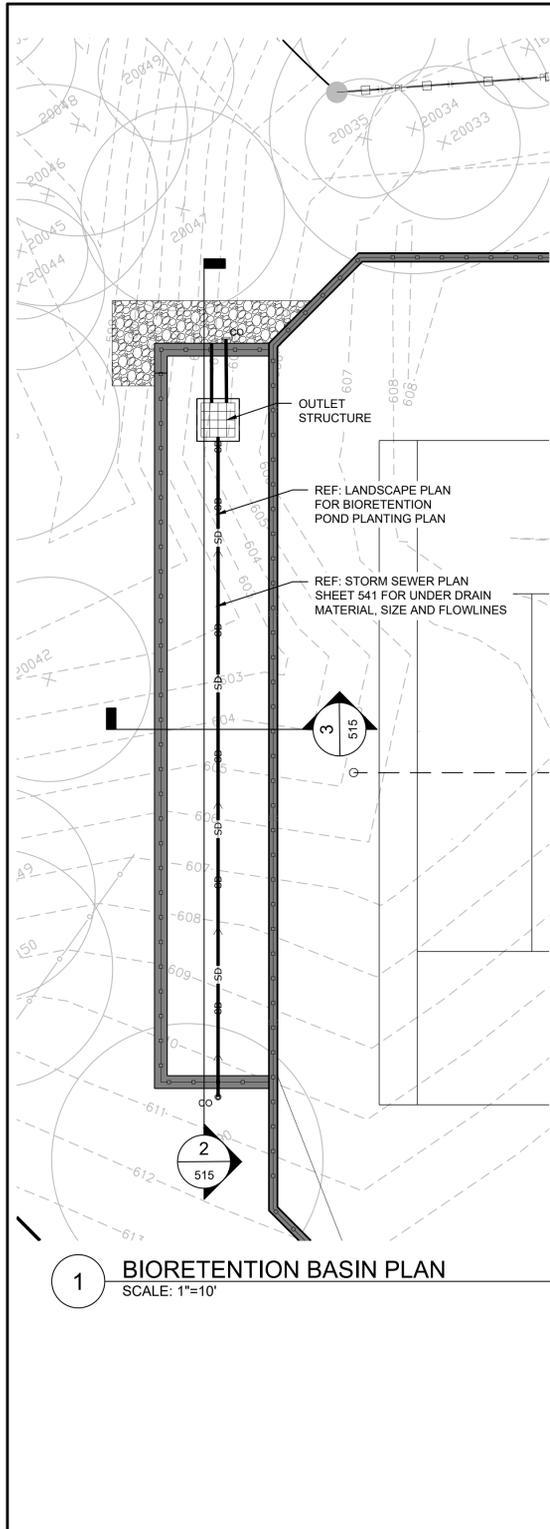


PROPOSED DRAINAGE AREA MAP

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/4/2024
JOB NO: 863-02
503
12 OF 30

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Texas Commission on Environmental Quality
TSS Removal Calculations 04-20-2009

Additional information is provided for cells with a red triangle in the upper right corner. Text shown in blue indicate location of instructions in the Technical Guidance Manual - RG. Characters shown in red are data entry fields. Characters shown in black (Bold) are calculated fields. Changes to these fields will

1. The Required Load Reduction for the total project: Calculations from RG-348

Page 3-29 Equation 3.3: $L_M = 27.2(A_{NI} \times P)$

where:
 L_M TOTAL PROJECT = Required TSS removal result
 A_{NI} = Net increase in impervious area
 P = Average annual precipitation

Site Data: Determine Required Load Removal Based on the Entire Project

County =	Travis
Total project area included in plan *	1.12 acres
Predevelopment impervious area within the limits of the plan *	0.36 acres
Total post-development impervious area within the limits of the plan *	0.72 acres
Total post-development impervious cover fraction *	0.65
P =	32 inches

L_M TOTAL PROJECT = 313 lbs.

* The values entered in these fields should be for the total project area.

Number of drainage basins / outfalls areas leaving the plan area = 1

2. Drainage Basin Parameters (This information should be provided for each basin):

Drainage Basin/Outfall Area No. =	1
Total drainage basin/outfall area =	0.72 acres
Predevelopment impervious area within drainage basin/outfall area =	0.36 acres
Post-development impervious area within drainage basin/outfall area =	0.72 acres
Post-development impervious fraction within drainage basin/outfall area =	1.00
L_M THIS BASIN =	313 lbs.

3. Indicate the proposed BMP Code for this basin.

Proposed BMP = Bioretention
Removal efficiency = 89 percent

4. Calculate Maximum TSS Load Removed (L_R) for this Drainage Basin by the selected BMP Type.

RG-348 Page 3-33 Equation 3.7: $L_R = (BMP \text{ efficiency}) \times P \times (A_i \times A_c)$

where:

A_c = Total On-Site drainage area
 A_i = Impervious area proposed
 A_p = Pervious area remaining in the plan
 L_R = TSS Load removed from this

A_c =	0.72	acres
A_i =	0.72	acres
A_p =	0.00	acres
L_R =	709	lbs

5. Calculate Fraction of Annual Runoff to Treat the drainage basin / outfall area

Desired L_M THIS BASIN = 313 lbs.
F = 0.44

6. Calculate Capture Volume required by the BMP Type for this drainage basin / outfall area.

Rainfall Depth =	0.34	inches
Post Development Runoff Coefficient =	0.82	
On-site Water Quality Volume =	734	cubic feet

Calculations from RG-348

Off-site area draining to BMP =	0.00	acres
Off-site Impervious cover draining to BMP =	0.00	acres
Impervious fraction of off-site area =	0	
Off-site Runoff Coefficient =	0.00	
Off-site Water Quality Volume =	0	cubic feet

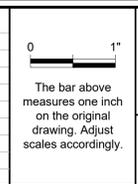
Storage for Sediment =	147	cubic feet
Total Capture Volume (required water quality volume(s) x 1.20) =	881	cubic feet

10. Bioretention System Designed as Required in RG

Required Water Quality Volume for Bioretention Basin = 881 cubic feet



NO.	DATE	DESCRIPTION	BY

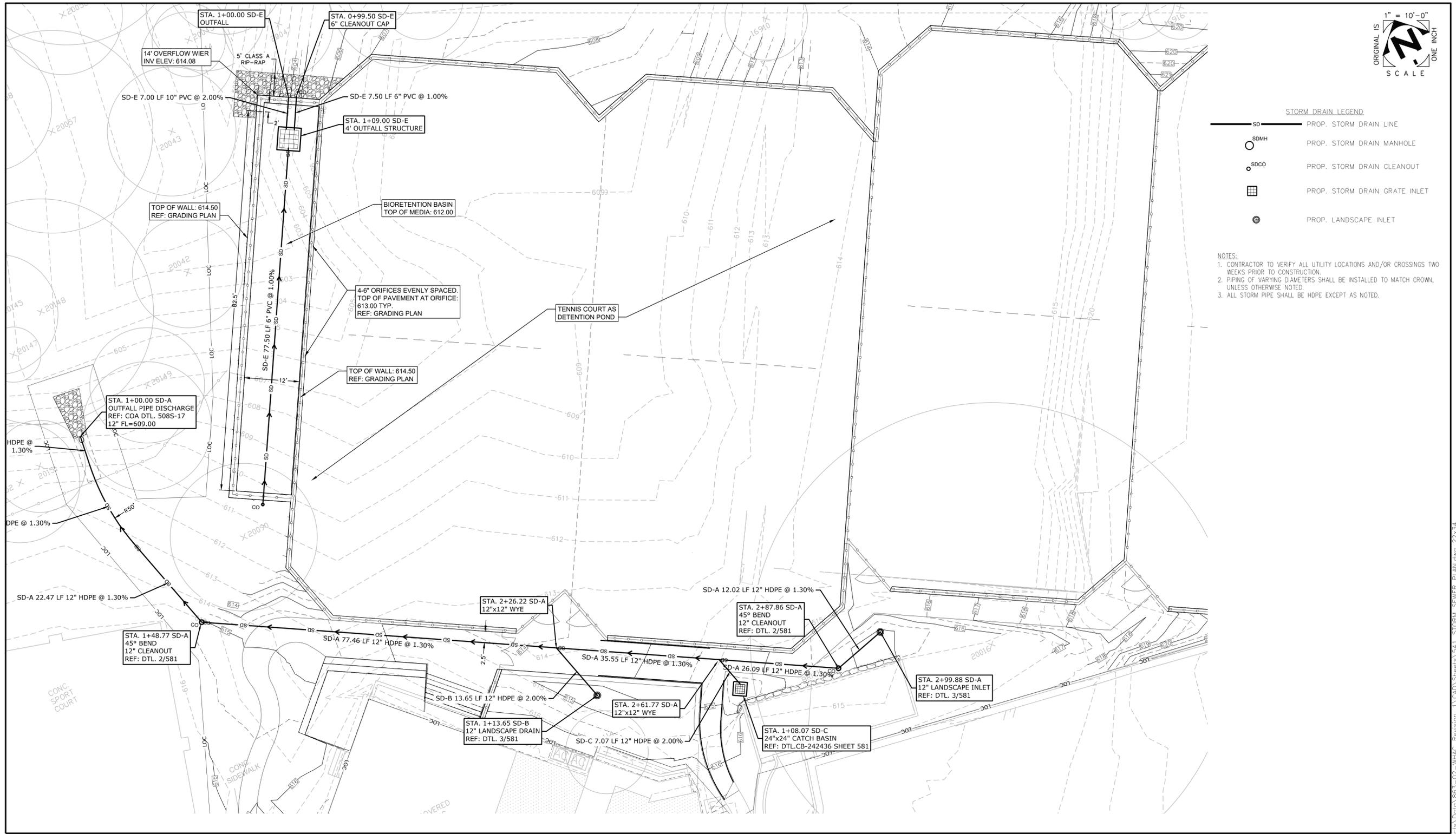


WATER QUALITY PLAN, SECTIONS, AND CALCULATIONS

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/4/2024
JOB NO: 863-02
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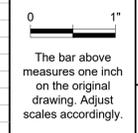
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1" = 10'-0"
 ORIGINAL IS
 SCALE
 ONE INCH



NO.	DATE	DESCRIPTION	BY



STORM SEWER PLAN

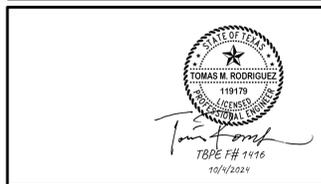
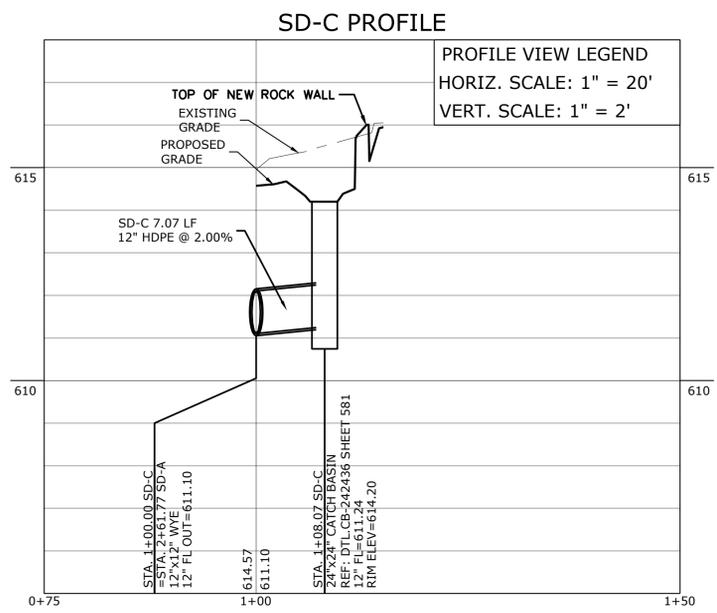
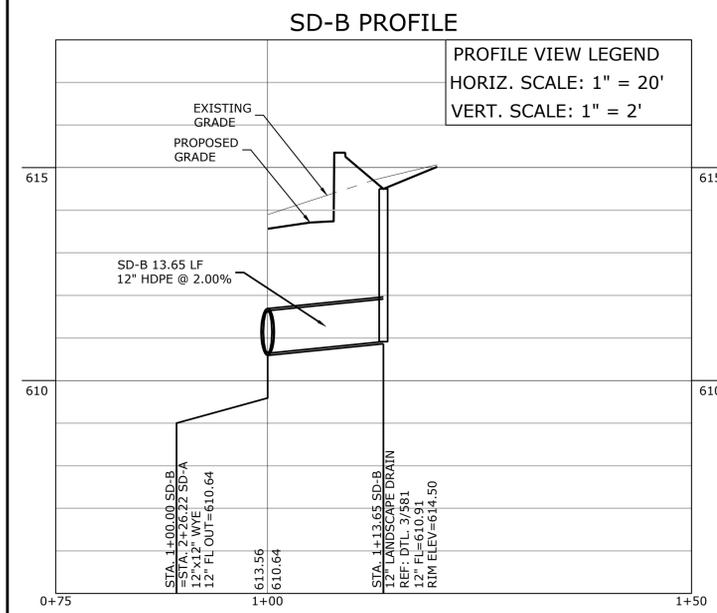
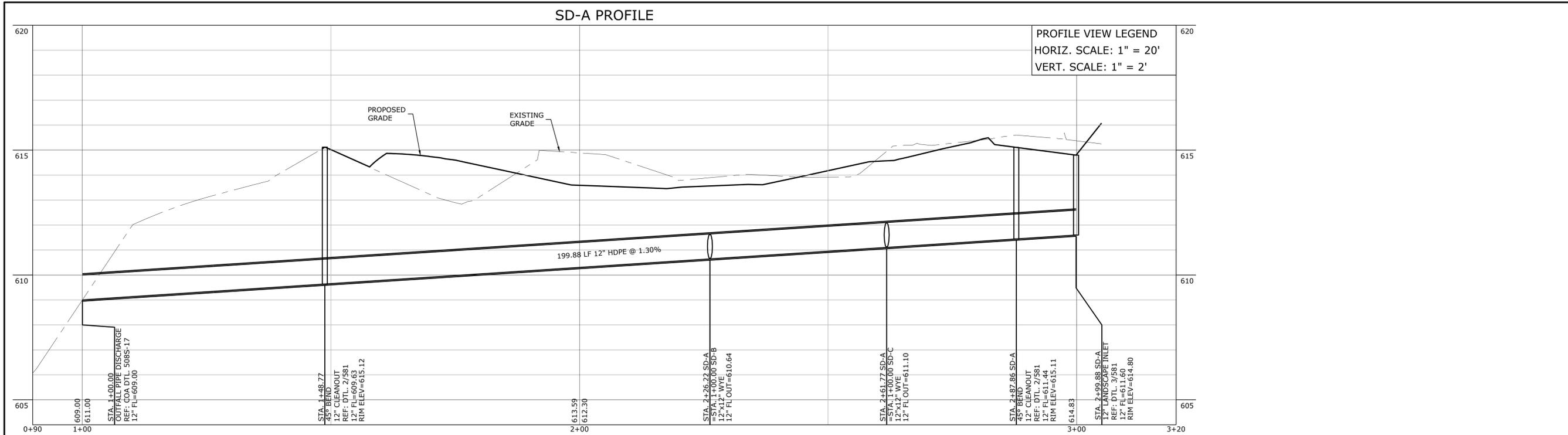
Western Hills Athletic Club
 4801 Rollingwood Drive
 Rollingwood, TX 78746

PLOTTED: 10/4/2024
 JOB NO: 863-02

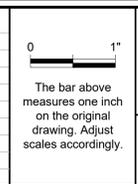
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NO.	DATE	DESCRIPTION	BY



STORM SEWER PROFILES

Western Hills Athletic Club
4801 Rollingwood Drive
Rollingwood, TX 78746

PLOTTED: 10/4/2024
JOB NO: 863-02

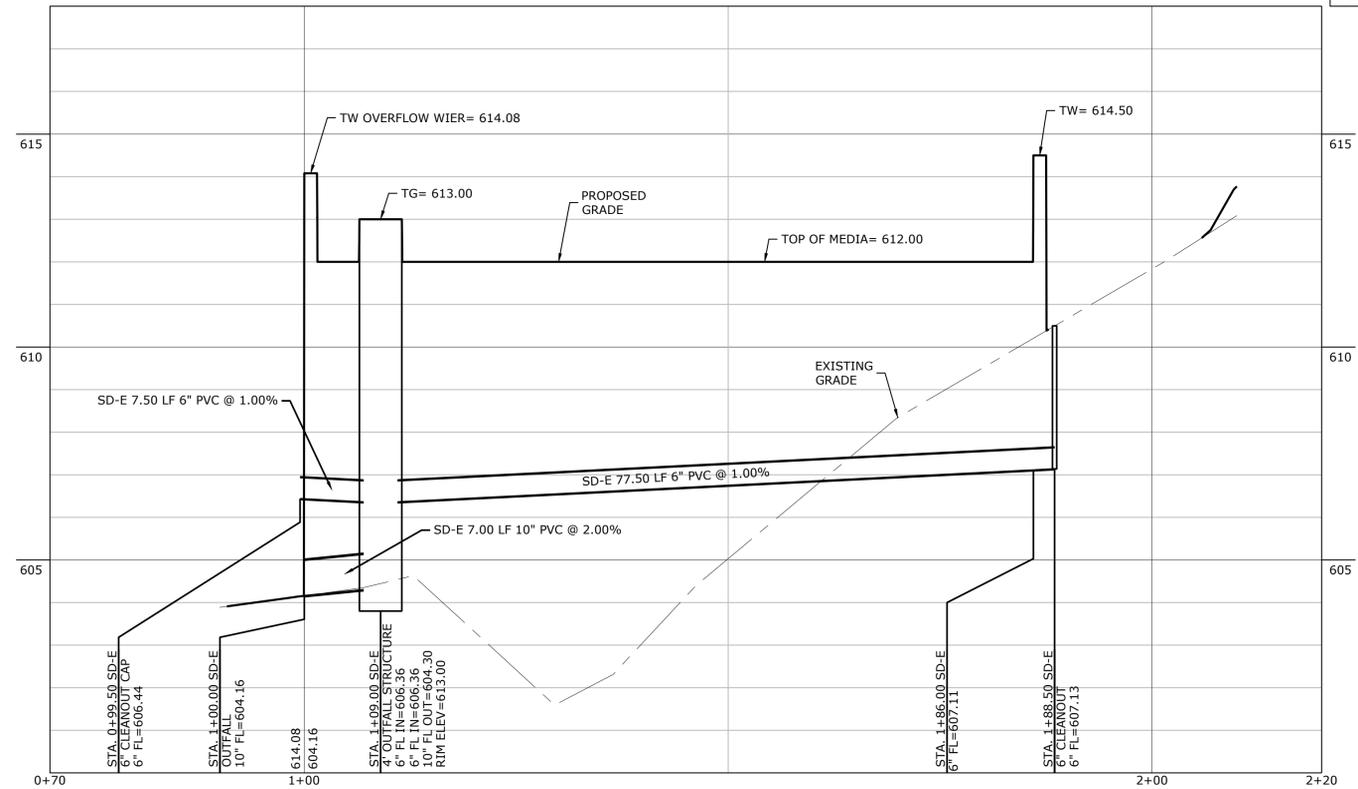
542

15 OF 30

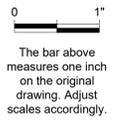
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SD-E PROFILE

PROFILE VIEW LEGEND
 HORIZ. SCALE: 1" = 20'
 VERT. SCALE: 1" = 2'



NO.	DATE	DESCRIPTION	BY



STORM SEWER PROFILES

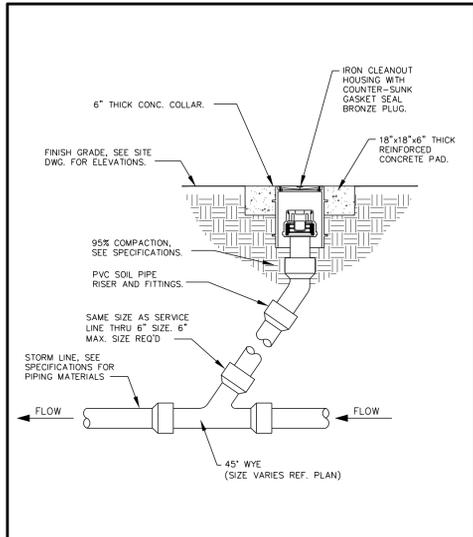
Western Hills Athletic Club
 4801 Rollingwood Drive
 Rollingwood, TX 78746

PLOTTED: 10/4/2024
 JOB NO: 863-02

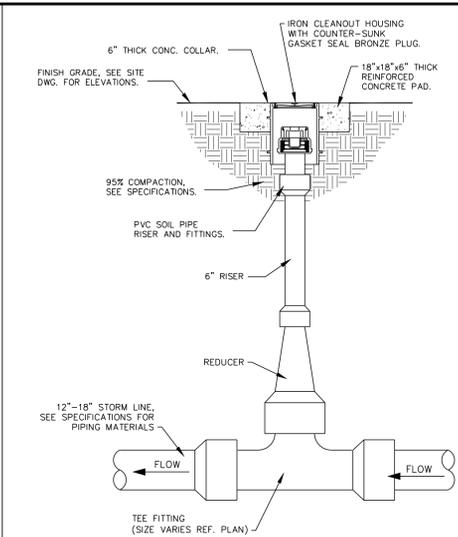
543

16 OF 30

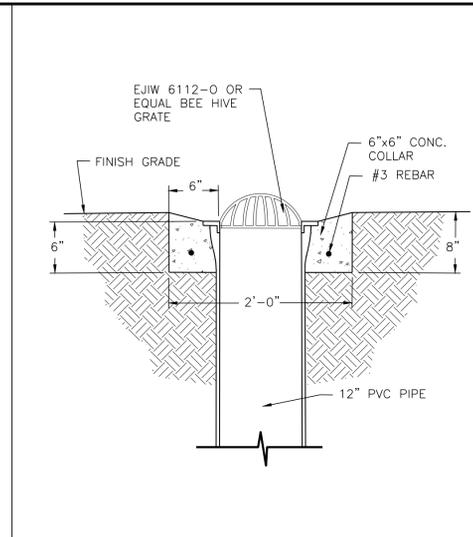
File: \\mwmdata\mwm\Projects\Data\863-02-WHAC_Revision_1\CAD\Sheets\542_STORM_SEWER_PROFILE.dwg 22x34



1 SD CLEANOUT DETAIL
581 n.l.s.



2 12"-18" SD CLEANOUT DETAIL
581 n.l.s.



3 12" LANDSCAPE INLET
581 n.l.s.

Oldcastle Precast
 CB-242436
 24" x 24" CATCH BASIN
 STANDARD DRAWING
 Copyright © 2008

CITY OF AUSTIN
 STORM DRAIN OUTFALL PROTECTION
 PIPE DISCHARGE ON TERRACE/PLANDS
 STANDARD DRAWING
 508S-17

CITY OF AUSTIN
 WATER AND WASTEWATER UTILITY
 TYPICAL TRENCH WITH PAVED SURFACE
 STANDARD NO. 510S-3
 1 OF 1

CITY OF AUSTIN
 DEPARTMENT OF PUBLIC WORKS
 TYPICAL TRENCH DETAIL WITH UNFINISHED SURFACE
 STANDARD NO. 510S-5
 1 OF 1

CITY OF AUSTIN
 WATER AND WASTEWATER UTILITY
 TYPICAL TRENCH WITH PAVED SURFACE
 STANDARD NO. 510S-3
 1 OF 1

CITY OF AUSTIN
 DEPARTMENT OF PUBLIC WORKS
 TYPICAL TRENCH DETAIL WITH UNFINISHED SURFACE
 STANDARD NO. 510S-5
 1 OF 1

NO.	DATE	DESCRIPTION	BY

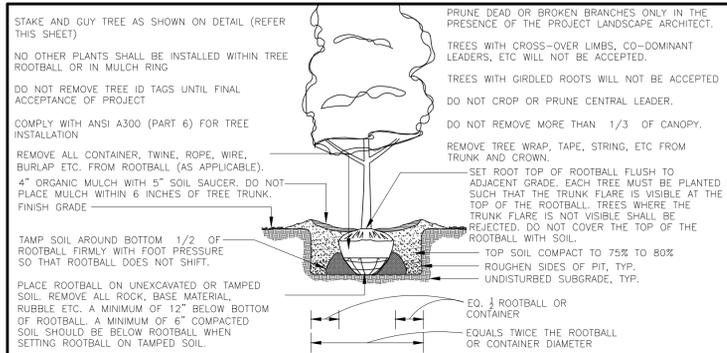
DRAINAGE DETAILS

Western Hills Athletic Club
 4801 Rollingwood Drive
 Rollingwood, TX 78746

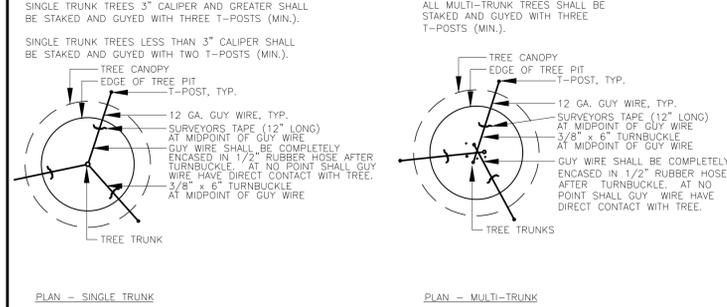
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 JOB NO: 863-02

581

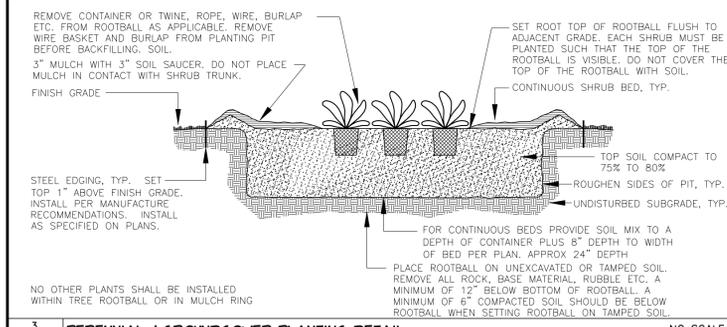
17 OF 30



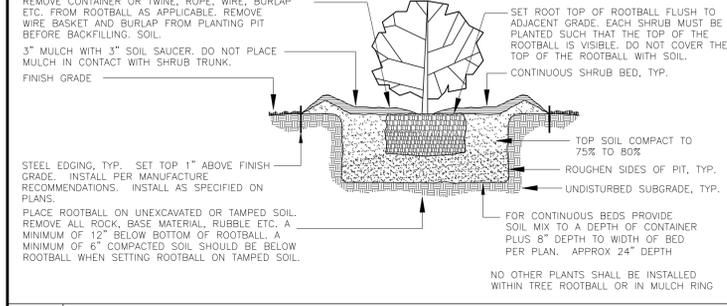
1 TREE PLANTING DETAIL (SINGLE TRUNK) GREATER THAN 3" CALIPER NO SCALE
 791 CALIPER



2 TREE STAKING DETAIL NO SCALE
 791



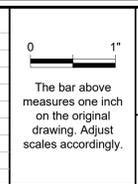
3 PERENNIAL / GROUNDCOVER PLANTING DETAIL NO SCALE
 791



4 SHRUB PLANTING DETAIL NO SCALE
 791



NO.	DATE	DESCRIPTION	BY

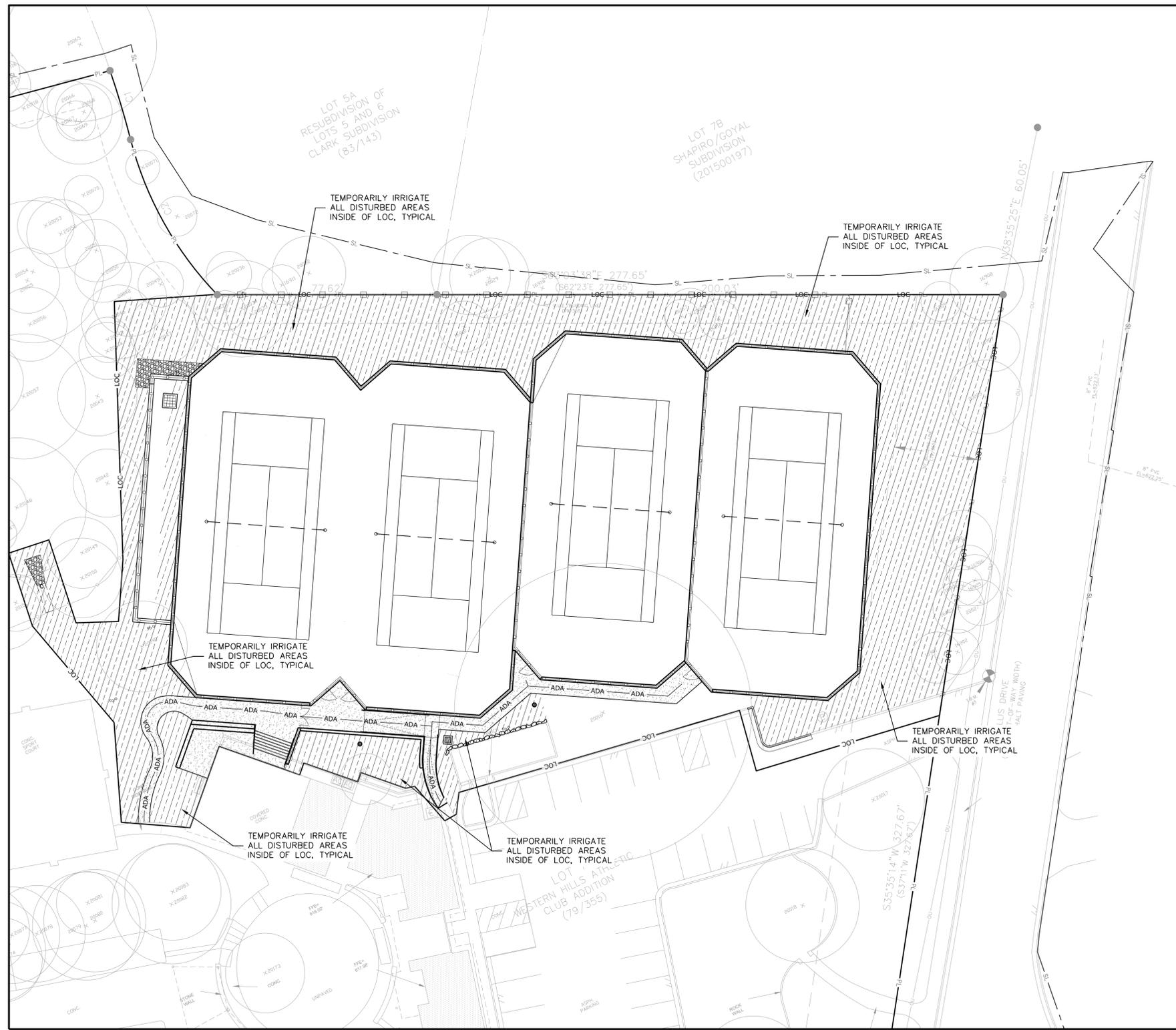


LANDSCAPE DETAILS

Western Hills Athletic Club
 4801 Rollingwood Drive
 Rollingwood, TX 78746

PLOTTED: 10/4/2024
 JOB NO: 863-02
791
 20 OF 30

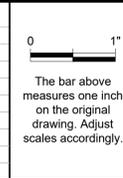
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04 October 2024



NO.	DATE	DESCRIPTION	BY



IRRIGATION PLAN

Western Hills Athletic Club
 4801 Rollingwood Drive
 Rollingwood, TX 78746

PLOTTED: 10/4/2024
 JOB NO: 863-02

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21 OF 30

COORDINATION

- The Contractor shall compare the Landscape, Structural, Civil, and other series drawings and report any discrepancies between each set of drawings and within each set of drawings prior to fabrication and installation of any structural members.
- Only larger sleeve openings and framed openings in structural framing component members are indicated on the Structural Drawings. However, all sleeves, inserts and openings, including frames and/or sleeves shall be provided for passage, provision and/or incorporation of the work of the contract, including but not limited to Mechanical, Electrical and Plumbing work. This work shall include the coordination of sizes, alignment, dimensions, position, locations, elevations and grades as required to serve the intended purpose. Openings not indicated on the Structural Drawings, but required as noted above, shall be submitted to the Engineer for review.
- Refer to Civil drawings for floor elevations, slopes, drains and location of depressed and elevated floor areas.
- Compatibility of the structure and provisions for building equipment supported on or from structural components shall be verified as to size, dimensions, clearances, accessibility, weights and reaction with the equipment for which the structure has been designed prior to submission of shop drawings and data for each piece of equipment and for structural components. Differences shall be noted on the submittals. Compatibility of the structure and provisions for equipment supported on or from structural components shall be verified as to size, dimensions, clearances, accessibility, weights and reaction with the equipment for which the structure has been designed prior to submission of shop drawings and data for each piece of equipment and for structural components. Differences shall be noted on the submittals.
- Shop drawings shall be prepared for all structural items and submitted for review by the Engineer. Structural Drawings shall not be reproduced and used as shop drawings. All items deviating from the Structural Drawings or from previously submitted shop drawings shall be clouded.
- The details designated as "Typical Details" apply generally to the Structural Drawings in all areas where conditions are similar to those described in the details.
- All dimensions and conditions of existing construction shall be verified at the job site prior to the preparation of shop drawings. Differences between existing construction and that shown on the Structural Drawings shall be referred to the Architect. Differences shall also be clouded on the shop drawings.
- All structural elements of the project have been designed by the Engineer to resist the required code vertical and lateral forces that could occur in the final completed structure only. It is the responsibility of the Contractor to provide all required bracing during construction to maintain the stability and safety of all structural elements during the construction process until the lateral-load resisting or stability-providing system is completely installed and the structure is completely tied together. Temporary supports shall not result in the overstress or damage of the elements to be braced nor any elements used as brace supports.
- The Contract Structural Drawings and Specifications represent the finished structure, and except where specifically shown, do not indicate the means or methods of construction. The Contractor and their Sub-Contractors shall supervise and direct the Work and shall be solely responsible for all construction means, methods, procedures, techniques, sequences and safety measures including, but not limited to, adherence to all OSHA guidelines. The Engineer shall not have control of, and shall not be responsible for, construction means, methods, techniques, sequences or procedures, for safety precautions and programs in connection with the Work, for the acts or omissions of the Contractor, Subcontractors, or any other person performing any of the Work, or for the failure of any of these persons to carry out the Work in accordance with the Structural Contract Documents.
- Where conflict exists among the various parts of the Structural Contract Documents, Structural Drawings, Structural Notes, and Specifications, the strictest requirements, as indicated by the Engineer, shall govern.
- Periodic site observation by field representatives of Encotech is solely for the purpose of determining if the Work is proceeding in accordance with the Structural Contract Documents. This limited site observation is not intended to be a check of the quality or quantity of the Work, but rather a periodic check in an effort to inform the Owner against defects and deficiencies in the work of the Contractor.
- These structural drawings do not address water issues as it relates to but not limited to site drainage, roof runoff, or water introduced by adjacent properties. Adequate drainage shall be provided to limit the effects of erosion and to maintain the integrity of the structural system described. Water issues and/or waterproofing are the responsibility of the Architect and Contractor and are beyond the scope of these documents.

CODES AND REFERENCED REPORTS

- The General Building Code used as the basis for the structural design is as follows:
 - International Building Code, 2015 Edition
- Structural Loading: Minimum Design Loads and Associated Criteria for Buildings and Other Structures, American Society of Civil Engineers, ASCE 7, as reference by the General Building Code.
- Structural Concrete: Building Code Requirements for Reinforced Concrete, American Concrete Institute, ACI 318, as referenced by the General Building Code.
- Geotechnical Report: Foundation elements have been designed in accordance with information provided in the following geotechnical report:

Geotechnical Engineer: Terracon
 Report Number: 96205112
 Date: 07/31/2020

DESIGN LOADS

- Dead Loads include the self-weight of the structural elements
- Live Loads
 - Tennis courts 100 psf
- Snow Loads
 - Ground snow load, Pg 5 psf
- Seismic Loads
 - The structure and structural components of the building have been designed in accordance with General Building Code with the following criteria:
 - Risk Category II
 - Seismic Importance Factor: Ie 1.0
 - Site Class D
 - Seismic Design Category A
 - Spectral Response Coefficients
 - Ss (%g) 0.053
 - S1 (%g) 0.031
 - SDS 0.056
 - SD1 0.049
 - Basic Seismic-force-resisting system
 - Ground-supported cantilever wall
 - Response Modification Factor(s), R 1.5
 - Seismic Response Coefficient(s), Cs SDS/(R/Ie)
 - Design Base Shear, V Cs*W
 - Analysis Procedure Used Equivalent Lateral Force
- Wind Loads
 - Wind lateral load on structural frame is based on ASCE 7 using the following:
 - Basic Wind Speed (LRFD) 115 mph
 - (ASD) 83 mph
 - Exposure C
 - Internal Pressure Coefficient, Gcpi +/-0.18
 - Risk Category II

SUBMITTALS

- Shop drawings shall be prepared for all structural items and submitted for review by the Engineer. Structural Drawings shall not be reproduced and used as shop drawings. All items deviating from the Structural Drawings or from previously submitted shop drawings shall be clouded.
- Contractor shall review shop drawings for compliance with the Structural Drawings and shall certify that they have done so by a stamp noting that the drawings have been "Approved" and which bears the signature (or initials) of an authorized representative of the Contractor and the date. Submittals which do not reflect the Contractor's approval, signature and date will be returned without review.
- Contractor shall be responsible for delays caused by rejection of inadequate shop drawings.
- Where review and return of shop drawings is required or requested, the Engineer will review each submittal and, where possible, return within two (2) weeks of receipt.
- Corrections or comments on shop drawings or manufacturer's data sheets do not relieve the Contractor from compliance with requirements of the plans and specifications. Engineer's review is for general conformance with the requirements of the Structural Drawings. Contractor is responsible for confirming and correcting all quantities and dimensions, selecting fabrication processes and techniques of construction, and coordinating the work with that of all other contractors.
- Refer to individual sections for specific submittal requirements.
- Contractor shall provide submittals electronically to Architect. Architect will provide to Engineer for review and comment. Engineer will return reviewed submittal to Architect for distribution to the Architect, Owner, and Contractor. Contractor will be responsible for providing and distributing Engineer's comments to their subcontractors.

EXCAVATION PROTECTION

- The sides of all excavations greater than 5'-0" in depth shall be laid back to a slope of 2 horizontal to 1 vertical, unless the following applies:
 - A steeper slope is allowed by the Geotechnical Engineer for the particular location and site conditions in question.
 - A temporary retention system is indicated on the Structural Drawings.
 - An alternative protective system is submitted by the Contractor and allowed by the Owner.
- Contractor shall submit drawings and calculations sealed by a Registered Engineer licensed in the state having jurisdiction at the project site for the design of any temporary retention or alternative protective systems. Temporary retention or alternative protective systems shall be designed to resist the soil pressures stipulated in the referenced geotechnical report. In addition, the design shall consider surcharges created by construction equipment, excavation spoil, and other surface encumbrances.
- Contractor shall comply with all Occupational Safety and Health Administration standards and all other regulatory agency standards regarding excavation safety.

SITE PREPARATION

- After demolition of the existing structure, construction areas shall be stripped of all vegetation, concrete, loose soils, fill soils, top soils, construction debris, and other unsuitable material currently present at the site. Roots of trees to be removed within construction areas, if any, shall be grubbed to full depths, including the dry soil around the roots. All remnants of existing foundations shall be completely excavated and removed to at least 2 feet below finished grades. If any unusual items are unearthed during or after demolition, please contact us for further evaluation. A geotechnical engineer shall be retained to assist in evaluating exposed subgrades during earthwork so that unsuitable materials, if any, are removed at the time of construction.
- Once initial subgrade elevations have been achieved (i.e., after cuts but prior to fills), the exposed subgrade in all construction areas (except landscaping) shall be carefully and thoroughly proof-rolled with a 20-ton pneumatic roller, fully-loaded dump truck, or similar equipment to detect weak zones in the subgrade. Proof-rolling is not necessary in intact Stratum 3 limestone subgrade areas. Weak areas detected during proof-rolling, zones containing debris or organics, and voids resulting from removal of tree roots, existing foundation elements, utilities, fill, boulders, etc. shall be removed and replaced with soils exhibiting similar classification, moisture content, and density as the adjacent in-situ soils (or flowable fill).
- The Edwards Formation limestone could exhibit voids, clay-filled zones, and/or solution activity which may impact construction. If voids or other significant solution features are encountered during site preparation/excavation operations, the project geotechnical engineer shall be contacted to evaluate the feature from a geotechnical engineering standpoint.
- For the proposed tennis court areas and 5ft beyond, the on-site soils be excavated at least 20 inches below the proposed slab. The removed soils shall be replaced with properly compacted select fill within all structural areas up to final grades. If Stratum 3 limestone is encountered within 12 inches of the final subgrade elevation, the limestone shall be excavated such that at least 6 inches of properly compacted select fill can be provided under the gravel layer.
- Structural fill/select fill underneath the tennis court and 5 feet beyond shall consist of CL, SC, and/or GC soils according to the USCS Classification system. Select fill shall also comply with one of the following:
 - TxDOT Item 247, Type A, Grade 3
 - Percent retained on No. 4 Sieve ≤ 40 percent with 5SP1520 and rocks ≤ 4 inches in maximum dimensions
 - Crushed concrete (TxDOT Item 247, Type D, Grade 3 or better)
- Select fill shall consist of approved materials free of organic matter and debris. A sample of each material type shall be submitted to the Geotechnical Engineer for evaluation prior to use on this site.
- Based on the laboratory testing performed during this exploration, the excavated Stratum 1 soils are not suitable for re-use as select fill.
- The excavated Stratum 2 soils and Stratum 3 limestone material may be acceptable for re-use as select fill provided that it is processed to meet the Structural Fill performance criteria above and as approved by the project geotechnical engineer. After initial processing of the fill material, samples shall be submitted to the project geotechnical engineer for evaluation of proper gradation, plasticity index, and maximum rock size prior to re-use as select fill. Periodic testing shall be performed throughout the material excavation phase to check for conformance with the select fill requirements given above as recommended by the project geotechnical engineer.
- Structural fill/select fill less than 5 feet in depth shall be compacted to 95% of the maximum dry unit weight per the standard proctor test (ASTM D698) at a moisture content of within 3% of optimum.
- Structural fill/select fill greater than 5 feet in depth shall be compacted to 100% maximum dry unit weight per the standard proctor test (ASTM D698) at a moisture content of within 3% of optimum.
- Structural fill shall be placed in 8 inch loose lifts when more than 3 feet away from retaining walls. When within 3 feet away from retaining walls, light construction equipment must be used and lift thickness shall be reduced to 4-6 in.
- When the existing structures are demolished, the Earthwork Contractor may uncover structure pad select fill. The Contractor shall perform several test pit excavations (under observation of the geotechnical engineer) in the fill pad area to assess the thickness of the existing select fill. At that same time, the project geotechnical engineer shall obtain samples for testing to ensure the existing select fill meets the project structural fill requirements.
- The upper 6 in of select fill may be replaced with crushed limestone at the contractor's option.
- Provide a vapor retarder that conforms to ASTM E1745, Class A or better with a maximum water vapor permeance of 0.01 perms per ASTM E96. Vapor retarder shall be no less than 15 mils thick.
- The above recommendations have been prepared in accordance with the referenced geotechnical report.

CONTROLLED BACKFILL BEHIND BASEMENT AND RETAINING WALLS

- Backfill material shall be clean gravel compacted to between 95% and 100% of Standard Proctor (ASTM D 698) maximum dry density. Backfill shall not be overcompacted.
- Compaction and moisture content of controlled backfill shall be verified by an independent testing laboratory.
- The top 2 ft of material below the ground surface shall consist of relatively impervious material, with a liquid limit between 40 and 50 percent and a plasticity index between 20 and 30. This material shall be placed in 6" lifts and compacted at optimum moisture content, to 95 percent of the maximum density per ASTM D698.
- Backfill material shall not be placed against foundation walls until all supporting slabs, beams, struts, etc., have attained their 28 day design strength unless proper bracing is installed.
- Where backfill is required on both sides of a structure or building element, backfill shall be placed simultaneously along both sides so that the backfill height on one side does not exceed the height on the opposite side by more than 4'-0".
- Compaction and moisture content of subgrade and each lift of structural fill shall be inspected and approved by a qualified engineering technician, supervised by a Geotechnical Engineer.
- Design of retaining walls is based on equivalent hydrostatic pressures of 36 pcF, assuming free draining backfill and use of weep holes.
- The above recommendations have been prepared in accordance with the referenced geotechnical report.

DESIGN BY OTHERS

- In accordance with the Specifications the items listed below are not included in the Contract Documents. Design of these elements shall be the responsibility of the Contractor, and shall be designed and sealed by a registered professional engineer licensed in the state having jurisdiction at the project site.
 - Guardrail and Handrail Systems
 - Excavation Support and Protection
 - Specialty Retention Systems
- Design of the items listed above shall be in accordance with the General Building Code, and shall include all attachments to the structure.

DEFERRED SUBMITTALS

- In accordance with the General Building Code, Section 107.3.4.2, the following submittals will not be issued at the time of permit application, and will be "deferred" to a later date. Deferred submittals are required to be submitted to the Building Official. However, these submittals shall be submitted and approved by the Registered Design Professional in Responsible Charge (RDPIRC) prior to submitting to the Building Official. Deferred submittals are design items being delegated to the Contractor which shall be designed and sealed by a registered professional engineer licensed in the state having jurisdiction at the project site.
- The following structural components shall be treated as deferred submittals:
 - Guardrail and Handrail Systems
 - Excavation Support and Protection
 - Specialty Retention Systems
- Design of the items listed above shall be in accordance with the General Building Code, and shall include all attachments to the structure.
- Work associated with Deferred Submittals shall not be performed until the deferred submittal documents have been approved by the Building Official.
- Refer to the Contract Documents for additional Deferred Submittal items.

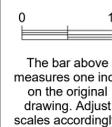
SHEET LIST	
SHEET NUMBER	SHEET NAME
S-001	STRUCTURAL NOTES
S-002	STRUCTURAL NOTES
S-003	CODE REQUIRED SPECIAL INSPECTIONS
S-101	RETAINING WALL PLAN
S-102	TENNIS COURT PLAN
S-200	TYPICAL CONCRETE DETAILS
S-201	TYPICAL CONCRETE DETAILS
S-202	TYPICAL CONCRETE DETAILS
S-203	CONCRETE DETAILS



305 East Huntland Drive
 Suite 200
 Austin, Texas 78752
 p: 512.453.0767
 f: 512.453.1734

TBAE FIRM REGISTRATION NO.: 1452
 TBPE FIRM REGISTRATION NO.: F-1416
 TBPLS FIRM REGISTRATION NO.: 10065600

NO.	DATE	DESCRIPTION	BY
1	10/04/24	REVISION 1	



STRUCTURAL NOTES

WESTERN HILLS ATHLETIC CLUB
 4801 Rollingwood Drive
 Austin, TX 78746

PLOTTED: 10/04/24
 JOB NO 863-02:

S-001

SPECIAL INSPECTIONS

The following Statement and Schedules of Inspections are those Special Inspections and Tests that shall be performed for this project. Special Inspectors shall reference these plans and IBC Chapter 17 for all special inspection requirements.

The owner shall retain an "approved agency" per IBC 1703 to provide special inspections for this project. Special Inspectors shall be qualified persons per IBC 1704.2.1. Submit copies of all inspection reports to the Architect/Engineer and the Authority Having Jurisdiction for review. In addition to special inspection reports and tests, submit reports and certificates noted in IBC 1704.5 to the Authority Having Jurisdiction. Final special inspection reports will be required by each special inspection firm per IBC 1704.2.4.

STATEMENT OF SPECIAL INSPECTIONS:

This statement of Special Inspections has been written with the understanding that the Building Official will:

- Review and approve the qualifications of the Special Inspectors
- Monitor the special inspection activity on the project site to assure that Special Inspectors are qualified and performing their duty as state within this statement.
- Review all Special Inspection Reports submitted to them by the Special Inspector Perform inspections as required by IBC Section 110.3.

SPECIAL INSPECTION OF CONCRETE CONSTRUCTION

Special inspection and tests of concrete construction shall be performed in accordance with this section and Table 1705.3 with the following exceptions:

- Special inspections shall not be required for:
 - Isolated spread concrete footings of buildings three stories or less above the grade plane fully supported on earth or rock.
 - Continuous footings supporting walls of buildings three stories or less above the grade plane that are fully supported on earth or rock where:
 - The footings support walls of light frame construction.
 - The footings are designed in accordance with IBC Table 1809.7.
 - The structural design of the footing is based on a specified compressive strength, f'_c , not more than 2,500 psi.
 - Nonstructural concrete supported directly on the ground, including prestressed slabs on grade, where the effective prestress in the concrete is less than 150 psi
 - Concrete foundation walls constructed in accordance with Table 1807.1.6.2.
 - Concrete patios, driveways, and sidewalks, on grade.

SCHEDULES OF SPECIAL INSPECTIONS:

TABLE 1705.3					
REQUIRED SPECIAL INSPECTIONS AND TESTS OF CONCRETE CONSTRUCTION					
VERIFICATION AND INSPECTION TASK	FREQUENCY		REFERENCED STANDARD	IBC REFERENCE	REQUIRED? Y/N
	CONTINUOUS	PERIODIC			
1. Inspect reinforcement, including pre-stressing tendons, and verify placement.	—	X	AC I 318 Ch. 20, 25.2, 25.3, 26.6.1-26.6.3	1908.4	Y
2. Reinforcing bar welding:					
a. Verify weldability of reinforcing bars other than ASTM A706.	—	X	AWS D1.4	—	N/A
b. Inspect single pass fillet weld maximum 5/16".	—	X	ACI 318: 26.6.5	—	N/A
c. Inspect all other welds.	X	—	—	—	—
3. Inspect anchors cast in concrete.	—	X	ACI 318: 17.8.2	—	Y
4. Inspect anchors post-installed in hardened concrete members:					
a. Adhesive anchors installed in horizontally or upwardly inclined orientations to resist sustained tension loads.	X	—	ACI 318: 17.8.2.4	—	Y
b. Mechanical anchors and adhesive anchors not defined in 4a.	—	X	ACI 318: 17.8.2	—	Y
5. Verify use of required design mix.	—	X	ACI 318: Ch. 19, 26.4.3, 26.4.4	1904.1-3	Y
6. Prior to concrete placement, fabricate specimens, for strength tests, perform slump and air content tests, and determine the temperature of the concrete.	X	—	ASTM C172 ASTM C31 ACI 318: 26.12	1908.10	Y
7. Inspect concrete and shotcrete placement for proper application techniques.	X	—	ACI 318: 26.5	1908.6-8	N/A
8. Verify maintenance of specified curing temperature and techniques.	—	X	ACI 318 :26.5.3 - 26.5.5	1908.9	Y
9. Inspect Prestressed concrete for:					
a. Application of prestressing forces.	X	—	ACI 318: 26.10	—	N/A
b. Grouting of bonded prestressing tendons.	X	—	—	—	N/A
10. Inspect erection of precast concrete members.	—	X	ACI 318: 26.11.2	—	N/A
11. Verify in-situ concrete strength, prior to stressing of tendons in post-tensioned concrete and prior to removal of shores and forms from beams and structural slabs.	—	X	ACI 318: 26.11.2	—	Y
12. Inspect formwork for shape, location and dimensions of the concrete member being formed.	—	X	ACI 318: 26.11.1.2(b)	—	Y

TABLE 1705.6			
VERIFICATION AND INSPECTION TASK	FREQUENCY DURING TASK LISTED		REQUIRED? Y/N
	CONTINUOUS	PERIODIC	
1. Verify materials below shallow foundations are adequate to achieve the design bearing capacity.	—	X	Y
2. Verify excavations are extended to proper depth and have reached proper material.	—	X	Y
3. Perform classification and testing of compacted fill materials	—	X	Y
4. Verify use of proper materials, densities and lift thickness during placement and compaction of compacted fill.	X	—	Y
5. Prior to placement of compacted fill, inspect subgrade and verify that site has been prepared properly.	—	X	Y

ENCOTECH
ENGINEERING CONSULTANTS
TBPE Firm | 8500 Bluffstone Cove, Suite 8-103
1141 | Austin, Texas 78759 | 512.338.1101

STATE OF TEXAS
HAMZAH KHATAW
132935
LICENSED PROFESSIONAL ENGINEER
10/04/2024

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f:512.453.1734
TBAE FIRM REGISTRATION NO.: 1452
TBPE FIRM REGISTRATION NO.: F-1416
TBPLS FIRM REGISTRATION NO.: 10065600

NO.	DATE	DESCRIPTION	BY
1	10/04/24	REVISION 1	

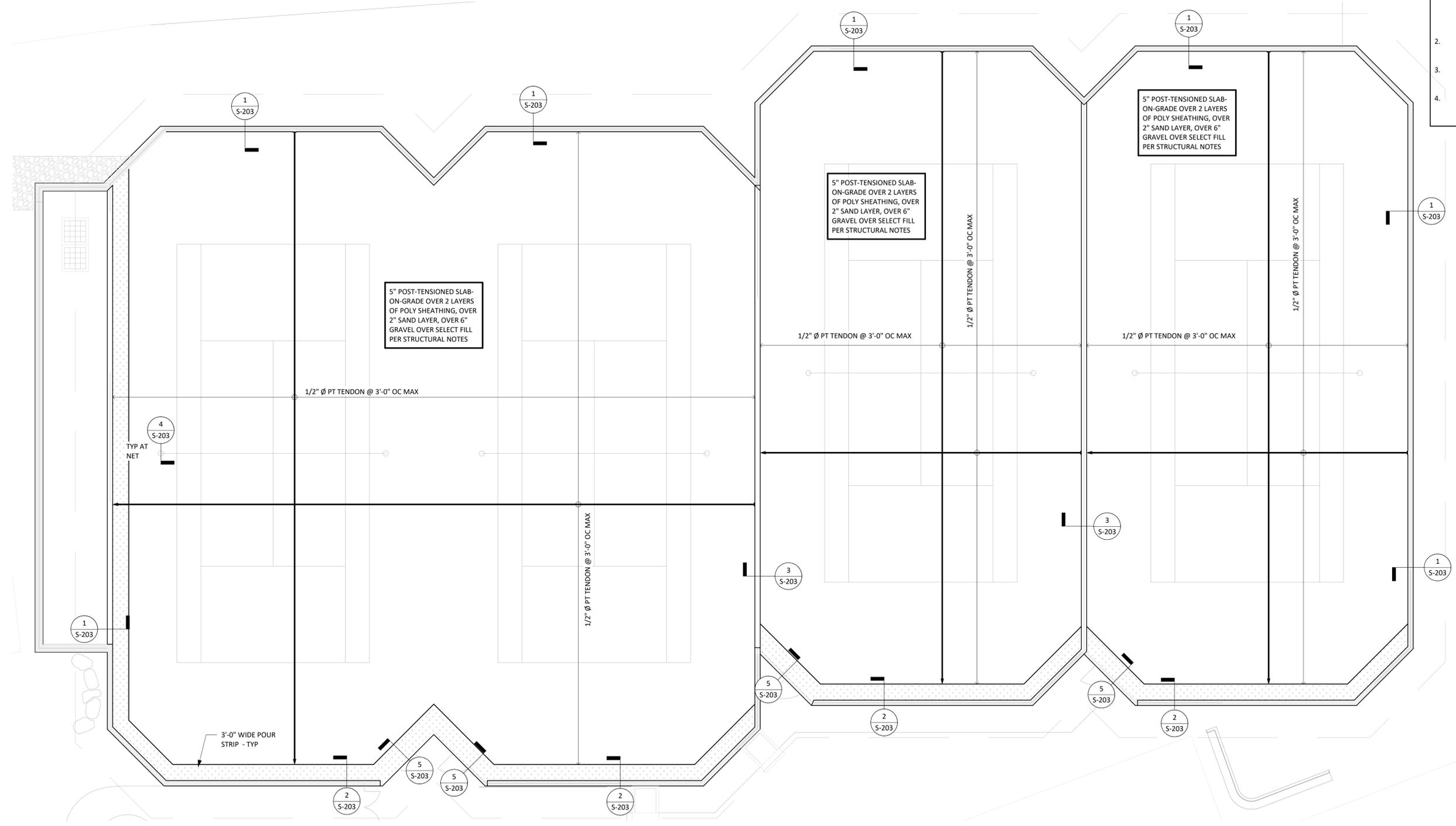
0 1"
The bar above measures one inch on the original drawing. Adjust scales accordingly.

CODE REQUIRED SPECIAL INSPECTIONS
WESTERN HILLS ATHLETIC CLUB
4801 Rollingwood Drive
Austin, TX 78746

PLOTTED: 10/04/24
JOB NO 863-02:
S-003
3 OF 9

- FOUNDATION PLAN NOTES**
- PT TENDONS ARE INDICATED AS FOLLOWS:

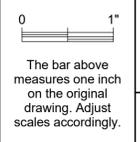
 - PT TENDONS SHALL BE STRESSED TO 27.3 KIPS PER TENDON AFTER ALL CALCULATED LOSSES.
 - REF CIVIL/LANDSCAPE FOR COURT SLOPES AND DRAINS.
 - VERIFY ALL DIMENSIONS, ELEVATIONS, FINISH SURFACES, SLOPES, DRAINS, CURBS, ETC. WITH CIVIL DRAWINGS PRIOR TO START OF CONSTRUCTION.



1 TENNIS COURT PLAN
 SCALE: 1" = 10'-0"



NO.	DATE	DESCRIPTION	BY
1	10/04/24	REVISION 1	



TENNIS COURT PLAN

WESTERN HILLS ATHLETIC CLUB
 4801 Rollingwood Drive
 Austin, TX 78746

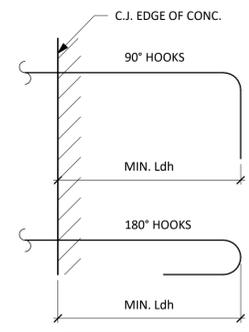
PLOTTED: 10/04/24
 JOB NO 863-02:

S-102

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REINFORCEMENT SPLICE LENGTH SCHEDULE (SLABS, WALLS, & FOOTINGS)												
CLASS BAR SIZE	f'c=3000 psi CONCRETE		f'c=4000 psi CONCRETE		f'c=5000 psi CONCRETE		f'c=6000 psi CONCRETE		f'c=7000 psi CONCRETE		f'c=8000 psi CONCRETE	
	"A"	"B"	"A"	"B"	"A"	"B"	"A"	"B"	"A"	"B"	"A"	"B"
#3	1'-0"	1'-1"	1'-1"	1'-1"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
#4	1'-1"	1'-5"	1'-0"	1'-3"	1'-0"	1'-1"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"	1'-0"
#5	1'-8"	2'-2"	1'-5"	1'-10"	1'-3"	1'-8"	1'-3"	1'-6"	1'-1"	1'-5"	1'-0"	1'-4"
#6	2'-3"	3'-1"	1'-11"	2'-6"	1'-9"	2'-3"	1'-7"	2'-1"	1'-4"	1'-11"	1'-4"	1'-9"
#7	3'-8"	4'-9"	3'-2"	4'-1"	2'-10"	3'-8"	2'-7"	3'-4"	2'-5"	3'-1"	2'-3"	2'-11"
#8	4'-7"	5'-11"	4'-0"	5'-2"	3'-7"	4'-7"	3'-3"	4'-3"	3'-0"	3'-11"	2'-10"	3'-8"
#9	5'-7"	7'-3"	4'-10"	6'-4"	5'-2"	5'-7"	3'-9"	5'-1"	3'-8"	4'-9"	3'-5"	4'-5"
#10	6'-9"	8'-9"	5'-10"	7'-7"	5'-3"	6'-10"	4'-9"	6'-3"	4'-5"	5'-7"	4'-2"	5'-5"
#11	8'-0"	10'-5"	7'-11"	9'-0"	6'-2"	8'-0"	5'-8"	7'-4"	5'-3"	6'-10"	4'-11"	6'-4"

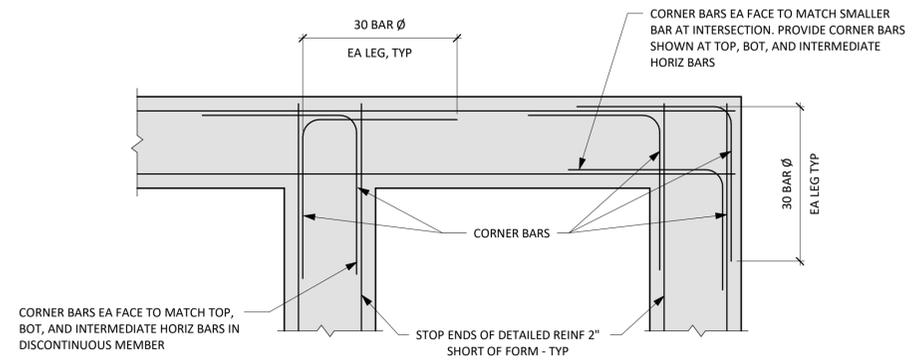
- NOTE:**
- WHERE SPLICE TYPE IS NOT INDICATED, USE CLASS "B" SPLICE.
 - LAP LENGTHS LISTED ABOVE APPLY UNDER THE FOLLOWING CONDITIONS:
 - WALL AND SLAB BARS ARE SPACED AT LEAST 2 BAR DIA OC.
 - FOR UNCOATED AND ZINC-COATED (GALVANIZED) REINFORCEMENT.
 - FOR REINFORCEMENT THAT CONFORMS DEFORMED NEW BILLET STEEL BARS IN ACCORDANCE TO ASTM A615 GR. 60.
 - FOR LIGHTWEIGHT CONCRETE, MULTIPLY TABULATIONS BY 1.3.
 - FOR HORIZ TOP BARS WITH 12" OF CONCRETE CAST BELOW, MULTIPLY TABULATIONS BY 1.3.
 - WHERE A LARGER BAR LAPS A SMALLER BAR, THE SMALLER SCHEDULED LAP LENGTH APPLIES.
 - WHERE DEVELOPMENT LENGTH "Ld" IS CALLED OUT ON DRAWINGS, USE CLASS A LAP LENGTH.
 - REFER TO "CONCRETE REINFORCING" SECTION OF THE STRUCTURAL NOTES FOR FURTHER INFORMATION.
 - FOR CMU REINFORCEMENT SPLICE LENGTH SCHEDULE, SEE CMU DETAILS.



HOOK DEVELOPMENT LENGTH SCHEDULE, Ldh						
BAR SIZE	3000 psi	4000 psi	5000 psi	6000 psi	7000 psi	8000 psi
#3	9"	8"	7"	6"	6"	6"
#4	11"	10"	9"	8"	8"	7"
#5	1'-2"	1'-0"	11"	10"	9"	9"
#6	1'-5"	1'-3"	1'-1"	1'-0"	11"	11"
#7	1'-8"	1'-5"	1'-3"	1'-2"	1'-1"	1'-0"
#8	1'-10"	1'-7"	1'-5"	1'-4"	1'-3"	1'-2"
#9	2'-1"	1'-10"	1'-8"	1'-6"	1'-5"	1'-4"
#10	2'-4"	2'-0"	1'-10"	1'-8"	1'-7"	1'-6"
#11	2'-7"	2'-3"	2'-0"	1'-10"	1'-9"	1'-7"

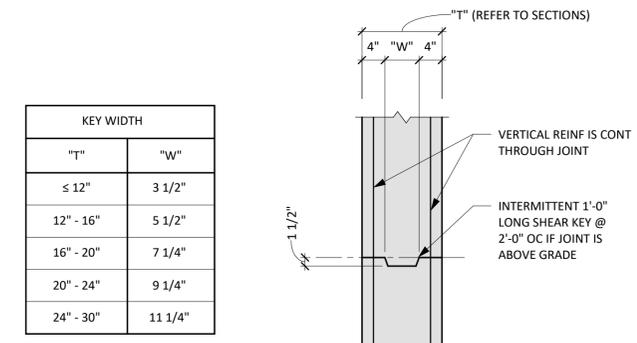
- NOTES:**
- TABULATED VALUES ARE BASED ON GRADE 60 REINFORCING BARS AND NORMAL WEIGHT CONCRETE.
 - FOR TABULATED BARS SIZES ONLY:
 - IF CONCRETE COVER SATISFIES ACI 318-14, SECTION 25.4.3.2, THEN A MODIFICATION FACTOR OF 0.7 MAY BE APPLIED BUT THE LENGTH MUST NOT BE LESS THAN 8 x db NOR 6 IN.
 - IF HOOK IS ENCLOSED IN TIES OR STIRRUPS PER ACI 318-14, SECTION 25.4.3.2, THEN A MODIFICATION FACTOR OF 0.8 MAY BE APPLIED BUT THE LENGTH MUST NOT BE LESS THAN 8 x db NOR 6 IN.
 - FOR EPOXY-COATED HOOKS, MULTIPLY THE TABULATED VALUES BY 1.2.

- NOTES:**
- WHERE 90 DEGREE HOOKS ARE PROVIDED FOR TOP BARS, CORNER BARS MAY BE OMITTED AT TOP. WHERE 90 DEGREE HOOKS ARE PROVIDED FOR BOTTOM BARS, CORNER BARS MAY BE OMITTED AT BOTTOM.
 - MATCH SIZE, LOCATION AND NUMBER OF HORIZONTAL BEAM AND WALL BARS, EXCEPT THAT WHERE THERE ARE MORE THAN 2 TOP OR BOTTOM BARS, ONLY THE INSIDE AND OUTSIDE BARS MUST BE MATCHED.



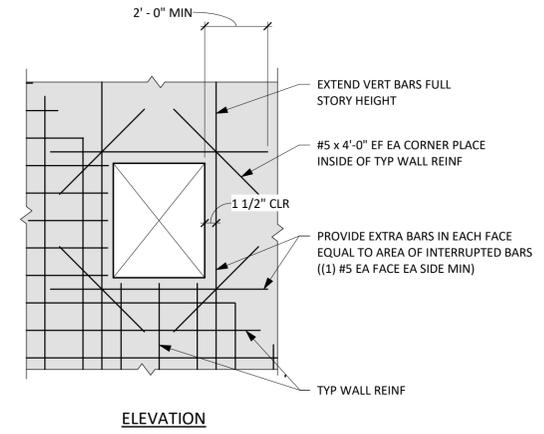
CORNER BARS AT WALL OR GRADE BEAM INTERSECTION
3 TYPICAL DETAIL
SCALE: NTS

LAP SPLICE SCHEDULE (SLABS, WALLS, & FOOTINGS)
1 TYPICAL DETAIL
SCALE: NTS



HORIZONTAL CONSTRUCTION JOINT IN WALLS
4 TYPICAL DETAIL
SCALE: NTS

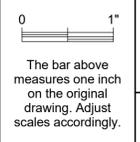
STANDARD HOOK SCHEDULE
2 TYPICAL DETAIL
SCALE: NTS



CONCRETE WALL OPENING
5 TYPICAL DETAIL
SCALE: NTS



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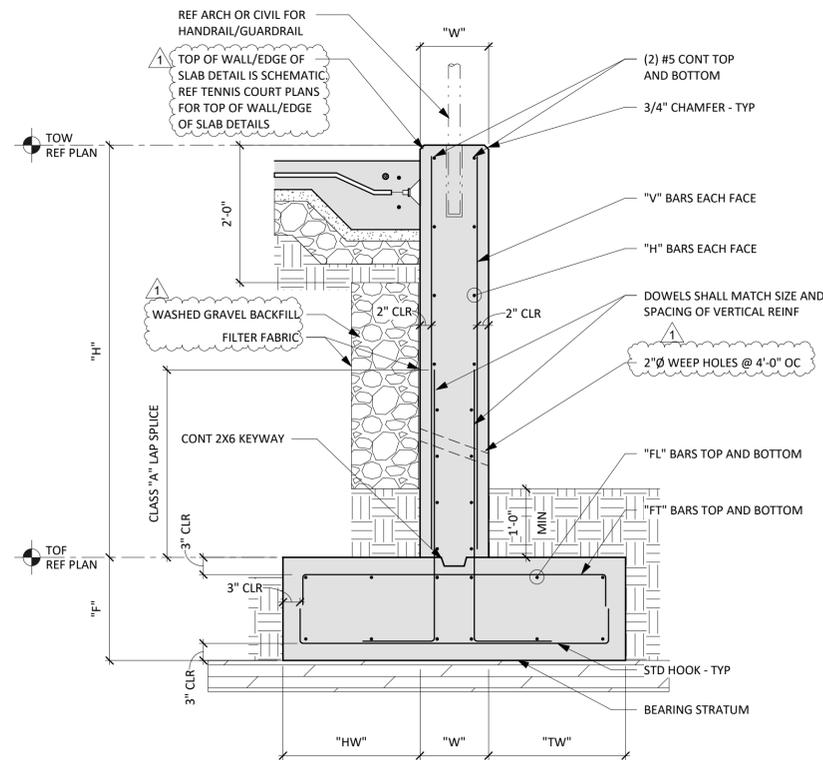


TYPICAL CONCRETE DETAILS

WESTERN HILLS ATHLETIC CLUB
4801 Rollingwood Drive
Austin, TX 78746

PLOTTED: 10/04/24
JOB NO 863-02:

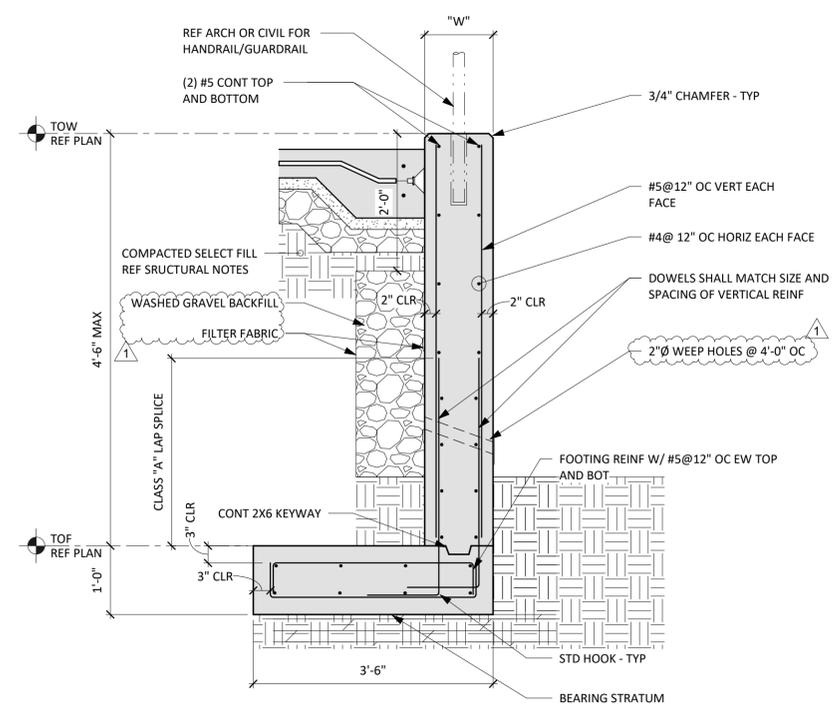
S-200



- NOTES:**
- FOOTING SHALL BEAR ON STRATUM 3 LIMESTONE.
 - FOOTING EXCAVATION SHALL BE INSPECTED BY THE GEOTECHNICAL LABORATORY TO DETERMINE THAT THE PROPER BEARING STRATUM IS OBTAINED AND THAT EXCAVATIONS ARE PROPERLY CLEAN AND DRY BEFORE CONCRETE IS PLACED.
 - LOCATE CONTROL JOINTS AT 30'-0" OC MAX
 - LOCATE EXPANSION JOINTS AT 90'-0" OC MAX

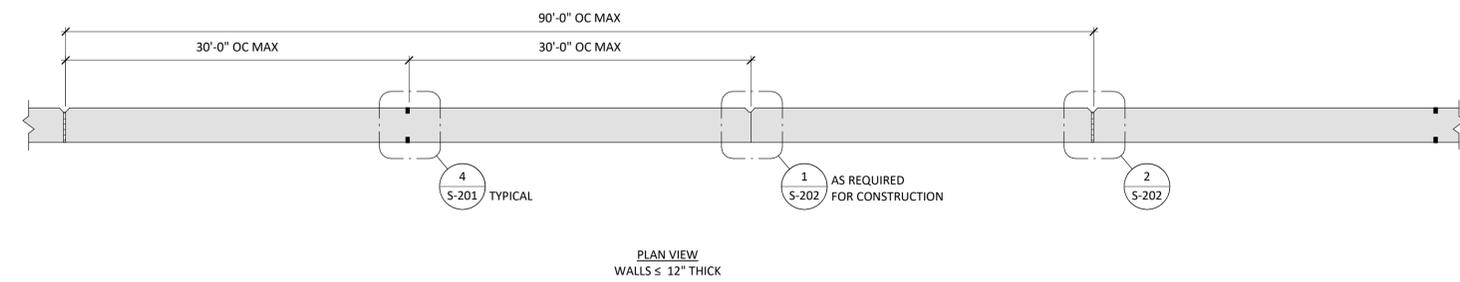
DIMENSIONS					RETAINING WALL SCHEDULE		REINFORCING	
"H"	"W"	"HW"	"TW"	"F"	"V"	"H"	"FT"	"FL"
≤3'-0"	1'-0"	0'-9"	0'-9"	1'-0"	#5@12"	#4@12"	#5@12"	#4@12"
≤4'-6"	1'-0"	1'-3"	1'-3"	1'-0"	#5@12"	#4@12"	#5@12"	#4@12"
≤6'-6"	1'-0"	1'-6"	1'-6"	1'-6"	#5@12"	#4@12"	#6@12"	#4@12"
≤8'-6"	1'-0"	2'-0"	2'-0"	1'-6"	#5@12"	#4@12"	#6@12"	#4@12"
≤10'-0"	1'-0"	2'-6"	2'-6"	1'-6"	#5@9"	#4@12"	#6@12"	#4@12"
≤15'-6"	1'-6"	3'-6"	2'-0"	1'-6"	#6@6"	#4@12"	#6@9"	#4@12"

1 TYPICAL RETAINING WALL DETAIL
SCALE: NTS

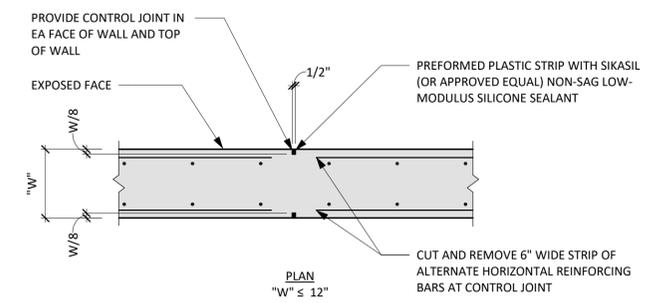


- NOTES:**
- FOOTING SHALL BEAR ON STRATUM 3 LIMESTONE.
 - FOOTING EXCAVATION SHALL BE INSPECTED BY THE GEOTECHNICAL LABORATORY TO DETERMINE THAT THE PROPER BEARING STRATUM IS OBTAINED AND THAT EXCAVATIONS ARE PROPERLY CLEAN AND DRY BEFORE CONCRETE IS PLACED.
 - LOCATE CONTROL JOINTS AT 30'-0" OC MAX
 - LOCATE EXPANSION JOINTS AT 90'-0" OC MAX

2 RETAINING WALL SECTION
SCALE: NTS



3 C-RET-TYP- RETAINING WALL JOINT DIAGRAM
SCALE: 3/4" = 1'-0"



4 RETAINING WALL CONTROL JOINT
SCALE: NTS



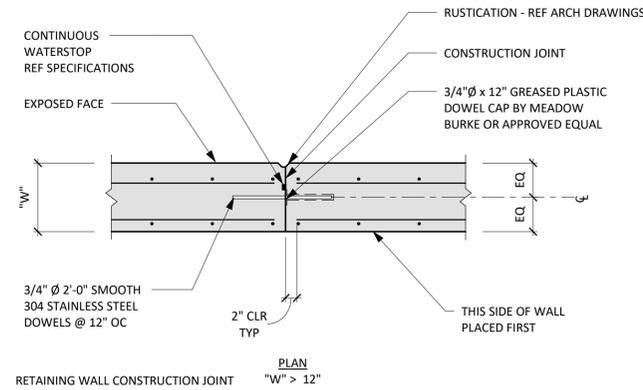
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0 1"
The bar above measures one inch on the original drawing. Adjust scales accordingly.

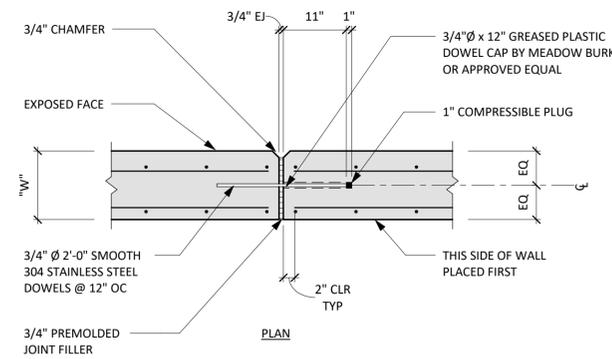
TYPICAL CONCRETE DETAILS

WESTERN HILLS ATHLETIC CLUB
4801 Rollingwood Drive
Austin, TX 78746

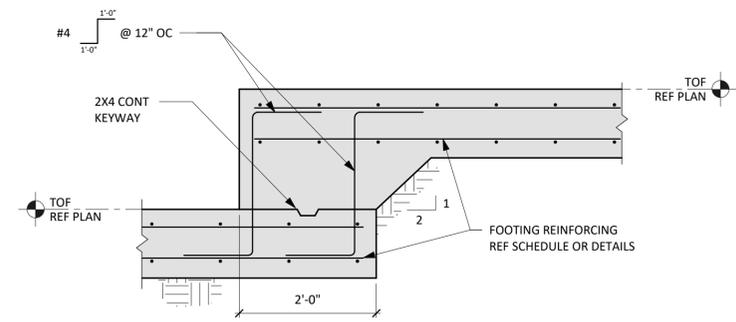
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JOB NO 863-02:
S-201
7 OF 9



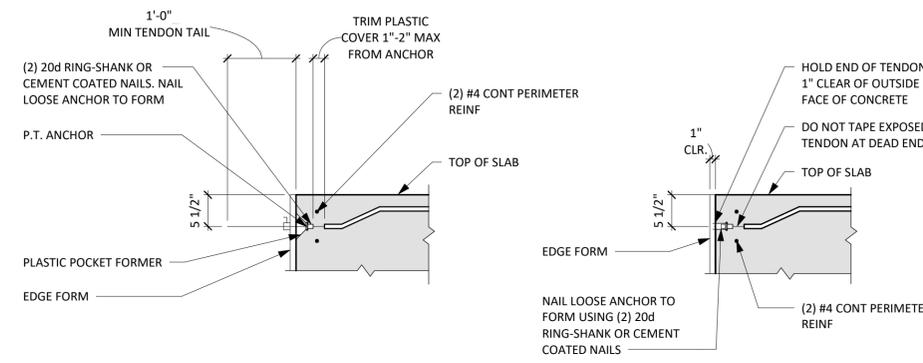
1 TYPICAL DETAIL
SCALE: NTS



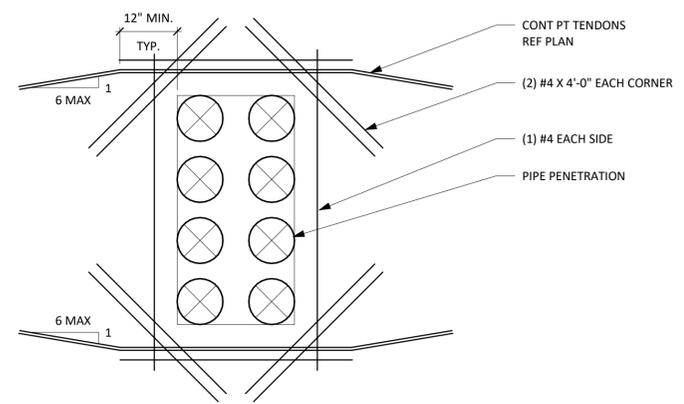
2 TYPICAL DETAIL
SCALE: NTS



3 TYPICAL DETAIL
SCALE: NTS



4 TYPICAL DETAIL
SCALE: NO SCALE



5 TYPICAL DETAIL
SCALE: NO SCALE



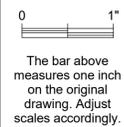
TBPE Firm | 8500 Bluffstone Cove, Suite B-103
1141 | Austin, Texas 78759 | 512.338.1101



305 East Huntland Drive
Suite 200
Austin, Texas 78752
p:512.453.0767
f:512.453.1734

TBAE FIRM REGISTRATION NO.: 1452
TBPE FIRM REGISTRATION NO.: F-1416
TBPLS FIRM REGISTRATION NO.: 10065600

NO.	DATE	DESCRIPTION	BY
1	10/04/24	REVISION 1	

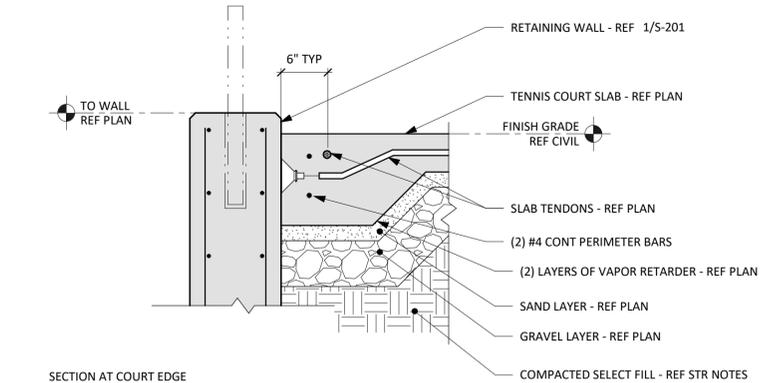


TYPICAL CONCRETE DETAILS

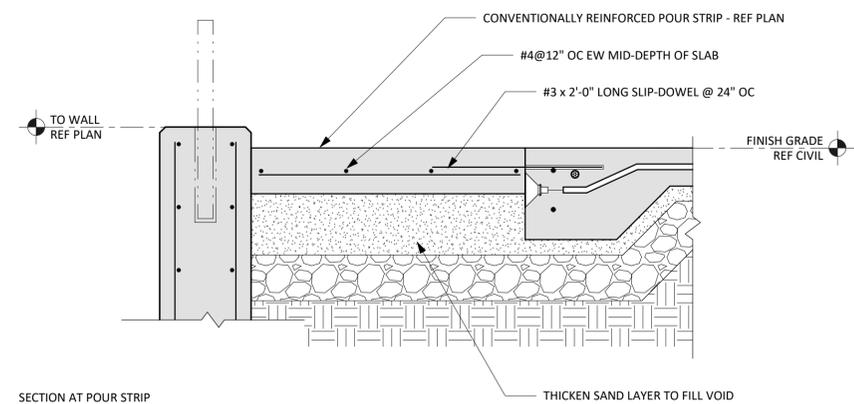
WESTERN HILLS ATHLETIC CLUB
4801 Rollingwood Drive
Austin, TX 78746

PLOTTED: 10/04/24
JOB NO 863-02:

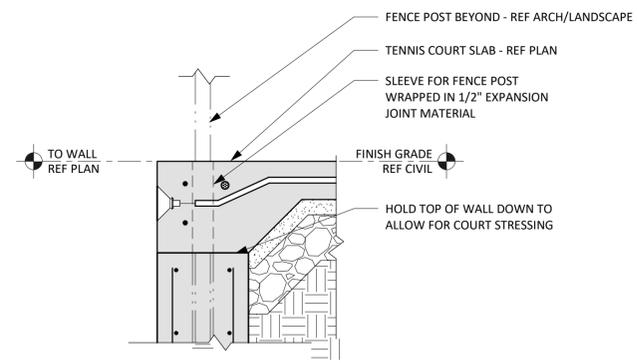
S-202



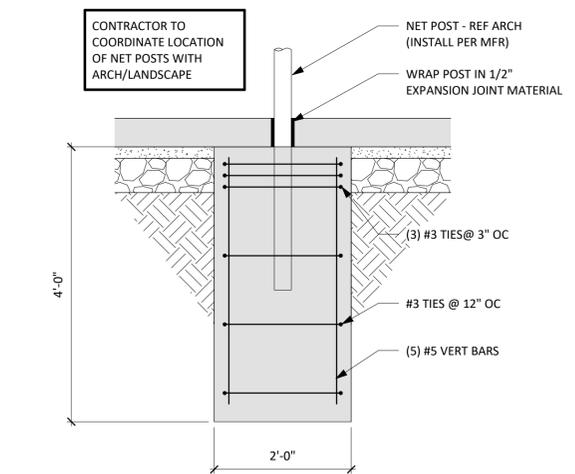
1 SECTION AT COURT EDGE
DETAIL
 SCALE: 1" = 1'-0"



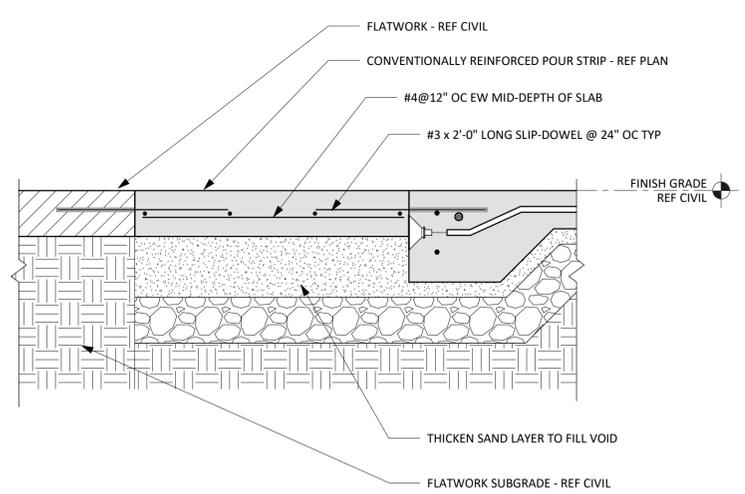
2 SECTION AT POUR STRIP
DETAIL
 SCALE: 1" = 1'-0"



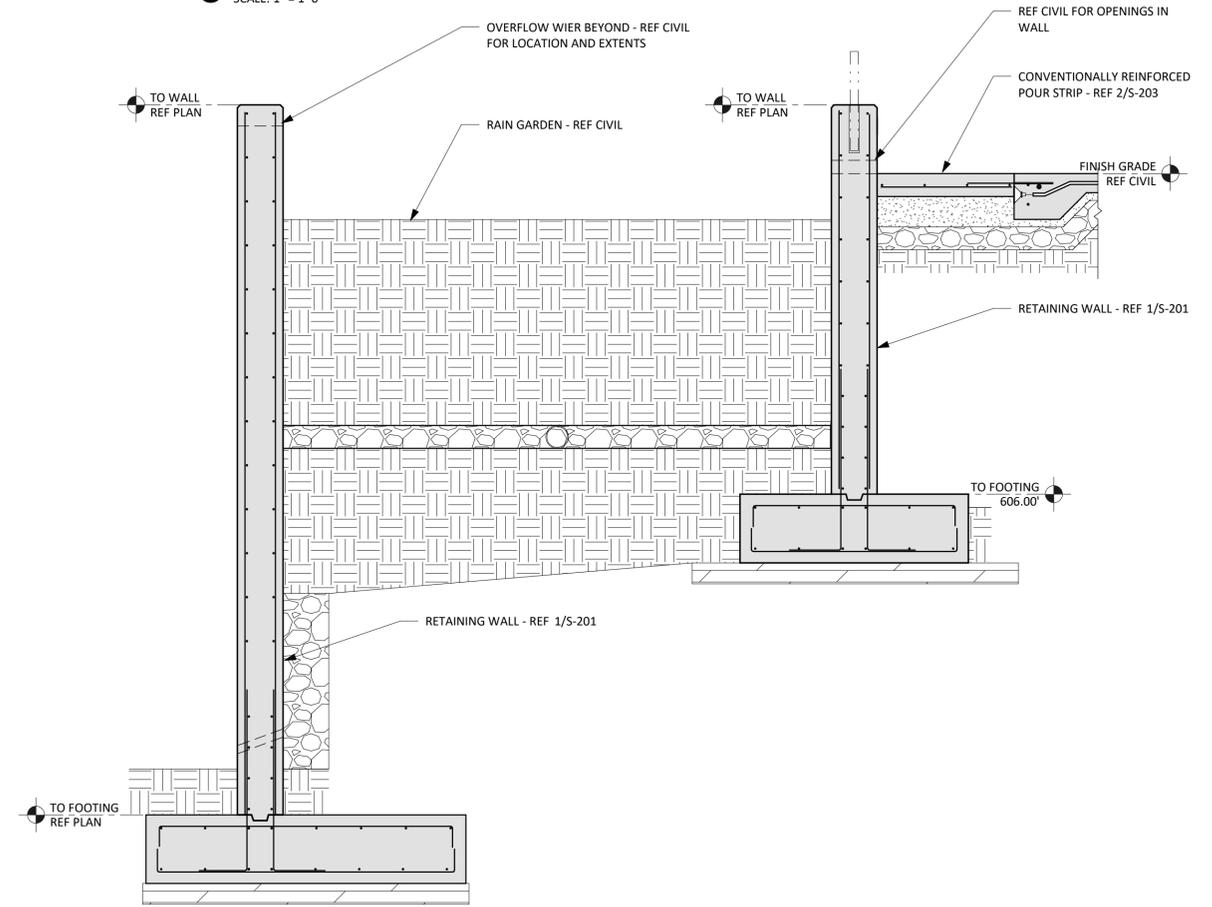
3 SECTION BETWEEN COURTS
DETAIL
 SCALE: 1" = 1'-0"



4 NET POST FOUNDATION
DETAIL
 SCALE: 3/4" = 1'-0"



5 SECTION AT POUR STRIP WITH FLATWORK
 SCALE: 1" = 1'-0"

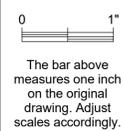


6 SECTION AT RAIN GARDEN
 SCALE: 1/2" = 1'-0"



305 East Huntland Drive
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 Austin, Texas 78752
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 TBPE FIRM REGISTRATION NO.: F-1416
 TBPLS FIRM REGISTRATION NO.: 10065600

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1	10/04/24	REVISION 1	



CONCRETE DETAILS

WESTERN HILLS ATHLETIC CLUB
 4801 Rollingwood Drive
 Austin, TX 78746

PLOTTED: 10/04/24
 JOB NO 863-02:

S-203

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