

CITY OF KIRKLAND

GOAT HILL DRAINAGE DITCH CONVEYANCE
AND CHANNEL STABILIZATION
PHASE 1

JANUARY 4, 2024

JOB NO. 19-23-PW

CIP NO. SDC0900000

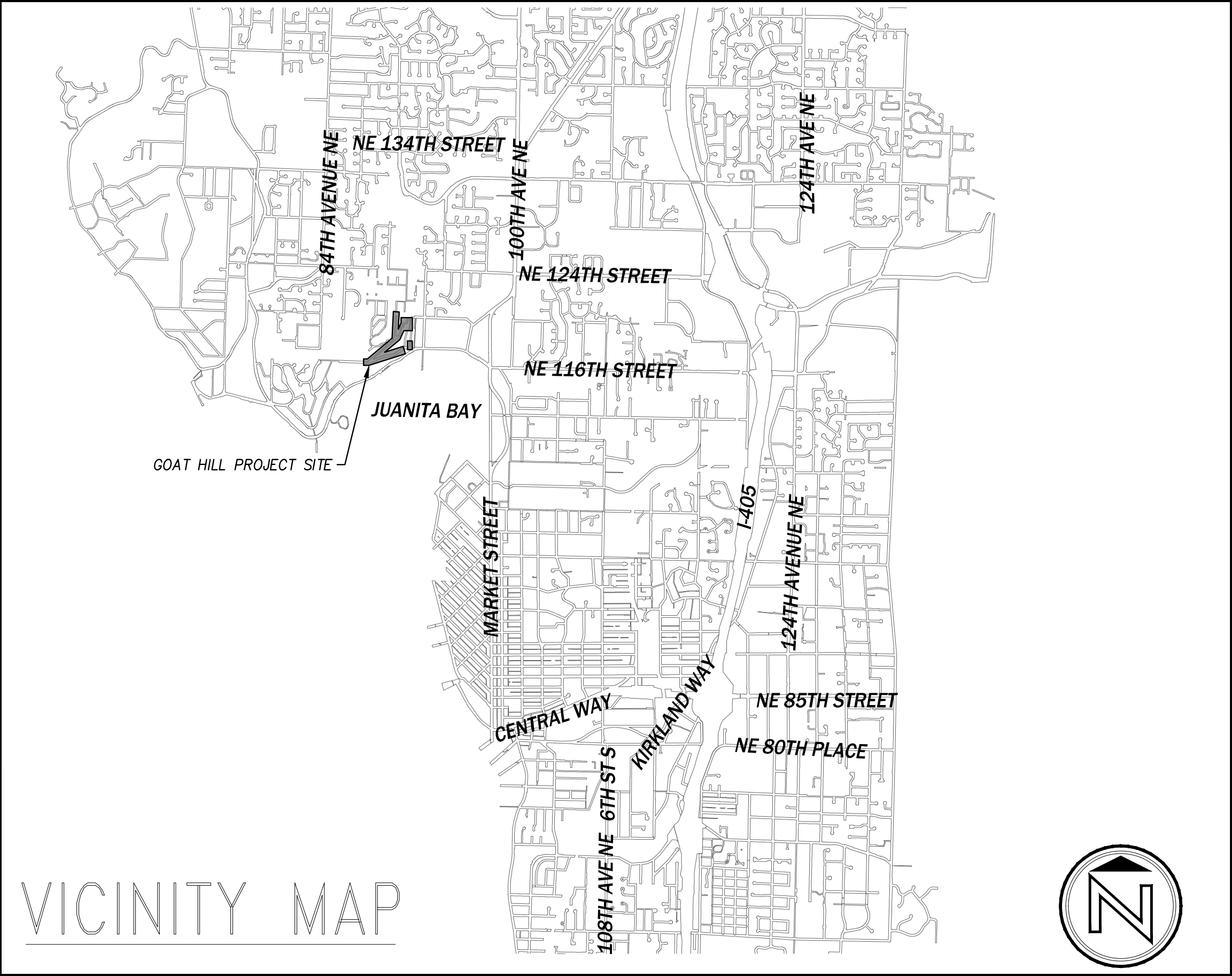
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COUNCIL MEMBER
COUNCIL MEMBER
COUNCIL MEMBER
COUNCIL MEMBER
COUNCIL MEMBER
CITY MANAGER
PUBLIC WORKS DIRECTOR
CAPITAL PROJECTS MANAGER

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LEGEND

	EXISTING	PROPOSED
ROADWAY CENTERLINE	=====	=====
PROJECT BOUNDARY LINE	-----	-----
PROPERTY BOUNDARY LINE	-----	-----
RIGHT-OF-WAY LINE	-----	-----
EASEMENT LINE	-----	-----
EDGE OF PAVEMENT LINE	=====	=====
10' CONTOUR LINE	----- 290 -----	----- 290 -----
2' CONTOUR LINE	-----	-----
SANITARY SEWER MAIN	----- SS -----	----- SS ----- SS -----
WATER LINE	----- W -----	-----
FIRE SUPPLY	----- F -----	----- F ----- F ----- F ----- F ----- F -----
STORM PIPE	----- SD -----	=====
GAS LINE	----- GAS -----	----- GAS -----
FENCE LINE	----- X -----	-----
POWER LINE	----- OP -----	-----
BURIED POWER LINE	----- BP -----	-----
UTILITY EASEMENT	-----	-----
TELEPHONE LINE	----- T -----	-----
BURIED TELEPHONE LINE	----- BT -----	-----
SWALE	-----	-----
SILT FENCE	-----	----- X ----- X ----- X ----- X ----- X -----
CONSTRUCTION FENCING	-----	----- // ----- // ----- // ----- // -----
CLEARING LIMIT	-----	-----
SANITARY SEWER CLEAN OUT	○	●
SANITARY SEWER MANHOLE		●
STORM DRAIN CATCH BASIN - TYPE I		●
STORM DRAIN CATCH BASIN - TYPE II		●
STORM DRAIN INLET (NO CATCH)		●
STORM DRAIN CULVERT	=====	=====
WATER CAP/PLUG]]
WATER COUPLING	+	+
GUARD POST	○	●
REDUCER	△	▶
THRUST BLOCK	△	▶
WATER METER	■	■
2 NOZZLE FIRE HYDRANT	○	●
3 NOZZLE FIRE HYDRANT	○	●
FLANGE/BUND FL JOINT		
MECHANICAL JOINT	[[
PUSH-ON/HUB JOINT	⌋	⌋
THREAD JOINT	⌋	⌋
AIR RELIEF VALVE	⌋	⌋
BLOW-OFF VALVE	⌋	⌋
BUTTERFLY VALVE	⌋	⌋
CHECK VALVE	⌋	⌋
GATE/GENERAL VALVE	⌋	⌋
PLUG VALVE	⌋	⌋
GAS METER	⌋	⌋
GAS VALVE	⌋	⌋
PAD MOUNTED TRANSFORMER	⌋	⌋
POWER VAULT	⌋	⌋
TRANSMISSION TOWER (SCALEABLE)	⌋	⌋
UTILITY POLE	⌋	⌋
POWER POLE	⌋	⌋
UTILITY POLE ANCHOR	⌋	⌋
TELEPHONE RISER	⌋	⌋
TELEPHONE VAULT	⌋	⌋
BUS STOP	⌋	⌋
MAIL BOX	⌋	⌋
RIP RAP	⌋	⌋
ROCKERY	⌋	⌋
SHRUB	⌋	⌋
GENERAL SIGN	⌋	⌋
REGULATORY SIGN	⌋	⌋
TREE (CONIFER)	⌋	⌋
TREE (DECIDUOUS)	⌋	⌋
YARD LIGHT	⌋	⌋
BRIDGE/TUNNEL	⌋	⌋
ASPHALT PAVEMENT	⌋	⌋
CONCRETE	⌋	⌋

GENERAL PROJECT NOTES

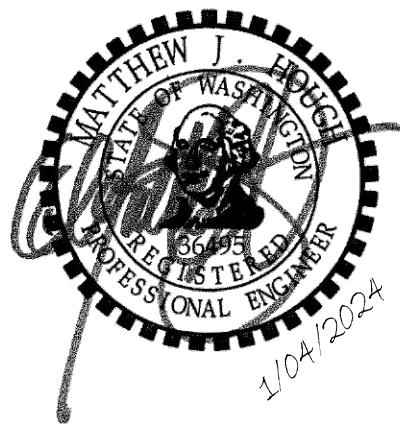
- ALL WORKMANSHIP, METHODS AND MATERIALS FOR THIS PROJECT SHALL CONFORM TO THE 2023 EDITION OF THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE, AND MUNICIPAL CONSTRUCTION AS PRODUCED BY WSDOT AND THE WASHINGTON STATE CHAPTER OF THE APWA; APPLICABLE CITY OF KIRKLAND MUNICIPAL CODE AND PUBLIC WORKS AND DEVELOPMENT STANDARDS; APPLICABLE KING COUNTY CODE AND PUBLIC WORKS AND DEVELOPMENT STANDARDS, NORTHSHORE UTILITY DISTRICT (NUD) DEVELOPMENT STANDARDS FOR WATER SYSTEMS; NORTHSHORE UTILITY DISTRICT (NUD) DEVELOPMENT STANDARDS FOR SANITARY SEWER SYSTEMS; AND ANY SPECIAL PROVISIONS PROVIDED BY THESE PLANS OR OTHER CONTRACT DOCUMENTS FOR THE PROJECT.
- EXISTING UTILITIES ARE SHOWN IN THESE PLANS PER THE LATEST AVAILABLE INFORMATION. THE CONTRACTOR SHALL VERIFY THE LOCATIONS OF ALL UTILITIES AND RELATED SURFACE FEATURES WITHIN THE PROJECT AREA AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES WITH THE PLAN INFORMATION PRIOR TO CONSTRUCTION. THE CONTRACTOR SHALL, AT MINIMUM, CONTACT THE UNDERGROUND UTILITIES LOCATE CENTER (1-800-424-5555) TO HAVE UTILITIES VERIFIED ON THE GROUND PRIOR TO CONSTRUCTION.
- THE TEMPORARY EROSION AND SEDIMENTATION CONTROL (TESC) MEASURES SHOWN IN THESE PLANS SHALL BE CONSIDERED A MINIMUM. THE CONTRACTOR SHALL PROVIDE ANY REASONABLE ADDITIONAL MEASURES AS MAY BE REQUIRED TO FACILITATE ACTUAL SITE RUNOFF CONDITIONS AT THE TIME OF CONSTRUCTION. ALL NECESSARY EROSION AND SEDIMENTATION CONTROL MEASURES SHALL BE IN-PLACE PRIOR TO ANY DEMOLITION OR CONSTRUCTION ACTIVITIES.
- ALL NEW PAVEMENT, SIDEWALKS, AND CURB AND GUTTER INSTALLED BY THIS PROJECT SHALL BEAR ON SUITABLE, COMPACT FOUNDATION SOILS IN ACCORDANCE WITH THE REQUIREMENTS OF THE STANDARD SPECIFICATIONS AND PROJECT CONTRACT DOCUMENTS. SIMILAR EXISTING FACILITIES TO REMAIN, WHICH ARE DISTURBED OR DAMAGED DURING CONSTRUCTION, SHALL BE REPLACED IN-KIND TO THE SAME STANDARDS OF NEW FACILITIES.
- ALL PAVEMENT MARKINGS SHALL CONFORM TO THE WSDOT STANDARD PLANS AND SPECIFICATIONS AS AMENDED OR SUPPLEMENTED BY THE PROJECT PLANS, DETAILS, AND SPECIFICATIONS AS PROVIDED IN THE CONTRACT DOCUMENTS.
- ALL EXISTING ON-SITE DOMESTIC WATER WELLS AND/OR SEWER SEPTIC TANKS SHALL BE PROPERLY ABANDONED BY A LICENSED CONTRACTOR, CERTIFIED TO PERFORM SUCH WORK, AND WRITTEN VERIFICATION OF ABANDONMENT SHALL BE PROVIDED TO THE OWNER, WASHINGTON STATE DEPARTMENT OF ECOLOGY, AND KING COUNTY HEALTH DEPARTMENT IN ACCORDANCE WITH APPLICABLE AGENCY REGULATIONS.
- THE MATERIALS AND METHODS OF INSTALLATION FOR ALL PUBLIC DOMESTIC POTABLE AND FIRE WATER SUPPLY SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE STANDARDS OF NORTHSHORE UTILITY DISTRICT.
- THE MATERIALS AND METHODS OF INSTALLATION FOR ALL PUBLIC SANITARY SEWER SYSTEMS SHALL BE IN ACCORDANCE WITH APPLICABLE STANDARDS OF NORTHSHORE UTILITY DISTRICT.
- AT LEAST TWO COPIES OF THESE PLANS SHALL BE ON THE JOB SITE WHEN CONSTRUCTION IS IN PROGRESS. THE CONTRACTOR SHALL ALSO HAVE COPIES OF THE APPLICABLE REGULATORY AGENCY STANDARDS AVAILABLE AT THE JOB SITE DURING THE RELATED CONSTRUCTION OPERATIONS. ALL APPLICABLE PERMITS SHALL BE OBTAINED PRIOR TO ANY CONSTRUCTION ACTIVITY. ONE COMPLETE SET OF PROJECT PLANS WITH RECORDS OF AS-BUILT INFORMATION SHALL BE PROVIDED TO THE PROJECT ENGINEER AT THE END OF THE PROJECT.
- THE CONTRACTOR SHALL COORDINATE ACTIVITIES OF ALL UTILITY PURVEYORS IMPACTED BY WORK FOR THIS PROJECT AND SHALL CONTACT THEM PRIOR TO CONSTRUCTION TO SCHEDULE WORK FOR PROVISIONS FOR AND BE RESPONSIBLE TO SUPPORT, MAINTAIN, OR OTHERWISE PROTECT AND KEEP IN SERVICE ALL EXISTING UTILITIES WHETHER SHOWN OR NOT SHOWN ON THESE PLANS DURING CONSTRUCTION.
- UTILITIES, OR INTERFERING PORTIONS OF UTILITIES, THAT ARE ABANDONED IN PLACE SHALL BE REMOVED BY THE CONTRACTOR TO THE EXTENT NECESSARY TO COMPLETE THE PROPOSED WORK. THE CONTRACTOR SHALL PLUG THE REMAINING EXPOSED ENDS OF ABANDONED UTILITIES. CUTTING AND PLUGGING OF LINES TO BE ABANDONED SHALL BE CONSIDERED INCIDENTAL TO OTHER WORK PERFORMED.
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO ENSURE THAT ALL PROVISIONS OF THE SOILS REPORT FOR THE SITE BE OBSERVED AND COMPLIED WITH DURING ALL PHASES OF SITE PREPARATION, GRADING OPERATIONS, FOUNDATION, SLAB AND PAVING CONSTRUCTION. THE CONTRACTOR SHALL NOTIFY THE PROJECT ENGINEER IMMEDIATELY OF ANY PROVISION OF THE SOIL REPORT WHICH CONFLICT WITH INFORMATION SHOWN ELSEWHERE ON THESE DRAWINGS, OR WHICH REQUIRES FURTHER CLARIFICATION.
- THE CONTRACTOR OR OWNER SHALL OBTAIN THE SERVICES OF A QUALIFIED SOILS ENGINEER AND/OR TESTING AGENCY TO PERFORM SUBGRADE/BACKFILL DENSITY TESTS OR TO DIRECT THE REMOVAL AND REPLACEMENT OF ANY UNSUITABLE MATERIALS DURING CONSTRUCTION. A REPRESENTATIVE OF THE SOILS ENGINEER AND/OR TESTING AGENCY SHALL BE AVAILABLE TO OBSERVE AND TO VERIFY FIELD CONDITIONS AS WORK PROCEEDS. THE SOILS ENGINEER SHALL SUBMIT FIELD REPORTS AS REQUIRED TO CERTIFY THE METHODS AND MATERIALS ARE IN ACCORDANCE WITH PROJECT SPECIFICATIONS. THE CONTRACTOR SHALL COORDINATE THE APPROPRIATE SOILS INSPECTIONS AND TESTING.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE TRAFFIC CONTROL DURING CONSTRUCTION ADJACENT TO OR WITHIN ALL PUBLIC ROADWAYS. TRAFFIC CONTROL MEASURES SHALL BE IN PLACE PRIOR TO ANY CONSTRUCTION ACTIVITY. THE CONTRACTOR SHALL MAINTAIN ACCESS TO ALL PRIVATE PROPERTY DRIVEWAYS DURING CONSTRUCTION.
- ALL WORK PERTAINING TO THIS PROJECT SHALL BE SUBJECT TO INSPECTION BY THE CITY INSPECTOR OR HIS DESIGNATED REPRESENTATIVE. PRIOR TO ANY SITE WORK, THE CONTRACTOR SHALL CONTACT _____ AT (_____) _____ TO SCHEDULE A PRE-CONSTRUCTION CONFERENCE.

ABBREVIATIONS

AC	ASPHALT CONCRETE PAVEMENT	LOPE	LINED CORRUGATED POLYETHYLENE PIPE
AP	ANGLE POINT	LF	LINEAL FEET
ATB	ASPHALT TREATED BASE	LT	LEFT
AVE	AVENUE	LUI	LAND USE INSPECTOR
BOR	BEGIN CURB RETURN	MAX.	MAXIMUM
BOC	BACK OF CURB	MORT	MAJOR DEVELOPMENT REVIEW TEAM
BOW	BOTTOM OF WALL	MH	MANHOLE
C	CENTERLINE	MIN.	MINIMUM
CB	CATCH BASIN	MJ	MECHANICAL JOINT
CDP	CONTROLLED DENSITY FILL	N	NORTH
CONC.	CORRUGATED METAL PIPE	NIC	NOT IN CONTRACT
CONC.	CONCRETE	O.C.	ON CENTER
CONV.	CONNECTION	PC	POINT OF CURVATURE
CONT.	CONTINUOUS	PE	PLAIN END
COK	CITY OF KIRKLAND	PI	POINT OF INTERSECTION
OPP	CORRUGATED POLYETHYLENE PIPE (W/SMOOTH INTERIOR WALLS)	PL	PLACE
CSBC	CRUSHED SURFACING BASE COURSE	PT	POINT OF TANGENCY
CSTC	CRUSHED SURFACING TOP COURSE	PVI	POINT OF VERTICAL INTERSECTION
DIA.	DIAMETER	PUE	PUBLIC UTILITY EASEMENT
DI	DUCTILE IRON	REQ'D.	REQUIRED
DW	DRIVEWAY	ROW	RIGHT-OF-WAY
E	EAST	RT	RIGHT
ECR	END CURB RETURN	S	SOUTH
EL	ELEVATION	SD	STORM DRAIN
EOP	EDGE OF PAVEMENT	SP	SPACE
ESC	EROSION AND SEDIMENT CONTROL	SS	SANITARY SEWER
ESD	ENTERING SIGHT DISTANCE	SSD	STOPPING SIGHT DISTANCE
ESMT.	EASEMENT	STA	STATION
EVA	EMERGENCY VEHICLE ACCESS	TESC	TEMPORARY EROSION AND SEDIMENT CONTROL
EXIST.	EXISTING	TOC	TOP OF CURB
FL	FLOW LINE	TYP.	TYPICAL
FL	FLANGE	TBW	TOP BACK OF WALK
FOC	FACE OF CURB	TOW	TOP OF WALL
HORIZ	HORIZONTAL	UNO	UNLESS NOTED OTHERWISE
IE	INVERT ELEVATION	VERT.	VERTICAL
INT	INTERSECTION	WSDOT	WASHINGTON DEPT. OF TRANSPORTATION
IE	INVERT	W/	WITH
KCRS	KING COUNTY ROAD STANDARDS	WS	WEST
			WATER SERVICE

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CIP NO.	JOB NO.	ENGR.	REVIEW	SCALE	DATE
SDC0900000	19-23-PW	MJH	MJH	AS NOTED	1/04/2024
0	BID SET	PCE	MJH		12/27/23
NO.	REVISION	BY	REVIEW		DATE



CITY OF KIRKLAND
PUBLIC WORKS DEPARTMENT

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GOAT HILL DRAINAGE DITCH CONVEYANCE
AND CHANNEL STABILIZATION – PHASE 1

LEGEND, NOTES AND ABBREVIATIONS

C0.01

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CITY OF KIRKLAND STANDARD PLAN NOTES

EROSION/SEDIMENTATION CONTROL

- THE APPROVED CONSTRUCTION SEQUENCE SHALL BE AS FOLLOWS:
 - CONDUCT PRE-CONSTRUCTION MEETING.
 - FLAG OR FENCE CLEARING LIMITS.
 - POST SIGN WITH NAME AND PHONE NUMBER OF TESC SUPERVISOR.
 - INSTALL CATCH BASIN PROTECTION DOWNSTREAM AND AS DETERMINED BY THE CITY INSPECTOR.
 - GRADE AND INSTALL CONSTRUCTION ENTRANCE(S).
 - INSTALL PERIMETER PROTECTION (SILT FENCE, BRUSH BARRIER, ETC.).
 - CONSTRUCT SEDIMENT PONDS AND TRAPS.
 - GRADE AND STABILIZE CONSTRUCTION ROADS.
 - CONSTRUCT SURFACE WATER CONTROLS (INTERCEPTOR DIKES, PIPE SLOPE DRAINS, ETC.) SIMULTANEOUSLY WITH CLEARING AND GRADING FOR PROJECT DEVELOPMENT.
 - MAINTAIN EROSION CONTROL MEASURE IN ACCORDANCE WITH CITY OF KIRKLAND STANDARDS AND MANUFACTURER'S RECOMMENDATIONS.
 - RELOCATE EROSION CONTROL MEASURES OR INSTALL NEW MEASURES SO THAT AS SITE CONDITIONS CHANGE, THE EROSION AND SEDIMENT CONTROL IS ALWAYS IN ACCORDANCE WITH THE CITY TESC MINIMUM REQUIREMENTS.
 - COVER ALL AREAS WITHIN THE SPECIFIED TIME FRAME WITH STRAW, WOOD FIBER MULCH, COMPOST, PLASTIC SHEETING, CRUSHED ROCK OR EQUIVALENT.
 - STABILIZE ALL AREAS THAT REACH FINAL GRADE WITHIN 7 DAYS.
 - SEED OR SOD ANY AREAS TO REMAIN UNWORKED FOR MORE THAN 30 DAYS.
 - UPON COMPLETION OF THE PROJECT, ALL DISTURBED AREAS MUST BE STABILIZED AND BEST MANAGEMENT PRACTICES REMOVED IF APPROPRIATE.
- CONTRACTOR IS RESPONSIBLE FOR KEEPING STREETS CLEAN AND FREE OF CONTAMINANTS AT ALL TIMES AND FOR PREVENTING AN ILLICIT DISCHARGE (KMC 15.52) INTO THE MUNICIPAL STORM DRAIN SYSTEM. IF YOUR CONSTRUCTION PROJECT CAUSES AN ILLICIT DISCHARGE TO THE MUNICIPAL STORM DRAIN SYSTEM, THE CITY OF KIRKLAND STORM MAINTENANCE DIVISION WILL BE CALLED TO CLEAN THE PUBLIC STORM SYSTEM, AND OTHER AFFECTED PUBLIC INFRASTRUCTURE. THE CONTRACTOR(S), PROPERTY OWNER, AND ANY OTHER RESPONSIBLE PARTY MAY BE CHARGED ALL COSTS ASSOCIATED WITH THE CLEAN-UP AND MAY ALSO BE ASSESSED MONETARY PENALTIES (KMC 1.12.200). THE MINIMUM PENALTY IS \$500. A FINE FOR A REPEAT VIOLATION SHALL BE A MULTIPLIED BY THE NUMBER OF VIOLATIONS. A FINE MAY BE REDUCED OR WAIVED FOR PERSONS WHO IMMEDIATELY SELF-REPORT VIOLATION TO THE CITY AT 425-587-3000. A FINAL INSPECTION OF YOUR PROJECT WILL NOT BE GRANTED UNTIL ALL COSTS ASSOCIATED WITH THE CLEAN-UP, AND PENALTIES, ARE PAID TO THE CITY OF KIRKLAND.
- CONSTRUCTION DEWATERING DISCHARGES SHALL ALWAYS MEET WATER QUALITY GUIDELINES LISTED IN COK POLICY E-1. SPECIFICALLY, DISCHARGES TO THE PUBLIC STORMWATER DRAINAGE SYSTEM MUST BE BELOW 25 NTU, AND NOT CONSIDERED AN ILLICIT DISCHARGE (PER KMC 15.52.090). TEMPORARY DISCHARGES TO SANITARY SEWER REQUIRE PRIOR AUTHORIZATION AND PERMIT FROM KING COUNTY INDUSTRIAL WASTE PROGRAM (206-263-3000) AND NOTIFICATION TO THE PUBLIC WORKS CONSTRUCTION INSPECTOR.
- ALL WORK AND MATERIALS SHALL BE IN ACCORDANCE WITH CITY OF KIRKLAND STANDARDS AND SPECIFICATIONS.
- THE BOUNDARIES OF THE CLEARING LIMITS SHOWN ON THIS PLAN SHALL BE SET BY SURVEY AND CLEARLY PLACED IN THE FIELD BY A CLEARING CONTROL FENCE PRIOR TO CONSTRUCTION. DURING THE CONSTRUCTION PERIOD, NO DISTURBANCE OR REMOVAL OF ANY GROUND COVER BEYOND THE FLAGGED CLEARING LIMITS SHALL BE PERMITTED. THE FLAGGING SHALL BE MAINTAINED BY THE PERMITTEE/CONTRACTOR FOR THE DURATION OF CONSTRUCTION.
- APPROVAL OF THIS EROSION/SEDIMENTATION CONTROL (ESC) PLAN DOES NOT CONSTITUTE AN APPROVAL OF PERMANENT ROAD OR DRAINAGE DESIGN (E.G., SIZE AND LOCATION OF ROADS, PIPES, RESTRICTORS, CHANNELS, RETENTION FACILITIES, UTILITIES, ETC.).
- THE IMPLEMENTATION OF THIS ESC PLAN AND THE CONSTRUCTION, MAINTENANCE, REPLACEMENT, AND UPGRADING OF THESE ESC FACILITIES IS THE RESPONSIBILITY OF THE PERMITTEE/CONTRACTOR UNTIL ALL CONSTRUCTION IS APPROVED.
- A COPY OF THE APPROVED ESC PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- THE ESC FACILITIES SHOWN ON THIS PLAN MUST BE CONSTRUCTED PRIOR TO OR IN CONJUNCTION WITH ALL CLEARING AND GRADING ACTIVITIES IN SUCH A MANNER AS TO ENSURE THAT SEDIMENT-LADEN WATER DOES NOT ENTER THE DRAINAGE SYSTEM OR VIOLATE APPLICABLE WATER STANDARDS. WHEREVER POSSIBLE, MAINTAIN NATURAL VEGETATION FOR SILT CONTROL.
- THE ESC FACILITIES SHALL BE CONSTRUCTED IN ACCORDANCE WITH THE DETAILS ON THE APPROVED PLANS. LOCATIONS MAY BE MOVED TO SUIT FIELD CONDITIONS, SUBJECT TO APPROVAL BY THE ENGINEER AND THE CITY OF KIRKLAND INSPECTOR.
- THE ESC FACILITIES SHOWN ON THIS PLAN ARE THE MINIMUM REQUIREMENTS FOR ANTICIPATED SITE CONDITIONS. DURING THE CONSTRUCTION PERIOD, THESE ESC FACILITIES SHALL BE UPGRADED (E.G., ADDITIONAL SUMPS, RELOCATION OF DITCHES AND SILT FENCES, ETC.) AS NEEDED FOR UNEXPECTED STORM EVENTS. ADDITIONALLY, MORE ESC FACILITIES MAY BE REQUIRED TO ENSURE COMPLETE SILTATION CONTROL. THEREFORE, DURING THE COURSE OF CONSTRUCTION IT SHALL BE THE OBLIGATION AND RESPONSIBILITY OF THE CONTRACTOR TO ADDRESS ANY NEW CONDITIONS THAT MAY BE CREATED BY HIS ACTIVITIES AND TO PROVIDE ADDITIONAL FACILITIES OVER AND ABOVE THE MINIMUM REQUIREMENTS AS MAY BE NEEDED.
- THE ESC FACILITIES SHALL BE INSPECTED BY THE PERMITTEE/CONTRACTOR DAILY DURING NON-RAINFALL PERIODS, EVERY HOUR (DAYLIGHT) DURING A RAINFALL EVENT, AND AT THE END OF EVERY RAINFALL, AND MAINTAINED AS NECESSARY TO ENSURE THEIR CONTINUED FUNCTIONING. IN ADDITION, TEMPORARY SILTATION PONDS AND ALL TEMPORARY SILTATION CONTROLS SHALL BE MAINTAINED IN A SATISFACTORY CONDITION UNTIL SUCH TIME THAT CLEARING AND/OR CONSTRUCTION IS COMPLETED. PERMANENT DRAINAGE FACILITIES ARE OPERATIONAL, AND THE POTENTIAL FOR EROSION HAS PASSED. WRITTEN RECORDS SHALL BE KEPT DOCUMENTING THE REVIEWS OF THE ESC FACILITIES.
- THE ESC FACILITIES ON INACTIVE SITES SHALL BE INSPECTED AND MAINTAINED A MINIMUM OF ONCE A MONTH OR WITHIN 48 HOURS FOLLOWING A STORM EVENT.
- STABILIZED CONSTRUCTION ENTRANCES SHALL BE INSTALLED AT THE BEGINNING OF CONSTRUCTION AND MAINTAINED FOR THE DURATION OF THE PROJECT. ADDITIONAL MEASURES, SUCH AS WASH PADS, MAY BE REQUIRED TO ENSURE THAT ALL PAVED AREAS ARE KEPT CLEAN FOR THE DURATION OF THE PROJECT.

- ALL DENUDED SOILS MUST BE STABILIZED WITH AN APPROVED TESC METHOD (E.G. SEEDING, MULCHING, PLASTIC COVERING, CRUSHED ROCK) WITHIN THE FOLLOWING TIMELINES:
 - MAY 1 TO SEPTEMBER 30 - SOILS MUST BE STABILIZED WITHIN 7 DAYS OF GRADING.
 - OCTOBER 1 TO APRIL 30 - SOILS MUST BE STABILIZED WITHIN 2 DAYS OF GRADING.
 - STABILIZE SOILS AT THE END OF THE WORKDAY PRIOR TO A WEEKEND, HOLIDAY, OR PREDICTED RAIN EVENT.
- WHERE SEEDING FOR TEMPORARY EROSION CONTROL IS REQUIRED, FAST GERMINATING GRASSES SHALL BE APPLIED AT AN APPROPRIATE RATE (EXAMPLE: ANNUAL OR PERENNIAL RYE APPLIED AT APPROXIMATELY 80 POUNDS PER ACRE).
- WHERE STRAW MULCH IS REQUIRED FOR TEMPORARY EROSION CONTROL, IT SHALL BE APPLIED AT A MINIMUM THICKNESS OF 2".
- ALL LOTS ADJOINING OR HAVING ANY NATIVE GROWTH PROTECTION EASEMENTS (NGPE) SHALL HAVE A 6' HIGH TEMPORARY CONSTRUCTION FENCE (CHAIN LINK WITH PIER BLOCKS) SEPARATING THE LOT (OR BUILDABLE PORTIONS OF THE LOT) FROM THE AREA RESTRICTED BY THE NGPE AND SHALL BE INSTALLED PRIOR TO ANY GRADING OR CLEARING AND REMAIN IN PLACE UNTIL THE PLANNING DEPARTMENT AUTHORIZES REMOVAL.
- CLEARING LIMITS SHALL BE DELINEATED WITH A CLEARING CONTROL FENCE. THE CLEARING CONTROL FENCE SHALL CONSIST OF A 6-FT. HIGH CHAIN LINK FENCE ADJACENT THE DRIP LINE OF TREES TO BE SAVED, WETLAND OR STREAM BUFFERS, AND SENSITIVE SLOPES. CLEARING CONTROL FENCES ALONG WETLAND OR STREAM BUFFERS OR UP SLOPES OF SENSITIVE SLOPES SHALL BE ACCOMPANIED BY AN EROSION CONTROL FENCE. IF APPROVED BY THE CITY, A FOUR-FOOT HIGH ORANGE MESH CLEARING CONTROL FENCE MAY BE USED TO DELINEATE CLEARING LIMITS IN ALL OTHER AREAS.
- OFF-SITE STREETS MUST BE KEPT CLEAN AT ALL TIMES. IF DIRT IS DEPOSITED ON THE PUBLIC STREET SYSTEM, THE STREET SHALL BE IMMEDIATELY CLEANED WITH POWER SWEEPER OR OTHER EQUIPMENT. ALL VEHICLES SHALL LEAVE THE SITE BY WAY OF THE CONSTRUCTION ENTRANCE AND SHALL BE CLEANED OF ALL DIRT THAT WOULD BE DEPOSITED ON THE PUBLIC STREETS.
- ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, PLACED TO A DEPTH OF 1' AND MUST MEET THE FOLLOWING SPECIFICATIONS: 4"-8" ROCK/40%-70% PASSING; 2"-4" ROCK/30%-40% PASSING; AND 1"-2" ROCK/10%-20% PASSING. RECYCLED CONCRETE SHALL NOT BE USED FOR EROSION PROTECTION, INCLUDING CONSTRUCTION ENTRANCE OR TEMPORARY STABILIZATION ELSEWHERE ON THE SITE.
- IF ANY PART(S) OF THE CLEARING LIMIT BOUNDARY OR TEMPORARY EROSION/SEDIMENTATION CONTROL PLAN IS/ARE DAMAGED, IT SHALL BE REPAIRED IMMEDIATELY.
- ALL PROPERTIES ADJACENT TO THE PROJECT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION AND RUNOFF.
- AT NO TIME SHALL MORE THAN 1' OF SEDIMENT BE ALLOWED TO ACCUMULATE WITHIN A CATCH BASIN. ALL CATCH BASINS AND CONVEYANCE LINES SHALL BE CLEANED IMMEDIATELY FOLLOWING REMOVAL OF EROSION CONTROL BMPs. THE CLEANING OPERATION SHALL NOT FLUSH SEDIMENT-LADEN WATER INTO THE DOWNSTREAM SYSTEM.
- ANY PERMANENT RETENTION/DETENTION FACILITY USED AS A TEMPORARY SETTLING BASIN SHALL BE MODIFIED WITH THE NECESSARY EROSION CONTROL MEASURES AND SHALL PROVIDE ADEQUATE STORAGE CAPACITY. IF THE PERMANENT FACILITY IS TO FUNCTION ULTIMATELY AS AN INFILTRATION OR DISPERSION SYSTEM, THE FACILITY SHALL NOT BE USED AS A TEMPORARY SETTLING BASIN. NO UNDERGROUND DETENTION TANK, DETENTION VAULT, OR SYSTEM WHICH BACKS UNDER OR INTO A POND SHALL BE USED AS A TEMPORARY SETTLING BASIN.
- ALL EROSION/SEDIMENTATION CONTROL PONDS WITH A DEAD STORAGE DEPTH EXCEEDING 6" MUST HAVE A PERIMETER FENCE WITH A MINIMUM HEIGHT OF 3'.
- THE WASHED GRAVEL BACKFILL ADJACENT TO THE FILTER FABRIC FENCE SHALL BE REPLACED AND THE FILTER FABRIC CLEANED IF IT IS NONFUNCTIONAL BY EXCESSIVE SILT ACCUMULATION DETERMINED BY THE CITY OF KIRKLAND. ALSO, ALL INTERCEPTOR SWALES SHALL BE CLEANED IF SILT ACCUMULATION EXCEEDS ONE-QUARTER DEPTH.
- PRIOR TO THE OCTOBER 1 OF EACH YEAR (THE BEGINNING OF THE WET SEASON), ALL DISTURBED AREAS SHALL BE REVIEWED TO IDENTIFY WHICH ONES CAN BE SEEDED IN PREPARATION FOR THE WINTER RAINS. THE IDENTIFIED DISTURBED AREA SHALL BE SEEDD WITHIN ONE WEEK AFTER OCTOBER 1. A SITE PLAN DEPICTING THE AREAS TO BE SEEDD AND THE AREAS TO REMAIN UNCOVERED SHALL BE SUBMITTED TO THE PUBLIC WORKS CONSTRUCTION INSPECTOR. THE INSPECTOR CAN REQUIRE SEEDING OF ADDITIONAL AREAS IN ORDER TO PROTECT SURFACE WATERS, ADJACENT PROPERTIES, OR DRAINAGE FACILITIES.
- ANY AREA TO BE USED FOR INFILTRATION OR PERVIOUS PAVEMENT (INCLUDING A 5-FOOT BUFFER) MUST BE SURROUNDED BY SILT FENCE PRIOR TO CONSTRUCTION AND UNTIL FINAL STABILIZATION OF THE SITE TO PREVENT SOIL COMPACTION AND SILTATION BY CONSTRUCTION ACTIVITIES.
- IF THE TEMPORARY CONSTRUCTION ENTRANCE OR ANY OTHER AREA WITH HEAVY VEHICLE LOADING IS LOCATED IN THE SAME AREA TO BE USED FOR INFILTRATION OR PERVIOUS PAVEMENT, 6" OF SEDIMENT BELOW THE GRAVEL SHALL BE REMOVED PRIOR TO INSTALLATION OF THE INFILTRATION FACILITY OR PERVIOUS PAVEMENT (TO REMOVE FINES ACCUMULATED DURING CONSTRUCTION).
- ANY CATCH BASINS COLLECTING RUNOFF FROM THE SITE, WHETHER THEY ARE ON OR OFF THE SITE, SHALL HAVE ADEQUATE PROTECTION FROM SEDIMENT. CATCH BASINS DIRECTLY DOWNSTREAM OF THE CONSTRUCTION ENTRANCE OR ANY OTHER CATCH BASIN AS DETERMINED BY THE CITY INSPECTOR SHALL BE PROTECTED WITH A "STORM DRAIN PROTECTION INSERT" OR EQUIVALENT.
- IF A SEDIMENT POND IS NOT PROPOSED, A BAKER TANK OR OTHER TEMPORARY GROUND AND/OR SURFACE WATER STORAGE TANK MAY BE REQUIRED DURING CONSTRUCTION, DEPENDING ON WEATHER CONDITIONS.
- DO NOT FLUSH CONCRETE BY-PRODUCTS OR TRUCKS NEAR OR INTO THE STORM DRAINAGE SYSTEM. IF EXPOSED AGGREGATE IS FLUSHED INTO THE STORM SYSTEM, IT COULD MEAN RE-CLEANING THE ENTIRE DOWNSTREAM STORM SYSTEM, OR POSSIBLY RE-LAYING THE STORM LINE.
- RECYCLED CONCRETE SHALL NOT BE STOCKPILED ON SITE, UNLESS FULLY COVERED WITH NO POTENTIAL FOR RELEASE OF RUNOFF.

STORM DRAINAGE

- A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
- BEFORE ANY CONSTRUCTION MAY OCCUR, THE CONTRACTOR SHALL HAVE PLANS WHICH HAVE BEEN SIGNED AND APPROVED BY THE CITY OF KIRKLAND PUBLIC WORKS DEPARTMENT, OBTAINED ALL CITY, COUNTY, STATE, FEDERAL AND OTHER REQUIRED PERMITS, AND HAVE POSTED ALL REQUIRED BONDS.
- ALL STORM DRAINAGE IMPROVEMENTS SHALL BE DESIGNED AND CONSTRUCTED IN ACCORDANCE WITH THE LATEST EDITION OF THE CITY OF KIRKLAND PUBLIC WORKS

- PRE-APPROVED PLANS AND POLICIES AND THE STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, PREPARED BY WSDOT AND THE AMERICAN PUBLIC WORKS ASSOCIATION (APWA).
- ANY DEVIATION FROM THE APPROVED PLANS WILL REQUIRE WRITTEN APPROVAL, ALL CHANGES SHALL BE SUBMITTED TO THE CITY.
 - A COPY OF THE APPROVED STORM WATER PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
 - ALL DISTURBED AREAS SHALL BE SEEDD AND MULCHED OR SIMILARLY STABILIZED TO THE SATISFACTION OF THE CITY OF KIRKLAND DEPARTMENT OF PUBLIC WORKS FOR THE PREVENTION OF ON-SITE EROSION AFTER THE COMPLETION OF CONSTRUCTION.
 - MINIMUM COVER OVER STORM DRAINAGE PIPES IN ROW OR VEHICULAR PATH SHALL BE 18 INCHES, UNLESS OTHER DESIGN IS APPROVED.
 - STEEL PIPE SHALL HAVE ASPHALT TREATMENT #1 OR BETTER INSIDE AND OUTSIDE.
 - ALL CATCH BASINS SHALL BE TYPE I UNLESS OTHERWISE NOTED. CATCH BASINS WITH A DEPTH OF OVER FIVE FEET (5') TO THE PIPE INVERT SHALL BE A TYPE II CATCH BASIN. TYPE II CATCH BASINS EXCEEDING FIVE FEET (5') IN DEPTH SHALL HAVE A STANDARD LADDER INSTALLED.
 - ALL STORM DRAINAGE MAIN EXTENSIONS WITHIN THE PUBLIC RIGHT-OF-WAY OR IN EASEMENTS MUST BE STAKED FOR LINE AND GRADE PRIOR TO STARTING CONSTRUCTION.
 - ROCK FOR EROSION PROTECTION OF ROADWAY DITCHES, WHERE REQUIRED, MUST BE OF SOUND QUARRY ROCK, PLACED TO A DEPTH OF ONE FOOT (1') AND MUST MEET THE FOLLOWING SPECIFICATIONS: 4"-8" ROCK/40%-70% PASSING; 2"-4" ROCK/30%-40% PASSING; 2"-MINUS ROCK/10%-20% PASSING. RECYCLED CONCRETE SHALL NOT BE USED FOR EROSION PROTECTION, INCLUDING FOR CONSTRUCTION ENTRANCE OR TEMPORARY STABILIZATION ELSEWHERE ON SITE.
 - ALL PIPE, MANHOLES, CATCH BASINS, AND APPURTENANCES SHALL BE LAID ON A PROPERLY PREPARED FOUNDATION IN ACCORDANCE WITH THE CURRENT STATE OF WASHINGTON STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION (WSDOT). THIS SHALL INCLUDE NECESSARY LEVELING OF THE TRENCH BOTTOM OR THE TOP OF THE FOUNDATION MATERIAL AS WELL AS PLACEMENT AND COMPACTION OF REQUIRED BEDDING MATERIAL TO UNIFORM GRADE SO THAT THE ENTIRE LENGTH OF THE PIPE WILL BE SUPPORTED ON A UNIFORM BEDDING BASE. IF THE NATIVE MATERIAL IN THE BOTTOM OF THE TRENCH MEETS THE REQUIREMENTS FOR "GRAVEL BACKFILL FOR PIPE BEDDING," THE FIRST LIFT OF PIPE BEDDING MAY BE OMITTED PROVIDED THE MATERIAL IN THE BOTTOM OF THE TRENCH IS LOOSEENED, REGRADED, AND COMPACTED TO FORM A DENSE UNYIELDING BASE. ALL PIPE BEDDING SHALL BE APWA CLASS B, TYPE I, OR BETTER. PIPE SHALL NOT BE INSTALLED ON SOD, FROZEN EARTH, LARGE BOULDERS, OR ROCK. PIPE BEDDING FOR FLEXIBLE PIPES SHALL BE PEA GRAVEL TO THE SPRINGLINE OF THE PIPE.
 - CONSTRUCTION OF DEWATERING DISCHARGES SHALL ALWAYS MEET WATER QUALITY GUIDELINES LISTED IN COK POLICY E-1. SPECIFICALLY, DISCHARGES TO THE PUBLIC STORMWATER DRAINAGE SYSTEM MUST BE BELOW 25NTU, AND NOT CONSIDERED A PROHIBITED DISCHARGE (PER KMC 15.52.090). TEMPORARY DISCHARGES TO SANITARY SEWER REQUIRE PRIOR AUTHORIZATION AND PERMIT FROM KING COUNTY INDUSTRIAL WASTE PROGRAM (206-263-3000) AND NOTIFICATION TO THE PUBLIC WORKS CONSTRUCTION INSPECTOR.
 - ISSUANCE OF A BUILDING OR LAND SURFACE MODIFICATION PERMIT BY THE CITY OF KIRKLAND DOES NOT RELIEVE THE OWNER OF THE CONTINUING LEGAL OBLIGATION AND/OR LIABILITY CONNECTED WITH STORM SURFACE WATER DISPOSITION. FURTHER, THE CITY OF KIRKLAND DOES NOT ACCEPT ANY OBLIGATION FOR THE PROPER FUNCTIONING AND MAINTENANCE OF THE SYSTEM DURING OR FOLLOWING CONSTRUCTION EXCEPT AS OUTLINED IN THE CITY OF KIRKLAND PUBLIC WORKS STANDARDS.
 - ALL TRENCH BACKFILL SHALL BE COMPACTED TO 95 PERCENT DENSITY IN ROADWAYS, ROADWAY SHOULDERS, ROADWAY PRISM AND DRIVEWAYS, AND 85 PERCENT DENSITY IN UNPAVED AREAS. ALL PIPE ZONE COMPACTION SHALL BE 95 PERCENT.
 - THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING ADEQUATE SAFEGUARDS, SAFETY DEVICES, PROTECTIVE EQUIPMENT, CONFINED SPACE PROTECTION, FLAGGERS, AND ANY OTHER NEEDED ACTIONS TO PROTECT THE LIFE, HEALTH, AND SAFETY OF THE PUBLIC, AND TO PROTECT PROPERTY IN CONNECTION WITH THE PERFORMANCE OF WORK COVERED BY THE CONTRACT. ANY WORK WITHIN THE TRAVELED RIGHT-OF-WAY THAT MAY INTERRUPT NORMAL TRAFFIC FLOW SHALL REQUIRE A TRAFFIC CONTROL PLAN APPROVED BY THE CITY OF KIRKLAND. ALL SECTIONS OF THE WSDOT STANDARD SPECIFICATIONS, TRAFFIC CONTROL, AND THE MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) SHALL APPLY.
 - NO FINAL CUT OR FILL SLOPE SHALL EXCEED SLOPES OF TWO (2) HORIZONTAL TO ONE (1) VERTICAL WITHOUT STABILIZATION BY ROCKERY OR BY A STRUCTURAL RETAINING WALL.
 - ALL MANHOLE LADDERS SHALL BE FIRMLY ATTACHED AND EXTEND TO WITHIN 1' OF THE BOTTOM OF THE STRUCTURE.
 - APPROXIMATE LOCATIONS OF EXISTING UTILITIES HAVE BEEN OBTAINED FROM AVAILABLE RECORDS AND ARE SHOWN FOR CONVENIENCE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF EXISTING UTILITY LOCATIONS WHETHER OR NOT THESE UTILITIES ARE SHOWN ON THE PLANS. THE CONTRACTOR SHALL EXERCISE ALL CARE TO AVOID DAMAGE TO ANY UTILITY. IF CONFLICTS WITH EXISTING UTILITIES ARISE DURING CONSTRUCTION, THE CONTRACTOR SHALL NOTIFY THE CITY CONSTRUCTION INSPECTOR AND ANY CHANGES REQUIRED SHALL BE APPROVED BY THE DEVELOPMENT ENGINEER PRIOR TO COMMENCEMENT OF RELATED CONSTRUCTION ON THE PROJECT.
 - THE UNDERGROUND UTILITY LOCATION SERVICE SHALL BE CONTACTED FOR FIELD LOCATION OF EXISTING UTILITIES PRIOR TO ANY CONSTRUCTION. THE OWNER OR HIS REPRESENTATIVE SHALL BE CONTACTED IF A UTILITY CONFLICT EXISTS. FOR UTILITY LOCATION IN KING COUNTY, CALL 1-800-424-5555. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THAT UTILITY LOCATES ARE MAINTAINED THROUGHOUT THE LIFE OF THE PROJECT.
 - THE CONTRACTOR SHALL VERIFY THE LOCATIONS, WIDTHS, THICKNESSES, AND ELEVATIONS OF ALL EXISTING PAVEMENTS AND STRUCTURES THAT ARE TO INTERFACE WITH NEW WORK. PROVIDE ALL TRIMMING, CUTTING, SAW CUTTING, GRADING, LEVELING, SLOPING, GRADING, AND OTHER WORK INCLUDING MATERIALS AS NECESSARY, TO CAUSE THE INTERFACE WITH EXISTING WORKS TO BE PROPER, ACCEPTABLE TO THE ENGINEER AND THE CITY OF KIRKLAND, COMPLETE IN PLACE AND READY TO USE.
 - ALL INLET, MANHOLE, AND CATCH BASIN FRAMES AND GRATES SHALL NOT BE ADJUSTED TO GRADE UNTIL IMMEDIATELY PRIOR TO FINAL PAVING. ALL CATCH BASIN GRATES SHALL BE SET 0.10' BELOW PAVEMENT LEVEL.
 - OPEN CUT ROAD CROSSINGS FOR UTILITY TRENCHES ON EXISTING TRAVELED ROADWAY SHALL BE BACKFILLED ONLY WITH 5/8" MINUS CRUSHED ROCK AND MECHANICALLY COMPACTED (UNLESS OTHERWISE APPROVED BY THE CITY). FOR STREETS CLASSIFIED AS ARTERIALS OR COLLECTORS, BACKFILL FOR CROSSINGS SHALL BE CDF. CUTS INTO THE EXISTING ASPHALT SHALL BE NEAT LINE CUT WITH SAW OR JACKHAMMER IN A CONTINUOUS LINE. TEMPORARY COLD MIX PATCH MUST BE PLACED IMMEDIATELY AFTER BACKFILL AND COMPACTION. A PERMANENT HOT MIX PATCH SHALL BE PLACED WITHIN 30 DAYS AND SHALL BE A MINIMUM OF 1" THICKER THAN THE ORIGINAL ASPHALT WITH A MINIMUM THICKNESS OF 2". SEE STANDARD D.02.
 - ALL DAMAGES INCURRED TO PUBLIC AND/OR PRIVATE PROPERTY BY THE CONTRACTOR DURING THE COURSE OF CONSTRUCTION SHALL BE PROMPTLY REPAIRED TO THE SATISFACTION OF THE CITY CONSTRUCTION INSPECTOR BEFORE PROJECT APPROVAL AND/OR THE RELEASE OF THE PROJECT'S PERFORMANCE BOND.

- GROUT ALL SEAMS AND OPENINGS IN ALL INLETS, CATCH BASINS, AND MANHOLES. JETSET GROUT IS NOT ALLOWED.
- WHEN WIDENING AN EXISTING ROADWAY WHERE AN EXISTING TYPE I CATCH BASIN WILL REMAIN IN THE TRAVEL LANE, THE EXISTING FRAME AND COVER SHALL BE REPLACED WITH A ROUND LOOKING FRAME AND COVER.
- FOR OTHER THAN SINGLE-FAMILY DWELLINGS, ALL EXPOSED OR READILY EXPOSED INDOOR STORM DRAINAGE PIPING/PLUMBING SHALL BE LABELED WITH THE WORDS "STORM DRAIN" WITH MINIMUM 2-INCH HIGH LETTERS.
- RECYCLED CONCRETE SHALL NOT BE USED AROUND STORMWATER FACILITIES.
- ALL FASTENERS (BOLTS, NUTS, WASHERS, ETC.) ON MANHOLE AND CATCH BASIN LIDS TO BE STANDARD SIZE. NO METRIC FASTENERS ALLOWED.

ROADWAY

- A PRE-CONSTRUCTION CONFERENCE SHALL BE HELD PRIOR TO THE START OF CONSTRUCTION. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SECURING ALL NECESSARY PERMITS PRIOR TO CONSTRUCTION.
- ALL ROADWAY WORK AND MATERIAL SHALL BE IN ACCORDANCE WITH THE CURRENT APWA AND CITY OF KIRKLAND STANDARDS AND SPECIFICATIONS.
- ALL PUBLIC ROADWAYS SHALL BE CONSTRUCTED OF 2" CLASS "B" AC PAVING ON 4" ASPHALT-TREATED BASE (ATB), UNLESS OTHERWISE APPROVED BY THE PUBLIC WORKS DEPARTMENT.
- A COPY OF THE APPROVED ROADWAY PLANS MUST BE ON THE JOB SITE WHENEVER CONSTRUCTION IS IN PROGRESS.
- DENSITY TEST REPORTS WILL BE REQUIRED FOR ALL PUBLIC ROADWAYS AND ALL PRIVATE ROADWAYS WITHIN PLATS. ALL TRENCH BACKFILL SHALL BE COMPACTED TO 95 PERCENT DENSITY IN ROADWAYS, ROADWAY SHOULDERS, ROADWAY PRISM AND DRIVEWAYS, AND 85 PERCENT DENSITY IN UNPAVED AREAS. ALL PIPE ZONE COMPACTION SHALL BE 95 PERCENT.
- ALL COMMERCIAL AND RESIDENTIAL DRIVEWAYS MUST CONFORM TO THE CITY OF KIRKLAND DEPARTMENT OF PUBLIC WORKS DRIVEWAY POLICY.
- ALL CONCRETE FOR SIDEWALKS AND CURB AND GUTTER MUST BE 4,000 PSI MINIMUM. (5-3/4 SACK MIX.)
- IN THE CASE OF NEW ROAD CONSTRUCTION OR RECONSTRUCTION REQUIRING MAILBOXES TO BE MOVED OR REANGED, THE DEVELOPER/CONTRACTOR SHALL COORDINATE WITH THE U.S. POSTAL SERVICE FOR THE NEW LOCATION OF THE MAILBOX STRUCTURE.
- ANY ROADWAY SIGNAGE OR STRIPING REMOVED OR TEMPORARILY MOVED BY THE CONTRACTOR SHALL BE RESTORED TO MEET THE CURRENT CITY OF KIRKLAND STANDARDS.
- IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE ADEQUATE TEMPORARY TRAFFIC CONTROL TO ENSURE TRAFFIC SAFETY DURING CONSTRUCTION ACTIVITIES. THEREFORE, THE CONTRACTOR SHALL SUBMIT A TRAFFIC CONTROL PLAN TO THE PUBLIC WORKS DEPARTMENT AT LEAST 48 HOURS PRIOR TO STARTING ANY WORK IN THE RIGHT-OF-WAY. ALL TRAFFIC CONTROL DEVICES SHALL CONFORM TO THE "MANUAL ON UNIFORM TRAFFIC CONTROL DEVICES" (MUTCD) OR AS MODIFIED BY THE TRAFFIC ENGINEER.
- WHERE A SIDEWALK IS TO BE CONSTRUCTED ABOVE A SLOPE OR ADJACENT TO A ROCKERY OR RETAINING WALL IS TO BE THIRTY INCHES (30") OR MORE BELOW THE FINISHED ELEVATION OF THE SIDEWALK, A SAFETY RAILING SHALL BE REQUIRED WHEN: (A) THE PLANE OF THE WALL FACE IS LESS THAN 4' IN HORIZONTAL DISTANCE FROM THE OUTSIDE EDGE OF THE SIDEWALK; (B) THE SLOPES ADJACENT TO THE SIDEWALK AVERAGE GREATER THAN TWO TO ONE.
- THE MAXIMUM GRADE FOR PRIVATE ROADWAYS SHALL BE TWENTY PERCENT (20%), OR FIFTEEN PERCENT (15%) IF USED FOR FIRE ACCESS. FOR PUBLIC ROADWAYS, THE MAXIMUM GRADE SHALL BE FIFTEEN PERCENT (15%).
- DEAD-END STREETS SHALL BE APPROPRIATELY SIGNED AND BARRICADED. SEE MOST CURRENT EDITION OF THE MUTCD.
- SIDEWALK AND CURB AND GUTTER CANNOT BE POURED MONOLITHICALLY. THERE MUST BE A COLD JOINT OR FULL-DEPTH EXPANSION JOINT BETWEEN THEM.
- MEASURES SHALL BE TAKEN BY THE DEVELOPER TO PROVIDE GROUND COVER IN AREAS WITHIN THE RIGHT-OF-WAY WHICH HAVE BEEN STRIPPED OF NATURAL VEGETATION OR HAVE A POTENTIAL FOR EROSION.
- THE DEVELOPER SHALL COORDINATE WITH PUGET POWER FOR THE DESIGN AND INSTALLATION OF STREET LIGHTS ON ALL NEWLY-CREATED PUBLIC ROADWAYS AND EXISTING ROADWAYS.
- WHEN AN EXISTING ROADWAY IS TO RECEIVE A HALF-STREET OVERLAY, THE EXISTING ROADWAY MUST BE COLD PLANED AT THE EDGE OF THE GUTTER AND CENTERLINE. WHEN THE EXISTING ROADWAY IS TO RECEIVE A FULL-STREET OVERLAY, IT MUST BE COLD PLANED AT THE EDGE OF BOTH GUTTERS. SEE CITY OF KIRKLAND STANDARD DETAIL NO. R.13.
- ALL NEW SIGNS REQUIRED IN THE PUBLIC RIGHT-OF-WAY MUST BE PURCHASED FROM, AND INSTALLED BY, THE CITY OF KIRKLAND PUBLIC WORKS DEPARTMENT.
- WHEN INSTALLING NEW SIDEWALK, THE AREA BEHIND THE SIDEWALK MUST BE GRADED SO THAT THE YARD DRAINAGE DOES NOT DRAIN OVER THE SIDEWALK.
- ANY EXISTING PUBLIC IMPROVEMENTS DAMAGED DURING CONSTRUCTION SHALL BE REPLACED PRIOR TO FINAL INSPECTION.
- THE CONTRACTOR IS RESPONSIBLE FOR KEEPING ALL PUBLIC STREETS FREE FROM MUD AND DEBRIS AT ALL TIMES. THE CONTRACTOR SHALL BE PREPARED TO USE POWER SWEEPERS OR OTHER PIECES OF EQUIPMENT NECESSARY TO KEEP THE ROADWAYS CLEAN.
- BACKFILL IN ALL STREET CUTS ON ARTERIALS WILL BE CONTROL DENSITY FILL (CDF). CONTRACTOR MUST PROVIDE STEEL PLATING NECESSARY TO ALLOW THE CDF TO CURE.
- WHEN CONSTRUCTING NEW CURB AND GUTTER WHICH DOES NOT ALIGN WITH THE EXISTING EDGE OF PAVEMENT, THE ROADWAY MUST BE TAPERED FROM THE ENDS OF THE NEW CURB AND GUTTER TO MATCH THE EXISTING PAVEMENT. THE ENTRY TAPER INTO THE NEW IMPROVEMENTS SHALL BE 5:1 AND LEAVING THE NEW IMPROVEMENTS SHALL BE 10:1.
- WHEN AN EXISTING ROADWAY IS TO BE WIDENED, THE EXISTING PAVEMENT MUST BE SAW CUT AT LEAST ONE FOOT FROM THE EDGE TO PROVIDE A PROPER MATCH BETWEEN NEW AND EXISTING ASPHALT. HOWEVER, WHEN THE EXISTING PAVEMENT CONTAINS ALLIGATORED AREAS, THOSE AREAS MUST BE REMOVED PRIOR TO WIDENING. ALL SAW CUTS SHALL BE PARALLEL OR PERPENDICULAR TO THE RIGHT-OF-WAY CENTERLINE.
- ALL ROCKERIES MUST BE CONSTRUCTED IN ACCORDANCE WITH THE MOST CURRENT GUIDELINES OF THE ASSOCIATION.

GOAT HILL DRAINAGE DITCH CONVEYANCE
AND CHANNEL STABILIZATION – PHASE 1

C0.02

CITY OF KIRKLAND
STANDARD PLAN NOTES

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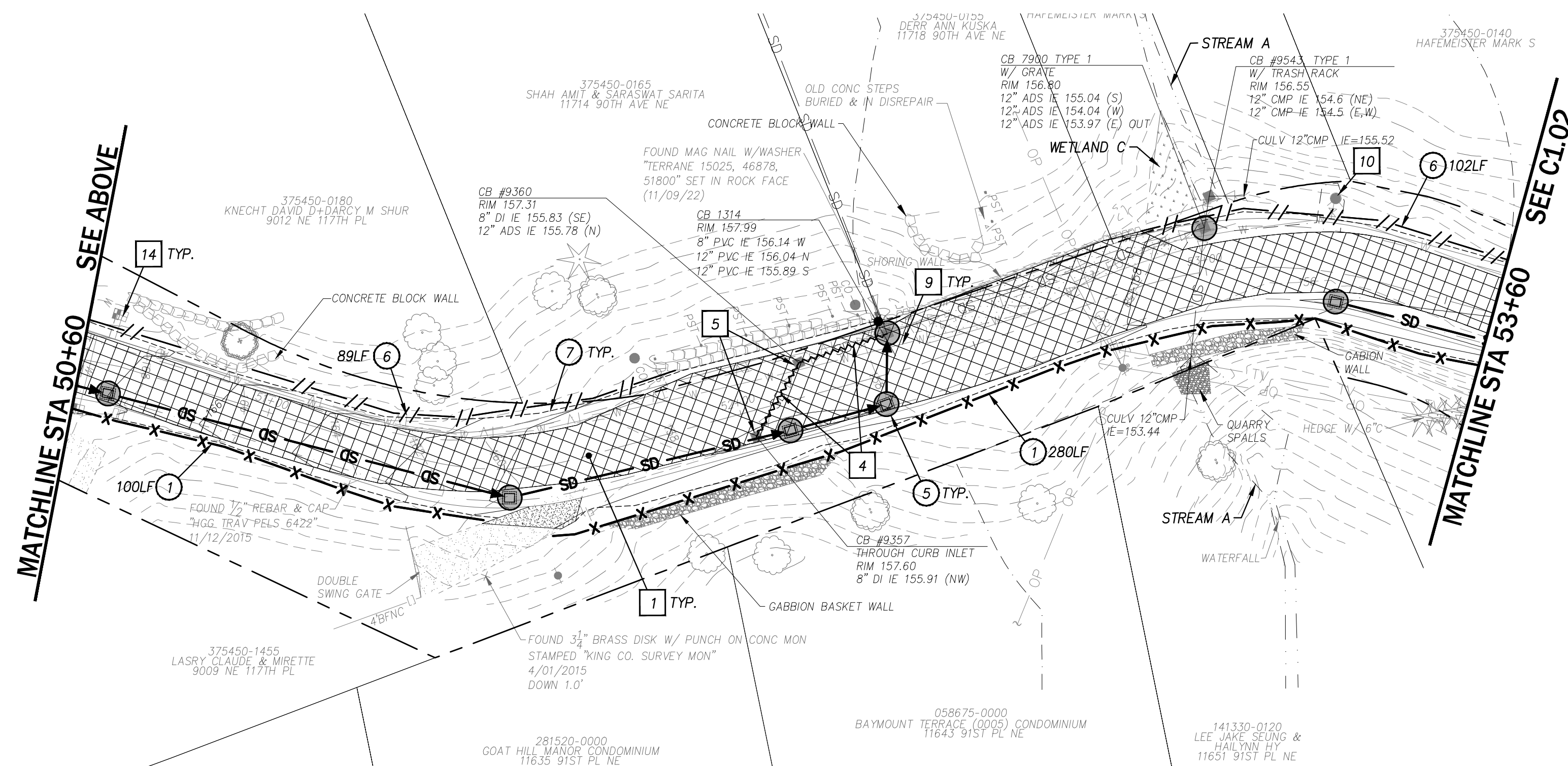
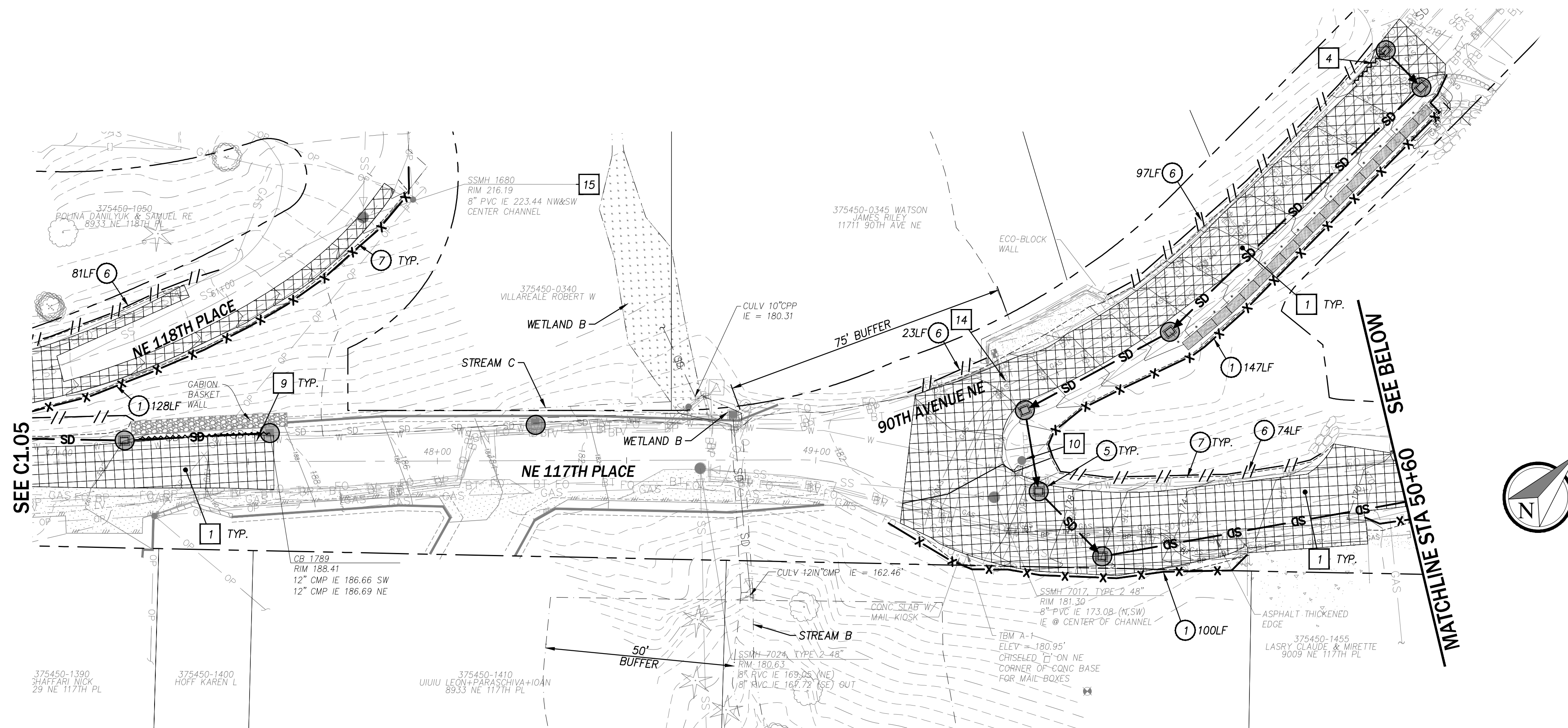
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CONSTRUCTION NOTES

DEMOLITION NOTES

LEGEND

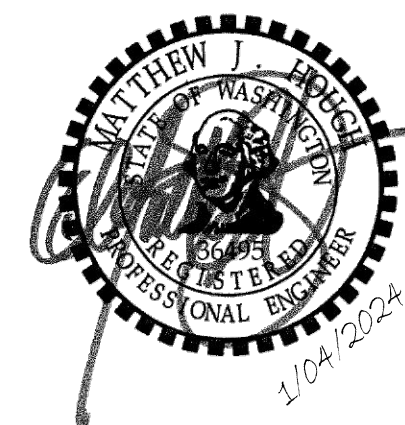
NOTE: SEE CITY OF KIRKLAND STANDARD PLAN NOTES
ON C0.02 FOR ADDITIONAL TEMPORARY EROSION
CONTROL SPECIFICATIONS AND REQUIREMENTS.

KEYMAP

CIP NO.	JOB NO.	ENGR.	REVIEW	SCALE	DATE
SDC0900000	19-23-PW	MJH	MJH	AS NOTED	1/04/2024
O NO.	BID SET REVISION			PCE BY	MJH REVIEW
					12/27/23 DATE



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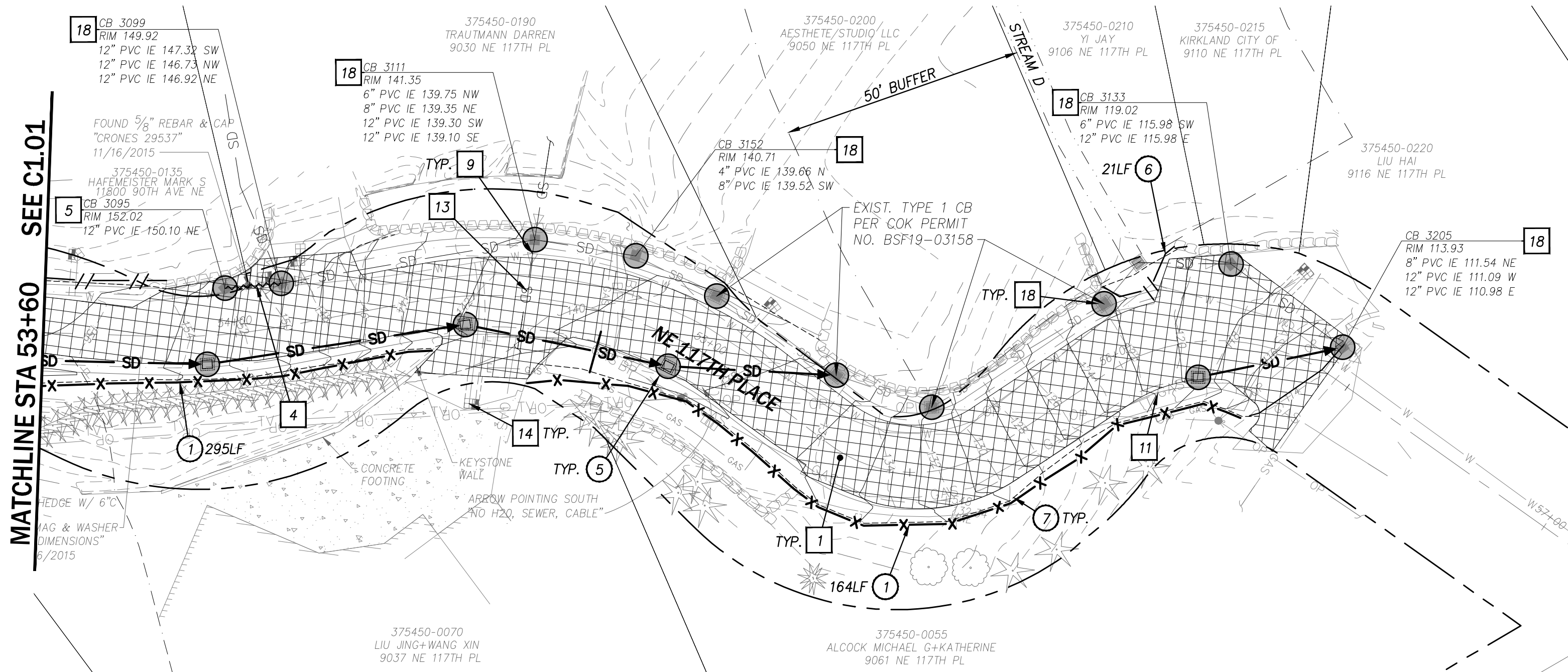
GOAT HILL DRAINAGE DITCH CONVEYANCE
AND CHANNEL STABILIZATION – PHASE 1

TESC AND DEMO PLAN

C1.01

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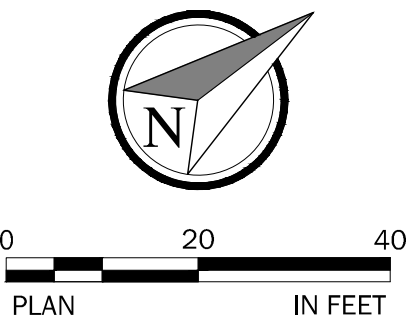
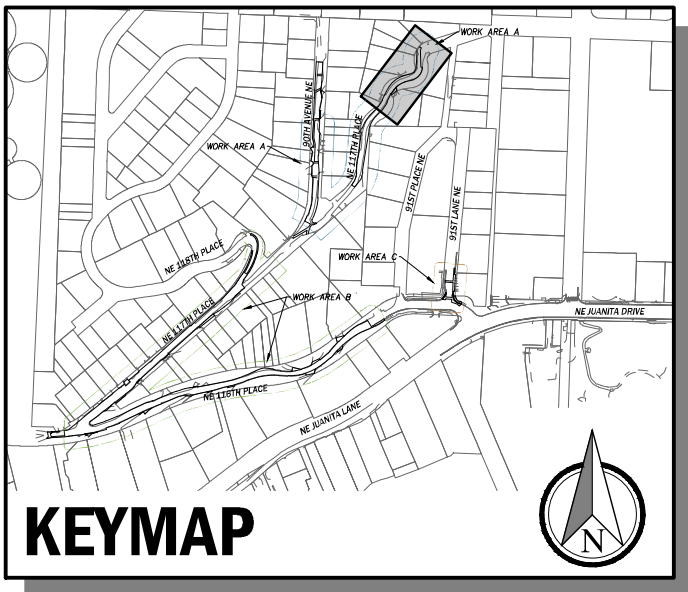


- CONSTRUCTION NOTES**
- 1 SILT FENCE PER COK PLAN NO. CK-E.03
 - 2 NETS, BLANKETS, TEMP. STABILIZATION PER COK PLAN NO. CK-E.06
 - 3 CHECK DAM PER COK PLAN NO. CK-E.07
 - 4 STRAW WATTLES PER COK PLAN NO. CK-E.10
 - 5 STORM DRAIN PROTECTION INSERT PER COK PLAN NO. CK-E.11
 - 6 HIGH VISIBILITY FENCE PER WSDOT STD. PLAN I-10.10-01
 - 7 APPROX. LIMITS OF GRADING

- DEMOLITION NOTES**
- 1 REMOVE EXIST. AC PAVEMENT
 - 2 REMOVE EXIST. CONC. CURB AND GUTTER
 - 3 REMOVE EXIST. CONC. SIDEWALK
 - 4 REMOVE EXIST. SD PIPE
 - 5 REMOVE EXIST. SD STRUCTURE
 - 6 REMOVE EXIST. WALL/ROCKERY
 - 7 REMOVE EXIST. TREE
 - 8 REMOVE EXIST. GUY POLE, RELOCATE PER C3.07
 - 9 PROTECT EXIST. 8" DI WATER MAIN
 - 10 PROTECT EXIST. FIRE HYDRANT
 - 11 REMOVE EXIST. 2" GAS MAIN, RELOCATE PER PSE
 - 12 REMOVE EXIST. BURIED POWER/COMM, RELOCATE PER PURVEYOR
 - 13 ABANDON EXIST. SD FACILITY
 - 14 PROTECT EXIST. WATER SERVICE
 - 15 PROTECT EXIST. UTILITY FEATURE
 - 16 PROTECT EXIST. LANDSCAPING
 - 17 PROTECT EXIST. SIGN
 - 18 PROTECT EXIST. SD FACILITY

- LEGEND**
- APPROX. LIMIT OF GRADING
 - X-X- SILT FENCE
 - //-/ HIGH VISIBILITY CONSTRUCTION FENCE
 - o-o- TEMP. CHAIN-LINK CONSTRUCTION FENCE
 - SD- FUTURE STORM DRAIN PIPE
 - SD- EXIST. STORM DRAIN PIPE
 - TYPE 1 CATCH BASIN W/STANDARD GRATE
 - STORM DRAINAGE PROTECTION INSERT
 - REMOVE EXIST. SD PIPE
 - REMOVE AND REPLACE HMA PAVEMENT SECTION

NOTE: SEE CITY OF KIRKLAND STANDARD PLAN NOTES ON C0.02 FOR ADDITIONAL TEMPORARY EROSION CONTROL SPECIFICATIONS AND REQUIREMENTS.



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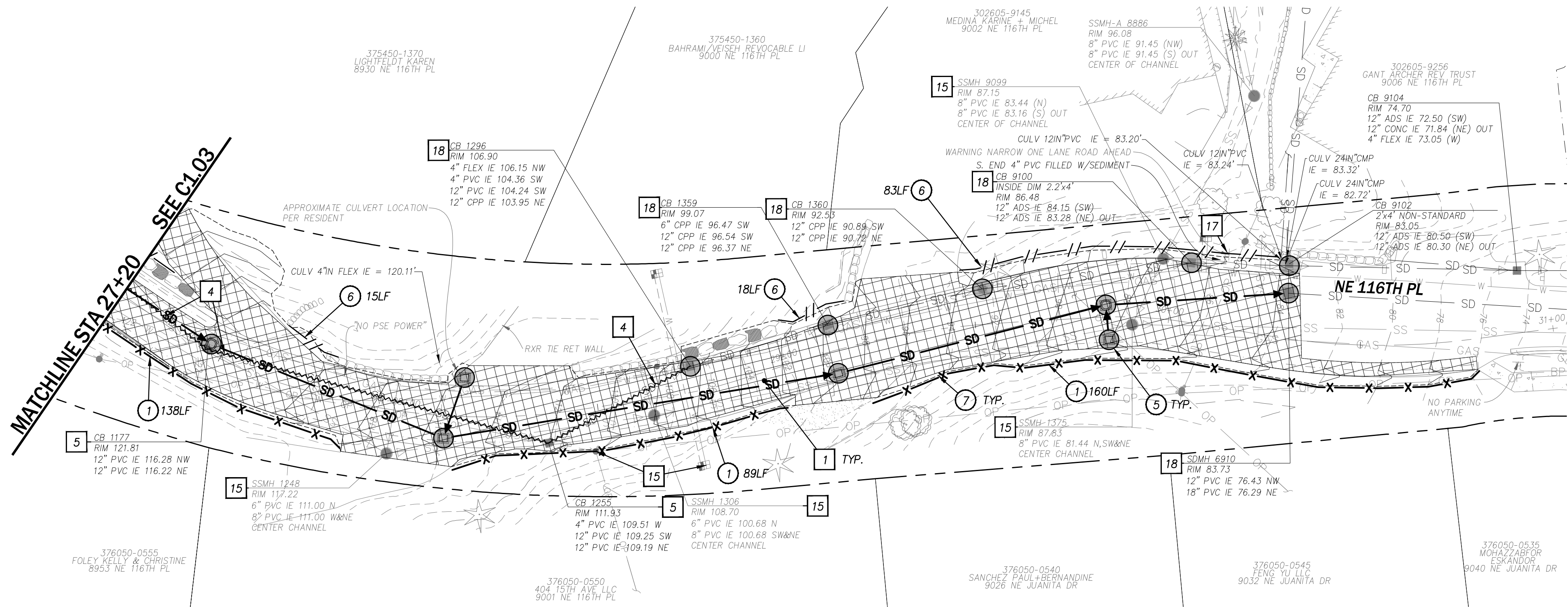
GOAT HILL DRAINAGE DITCH CONVEYANCE
AND CHANNEL STABILIZATION – PHASE 1

TESC AND DEMO PLAN

C1.02

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CONSTRUCTION NOTES

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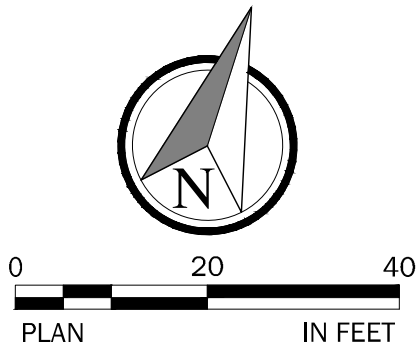
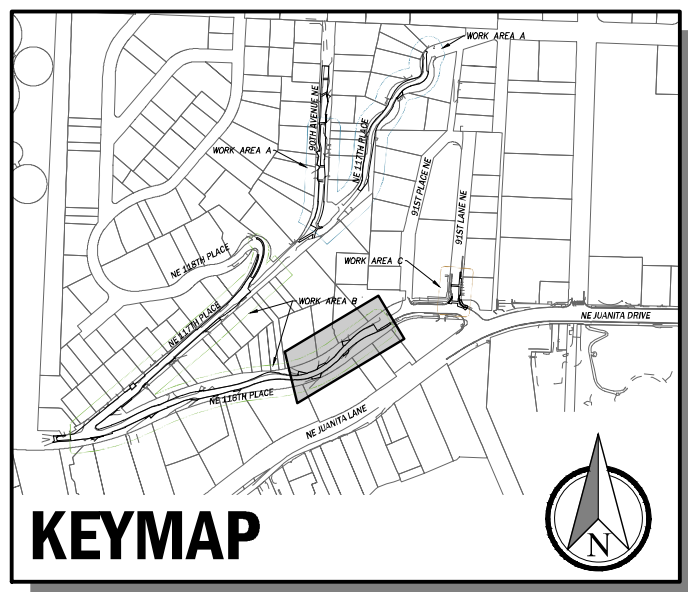
DEMOLITION NOTES

- 1 REMOVE EXIST. AC PAVEMENT
- 2 REMOVE EXIST. CONC. CURB AND GUTTER
- 3 REMOVE EXIST. CONC. SIDEWALK
- 4 REMOVE EXIST. SD PIPE
- 5 REMOVE EXIST. SD STRUCTURE
- 6 REMOVE EXIST. WALL/ROCKERY
- 7 REMOVE EXIST. TREE
- 8 REMOVE EXIST. GUY POLE, RELOCATE PER C3.07
- 9 PROTECT EXIST. 8" DI WATER MAIN
- 10 PROTECT EXIST. FIRE HYDRANT
- 11 REMOVE EXIST. 2" GAS MAIN, RELOCATE PER PSE
- 12 REMOVE EXIST. BURIED POWER/COMM, RELOCATE PER PURVEYOR
- 13 ABANDON EXIST. SD FACILITY
- 14 PROTECT EXIST. WATER SERVICE
- 15 PROTECT EXIST. UTILITY FEATURE
- 16 PROTECT EXIST. LANDSCAPING
- 17 PROTECT EXIST. SIGN
- 18 PROTECT EXIST. SD FACILITY

LEGEND

- APPROX. LIMIT OF GRADING
- X-X- SILT FENCE
- //-/ HIGH VISIBILITY CONSTRUCTION FENCE
- o-o- TEMP. CHAIN-LINK CONSTRUCTION FENCE
- SD- FUTURE STORM DRAIN PIPE
- SD- EXIST. STORM DRAIN PIPE
- TYPE 1 CATCH BASIN W/STANDARD GRATE
- STORM DRAINAGE PROTECTION INSERT
- ~~~~~ REMOVE EXIST. SD PIPE
- REMOVE AND REPLACE HMA PAVEMENT SECTION

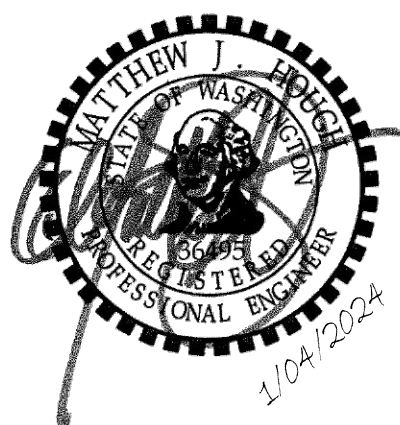
NOTE: SEE CITY OF KIRKLAND STANDARD PLAN NOTES ON C0.02 FOR ADDITIONAL TEMPORARY EROSION CONTROL SPECIFICATIONS AND REQUIREMENTS.



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GOAT HILL DRAINAGE DITCH CONVEYANCE
AND CHANNEL STABILIZATION – PHASE 1

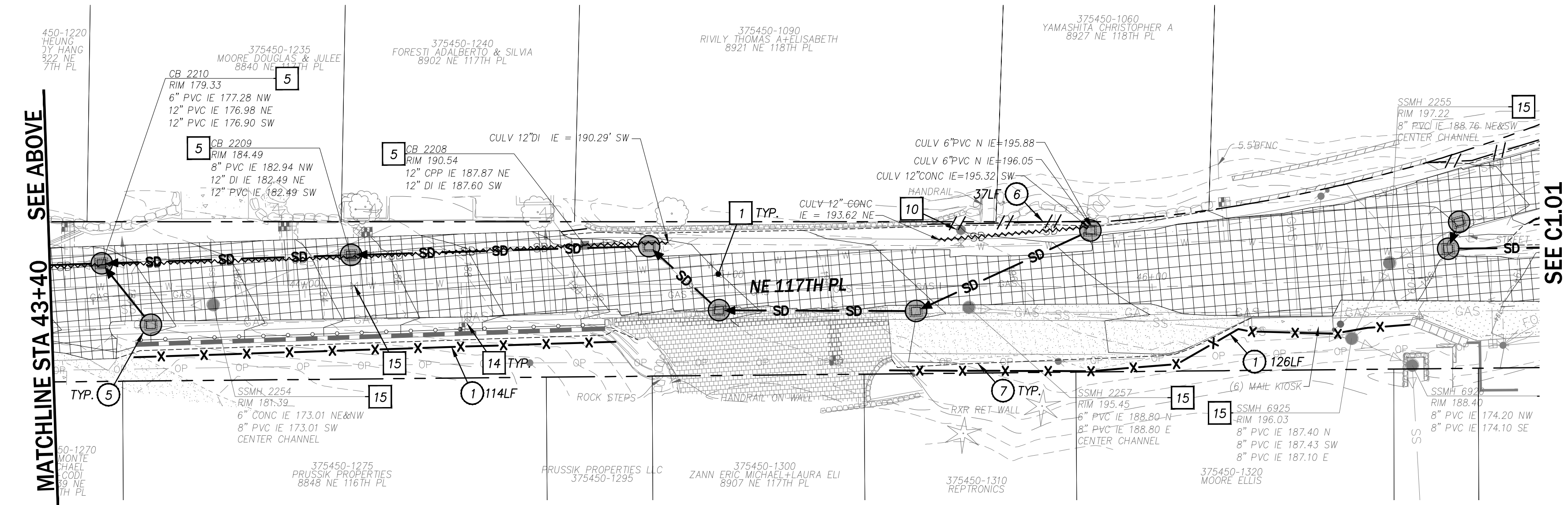
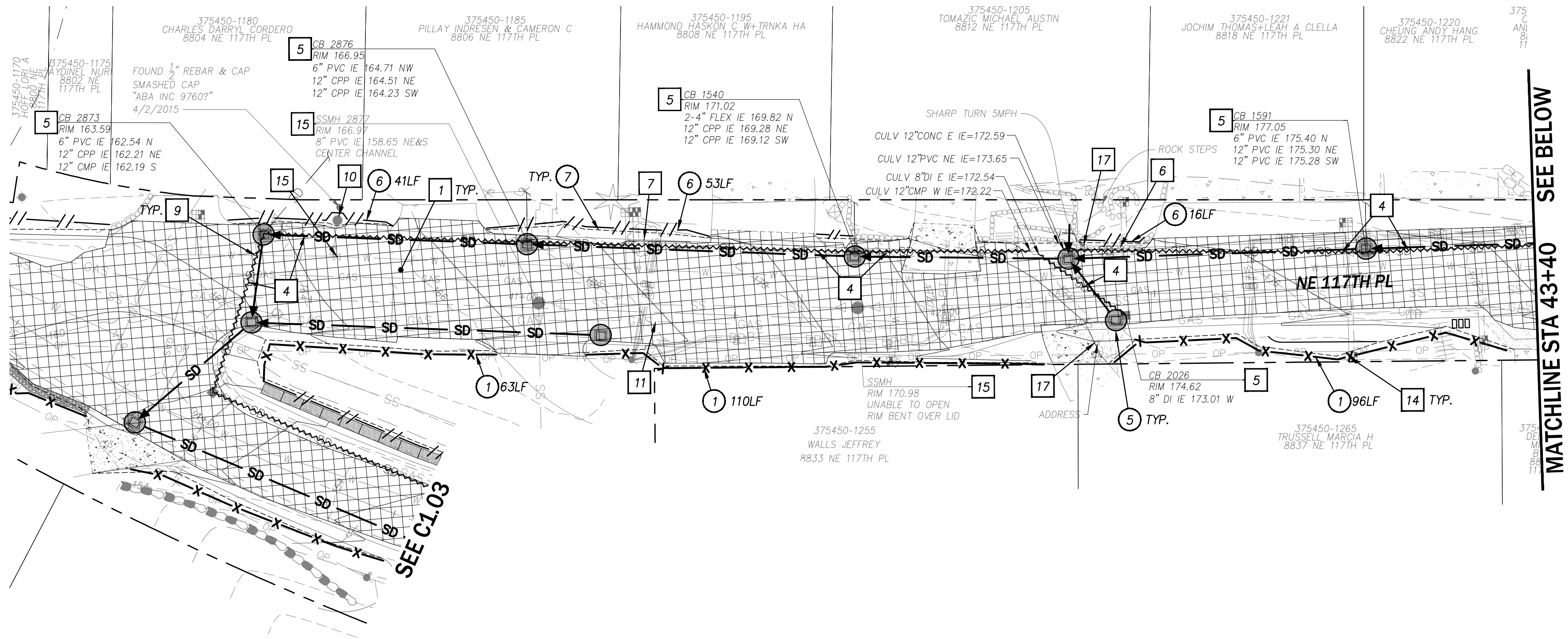
TESC AND DEMO PLAN

C1.04

8

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CONSTRUCTION NOTES

- 1 SILT FENCE PER COK PLAN NO. CK-E.03
- 2 NETS, BLANKETS, TEMP. STABILIZATION PER COK PLAN NO. CK-E.06
- 3 CHECK DAM PER COK PLAN NO. CK-E.07
- 4 STRAW WATTLES PER COK PLAN NO. CK-E.10
- 5 STORM DRAIN PROTECTION INSERT PER COK PLAN NO. CK-E.11
- 6 HIGH VISIBILITY FENCE PER WSDOT STD. PLAN I-10.10-01
- 7 APPROX. LIMITS OF GRADING

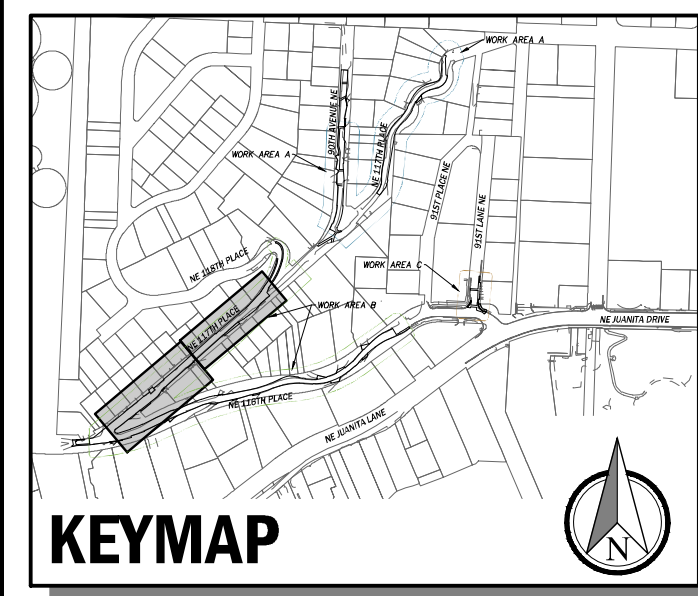
DEMOLITION NOTES

- 1 REMOVE EXIST. AC PAVEMENT
- 2 REMOVE EXIST. CONC. CURB AND GUTTER
- 3 REMOVE EXIST. CONC. SIDEWALK
- 4 REMOVE EXIST. SD PIPE
- 5 REMOVE EXIST. SD STRUCTURE
- 6 REMOVE EXIST. WALL/ROCKERY
- 7 REMOVE EXIST. TREE
- 8 REMOVE EXIST. GUY POLE, RELOCATE PER C3.07
- 9 PROTECT EXIST. 8" DI WATER MAIN
- 10 PROTECT EXIST. FIRE HYDRANT
- 11 REMOVE EXIST. 2" GAS MAIN, RELOCATE PER PSE
- 12 REMOVE EXIST. BURIED POWER/COMM, RELOCATE PER PURVEYOR
- 13 ABANDON EXIST. SD FACILITY
- 14 PROTECT EXIST. WATER SERVICE
- 15 PROTECT EXIST. UTILITY FEATURE
- 16 PROTECT EXIST. LANDSCAPING
- 17 PROTECT EXIST. SIGN
- 18 PROTECT EXIST. SD FACILITY

LEGEND

- APPROX. LIMIT OF GRADING
- X-X- SILT FENCE
- //////// HIGH VISIBILITY CONSTRUCTION FENCE
- O-O- TEMP. CHAIN-LINK CONSTRUCTION FENCE
- SD- FUTURE STORM DRAIN PIPE
- SD- EXIST. STORM DRAIN PIPE
- TYPE 1 CATCH BASIN W/STANDARD GRATE
- STORM DRAINAGE PROTECTION INSERT
- ~~~~~ REMOVE EXIST. SD PIPE
- ▨ REMOVE AND REPLACE HMA PAVEMENT SECTION

NOTE: SEE CITY OF KIRKLAND STANDARD PLAN NOTES ON C0.02 FOR ADDITIONAL TEMPORARY EROSION CONTROL SPECIFICATIONS AND REQUIREMENTS.

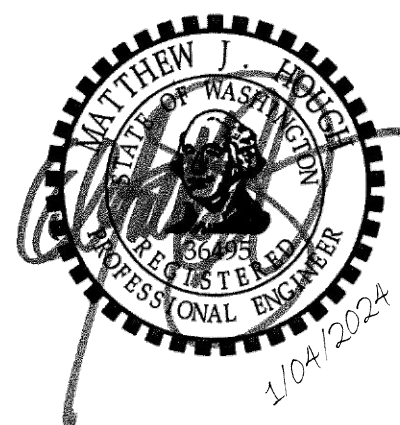


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PLAN IN FEET

CIP NO.	JOB NO.	ENGR.	REVIEW	SCALE	DATE
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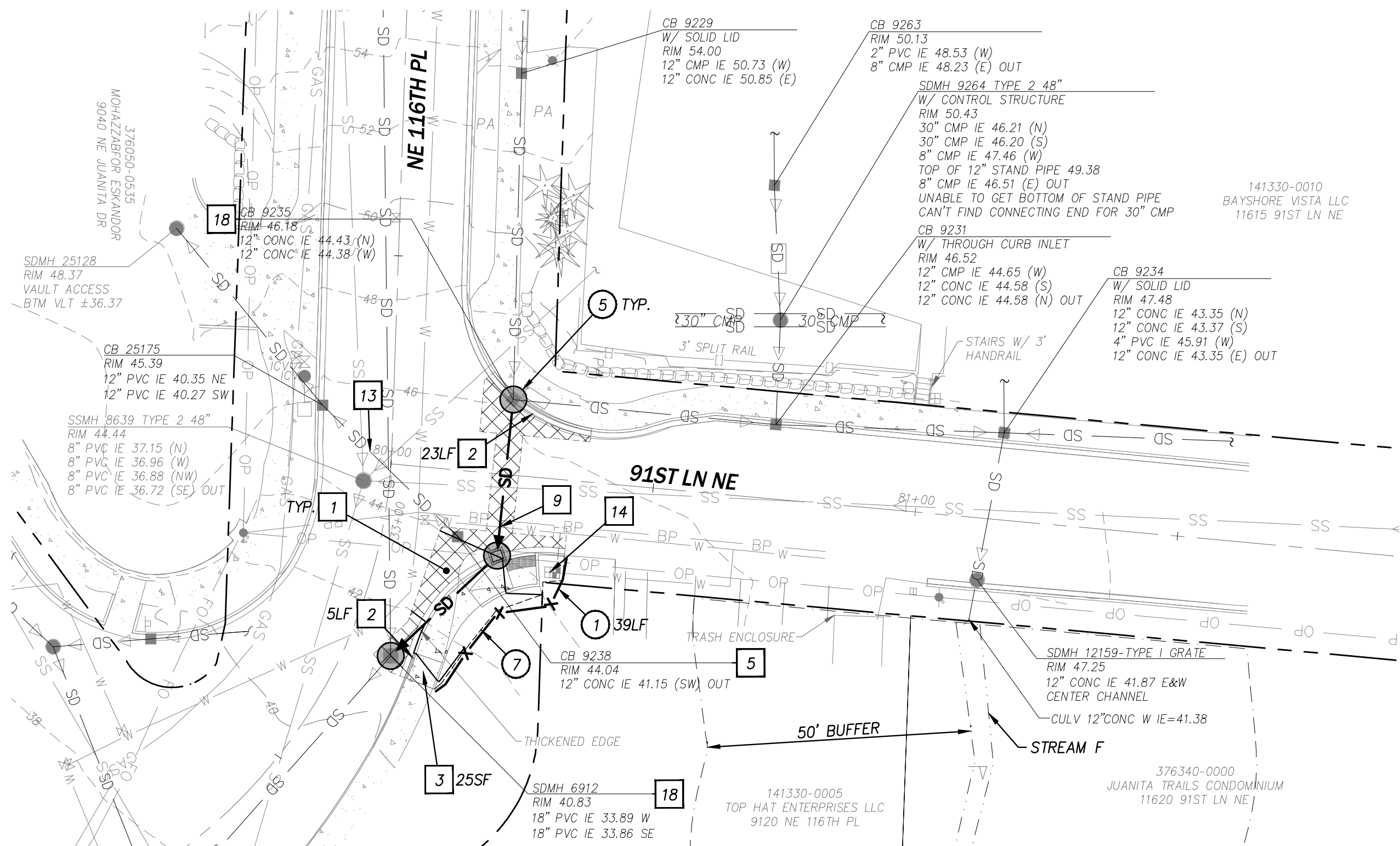
TESC AND DEMO PLAN

C1.05

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51

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CONSTRUCTION NOTES

- 1 SILT FENCE PER COK PLAN NO. CK-E.03
- 2 NETS, BLANKETS, TEMP. STABILIZATION PER COK PLAN NO. CK-E.06
- 3 CHECK DAM PER COK PLAN NO. CK-E.07
- 4 STRAW WATTLES PER COK PLAN NO. CK-E.10
- 5 STORM DRAIN PROTECTION INSERT PER COK PLAN NO. CK-E.11
- 6 HIGH VISIBILITY FENCE PER WSDOT STD. PLAN I-10.10-01
- 7 APPROX. LIMITS OF GRADING

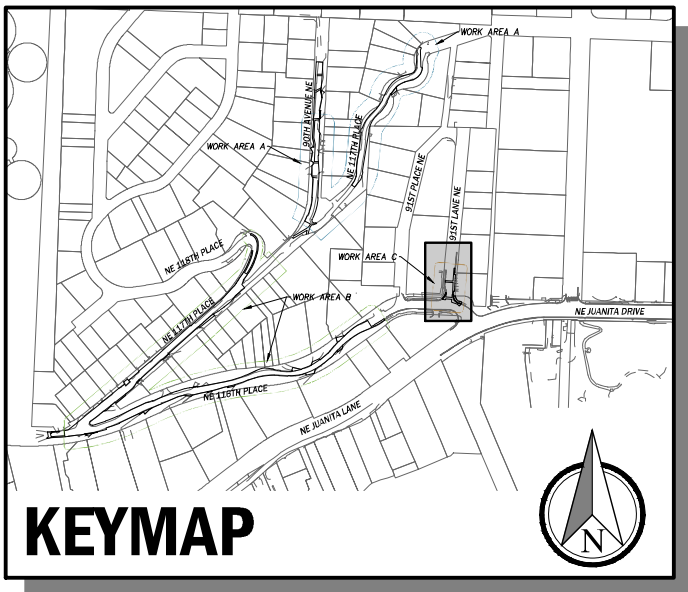
DEMOLITION NOTES

- 1 REMOVE EXIST. AC PAVEMENT
- 2 REMOVE EXIST. CONC. CURB AND GUTTER
- 3 REMOVE EXIST. CONC. SIDEWALK
- 4 REMOVE EXIST. SD PIPE
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- SD- EXIST. STORM DRAIN PIPE
- TYPE 1 CATCH BASIN W/STANDARD GRATE
- STORM DRAINAGE PROTECTION INSERT
- ~~~~~ REMOVE EXIST. SD PIPE
- [Hatched Box] REMOVE AND REPLACE HMA PAVEMENT SECTION

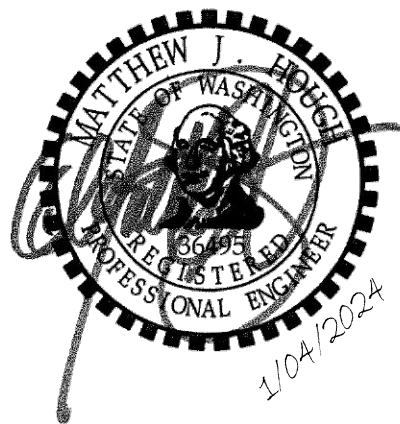
NOTE: SEE CITY OF KIRKLAND STANDARD PLAN NOTES ON C0.02 FOR ADDITIONAL TEMPORARY EROSION CONTROL SPECIFICATIONS AND REQUIREMENTS.



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NO.	REVISION		BY	REVIEW	DATE



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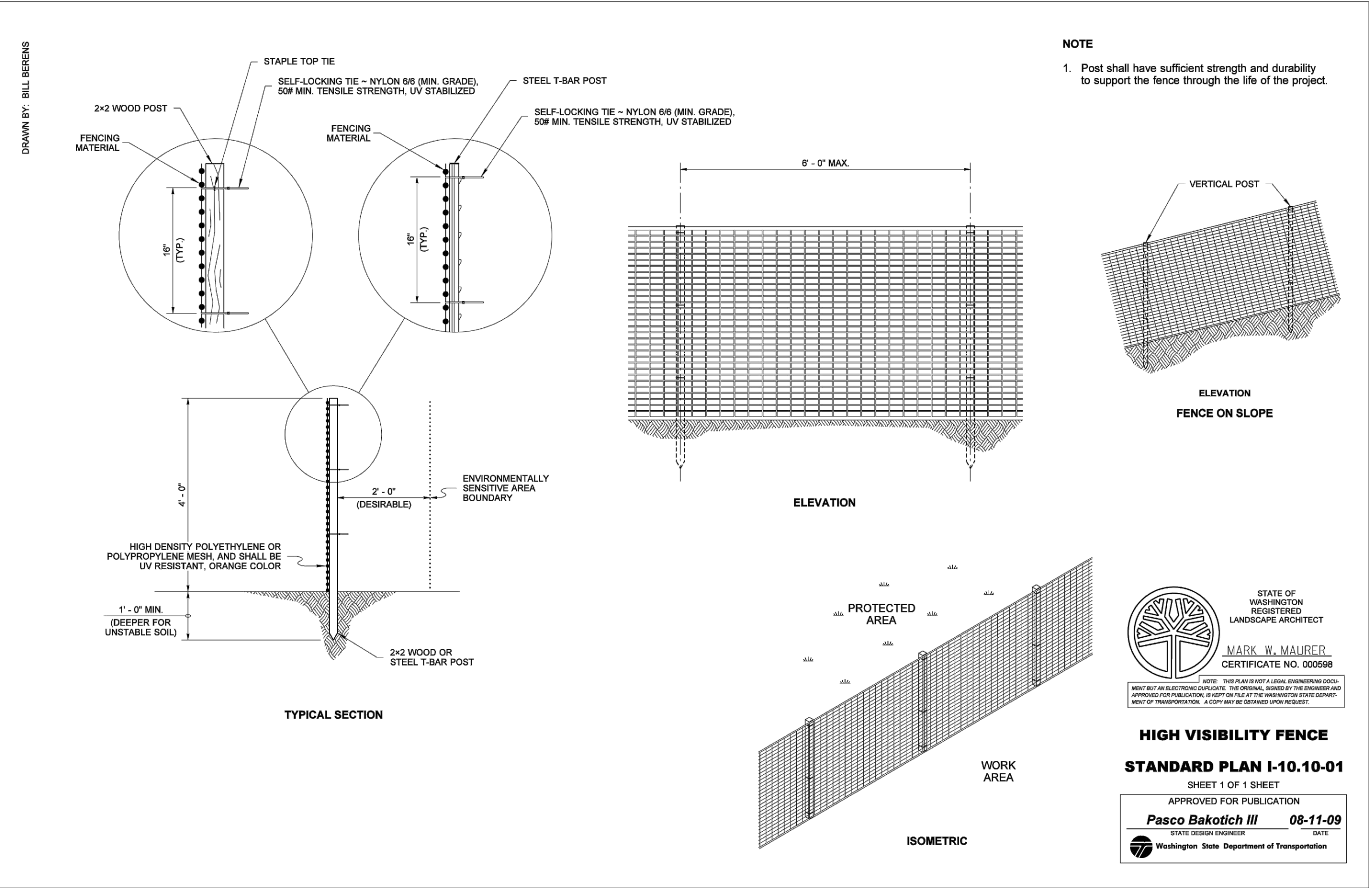
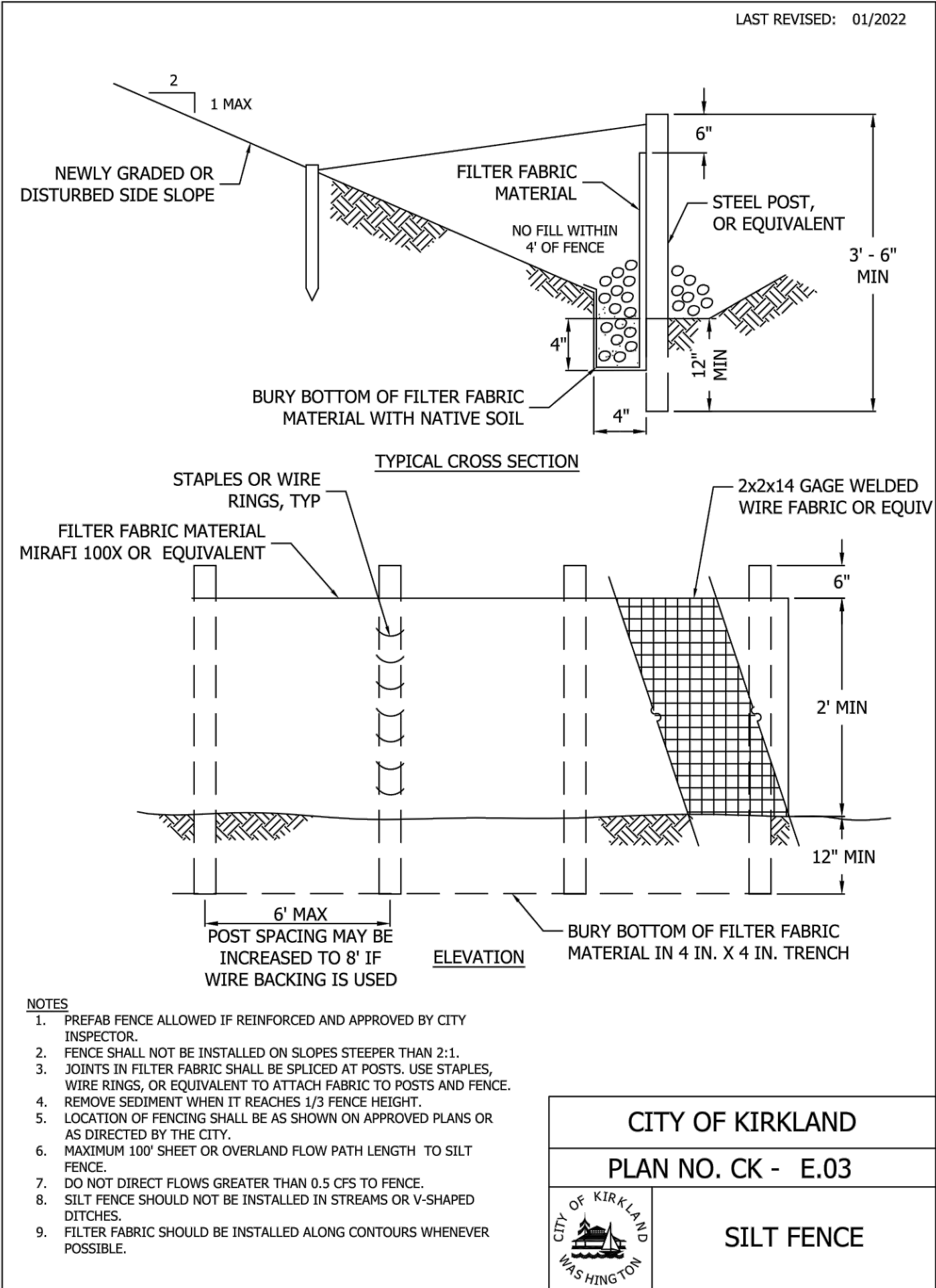
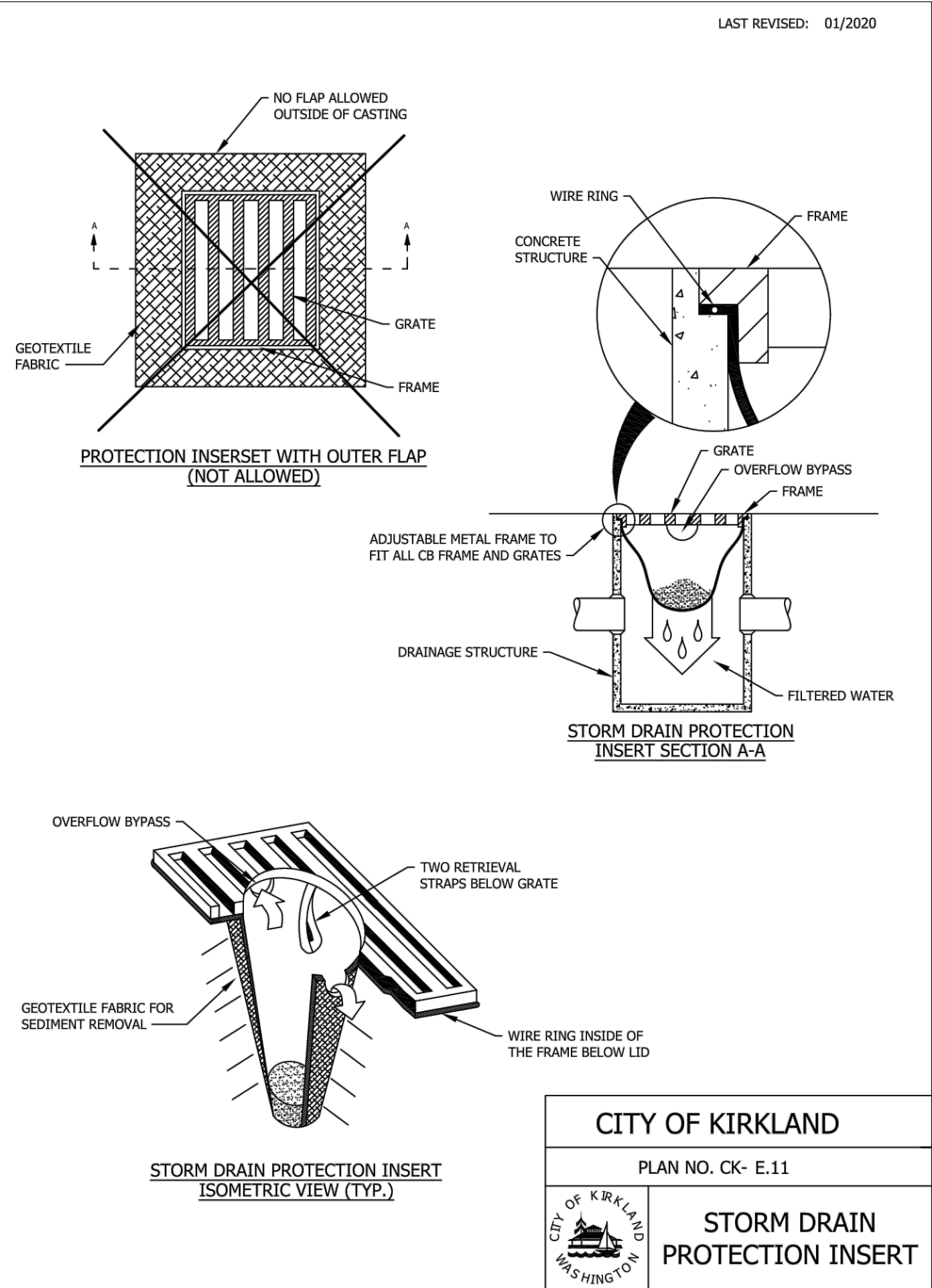
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GOAT HILL DRAINAGE DITCH CONVEYANCE
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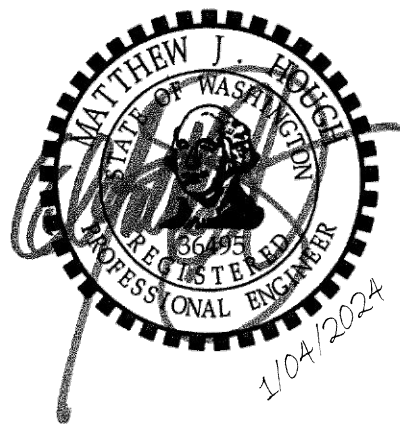
TESC AND DEMO PLAN

C1.06

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GOAT HILL DRAINAGE DITCH CONVEYANCE
AND CHANNEL STABILIZATION – PHASE 1

TESC DETAILS

C1.100

11

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1/5/2024 3:58 PM PETER EVANS

STORM FACILITY NOTES:

1. ALL DRAIN PIPES (SD) SHALL BE PVC (3034) UNLESS NOTED OTHERWISE ON PLANS OR PROJECT DETAILS.
2. ALL CATCH BASIN LOCATIONS REFERENCED TO CENTER OF STRUCTURE. GRATE PLACEMENT SHALL BE PER STRUCTURE PLACEMENT DETAIL ON SHEET C3.101.
3. ALL TYPE 1 AND TYPE 1-L CATCH BASIN STRUCTURES SHALL BE PRE-CAST CONCRETE FABRICATED PER COK PLANS CK-D.07 AND CK-D.08 RESPECTIVELY. TYPICAL STRUCTURES SHALL BE INSTALLED PER COK STANDARDS W/RECTANGULAR FRAME AND VANED GRATE PER COK PLAN AND CK-D.15 UNLESS NOTED OTHERWISE. SEE ADDITIONAL COK STANDARD NOTES, INCLUDING STORM DRAINAGE NOTES, ON SHEET C0.02.
4. ETHAFOAM/RIGID INSULATION SHALL BE INSTALLED BETWEEN PIPES WHERE CLEARANCE IS 12-INCHES OR LESS.

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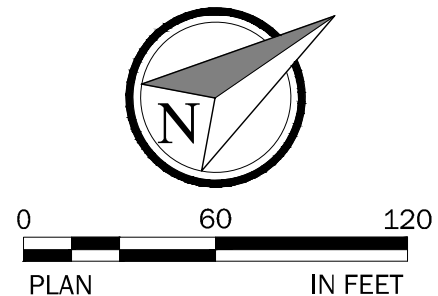
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GOAT HILL DRAINAGE DITCH CONVEYANCE
AND CHANNEL STABILIZATION – PHASE 1

OVERALL GRADING AND DRAINAGE
PLAN

C3.00

13
51



*ESTIMATED DEPTH BASED ON
AVAILABLE POTHOLE DATA (VERIFY)

- (1) SAWCUT, MATCH EXIST. PAVEMENT
- (2) REMOVE, REPLACE EXIST. HMA PAVEMENT SEC. PER TYPICAL DET. ON C3.100
- (6) MATCH EXIST. PAVEMENT EDGE
- (7) REMOVE EXIST. SD PIPE AND/OR STRUCTURE, REF. TESC AND DEMOLITION PLAN SHTS. C1.01-C1.08
- (8) ABANDON EXIST. SD PIPE IN-PLACE, PLUG PIPE END FULL W/CEMENT CONC.
- (9) 24" MANHOLE FRAME W/LOCKING COVER AND LOGO PER COK PLAN CK-D.18 W/CIRCULAR RISER AND TRANSITION PER COK PLAN CK-D.07A
- (10) CONN. SD PIPE TO EXIST. CATCH BASIN STRUCTURE
- (11) CONN. EXIST. SD PIPE TO NEW CATCH BASIN STRUCTURE
- (12) TYPE 1 CATCH BASIN W/CONC. CHANNEL TO PIPE SPRINGLINE
- (13) TRENCH SEEPAGE BARRIER W/DRAIN PER DET. ON C3.101
- (14) RECTANGULAR BI-DIRECTIONAL VANED GRATE PER WSDOT STD. PLAN 30.40-03
- (15) ADJUST EXIST. SD FRAME, GRATE TO FINISH GRADE PER COK PLAN NO. CK-R.02
- (16) REMOVE EXIST. WALL/ROCKERY, APPROX. LENGTH PER PLAN
- (17) PROTECT EXIST. RETAINING WALL
- (18) ROCKERY WALL PER COK PLAN CK-R.52
- (19) MODULAR BLOCK RETAINING WALL PER TYP. SEC. ON C3.102 AND DET. ON DWG. C6.00-C6.02
- (20) GRAVITY BLOCK WALL, REF. DET. ON SHTS. C6.00 THRU C6.02
- (21) PERMANENT BUFFER IMPACT, APPROX. AREA PER PLAN
- (22) APPROX. LIMITS OF GRADING
- (23) PROTECT EXIST. MONUMENT, INSTALL NEW MON. CASE AND COVER PER COK PLAN CK-R.03
- (24) PROTECT EXIST. LANDSCAPING; RESTORE DISTURBED AREAS IN-KIND
- (25) REMOVE, RELOCATE EXIST. GAS MAIN (BY OTHERS, PSE)
- (26) RELOCATE EXIST. BURIED FRANCHISE UTILITY TO AVOID CONFLICT W/STORM OR WATER FACILITY (BY OTHERS)
- (28) RELOCATE EXIST. UTILITY POLE, GUY ANCHOR (BY OTHERS)
- (29) REMOVE, SALVAGE EXIST. CONC. PAVERS; RE-INSTALL SALVAGED CONC. PAVERS AT DRIVEWAY TO REPAIR DISTURBED AREAS
- (30) TYPICAL DRIVEWAY PAVEMENT SEC. PER DET. ON C3.100, REF. DETS. ON SHTS. C3.31-C3.41

HMA PAVEMENT, REMOVE/REPLACE EXIST.

CONCRETE PAVEMENT

SAWCUT

FLOWLINE OR GRADE BREAK AT THICKENED EDGE

PROPOSED 2-FT CONTOUR

EXISTING 2-FT CONTOUR

GRAVITY BLOCK WALL

MODULAR BLOCK (MSE) RETAINING WALL

ROCKERY

FINISHED GRADE AT TOP/TOE OF WALL

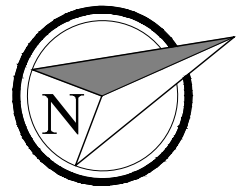
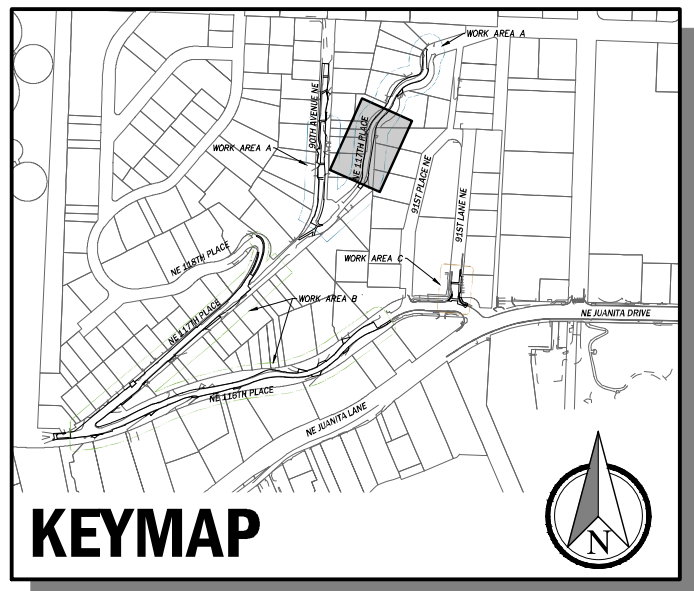
STORM DRAIN PIPE

WALL DRAIN

EXIST. STORM DRAIN PIPE

SD CATCH BASIN

PERMANENT BUFFER IMPACT AREA



0 5 10
VERT. IN FEET

0 20 40
HORIZ. IN FEET



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Call before you dig.**

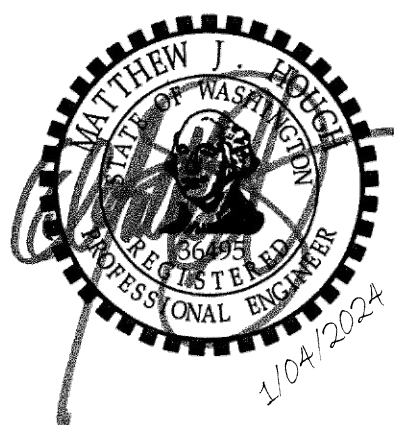
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ROADWAY IMPROVEMENTS PLAN AND PROFILE

C3.02

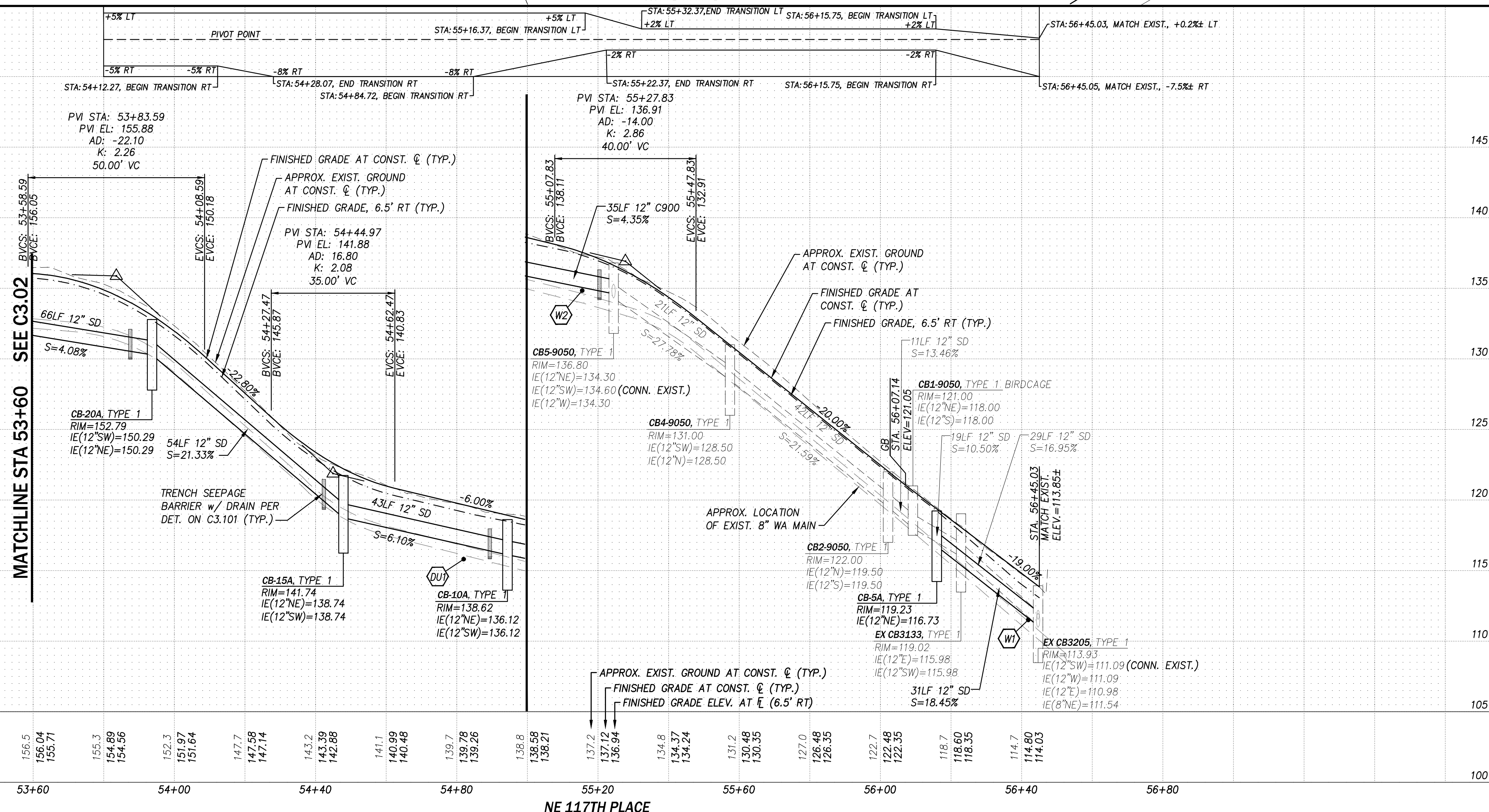
$$\frac{15}{51}$$

*ESTIMATED DEPTH BASED ON
AVAILABLE POTHOLE DATA (VERIFY)

- (1) SAWCUT, MATCH EXIST. PAVEMENT
- (2) REMOVE, REPLACE EXIST. HMA PAVEMENT SEC. PER TYPICAL DET. ON C3.100
- (6) MATCH EXIST. PAVEMENT EDGE
- (7) REMOVE EXIST. SD PIPE AND/OR STRUCTURE, REF. TESC AND DEMOLITION PLAN SHTS. C1.01-C1.08
- (8) ABANDON EXIST. SD PIPE IN-PLACE, PLUG PIPE END FULL W/CEMENT CONC.
- (9) 24" MANHOLE FRAME W/LOCKING COVER AND LOGO PER COK PLAN CK-D.18 W/CIRCULAR RISER AND TRANSITION PER COK PLAN CK-D.07A
- (10) CONN. SD PIPE TO EXIST. CATCH BASIN STRUCTURE
- (11) CONN. EXIST. SD PIPE TO NEW CATCH BASIN STRUCTURE
- (12) TYPE 1 CATCH BASIN W/CONC. CHANNEL TO PIPE SPRINGLINE
- (13) TRENCH SEEPAGE BARRIER W/DRAIN PER DET. ON C3.101
- (14) RECTANGULAR BI-DIRECTIONAL VANED GRATE PER WSDOT STD. PLAN 30.40-03
- (15) ADJUST EXIST. SD FRAME, GRATE TO FINISH GRADE PER COK PLAN NO. CK-R.02
- (16) REMOVE EXIST. WALL/ROCKERY, APPROX. LENGTH PER PLAN
- (17) PROTECT EXIST. RETAINING WALL
- (18) ROCKERY WALL PER COK PLAN CK-R.52
- (19) MODULAR BLOCK RETAINING WALL PER TYP. SEC. ON C3.102 AND DET. ON DWG. C6.00-C6.02
- (20) GRAVITY BLOCK WALL, REF. DET. ON SHTS. C6.00 THRU C6.02
- (21) PERMANENT BUFFER IMPACT, APPROX. AREA PER PLAN
- (22) APPROX. LIMITS OF GRADING
- (23) PROTECT EXIST. MONUMENT, INSTALL NEW MON. CASE AND COVER PER COK PLAN CK-R.03
- (24) PROTECT EXIST. LANDSCAPING; RESTORE DISTURBED AREAS IN-KIND
- (25) REMOVE, RELOCATE EXIST. GAS MAIN (BY OTHERS, PSE)
- (26) RELOCATE EXIST. BURIED FRANCHISE UTILITY TO AVOID CONFLICT W/STORM OR WATER FACILITY (BY OTHERS)
- (28) RELOCATE EXIST. UTILITY POLE, GUY ANCHOR (BY OTHERS)
- (29) REMOVE, SALVAGE EXIST. CONC. PAVERS; RE-INSTALL SALVAGED CONC. PAVERS AT DRIVEWAY TO REPAIR DISTURBED AREAS
- (30) TYPICAL DRIVEWAY PAVEMENT SEC. PER DET. ON C3.100, REF. DETS. ON SHTS. C3.31-C3.41

Figure 1: Standard Symbols for Roadway Construction. The figure lists 14 symbols with their corresponding descriptions:

- HMA PAVEMENT, REMOVE/REPLACE EXIST.
- CONCRETE PAVEMENT
- SAWCUT
- FLOWLINE OR GRADE BREAK AT THICKENED EDGE
- PROPOSED 2-FT CONTOUR
- EXISTING 2-FT CONTOUR
- GRAVITY BLOCK WALL
- MODULAR BLOCK (MSE) RETAINING WALL
- ROCKERY
- FINISHED GRADE AT TOP/TOE OF WALL
- STORM DRAIN PIPE
- WALL DRAIN
- EXIST. STORM DRAIN PIPE
- SD CATCH BASIN



811
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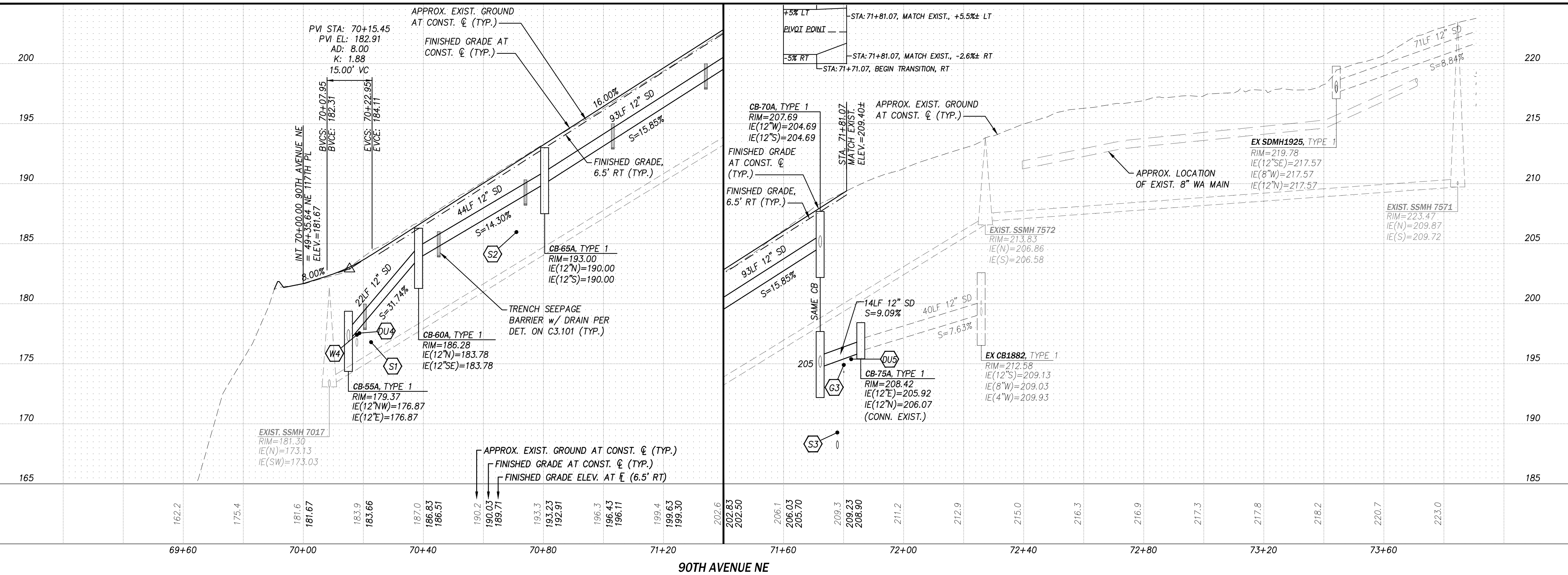


ROADWAY IMPROVEMENTS PLAN AND PROFILE

$$\frac{16}{51}$$

STORM PIPE CROSSING DATA	
STORM/SEWER PIPE CROSSINGS:	
S1	BOT 12" SD=179.38
	TOP 8" SS=176.11
S2	BOT 12" SD=188.60
	TOP 8" SS=182.39
S3	BOT 12" SD=205.21
	TOP 8" SS=198.59
STORM/WATER PIPE CROSSINGS:	
W4	BOT 12" SD=177.96
	TOP 8" WA=177.12*
STORM/GAS PIPE CROSSINGS:	
G3	BOT 12" SD=205.40
	TOP 2" GAS=204.40**
STORM/DRY UTILITY CROSSINGS:	
DU4	BOT 12" SD=178.27
	TOP FO=177.27**
DU5	BOT 12" SD=205.63
	TOP COMM.=205.09*

*ESTIMATED DEPTH BASED ON
AVAILABLE POTHOLE DATA (VERIFY)
**REQ'D ELEV. WITH RELOCATION BY
UTILITY PURVEYOR (VERIFY)



- (1) SAWCUT, MATCH EXIST. PAVEMENT
- (2) REMOVE, REPLACE EXIST. HMA PAVEMENT SEC. PER TYPICAL DET. ON C3.100
- (6) MATCH EXIST. PAVEMENT EDGE
- (7) REMOVE EXIST. SD PIPE AND/OR STRUCTURE, REF. TESC AND DEMOLITION PLAN SHTS. C1.01–C1.08
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- (12) TYPE 1 CATCH BASIN W/CONC. CHANNEL TO PIPE SPRINGLINE
- (13) TRENCH SEEPAGE BARRIER W/DRAIN PER DET. ON C3.101
- (14) RECTANGULAR BI-DIRECTIONAL VANED GRATE PER WSDOT STD. PLAN 30.40–03
- (15) ADJUST EXIST. SD FRAME, GRATE TO FINISH GRADE PER COK PLAN NO. CK–R.02
- (16) REMOVE EXIST. WALL/ROCKERY, APPROX. LENGTH PER PLAN
- (17) PROTECT EXIST. RETAINING WALL
- (18) ROCKERY WALL PER COK PLAN CK–R.52
- (19) MODULAR BLOCK RETAINING WALL PER TYP. SEC. ON C3.102 AND DET. ON DWG. C6.00–C6.02
- (20) GRAVITY BLOCK WALL, REF. DET. ON SHTS. C6.00 THRU C6.02
- (21) PERMANENT BUFFER IMPACT, APPROX. AREA PER PLAN
- (22) APPROX. LIMITS OF GRADING
- (23) PROTECT EXIST. MONUMENT, INSTALL NEW MON. CASE AND COVER PER COK PLAN CK–R.03
- (24) PROTECT EXIST. LANDSCAPING; RESTORE DISTURBED AREAS IN-KIND
- (25) REMOVE, RELOCATE EXIST. GAS MAIN (BY OTHERS, PSE)
- (26) RELOCATE EXIST. BURIED FRANCHISE UTILITY TO AVOID CONFLICT W/STORM OR WATER FACILITY (BY OTHERS)
- (28) RELOCATE EXIST. UTILITY POLE, GUY ANCHOR (BY OTHERS)
- (29) REMOVE, SALVAGE EXIST. CONC. PAVERS; RE-INSTALL SALVAGED CONC. PAVERS AT DRIVEWAY TO REPAIR DISTURBED AREAS
- (30) TYPICAL DRIVEWAY PAVEMENT SEC. PER DET. ON C3.100, REF. DETS. ON SHTS. C3.31–C3.41

HMA PAVEMENT, REMOVE/REPLACE EXIST.

CONCRETE PAVEMENT

SAWCUT

FLOWLINE OR GRADE BREAK AT THICKENED EDGE

PROPOSED 2-FT CONTOUR

EXISTING 2-FT CONTOUR

GRAVITY BLOCK WALL

MODULAR BLOCK (MSE) RETAINING WALL

ROCKERY

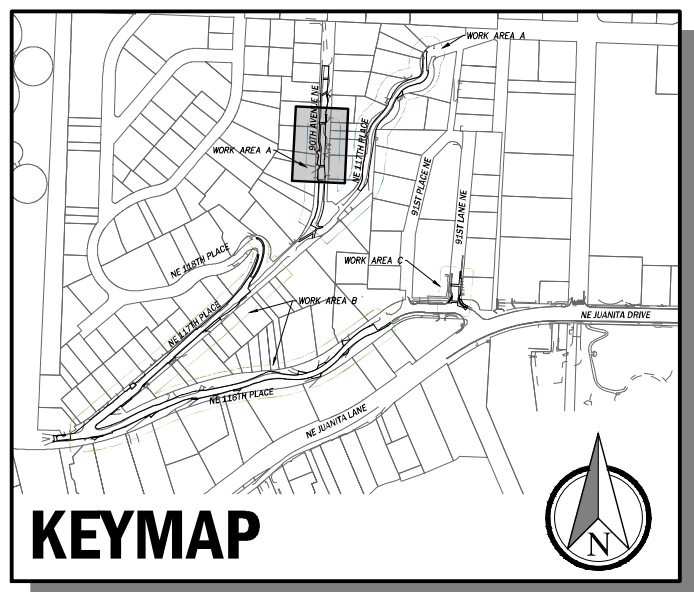
FINISHED GRADE AT TOP/TOE OF WALL

STORM DRAIN PIPE

WALL DRAIN

EXIST. STORM DRAIN PIPE

SD CATCH BASIN



CIP NO.	JOB NO.	ENGR.	REVIEW	SCALE	DATE
SDC09000000	19-23-PW	MJH	MJH	AS NOTED	1/04/2024
0 NO.		BID SET REVISION		PCE BY	MJH REVIEW
					12/27/23 DATE



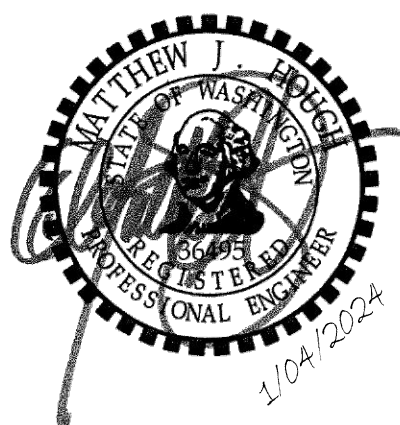
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GOAT HILL DRAINAGE DITCH CONVEYANCE
AND CHANNEL STABILIZATION – PHASE 1

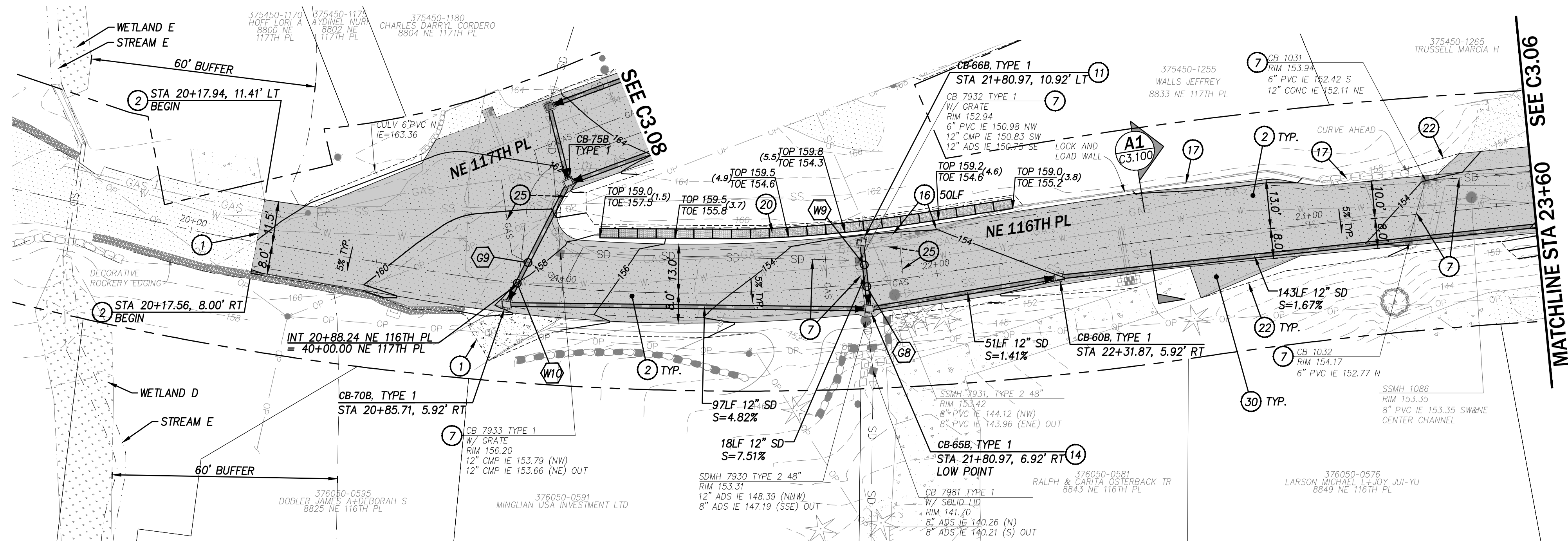
ROADWAY IMPROVEMENTS PLAN AND PROFILE

C3.04

17

51

SEE STORM DRAINAGE FACILITY NOTES ON DRAWING C3.00.




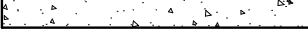

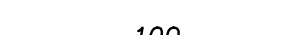
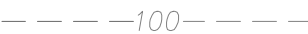




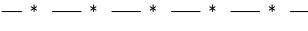




STORM PIPE CROSSING DATA	
STORM/WATER PIPE CROSSINGS:	
W9	BOT 12" SD=150.58 TOP 8" WA=149.96"
W10	BOT 12" SD=154.84 TOP 8" WA=154.10"
STORM/GAS PIPE CROSSINGS:	
G8	BOT 12" SD=150.15 TOP 2" GAS=149.15**
G9	BOT 12" SD=155.31 TOP 2" GAS=154.31**

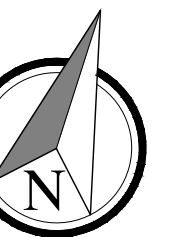
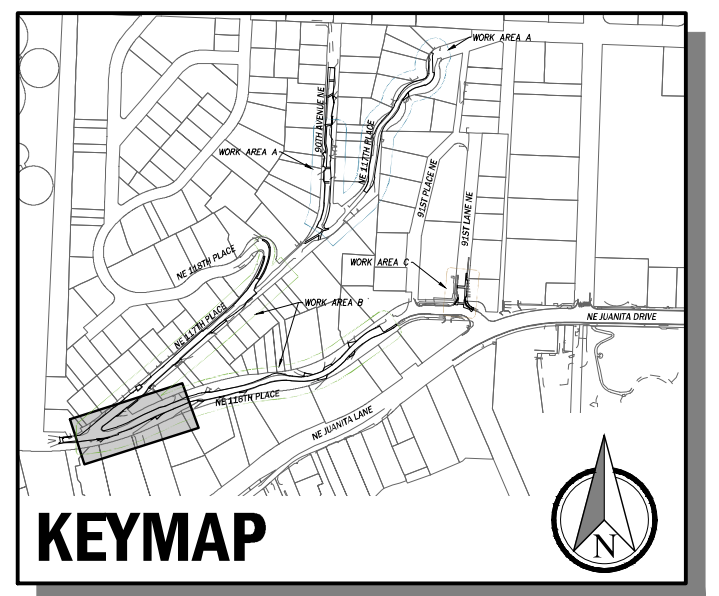
*ESTIMATED DEPTH BASED ON
AVAILABLE POTHOLE DATA (VERIFY)
**REQ'D. ELEV. WITH RELOCATION BY
UTILITY PURVEYOR (VERIFY)

- ## CONSTRUCTION NOTES

- (1) SAWCUT, MATCH EXIST. PAVEMENT
- (2) REMOVE, REPLACE EXIST. HMA PAVEMENT SEC. PER TYPICAL DET. ON C3.100
- (6) MATCH EXIST. PAVEMENT EDGE
- (7) REMOVE EXIST. SD PIPE AND/OR STRUCTURE, REF. TESC AND DEMOLITION PLAN SHTS. C1.01-C1.08
- (8) ABANDON EXIST. SD PIPE IN-PLACE, PLUG PIPE END FULL W/CEMENT CONC.
- (9) 24" MANHOLE FRAME W/LOCKING COVER AND LOGO PER COK PLAN CK-D.18, W/CIRCULAR RISER AND TRANSITION PER COK PLAN CK-D.07A
- (10) CONN. SD PIPE TO EXIST. CATCH BASIN STRUCTURE
- (11) CONN. EXIST. SD PIPE TO NEW CATCH BASIN STRUCTURE
- (12) TYPE 1 CATCH BASIN W/CONC. CHANNEL TO PIPE SPRINGLINE
- (13) TRENCH SEEPAGE BARRIER W/DRAIN PER DET. ON C3.101
- (14) RECTANGULAR BI-DIRECTIONAL VANED GRATE PER WSDOT STD. PLAN 30.40-03
- (15) ADJUST EXIST. SD FRAME, GRATE TO FINISH GRADE PER COK PLAN NO. CK-R.02
- (16) REMOVE EXIST. WALL/ROCKERY, APPROX. LENGTH PER PLAN
- (17) PROTECT EXIST. RETAINING WALL
- (18) ROCKERY WALL PER COK PLAN CK-R.52
- (19) MODULAR BLOCK RETAINING WALL PER TYP. SEC. ON C3.102 AND DET. ON DWG. C6.00-C6.02
- (20) GRAVITY BLOCK WALL, REF. DET. ON SHTS. C6.00 THRU C6.02
- (21) PERMANENT BUFFER IMPACT, APPROX. AREA PER PLAN
- (22) APPROX. LIMITS OF GRADING
- (23) PROTECT EXIST. MONUMENT, INSTALL NEW MON. CASE AND COVER PER COK PLAN CK-R.03
- (24) PROTECT EXIST. LANDSCAPING; RESTORE DISTURBED AREAS IN-KIND
- (25) REMOVE, RELOCATE EXIST. GAS MAIN (BY OTHERS, PSE)
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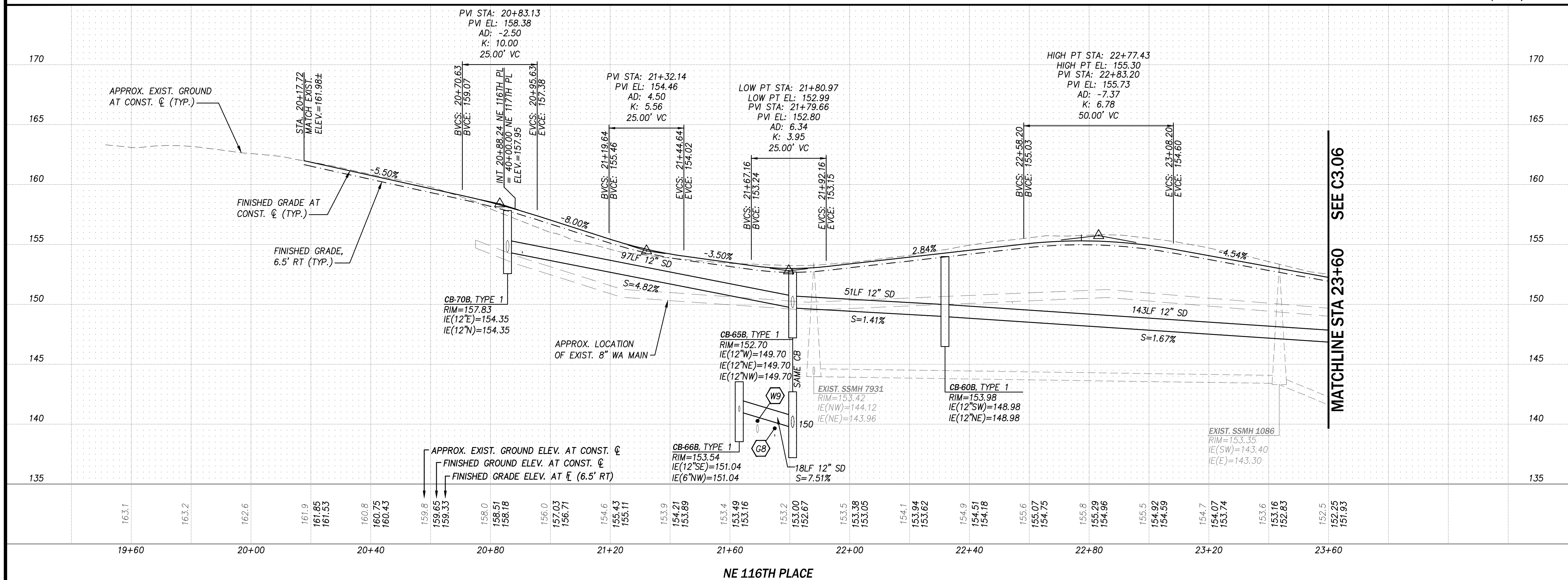
LEGEND

 HMA PAVEMENT, REMOVE/REPLACE EXIST.
 CONCRETE PAVEMENT
 SAWCUT
 FLOWLINE OR GRADE BREAK AT THICKENED EDGE
 PROPOSED 2-FT CONTOUR
 EXISTING 2-FT CONTOUR
 GRAVITY BLOCK WALL
 MODULAR BLOCK (MSE) RETAINING WALL
 ROCKERY
 FINISHED GRADE AT TOP/TOE OF WALL
 STORM DRAIN PIPE
 WALL DRAIN
 EXIST. STORM DRAIN PIPE
 SD CATCH BASIN



VERT. IN FEET

HORIZ. IN FEET



CIP NO.	JOB NO.	ENGR.	REVIEW	SCALE	DATE
SDC0900000	19-23-PW	MJH	MJH	AS NOTED	1/04/2024
O NO.	BID SET REVISION		PCE BY	MJH REVIEW	12/27/23 DATE



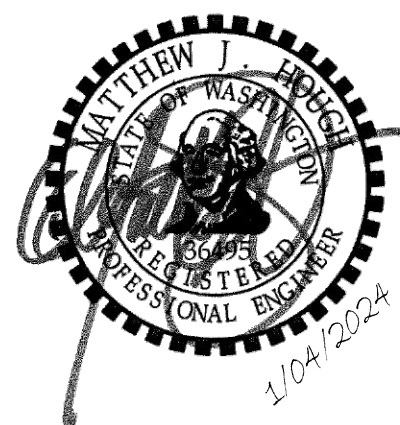
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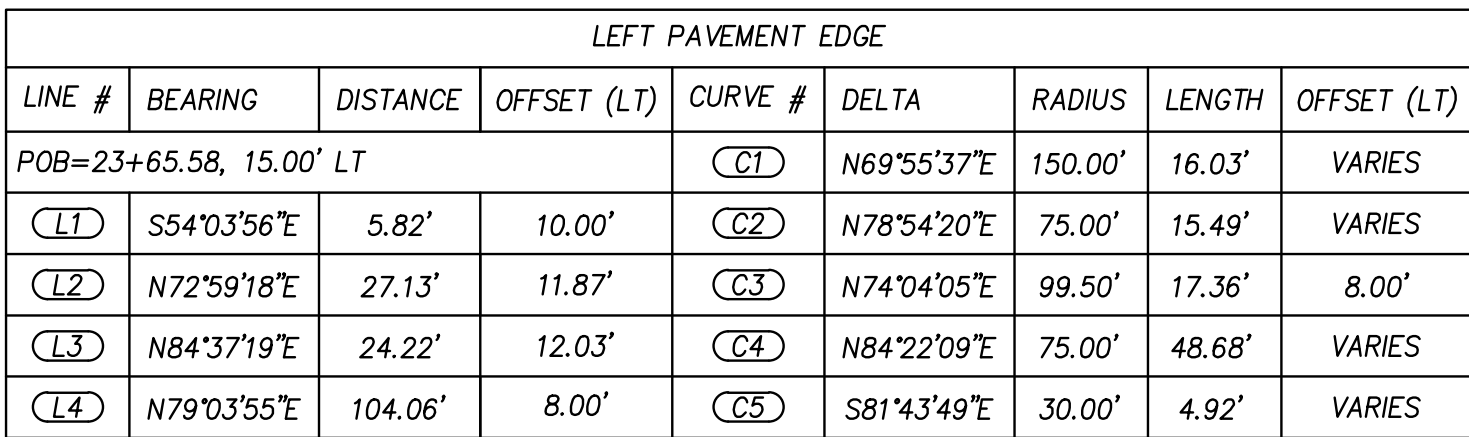
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AND CHANNEL STABILIZATION – PHASE 1

ROADWAY IMPROVEMENTS PLAN AND PROFILE

C3.05

$$\frac{8}{51}$$

MATCHLINE STA 23+60 SEE C3.03

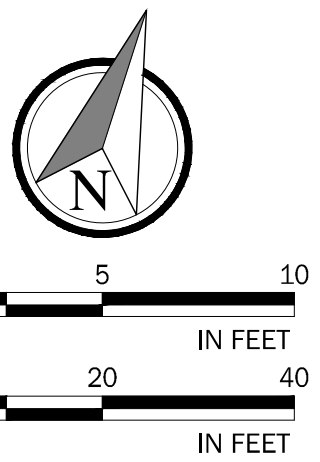
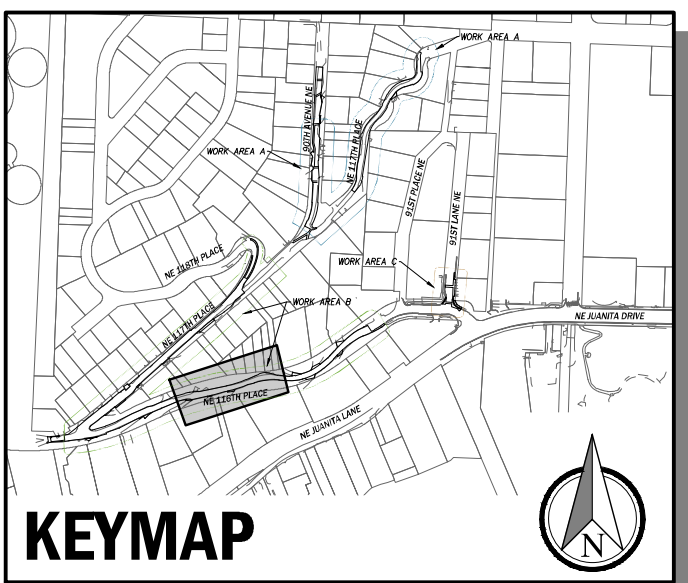


STORM PIPE CROSSING DATA	
STORM/SEWER PIPE CROSSINGS:	
S6	BOT 12" SD=118.02
	TOP 8" SS=113.78
S7	BOT 12" SD=118.52
	TOP 8" SS=114.94
S8	BOT 12" SD=143.50
	TOP 8" SS=134.95
STORM/WATER PIPE CROSSINGS:	
W7	BOT 12" SD=118.75
	TOP 8" WA=117.61*
W8	BOT 8" WA=145.56*
	TOP 12" SD=145.12
STORM/GAS PIPE CROSSINGS:	
G6	BOT 12" SD=118.58
	TOP 2" GAS=117.58**
G7	BOT 2" GAS=147.10*
	TOP 12" SD=145.30

SEE C3.07

- (1) SAWCUT, MATCH EXIST. PAVEMENT
- (2) REMOVE, REPLACE EXIST. HMA PAVEMENT SEC. PER TYPICAL DET. ON C3.100
- (6) MATCH EXIST. PAVEMENT EDGE
- (7) REMOVE EXIST. SD PIPE AND/OR STRUCTURE, REF. TESC AND DEMOLITION PLAN SHTS. C1.01-C1.08
- (8) ABANDON EXIST. SD PIPE IN-PLACE, PLUG PIPE END FULL W/CEMENT CONC.
- (9) 24" MANHOLE FRAME W/LOCKING COVER AND LOGO PER COK PLAN CK-D.18, W/CIRCULAR RISER AND TRANSITION PER COK PLAN CK-D.07A
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- (14) RECTANGULAR BI-DIRECTIONAL VANED GRATE PER WSDOT STD. PLAN 30.40-03
- (15) ADJUST EXIST. SD FRAME, GRATE TO FINISH GRADE PER COK PLAN NO. CK-R.02
- (16) REMOVE EXIST. WALL/ROCKERY, APPROX. LENGTH PER PLAN
- (17) PROTECT EXIST. RETAINING WALL
- (18) ROCKERY WALL PER COK PLAN CK-R.52
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- (22) APPROX. LIMITS OF GRADING
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- (30) TYPICAL DRIVEWAY PAVEMENT SEC. PER DET. ON C3.100, REF. DETS. ON SHTS. C3.31-C3.41

HMA PAVEMENT, REMOVE/REPLACE EXIST.
 CONCRETE PAVEMENT
 SAWCUT
 FLOWLINE OR GRADE BREAK AT THICKENED EDGE
 PROPOSED 2-FT CONTOUR
 EXISTING 2-FT CONTOUR
 GRAVITY BLOCK WALL
 MODULAR BLOCK (MSE) RETAINING WALL
 ROCKERY
 FINISHED GRADE AT TOP/TOE OF WALL
 STORM DRAIN PIPE
 WALL DRAIN
 EXIST. STORM DRAIN PIPE
 SD CATCH BASIN



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NO.	REVISION		BY	REVIEW	DATE



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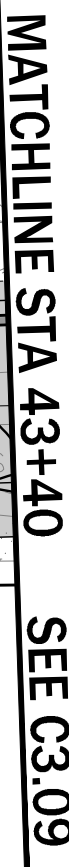
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(206)828-1243

ROADWAY IMPROVEMENTS PLAN AND PROFILE

C3.06

19

51



*ESTIMATED DEPTH BASED ON AVAILABLE
POTHOLE DATA (VERIFY)
**REQ'D. ELEV. WITH RELOCATION BY UTILITY
PURVEYOR (VERIFY)

- (1) SAWCUT, MATCH EXIST. PAVEMENT
- (2) REMOVE, REPLACE EXIST. HMA PAVEMENT SEC. PER TYPICAL DET. ON C3.100
- (6) MATCH EXIST. PAVEMENT EDGE
- (7) REMOVE EXIST. SD PIPE AND/OR STRUCTURE, REF. TESC AND DEMOLITION PLAN SHTS. C1.01-C1.08
- (8) ABANDON EXIST. SD PIPE IN-PLACE, PLUG PIPE END FULL W/CEMENT CONC.
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- (15) ADJUST EXIST. SD FRAME, GRATE TO FINISH GRADE PER COK PLAN NO. CK-R.02
- (16) REMOVE EXIST. WALL/ROCKERY, APPROX. LENGTH PER PLAN
- (17) PROTECT EXIST. RETAINING WALL
- (18) ROCKERY WALL PER COK PLAN CK-R.52
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CONCRETE PAVEMENT

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FLOWLINE OR GRADE BREAK AT THICKENED EDGE

PROPOSED 2-FT CONTOUR

EXISTING 2-FT CONTOUR

GRAVITY BLOCK WALL

MODULAR BLOCK (MSE) RETAINING WALL

ROCKERY

FINISHED GRADE AT TOP/TOE OF WALL

STORM DRAIN PIPE

WALL DRAIN

EXIST. STORM DRAIN PIPE

SD CATCH BASIN



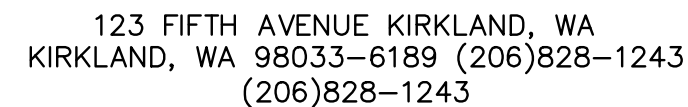
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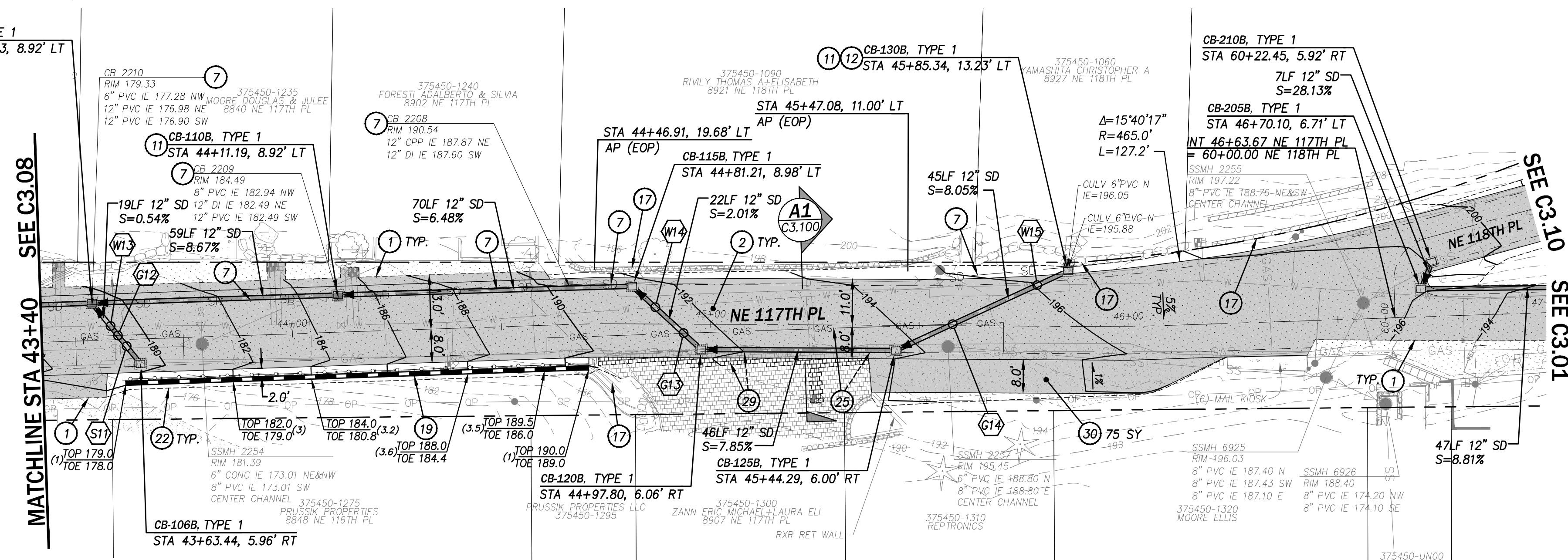
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












ROADWAY IMPROVEMENTS PLAN AND PROFILE

51

11 CB-105B, TYPE 1
STA 43+52.33, 8.92' LT



STORM PIPE CROSSING DATA	
STORM/SEWER PIPE CROSSINGS:	
	BOT 12" SD=177.37 TOP 8" SS=172.72
STORM/WATER PIPE CROSSINGS:	
	BOT 12" SD=177.34
	BOT 8" WA=176.87*
	BOT 12" SD=188.32 TOP 8" WA=187.75
	BOT 12" SD=193.96 TOP 8" WA=193.31*
STORM/GAS PIPE CROSSINGS:	
	BOT 12" SD=177.35
	TOP 2" GAS=176.35**
	BOT 2" GAS=188.44**
	TOP 12" SD=187.44
	BOT 12" SD=192.15
	TOP 2" GAS=191.15**

*ESTIMATED DEPTH BASED ON
AVAILABLE POTHOLE DATA (VERIFY)
**REQ'D. ELEV. WITH RELOCATION BY
UTILITY PURVEYOR (VERIFY)

- (1) SAWCUT, MATCH EXIST. PAVEMENT
- (2) REMOVE, REPLACE EXIST. HMA PAVEMENT SEC. PER TYPICAL DET. ON C3.100
- (6) MATCH EXIST. PAVEMENT EDGE
- (7) REMOVE EXIST. SD PIPE AND/OR STRUCTURE, REF. TESC AND DEMOLITION PLAN SHTS. C1.01-C1.08
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- (17) PROTECT EXIST. RETAINING WALL
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HMA PAVEMENT, REMOVE/REPLACE EXIST.

CONCRETE PAVEMENT

SAWCUT

FLOWLINE OR GRADE BREAK AT THICKENED EDGE

PROPOSED 2-FT CONTOUR

EXISTING 2-FT CONTOUR

GRAVITY BLOCK WALL

MODULAR BLOCK (MSE) RETAINING WALL

ROCKERY

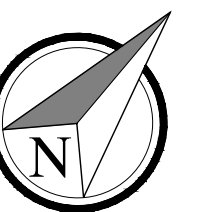
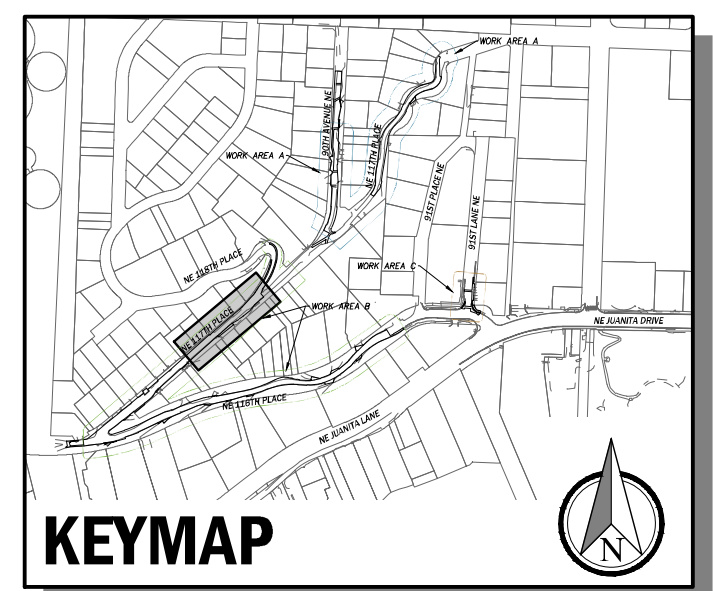
FINISHED GRADE AT TOP/TOE OF WALL

STORM DRAIN PIPE

WALL DRAIN

EXIST. STORM DRAIN PIPE

SD CATCH BASIN



0 5 10
VERT. IN FEET

0 20 40
HORIZ. IN FEET

CIP NO.	JOB NO.	ENGR.	REVIEW	SCALE	DATE
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GOAT HILL DRAINAGE DITCH CONVEYANCE
AND CHANNEL STABILIZATION – PHASE 1

ROADWAY IMPROVEMENTS PLAN AND PROFILE

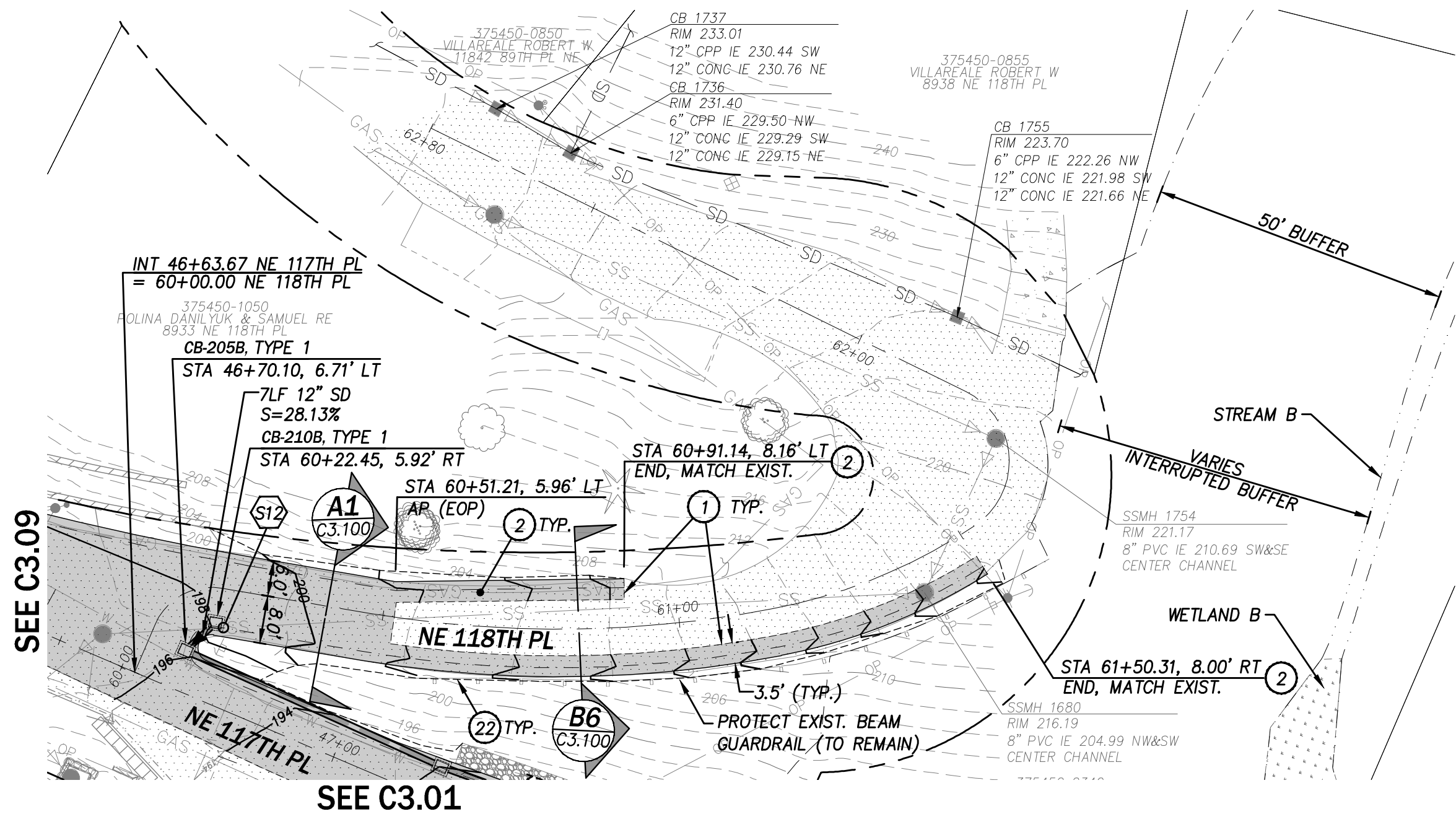
C3.09

22

51

P:\Project\0082\2014 Goat Hill SD.Dwg\Storm Drainage Improvements-Phase 1\C3.10.dwg
1/5/2024 4:03 PM PETER EVANS

SEE STORM DRAINAGE FACILITY NOTES ON DRAWING C3.00.



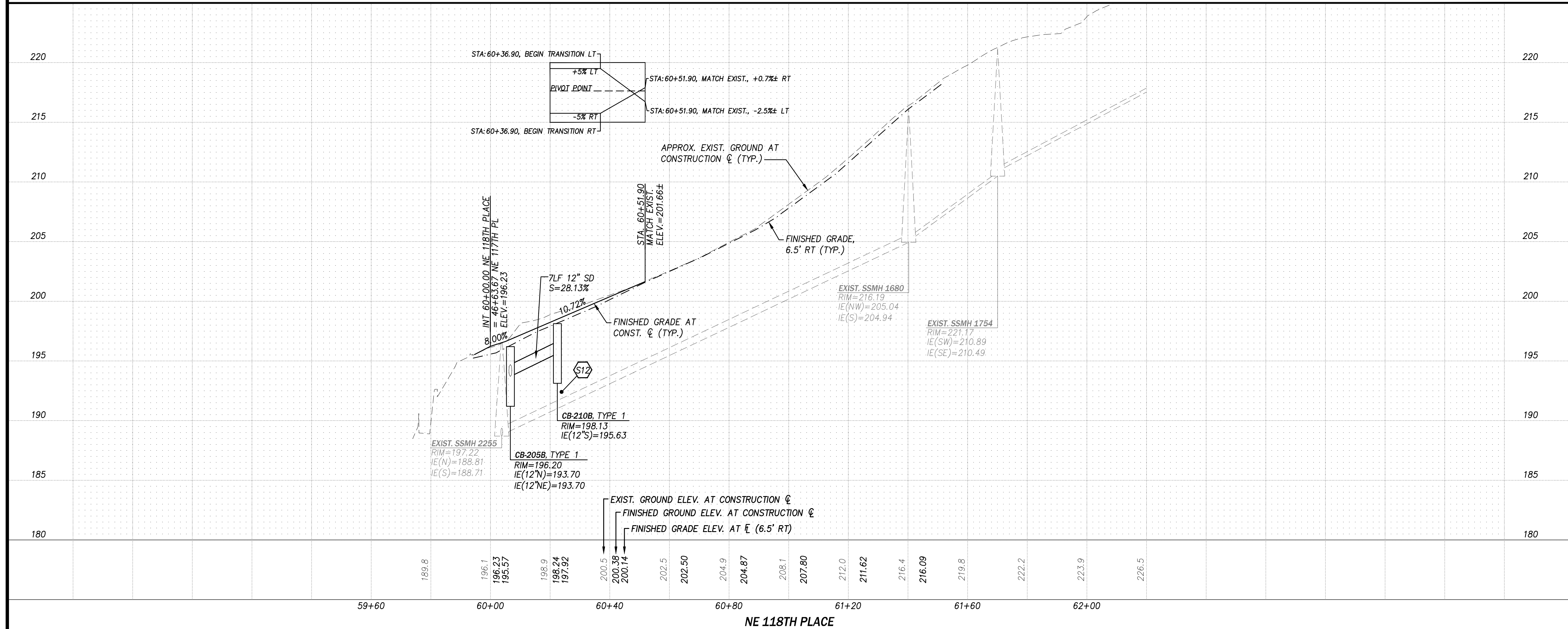
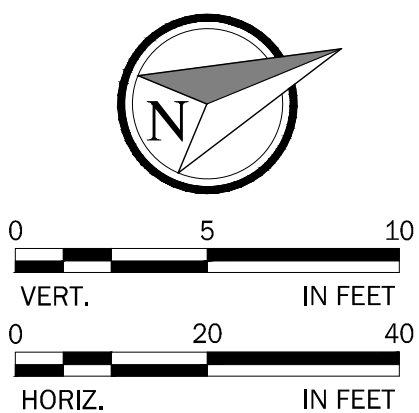
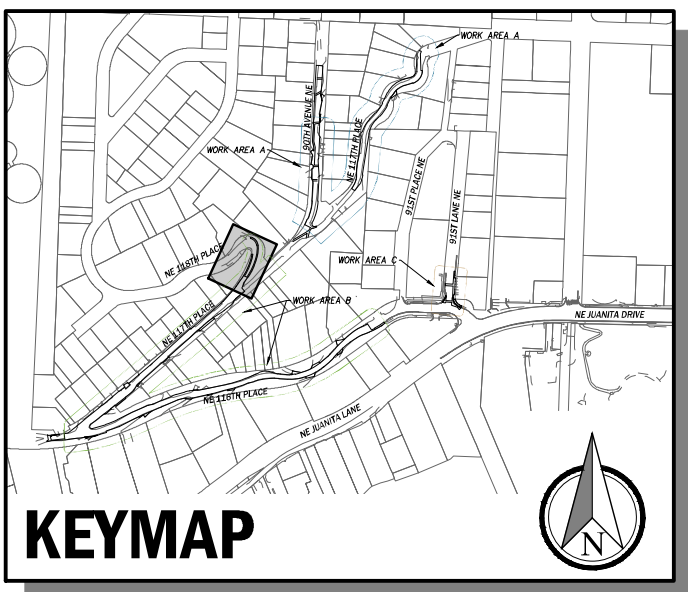
UTILITY CROSSING DATA	
	BOT CB-210B=193.30
	TOP 8" SS=191.85

CONSTRUCTION NOTES

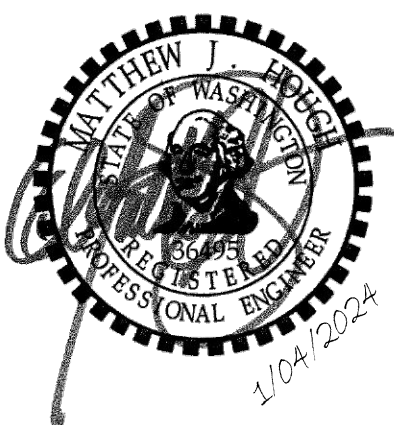
- 1 SAWCUT, MATCH EXIST. PAVEMENT
- 2 REMOVE, REPLACE EXIST. HMA PAVEMENT SEC. PER TYPICAL DET. ON C3.100
- 6 MATCH EXIST. PAVEMENT EDGE
- 7 REMOVE EXIST. SD PIPE AND/OR STRUCTURE, REF. TESC AND DEMOLITION PLAN SHTS. C1.01-C1.08
- 8 ABANDON EXIST. SD PIPE IN-PLACE, PLUG PIPE END FULL W/CEMENT CONC.
- 9 24" MANHOLE FRAME W/LOCKING COVER AND LOGO PER COK PLAN CK-D.18, W/CIRCULAR RISER AND TRANSITION PER COK PLAN CK-D.07A
- 10 CONN. SD PIPE TO EXIST. CATCH BASIN STRUCTURE
- 11 CONN. EXIST. SD PIPE TO NEW CATCH BASIN STRUCTURE
- 12 TYPE 1 CATCH BASIN W/CONC. CHANNEL TO PIPE SPRINGLINE
- 13 TRENCH SEEPAGE BARRIER W/DRAIN PER DET. ON C3.101
- 14 RECTANGULAR BI-DIRECTIONAL VANED GRATE PER WSDOT STD. PLAN 30.40-03
- 15 ADJUST EXIST. SD FRAME, GRATE TO FINISH GRADE PER COK PLAN NO. CK-R.02
- 16 REMOVE EXIST. WALL/ROCKERY, APPROX. LENGTH PER PLAN
- 17 PROTECT EXIST. RETAINING WALL
- 18 ROCKERY WALL PER COK PLAN CK-R.52
- 19 MODULAR BLOCK RETAINING WALL PER TYP. SEC. ON C3.102 AND DET. ON DWG. C6.00-C6.02
- 20 GRAVITY BLOCK WALL, REF. DET. ON SHTS. C6.00 THRU C6.02
- 21 PERMANENT BUFFER IMPACT, APPROX. AREA PER PLAN
- 22 APPROX. LIMITS OF GRADING
- 23 PROTECT EXIST. MONUMENT, INSTALL NEW MON. CASE AND COVER PER COK PLAN CK-R.03
- 24 PROTECT EXIST. LANDSCAPING; RESTORE DISTURBED AREAS IN-KIND
- 25 REMOVE, RELOCATE EXIST. GAS MAIN (BY OTHERS, PSE)
- 26 RELOCATE EXIST. BURIED FRANCHISE UTILITY TO AVOID CONFLICT W/STORM OR WATER FACILITY (BY OTHERS)
- 28 RELOCATE EXIST. UTILITY POLE, GUY ANCHOR (BY OTHERS)
- 29 REMOVE, SALVAGE EXIST. CONC. PAVERS; RE-INSTALL SALVAGED CONC. PAVERS AT DRIVEWAY TO REPAIR DISTURBED AREAS
- 30 TYPICAL DRIVEWAY PAVEMENT SEC. PER DET. ON C3.100, REF. DETS. ON SHTS. C3.31-C3.41

LEGEND

- HMA PAVEMENT, REMOVE/REPLACE EXIST.
- CONCRETE PAVEMENT
- SAWCUT
- FLOWLINE OR GRADE BREAK AT THICKENED EDGE
- 100 PROPOSED 2-FT CONTOUR
- 100 EXISTING 2-FT CONTOUR
- GRAVITY BLOCK WALL
- MODULAR BLOCK (MSE) RETAINING WALL
- ROCKERY
- FINISHED GRADE AT TOP/TOE OF WALL
- STORM DRAIN PIPE
- WALL DRAIN
- SD EXIST. STORM DRAIN PIPE
- SD CATCH BASIN



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GOAT HILL DRAINAGE DITCH CONVEYANCE
AND CHANNEL STABILIZATION - PHASE 1

ROADWAY IMPROVEMENTS PLAN
AND PROFILE

C3.10

23
51

CB-5C, TYPE 1
STA 80+21.61, 15.53 RT

30LF 12" SD
 S=9.66%

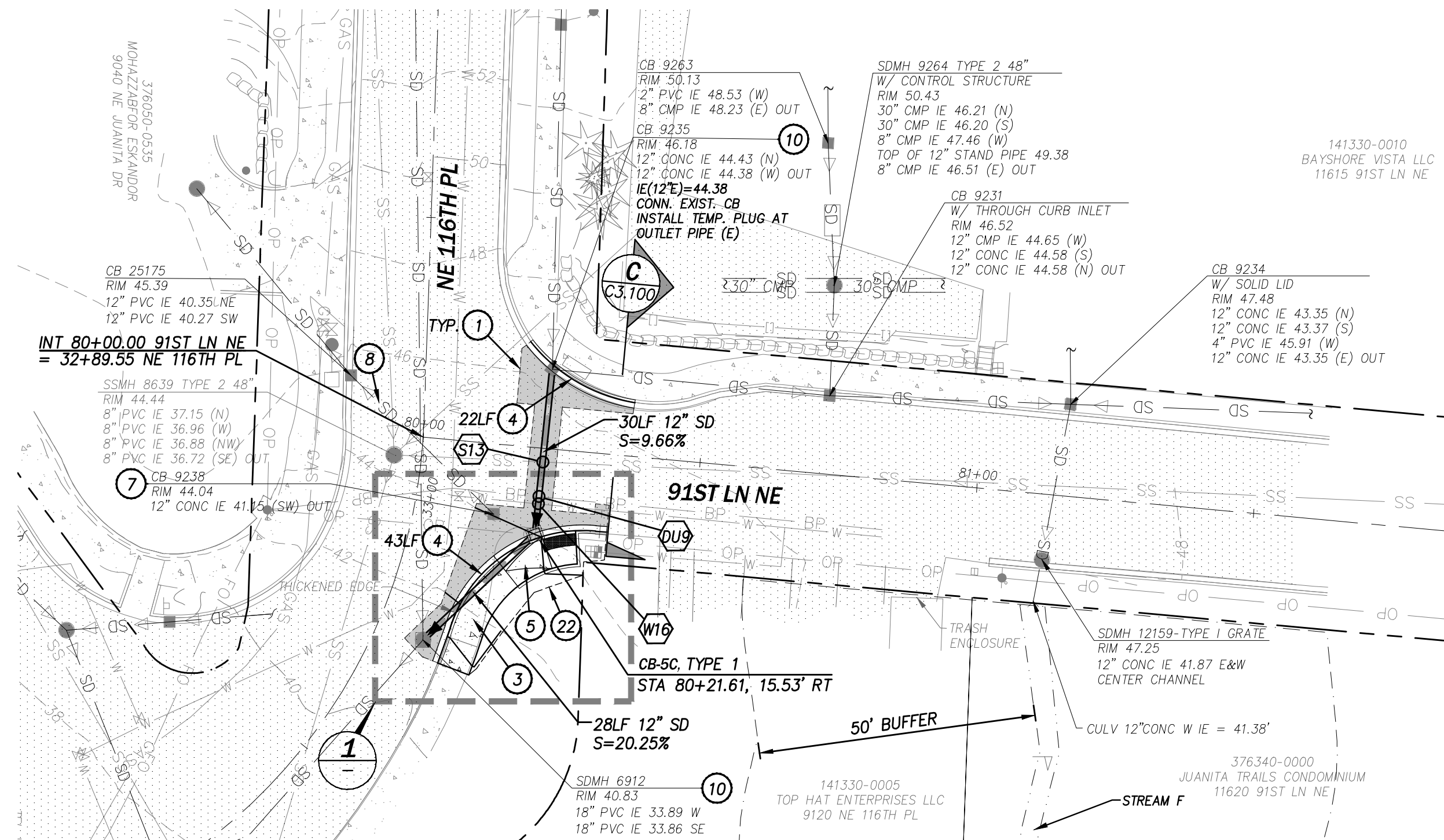
28LF 12" SD
 S=20.25%

7.3%
 1.5%

44.53
 44.74
 45.03
 44.34
 43.75
 43.67
 43.23
 42.92
 41.75
 41.26
 41.37
 40.91
 40.70

9 SDM# 6912
 RIM 40.83
 18" PVC IE 33.89 W
 18" PVC IE 33.86 SE

1 RAMP DETAIL
 SCALE: 1"=10'



CONSTRUCTION NOTES

- 1 SAWCUT, REMOVE, AND REPLACE EXIST. PVMT. PER TYP. ROAD SECTION C ON C3.100
- 3 CEMENT CONC. SIDEWALK PER COK PLAN NO. CK-R.23
- 4 CEMENT CONC. CURB AND GUTTER, TYPE "A" PER COK PLAN NO. CK-R.17, APPROX. LENGTH PER PLAN
- 5 PARALLEL CURB RAMP TYPE B PER WSDOT STD. PLAN F-40.12-03
- 7 REMOVE EXIST. SD PIPE AND/OR STRUCTURE, REF. TESC AND DEMOLITION PLAN SHTS. C1.01-C1.08
- 8 ABANDON EXIST. SD PIPE IN-PLACE, PLUG PIPE END FULL W/CEMENT CONC.
- 10 CONN. SD PIPE TO EXIST. CATCH BASIN STRUCTURE
- 22 APPROX. LIMITS OF GRADING

HMA PAVEMENT, REMOVE/REPLACE EXIST.

CONCRETE PAVEMENT

SAWCUT

PROPOSED 2-FT CONTOUR

EXISTING 2-FT CONTOUR

GRAVITY BLOCK WALL

MODULAR BLOCK (MSE) RETAINING WALL

ROCKERY

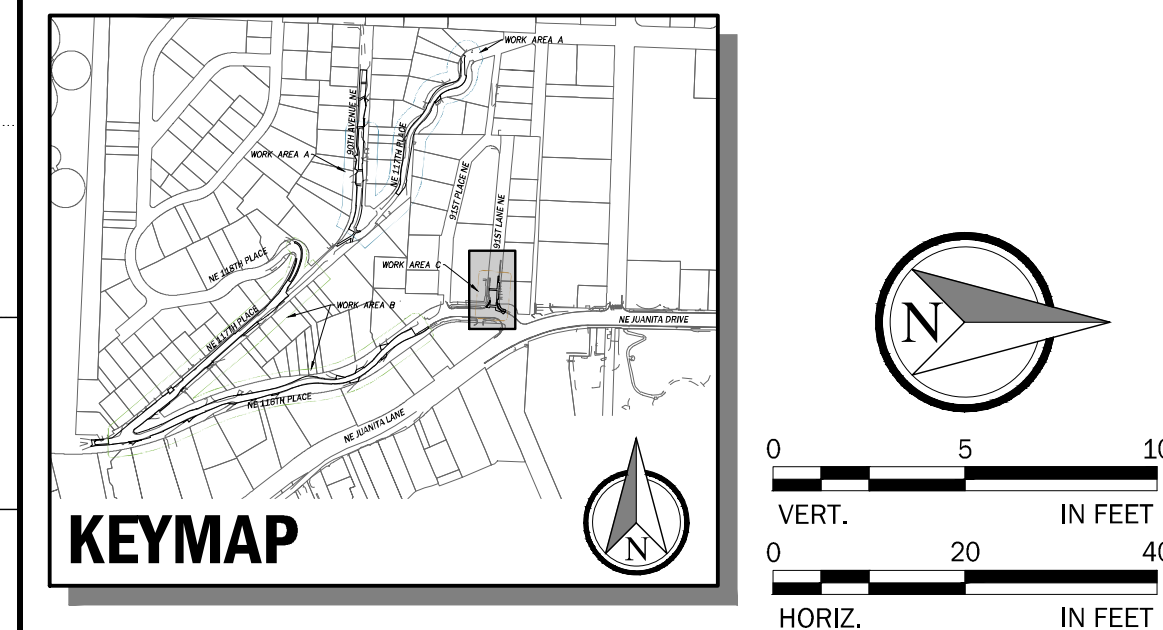
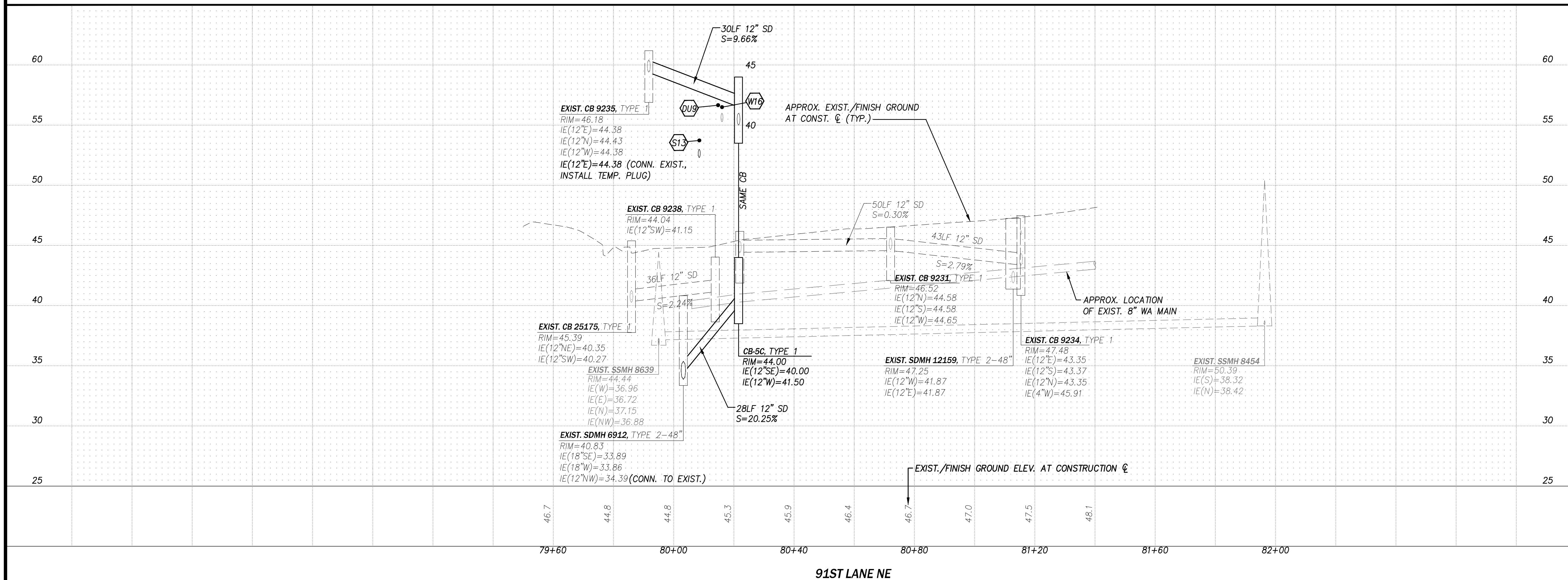
FINISHED GRADE AT TOP/TOE OF WALL

STORM DRAIN PIPE

WALL DRAIN

EXIST. STORM DRAIN PIPE

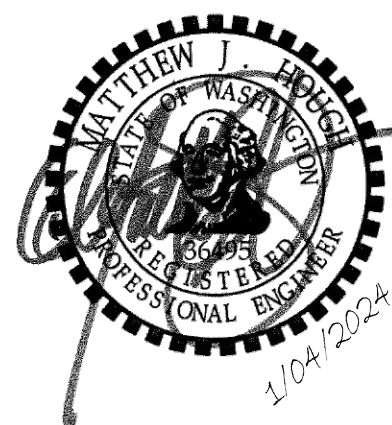
SD CATCH BASIN



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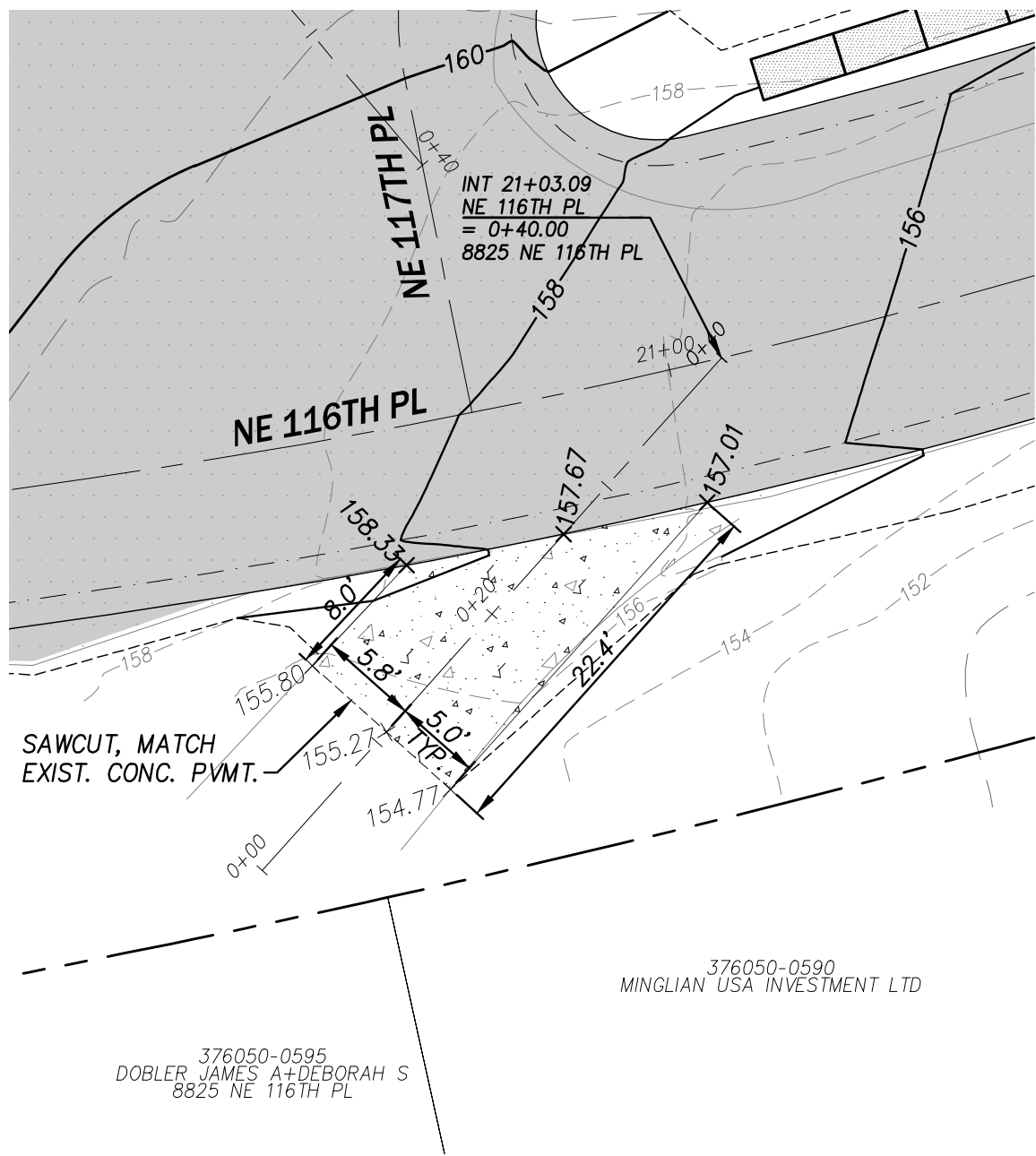
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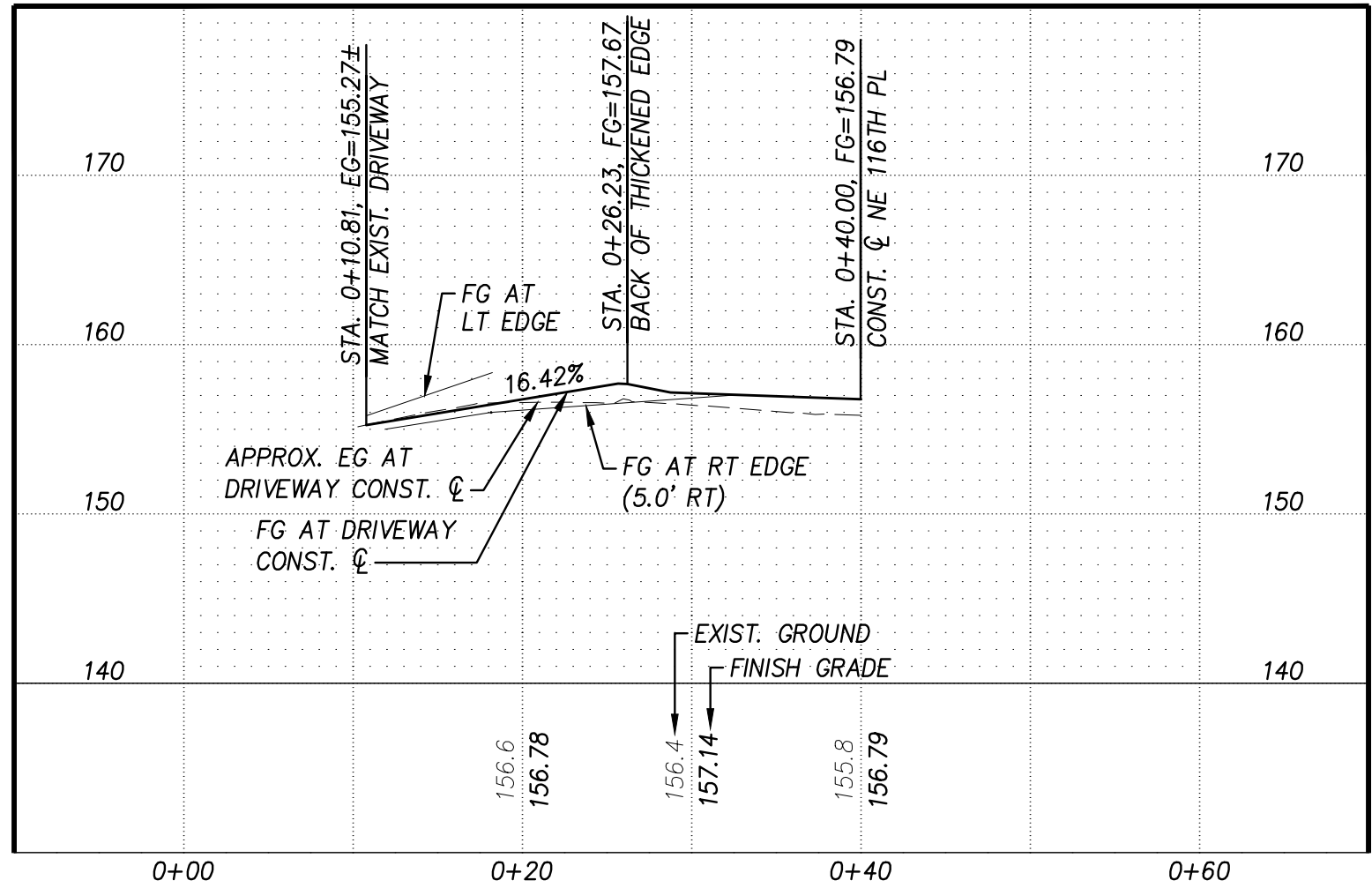
ROADWAY IMPROVEMENTS PLAN AND PROFILE

C3.11

$$\frac{24}{51}$$

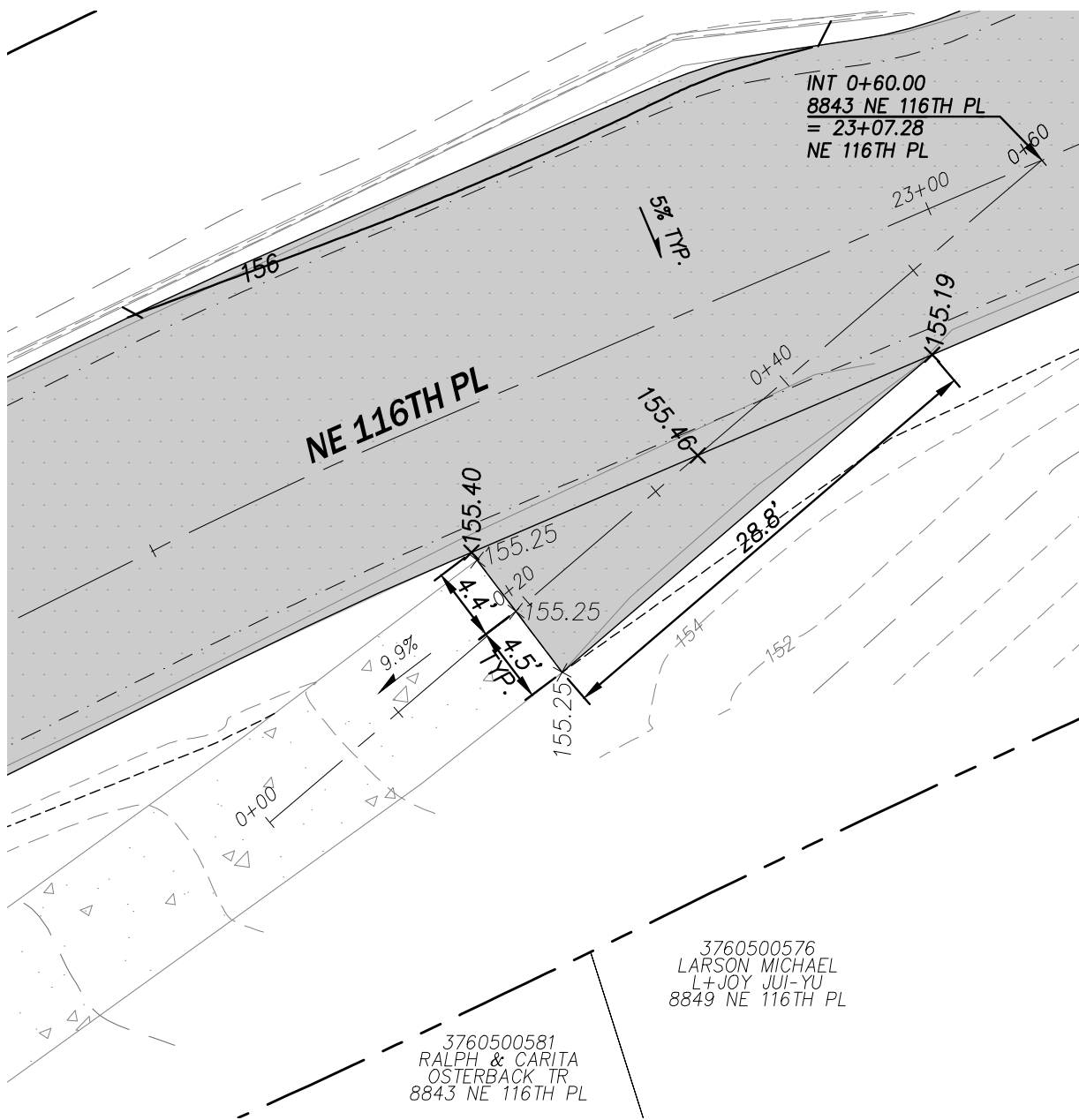


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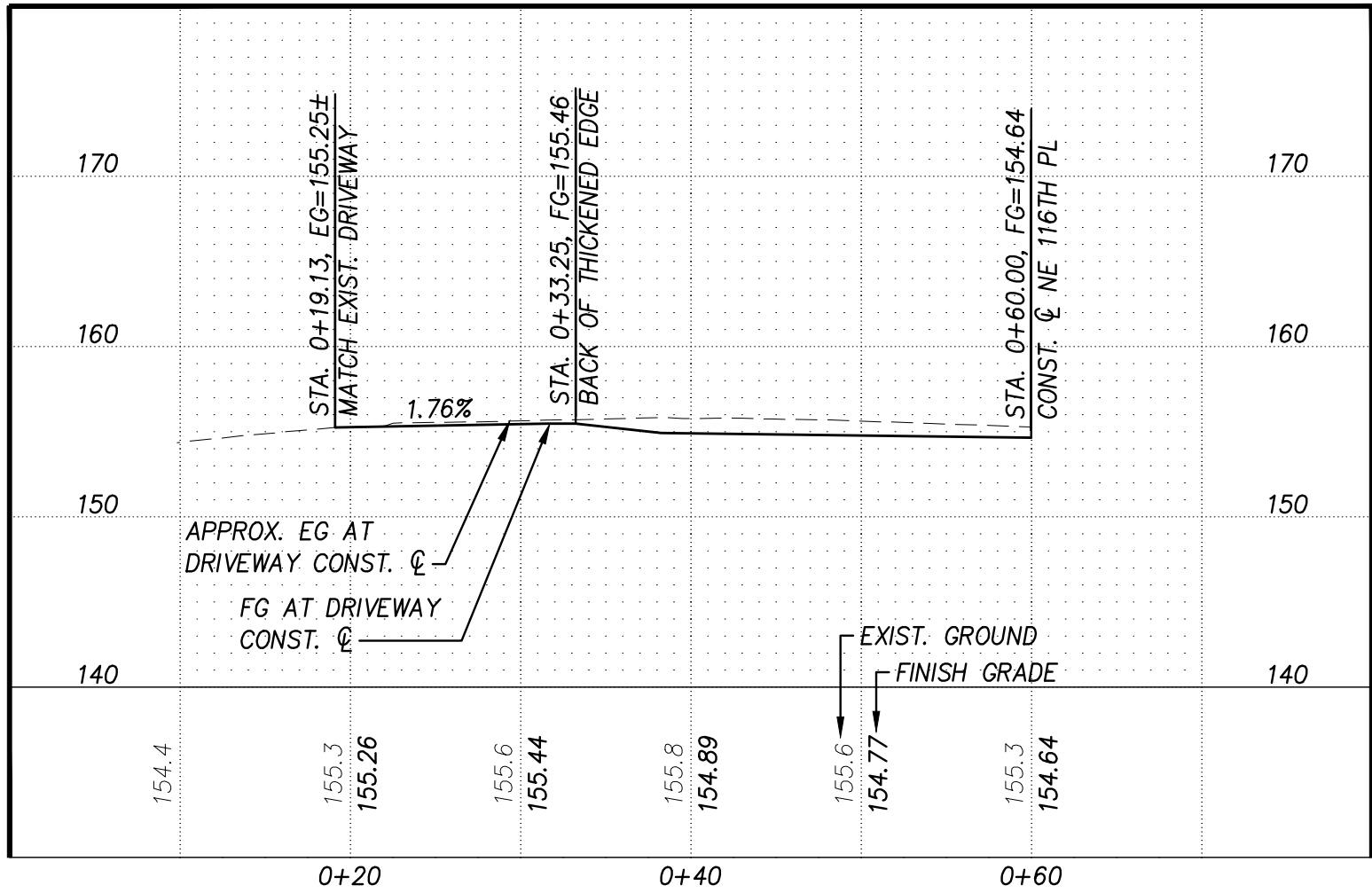


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C3.05

TYPICAL DRIVEWAY DETAIL

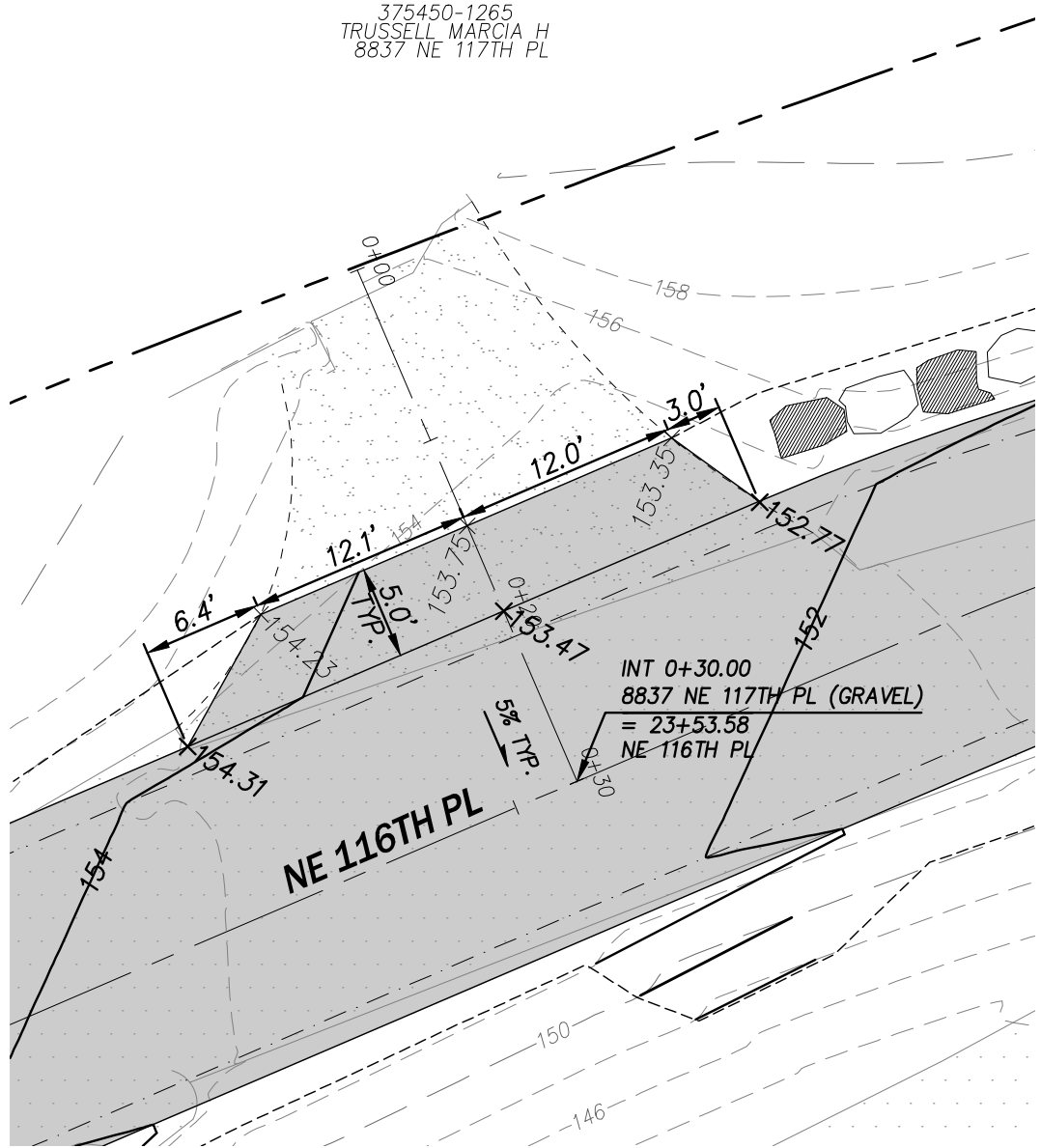


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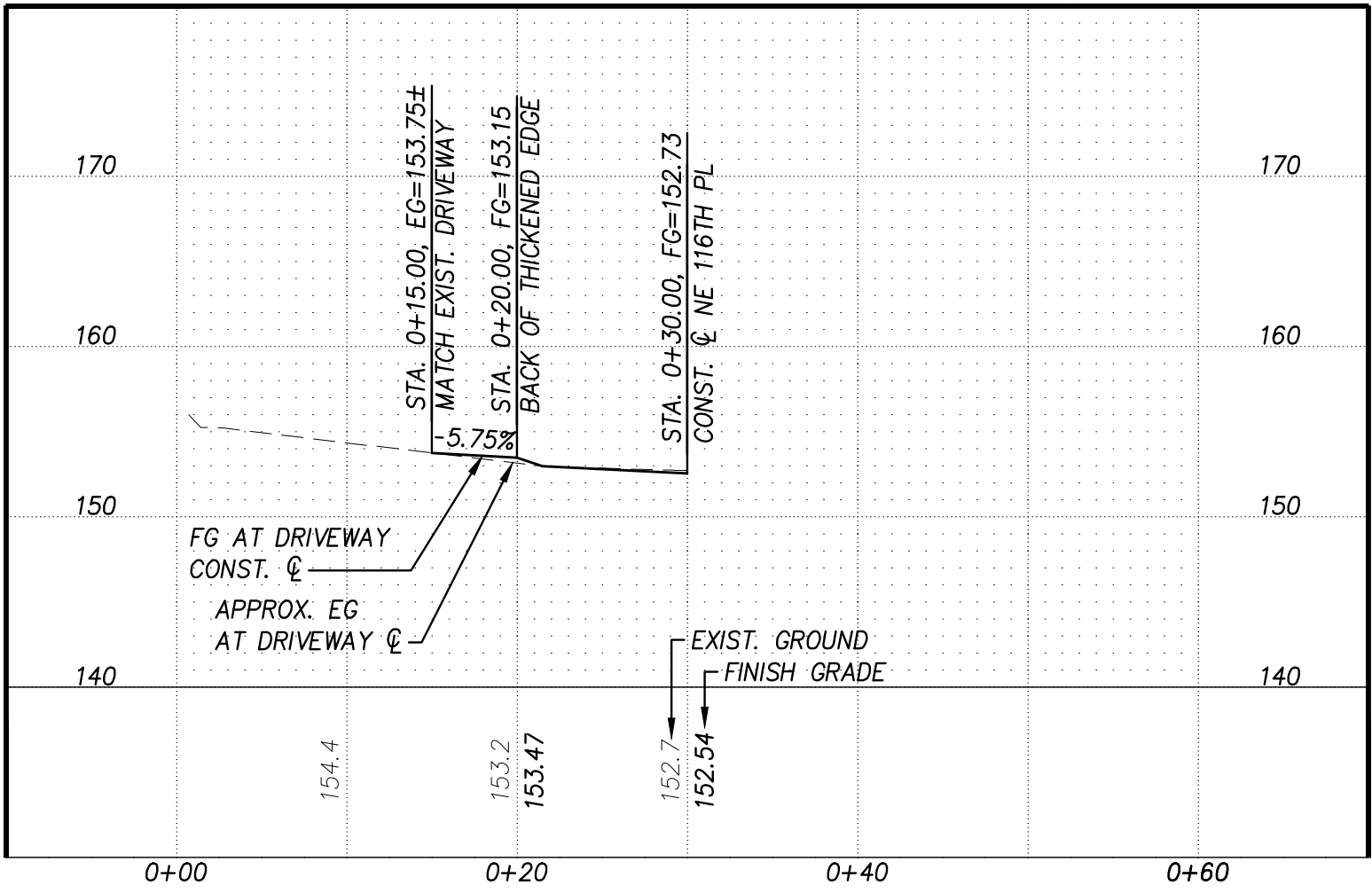


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C3.05

TYPICAL DRIVEWAY DETAIL

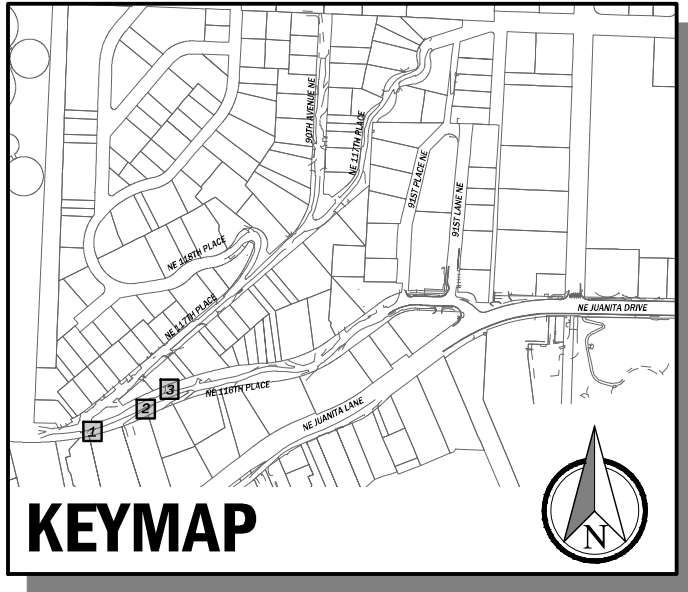


PLAN



3
C3.05

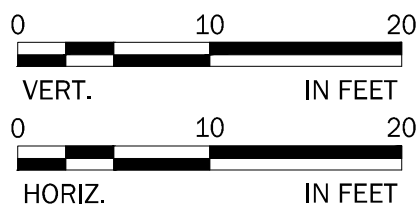
TYPICAL DRIVEWAY DETAIL



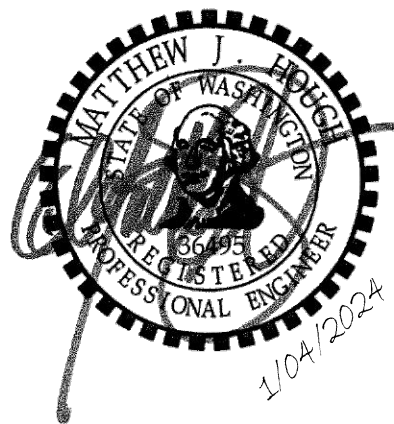
KEYMAP

LEGEND

- ×100.00 EXIST. GRADE ELEVATION
- ×100.00 FINISHED GRADE ELEVATION
- 1.0% EXIST. GRADE SLOPE
- 1.0% FINISHED GRADE SLOPE



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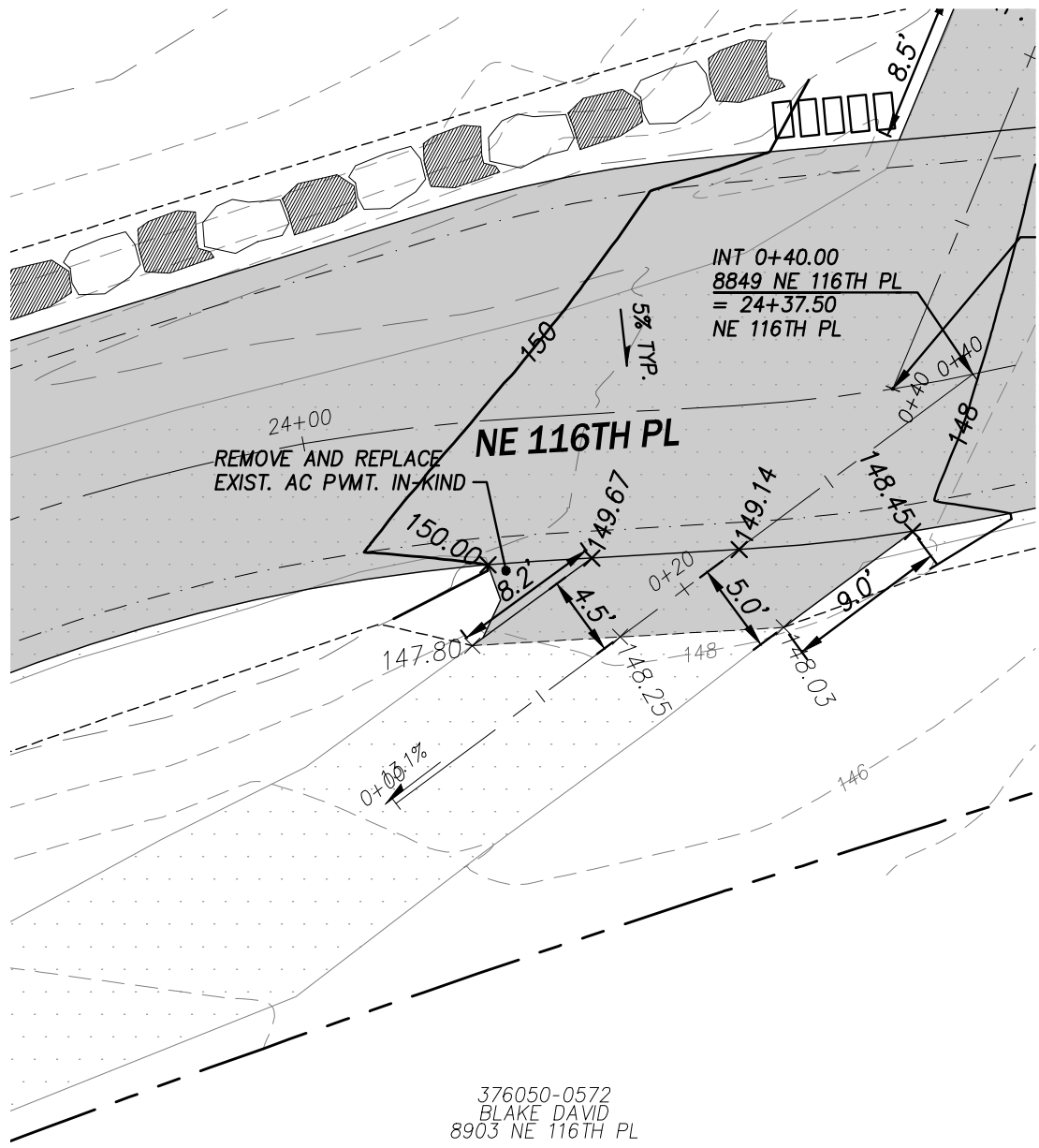
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DRIVEWAY PROFILES

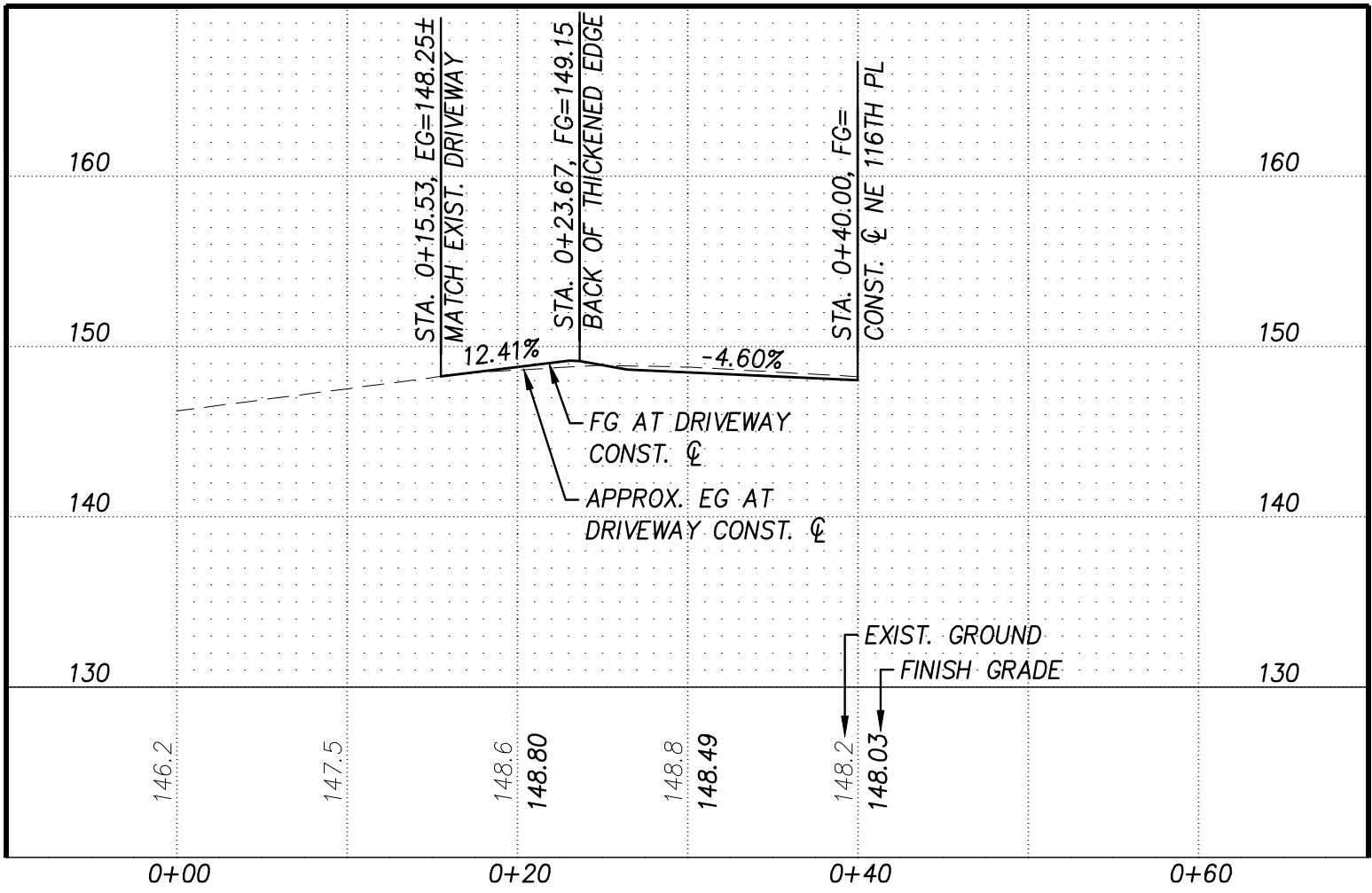
C3.31

25

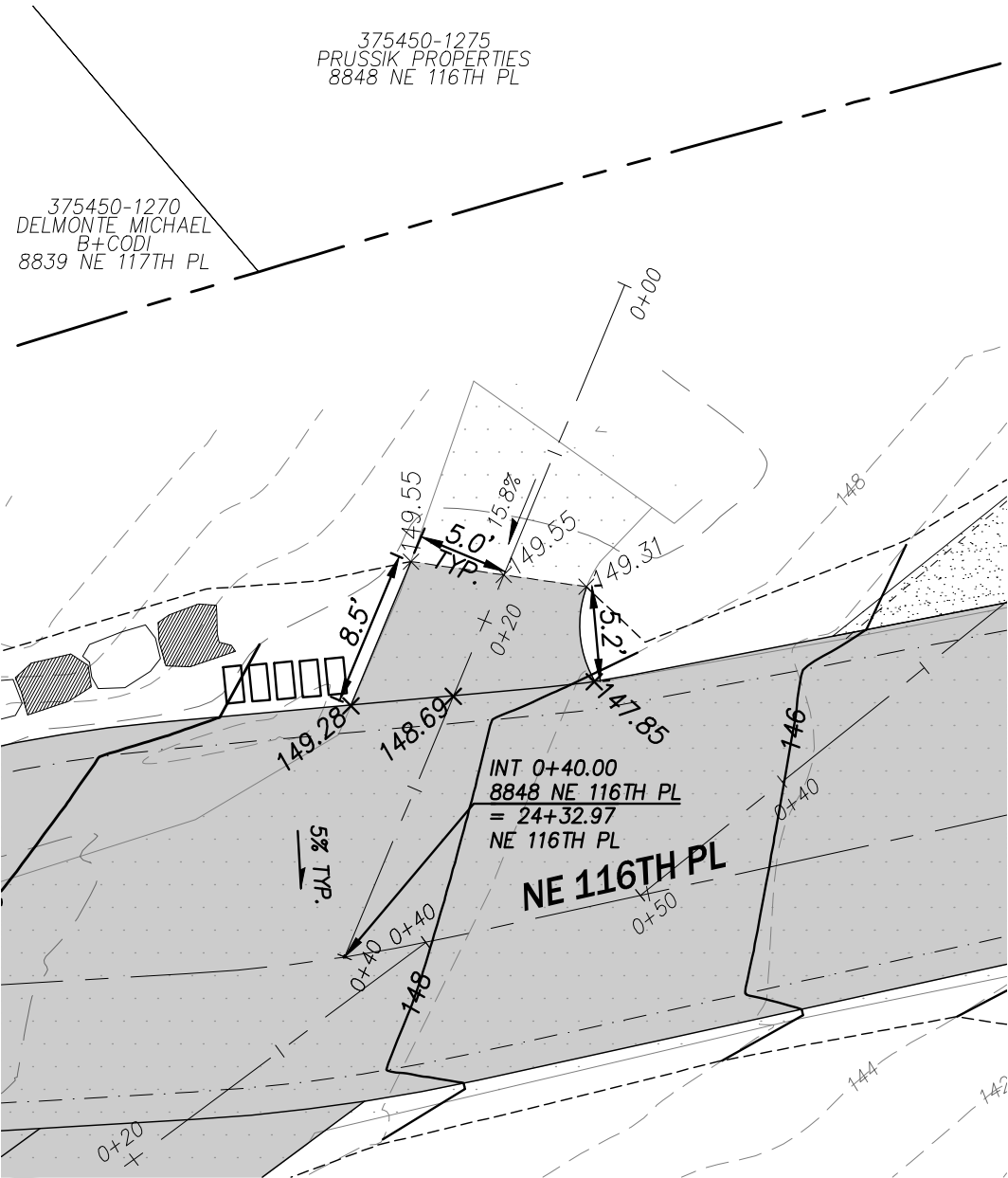
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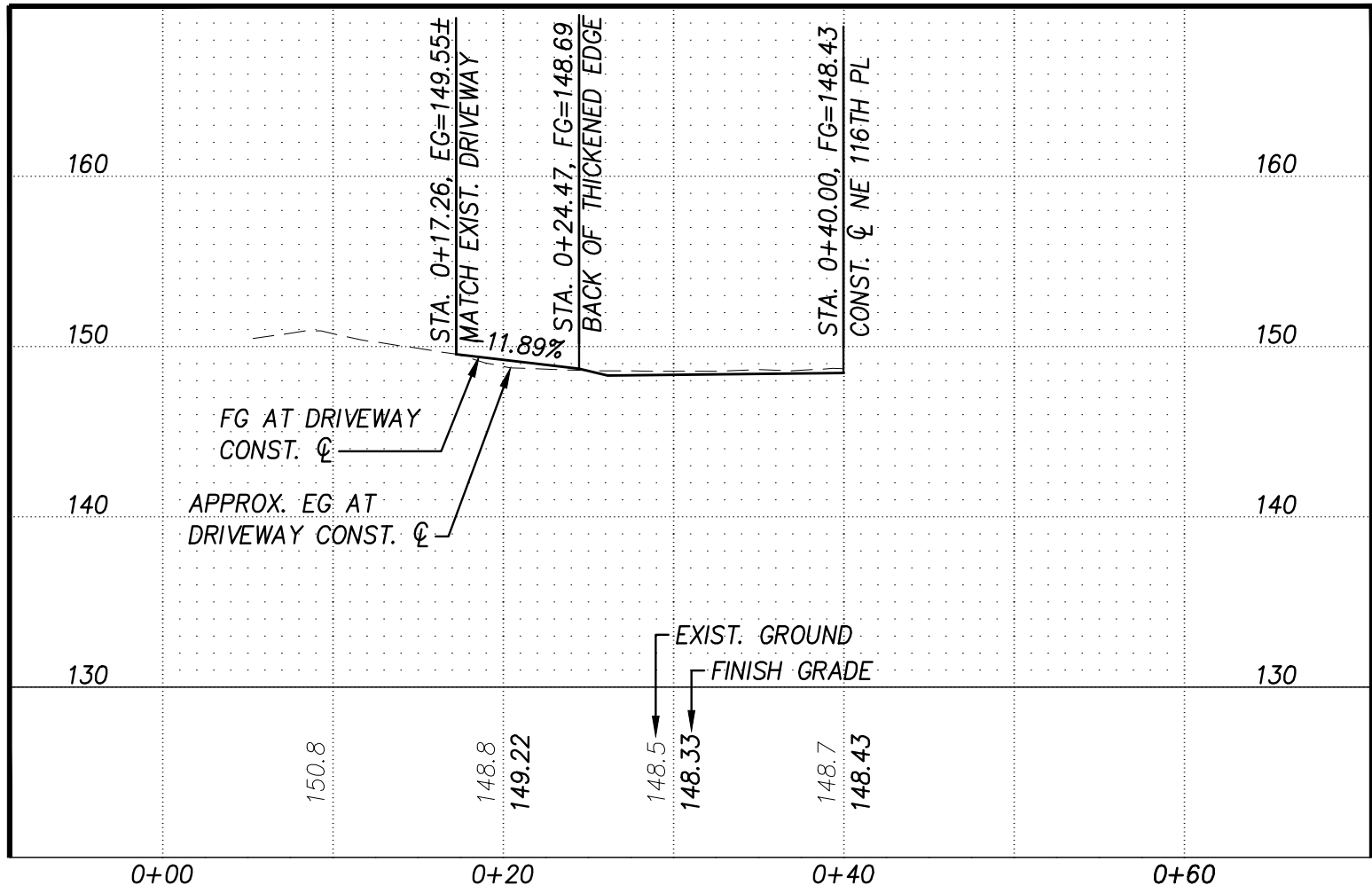
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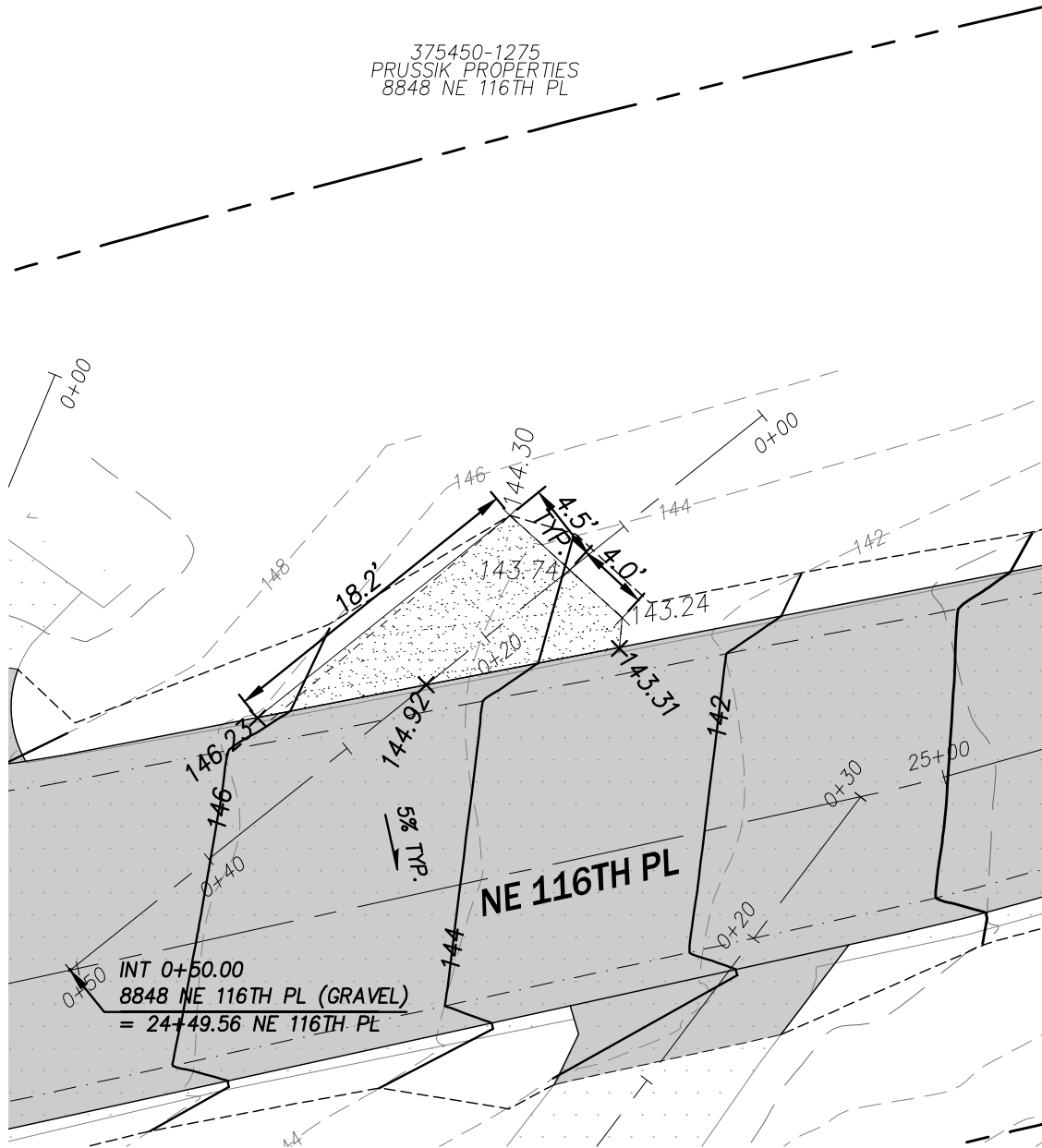
4 TYPICAL DRIVEWAY DETAIL
C3.06



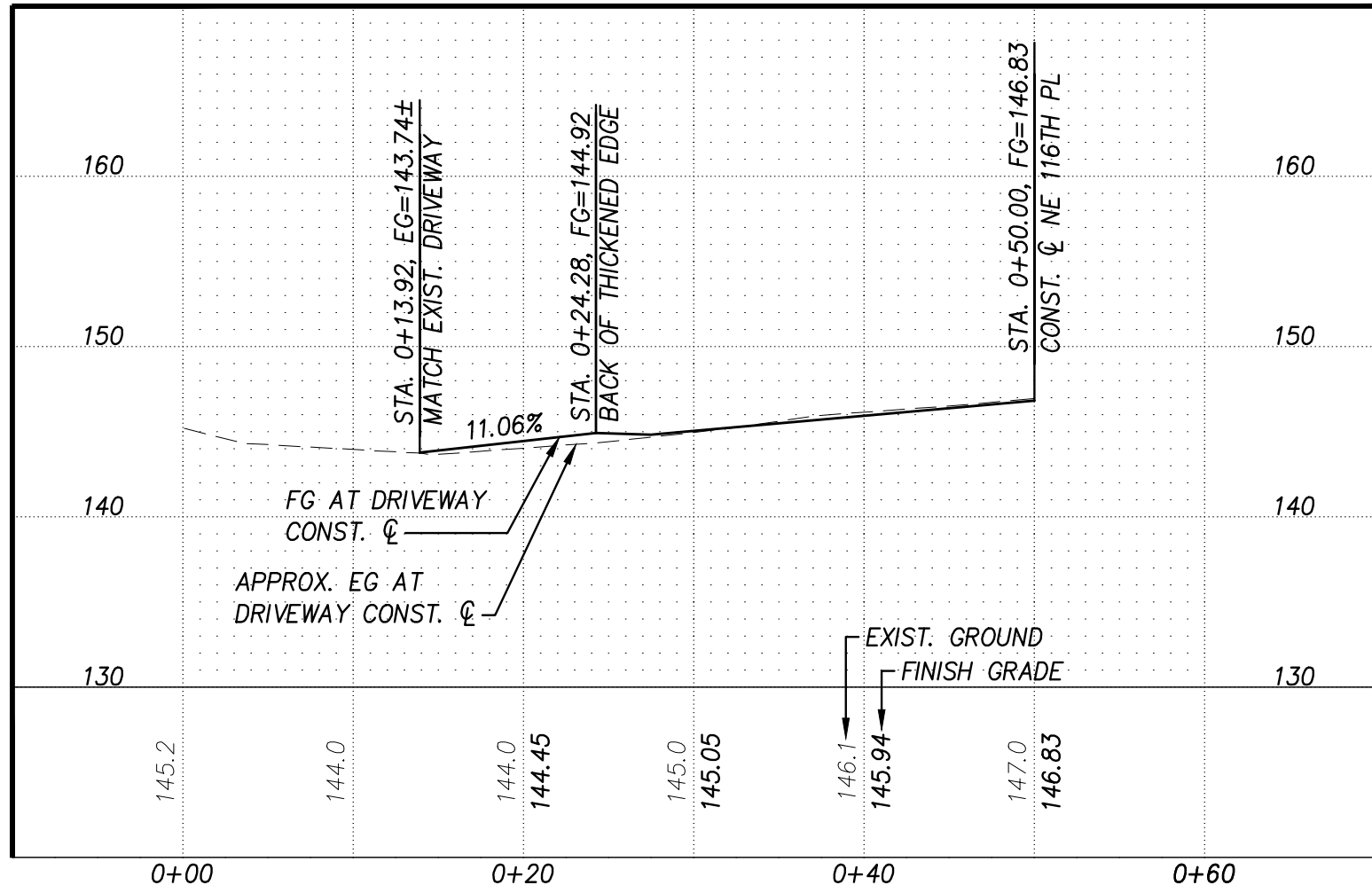
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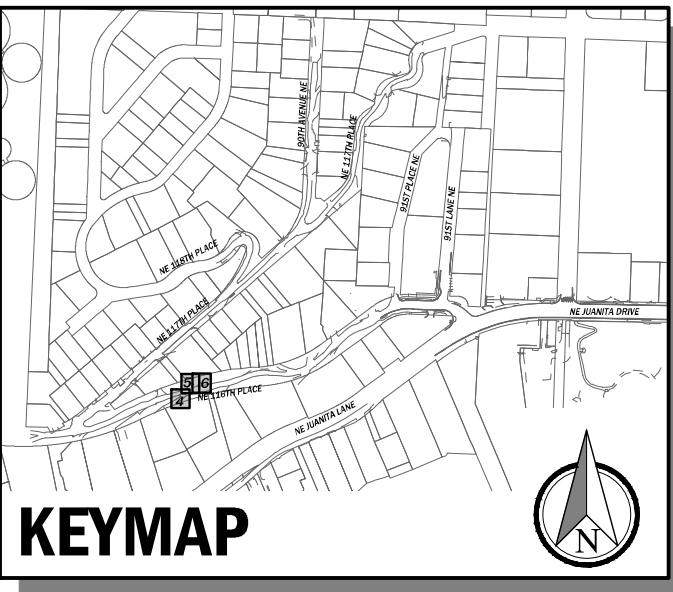
5 TYPICAL DRIVEWAY DETAIL
C3.06



PLAN



6 TYPICAL DRIVEWAY DETAIL
C3.06



LEGEND

×100.00 EXIST. GRADE ELEVATION
×100.00 FINISHED GRADE ELEVATION
1.0% EXIST. GRADE SLOPE
1.0% FINISHED GRADE SLOPE

0 10 20
VERT. IN FEET
0 10 20
HORIZ. IN FEET

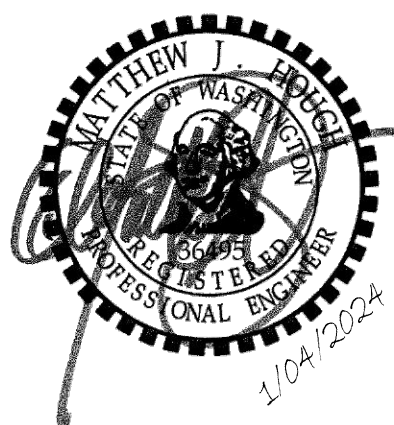
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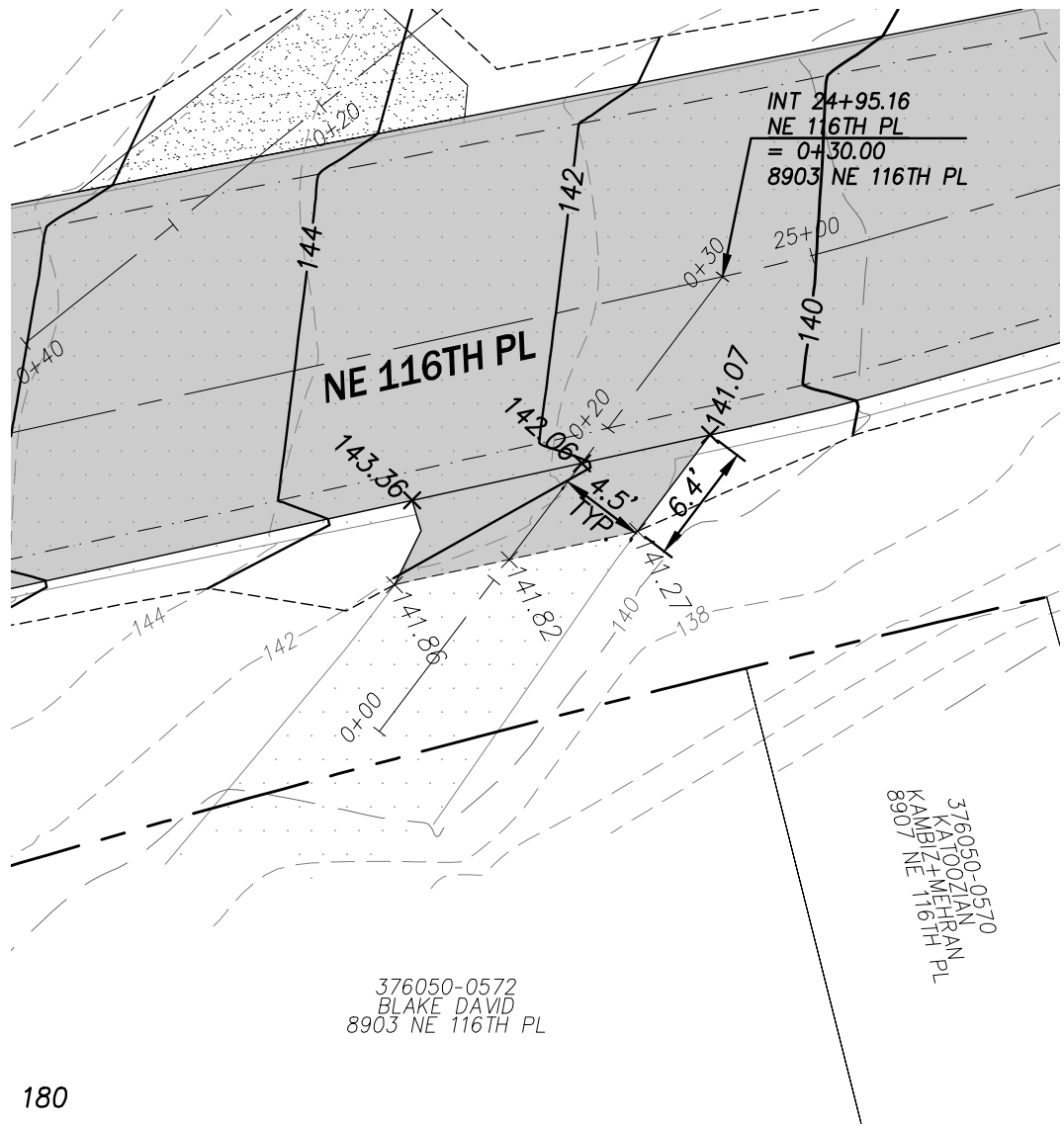
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DRIVEWAY PROFILES

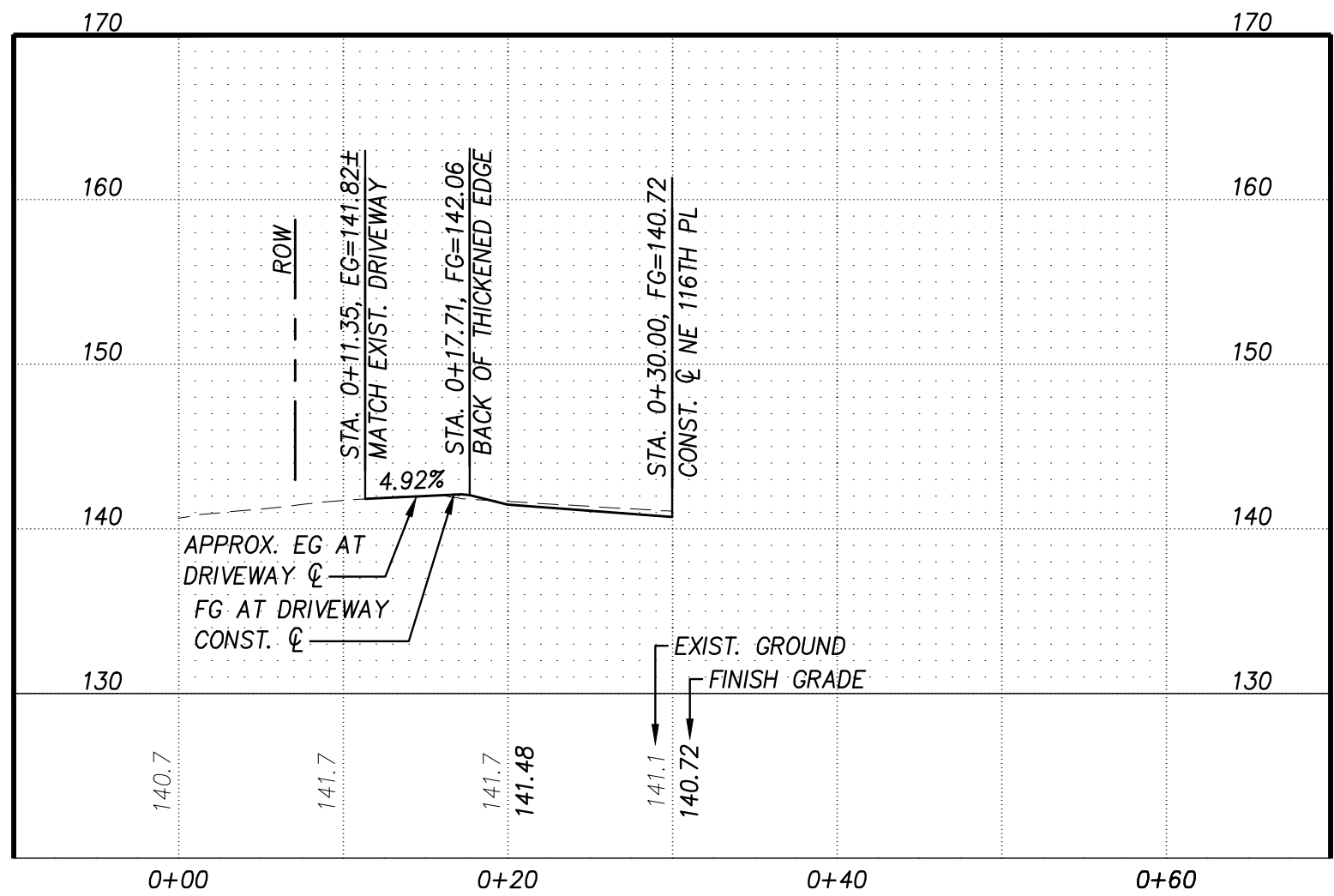
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26 / 51

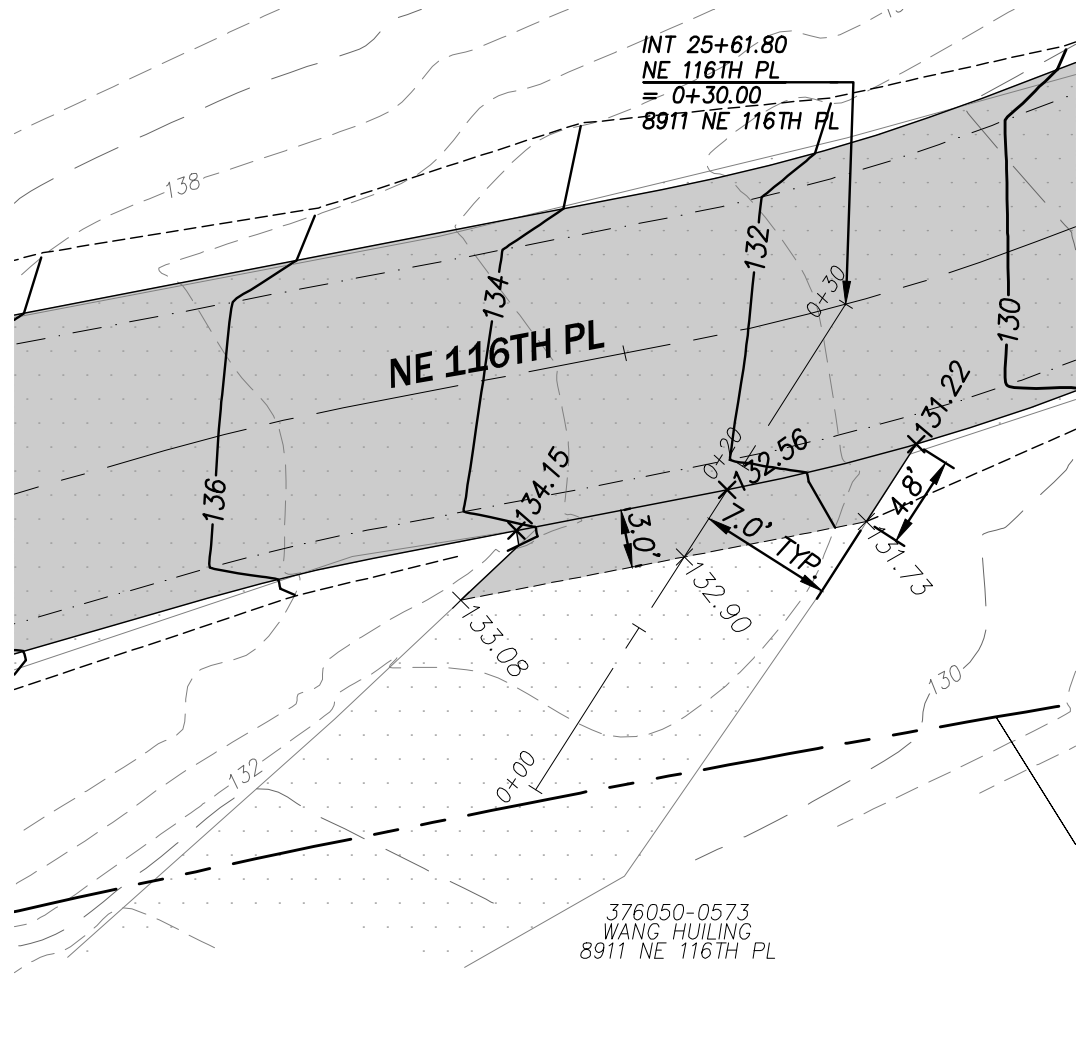
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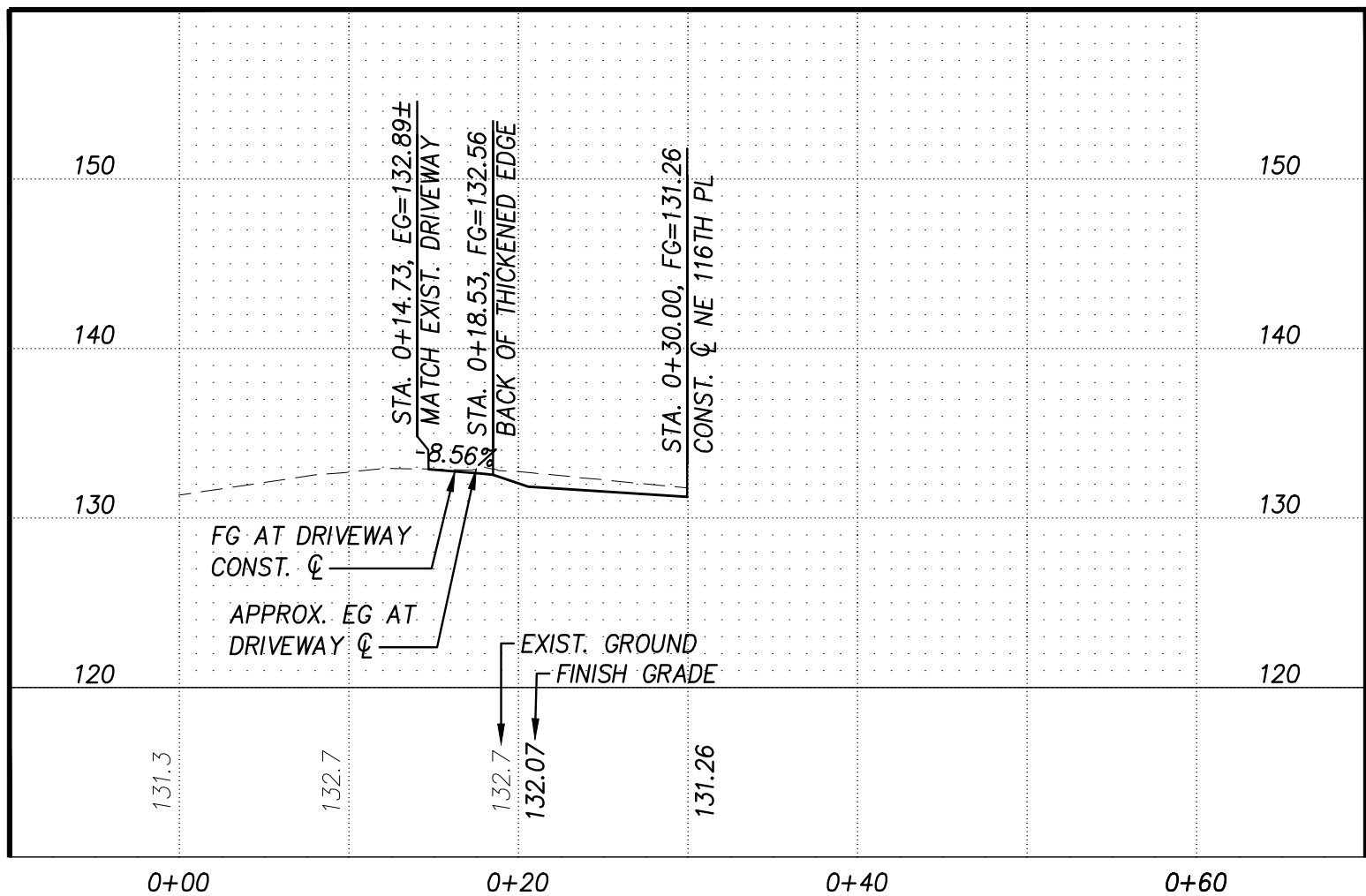
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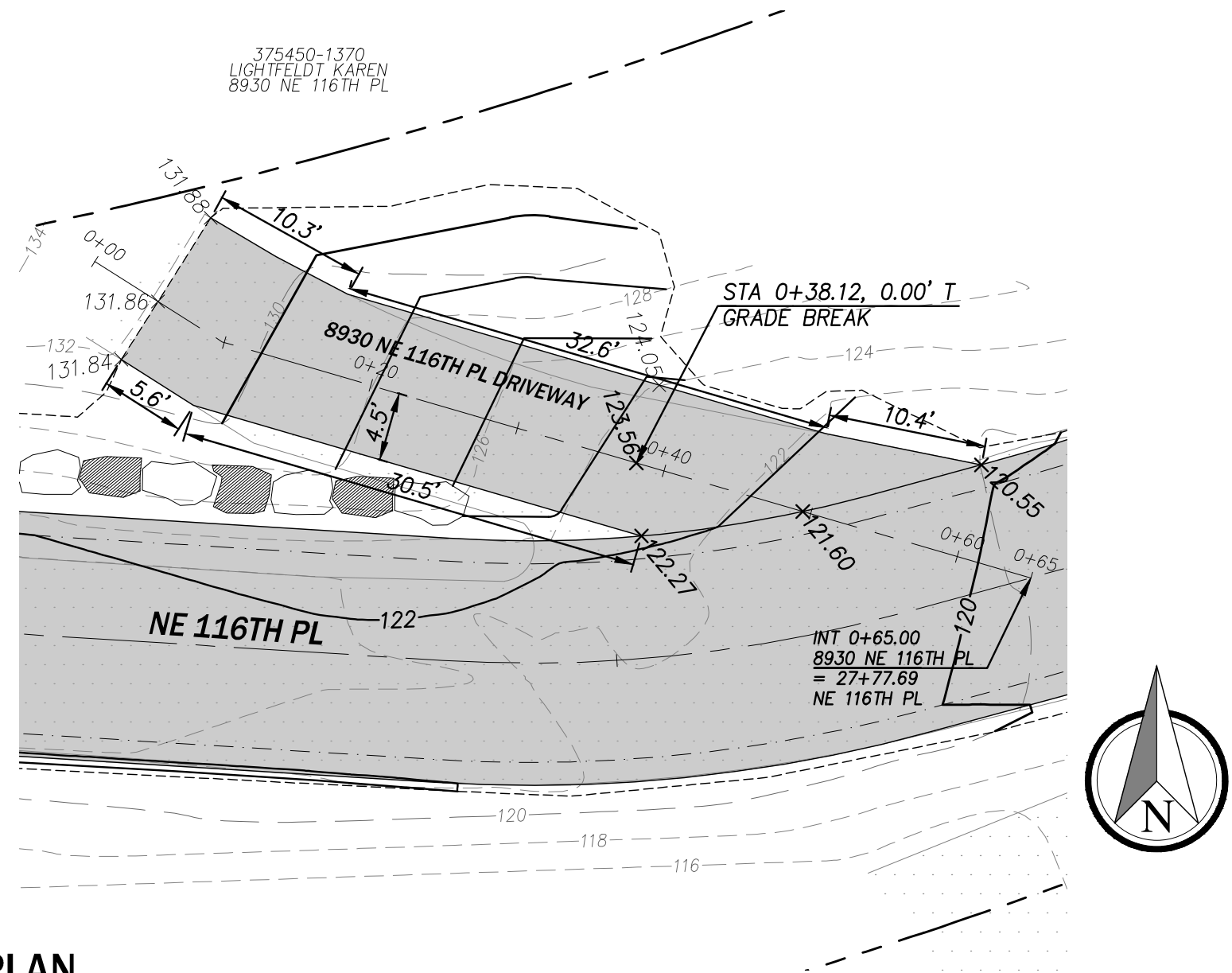
7 TYPICAL DRIVEWAY DETAIL



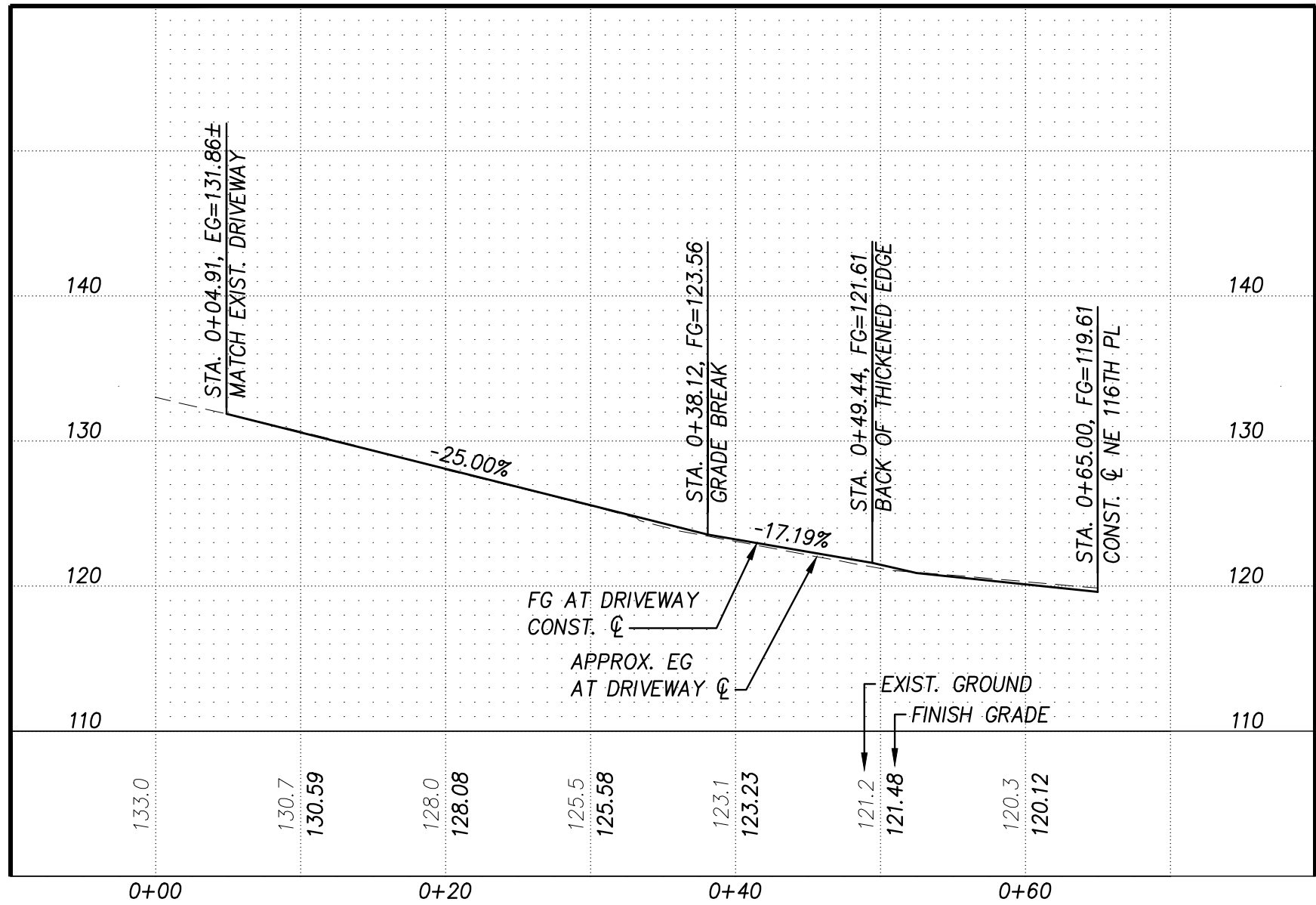
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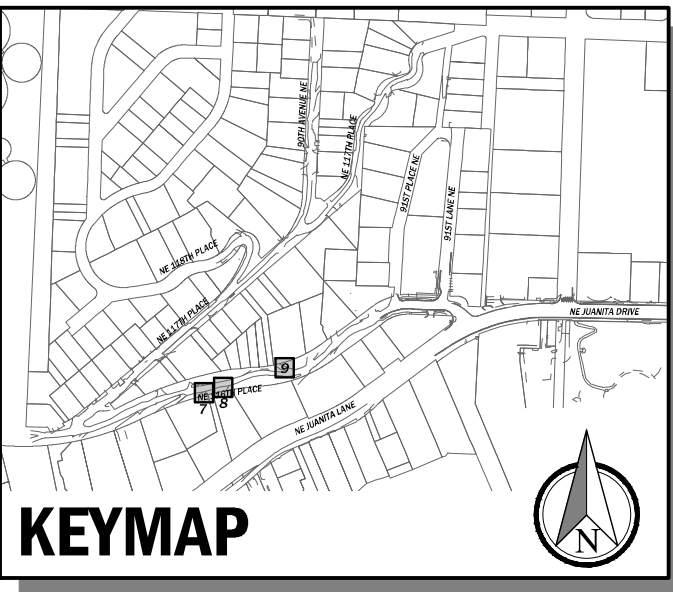
8 TYPICAL DRIVEWAY DETAIL



PLAN



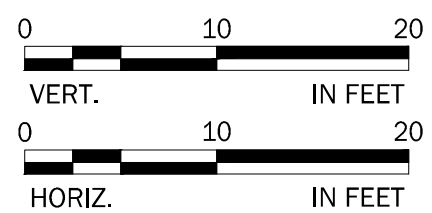
9 TYPICAL DRIVEWAY DETAIL



KEYMAP

LEGEND

- ×100.00 EXIST. GRADE ELEVATION
- ×100.00 FINISHED GRADE ELEVATION
- 1.0% EXIST. GRADE SLOPE
- 1.0% FINISHED GRADE SLOPE

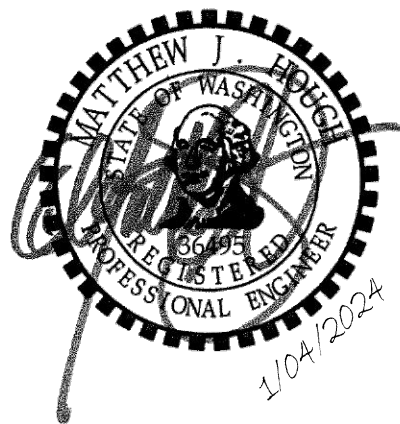


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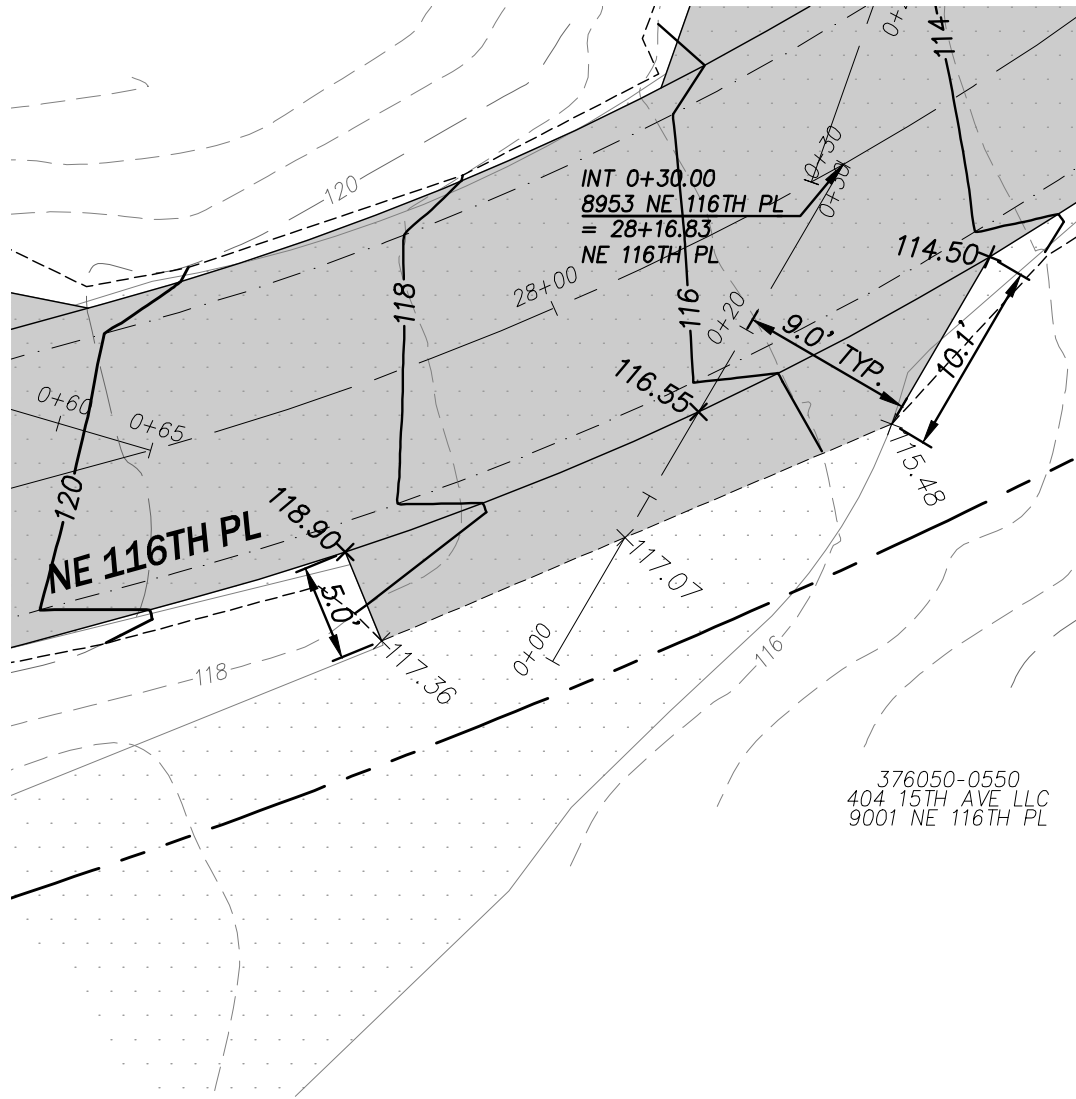
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DRIVEWAY PROFILES

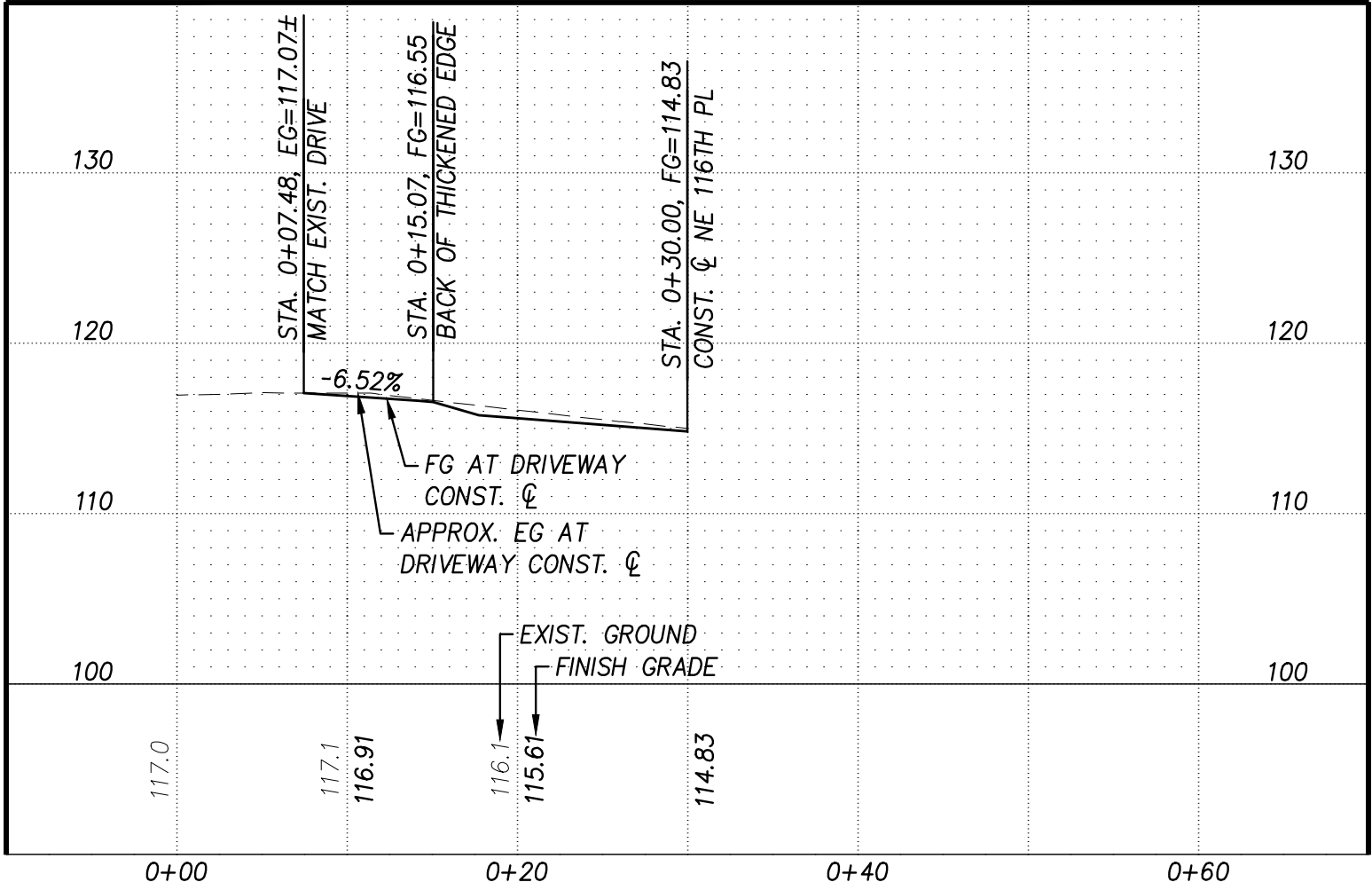
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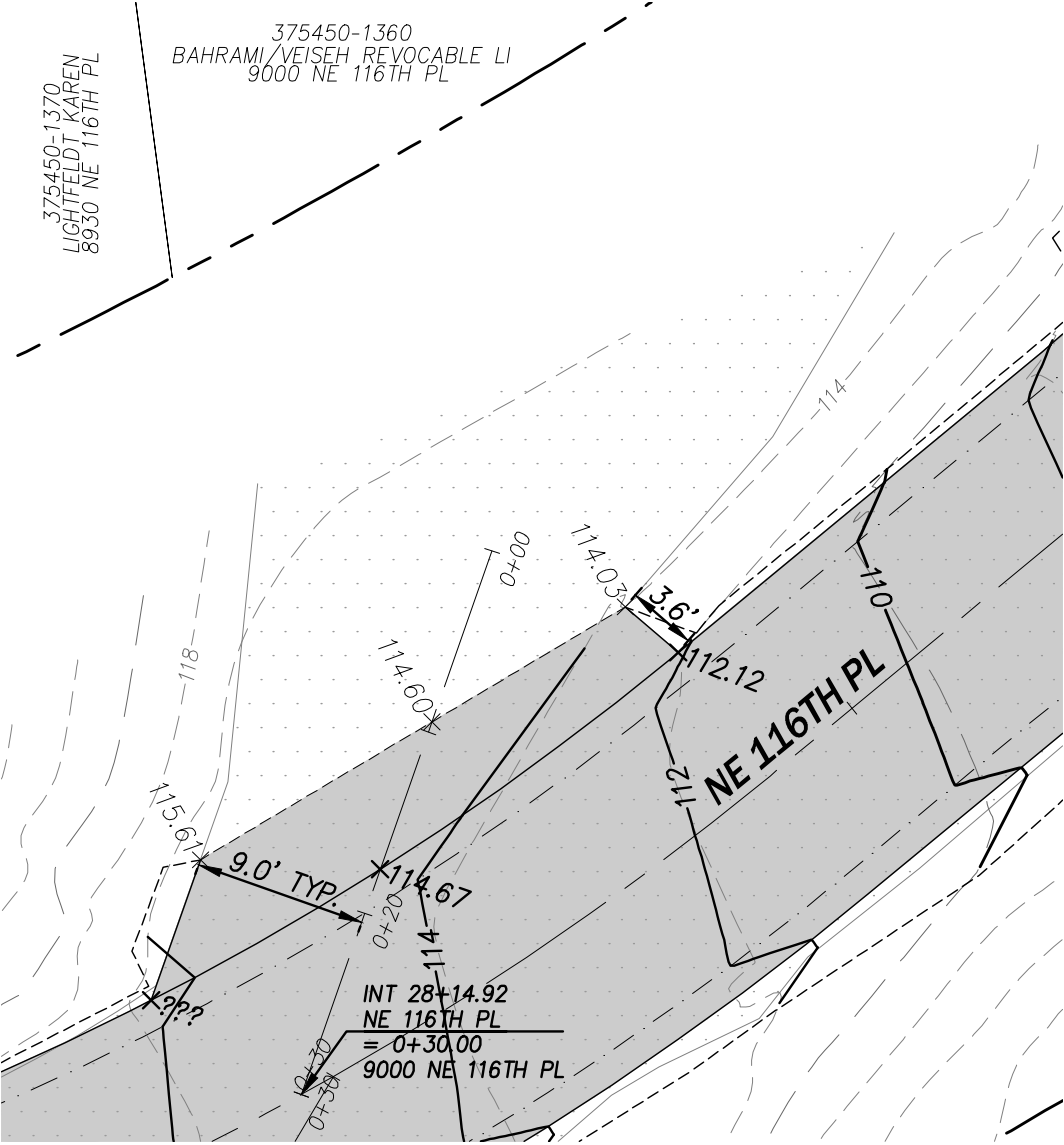
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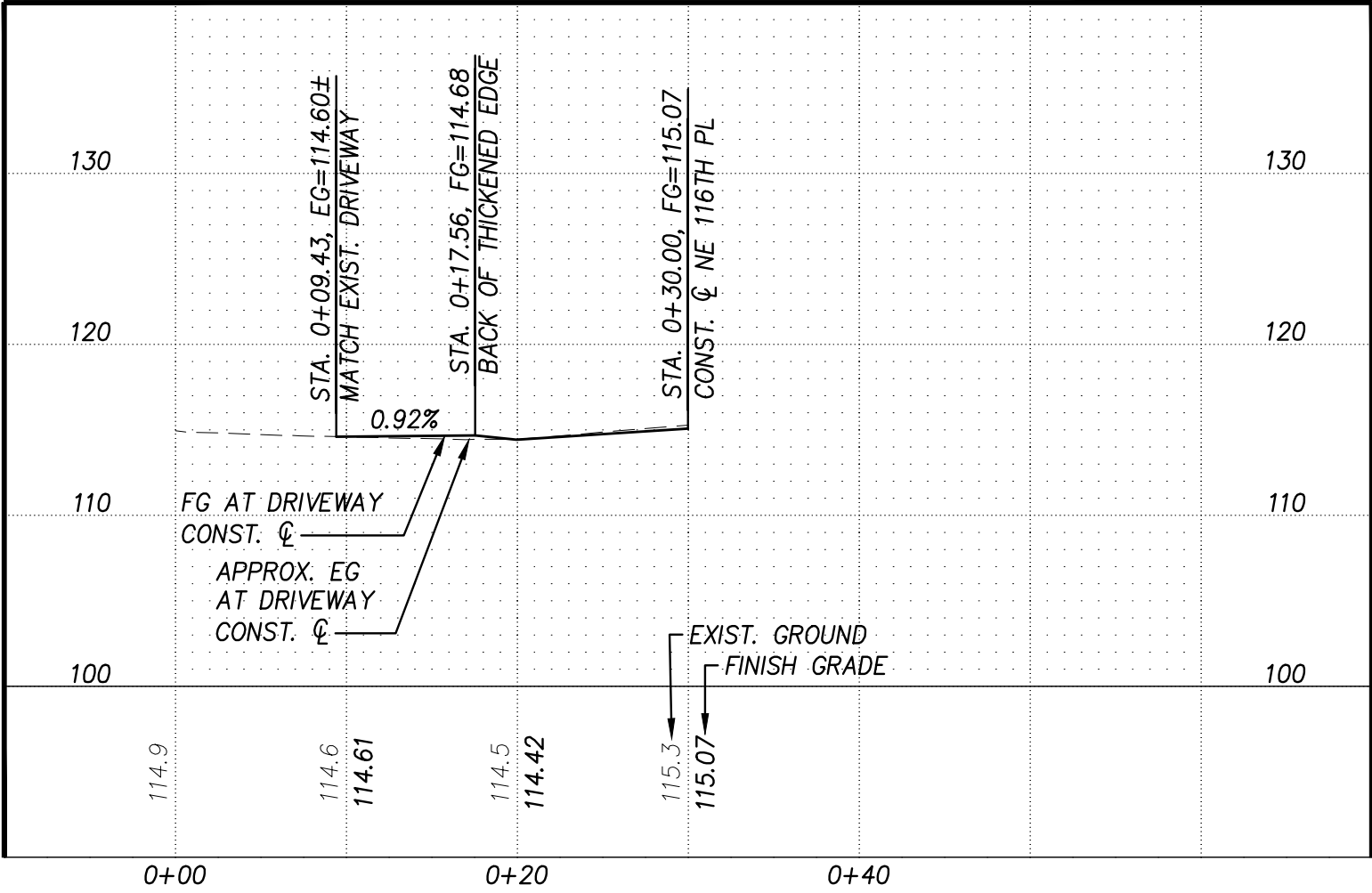
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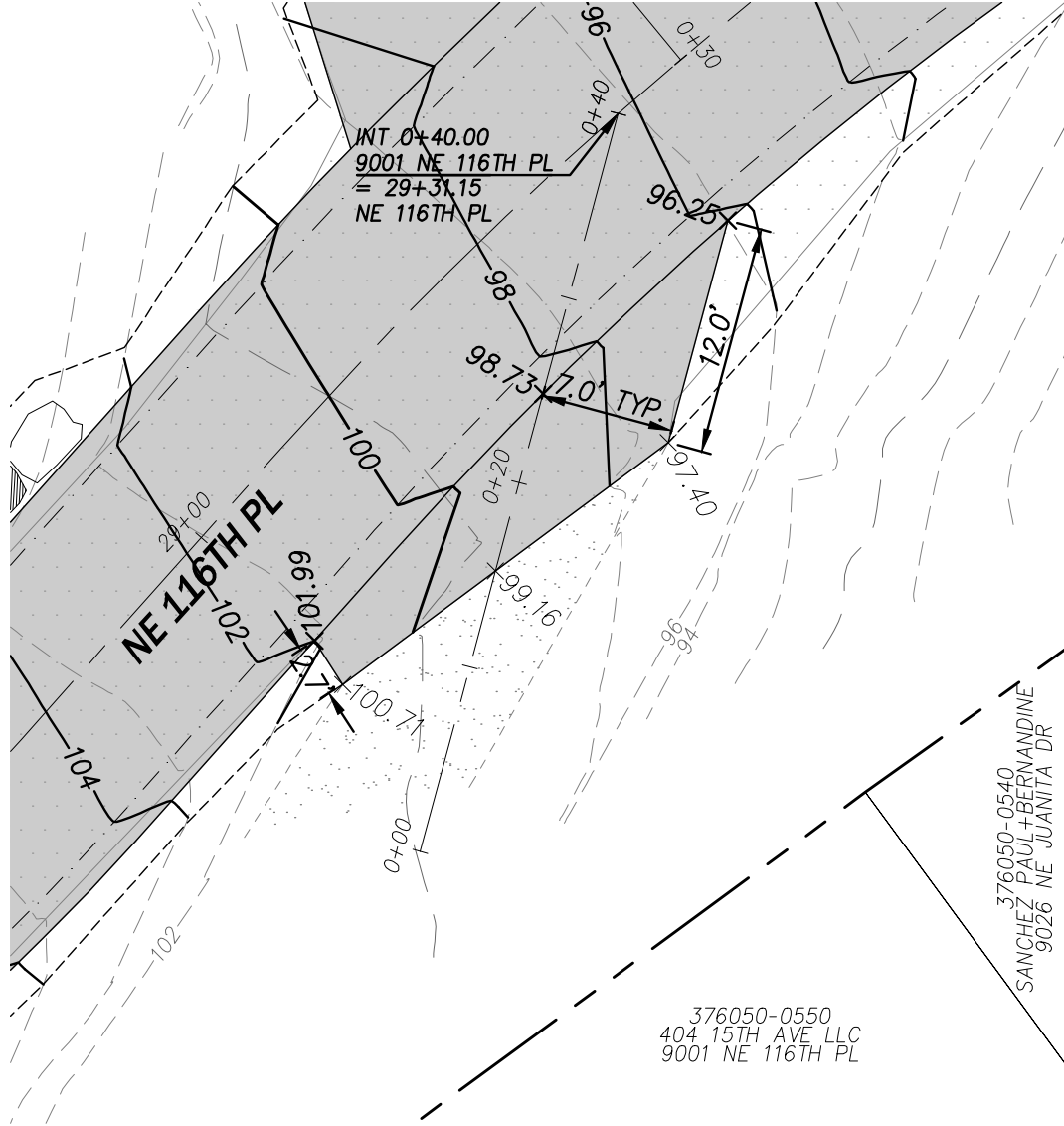
10
C3.07
TYPICAL DRIVEWAY DETAIL



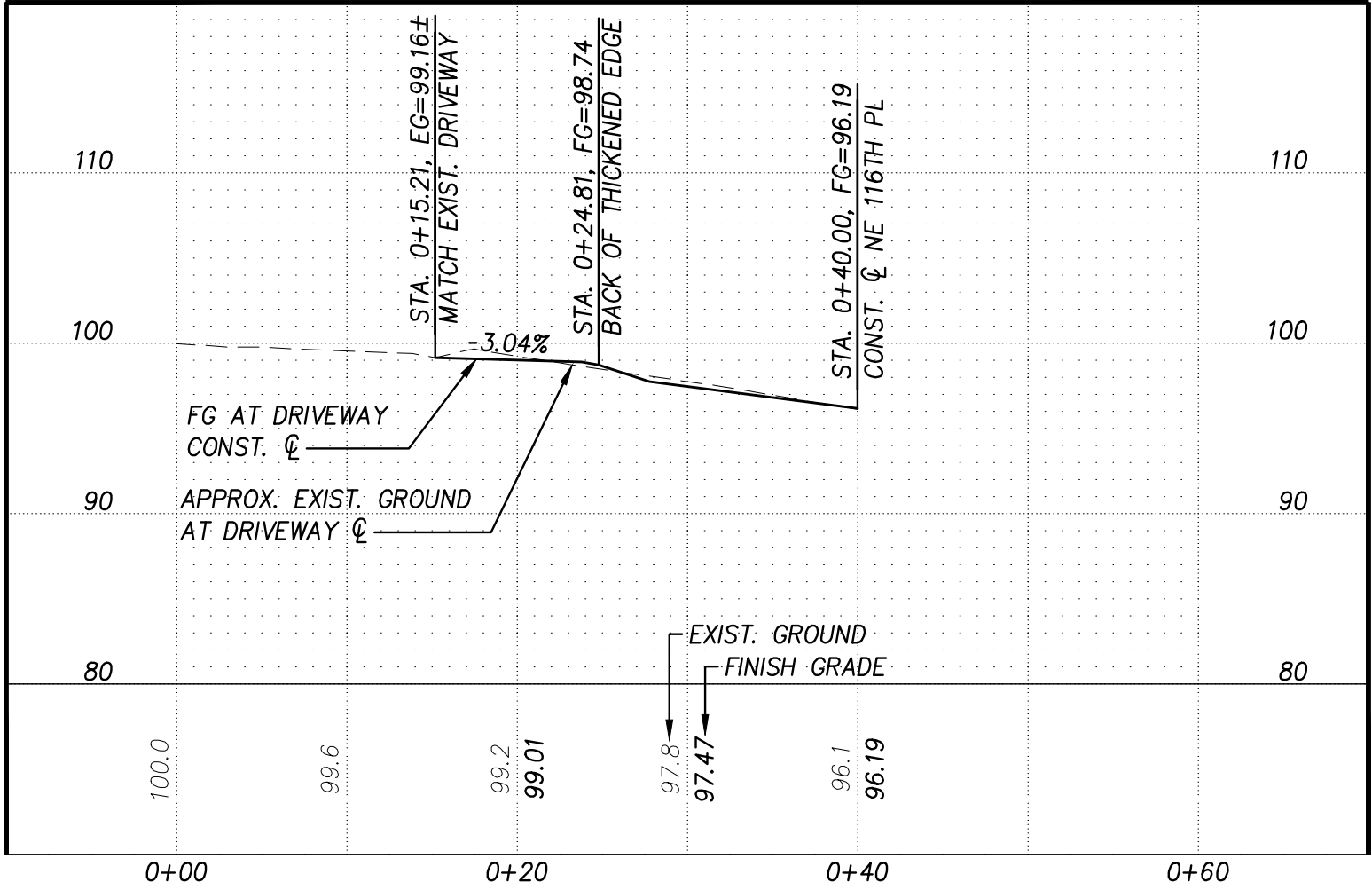
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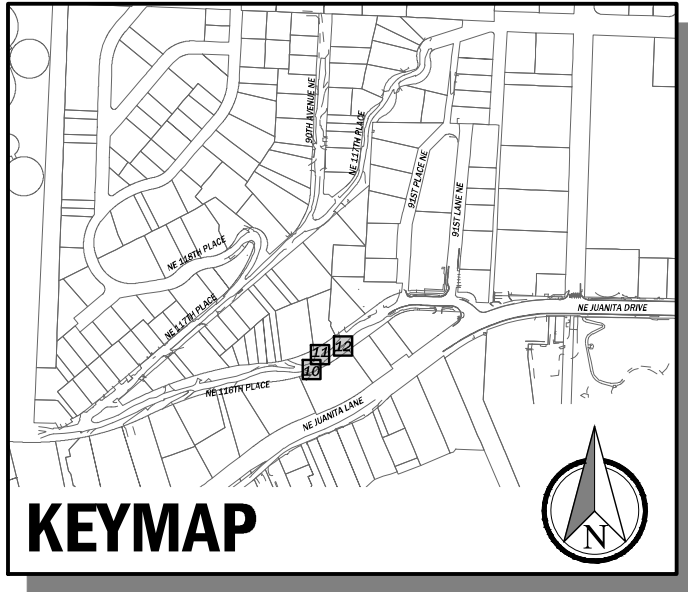
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C3.07
TYPICAL DRIVEWAY DETAIL



PLAN



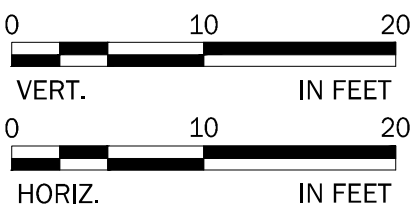
12
C3.07
TYPICAL DRIVEWAY DETAIL



KEYMAP

LEGEND

- ×100.00 EXIST. GRADE ELEVATION
- ×100.00 FINISHED GRADE ELEVATION
- 1.0% EXIST. GRADE SLOPE
- 1.0% FINISHED GRADE SLOPE



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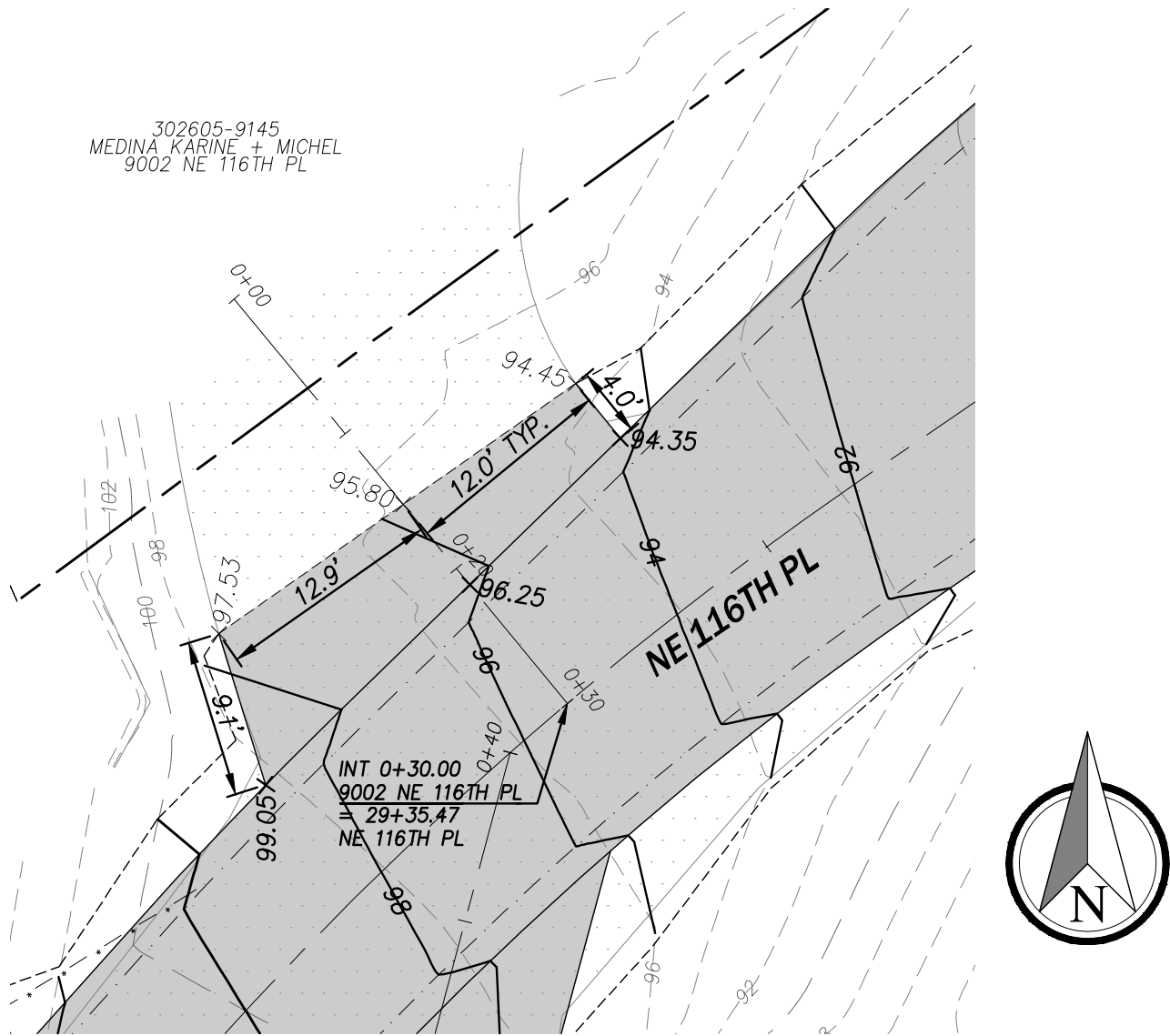
DRIVEWAY PROFILES

C3.34

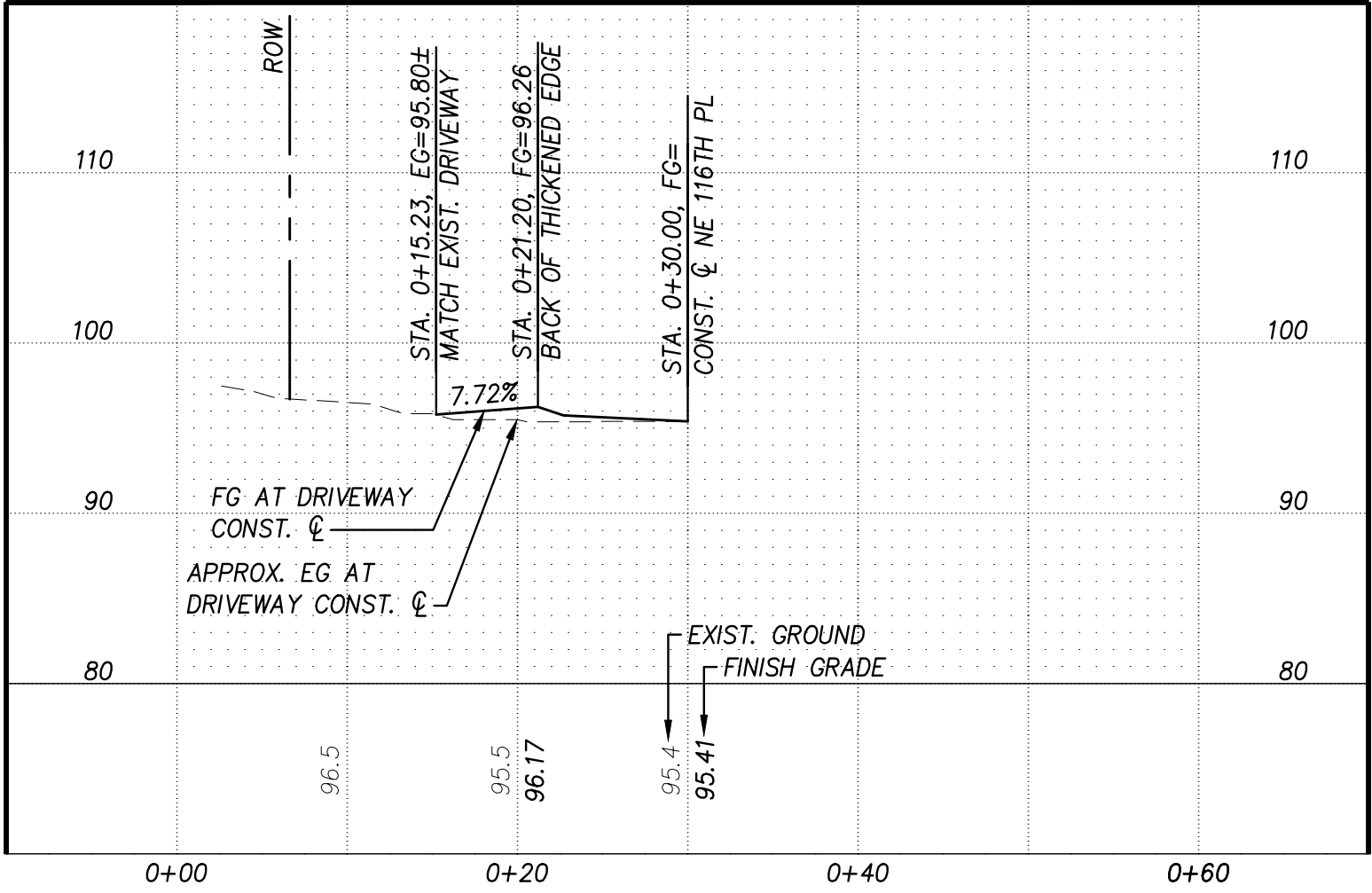
28

51

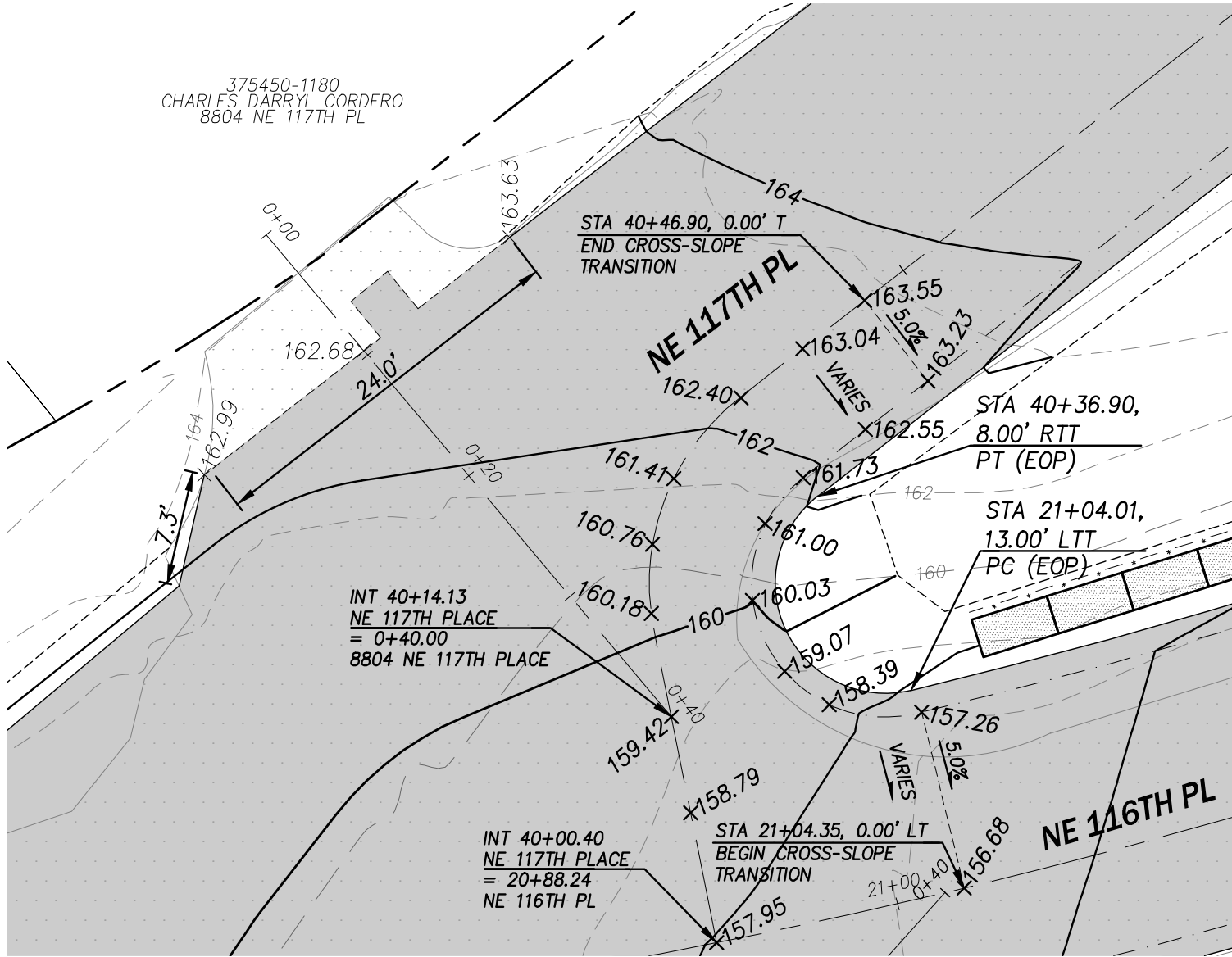
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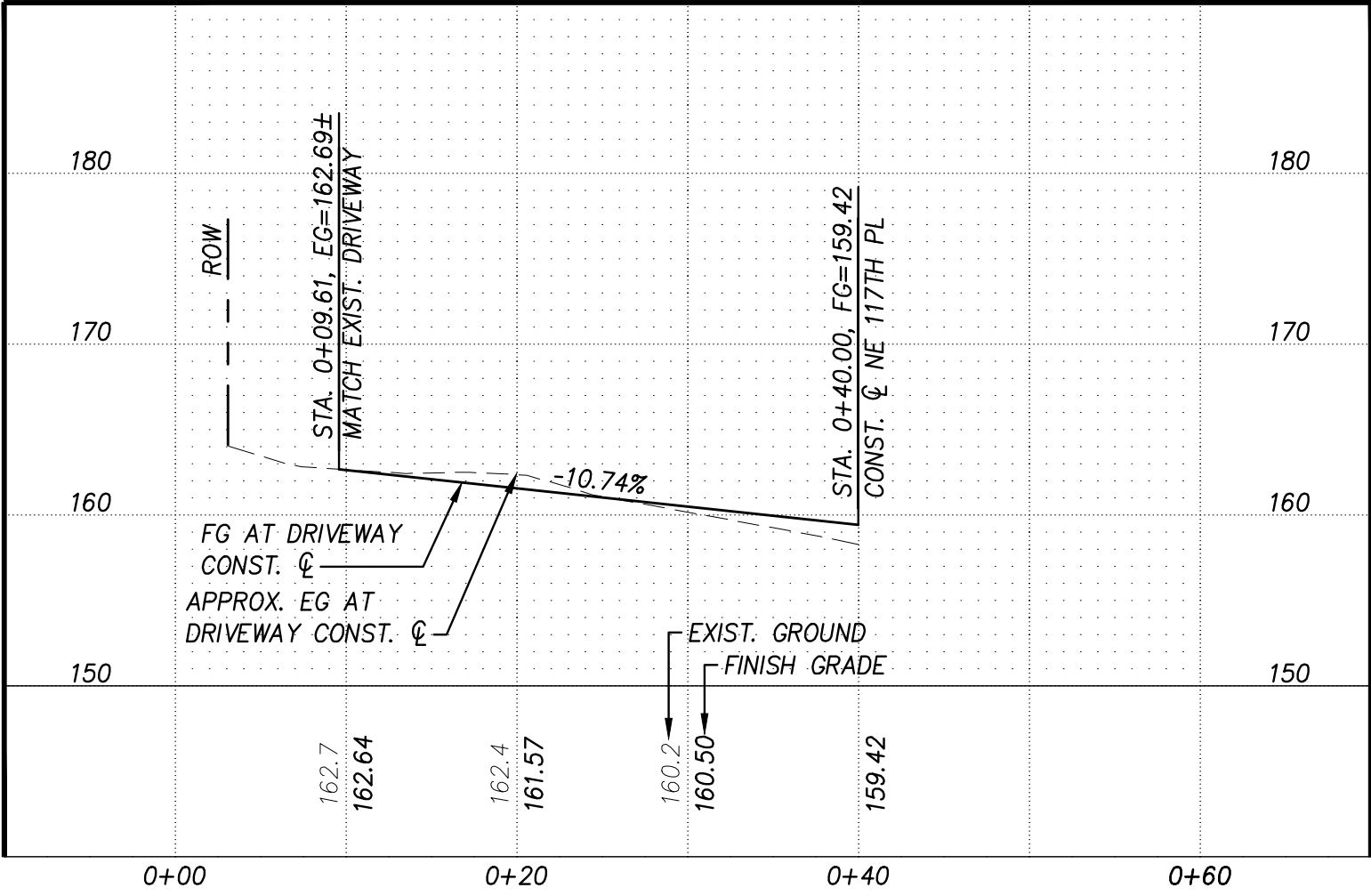
PLAN



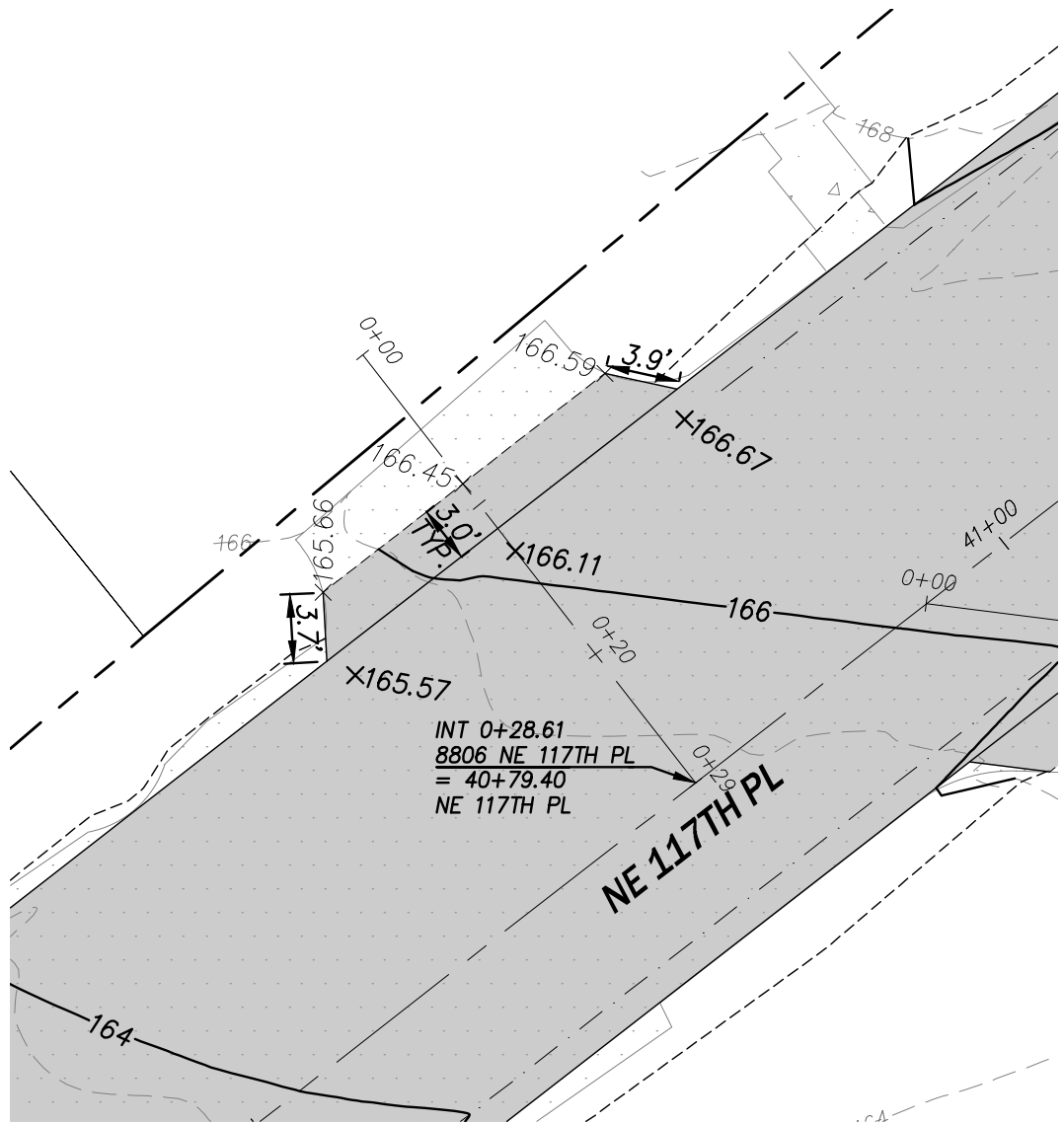
13
C3.07
TYPICAL DRIVEWAY DETAIL



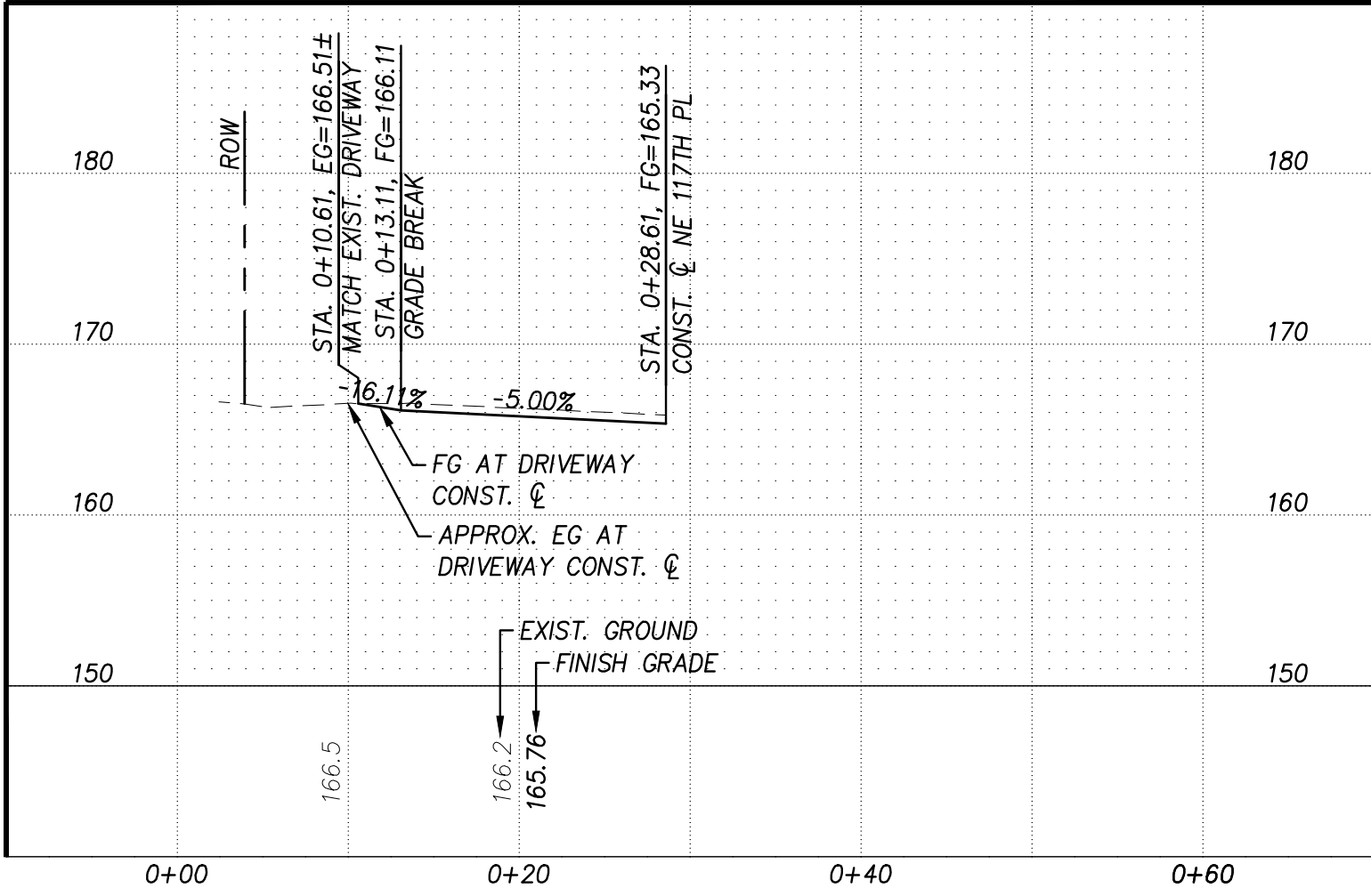
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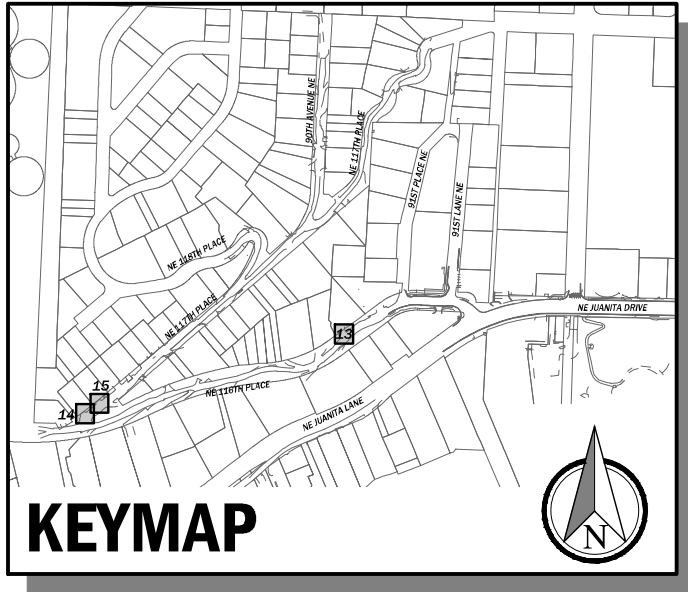
14
C3.08
TYPICAL DRIVEWAY DETAIL



PLAN



15
C3.09
TYPICAL DRIVEWAY DETAIL



LEGEND

- ×100.00 EXIST. GRADE ELEVATION
- ×100.00 FINISHED GRADE ELEVATION
- 1.0% EXIST. GRADE SLOPE
- 1.0% FINISHED GRADE SLOPE

0 10 20
VERT. IN FEET
0 10 20
HORIZ. IN FEET

CIP NO.	JOB NO.	ENGR.	REVIEW	SCALE	DATE
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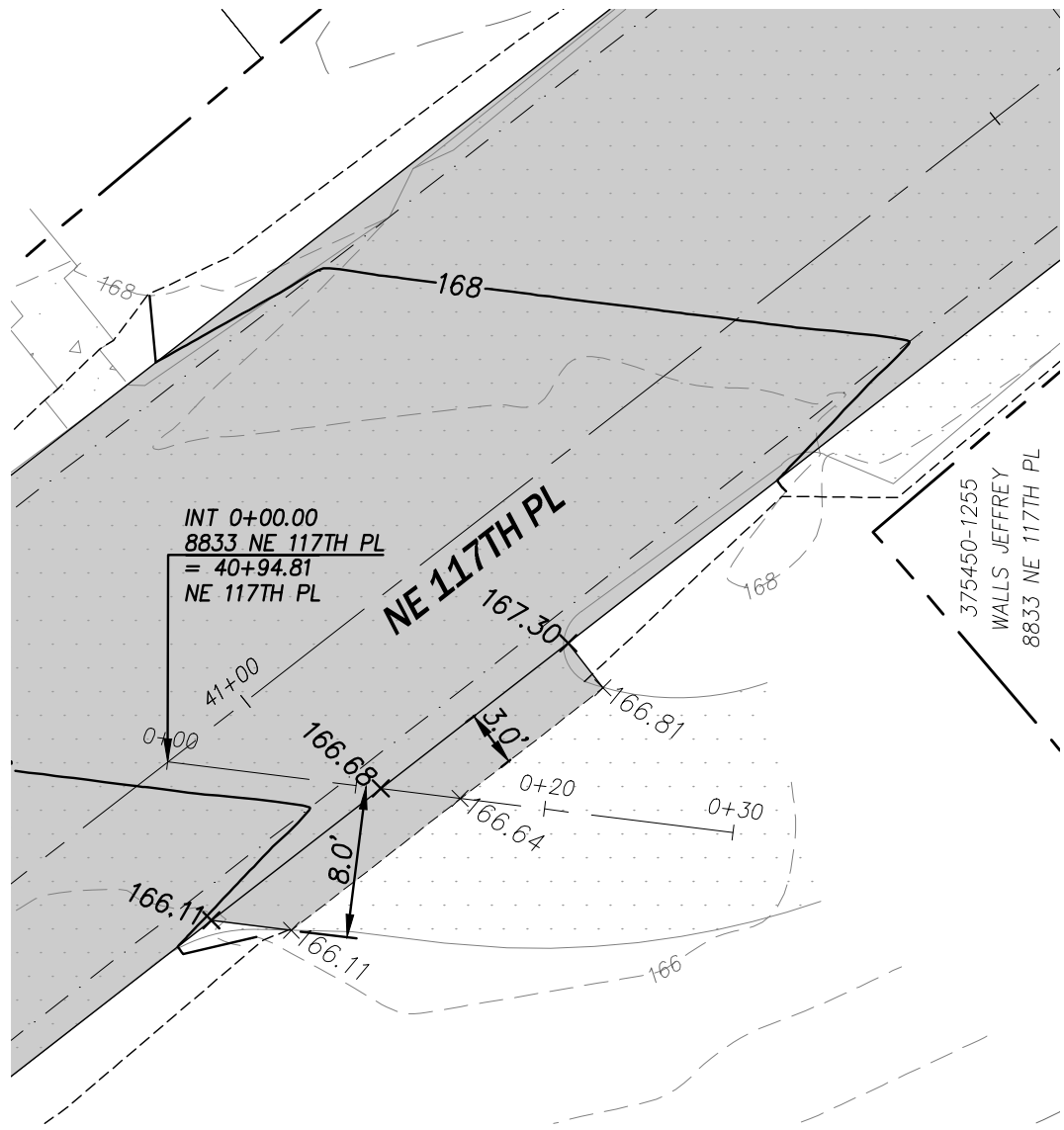
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AND CHANNEL STABILIZATION – PHASE 1

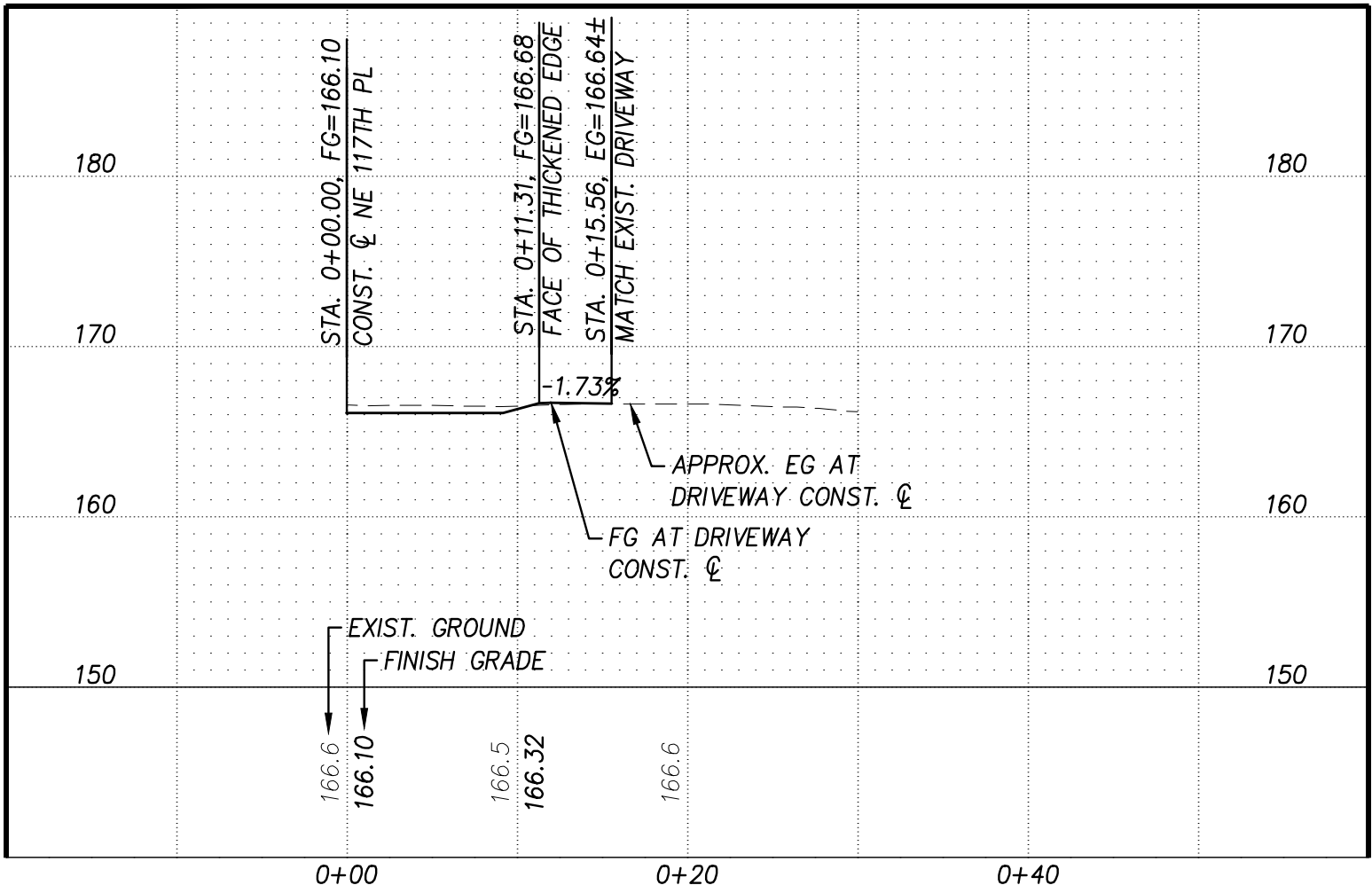
DRIVEWAY PROFILES

C3.35

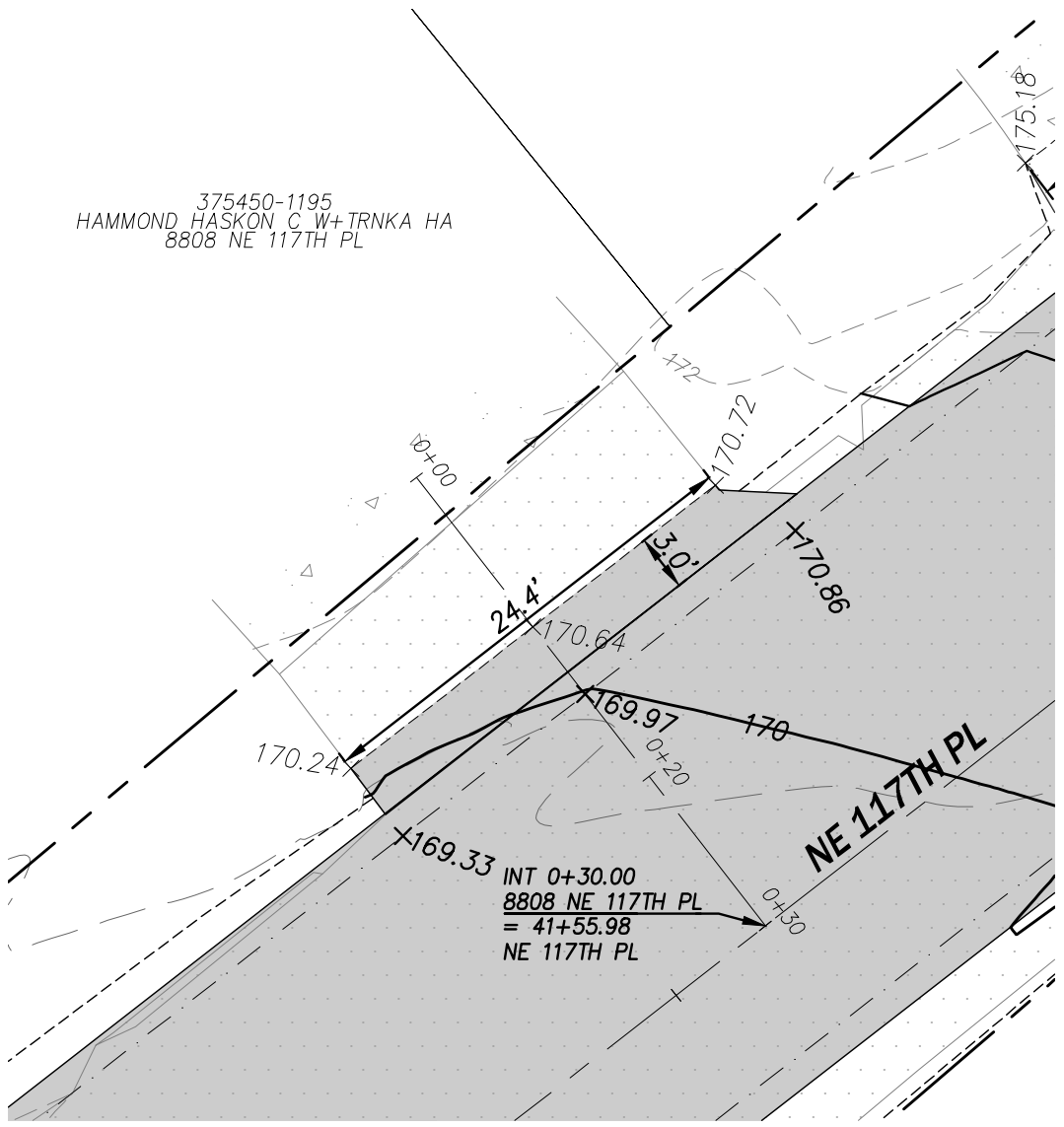
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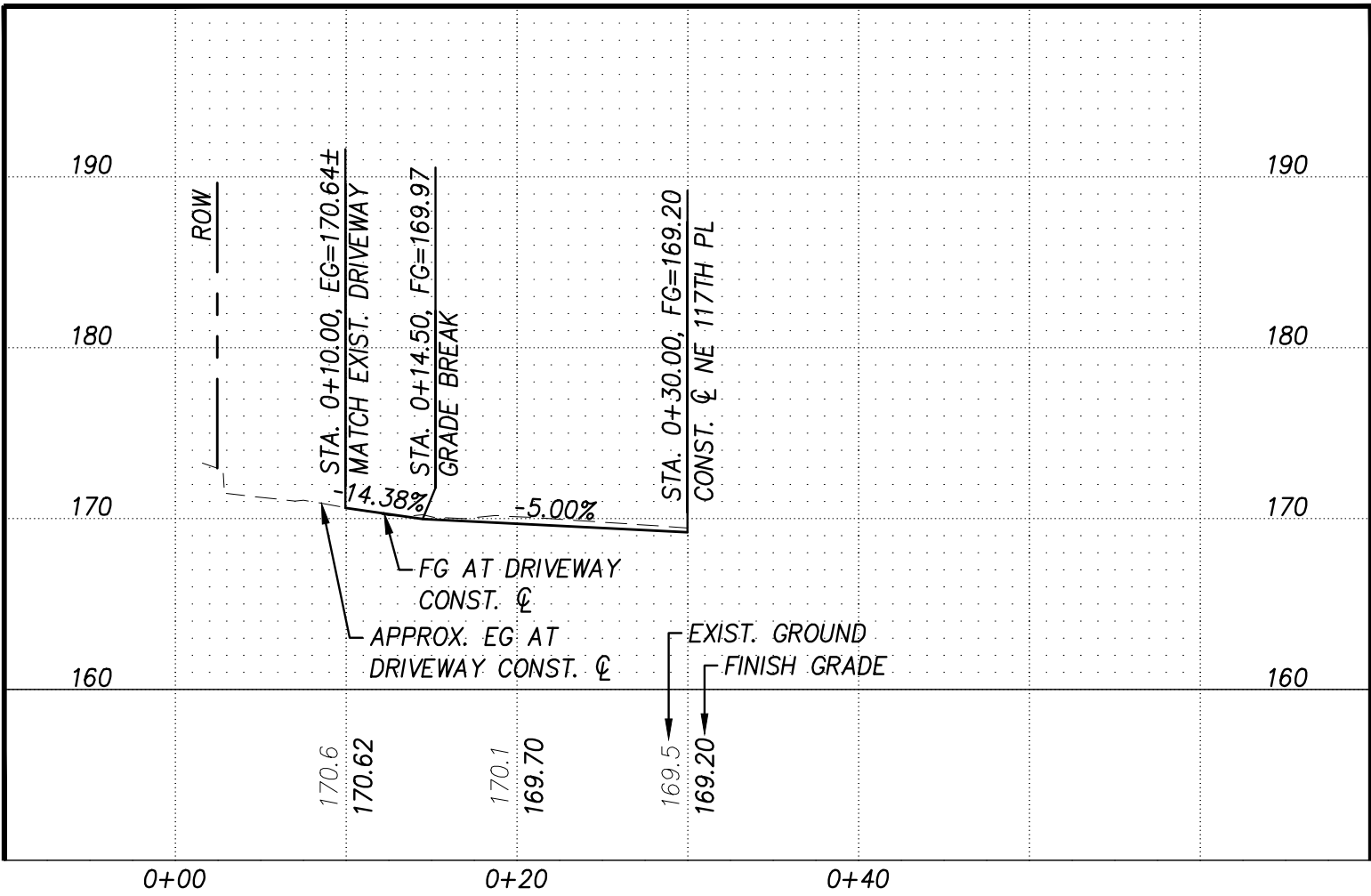
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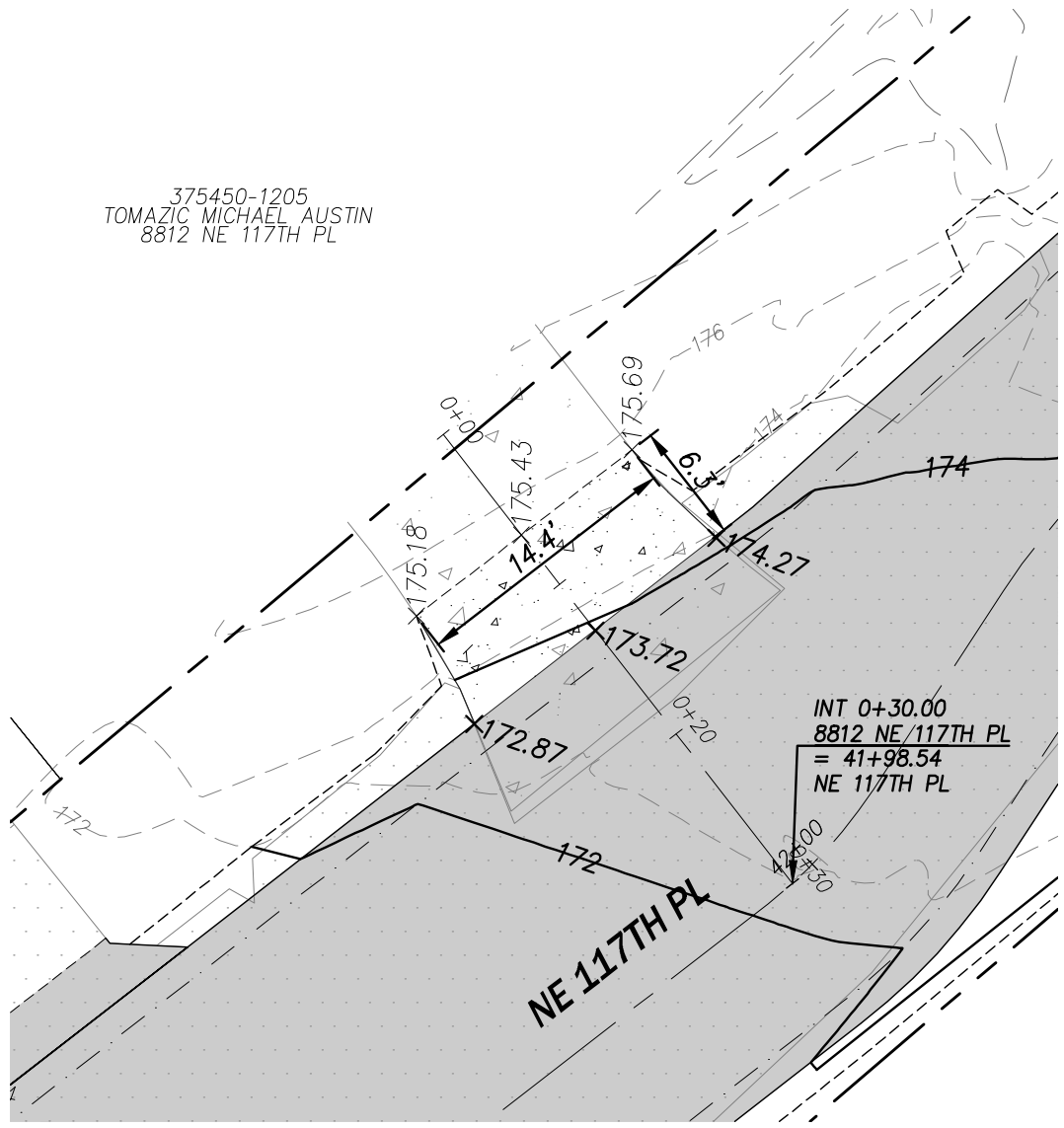
16 TYPICAL DRIVEWAY DETAIL



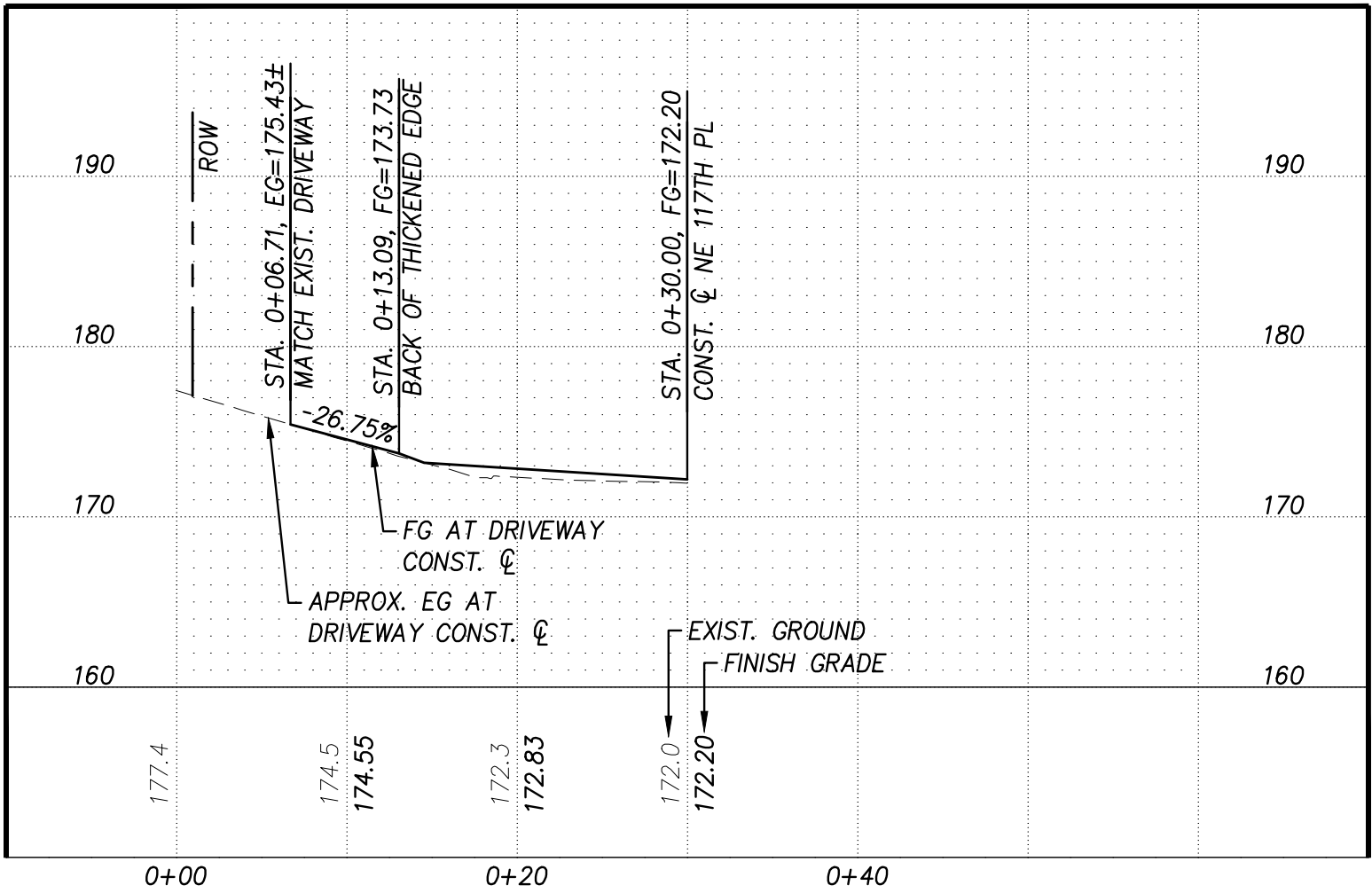
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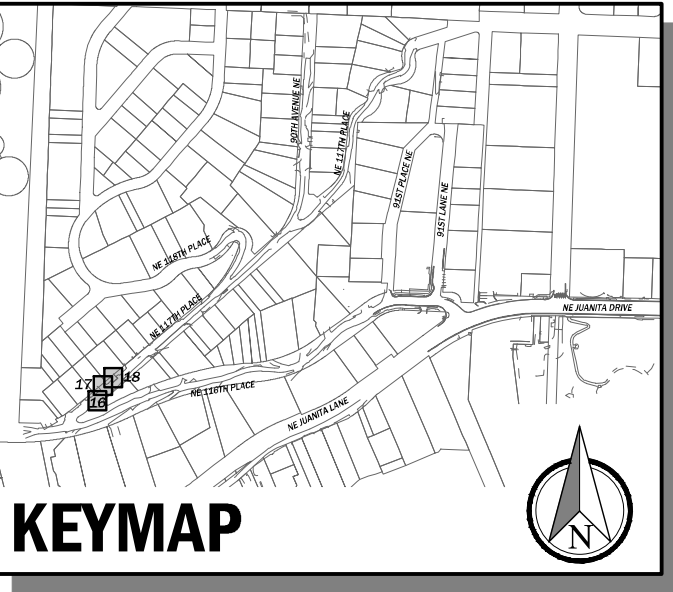
17 TYPICAL DRIVEWAY DETAIL



PLAN



18 TYPICAL DRIVEWAY DETAIL



LEGEND

- ×100.00 EXIST. GRADE ELEVATION
 - ×100.00 FINISHED GRADE ELEVATION
 - 1.0% EXIST. GRADE SLOPE
 - 1.0% FINISHED GRADE SLOPE
- 0 10 20
VERT. IN FEET
0 10 20
HORIZ. IN FEET

CIP NO.	JOB NO.	ENGR.	REVIEW	SCALE	DATE
SDC0900000	19-23-PW	MJH	MJH	AS NOTED	1/04/2024
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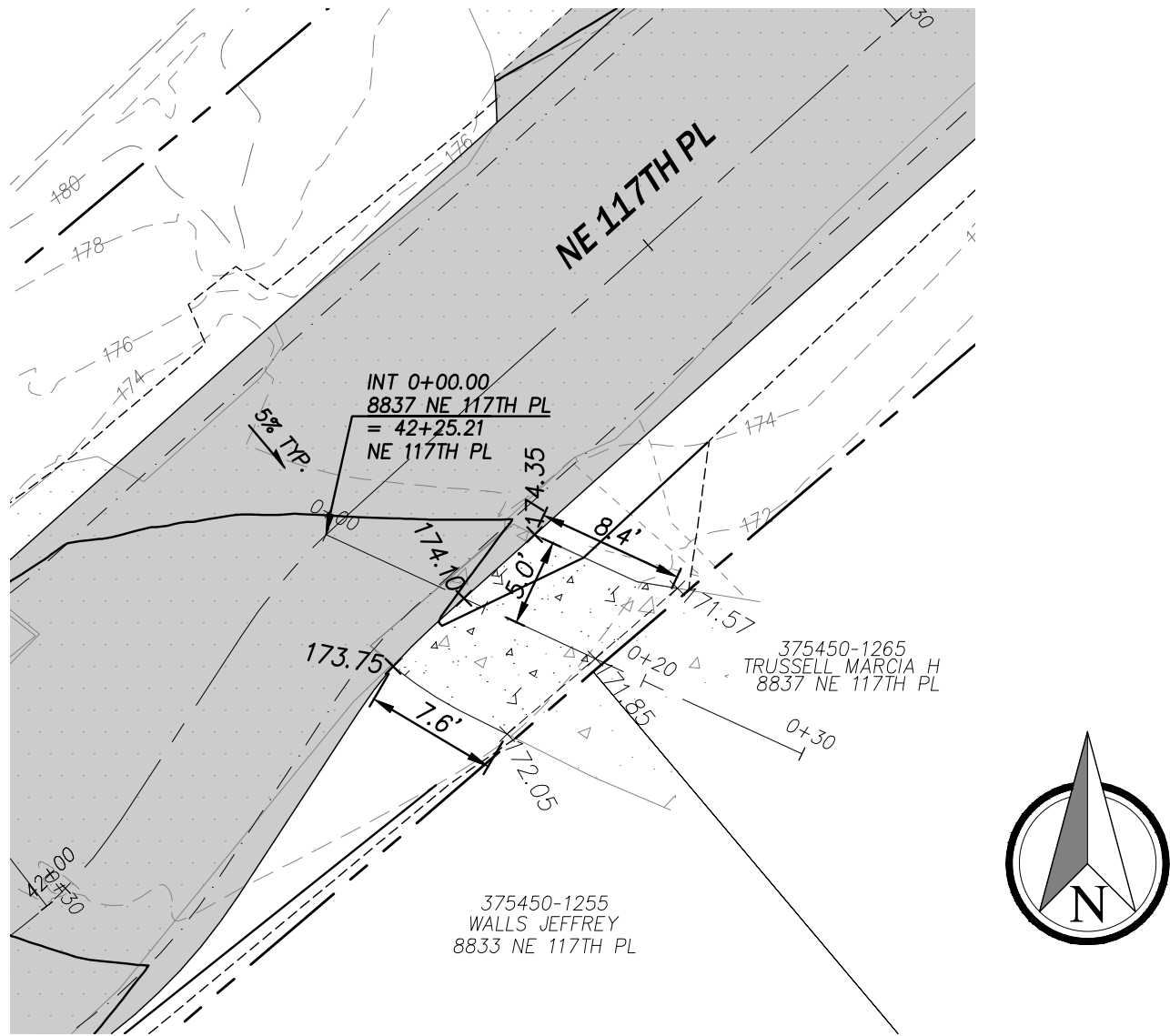
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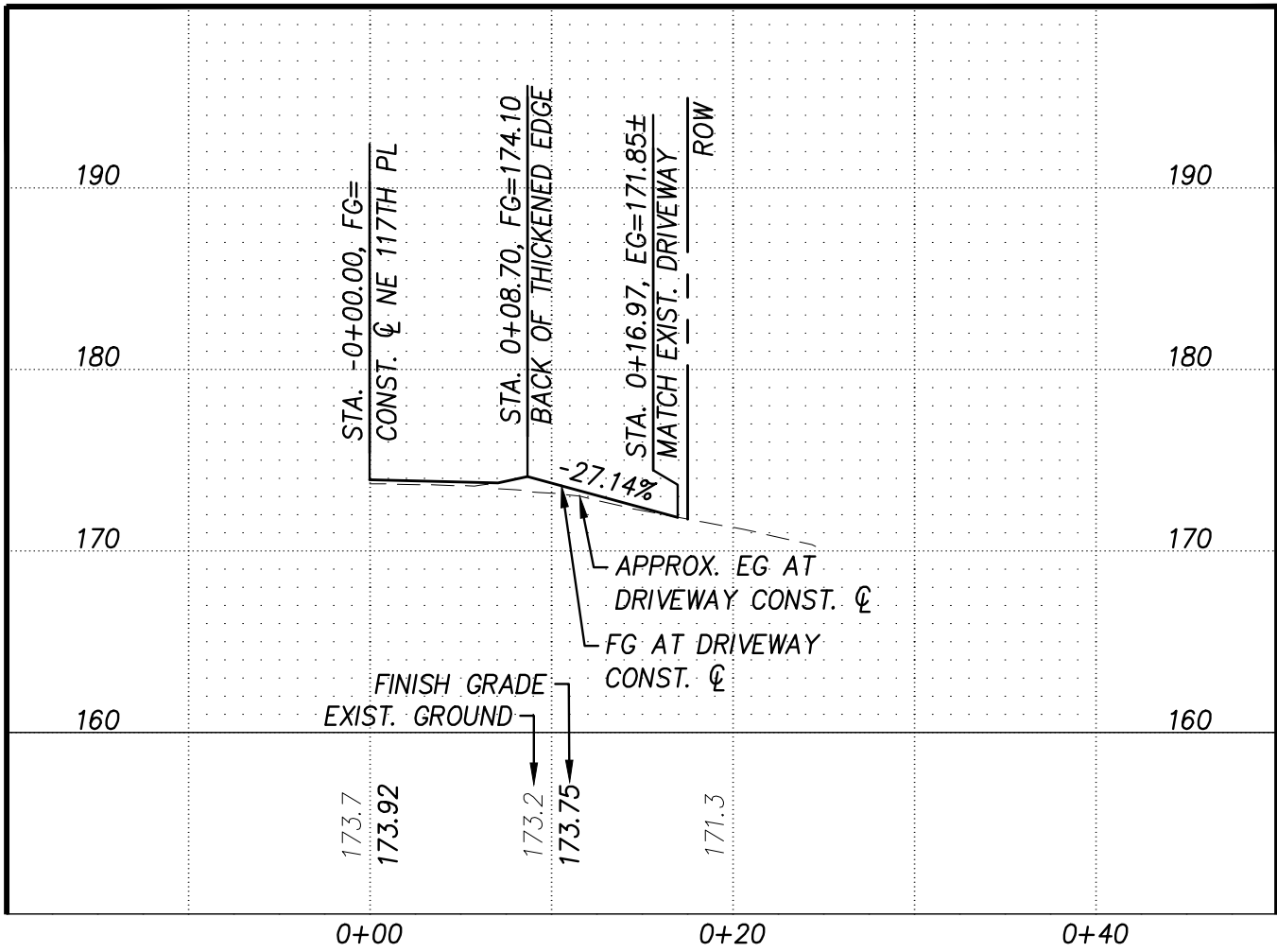
DRIVEWAY PROFILES

C3.36

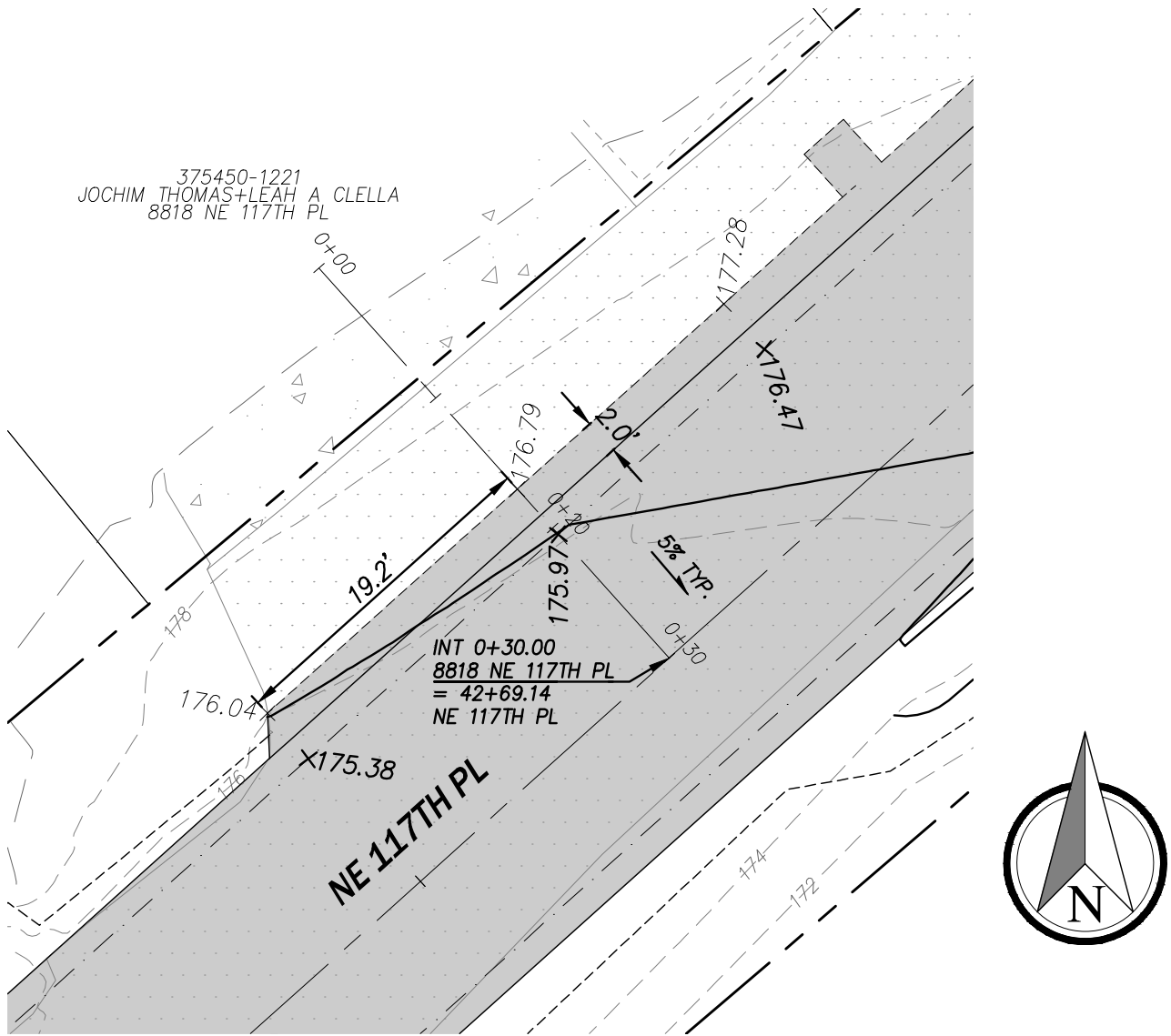
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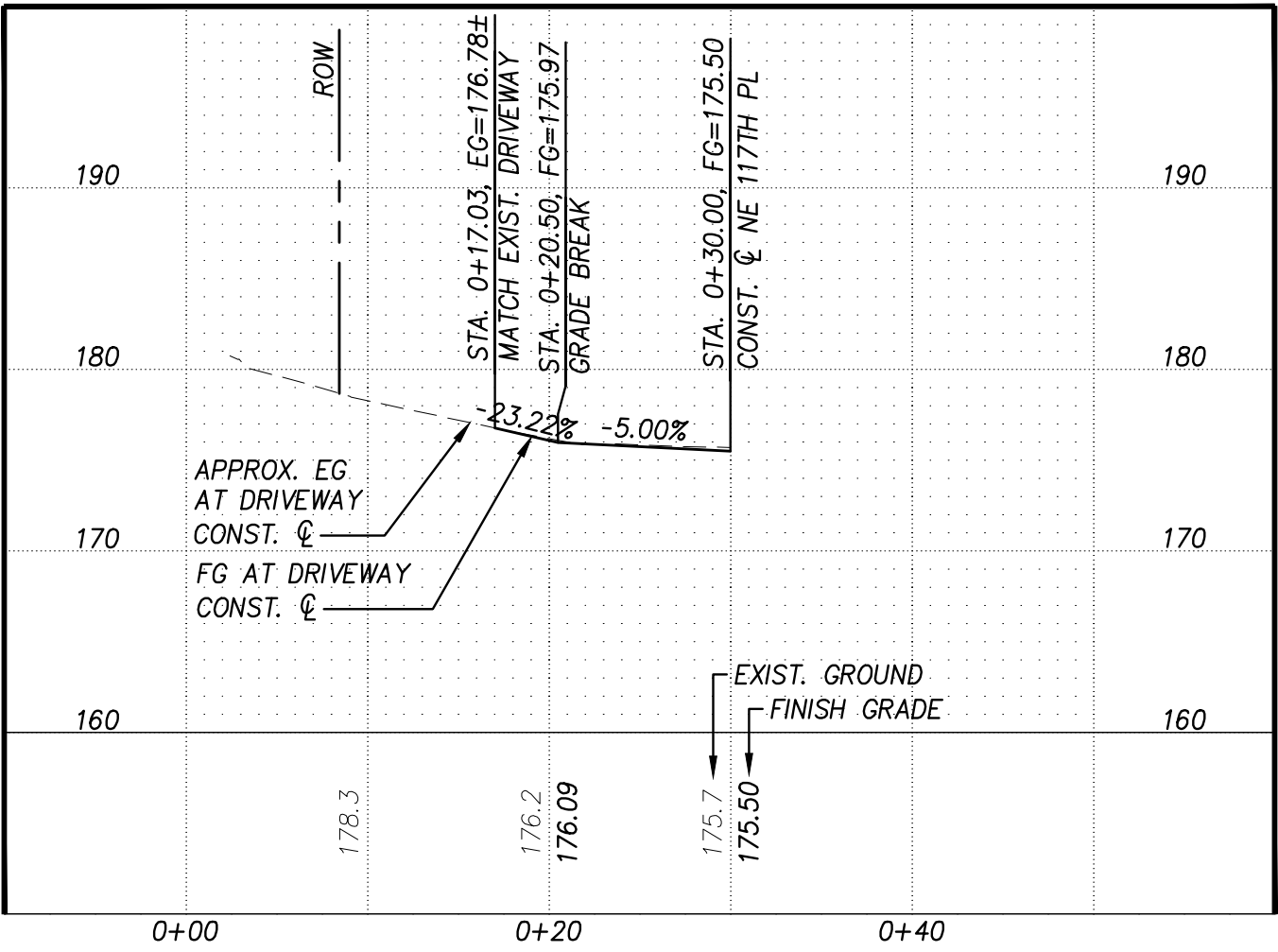
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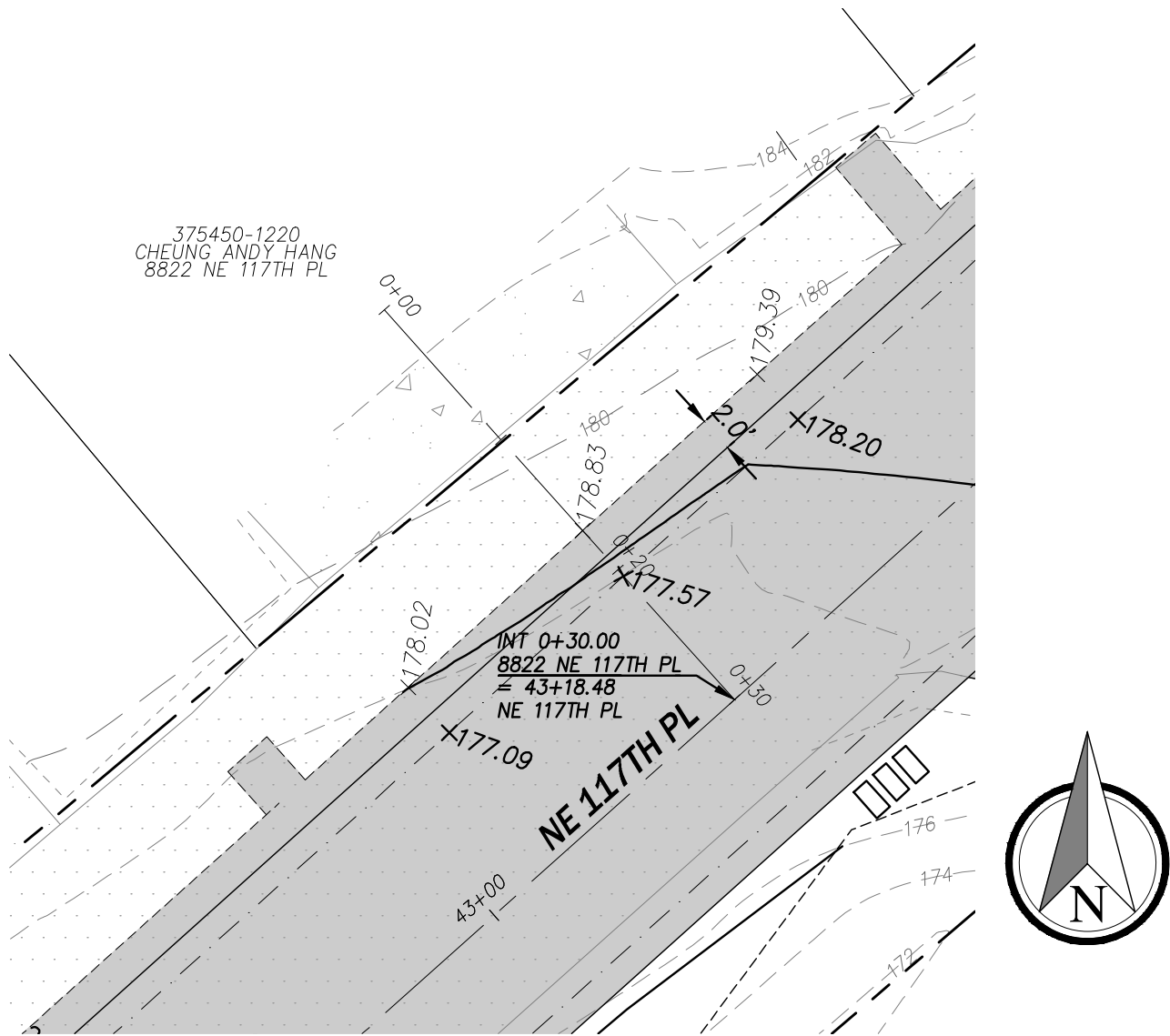
19 TYPICAL DRIVEWAY DETAIL



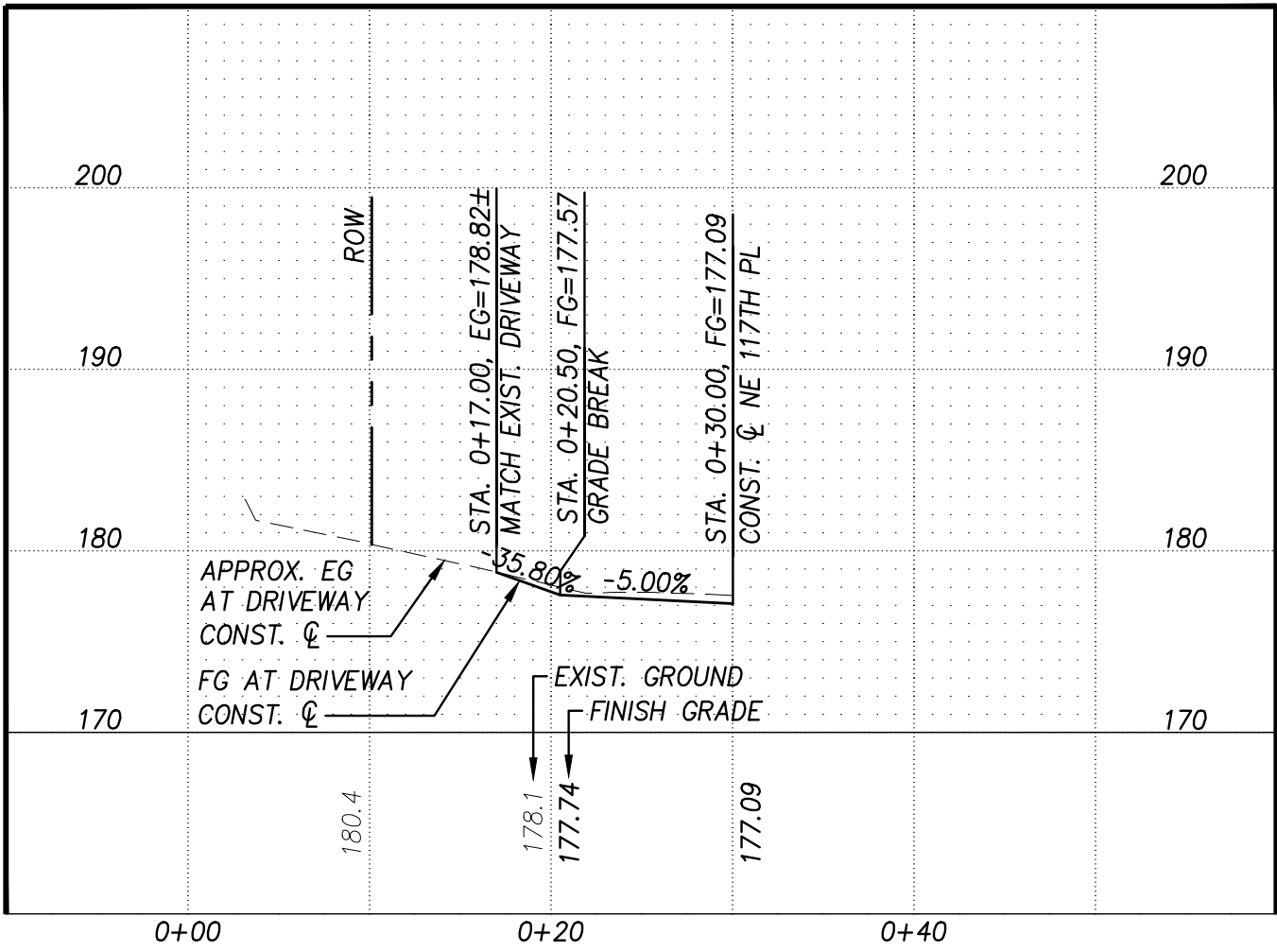
PLAN



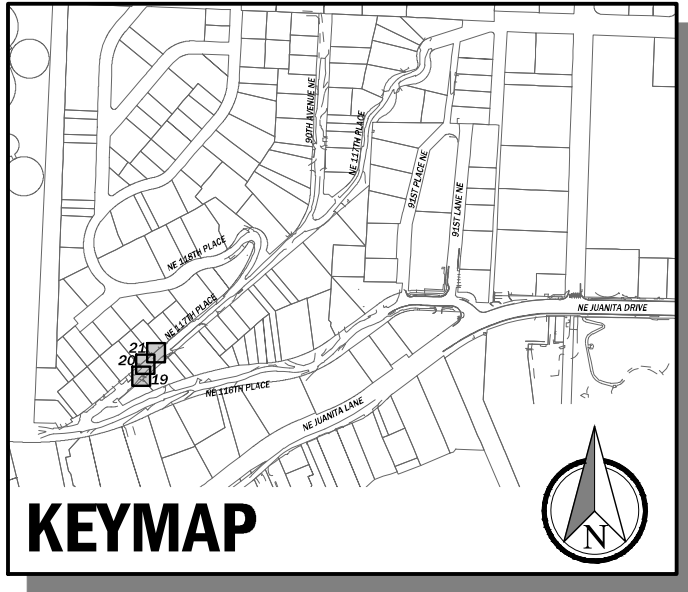
20 TYPICAL DRIVEWAY DETAIL



PLAN



21 TYPICAL DRIVEWAY DETAIL



LEGEND

- ×100.00 EXIST. GRADE ELEVATION
- ×100.00 FINISHED GRADE ELEVATION
- 1.0% EXIST. GRADE SLOPE
- 1.0% FINISHED GRADE SLOPE

0 10 20
VERT. IN FEET
0 10 20
HORIZ. IN FEET

CIP NO.	JOB NO.	ENGR.	REVIEW	SCALE	DATE
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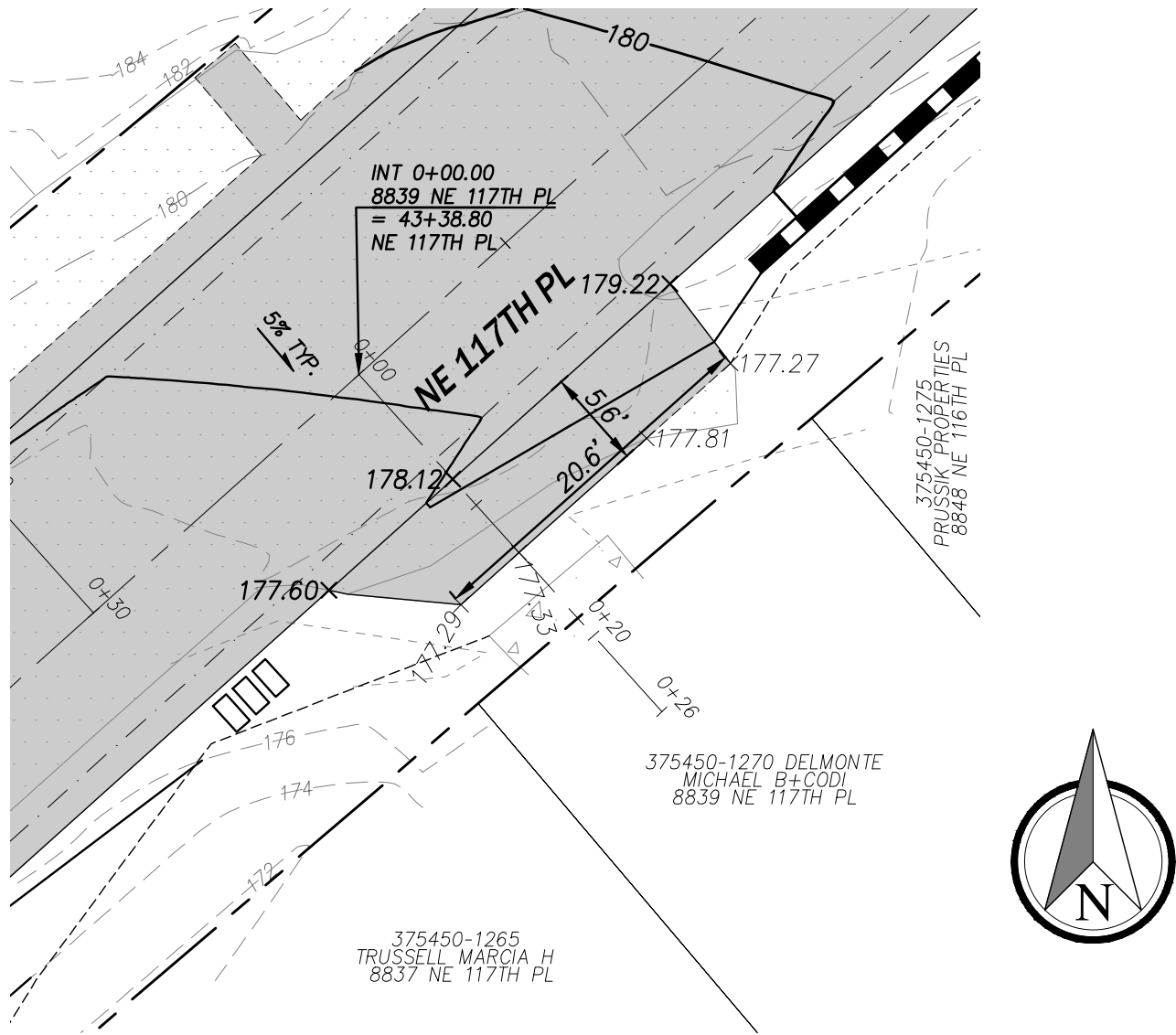
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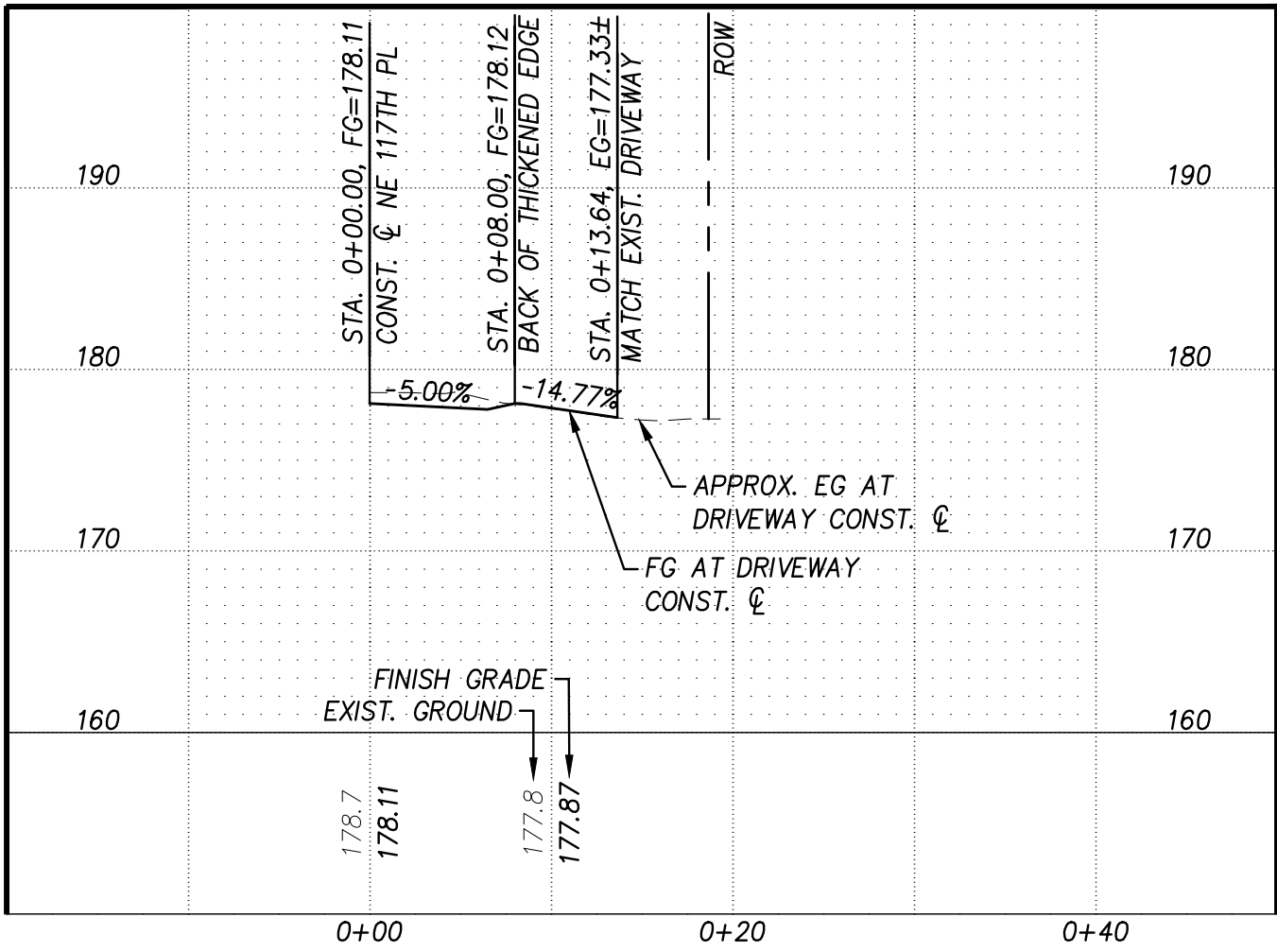
DRIVEWAY PROFILES

C3.37

31
51

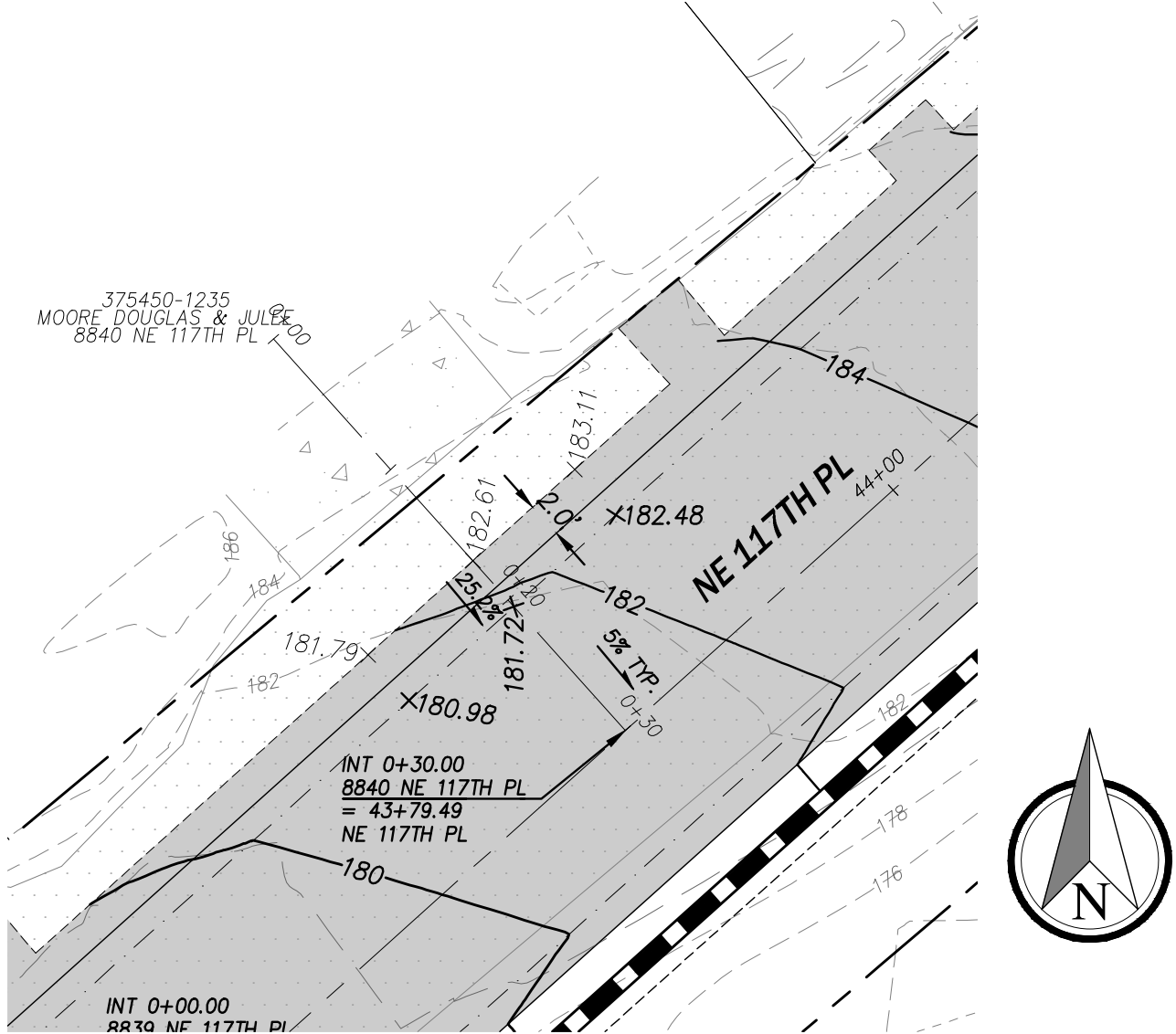


PLAN

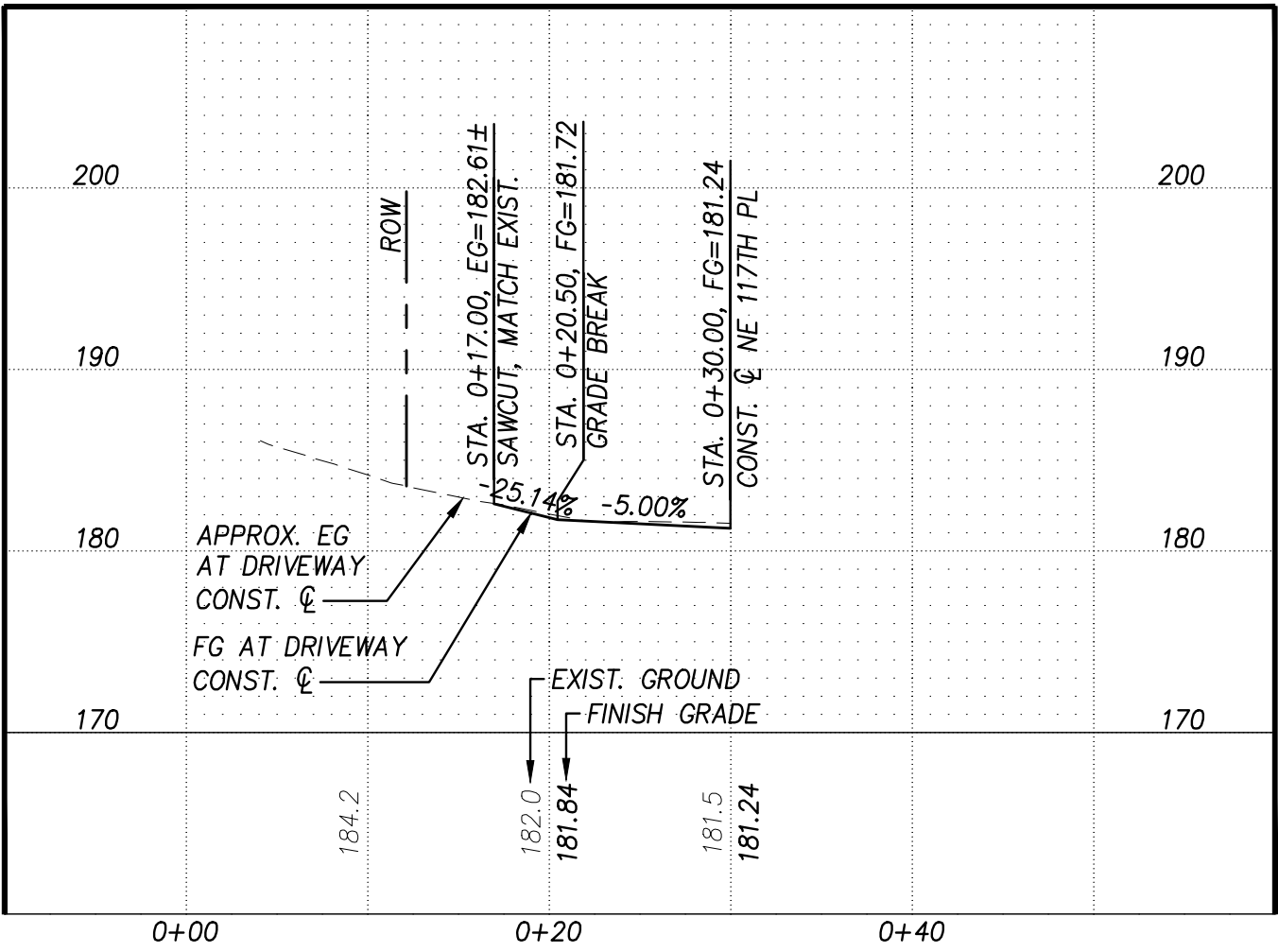


22
C3.XY

TYPICAL DRIVEWAY DETAIL

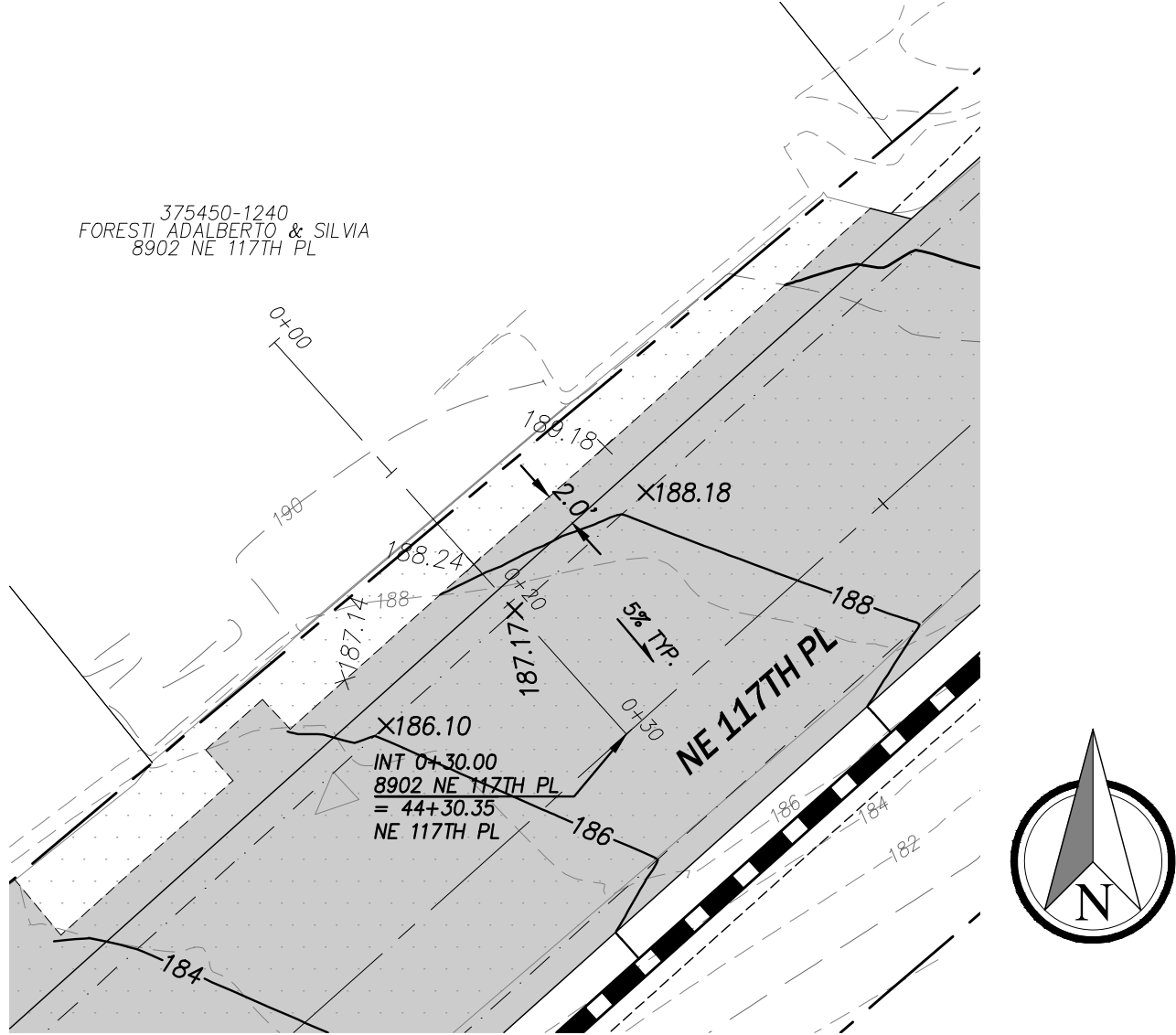


PLAN

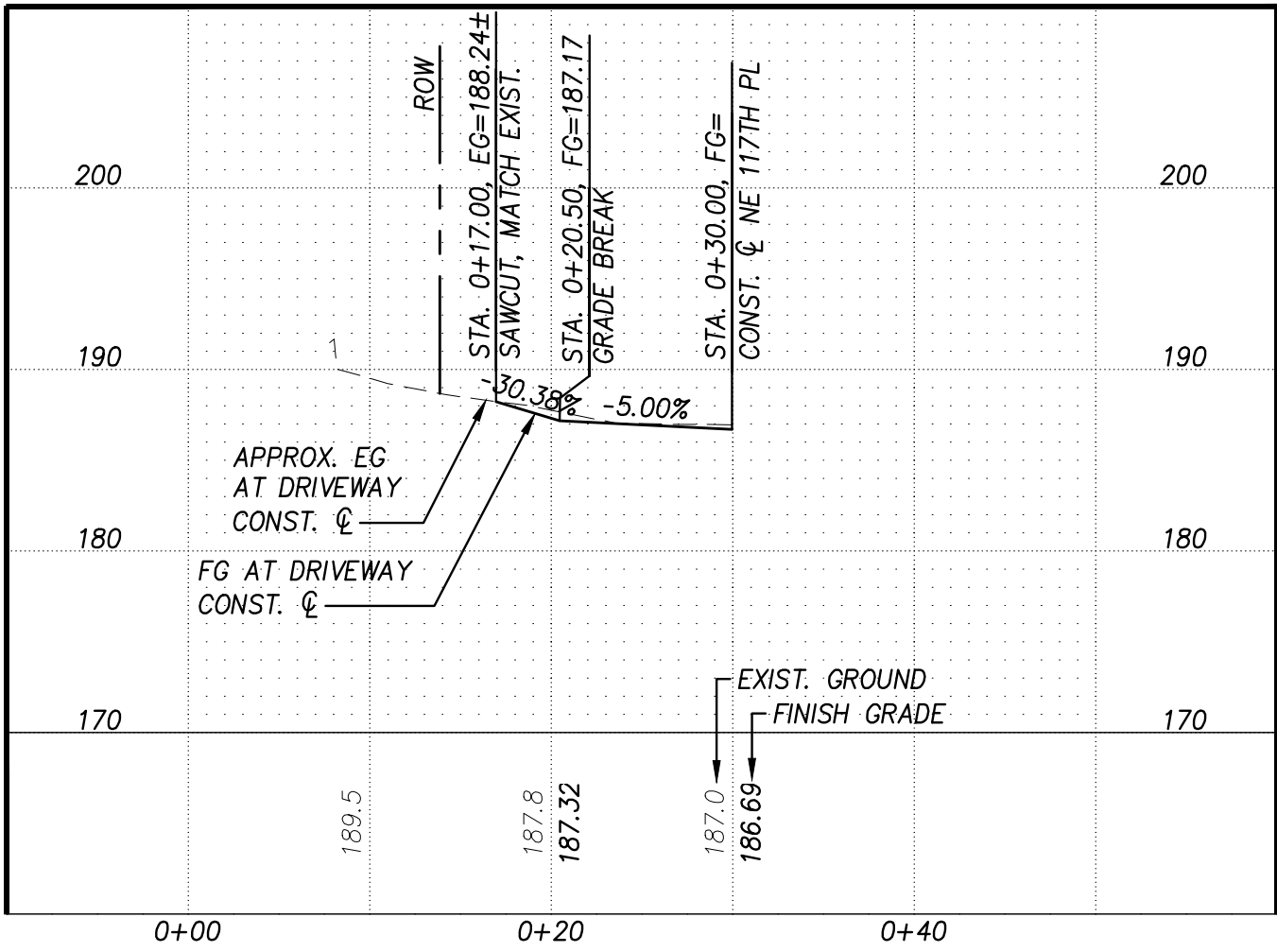


23
C3.XY

TYPICAL DRIVEWAY DETAIL

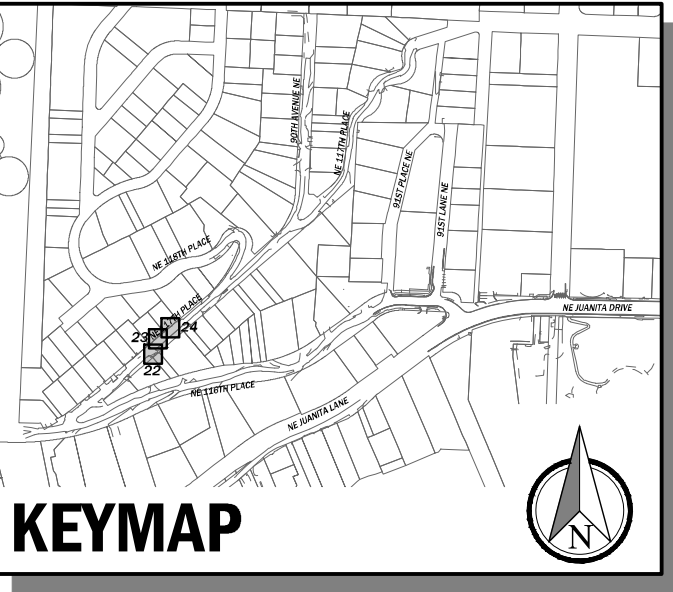


PLAN



24
C3.XY

TYPICAL DRIVEWAY DETAIL



LEGEND

- ×100.00 EXIST. GRADE ELEVATION
- ×100.00 FINISHED GRADE ELEVATION
- 1.0% EXIST. GRADE SLOPE
- 1.0% FINISHED GRADE SLOPE

0 10 20
VERT. IN FEET

0 10 20
HORIZ. IN FEET

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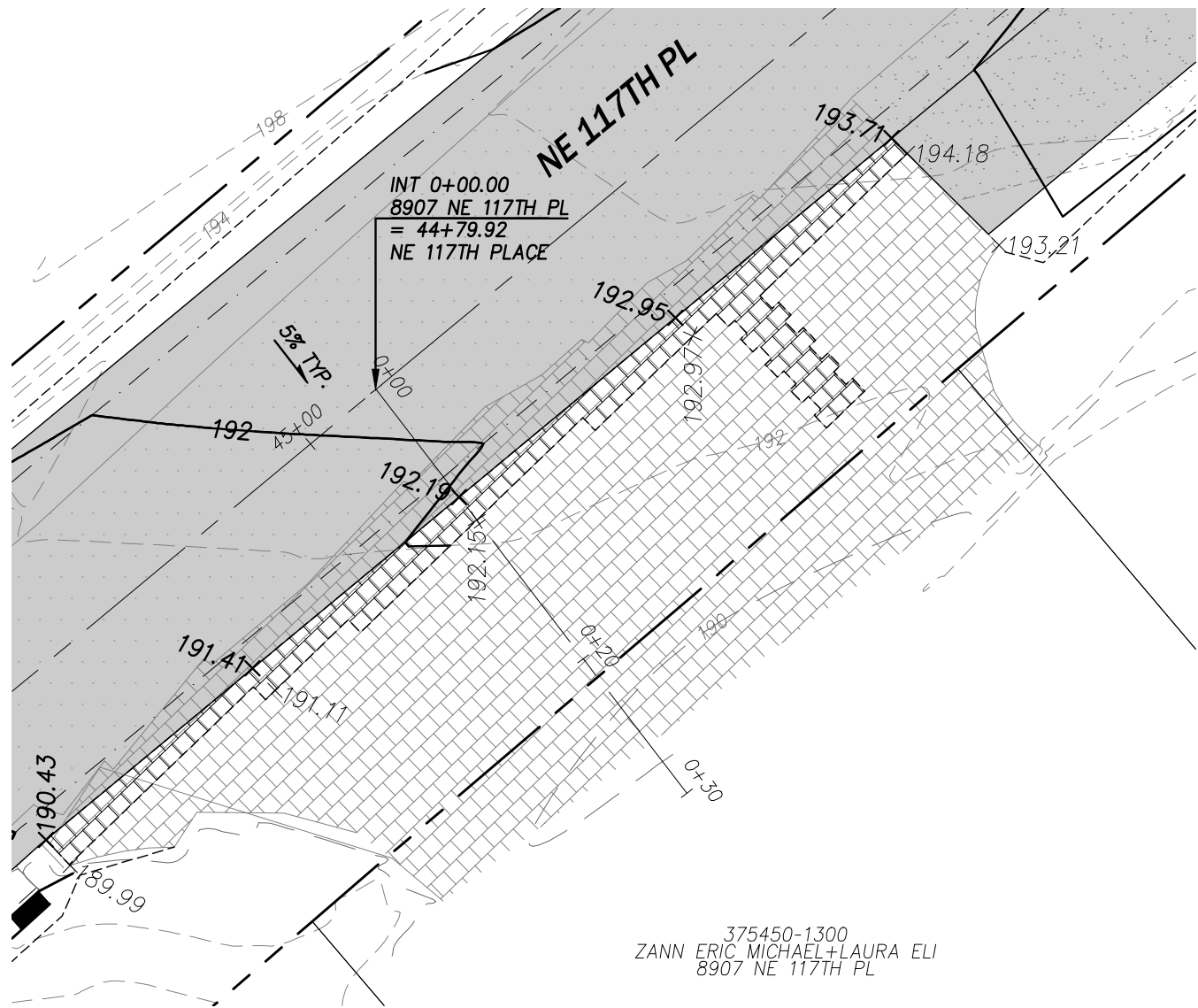
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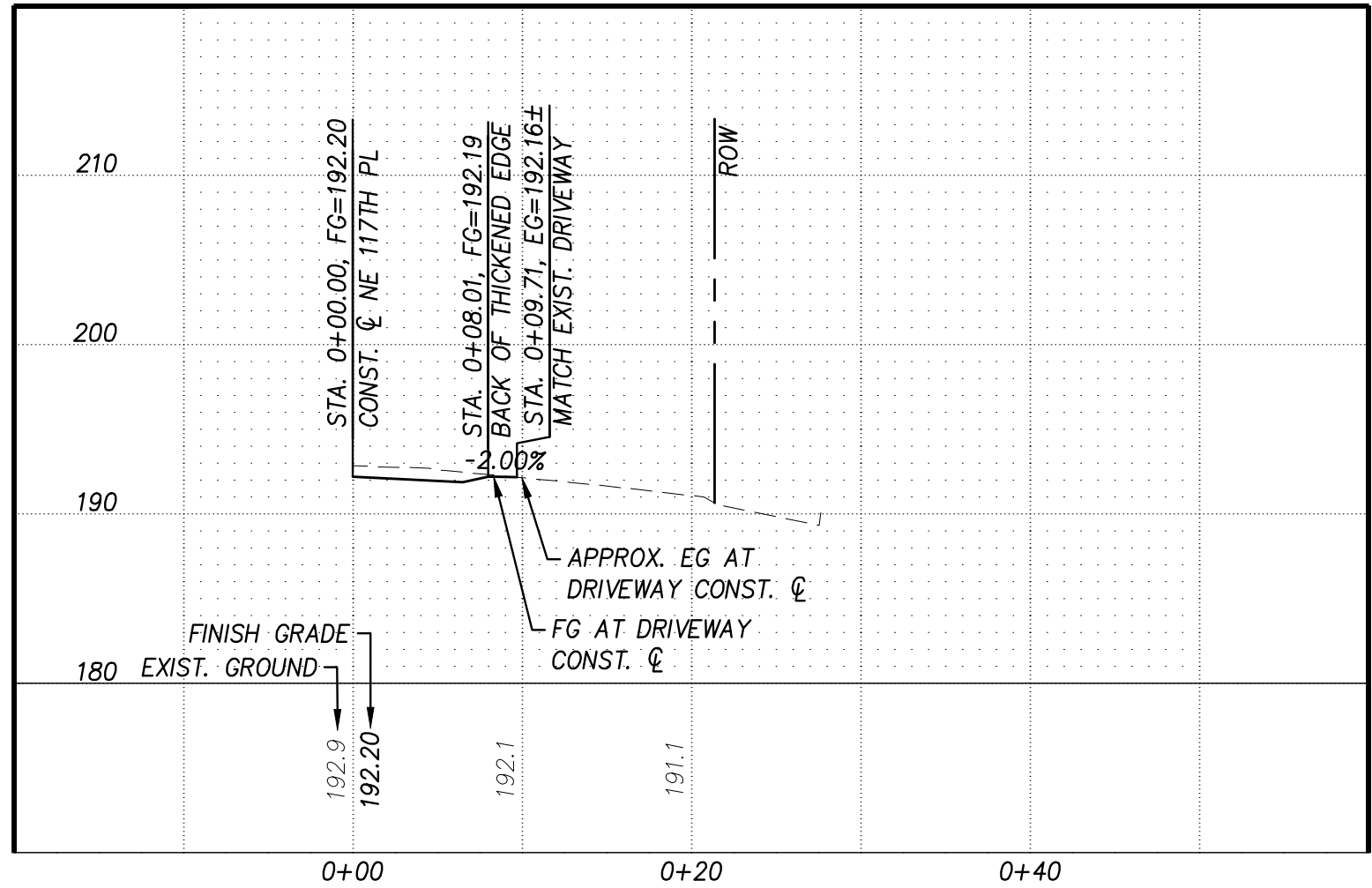
DRIVEWAY PROFILES

C3.38

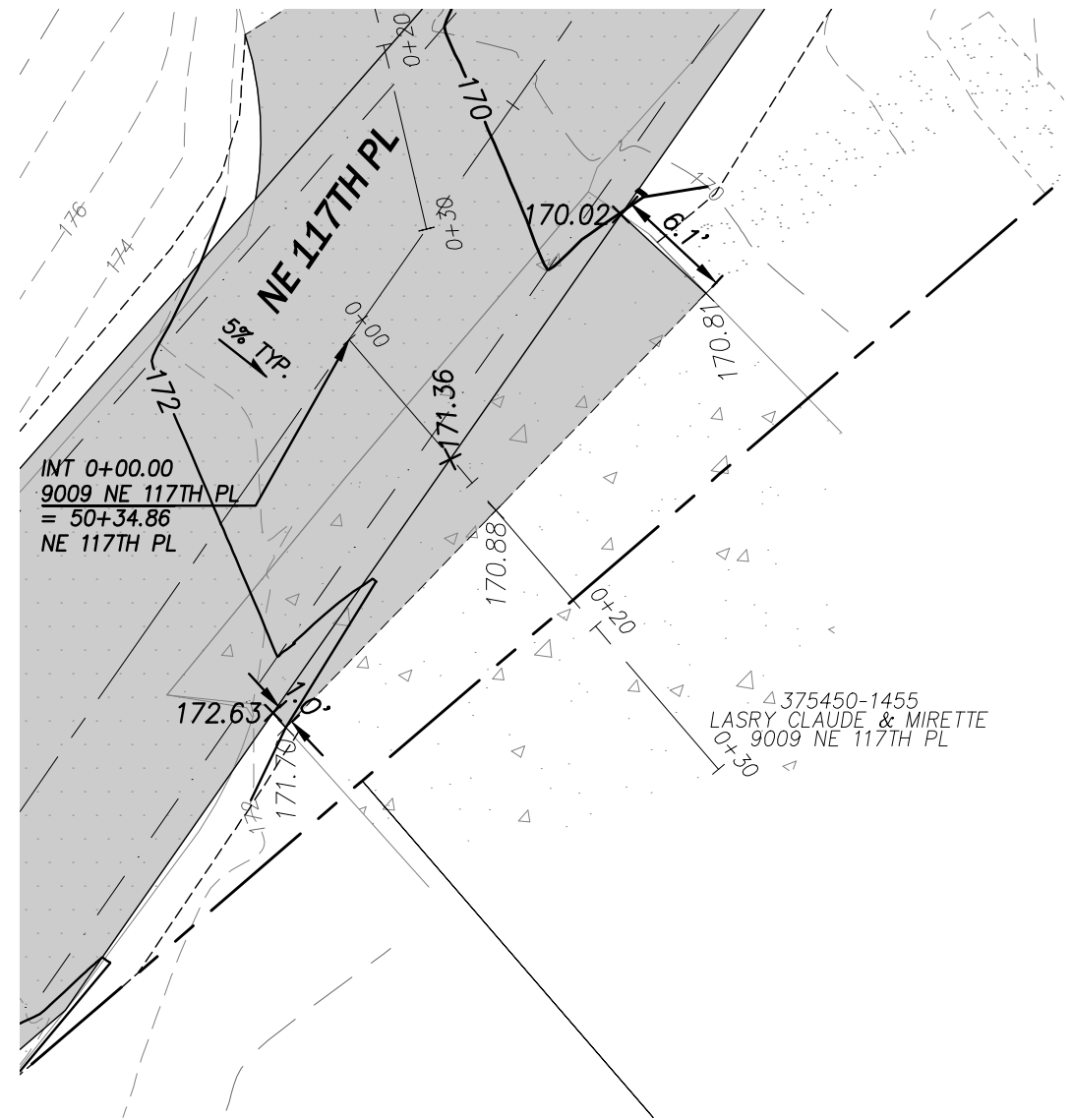
32 / 51



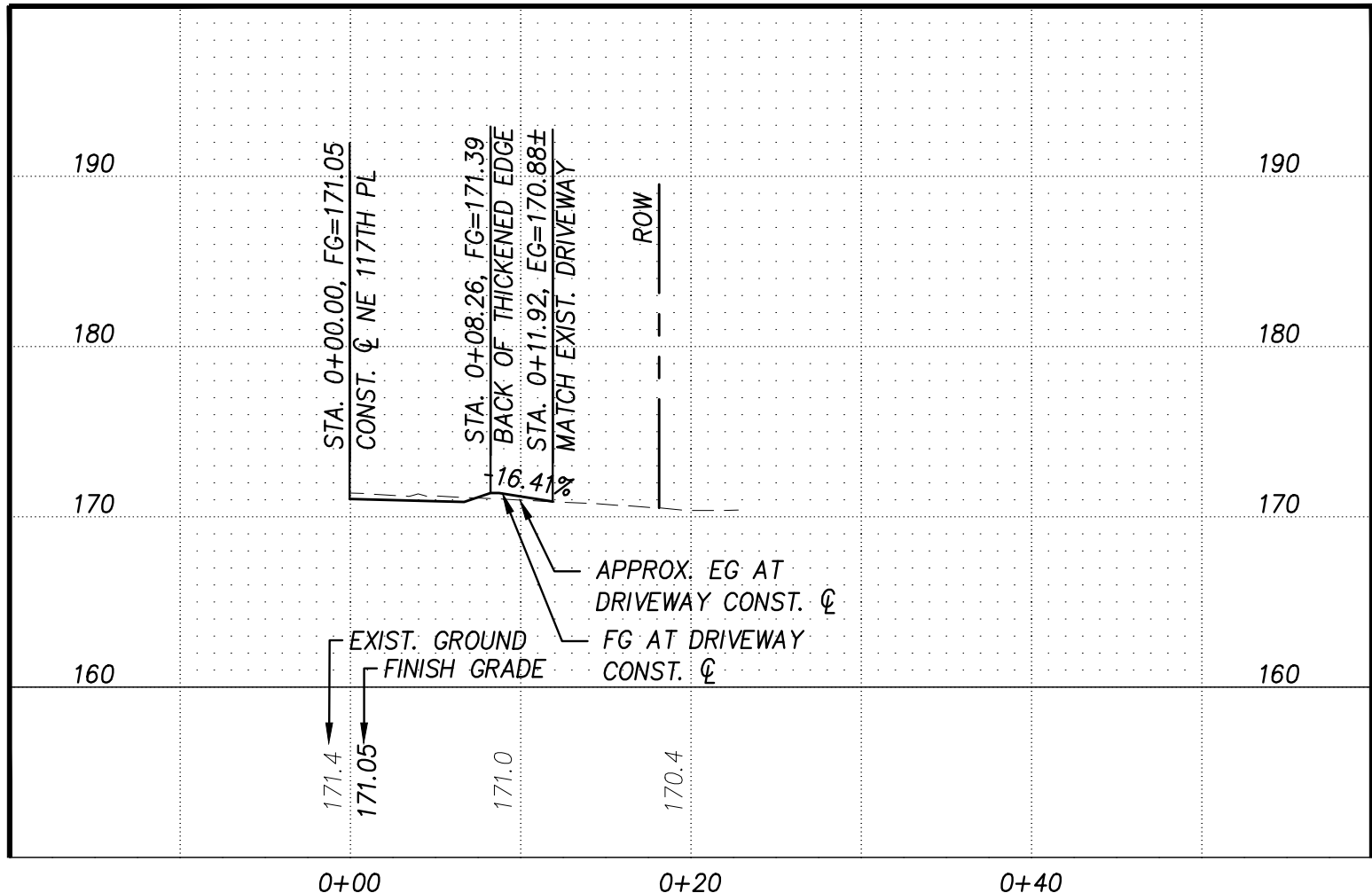
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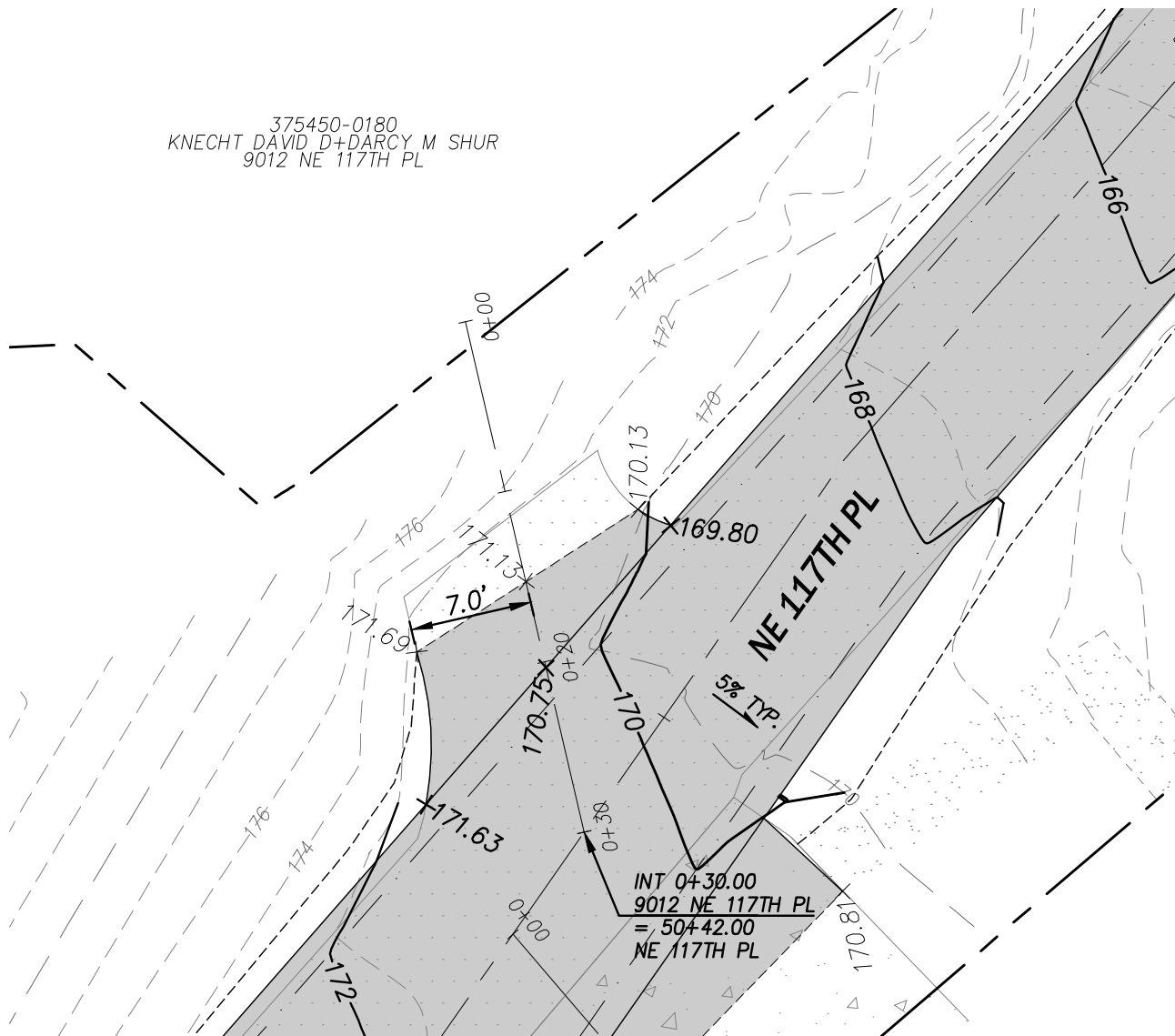
25
C3.09 TYPICAL DRIVEWAY DETAIL



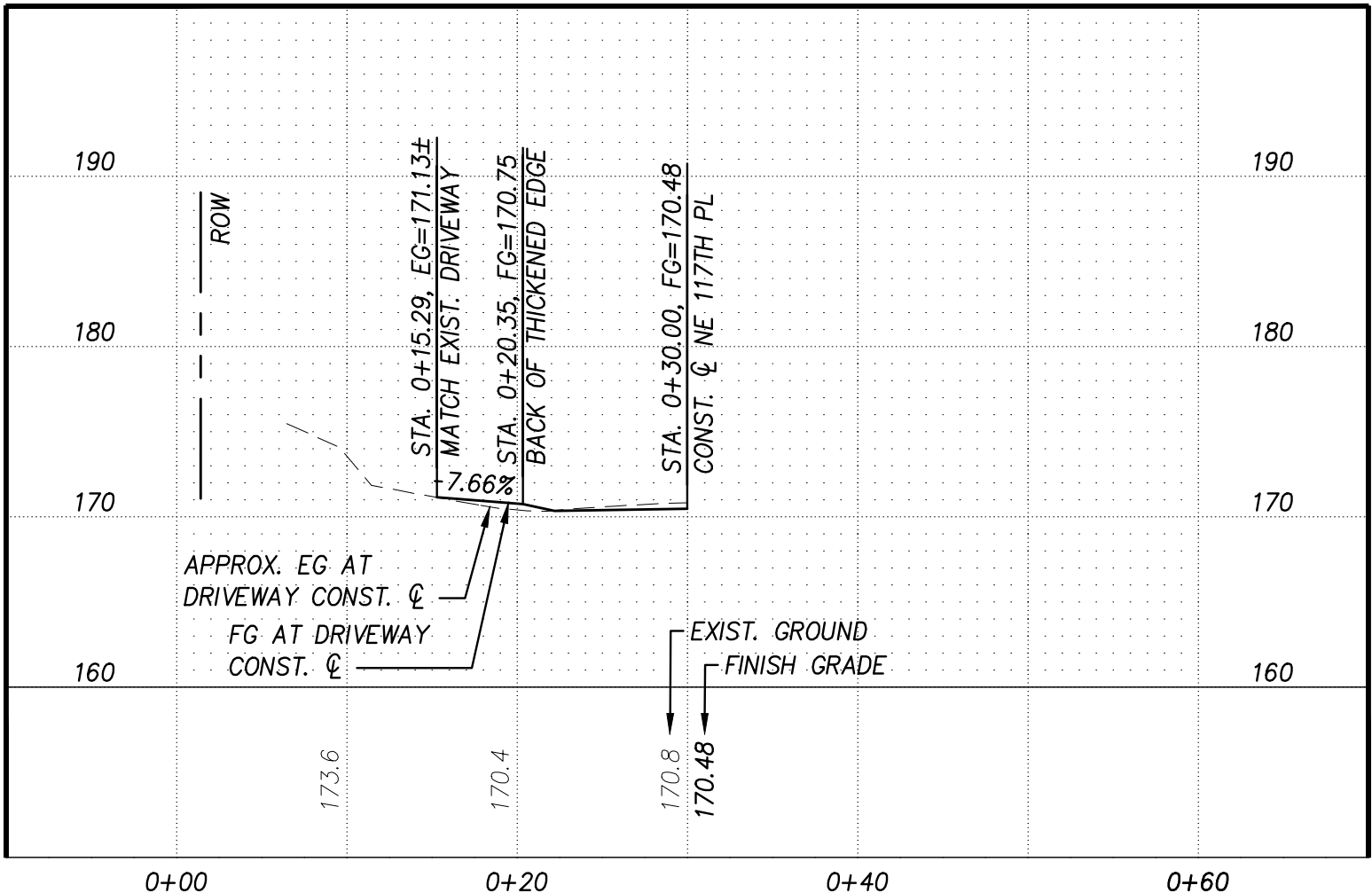
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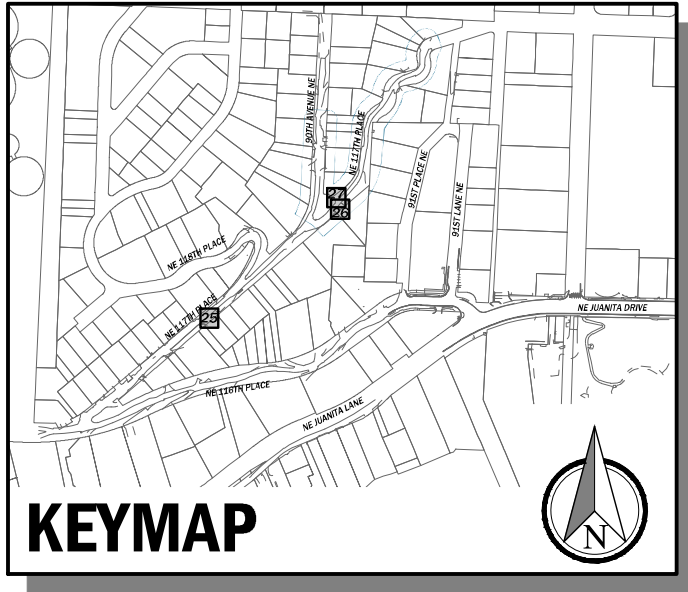
26
C3.01 TYPICAL DRIVEWAY DETAIL



PLAN



27
C3.01 TYPICAL DRIVEWAY DETAIL



LEGEND

×100.00 EXIST. GRADE ELEVATION
×100.00 FINISHED GRADE ELEVATION
1.0% EXIST. GRADE SLOPE
1.0% FINISHED GRADE SLOPE

0 10 20
VERT. IN FEET
0 10 20
HORIZ. IN FEET

CIP NO.	JOB NO.	ENGR.	REVIEW	SCALE	DATE
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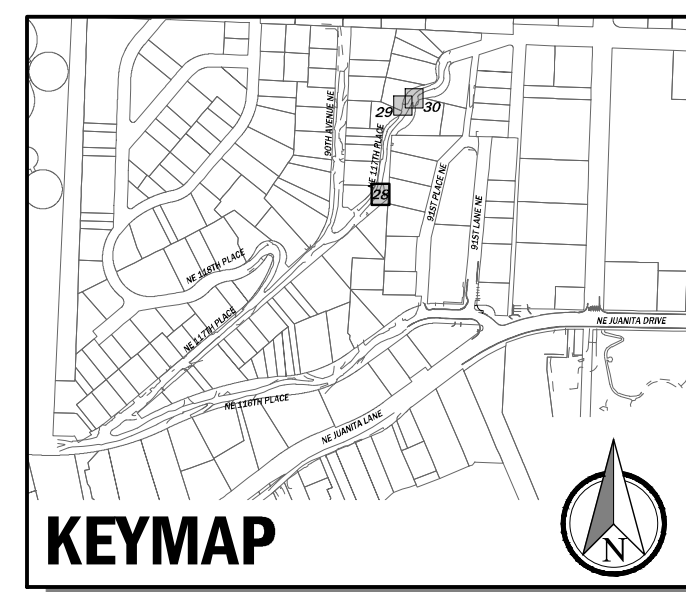
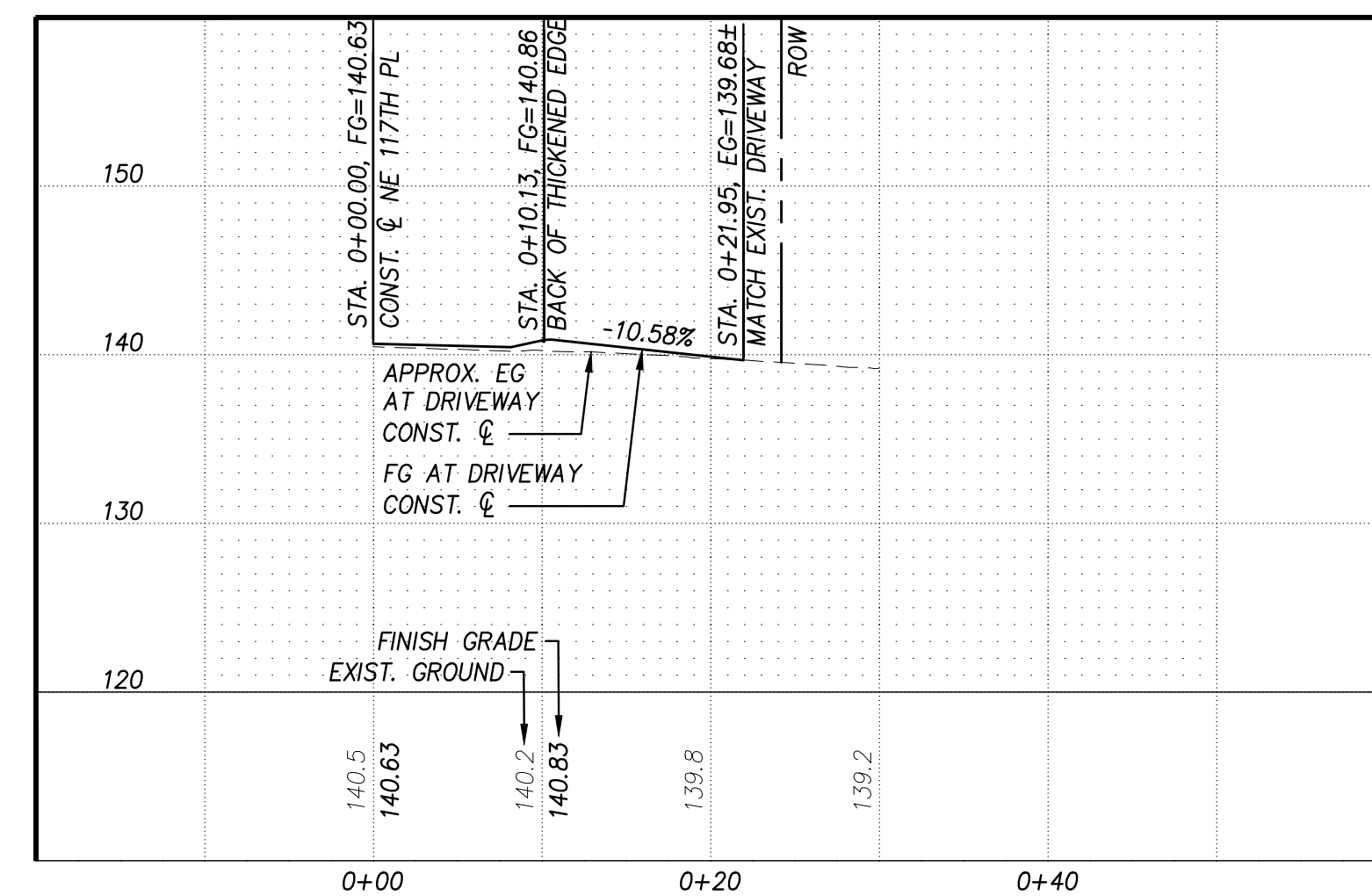
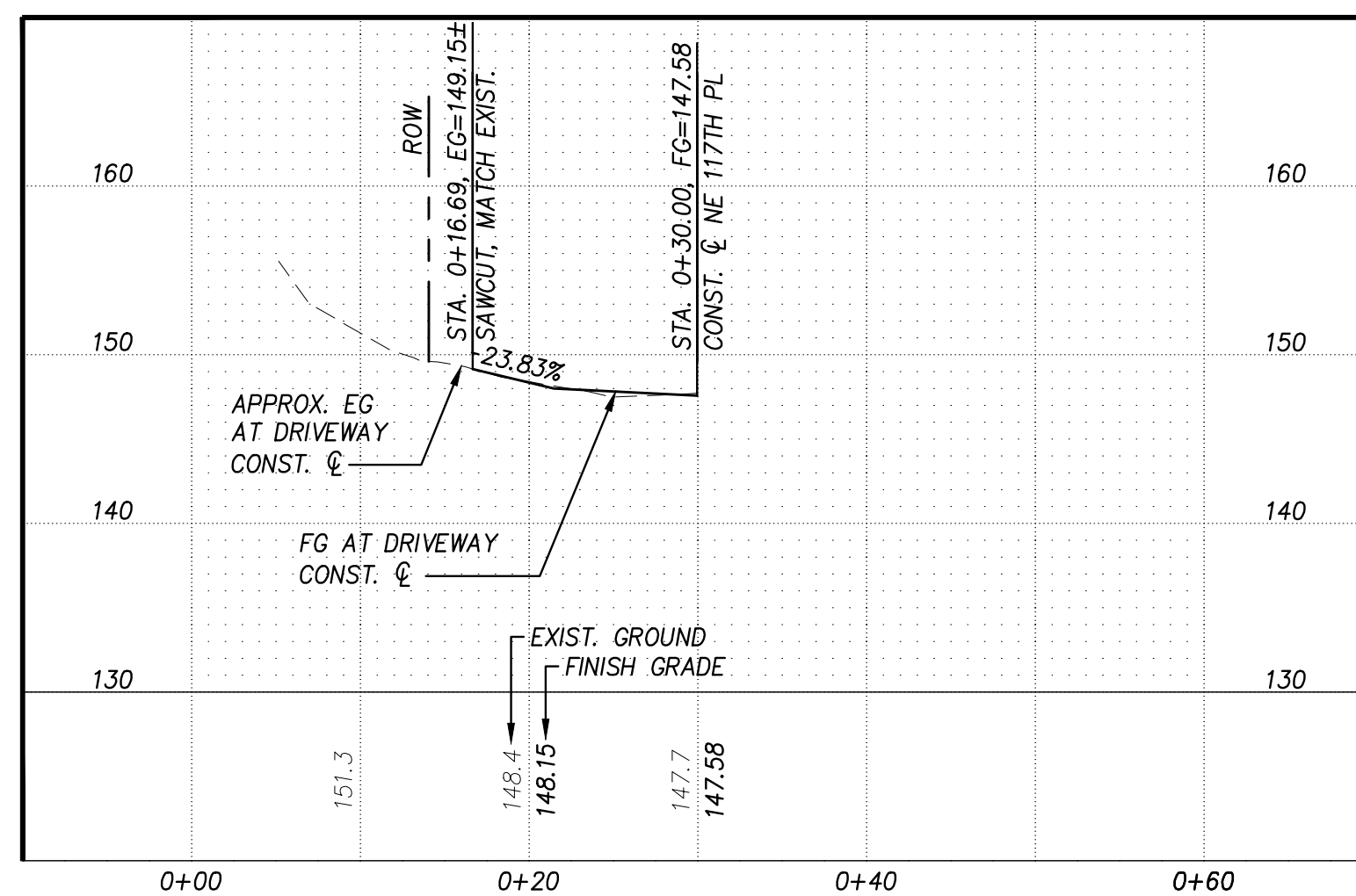
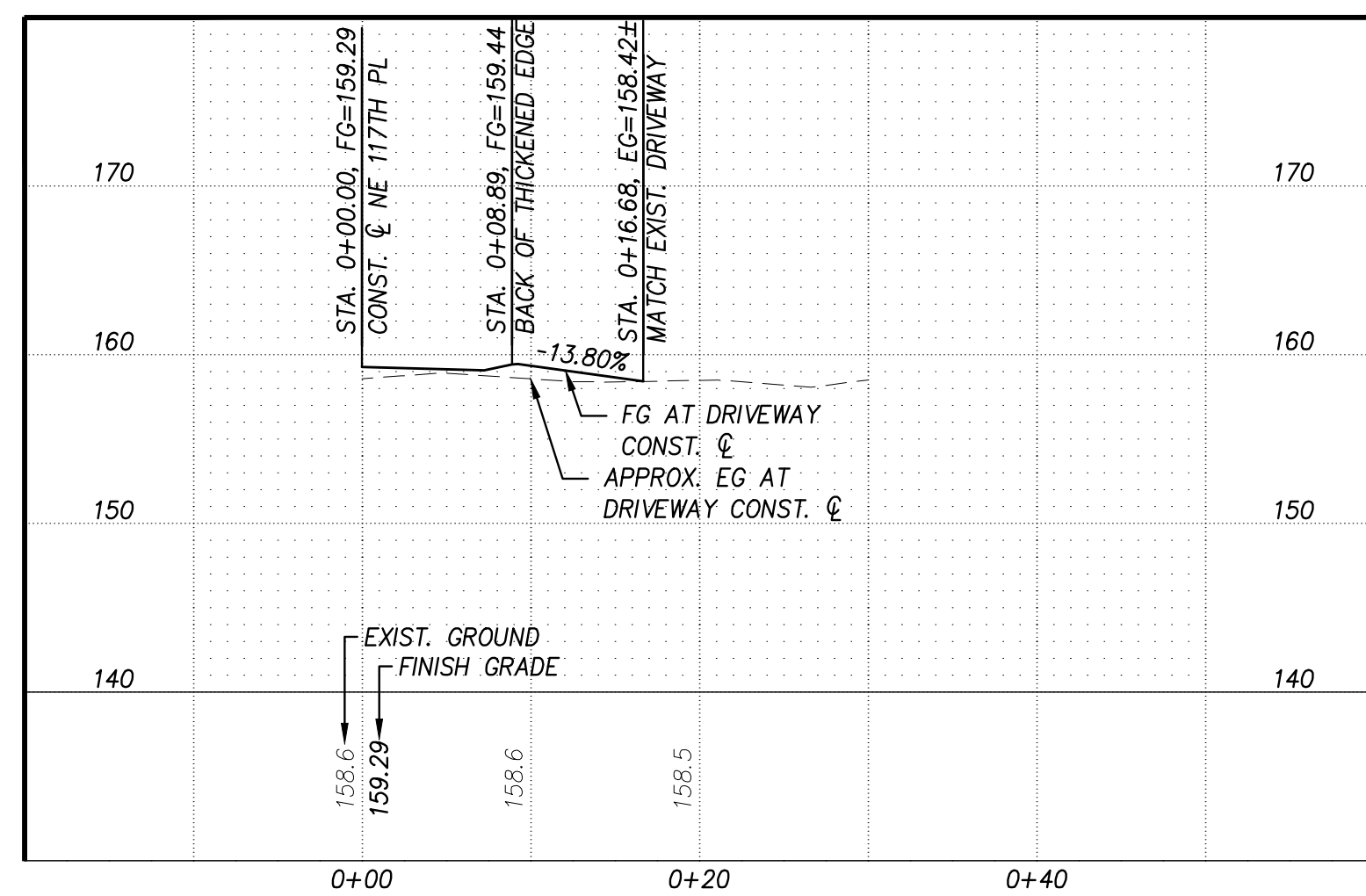
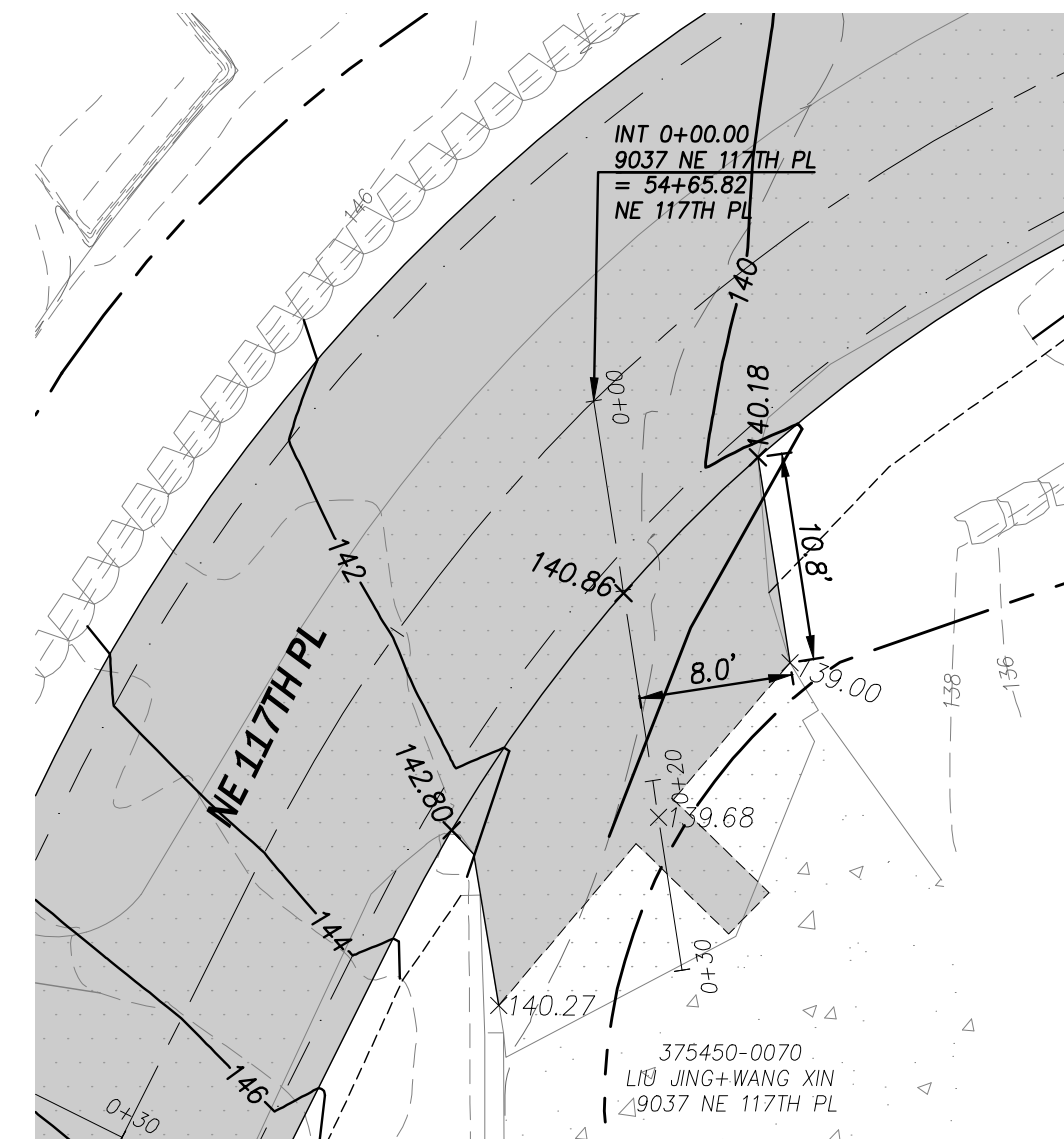
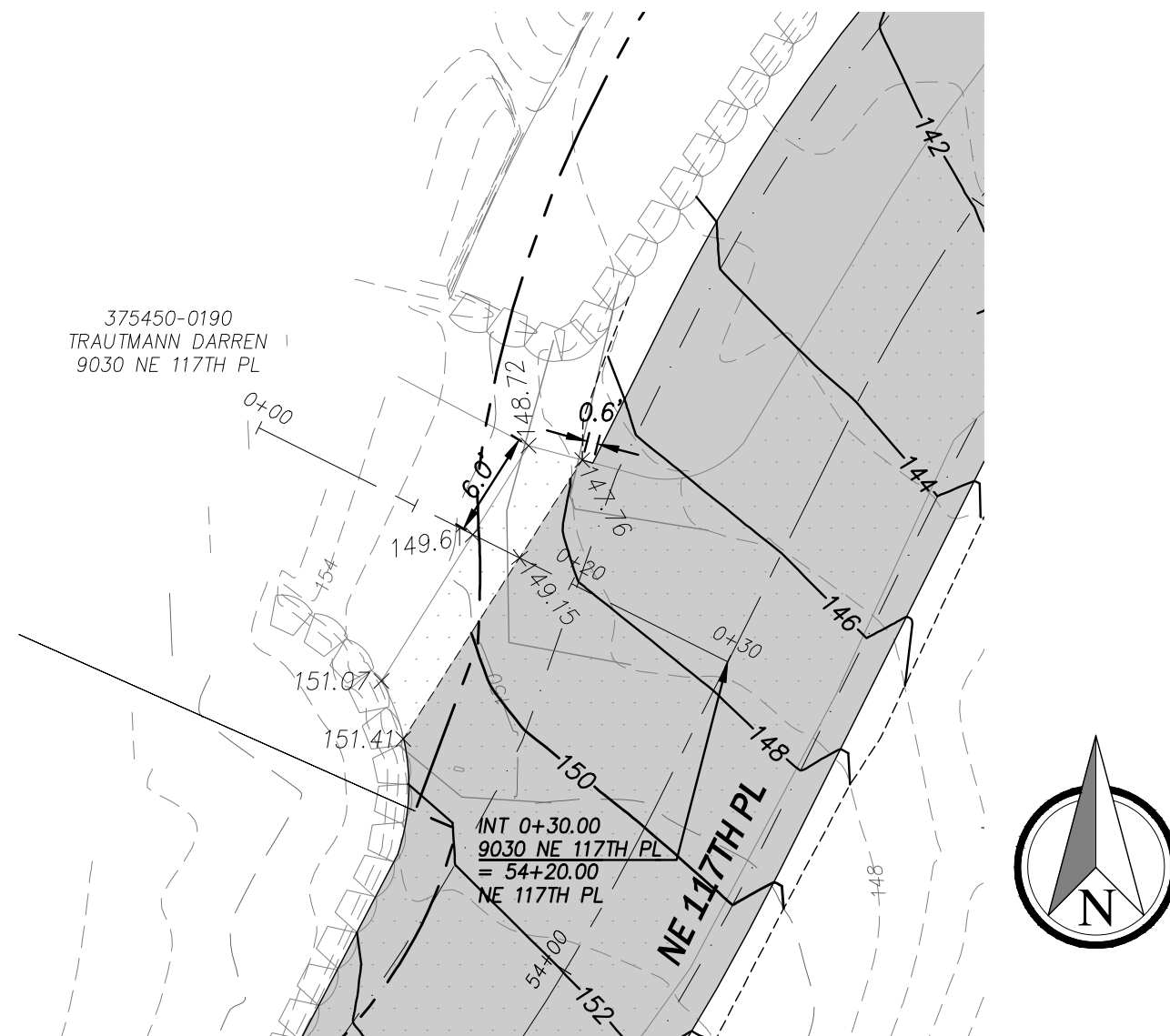
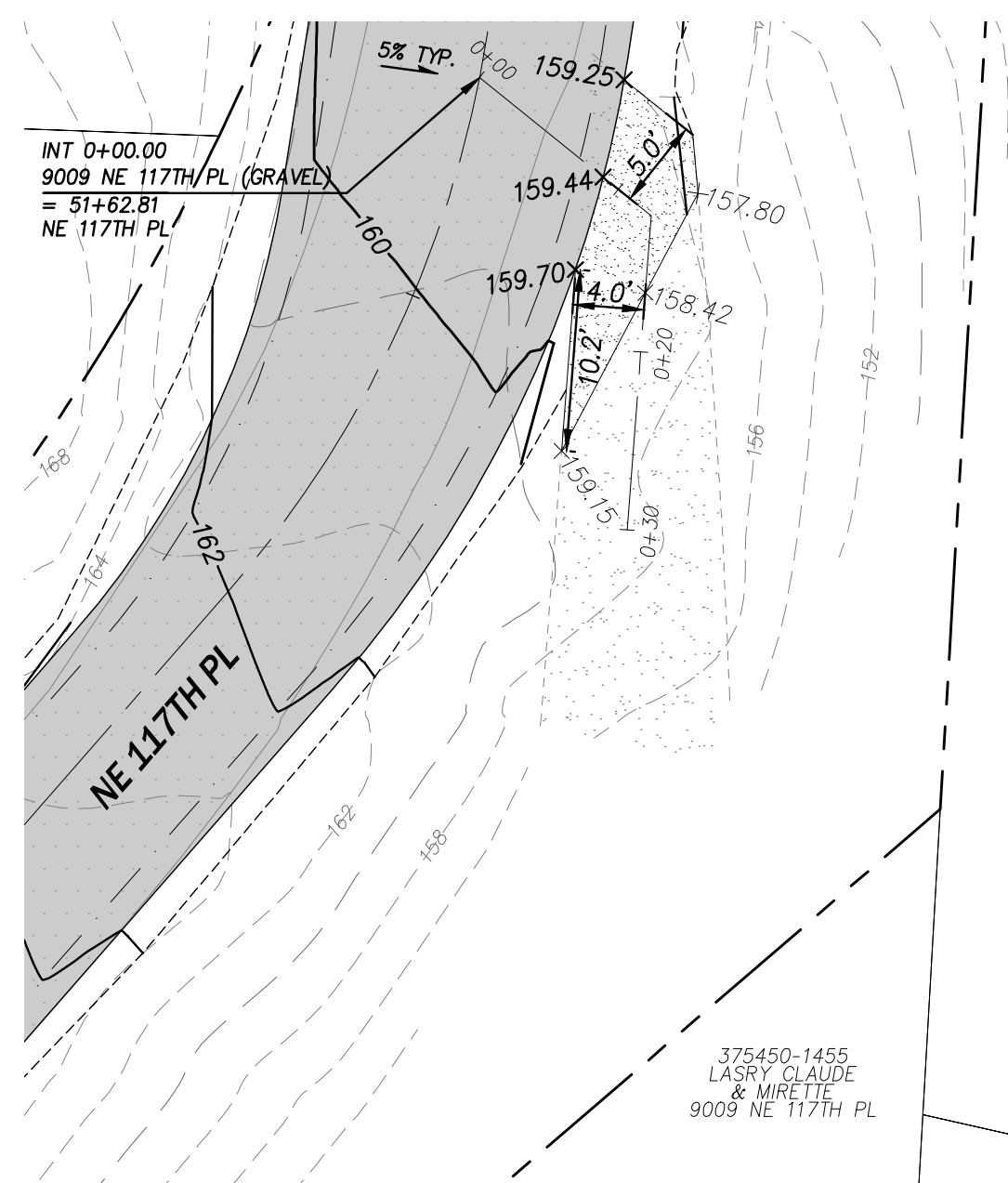
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DRIVEWAY PROFILES

C3.39

33
51



LEGEND

$\times 100.00$	EXIST. GRADE ELEVATION
$\times 100.00$	FINISHED GRADE ELEVATION
<u>1.0%</u>	EXIST. GRADE SLOPE
<u>1.0%</u>	FINISHED GRADE SLOPE

0 10 20

VERT. IN FEET

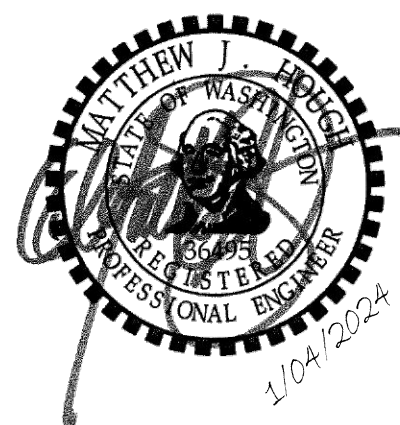
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HORIZ. IN FEET

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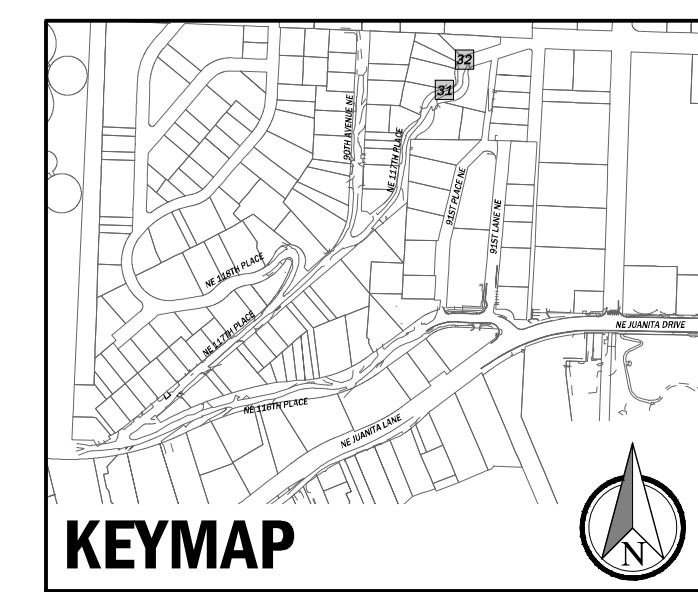
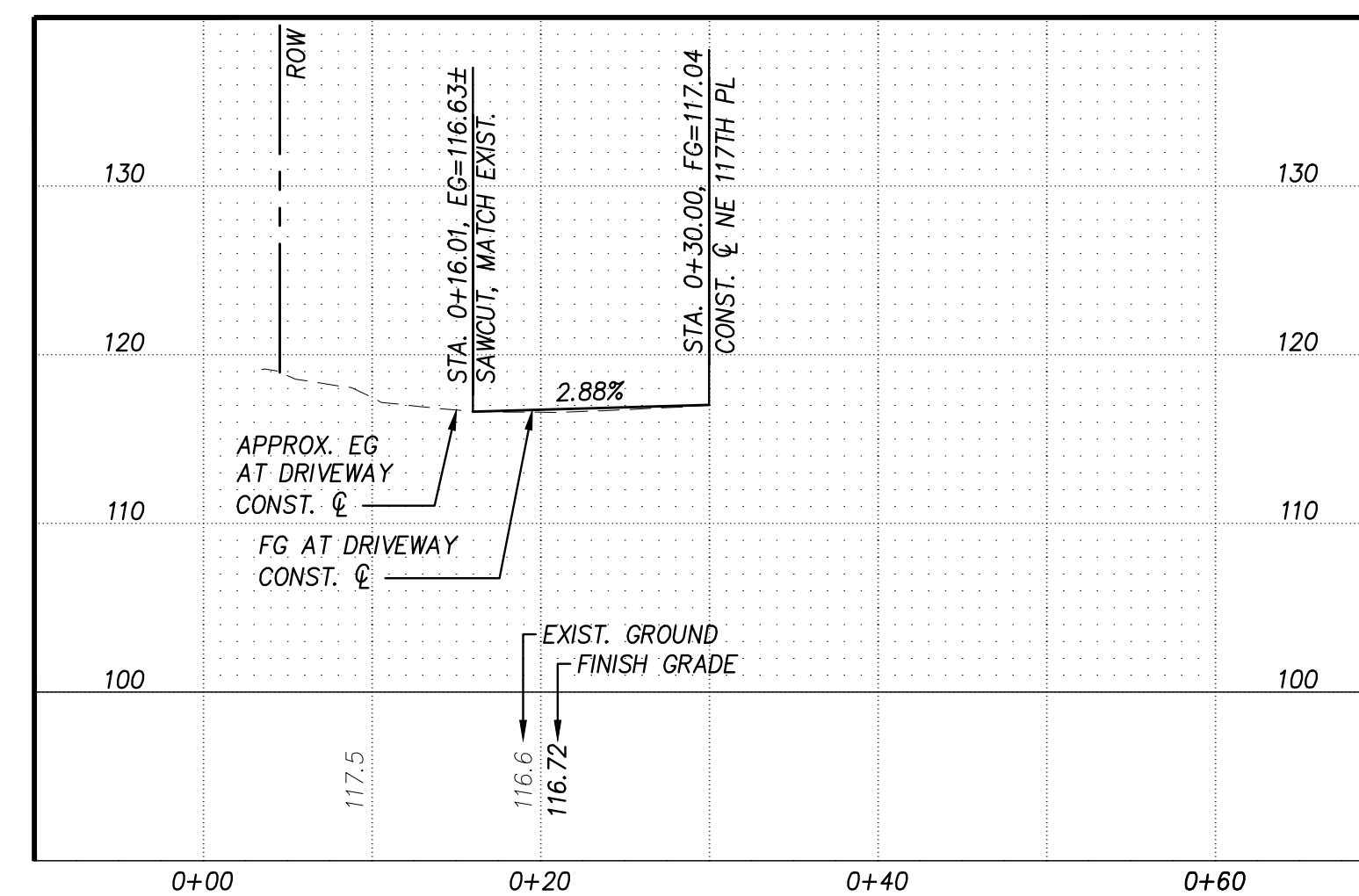
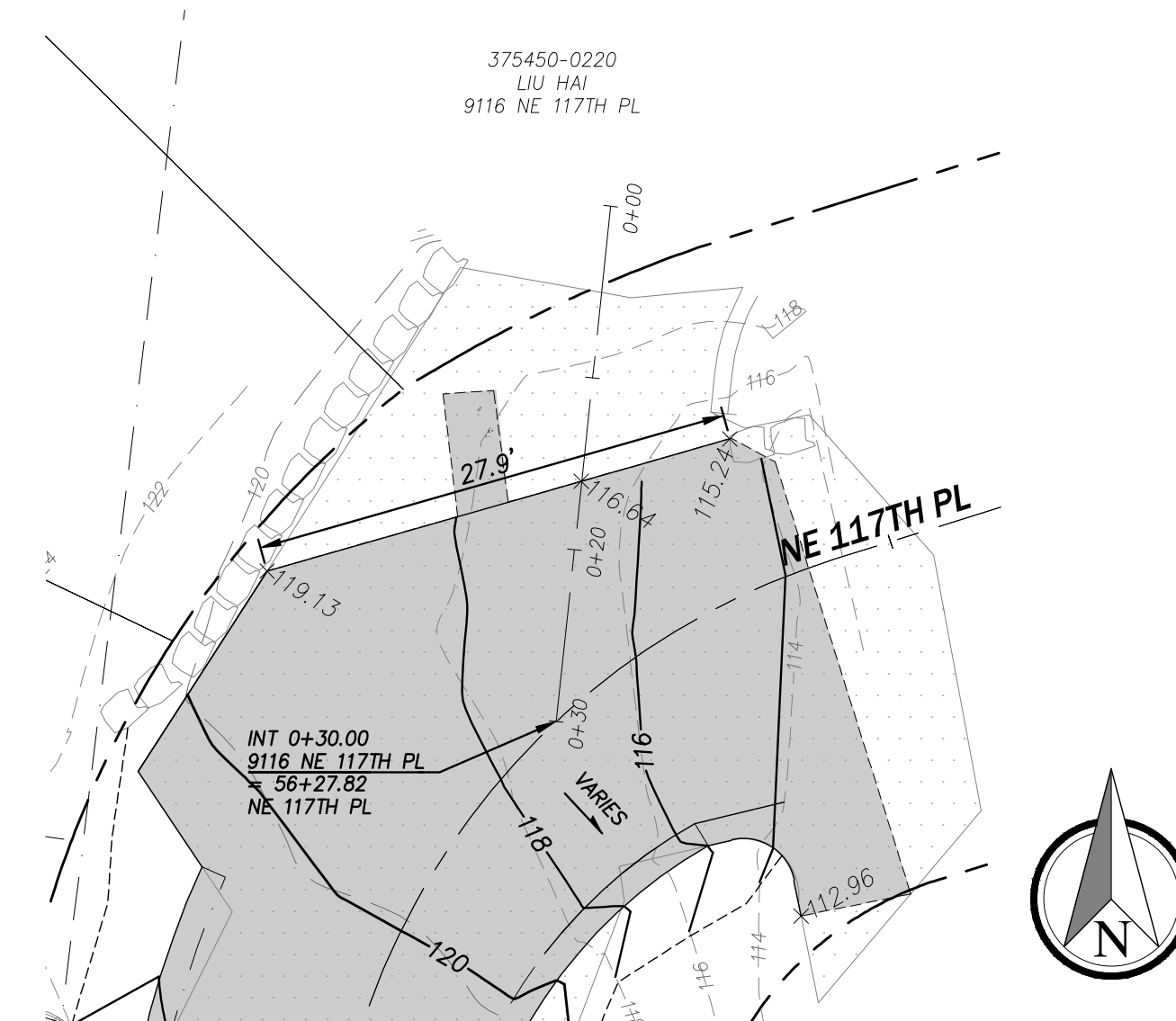
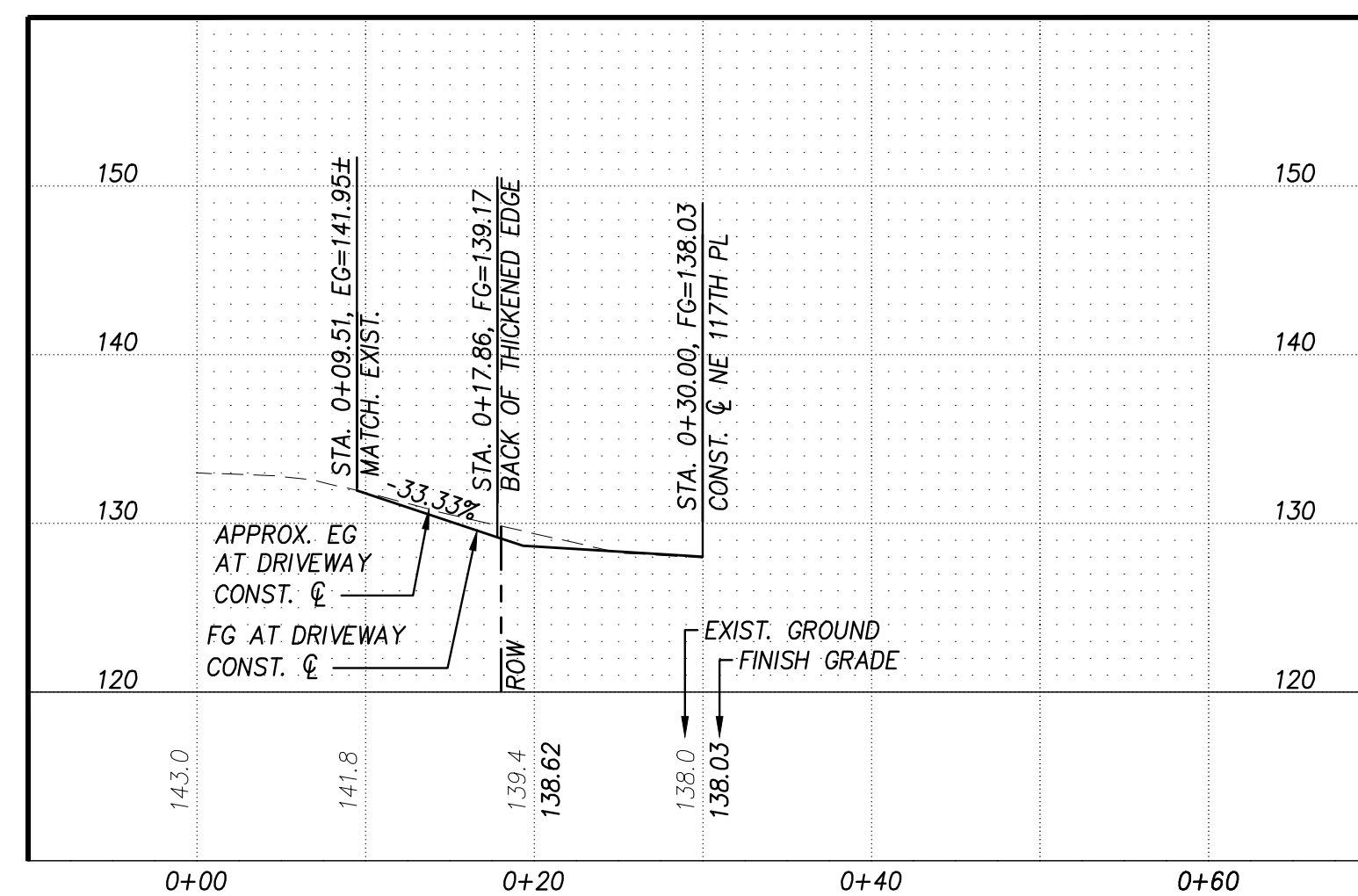
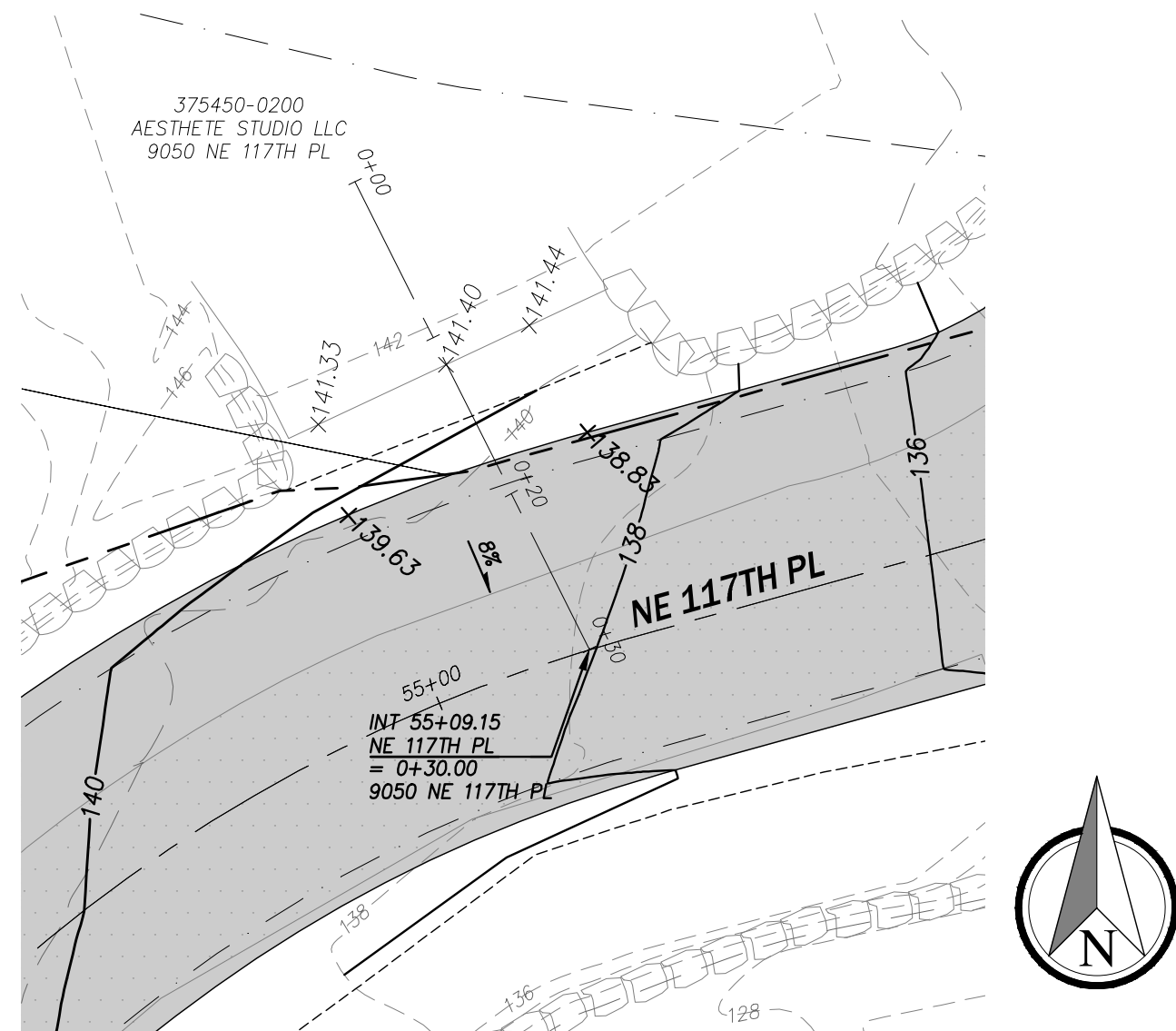
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DRIVEWAY PROFILES

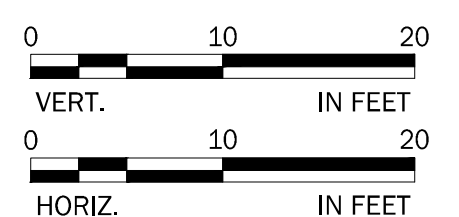
C3.40

$$\frac{34}{51}$$



LEGEND

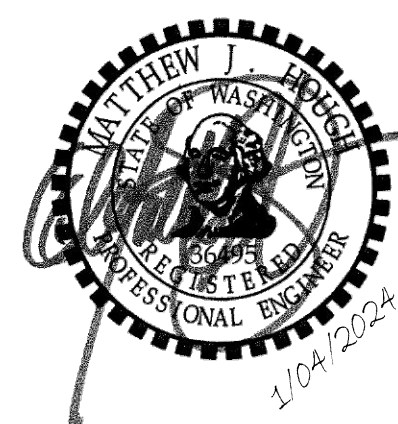
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$\times 100.00$	FINISHED GRADE ELEVATION
<u>1.0%</u>	EXIST. GRADE SLOPE
<u>1.0%</u>	FINISHED GRADE SLOPE



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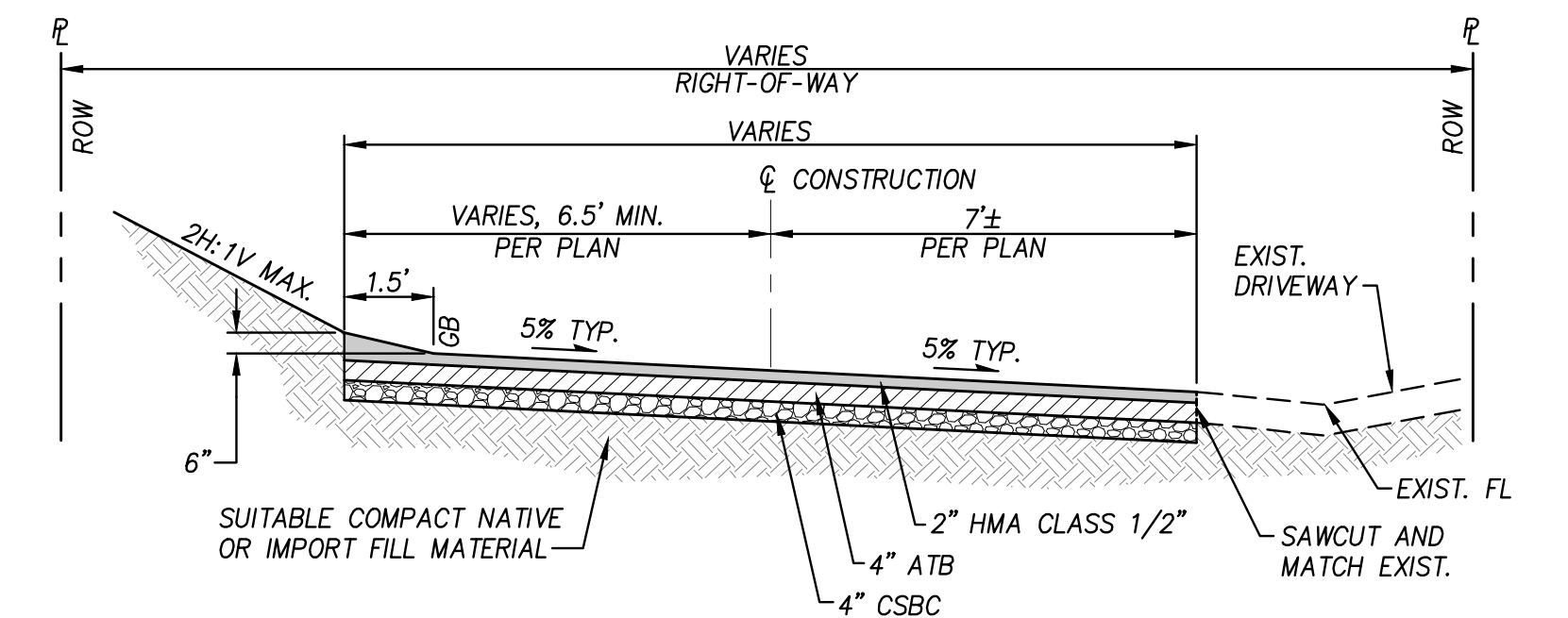
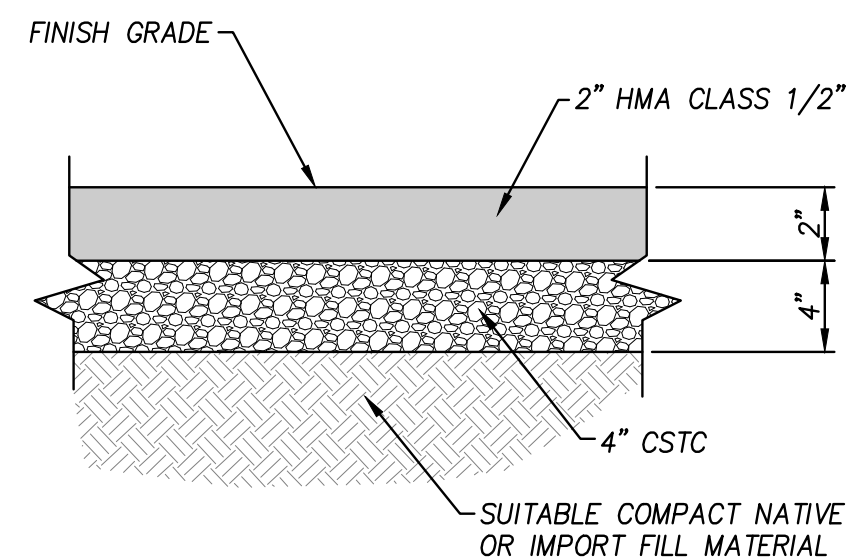
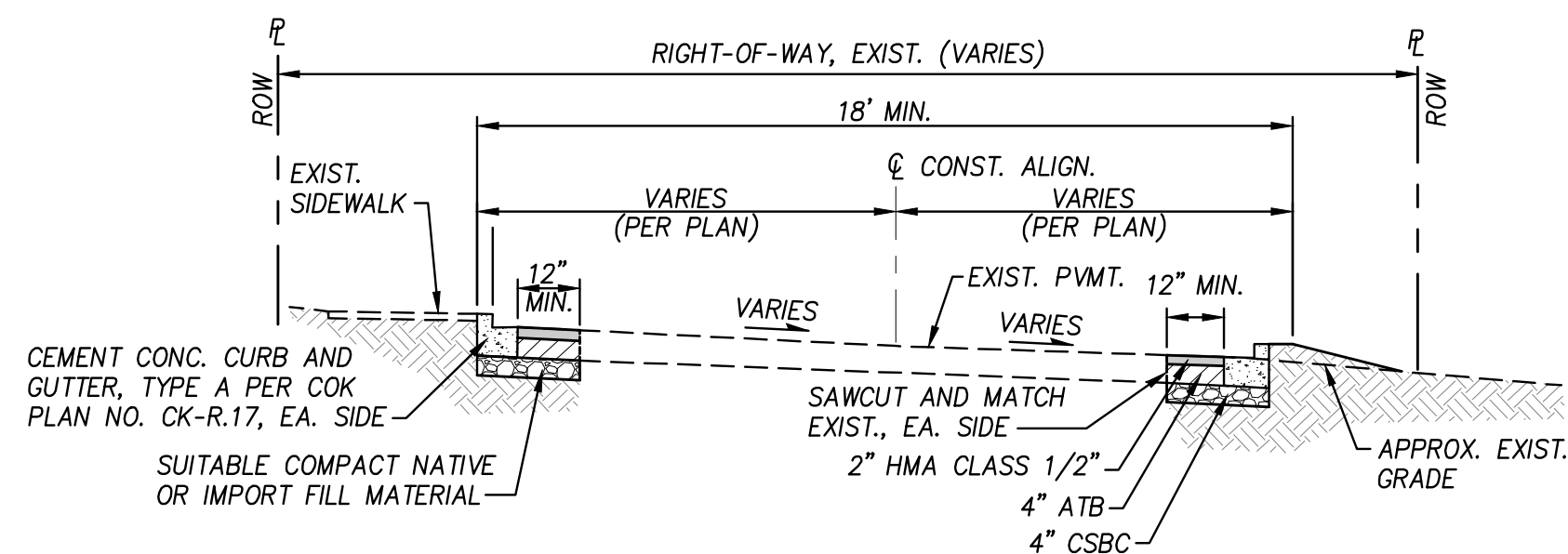
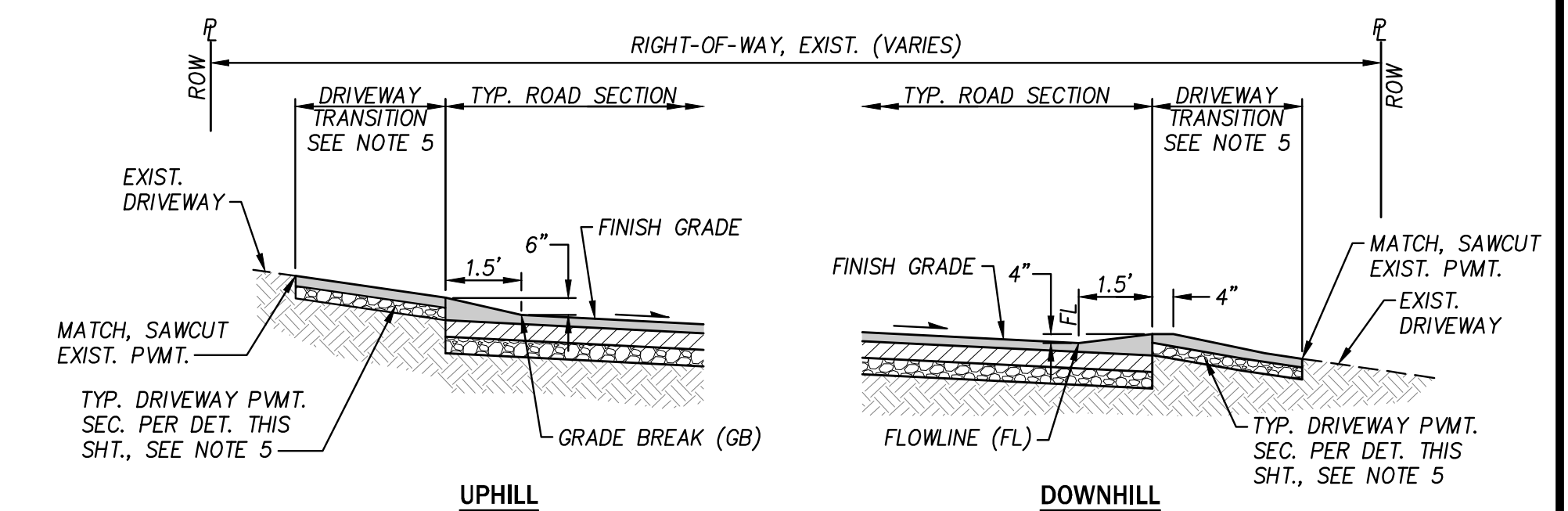
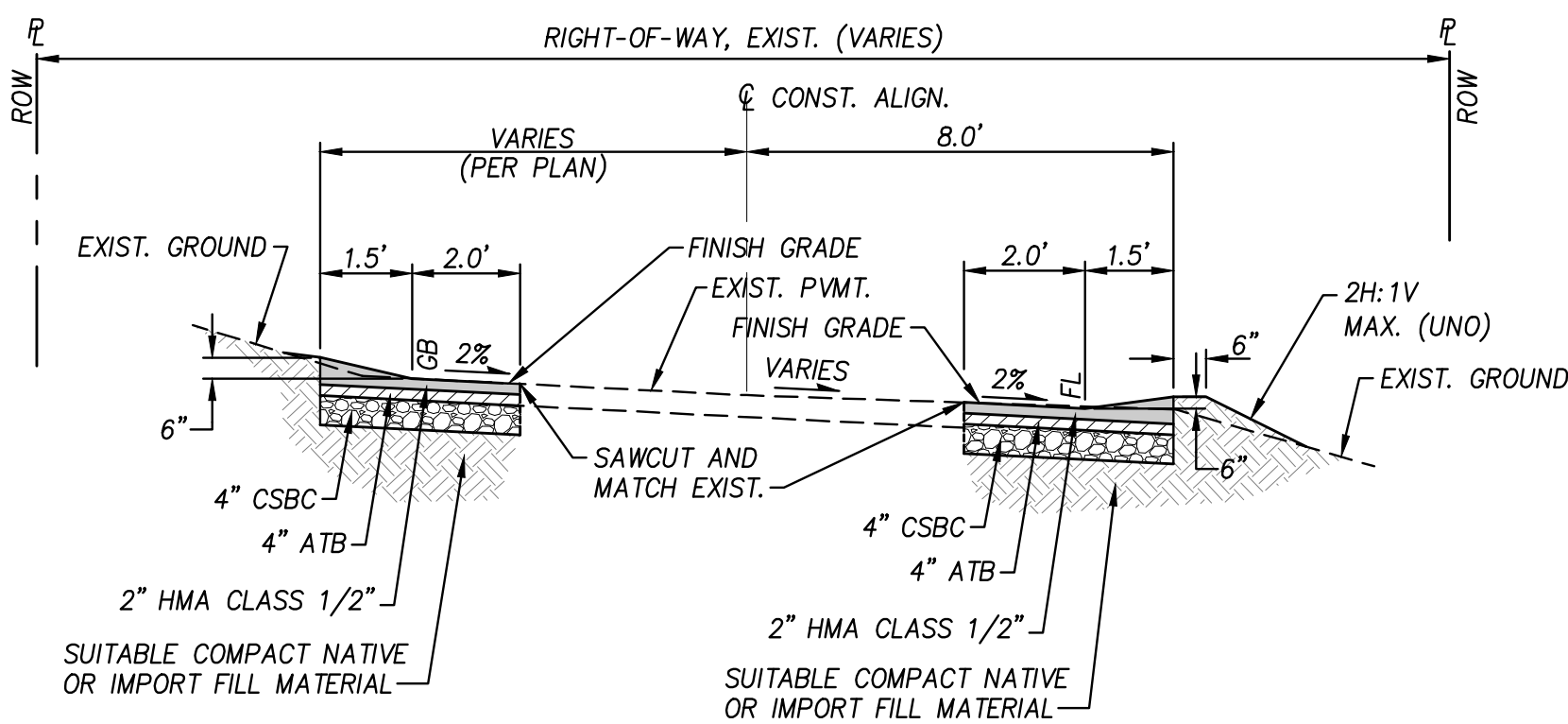
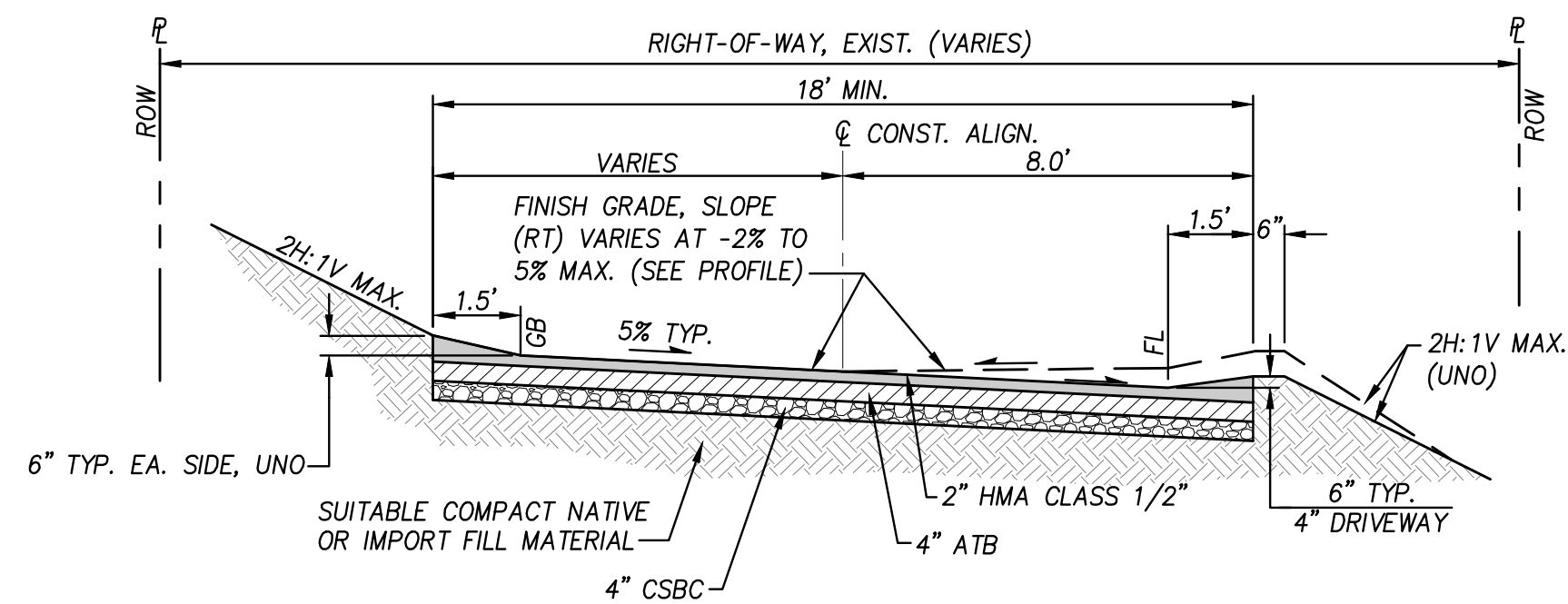
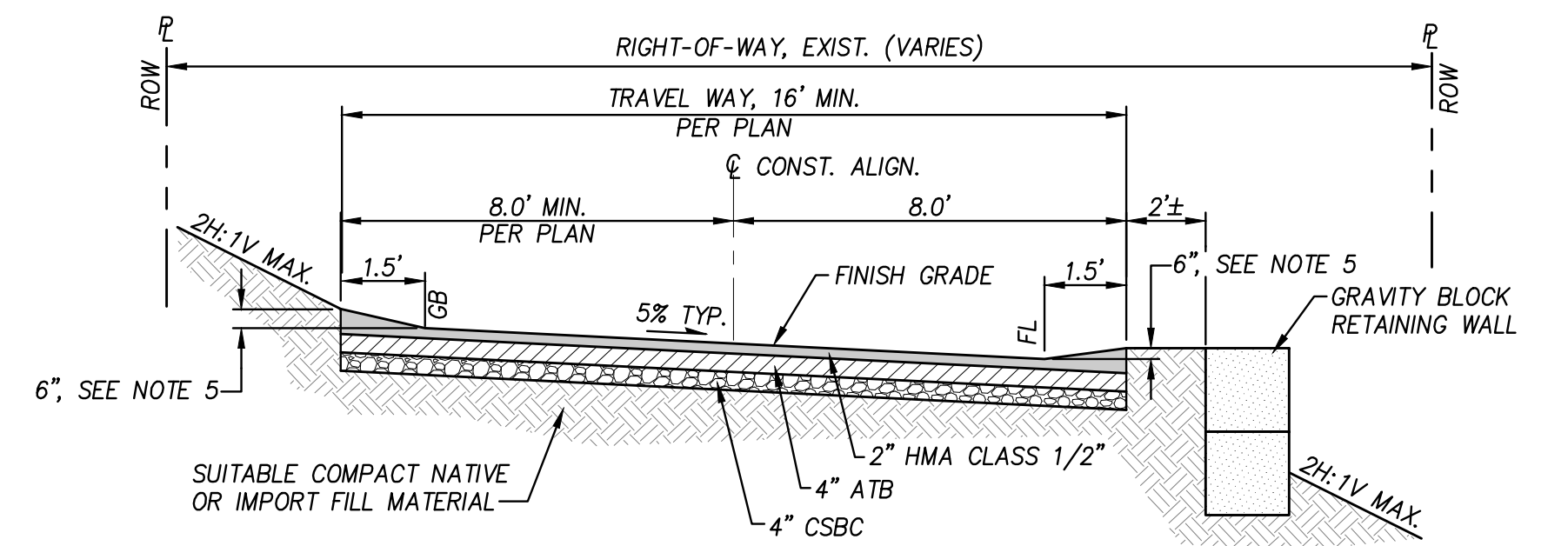
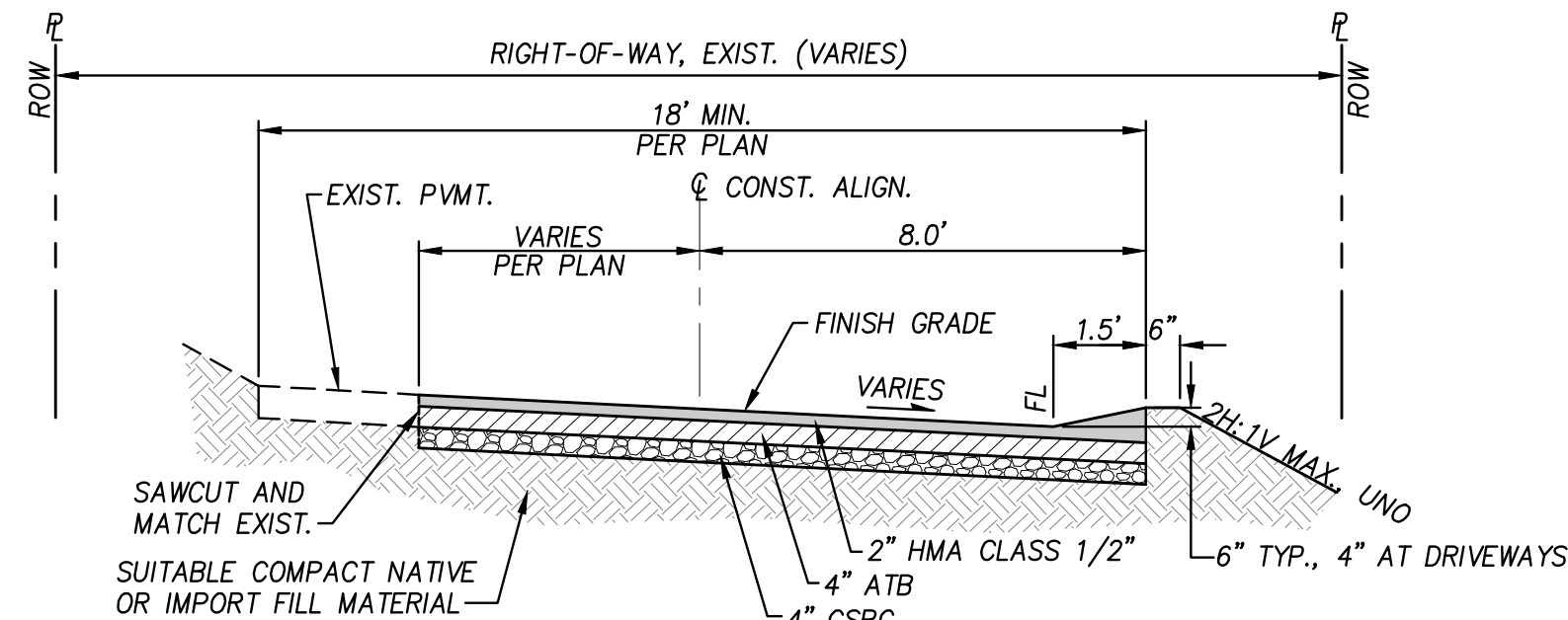
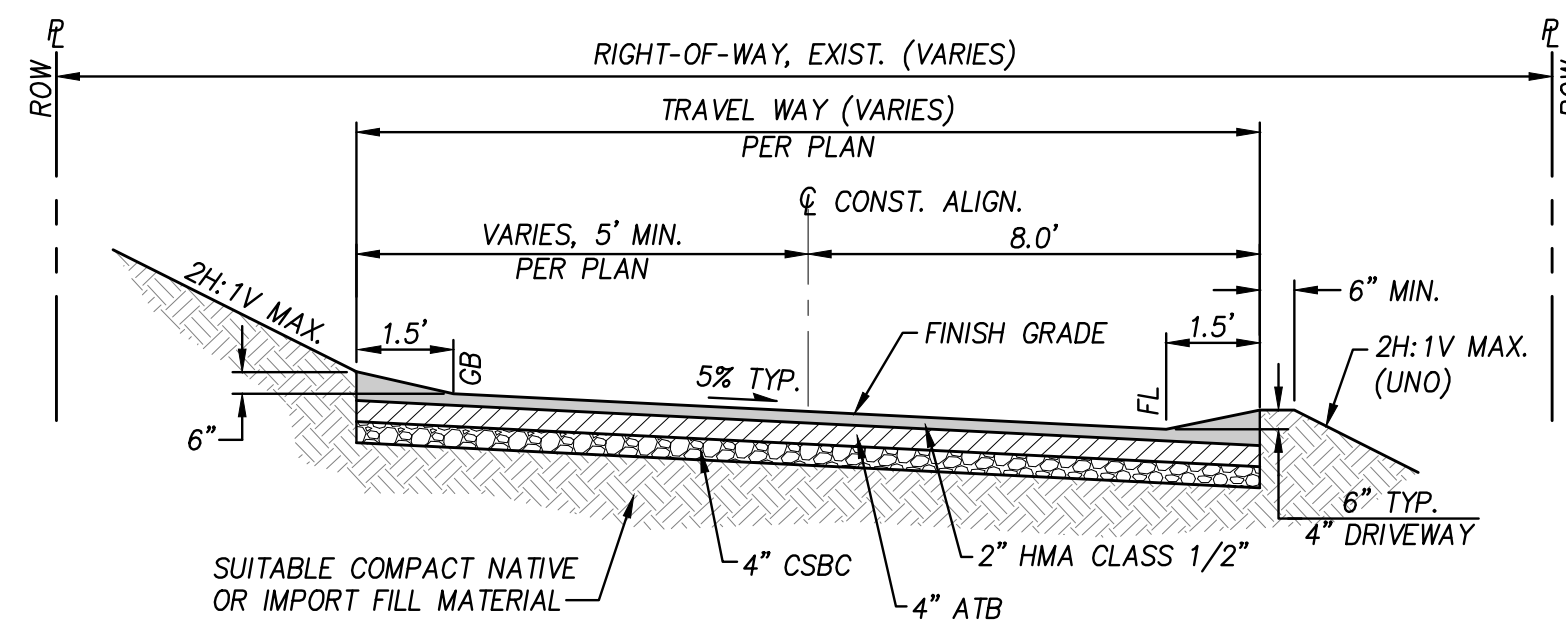
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DRIVEWAY PROFILES

C3.41

$$\frac{35}{51}$$

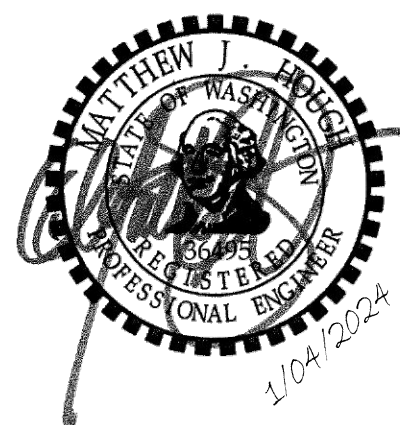


- NOTES:**
1. PAVEMENT MATERIAL DEPTHS SHOWN IN THE TYPICAL ROAD SECTIONS REPRESENT COMPACTED VALUES.
 2. ALL ASPHALT DEPTHS SPECIFIED TO BE 2 INCHES OR GREATER SHALL BE PLACED IN EQUAL LIFTS OF NO MORE THAN 2 INCHES EACH.
 3. ALTERNATE PAVEMENT SECTIONS MAY BE ALLOWED PER GEOTECHNICAL ENGINEER RECOMMENDATIONS AND SUBSEQUENT APPROVAL BY CITY.
 4. EXISTING ROAD MATERIALS SHALL BE REMOVED TO SUITABLE SUBGRADE TO COMPLETE ALL TYPICAL ROAD SECTIONS TO THE LIMITS SHOWN ON PLANS.
 5. THE TYPICAL DRIVEWAY PAVEMENT SECTION SHALL BE USED FOR ALL EXISTING DRIVEWAYS TO BE REMOVED AND REPLACED AND ALL NEW DRIVEWAY TRANSITIONS UNLESS NOTED OTHERWISE TO BE REPLACED IN-KIND ON THE DRIVEWAY PROFILES (SHEETS C3.31 THRU C3.41).

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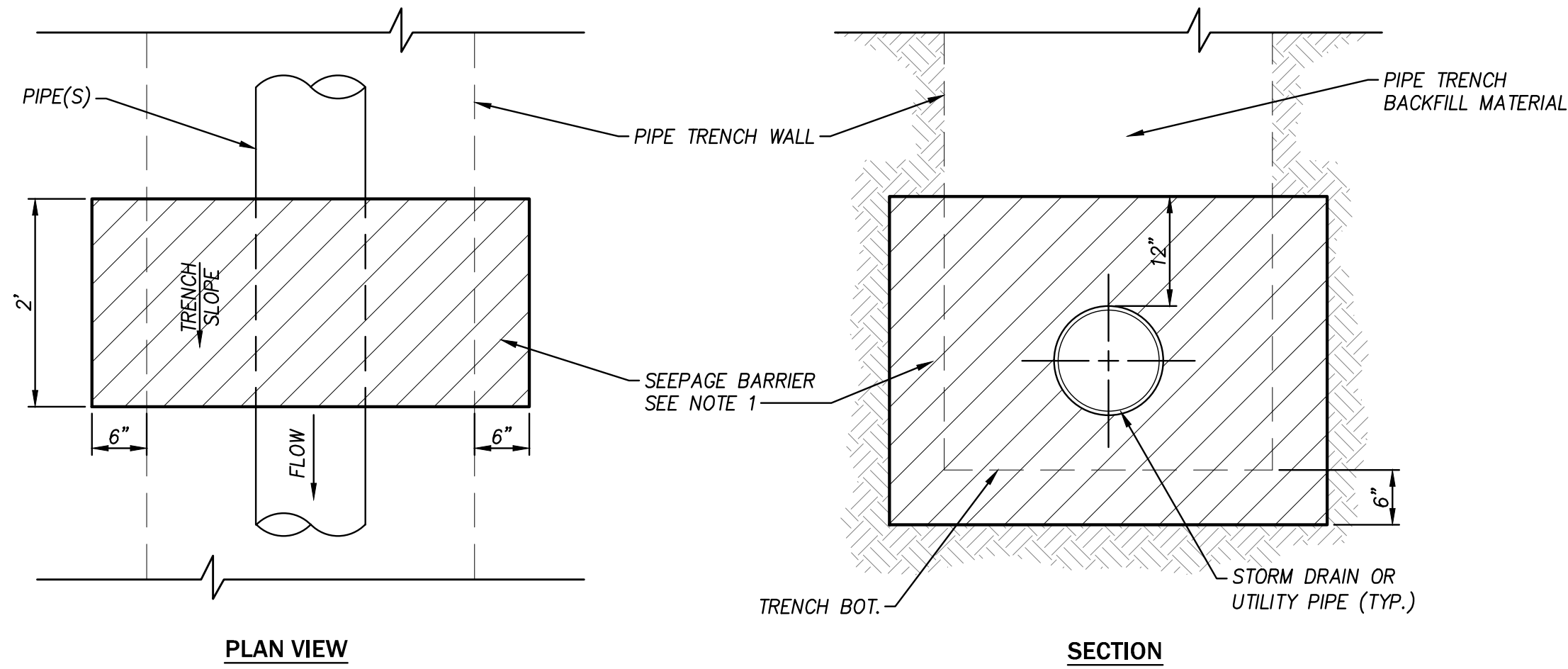
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GOAT HILL DRAINAGE DITCH CONVEYANCE
AND CHANNEL STABILIZATION – PHASE 1

TYPICAL ROADWAY SECTIONS

C3.100

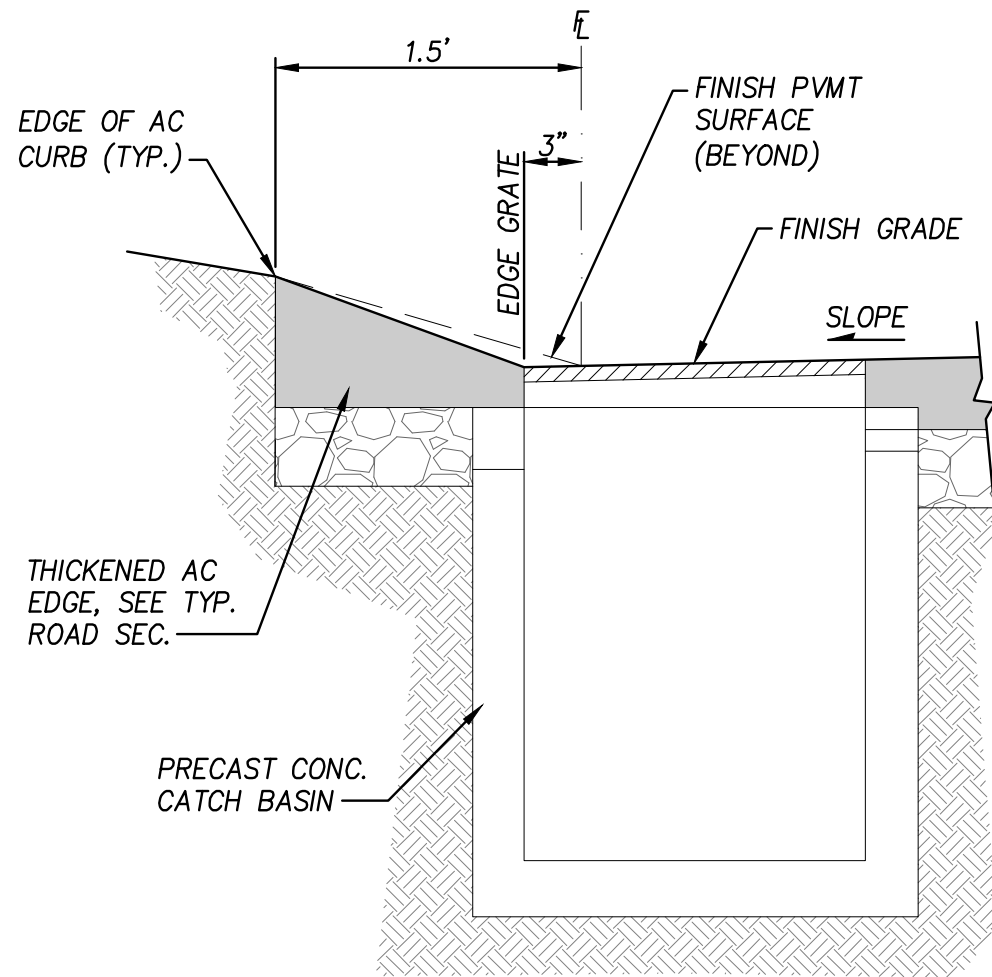
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NOTE:
1. SEEPAGE BARRIER MATERIAL SHALL BE CDF UNLESS ALTERNATE IMPERMEABLE MATERIAL IS APPROVED BY ENGINEER.

TYPICAL TRENCH SEEPAGE BARRIER

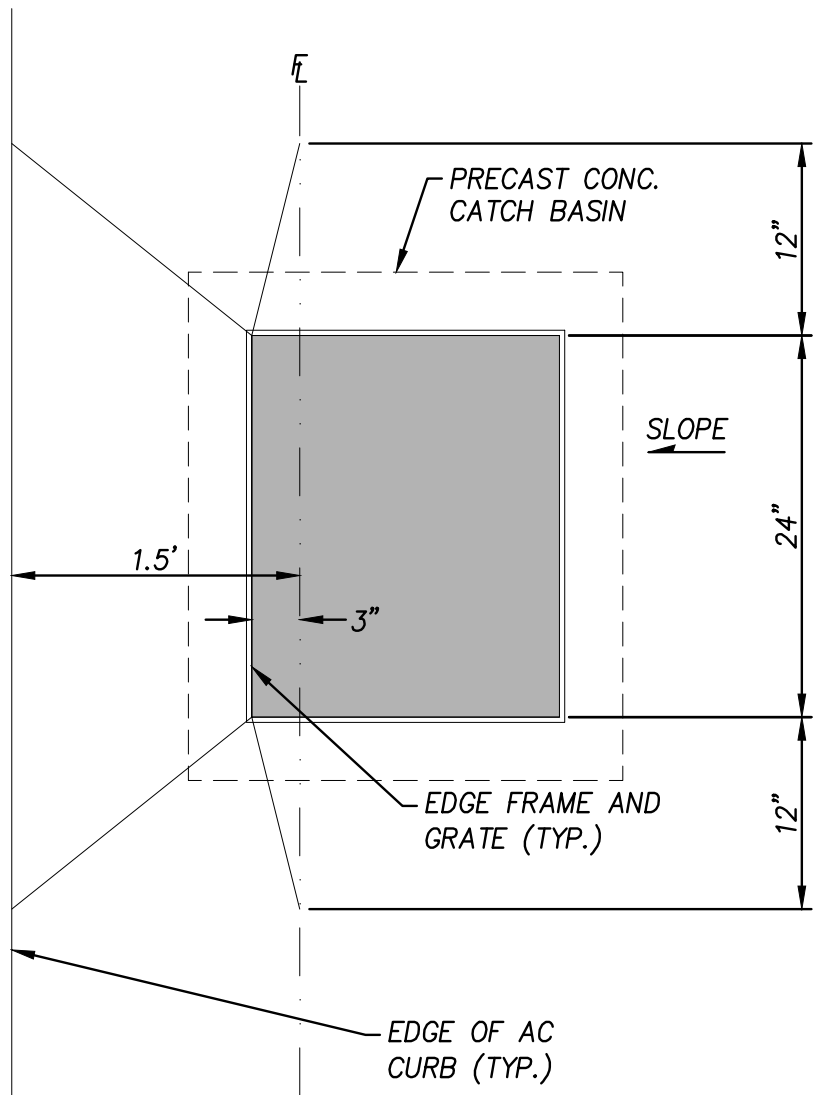
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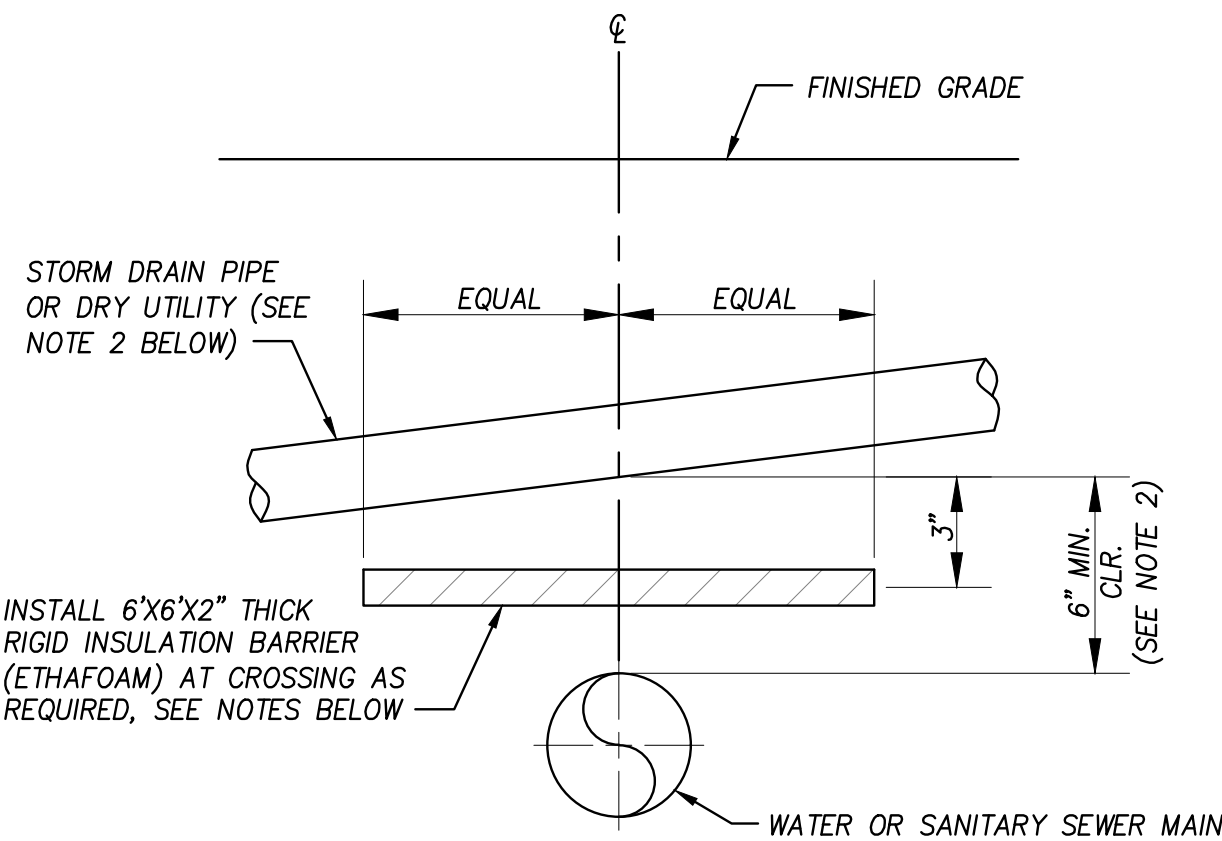
SECTION

TYPICAL INLET GRATE PLACEMENT

NOT TO SCALE



PLAN VIEW



- NOTES:
1. RIGID INSULATION BARRIER (ETHAFOAM OR APPROVED EQUAL) SHALL BE INSTALLED WITH ALL UTILITY CROSSINGS ABOVE OR BELOW THE EXISTING OR PROPOSED WATER MAIN OR SANITARY SEWER WHERE THE VERTICAL CLEARANCE IS LESS THAN 12 INCHES, THE BARRIER SHALL BE INSTALLED AS SHOWN, WITH ITS EXTENTS CENTERED OVER THE WATER OR SANITARY SEWER MAIN TRANSVERSLY AND LONGITUDINALLY ABOUT THE POINT OF CROSSING OVER THE UTILITY MAIN CENTERLINE
 2. PRIMARY POWER LINES SHALL MAINTAIN MINIMUM REQUIRED COVER AND 12" MINIMUM CLEAR BETWEEN UTILITIES.

SHALLOW UTILITY CROSSING

NOT TO SCALE

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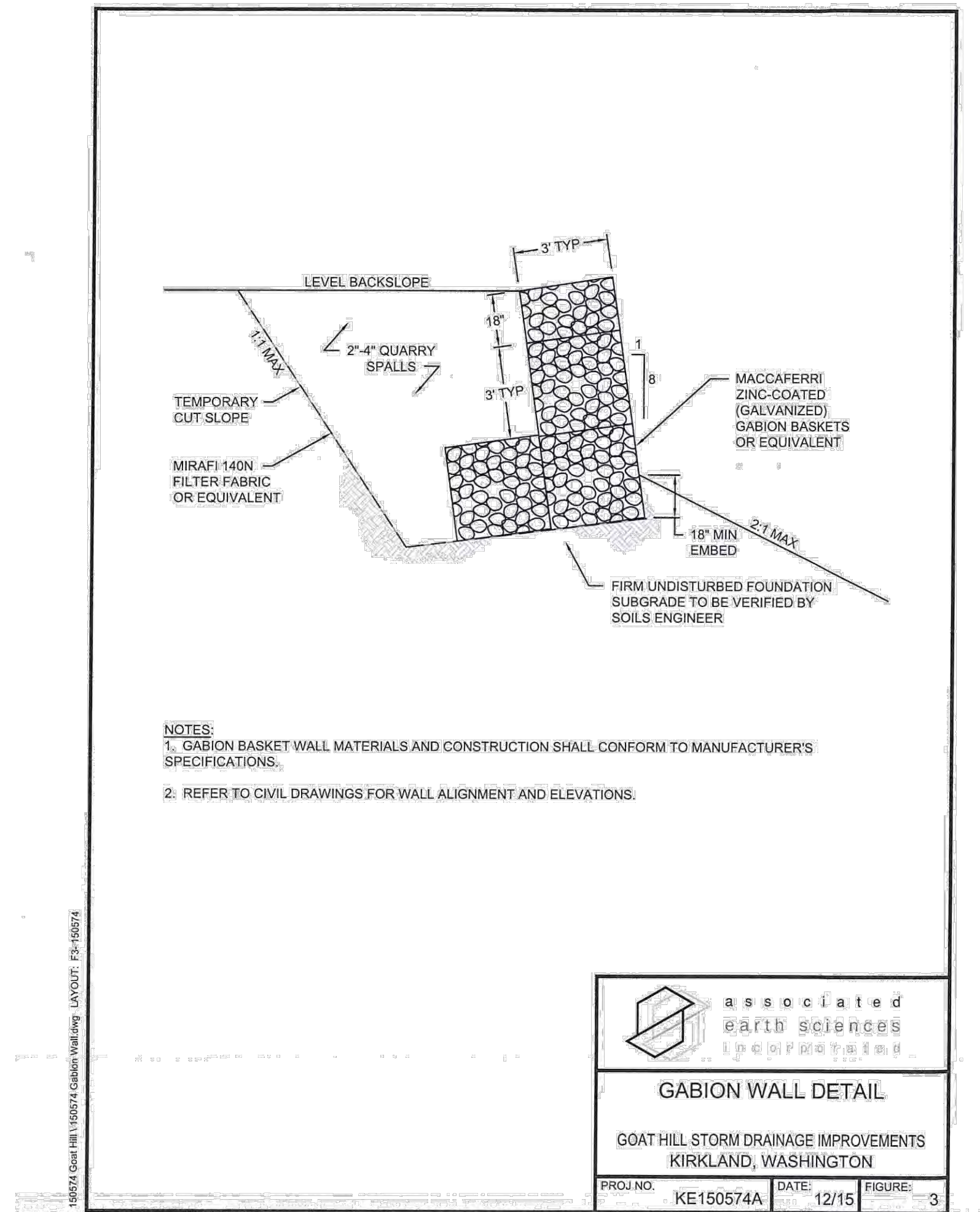
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AND CHANNEL STABILIZATION – PHASE 1

GRADING AND DRAINAGE DETAILS

C3.101

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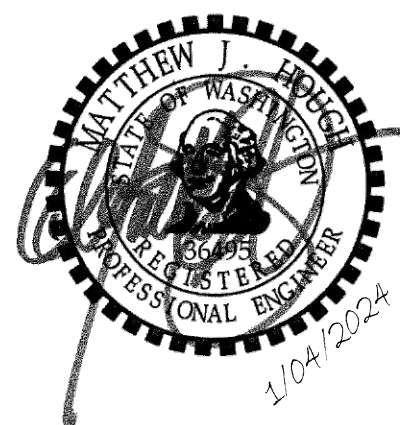


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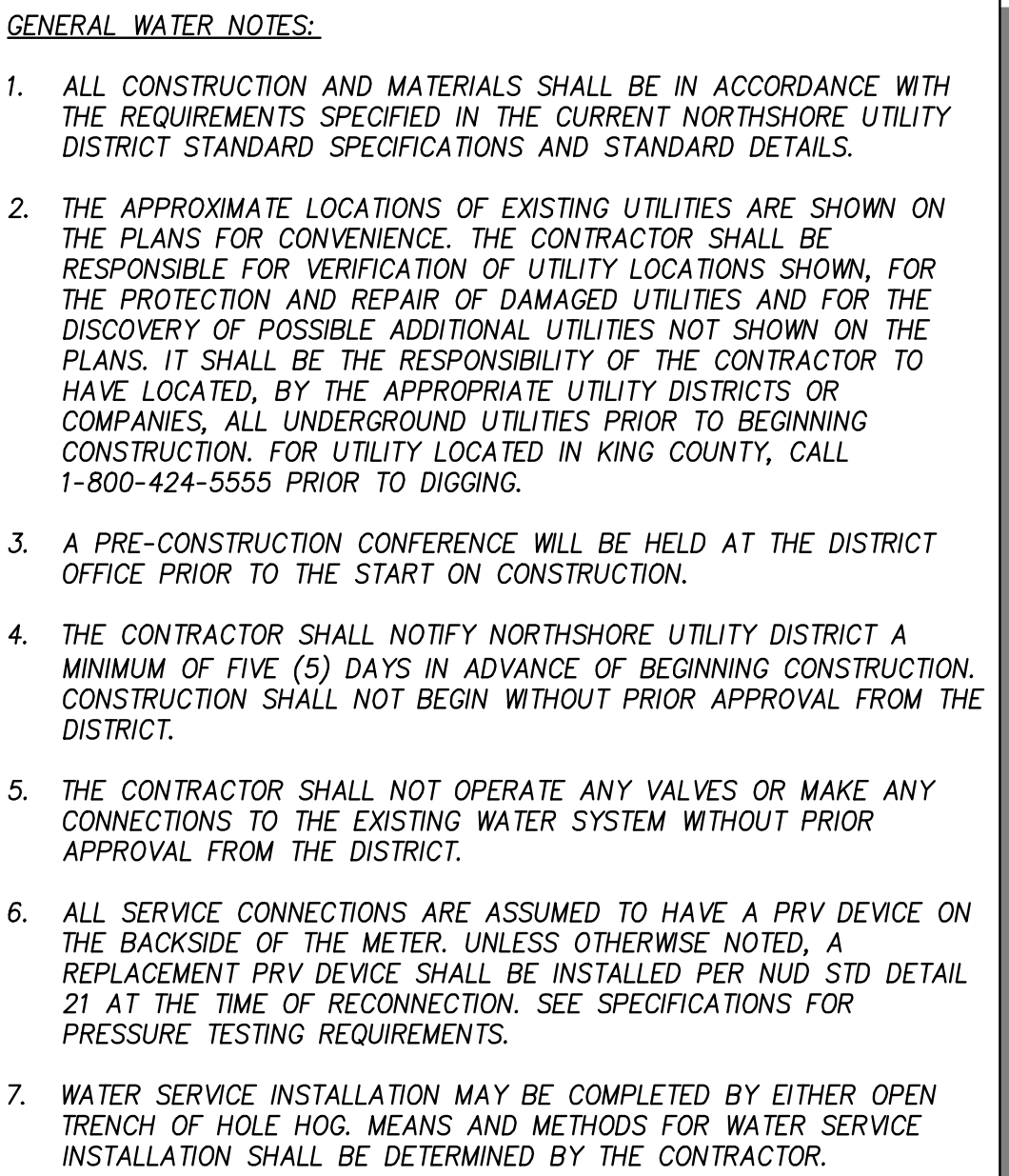


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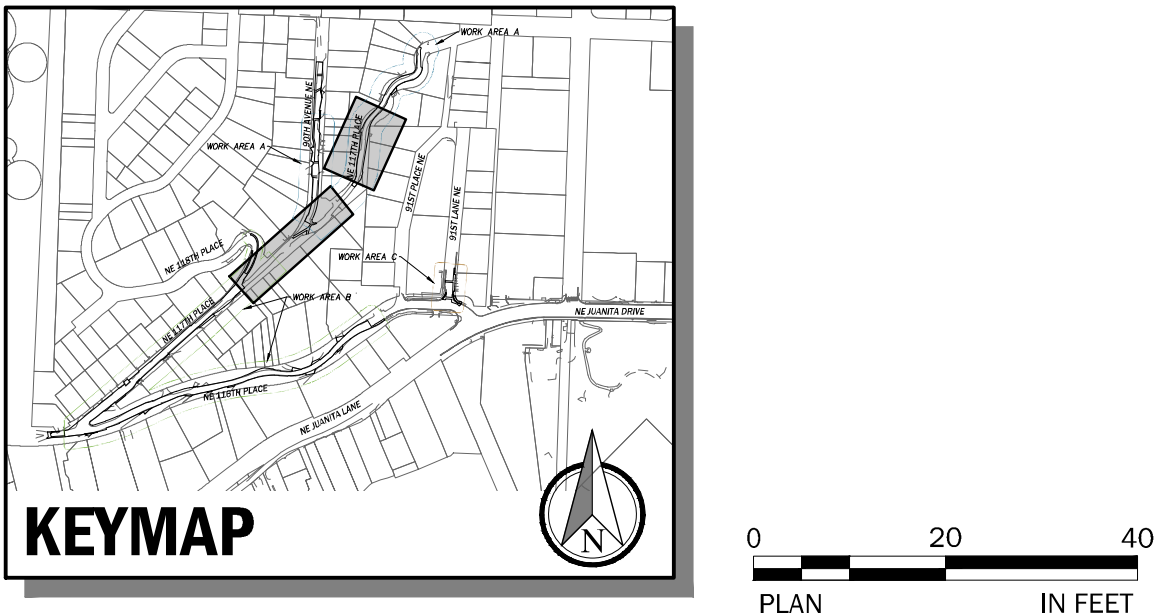
GRADING AND DRAINAGE DETAILS

C3.102

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- ⑤ REMOVE AND REPLACE EXIST. AIR RELEASE VALVE w/ NEW 2" AIR & VACUUM RELIEF VALVE ASSEMBLY PER NUD STD. WATER DET. 8



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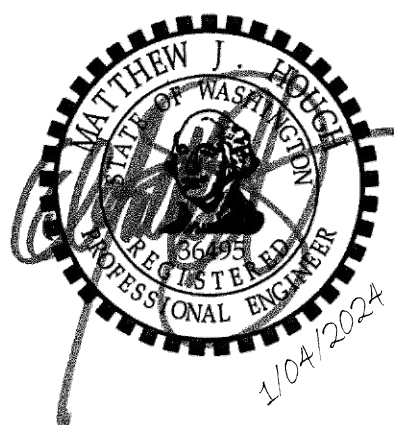
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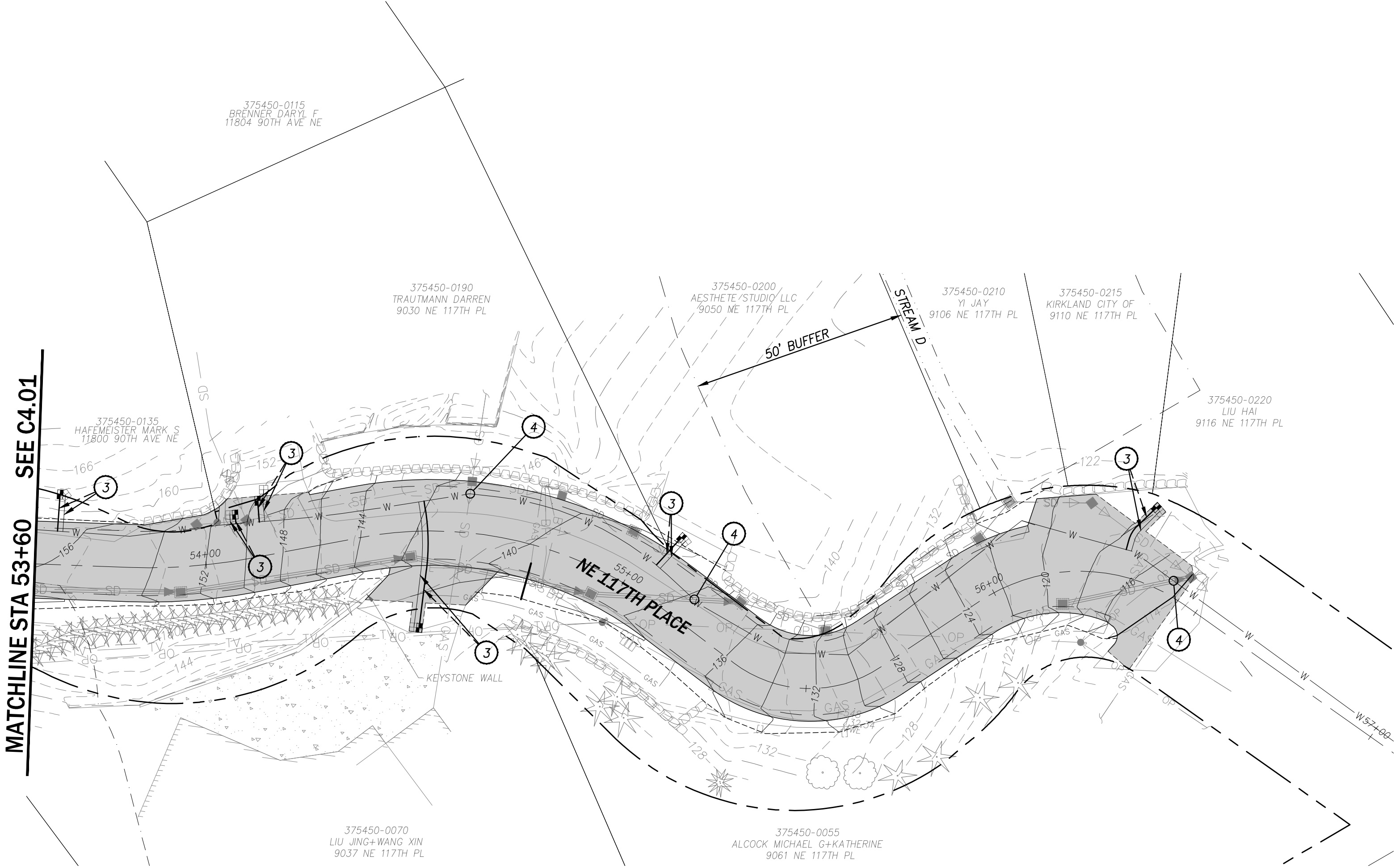
NUD WATER AND SEWER PLAN

C4.01

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- GENERAL WATER NOTES:**
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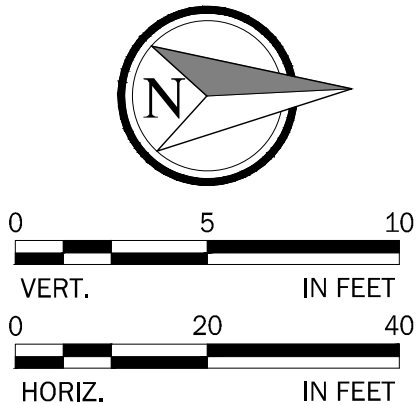
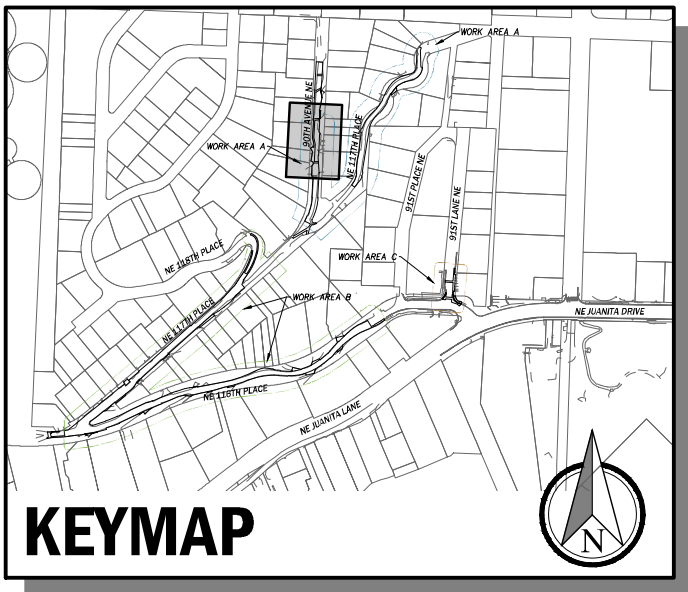
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C4.02

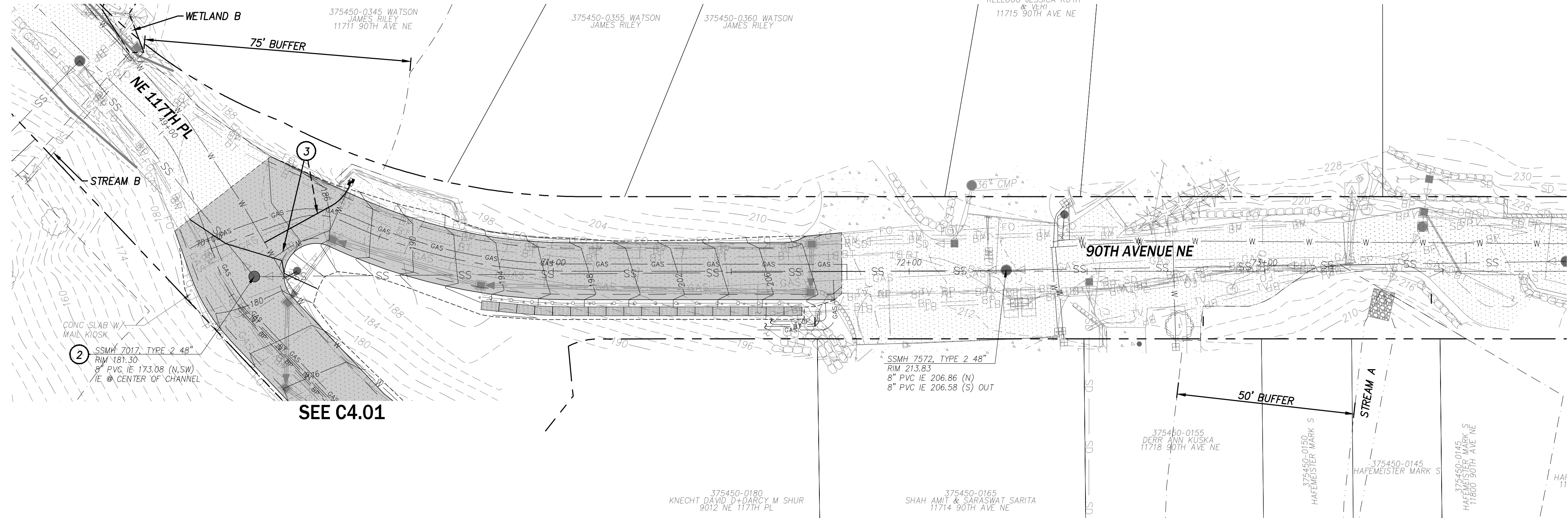
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SEE C4.01



SEE C4.01

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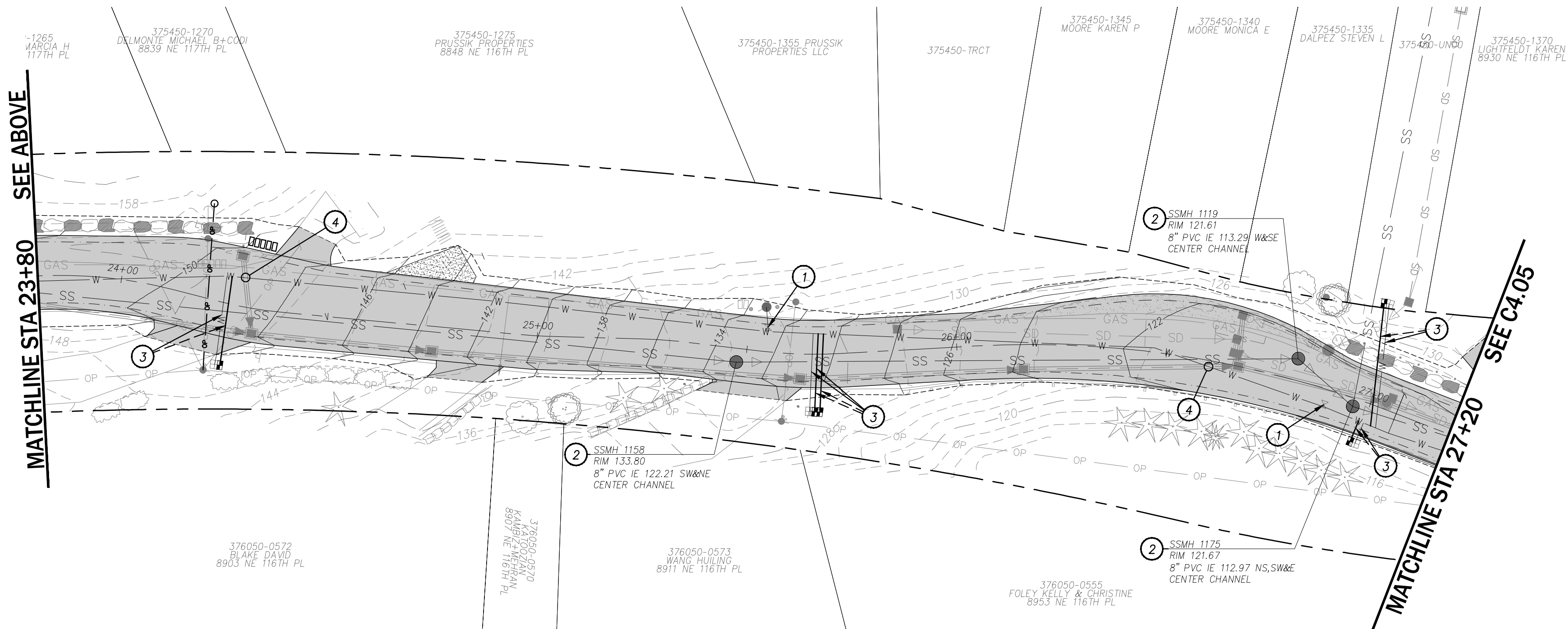
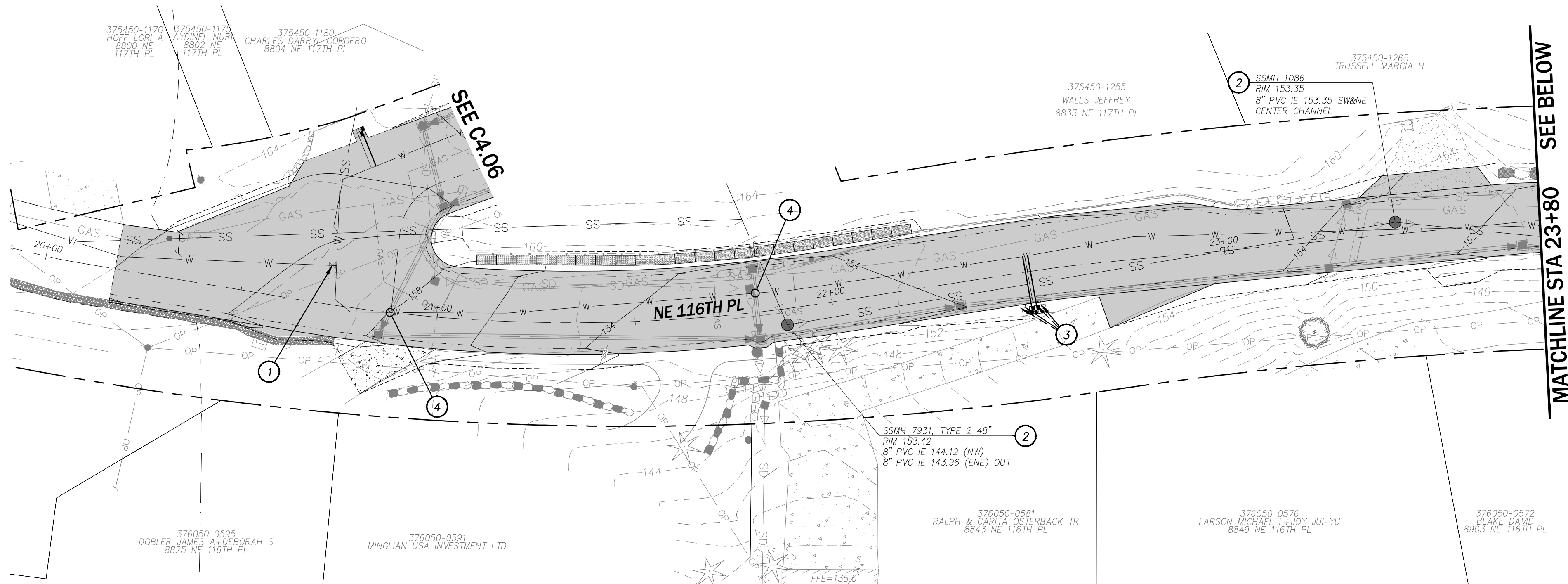
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NUD WATER AND SEWER PLAN

C4.03

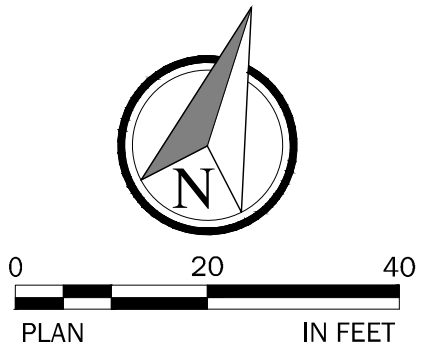
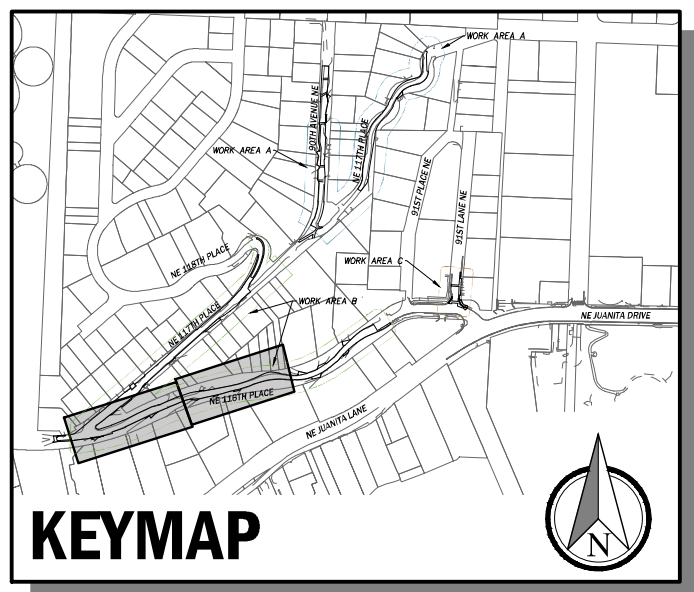
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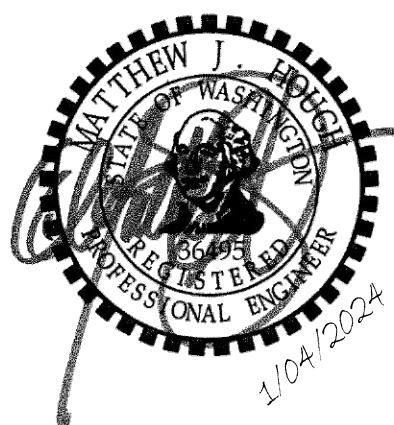
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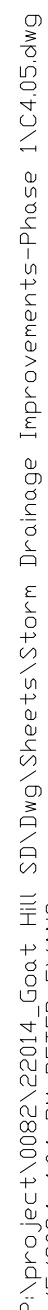
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NUD WATER AND SEWER PLAN

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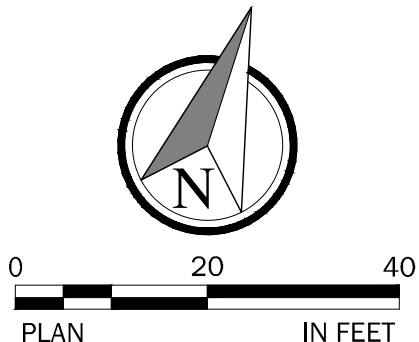
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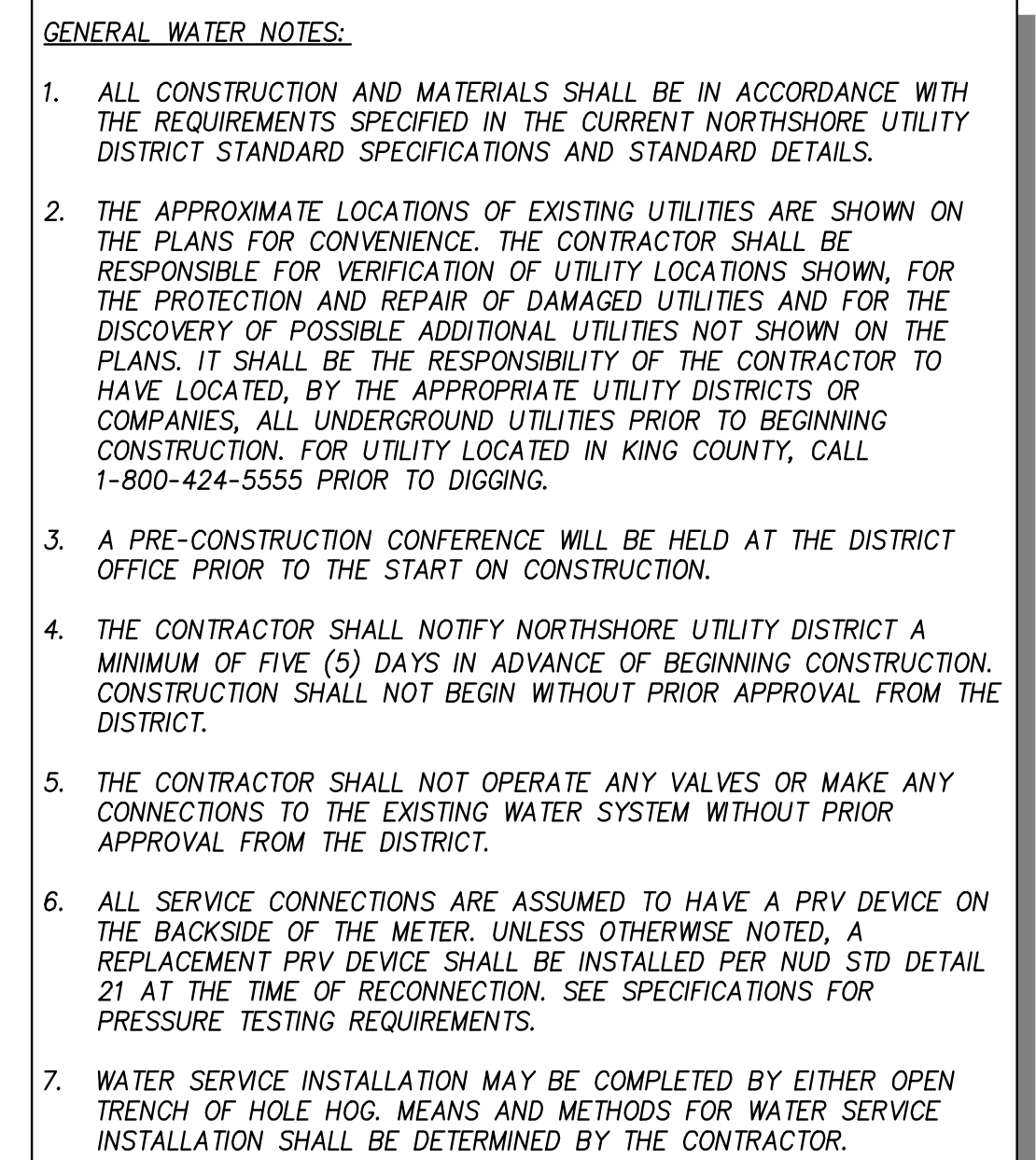
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NUD WATER AND SEWER PLAN

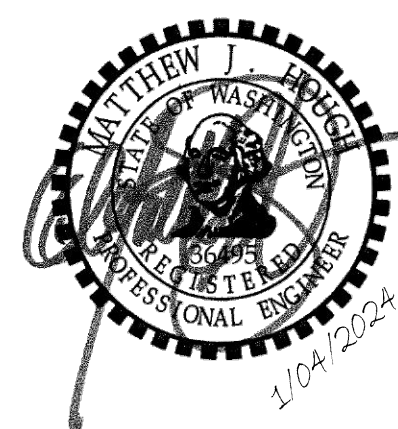
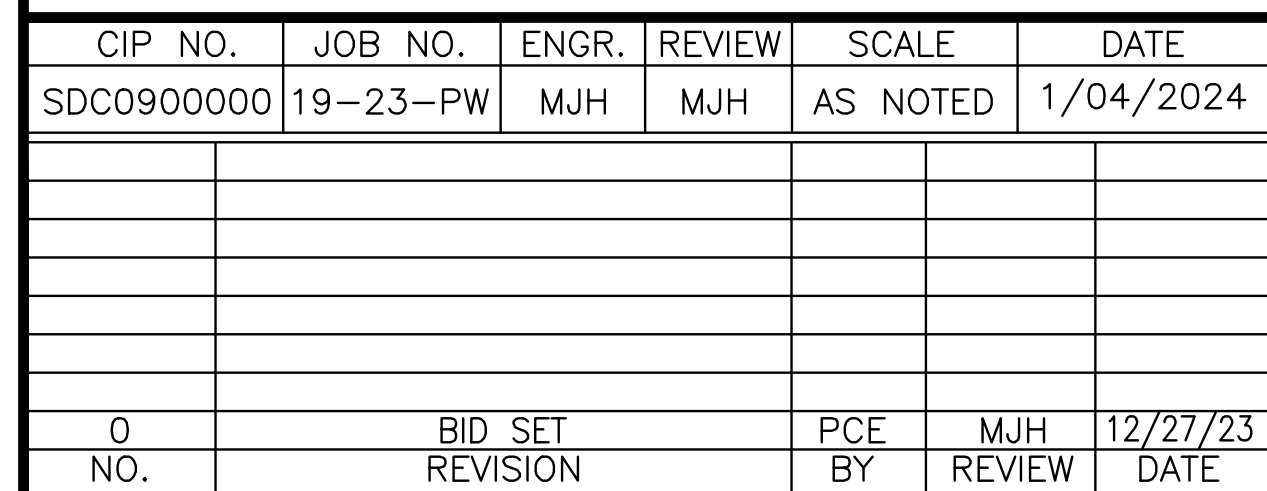
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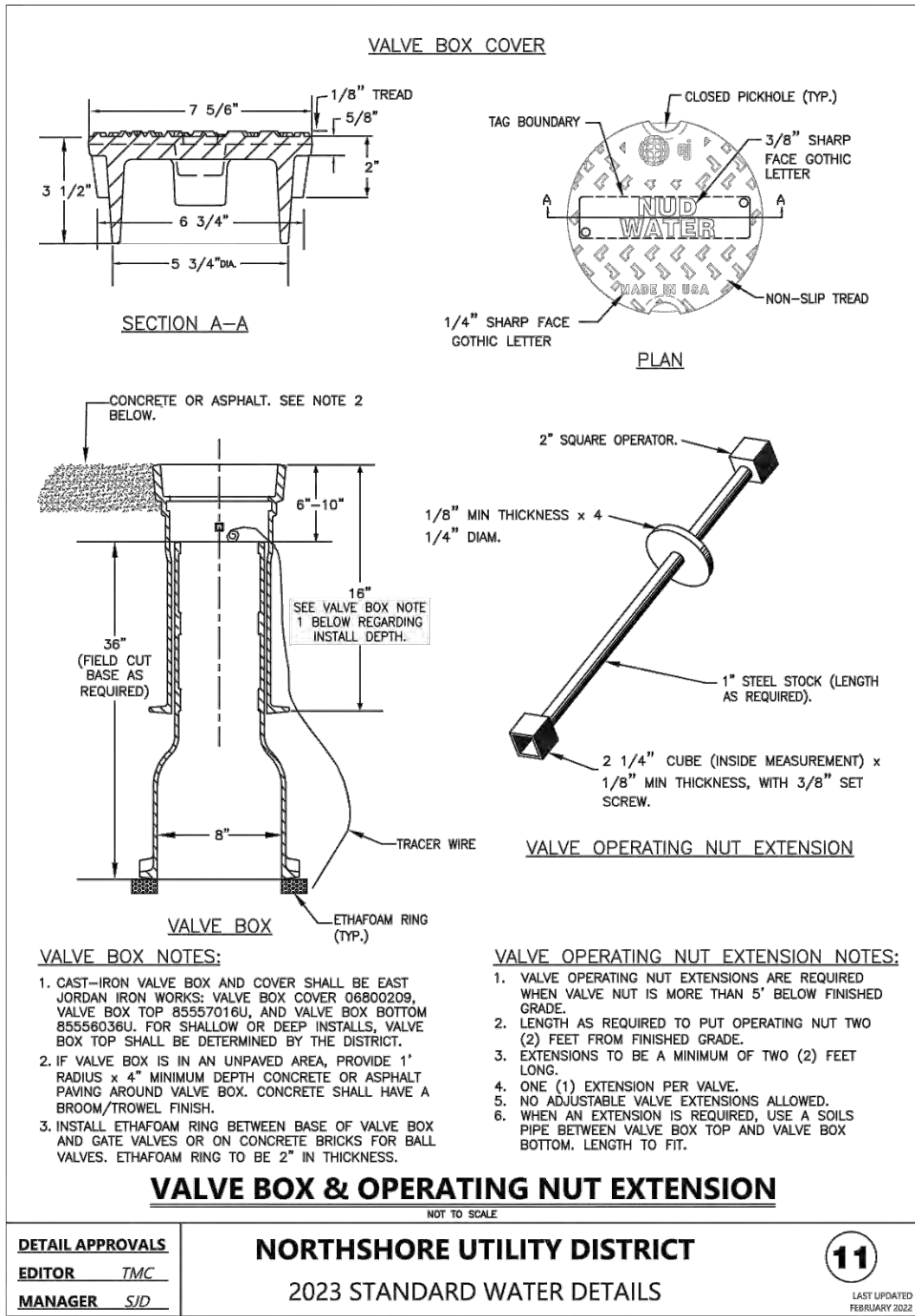
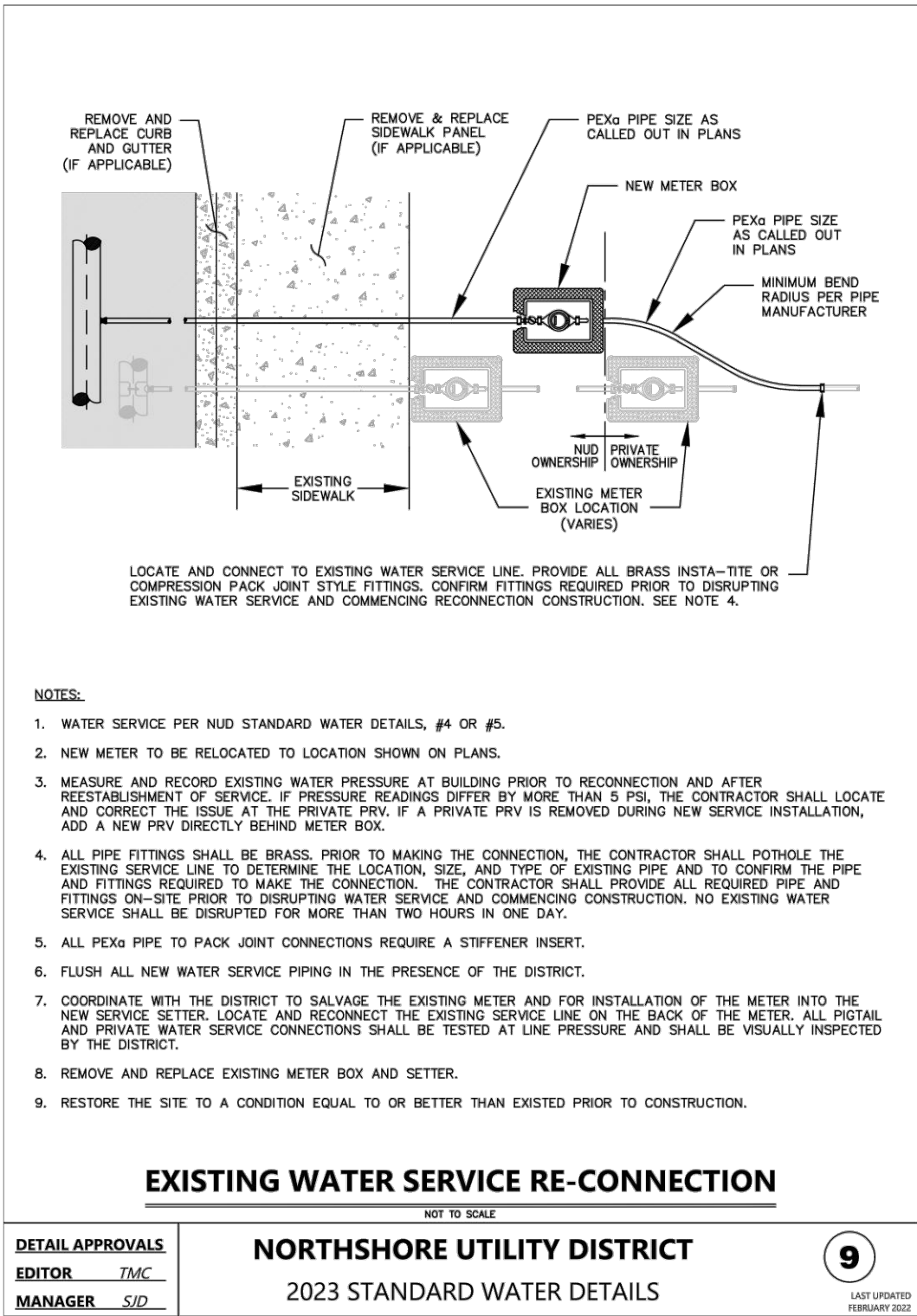
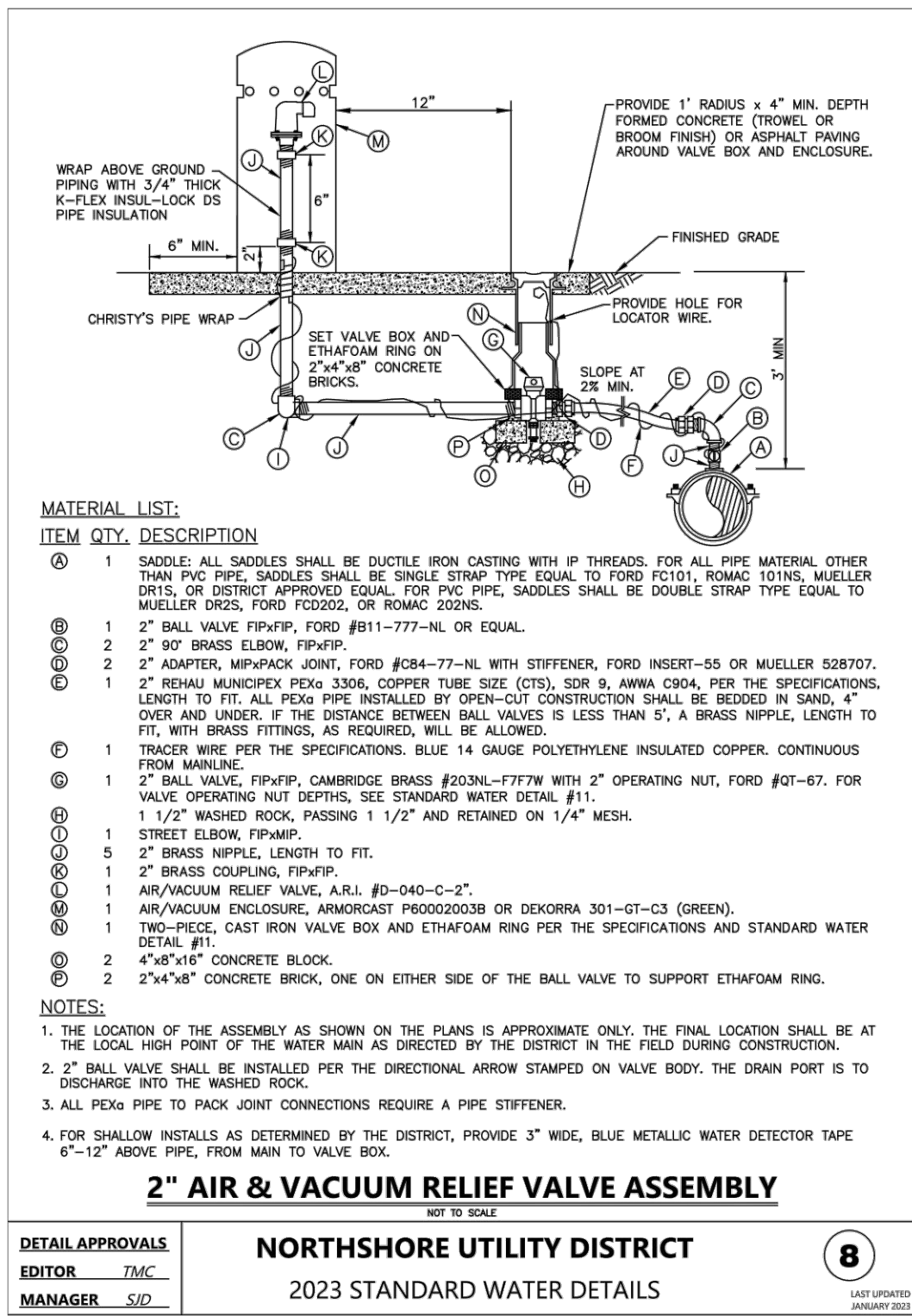
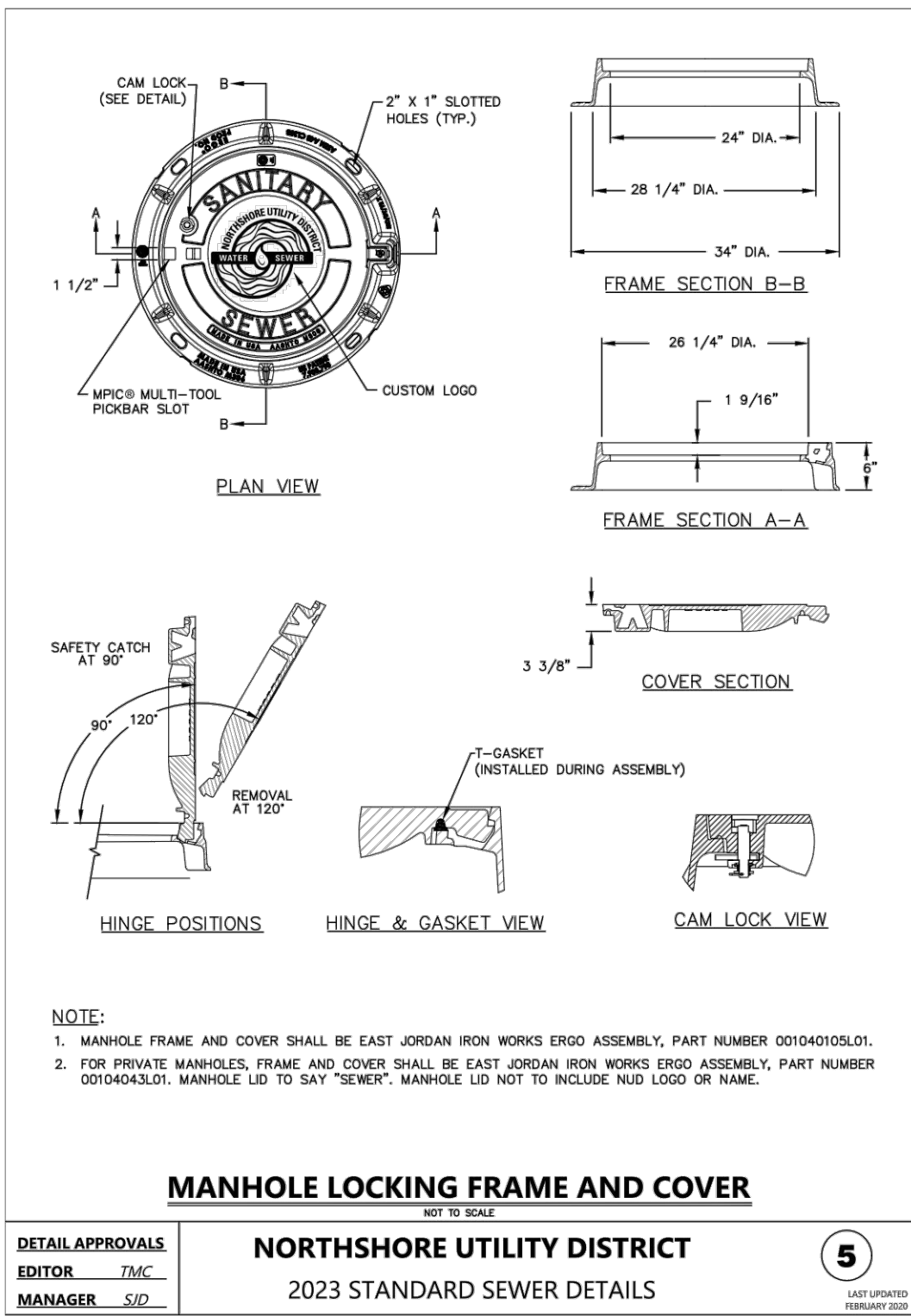
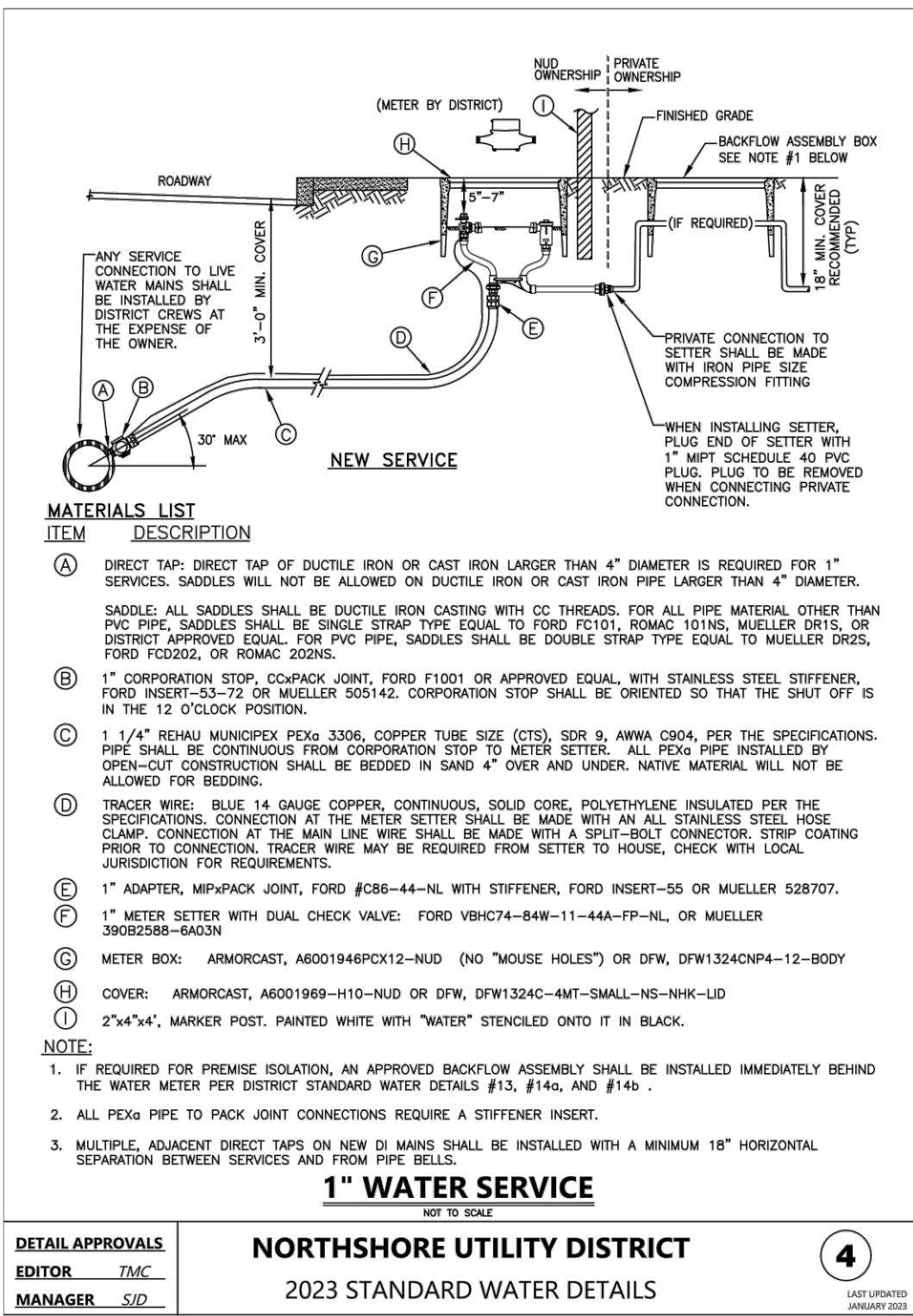


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NUD WATER AND SEWER PLAN

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1/5/2024 4:07 PM PETER EVANS



Goat Hill Improvements Project, Ph 1										
Water Services to be Replaced										
No.	Plan Sheet	Ex. Mtr, inches	Service Address	Svc Type	NUD Acct #	Meter Number	Meter Install Date	Owner Name	Location Notes	
1	C4.01	0.75	11711 90th Ave NE	Poly		251256	43579814	10/19/2011	Watson James Riley	5' LEFT OF HYD ON CORNER
2	C4.01	1	9012 NE 117th Pl	Poly		289452	43523692	10/20/2011	Shurin-Knecht Darcy	RIGHT OF DRIVE IN BANK
3	C4.01	0.75	9009 NE 117th Pl	Poly		278280	43579818	10/17/2011	Lasry Claude & Mirette	LEFT SIDE OF PROP
4	C4.02	0.75	11800 90th Ave NE	Poly		151704	43580472	10/16/2011	Hafemeister Mark S	RT PROP
5	C4.02	1	11804 90th Ave nE	PEXa		292072	43523824	10/16/2011	Brenner Daryl F	ON 117TH PL
6	C4.02	1	9030 NE 117th Pl Kirkland	Poly		329472	210898289	5/3/2022	Darren Trautmann	LT PROP
7	C4.02	0.75	9037 NE 117th Pl Kirkland	Poly		300238	43579817	10/18/2011	Jing Liu	LT PROP LINE
8	C4.02	0.75	9050 NE 117th Pl Kirkland	Poly		151712			Aesthete Studio	MTR Pulled 3/27/19, Hold mtr set until temp mtr returned
9	C4.02	1	9116 NE 117th Pl Kirkland	Poly		324200	47910324	12/29/2015	Liu Hai	IN DRIVEWAY
10	C4.04	0.75	8843 NE 116th Pl	Poly		248948	43579810	10/18/2011	Ralph Osterback	BETWEEN ROAD AND DRIVEWAY
11	C4.04	1	8851 NE 116th Pl	Poly		151605	44540471	1/22/2013	Larson / Jui-Yu Lin	
12	C4.04	0.75	8903 NE 116th Pl	Plastic		249631	43579812	10/20/2011	David Blake	2' LEFT TEL POLE
13	C4.04	0.75	8907 NE 116th Pl	UNK		276856	43579632	10/20/2011	Kambiz Katoozian	2' LT OF PP FRNT OF 8911 NE 116 PL
14	C4.04	0.75	8911 NE 116th Pl	Poly		273528	43579633	10/19/2011	Zhijun Wu Huiling Wang	
15	C4.04	0.75	8930 NE 116th Pl	Poly		241323	43579837	10/17/2011	Karen Lightfeldt	50' UP DR ON LT 10' BH ADDRESS POST
16	C4.04	1	8953 NE 116th Pl	Poly		151589	43579634	10/19/2011	Foley Christine	IN LINE W/DOOR
17	C4.05	0.75	9000 NE 116th Pl	Poly		151563	43579834	10/17/2011	Bahram/Veish Revocable Living Trust	ON BANK IN NY 60' RIGHT OF DRIVE APX 5' FROM RD
18	C4.05	1	9001 NE 116th Pl	Poly		151517	43580314	10/19/2011	404 15th Ave LLC	IN DR NEAR PIPE HANDRAIL
19	C4.05	1	9002 NE 116th Pl	UNK		242321	43523913	10/17/2011	Nirupama Chandrasekaran	10' LEFT P POLE
20	C4.06	1	8804 NE 117th Pl	Poly		321408	44540601	11/21/2013	Charles Darryl Cordero	IN DR
21	C4.06	1	8806 NE 117th Pl	UNK		321168	44540488	8/2/2013	Indresen Pillay & Claire Cameron	RT PROP
22	C4.06	0.75	8808 NE 117th Pl	UNK		283464	43579793	10/17/2011	Hammond Marilyn	15' LEFT OF DRIVE
23	C4.06	1	8833 NE 117th Pl	UNK		330688	50216283	10/21/2019	Jeffrey D Walls	15' RT OF FRONT DOOR
24	C4.06	1	8812 NE 117th Pl	UNK		291712	43523713	10/18/2011	Michael Tomazic	RIGHT PROP LINE 15' FROM ROAD
25	C4.06	1	8818 NE 117th Pl	Poly		320168	44178949	11/26/2012	Revell Sally	RT PROP
26	C4.06	0.75	8837 NE 117th Pl	Poly		151639	43579835	10/16/2011	Trussell Marcia H	15' RT MAILBOX
27	C4.06	0.75	8839 NE 117th Pl	UNK		280088	43579820	10/16/2011	Codi Walker Michael Delmonte &	RIGHT PROP AND 6' OFF ROAD
28	C4.06	1	8822 NE 117th Pl	Poly		320160	44178948	11/26/2012	Lam Andy Cheung & Yu	RT PROP
29	C4.06	1	8840 NE 117th Pl (Fire Flow)	Poly		310177-F	43523712	10/17/2011	Moore Douglas and Julee	FIRE MTR RT SIDE OF BLDG
30	C4.06	0.75	8840 NE 117th Pl (Domestic)	Poly		310176	43579791	10/17/2011	Moore Douglas and Julee	Domestic RT SIDE OF BLDG
31	C4.06	1	8902 NE 117th Pl (Fire Flow)	Poly		310289-F	43523855	10/17/2011	Gayeon Kim Adalberto Foresti &	FIRE MTR LT OF DR
32	C4.06	0.75	8902 NE 117th Pl (Domestic)	Poly		310288	43579649	10/17/2011	Gayeon Kim Adalberto Foresti &	Domestic MTR LT OF DR
33	C4.06	0.75	8848 NE 116th Pl	Poly		151647	43579833	10/16/2011	Prussik Properties	IN LINE & 10' RT P POLE
34	C4.06	1	8933 NE 118th Pl	Poly		293744	43523854	10/17/2011	Reineman Polina Danilyuk & Samuel Thomas	SW CORNER OF PROP ON 117 ST
35	C4.06	1	8907 NE 117th Pl	Poly		296488	43523776	10/17/2011	Michael Eric Zann & Laura Eli	LT OF DRIVEWAY
36	C4.08	1	9120 NE 116th Pl			223446	43523893	10/12/2011	Top Hat Enterprises LLC	RT SIDE OF BLDG 5' FRM PAVEMENT

CIP NO.	JOB NO.	ENGR.	REVIEW	SCALE	DATE
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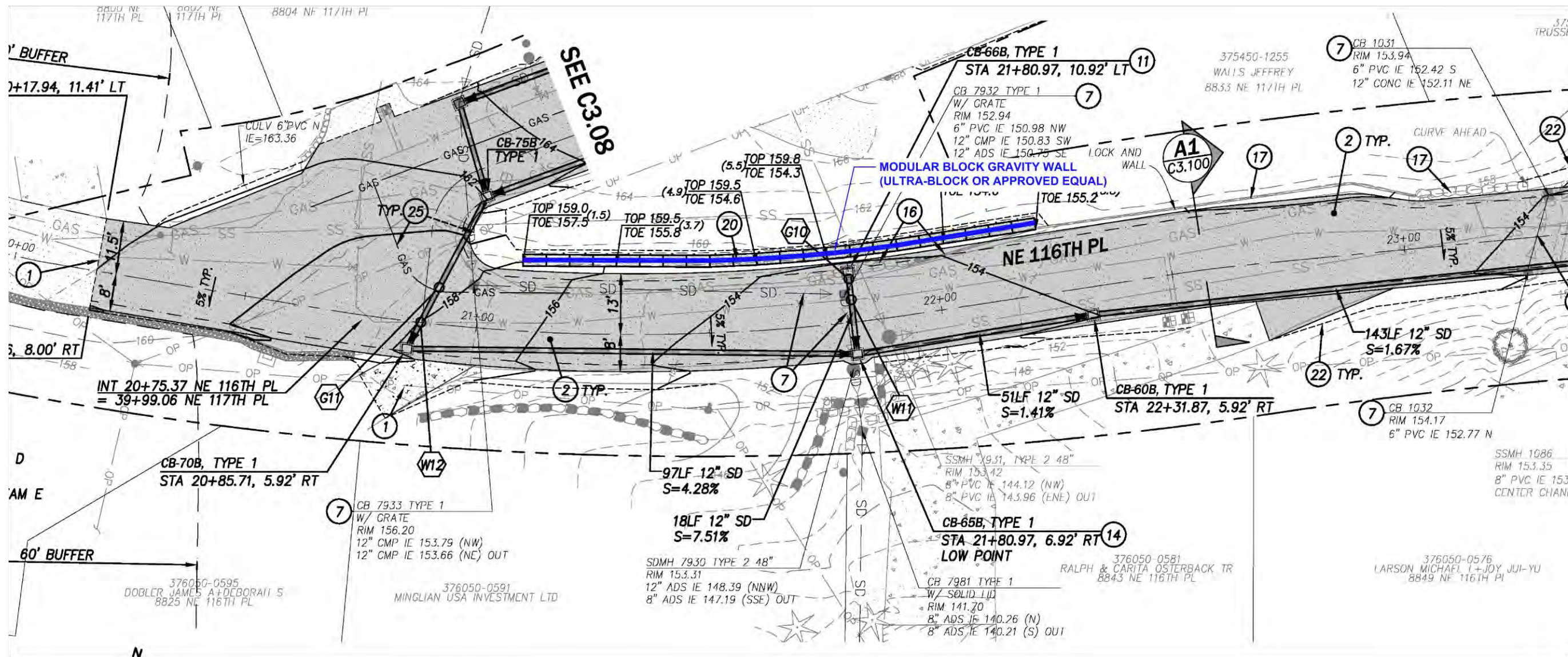
GOAT HILL DRAINAGE DITCH CONVEYANCE
AND CHANNEL STABILIZATION – PHASE 1

NUD WATER AND SEWER DETAILS

C4.100

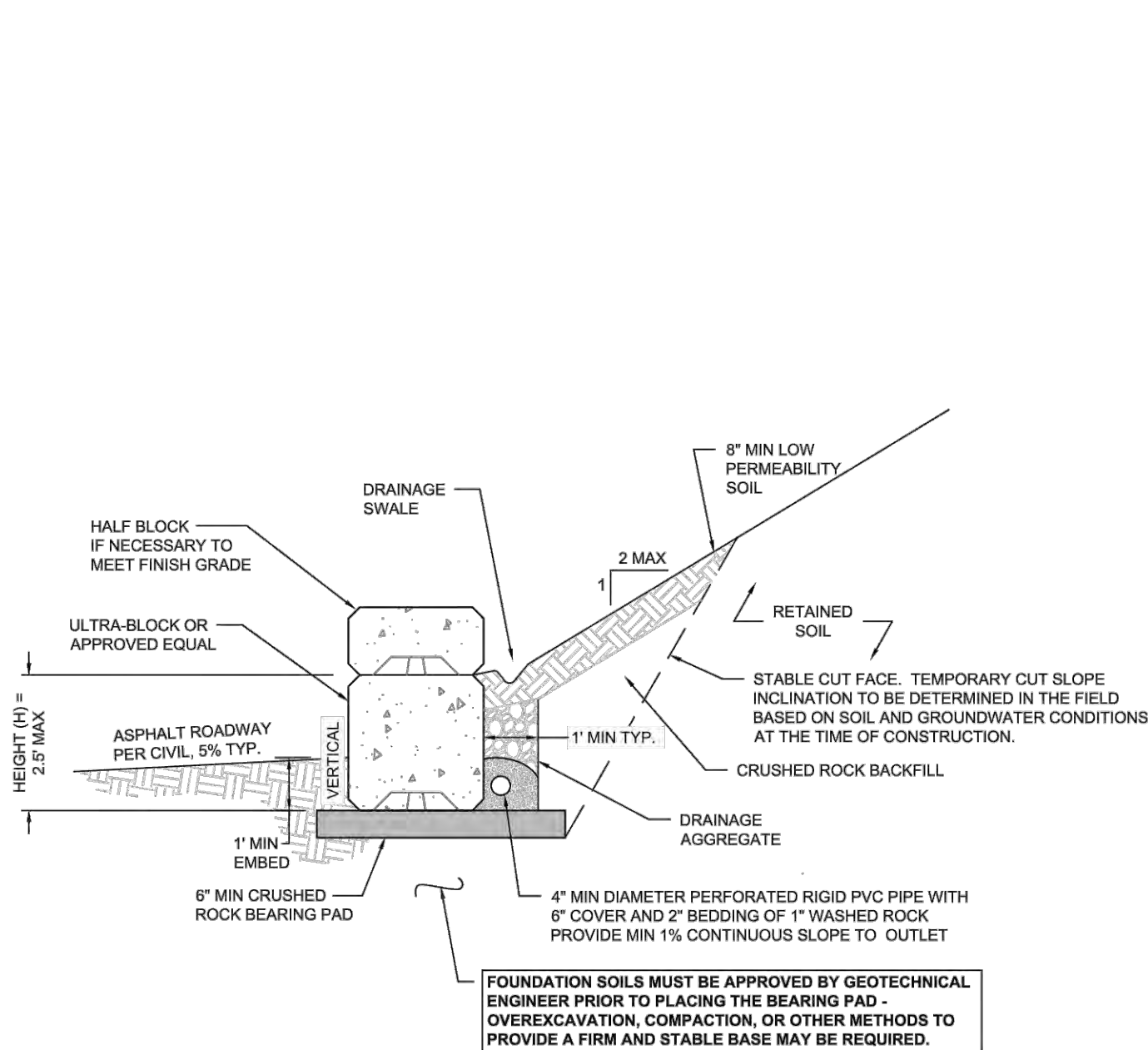
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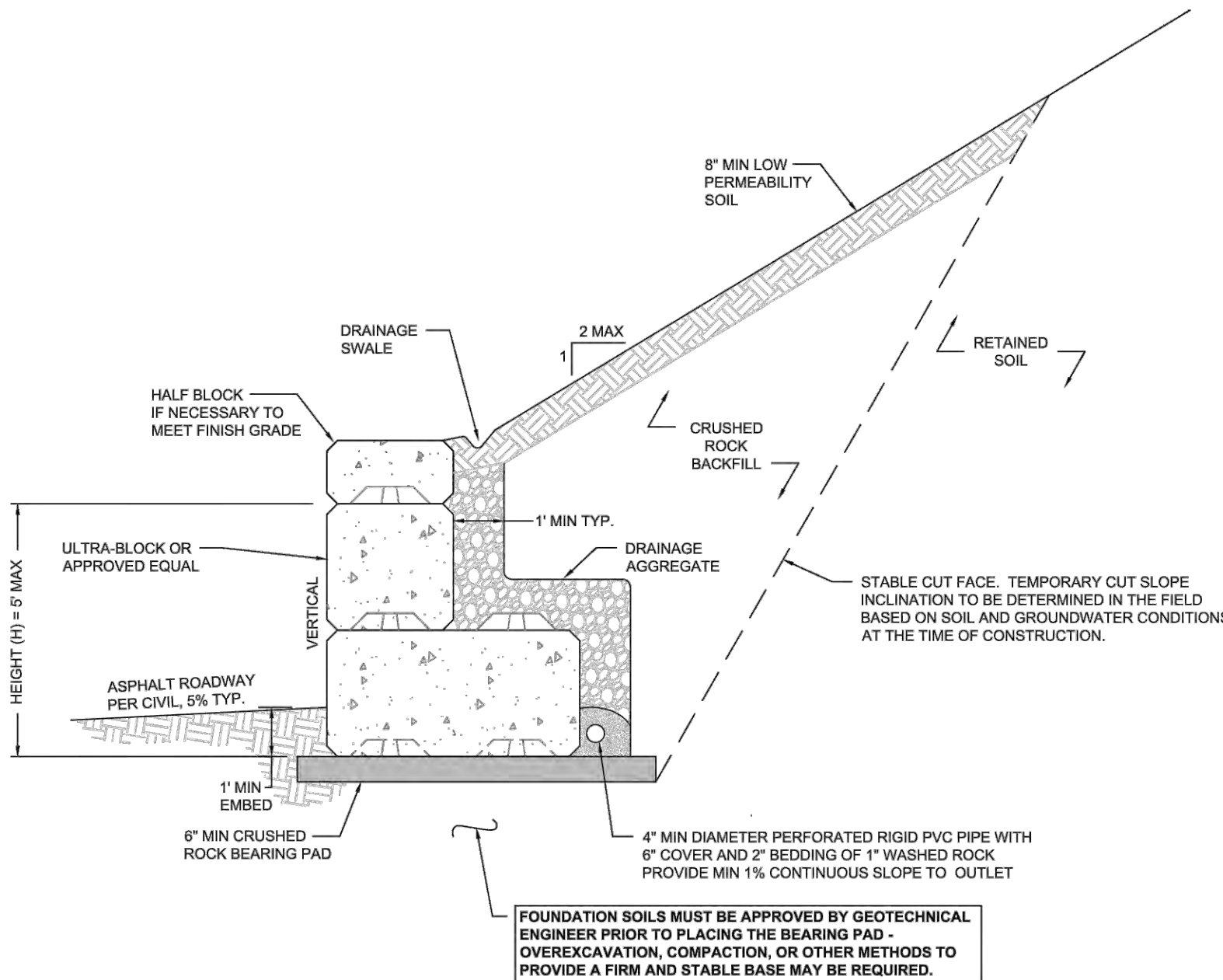


SITE PLAN

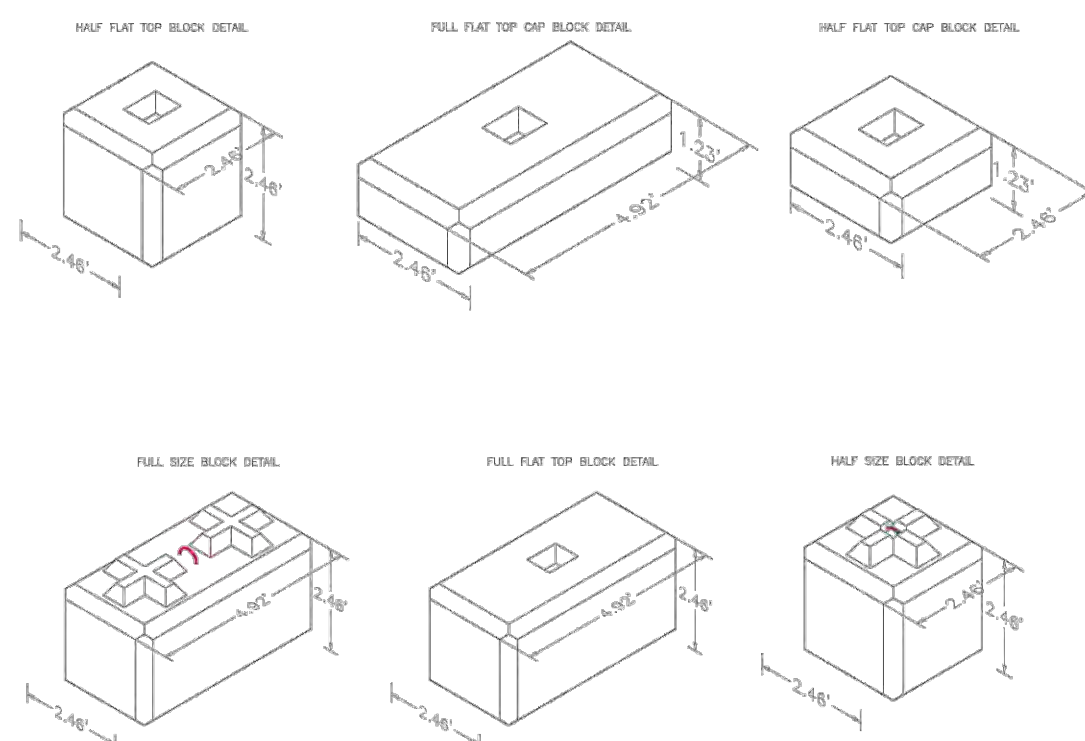
REFERENCE: CPH CONSULTANTS, GOAT HILL DRAINAGE
DITCH CONVEYANCE AND CHANNEL STABILIZATION PHASE 1,
SHEET C3.05, 9/29/23.



TYPICAL 2.5' WALL SECTION (1 BLOCK STACK)
NO SCALE



TYPICAL 5' WALL SECTION (2 BLOCK STACK)
NO SCALE



ULTRA-BLOCK MANUFACTURER'S DETAILS

NO SCALE - DIMENSIONS AND KEY PATTERN
MAY VARY SLIGHTLY BLOCK TO BLOCK

NOTES:

- DESIGN OF THE BLOCK RETAINING WALL IS BASED ON THE FOLLOWING:
INTERNAL ANGLE OF FRICTION FOR RETAINED SOIL = 32 DEGREES
UNIT WEIGHT OF SOIL = 120 POUNDS PER CUBIC FOOT (PCF)
MAXIMUM WALL HEIGHT = 5 FEET
BATTER OF WALL = VERTICAL
BACKSLOPE = 2H:1V MAXIMUM
EMBEDMENT DEPTH = 1-FOOT MINIMUM
SEISMIC SURCHARGE = 0.295G

- OBSERVATION OF SUBGRADE, ROCK BEARING PAD, PLACEMENT OF DRAIN PIPE, GRAVEL, AND FINISHED BLOCKS BY GEOTECHNICAL ENGINEER IS REQUIRED.

- WALL ELEVATIONS AND LAYOUT ARE TO BE PER CIVIL DRAWINGS.

- CONTRACTOR TO VERIFY ALL LOCATIONS, ELEVATIONS, DIMENSIONS AND SETBACKS.

GENERAL NOTES:

WALL UNITS

- WALL UNITS ARE TO BE FULL BLOCKS, FULL FLAT BLOCKS, HALF BLOCKS, HALF FLAT BLOCKS, AND FLAT CAPS AS MANUFACTURED BY ULTRA-BLOCK, INC., OR ENGINEER APPROVED EQUAL.

DRAINAGE AGGREGATE

- DRAINAGE LAYER MATERIALS FOR WALL DRAIN SHALL BE WASHED CRUSHED ROCK MATERIAL MEETING WSDOT STANDARD SPECIFICATION 9-03.9(2) FOR PERMEABLE BALLAST OR APPROVED EQUAL.

WALL BACKFILL

- VOIDS BETWEEN THE BACK OF WALL AND TEMPORARY CUT SLOPE SHOULD BE BACKFILLED WITH CRUSHED ROCK AGGREGATE (WSDOT CRUSHED SURFACING BASE COURSE OR APPROVED EQUAL) AND COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D1557).

BEARING PAD CONSTRUCTION

- BEARING PAD SHALL BE PLACED AS SHOWN ON THE CONSTRUCTION DETAILS WITH A MINIMUM THICKNESS OF 6 INCHES.

- FOUNDATION SOIL SHALL EITHER BE FIRM AND UNYIELDING NATIVE SOIL OR CRUSHED ROCK AGGREGATE PLACED AND COMPACTED TO AT LEAST 95 PERCENT OF MODIFIED PROCTOR DENSITY.

- SOIL BEARING PAD MATERIAL SHALL BE COMPACTED TO PROVIDE A HARD SURFACE ON WHICH TO PLACE THE FIRST COURSE OF UNITS. COMPACTION WILL BE WITH MECHANICAL PLATE COMPACTORS TO A FIRM AND UNYIELDING CONDITION AS DETERMINED BY THE GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE.

- BEARING PAD SHALL BE PREPARED TO ALLOW INTIMATE CONTACT OF BLOCKS WITH PAD.

BLOCK UNIT INSTALLATION

- FIRST COURSE OF BLOCKS SHALL BE PLACED ON THE BEARING PAD. THE UNITS SHALL BE CHECKED FOR BATTER AND ALIGNMENT. THE FIRST COURSE IS THE MOST IMPORTANT TO ENSURE ACCURATE AND ACCEPTABLE RESULTS.

- ENSURE THAT UNITS ARE IN FULL CONTACT WITH BASE.

- UNITS ARE PLACED SIDE BY SIDE FOR FULL LENGTH OF STRAIGHT WALL ALIGNMENT. ALIGNMENT MAY BE DONE BY MEANS OF A STRING LINE OR OFFSET FROM BASE LINE TO A MOLDED FINISHED FACE OF THE UNIT. ADJUST UNIT SPACING FOR CURVED SECTIONS ACCORDING TO THE MANUFACTURER'S RECOMMENDATIONS.

- PLACE AND COMPACT FILL BEHIND UNITS.

- CLEAN ALL EXCESS DEBRIS FROM TOP OF UNITS AND INSTALL NEXT COURSE.

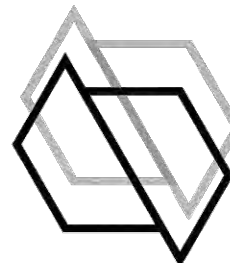
- LAY EACH SUCCESSIVE COURSE SO THAT SHEAR CONNECTORS ARE ENGAGED. STAGGER EACH LAYER OF BLOCKS BY HALF BLOCK LENGTH.

- REPEAT PROCEDURES TO THE EXTENT OF THE WALL HEIGHT.

INSPECTIONS

- INSPECTION OF THE WALL BASE, BLOCK PLACEMENT, DRAIN, AND BACKFILL BY THE GEOTECHNICAL ENGINEER IS REQUIRED.

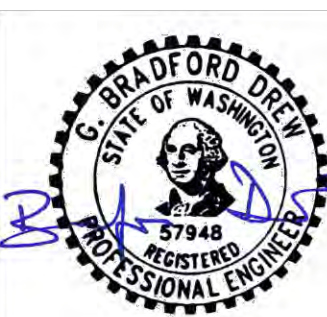
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GOAT HILL DRAINAGE IMPROVEMENTS PHASE 1 NE 116TH PLACE KIRKLAND, WASHINGTON

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FIGURE	W1

CIP NO.	JOB NO.	ENGR.	REVIEW	SCALE	DATE
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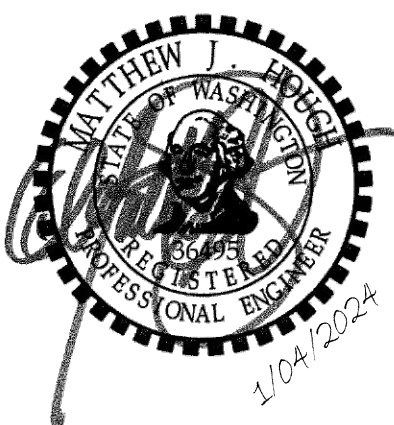


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GOAT HILL DRAINAGE DITCH CONVEYANCE
AND CHANNEL STABILIZATION - PHASE 1

RETAINING WALL PLANS AND
DETAILS

C6.00

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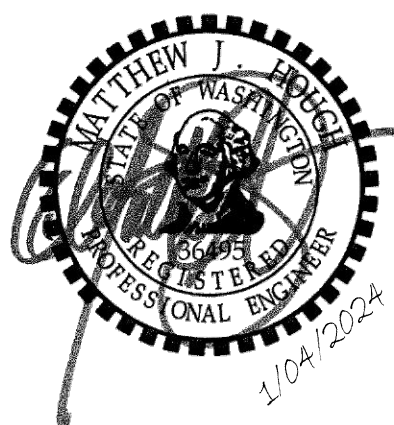
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SDC0900000	19-23-PW	MJH	MJH	AS NOTED	1/04/2024
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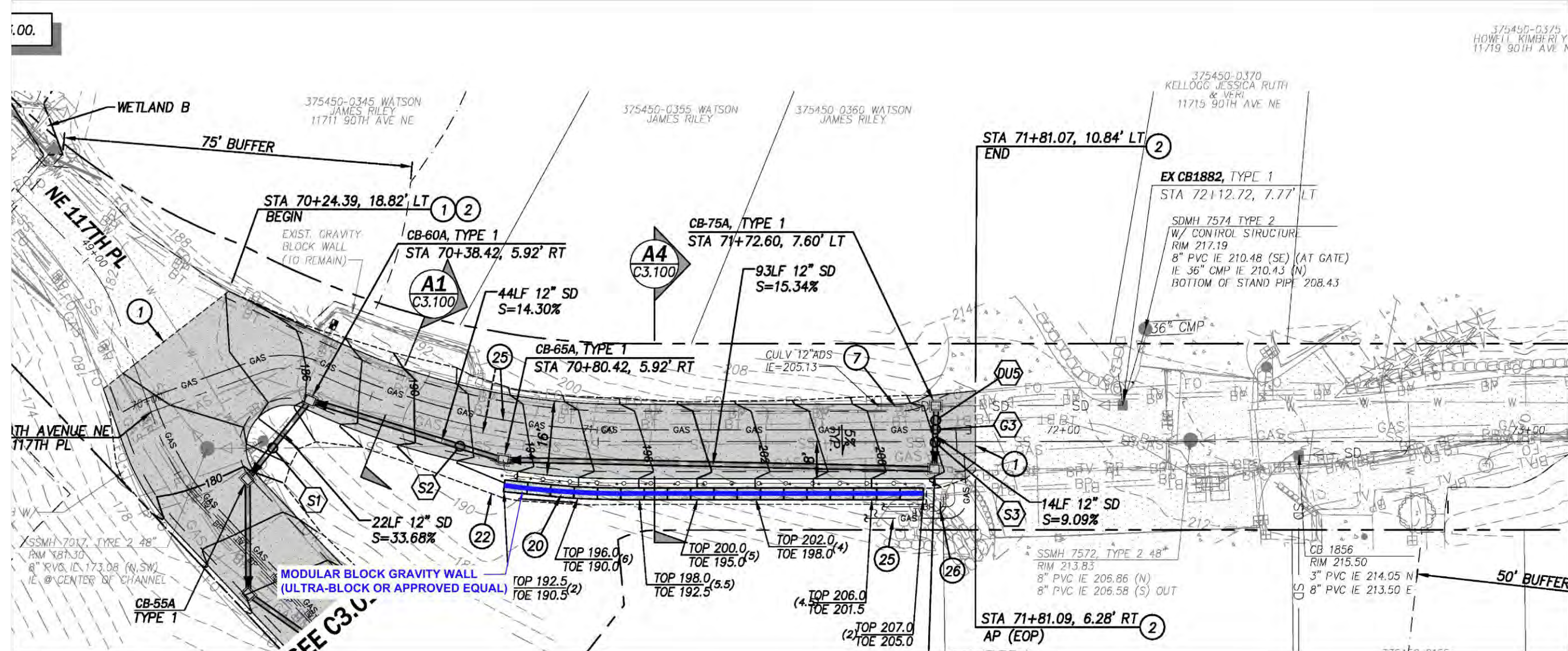
GOAT HILL DRAINAGE DITCH CONVEYANCE
AND CHANNEL STABILIZATION – PHASE 1

RETAINING WALL PLANS AND
DETAILS

C6.01

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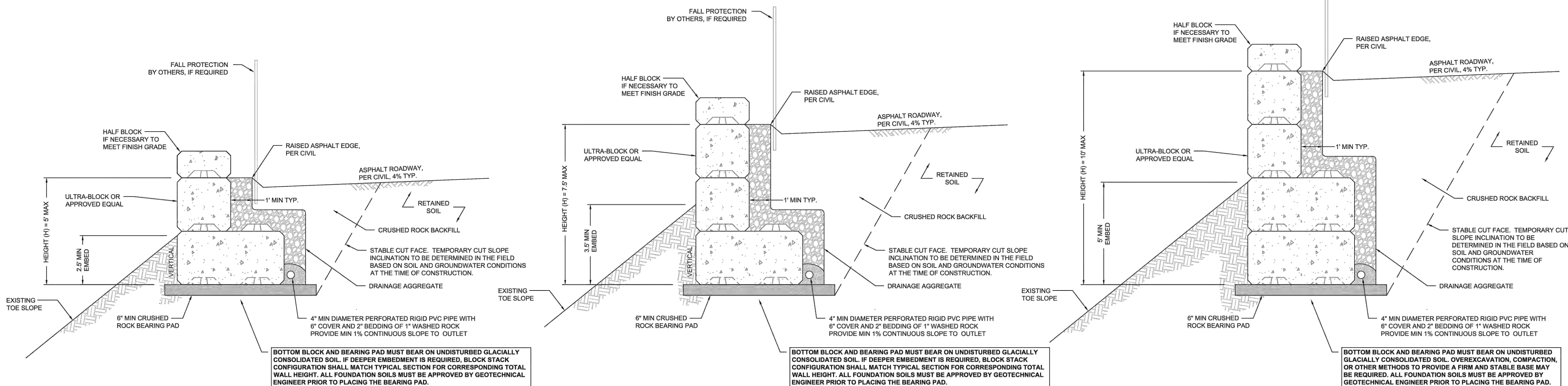
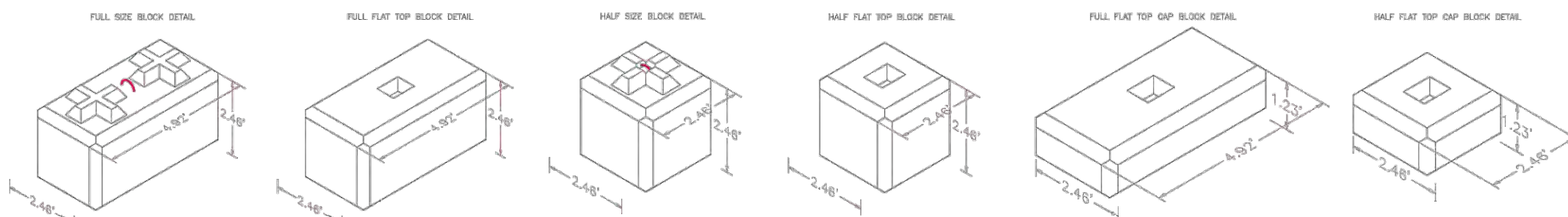


SITE PLAN

REFERENCE: CPH CONSULTANTS, GOAT HILL DRAINAGE
DITCH CONVEYANCE AND CHANNEL STABILIZATION PHASE 1,
SHEET C3.04, 9/29/23.

ULTRA-BLOCK MANUFACTURER'S DETAILS

NO SCALE - DIMENSIONS AND KEY PATTERN
MAY VARY SLIGHTLY BLOCK TO BLOCK



TYPICAL 5' WALL SECTION
(MAXIMUM EXPOSED HEIGHT = 2.5')
NO SCALE

TYPICAL 7.5' WALL SECTION
(MAXIMUM EXPOSED HEIGHT = 4')
NO SCALE

TYPICAL 10' WALL SECTION
(MAXIMUM EXPOSED HEIGHT = 5')
NO SCALE

- NOTES:**
- DESIGN OF THE BLOCK RETAINING WALL IS BASED ON THE FOLLOWING:
INTERNAL ANGLE OF FRICTION FOR RETAINED SOIL = 40 DEGREES
UNIT WEIGHT OF SOIL = 135 POUNDS PER CUBIC FOOT (PCF)
MAXIMUM WALL HEIGHT = 10 FEET (5' EXPOSED HEIGHT)
BATTER OF WALL = VERTICAL
BACKSLOPE = 4 PERCENT
EMBEDMENT DEPTH = AS SHOWN
TRAFFIC SURCHARGE = 250 PSF
SEISMIC SURCHARGE = 0.295G

- OBSERVATION OF SUBGRADE, ROCK BEARING PAD, PLACEMENT OF DRAIN PIPE, GRAVEL, AND FINISHED BLOCKS BY GEOTECHNICAL ENGINEER IS REQUIRED.
- WALL ELEVATIONS AND LAYOUT ARE TO BE PER CIVIL DRAWINGS.
- CONTRACTOR TO VERIFY ALL LOCATIONS, ELEVATIONS, DIMENSIONS AND SETBACKS.

GENERAL NOTES:

WALL UNITS

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DRAINAGE AGGREGATE

- DRAINAGE LAYER MATERIALS FOR WALL DRAIN SHALL BE WASHED CRUSHED ROCK MATERIAL MEETING WSDOT STANDARD SPECIFICATION 9-03.9(2) FOR PERMEABLE BALLAST OR APPROVED EQUAL.

WALL BACKFILL

- VOIDS BETWEEN THE BACK OF WALL AND TEMPORARY CUT SLOPE SHOULD BE BACKFILLED WITH CRUSHED ROCK AGGREGATE (WSDOT CRUSHED SURFACING BASE COURSE OR APPROVED EQUAL) AND COMPACTED TO 95% OF MODIFIED PROCTOR MAXIMUM DRY DENSITY (ASTM D1557).

BEARING PAD CONSTRUCTION

- BEARING PAD SHALL BE PLACED AS SHOWN ON THE CONSTRUCTION DETAILS WITH A MINIMUM THICKNESS OF 6 INCHES.

- FOUNDATION SOIL SHALL CONSIST OF UNDISTURBED GLACIALLY CONSOLIDATED SOIL.
- SOIL BEARING PAD MATERIAL SHALL BE COMPACTED TO PROVIDE A HARD SURFACE ON WHICH TO PLACE THE FIRST COURSE OF UNITS. COMPACTION SHALL BE WITH MECHANICAL PLATE COMPACTORS TO A FIRM AND UNYIELDING CONDITION AS DETERMINED BY THE GEOTECHNICAL ENGINEER OR THEIR REPRESENTATIVE.

- BEARING PAD SHALL BE PREPARED TO ALLOW INTIMATE CONTACT OF BLOCKS WITH PAD.

BLOCK INSTALLATION

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- PLACE AND COMPACT FILL BEHIND UNITS.

- CLEAN ALL EXCESS DEBRIS FROM TOP OF UNITS AND INSTALL NEXT COURSE.

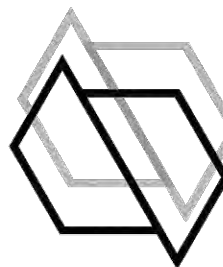
- LAY EACH SUCCESSIVE COURSE SO THAT SHEAR CONNECTORS ARE ENGAGED. STAGGER EACH LAYER OF BLOCKS BY HALF BLOCK LENGTH.

- REPEAT PROCEDURES TO THE EXTENT OF THE WALL HEIGHT.

INSPECTIONS

- INSPECTION OF THE WALL BASE, BLOCK PLACEMENT, DRAIN, AND BACKFILL BY THE GEOTECHNICAL ENGINEER IS REQUIRED.

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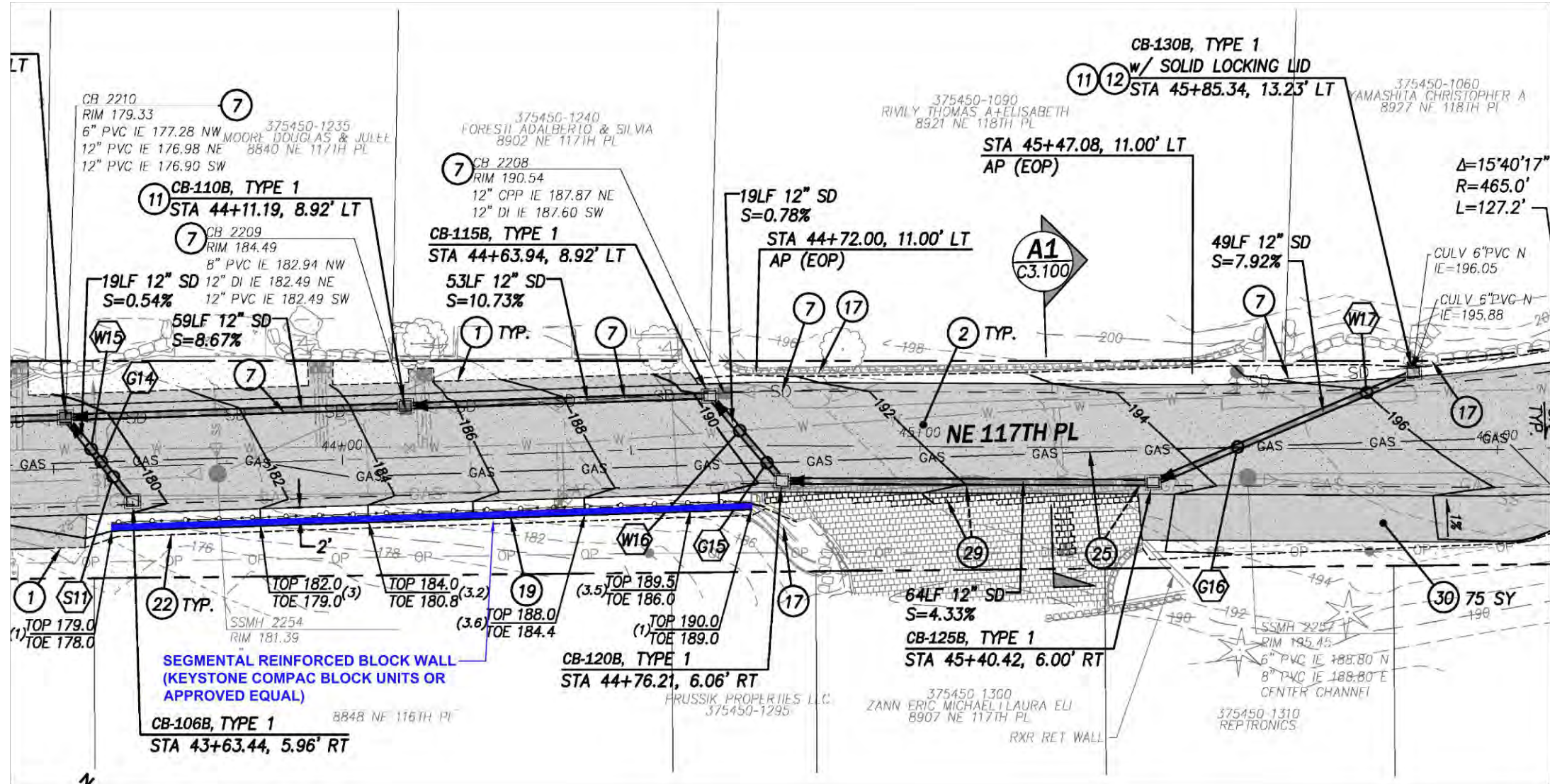


GOAT HILL DRAINAGE IMPROVEMENTS PHASE 1
90TH AVE NE
KIRKLAND, WASHINGTON

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FIGURE	W2

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20220263 Goat Hill Walls Segment Block.dwg LAYOUT: E002 Wall



SITE PLAN

REFERENCE: CPH CONSULTANTS, GOAT HILL DRAINAGE
DITCH CONVEYANCE AND CHANNEL STABILIZATION PHASE 1,
SHEET C3.09, 9/29/23.

NOTES:

- DESIGN OF THE SEGMENTAL RETAINING WALL IS BASED ON THE FOLLOWING DESIGN VALUES:
INTERNAL ANGLE OF FRICTION FOR REINFORCED SOIL = 36 DEGREES
UNIT WEIGHT OF REINFORCED SOIL = 125 LB/CU FT
INTERNAL ANGLE OF FRICTION FOR RETAINED SOIL = 28 DEGREES
UNIT WEIGHT OF RETAINED SOIL = 115 LB/CU FT
TRAFFIC SURCHARGE = 250 PSF
SEISMIC SURCHARGE = 0.295G
MAXIMUM WALL HEIGHT = AS SHOWN
BATTER OF WALL = NEAR VERTICAL
EMBEDMENT = 3 FEET MIN
- CONTRACTOR TO VERIFY ALL LOCATIONS, ELEVATIONS, AND DIMENSIONS.
- FOR BIDDING PURPOSES, THE DESIGN WALL HEIGHT SHALL INCLUDE BOTH THE ABOVE GRADE DIMENSIONS SHOWN ON THE CIVIL PLANS AND THE BELOW GRADE EMBEDDED PORTION OF THE WALLS INDICATED HEREIN.

GENERAL NOTES:

SEGMENTAL RETAINING WALL (SRW) UNITS

- SRW UNITS SHALL BE MACHINE-FORMED CONCRETE BLOCKS SPECIFICALLY DESIGNED FOR RETAINING WALL APPLICATIONS.
- SRW UNITS SHALL MEET THE FOLLOWING STRUCTURAL REQUIREMENTS:
 - CONCRETE USED TO MANUFACTURE SRW UNITS SHALL HAVE A MINIMUM 28-DAY COMPRESSIVE STRENGTH OF 3000 PSI IN ACCORDANCE WITH ASTM C80. THE CONCRETE SHALL HAVE ADEQUATE FREEZE/THAW PROTECTION WITH A MAXIMUM MOISTURE ABSORPTION RATE, BY WEIGHT OF 6%.
 - UNITS SHALL BE POSITIVELY INTERLOCKED TO PROVIDE A MINIMUM SHEAR CAPACITY OF 1500 PLF AT 2 PSI NORMAL PRESSURE.
 - UNITS SHALL PROVIDE A MINIMUM CONNECTION STRENGTH BETWEEN IT AND THE GEOSYNTHETIC REINFORCEMENT OF 1000 PLF AT 2 PSI NORMAL FORCE.
 - SRW UNITS MOLDED DIMENSIONS SHALL NOT DIFFER MORE THAN $\pm 1/8$ INCH FROM THAT SPECIFIED, EXCEPT HEIGHT WHICH SHALL BE $\pm 1/16$ INCH.
- SRW UNITS SHALL MEET THE FOLLOWING CONSTRUCTABILITY AND GEOMETRIC REQUIREMENTS:
 - UNITS SHALL BE CAPABLE OF ATTAINING CONCAVE AND CONVEX CURVES.
 - UNITS SHALL BE POSITIVELY ENGAGED TO THE UNIT BELOW SO AS TO PROVIDE A MINIMUM 1/16-INCH HORIZONTAL SETBACK PER VERTICAL FOOT OF WALL HEIGHT.
- SRW UNIT COLOR AND FACE FINISH SHALL BE SELECTED BY PROJECT ARCHITECT OR OWNER.

LEVELING PAD AND UNIT FILL MATERIAL

- MATERIAL FOR LEVELING PAD SHALL CONSIST OF COMPACTED GRAVEL OR UNREINFORCED CONCRETE AND SHALL BE A MINIMUM OF 6 INCHES IN DEPTH.
- FILL FOR UNITS SHALL BE FREE-DRAINING 1-INCH MINUS WASHED CRUSHED GRAVEL.
- DO NOT RUN MECHANICAL VIBRATING PLATE COMPACTORS ON TOP OF THE UNITS. COMPACT UNIT FILL BY RUNNING HAND-OPERATED COMPACTATION EQUIPMENT JUST BEHIND UNIT. COMPACT TO MINIMUM 95% OF MODIFIED PROCTOR (ASTM D-1557).

DRAINAGE AGGREGATE

- DRAINAGE LAYER FOR WALL DRAINAGE MATERIALS SHALL BE 1-INCH MINUS WASHED CRUSHED ROCK MATERIAL AND FREE OF ORGANICS, WITH LESS THAN 5% FINES (SILT AND CLAY PARTICLES PASSING THE #200 SIEVE MEASURED ON THE MINUS #4 SIEVE SIZE).

REINFORCED BACKFILL MATERIAL

- THE REINFORCED BACKFILL MATERIAL SHALL BE FREE OF DEBRIS AND CONSIST OF A WELL GRADED GRANULAR MATERIAL WITH LESS THAN 5 PERCENT FINES. BACKFILL MATERIAL SHALL BE EVALUATED AND APPROVED BY GEOTECHNICAL ENGINEER PRIOR TO USE.
- THE REINFORCED BACKFILL MATERIAL SHALL BE PLACED IN MAXIMUM 8-INCH LIFTS AND COMPACTED TO AT LEAST 95% OF THE MODIFIED PROCTOR MAXIMUM DENSITY AS DEFINED BY ASTM D-1557.

COMMON BACKFILL (RETAINED SOIL)

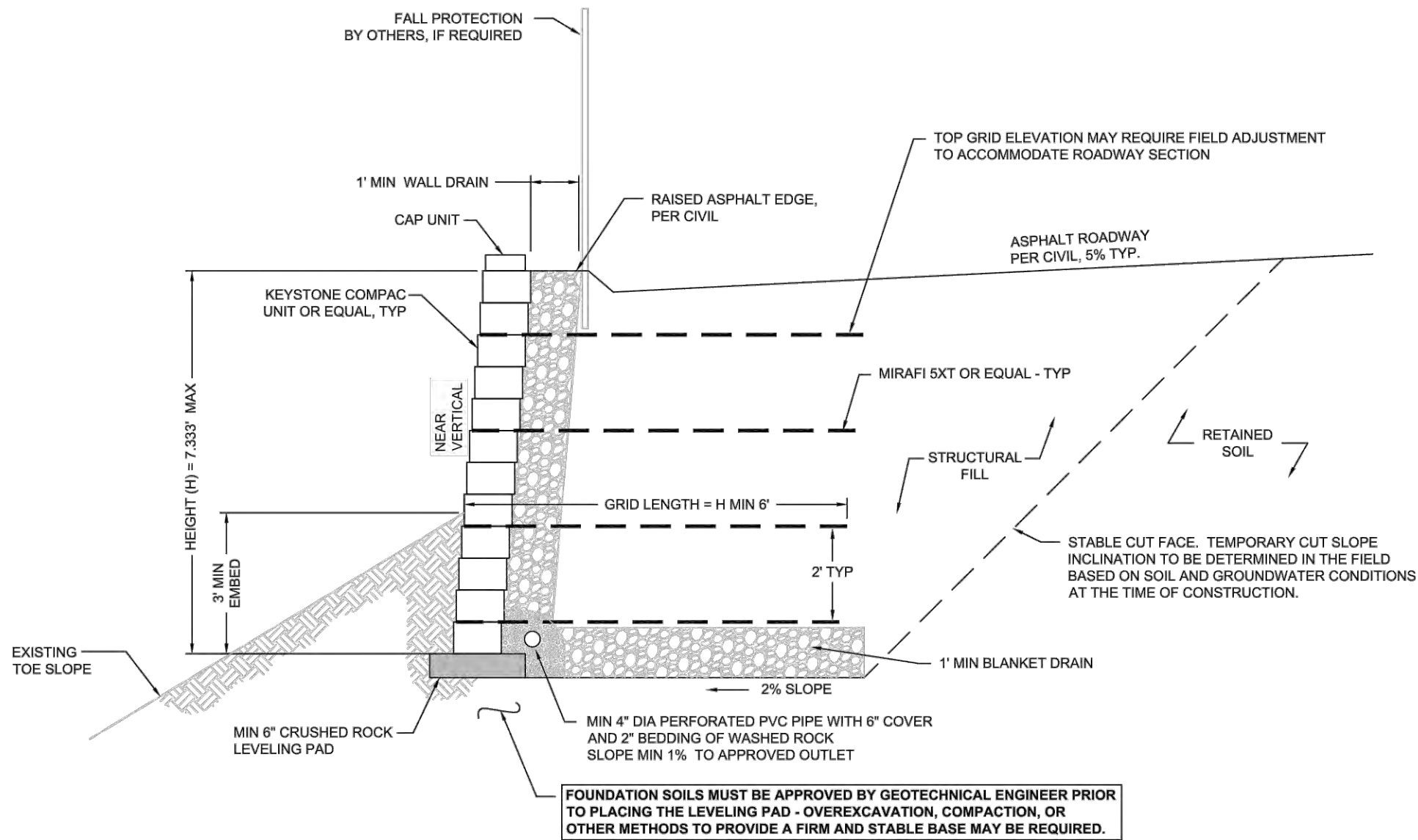
- SOIL PLACED BEHIND THE INFILL (REINFORCED SOIL ZONE) SHALL BE INORGANIC ON-SITE STRUCTURAL FILL WITH PLASTICITY INDEX ≤ 20 , OR AS DIRECTED BY THE SOILS ENGINEER. COMMON BACKFILL SHOULD BE PLACED IN ACCORDANCE WITH THE RECOMMENDATIONS FOR STRUCTURAL FILL PRESENTED IN GEOTECHNICAL REPORT.
- BACKFILL SHALL BE COMPACTED TO A MINIMUM 95% OF THE MODIFIED PROCTOR, MAXIMUM DENSITY AS DEFINED BY ASTM D-1557.

LEVELING PAD CONSTRUCTION

- LEVELING PAD SHALL BE PLACED AS SHOWN ON THE CONSTRUCTION DETAILS WITH A MINIMUM THICKNESS OF 6 INCHES.
- FOUNDATION SOIL SHALL BE COMPACTED TO AT LEAST 95% OF MODIFIED PROCTOR. OVEREXCAVATION (OR OTHER METHODS) AT THE DIRECTION OF THE GEOTECHNICAL ENGINEER MAY BE REQUIRED TO PROVIDE A SUITABLE BASE FOR LEVELING PAD CONSTRUCTION. OVEREXCAVATED AREAS SHALL BE BACKFILLED WITH AN APPROVED STRUCTURAL FILL COMPACTED TO AT LEAST 95% OF THE MODIFIED PROCTOR.
- LEVELING PAD MATERIAL SHALL BE COMPACTED TO PROVIDE A LEVEL HARD SURFACE ON WHICH TO PLACE THE FIRST COURSE OF UNITS. COMPACTION WILL BE BY MECHANICAL PLATE COMPACTORS TO AT LEAST 95% OF MODIFIED PROCTOR DENSITY.
- LEVELING PAD SHALL BE PREPARED TO PROVIDE INTIMATE CONTACT OF RETAINING WALL UNIT WITH PAD.

SEGMENTAL UNIT INSTALLATION

- FIRST COURSE OF SRW UNITS SHALL BE PLACED ON THE LEVELING PAD. THE UNITS SHALL BE CHECKED FOR LEVEL AND ALIGNMENT. THE FIRST COURSE IS THE MOST IMPORTANT TO ENSURE ACCURATE AND ACCEPTABLE RESULTS.
- ENSURE THAT UNITS ARE IN FULL CONTACT WITH BASE.
- UNITS ARE PLACED SIDE BY SIDE FOR FULL LENGTH OF STRAIGHT WALL ALIGNMENT. ALIGNMENT MAY BE DONE BY MEANS OF A STRING LINE OR OFFSET FROM BASE LINE TO A MOLDED FINISHED FACE OF THE SRW UNIT. ADJUST UNIT SPACING FOR CURVED SECTIONS ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
- INSTALL SHEAR CONNECTORS.
- PLACE UNIT FILL. TAMP OR ROD UNIT FILLS TO ENSURE ALL VOIDS ARE COMPLETELY FILLED.
- PLACE AND COMPACT FILL BEHIND AND WITHIN UNITS.
- CLEAN ALL EXCESS DEBRIS FROM TOP OF UNITS AND INSTALL NEXT COURSE. ENSURE EACH COURSE IS COMPLETELY FILLED PRIOR TO PROCEEDING TO NEXT COURSE.
- LAY EACH SUCCESSIVE COURSE ENSURING THAT SHEAR CONNECTORS ARE ENGAGED.
- MAXIMUM STACKED VERTICAL HEIGHT OF WALL UNITS, PRIOR TO UNIT FILL AND BACKFILL PLACEMENT AND COMPACTION, SHALL NOT EXCEED TWO COURSES.
- REPEAT PROCEDURES TO THE EXTENT OF THE WALL HEIGHT.
- UPPERMOST ROW OF SRW OR CAPS SHALL BE GLUED TO UNDERLYING UNITS WITH AN ADHESIVE, AS RECOMMENDED BY THE MANUFACTURER.



TYPICAL SEGMENTAL REINFORCED BLOCK WALL SECTION (KEYSTONE COMPAC BLOCK UNIT OR APPROVED EQUAL)

NO SCALE

GEOSYNTHETIC REINFORCEMENT INSTALLATION

- THE REINFORCED BACKFILL MATERIAL SHALL BE INSTALLED AT THE WALL HEIGHT, HORIZONTAL LOCATION, AND TO THE EXTENT AS SHOWN ON THE CONSTRUCTION DETAILS.
- THE GEOSYNTHETIC REINFORCEMENT SHALL BE LAID HORIZONTALLY ON COMPACTED INFILL AND CONNECTED TO THE CONCRETE SRW UNITS PER MANUFACTURER'S RECOMMENDATIONS.
- CORRECT ORIENTATION (ROLL DIRECTION) OF THE GEOSYNTHETIC REINFORCEMENT SHALL BE VERIFIED BY THE CONTRACTOR.
- PLACE SEGMENTAL UNIT AND FILL IN ACCORDANCE WITH SECTION ABOVE SEGMENTAL RETAINING WALL UNITS.
- THE GEOSYNTHETIC REINFORCEMENT SHALL BE PULLED TAUT AND FREE OF WRINKLES PRIOR TO PLACEMENT OF SOIL FILL. STAKE OR SECURE BACK EDGE OF GEOGRID PRIOR TO AND DURING BACKFILL AND COMPACTION.
- THE PROCEDURE FOR TENSIONING GEOSYNTHETIC REINFORCEMENT SHALL BE UNIFORM THROUGHOUT WALL LENGTH AND HEIGHT.
- OVERLAPS SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS. GEOSYNTHETIC REINFORCEMENT WILL BE CONTINUOUS THROUGHOUT WALL LENGTH, EXCEPT FOR CURVES.

FILL PLACEMENT OVER GEOSYNTHETIC REINFORCEMENT

- REINFORCED WALL FILL MATERIAL SHALL BE PLACED IN MAXIMUM 8-INCH LOOSE LIFTS ON THE GEOSYNTHETIC REINFORCEMENT.

- THE GEOSYNTHETIC REINFORCEMENT SHALL BE PRETENSIONED BY HAND TO REMOVE WRINKLES. TENSIONING IS USUALLY FACILITATED BY THE USE OF STEEL STAKES. APPLY CONSTANT TENSION TO EACH SECTION OF GEOSYNTHETIC REINFORCEMENT UNTIL SOIL FILL HAS BEEN PLACED. SOIL FILL SHALL BE PLACED, SPREAD, AND COMPACTED IN SUCH A MANNER THAT PREVENTS THE DEVELOPMENT OF WRINKLES AND/OR MOVEMENT OF THE GEOSYNTHETIC REINFORCEMENT.

- ONLY HAND-OPERATED COMPACTION EQUIPMENT SHALL BE ALLOWED WITHIN 3 FEET FROM THE TAIL OF THE MODULAR CONCRETE UNITS.

- IF POSSIBLE, SOIL FILL SHALL BE PLACED FROM THE WALL FACE OUTWARD TO ENSURE THAT THE GEOSYNTHETIC REINFORCEMENT REMAINS TAUT. SOIL SHALL BE PLACED IN UNIFORM LIFTS.

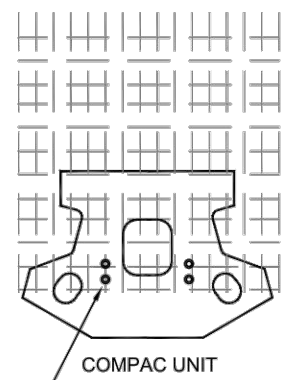
- TRACKED CONSTRUCTION EQUIPMENT SHALL NOT BE OPERATED DIRECTLY ON THE GEOSYNTHETIC REINFORCEMENT. A MINIMUM FILL THICKNESS OF 6 INCHES IS REQUIRED PRIOR TO OPERATION OF TRACKED VEHICLES OVER THE GEOSYNTHETIC REINFORCEMENT. TURNING OF TRACKED VEHICLES SHOULD BE KEPT TO A MINIMUM TO PREVENT TRACKS FROM DISPLACING THE FILL AND DAMAGING THE GEOSYNTHETIC REINFORCEMENT.

- IF IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, RUBBER-TIRED EQUIPMENT MAY PASS OVER THE GEOSYNTHETIC REINFORCEMENT AT SLOW SPEEDS, LESS THAN 10 MPH. SUDDEN BRAKING AND SHARP TURNING SHALL BE AVOIDED.

- SURFACE DRAINAGE DURING AND AFTER CONSTRUCTION OF THE WALL SHALL BE PROVIDED TO MINIMIZE WATER INFILTRATION IN THE REINFORCED SOIL ZONE.

CONSTRUCTION MONITORING

- FULL-TIME OBSERVATION OF THE WALL CONSTRUCTION, INCLUDING FOUNDATION SOIL, LEVELING PAD CONSTRUCTION, DRAINAGE, GRID PLACEMENT, AND BACKFILL, BY THE GEOTECHNICAL ENGINEER IS REQUIRED.



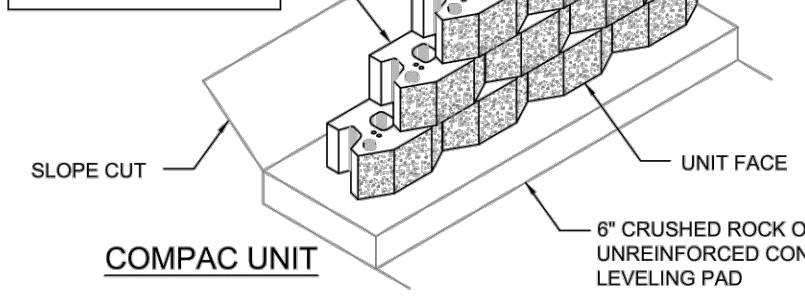
GRID AND PIN CONNECTION

NO SCALE

COMPAC / STANDARD - BASE LEVELING PAD NOTES:

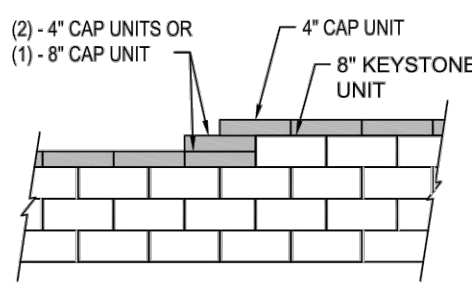
- THE LEVELING PAD IS TO BE CONSTRUCTED OF CRUSHED STONE OR 2,000 PSI \pm UNREINFORCED CONCRETE.
- THE BASE FOUNDATION IS TO BE APPROVED BY THE SITE GEOTECHNICAL ENGINEER PRIOR TO PLACEMENT OF THE LEVELING PAD.

COMPAC UNIT	
WIDTH	18"
* DEPTH	12"
* HEIGHT	8"
* WEIGHT	85 LBS.



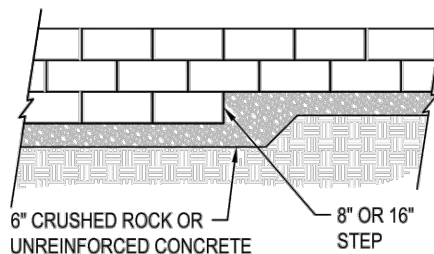
BASE PAD ISOMETRIC VIEWS

NO SCALE



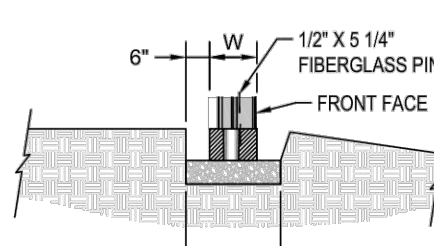
- NOTE:
1. SECURE ALL CAP UNITS WITH KEYSTONE
KAPSEAL OR EQUAL.

TOP OF WALL STEPS



ELEVATION

- NOTE:
1. THE LEVELING PAD IS TO BE CONSTRUCTED OF
CRUSHED STONE OR 2000 PSI \pm REINFORCED CONCRETE.



LEVELING PAD DETAIL

CIP NO.	JOB NO.	ENGR.	REVIEW	SCALE	DATE
SDC0900000	19-23-PW	MJH	MJH	AS NOTED	1/04/2024
0	BID SET	PCE	MJH	12/27/23	
NO.	REVISION	BY	REVIEW	DATE	



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GOAT HILL DRAINAGE DITCH CONVEYANCE
AND CHANNEL STABILIZATION - PHASE 1

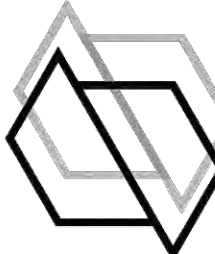
RETAINING WALL PLANS AND
DETAILS

C6.02

50

51

associated
earth sciences
incorporated



GOAT HILL DRAINAGE IMPROVEMENTS PHASE 1

NE 117TH PLACE
KIRKLAND, WASHINGTON

DRAWN BY:	CNT
CHECKED BY:	BD
DATE	10/23
PROJECT NO.	20220263E002
FIGURE	W3

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