Α		
A	<u>GENERAL:</u>	
	1. ALL PERMITS WILL BE SECURED BY THE CONTRACTOR AND IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO COMPLY WITH THE CONDITIONS AND REQUIREMENTS OF THE PERMITS.	
	2. THE CONTRACTOR SHALL TAKE EFFECTIVE ACTION TO PREVENT THE FORMATION OF AN AIRBORNE DUST NUISANCE AND SHALL BE RESPONSIBLE FOR DAMAGE RESULTING FROM THEIR FAILURE TO DO SO.	
	 THE CONTRACTOR SHALL PROVIDE ALL LIGHTS, SIGNS, BARRICADES, FLAGMEN OR OTHER DEVICES NECESSARY TO PROVIDE FOR SAFETY. 	
	4. THE CONTRACTOR SHALL POST EMERGENCY TELEPHONE NUMBERS FOR THE POLICE, FIRE AMBULANCE, AND THOSE AGENCIES RESPONSIBLE FOR MAINTENANCE OF UTILITIES IN THE VICINITY OF THE JOB SITE.	
	5. LENGTHS OF SANITARY SEWERS AND STORM DRAINS SPECIFIED ARE HORIZONTAL DISTANCES AS MEASURED FROM CENTERS OF STRUCTURES ROUNDED TO THE NEAREST FOOT.	
	6. EXISTING UNDERGROUND UTILITIES AND IMPROVEMENTS ARE SHOWN IN THEIR APPROXIMATE LOCATIONS BASED UPON RECORD INFORMATION AVAILABLE TO THE ENGINEER AT THE TIME OF PREPARATION OF THESE PLANS. LOCATIONS MAY NOT HAVE BEEN VERIFIED IN THE FIELD AND NO GUARANTEE IS MADE AS TO THE ACCURACY OR COMPLETENESS OF THE INFORMATION SHOWN. THE CONTRACTOR SHALL PERFORM AT THEIR EXPENSE A FIELD OBSERVATION LOCATING ALL EXISTING UTILITIES INCLUDING ELEVATIONS AND NOTIFY THE VA AND THE ENGINEER OF ANY CONFLICTS PRIOR TO CONSTRUCTION. IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO	
в	 DETERMINE THE EXISTING LOCATIONS OF UTILITIES SHOWN ON THESE PLANS. ANY ADDITIONAL COST INCURRED AS A RESULT OF THE CONTRACTOR'S FAILURE TO VERIFY LOCATIONS OF THE EXISTING UTILITIES PRIOR TO BEGINNING CONSTRUCTION SHALL BE BORNE BY THE CONTRACTOR. 7. CONTRACTOR TO VERIFY ALL EXISTING INVERT ELEVATIONS FOR STORM DRAIN AND SANITARY SEWER 	
	CONSTRUCTION PRIOR TO ANY WORK. ALL WORK FOR STORM DRAIN AND SANITARY SEWER INSTALLATION SHALL BEGIN AT THE DOWNSTREAM CONNECTION POINT. THIS WILL ALLOW FOR ANY NECESSARY ADJUSTMENTS TO BE MADE PRIOR TO THE INSTALLATION OF THE ENTIRE LINE. IF THE CONTRACTOR FAILS TO BEGIN AT THE DOWNSTREAM CONNECTION POINT AND WORKS UPSTREAM, HE SHALL PROCEED AT HIS OWN RISK AND BE RESPONSIBLE FOR ANY ADJUSTMENTS NECESSARY.	
	8. CONTRACTOR SHALL UNCOVER AND EXPOSE ALL EXISTING UTILITY AND SEWER LINES WHERE THEY ARE CROSSED ABOVE OR BELOW BY THE NEW FACILITY BEING CONSTRUCTED IN ORDER TO VERIFY THE GRADE AND TO ASSURE THAT THERE IS SUFFICIENT CLEARANCE. PIPES SHALL NOT BE STRUNG NOR TRENCHING COMMENCED UNTIL ALL CROSSINGS HAVE BEEN VERIFIED FOR CLEARANCE. IF THE CONTRACTOR FAILS TO FOLLOW THIS PROCEDURE HE WILL BE SOLELY RESPONSIBLE FOR ANY EXTRA WORK OR MATERIAL REQUIRED IF MODIFICATIONS TO THE DESIGN ARE NECESSARY.	
	9. ALL EXISTING UTILITIES AND IMPROVEMENTS THAT BECOME DAMAGED DURING CONSTRUCTION SHALL BE COMPLETELY RESTORED TO THE SATISFACTION OF THE OWNER AT THE CONTRACTOR'S SOLE EXPENSE.	
	10. CONTRACTOR TO TAKE NECESSARY PRECAUTIONARY MEASURES TO PREVENT SOIL EROSION AND SEDIMENTATION. EXISTING AND PROPOSED DRAINAGE STRUCTURES TO BE TEMPORARILY COVERED WITH FILTER FABRIC OR EQUAL UNTIL SURROUNDING PAVEMENT IS INSTALLED.	
с	11. ANY RELOCATION OF UTILITIES SHALL BE COORDINATED WITH THE VA AND CONDUCTED IN ACCORDANCE WITH ANY AND ALL REQUIREMENTS OF THE OWNER, INCLUDING FEES, BONDS. PERMITS AND WORKING CONDITIONS, ETC. THE OWNER SHALL PAY THE FEES, BONDS, AND FILE THE APPROPRIATE PERMITS FOR ALL SUCH RELOCATION WORK. ALL ON- SITE UTILITY WORK IS THE RESPONSIBILITY OF THE CONTRACTOR (MATERIALS AND INSTALLATION).	
	12. IF ARCHAEOLOGICAL MATERIALS ARE UNCOVERED DURING GRADING. TRENCHING OR OTHER EXCAVATION, EARTHWORK WITHIN 100 FEET OF THESE MATERIALS SHALL BE STOPPED UNTIL A PROFESSIONAL ARCHAEOLOGIST WHO IS CERTIFIED BY THE SOCIETY OF PROFESSIONAL ARCHAEOLOGY (SOPA) HAS HAD AN OPPORTUNITY TO EVALUATE THE SIGNIFICANCE OF THE FIND AND SUGGEST APPROPRIATE MITIGATION MEASURES, IF THEY ARE DEEMED NECESSARY.	
	13. THESE PLANS DO NOT SPECIFY NOR RECOMMEND THE USE OR INSTALLATION OF ANY MATERIAL OR EQUIPMENT WHICH IS MADE FROM, OR WHICH CONTAINS ASBESTOS FOR USE IN THE CONSTRUCTION OF THESE IMPROVEMENTS. ANY PARTY INSTALLING OR USING SUCH MATERIALS OR EQUIPMENT SHALL BE SOLELY RESPONSIBLE FOR ALL INJURES. DAMAGES, OR LIABILITIES, OF ANY KIND, CAUSED BY THE USE OF SUCH MATERIALS, OR EQUIPMENT. NOTIFY OWNER WHEN DISCOVERING ASBESTOS MATERIALS. REFER TO SPECIFICATION 'HAZARDOUS MATERIALS PROCEDURES AND CONTROL' AND 'HAZARDOUS MATERIALS ABATEMENT AND CONTROL.'	
	 THE CONTRACTOR SHALL MEET AND FOLLOW ALL (NPDES) NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM REQUIREMENTS IN EFFECT AT THE TIME OF CONSTRUCTION. 	
Mo	15. SHOULD IT APPEAR THAT THE WORK TO BE DONE OR ANY MATTER RELATIVE THERETO IS NOT SUFFICIENTLY DETAILED OR EXPLAINED ON THESE PLANS, THE CONTRACTOR SHALL CONTACT THE ENGINEER FOR SUCH FURTHER EXPLANATIONS AS MAY BE NECESSARY.	
D 1/11/2024 1:54:25 PM	16. CONTRACTOR SHALL ARRANGE, INSTALL, AND PAY FOR ANY TEMPORARY UTILITIES, INCLUDING BUT NOT LIMITED TO TELEPHONE, ELECTRIC, SEWER, WATER, ETC THE CONTRACTOR IS TO COORDINATE ANY SUCH UTILITY NEEDS WITH THE VA.	
1/11/2	17. ALL SITE AREAS SHALL BE GRADED AT 1% MINIMUM FOR DRAINAGE UNLESS OTHERWISE NOTED OR ALONG FLOWLINES OF CONCRETE LINED GUTTERS AND VALLEY GUTTERS.	
	 ESTIMATED EARTHWORK QUANTITIES SHOWN ARE APPROXIMATE ONLY AND SHOWN FOR THE PURPOSES OF ESTIMATING GRADING PERMIT FEES, HOHBACH-LEWIN ASSUMES NO LIABILITY FOR THE ACCURACY OF THESE QUANTITIES. 	
	19. WHERE EXISTING STRUCTURES ARE TO REMAIN IN CONSTRUCTION ZONE AREA, CONTRACTOR SHALL ADJUST RIMS OF THESE STRUCTURES, I.E. CATCH BASINS, VALVE BOXES, CLEAN OUTS, UTILITY BOXES, ETC. TO NEW FINISH GRADE.	
	20. THE ORGANIC MATERIAL COVERING THE SITE SHALL BE STRIPPED AND STOCKPILED. THE STRIPPINGS SHALL BE USED TO BACKFILL ALL LANDSCAPE PLANTERS AND ROUGH GRADE MOUND AREAS, AS SHOWN ON LANDSCAPE DRAWINGS, TO WITHIN 1" OF GRADES SHOWN. EXCESS STRIPPINGS AND EXCAVATED MATERIAL SHALL BE REMOVED FROM THE SITE BY THE CONTRACTOR.	
	21. ADJUSTMENTS TO PAD ELEVATIONS OR PARKING LOT GRADES TO ACHIEVE EARTHWORK BALANCE SHALL BE MADE ONLY WITH APPROVAL OF THE ENGINEER.	
	 COMPACTION TO BE DETERMINED USING ASTM D1557-LATEST EDITION. PROPOSED SPOT GRADES (ELEVATIONS) SHOWN HEREON ARE FINISHED PAVEMENT GRADES, NOT TOP OF CURB 	
E	 GRADES, UNLESS NOTED OTHERWISE. 24. THE CONTRACTOR SHALL VERIFY THE CONTENTS AND THICKNESS OF THE BUILDING SLAB SECTION (IE: CONCRETE, SAND, ROCK) WITH THE STRUCTURAL PLANS AND THE ELEVATIONS SHOWN HEREON PRIOR TO COMMENCEMENT OF GRADING. 	GENERAL NOTES CC GRADING NOTES:
	25. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH APPLICABLE O.S.H.A. REGULATIONS.	1. UNDERGROUND UTILITY LOCATION ENGINEERING CONSULTANTS (WWW
	26. CONSTRUCTION CONTRACTOR AGREES THAT IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES, CONSTRUCTION CONTRACTOR WILL BE REQUIRED TO ASSUME SOLE AND COMPLETE RESPONSIBILITY FOR JOB SITE CONDITIONS DURING THE COURSE OF CONSTRUCTION OF THE PROJECT, INCLUDING SAFETY OF ALL PERSONS AND PROPERTY; THAT THIS REQUIREMENT SHALL BE MADE TO APPLY CONTINUOUSLY AND NOT BE LIMITED TO NORMAL WORKING HOURS, AND CONSTRUCTION CONTRACTOR FURTHER AGREES TO DEFEND, INDEMNIFY AND HOLD DESIGN PROFESSIONAL HARMLESS FROM ANY AND ALL LIABILITY, REAL OR ALLEGED, IN CONNECTION WITH THE PERFORMANCE OF WORK ON THIS PROJECT, EXCEPTING LIABILITY ARISING FROM THE SOLE NEGLIGENCE OF DESIGN PROFESSIONAL.	2. IRRIGATION LATERALS, PARKING LO BEFORE COMMENCING TRENCHING UNINTERRUPTED SERVICE.
	27. WHERE OFF-SITE DRIVEWAY APPROACHES ARE TO BE CONSTRUCTED THE ON-SITE DRIVEWAY SHALL NOT BE CONSTRUCTED UNTIL THE OFF-SITE IMPROVEMENTS ARE INSTALLED. THE ON-SITE DRIVEWAY SHALL CONFORM TO	3. ALL FINISH GRADES SHOWN ARE FI

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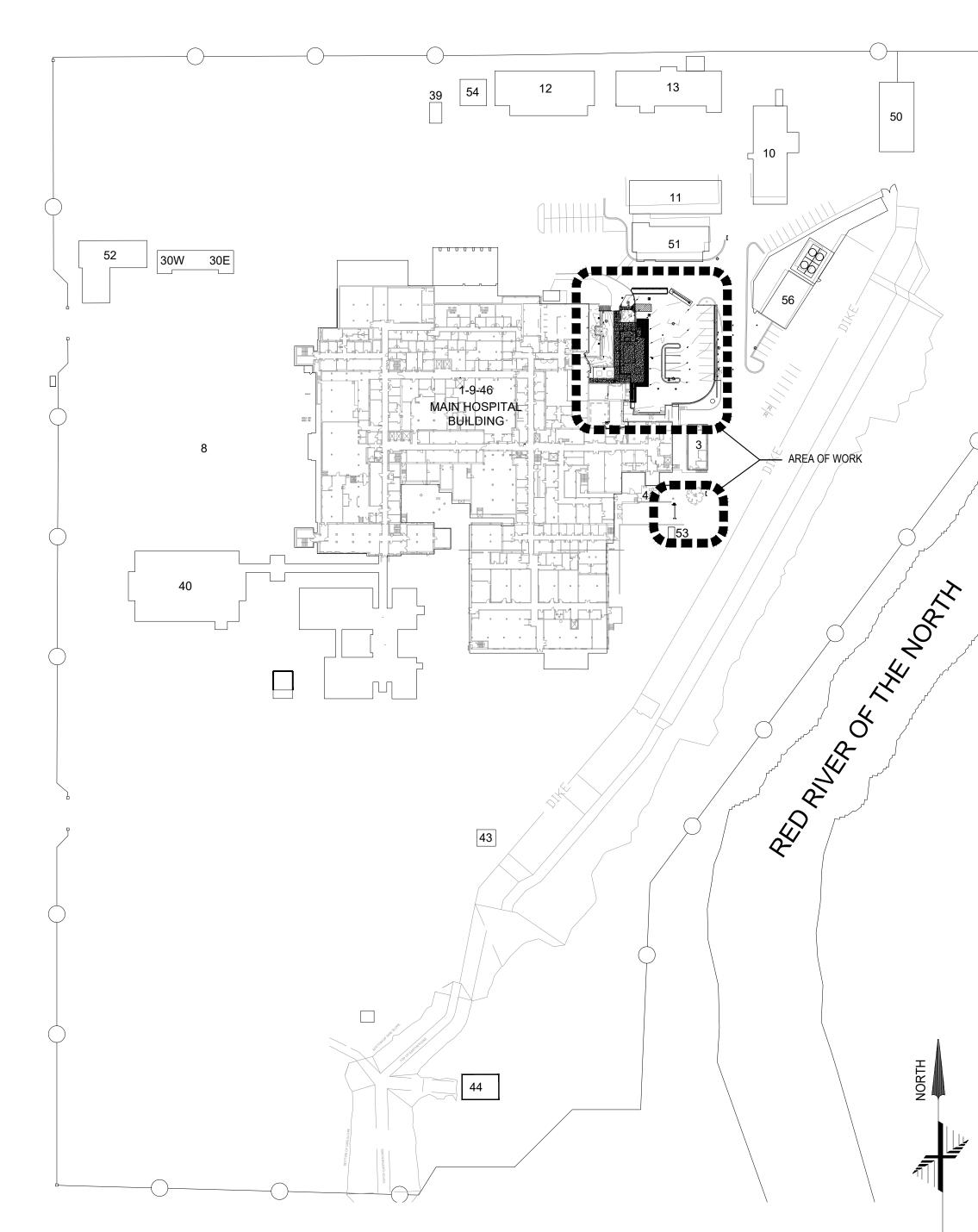
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IMPROVEMENT PLANS FOR

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DEPARTMENT OF VETERANS AFFAIRS 2101 ELM STREET NORTH FARGO, NORTH DAKOTA 58102



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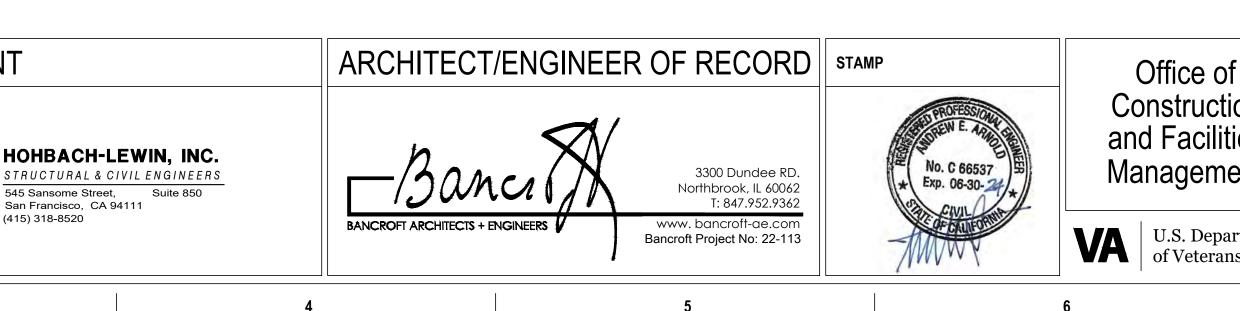
NS SHOWN HEREON WERE PROVIDED BY THE VA AND PROFESSIONAL W.PEC1.COM). NO GUARANTEE IS MADE OR IMPLIED AS TO THE ACCURACY OF ATIONS WERE MADE TO CONFIRM LOCATIONS. CONTRACTORS ARE CAUTIONED TO AND TO EXERCISE EXTREME CARE IN VERIFYING ALL LOCATIONS PRIOR TO THER WORK WHICH MAY AFFECT THESE UTILITIES.

LOT LIGHTING WIRING AND SIGNAL WIRING NOT SHOWN. VERIFY LOCATION . REPLACE OR REPAIR IMMEDIATELY WHERE BROKEN TO PROVIDE

FINISH GRADE ELEVATIONS UNLESS NOTED OTHERWISE.

UTILITY NOTES:

- 1. THIS SURVEY IS NOT INTENDED TO REPRESENT THE EXACT LOCATIONS, SIZES OR EXTENT OF THE UTILITIES WITHIN THE AREA ENCOMPASSED BY THIS SURVEY. THEREFORE, IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THE LOCATION, SIZE AND EXTENT OF ANY EXISTING UTILITIES PRIOR TO DESIGN OR CONSTRUCTION. CONTRACTORS ARE CAUTIONED TO EXERCISE EXTREME CARE IN VERIFYING ALL LOCATIONS PRIOR TO COMMENCING EXCAVATIONS OR OTHER WORK WHICH MAY AFFECT THESE UTILITIES.
- IRRIGATION LATERALS, PARKING LOT LIGHTING WIRING AND SIGNAL WIRING NOT SHOWN. VERIFY LOCATION BEFORE COMMENCING TRENCHING. REPLACE OR REPAIR IMMEDIATELY WHERE BROKEN TO PROVIDE UNINTERRUPTED SERVICE.
- 3. UTILITY ABANDONMENT/REMOVAL: DISCONNECT AND CAP PIPES AND SERVICES TO REMAIN. REMOVE ALL PORTIONS OF ALL UTILITIES WITHIN NEW BUILDING FOOTPRINT AND DISPOSE OF OFF-SITE. OTHERWISE ABANDON IN PLACE UNLESS NOTED OTHERWISE.
- 4. NOTIFY THE ENGINEER IMMEDIATELY OF ANY UTILITIES ENCOUNTERED THAT ARE NOT SHOWN ON THE DRAWINGS. PRESERVE AND REPAIR ANY UTILITIES THAT ARE DAMAGED AND THAT ARE TO REMAIN.
- 5. CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CROSSINGS OF NEW UTILITIES WITH EACH OTHER, AND WITH EXISTING UTILITIES. VERIFY EXISTING PIPE LOCATION AND INVERT PRIOR TO INSTALLING NEW UTILITIES. NOTIFY THE ENGINEER IMMEDIATELY OF ANY DISCREPANCIES OR DEVIATIONS.
- 6. PRIOR TO CONNECTING TO EXISTING UTILITIES FIELD VERIFY LOCATION & INVERT OR DEPTH PRIOR TO INSTALL NEW PIPE OR EQUIPMENT.
- 7. EACH BUILDING WATER SERVICE CONNECTION SHALL BE WITH VALVE AND VALVE BOX SET AT GRADE.
- 8. ALL BUILDING SEWER LATERALS SHALL BE WITH CLEANOUT TO GRADE.
- 9. ALL CATCH BASINS WITHIN VEHICULAR AREAS SHALL BE TRAFFIC RATED FOR H20 VEHICULAR LOADS. FOR CATCH BASINS IN WALKWAY AREAS, INCLUDING EXISTING CATCH BASINS, USE HEEL PROOF AND ADA GRATE.



f on ies	Drawing Title COVER SHEET		Phase ISSUE FO	R BID	Project Title EHRM INFRASTRUC UPGRADES - TIER 2		
ent	Approved: Project Director	BUILDING FULLY		Location FARGO VA HEALTH			
rtment is Affairs			SPRINKLE		Issue Date 01/16/2024	Check	
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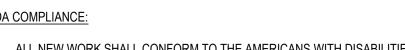
LING	<u>GEO</u>	TECHNICAL CRITERIA:
		ALL WORK INCLUDING GRADING, TRENCHING, COMPACTION, AND SUBBASES SHALL FOLLOW THE RECOMMENDATIONS OF THE PROJECT GEOTECHNICAL REPORT/VA SPECIFICATIONS.
		ALL ENGINEERED FILL SHALL HAVE A MINIMUM RELATIVE COMPACTION PER PROJECT GEOTECHNICAL REPORT/VA SPECIFICATIONS.

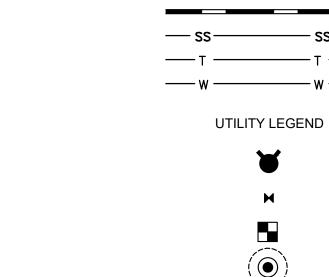
- 6. MAXIMUM CROSS-SLOPE ON ANY SIDEWALK OR RAMP SHALL BE 2%.
- 5. RAMPS ARE DEFINED AS ANY WALKWAY BETWEEN SLOPES OF 1:20 (5%) AND 1:12 (8.33%), AND SHALL HAVE A BOTTOM LANDINGS AND LANDINGS AT CHANGES IN RAMP DIRECTION SHALL HAVE A MINIMUM LENGTH OF 72".

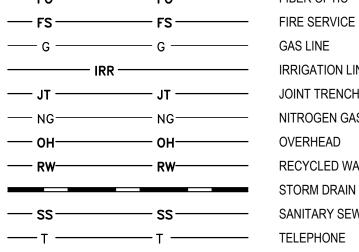
- MINIMUM WIDTH OF 48" AND A MAXIMUM CROSS-SLOPE OF 2%. RAMPS EXCEEDING 30" VERTICAL DROP SHALL HAVE INTERMEDIATE (2% MAXIMUM SLOPE) LANDINGS HAVING A MINIMUM LENGTH IN THE DIRECTION OF TRAVEL OF 60".
- AND 42" PLUS THE WIDTH OF THE DOOR WHEN THE DOOR OPENS ONTO THE LANDING.
- SHALL HAVE A MINIMUM WIDTH OF 60" AND A MINIMUM DEPTH OF 60" WHEN THE DOOR OPENS INTO THE BUILDING,
- RAILINGS ARE PROVIDED IN WHICH CASE THE SLOPE SHALL NOT EXCEED 1:12 (8.33%). SEE ARCHITECTURAL PLANS FOR RAILING REQUIREMENTS. 4. LANDINGS SHALL BE PROVIDED AT PRIMARY ENTRANCES TO BUILDINGS WITH A 2% MAXIMUM SLOPE THE LANDINGS
- 3. ALL NEW ENTRANCE WALKS TO THE BUILDINGS SHALL NOT EXCEED A SLOPE OF 1:20 (5%) LONGITUDINALLY UNLESS
- 2. ALL NEW CURB RAMPS SHALL NOT EXCEED A SLOPE OF 1:12 (8.33%).
- 1. ALL NEW WORK SHALL CONFORM TO THE AMERICANS WITH DISABILITIES ACT 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN, AND ANY LOCAL OR STATE AMENDMENTS THEREOF.

SCALE: 1" = 100'

- ADA COMPLIANCE:







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UTILITY LINES FIBER OPTIC _____ ____ _____ _____ _____

_____ W ______

FENCE-WIRE

ADJACENT PROPERTY LINE SIDEWALK

ELECTRIC

GAS LINE

IRRIGATION LINE

JOINT TRENCH

NITROGEN GAS

RECYCLED WATER

SANITARY SEWER

STORM DRAIN

TELEPHONE

WATER

FIRE HYDRANT

WATER VALVE

WATER METER

CATCH BASIN

AREA DRAIN

STORM DRAIN MANHOLE

BACKFLOW PREVENTER

CLEANOUT TO GRADE

FIRE DEPARTMENT CONNECTION

OVERHEAD

PROPERTY LINE

CENTER LINE EASEMENT LINE

BFP

BLDG

BOL

BOW

BW/FS

CATV

CONC

COTG

ELEC

ECMT

FNC

FS

GRN

NTS

NW

OR

PERF

POC

RIM

TW TW/FS

TYP.

UON

USA

VG

W

WM WTR

WV

C100

C101

C200

C300

C400

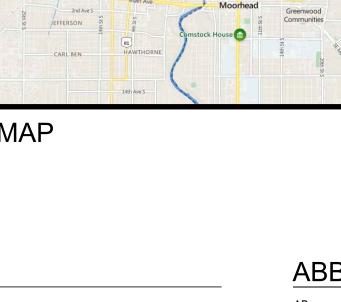
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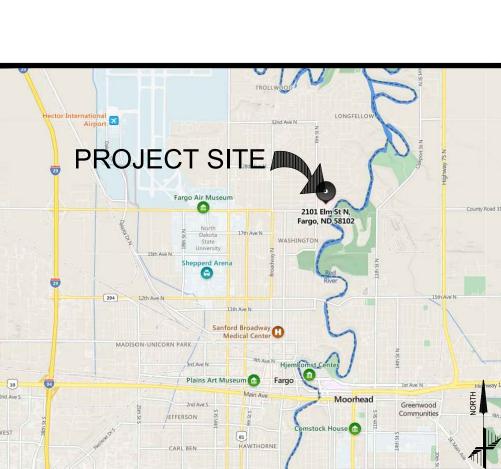
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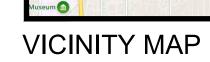
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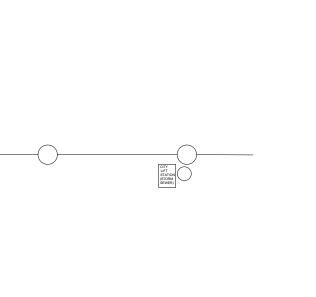
BOUNDARY LINES

_____ _ _ _ _ _

MISCELLANEOUS LINES

LEGEND

8



7





ABBREVIATIONS AGGREGATE BASE ASPHALTIC CONCRETE AREA DRAIN AT&T BACK OF CURB BACKFLOW PREVENTER BUILDING BOLLARD BACK OF WALK BOTTOM OF WALL BOTTOM OF WALL/FINISHED SURFACE CONCRETE CABLE TV CATCH BASIN CONCRETE CLEANOUT TO GRADE DRAIN INLET DOWN SPOUT ELECTRIC OR EAST EACH WAY EXISTING EXISTING ELECTRIC EASEMENT GAS GRADE BREAK FINISHED FLOOR FINISHED GRADE FLOWLINE FORCE MAIN FENCE FINISHED SURFACE GROUND HIGH POINT INVERT JOINT POLE LINEAR FEET LIP OF GUTTER LIGHT MAPS NORTH NORTHEAST NOT TO SCALE NORTHWEST ON CENTER OVERHEAD OF RECORD PERFORATED PIPE POINT OF CONNECTION PAVEMENT RELATIVE COMPACTION RECYCLED WATER RIM OF UTILITY OBJECT SOUTH STORMDRAIN SOUTHEAST SANITARY SEWER STREET LIGHT SOUTHWEST TREE TOP OF CURB TOP OF WALL TOP OF WALL/FINISHED SURFACE TYPICAL UNLESS OTHERWISE NOTED UNDERGROUND SERVICE ALERT VALLEY GUTTER WATER/WEST/WITH WATER METER WATER WATER VALVE

С

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SHEET INDEX

COVER SHEET NOTES DEMOLITION PLAN GRADING AND DRAINAGE PLAN UTILITY PL AN DETAILS DETAILS SECTIONS



ISS	SUE FOR BID - 01/16/2024			
	Project Number			
URE	437-21-210			
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		6709.		
	Drawing Number	- - -		
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d Drawn	C100	DHBACH-LEWIN: 16709.31		

	CAUTION:	EROSION AND SEDIMENTATION
A	 THE LOCATIONS, SIZES AND/OR DEPTHS OF EXISTING UNDERGROUND UTILITIES AS SHOWN ON THIS PLAN WERE OBTAINED FROM SOURCES OF VARYING RELIABILITY. THE CONTRACTOR IS CAUTIONED THAT ONLY ACTUAL EXCAVATION WILL REVEAL THE TYPES, EXTENT, SIZES, LOCATIONS AND DEPTHS OF SUCH UNDERGROUND UTILITIES. (A REASONABLE EFFORT HAS BEEN MADE TO LOCATE AND DELINEATE 	CONTROL NOTES: EROSION CONTROL MEASURES ARE INTENDED TO PREVENT SEDIMENT AND DEBRIS FROM ENTERING THE CITY, COUNTY STORM DRAIN SYSTEM, SANITARY SEWER SYSTEM OR FROM LEAVING THE SITE.
	 ALL KNOWN UNDERGROUND UTILITIES). CONTRACTOR SHALL VERIFY LOCATION AND DEPTH PRIOR TO ANY EXCAVATION OR IMPROVEMENT. CONTRACTOR SHALL CONTACT UNDERGROUND SERVICE ALERT FOR LOCATION OF UNDERGROUND UTILITIES AT LEAST 48 HOURS PRIOR TO COMMENCEMENT OF CONSTRUCTION-PHONE (800) 642-2444. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES PRIOR TO BEGINNING ANY WORK ON THIS SITE. THESE DRAWINGS DO NOT ADDRESS CONTRACTOR MEANS, METHODS OR PROCESSES THAT MAY BE ASSOCIATED WITH ANY TOXIC SOILS IF FOUND ON SITE. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL CITY AND COUNTY STANDARDS AND APPROPRIATE REGULATIONS IF TOXIC SOILS ARE ENCOUNTERED. CONTRACTOR MUST NOTIFY THE OWNER'S PROJECT MANAGER IMMEDIATELY IF ANY SOILS ARE EVEN SUSPECTED OF BEING CONTAMINATED. 	 THE CONTRACTOR SHALL MAKE ADJUSTMENTS IN THE FIELD TO MAKE SURE THAT THIS CONCEPT IS CARRIED OUT. EROSION CONTROL FACILITIES AND MEASURES ARE TO BE INSTALLED AND OPERABLE PRIOR TO COMMENCEMENT OF ANY WORK AND SHALL CONTINUE IN EFFECT UNTIL DISTURBED AREAS ARE STABILIZED OR UNTIL INSTALLATION OF THE PERMANENT SITE IMPROVEMENTS. CONTRACTOR IS RESPONSIBLE FOR THE EXACT DESIGN AND EXTENT OF THE EROSION CONTROL SYSTEM SO THAT IT WORKS WITH THE CONTRACTOR'S INTENDED USE AND MANAGEMENT OF THE CONSTRUCTION SITE, AND IS APPROVAL BY THE APPROPRIATE GOVERNMENTAL AGENCIES. ALL EROSION CONTROL FACILITIES SHALL BE INSPECTED BY THE CONTRACTOR AND REPAIRED, AS
E B B B C C C C C C C C C C C C C C C C	3. THESE DRAWINGS DO NOT ADDRESS CONTRACTOR MEANS, METHODS OR PROCESSES THAT MAY BE ASSOCIATED WITH ANY TOXIC SOILS IF FOUND ON SITE. THE CONTRACTOR IS RESPONSIBLE FOR COMPLYING WITH ALL CITY AND COUNTY STANDARDS AND APPROPRIATE REGULATIONS IF TOXIC SOILS ARE ENCOUNTERED. CONTRACTOR MUST NOTIFY THE OWNER'S PROJECT MANAGER IMMEDIATELY IF	SYSTEM SO THAT IT WORKS WITH THE CONTRACTOR'S INTENDED USE AND MANAGEMENT OF THE CONSTRUCTION SITE, AND IS APPROVAL BY THE APPROPRIATE GOVERNMENTAL AGENCIES.
J 31/Civil\16709.31-C101-NOTE.dwg	WALLER SWEEPER. A ALL TRUCKS HAULING SOIL, SAND, AND OTHER LOOSE MATERIALS SHALL BE COVERED WITH TARPAULINS OR OTHER EFFECTIVE COVERS. THE SPEED OF ALL VEHICLES DRIVING ON UNPAVED ROADS OR PORTIONS OF THE SITE SHALL BE LIMITED TO 10 MPH.	
vings\16500-16999\16709.		

CONSULTANT

<u> </u>	HOHBACH-LEW	
	545 Sansome Street, San Francisco, CA 94111 (415) 318-8520	Suite 850

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THE EXACT DESIGN AND EXTENT OF THE EROSION CONTROL CONTRACTOR'S INTENDED USE AND MANAGEMENT OF THE HALL BE INSPECTED BY THE CONTRACTOR AND REPAIRED, AS

D AND USED TO CLEAN ALL TRUCKS AND EQUIPMENT LEAVING VASHERS CANNOT BE INSTALLED. TIRES OR TRACKS OF ALL

SITE FENCING NOTES :

1. CONTRACTOR SHALL PROVIDE A CONSTRUCTION FENCE AROUND THE ENTIRE AREA OF DEMOLITION AND CONSTRUCTION, INCLUDING ALL STAGING, STORAGE, CONSTRUCTION OFFICE AND LAYDOWN AREAS

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SANITARY SEWER NOTES:

SURVEYOR.

4" @ 2%

6" @ 1%

CONTROL REQUIREMENTS.

VA SPECIFICATIONS:

8" & LARGER @ 0.5%

STORM DRAIN NOTES

CONTROL REQUIREMENTS.

WATER SYSTEM NOTES:

6" & LARGER 1%

FROM FINISH GRADE

CONTROL REQUIREMENTS.

POLYVINYL CHLORIDE (PVC) SDR 26 SEWER PIPE.

1. INSTALL DETECTABLE METALIZED WARNING TAPE APPROXIMATELY 18" BELOW THE SURFACE IN

"CAUTION-SANITARY SEWER LINE BELOW", CALPICO TYPE 2 OR EQUAL.

INFORMATION SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.

"CAUTION-STORM DRAIN LINE BELOW", CALPICO TYPE 2 OR EQUAL.

INFORMATION SHALL BE REPORTED IMMEDIATELY TO THE ENGINEER.

NON-TRAFFIC AREAS SHALL BE POLYVINYL CHLORIDE (PVC) SDR 35.

"CAUTION-WATER-LINE BELOW", CALPICO TYPE 2 OR EQUAL.

5. MINIMUM SLOPE FOR SITE STORM DRAIN PIPES SHALL BE:

PAVED AREAS. INSTALL BOLT-DOWN GRATES ON ALL DRAINAGE STRUCTURES.

NON-PAVED AREAS, AND AT BOTTOM OF BASEROCK FOR PAVED AREAS. GREEN, IMPRINTED WITH

2. PUBLIC AND PRIVATE SANITARY SEWER MAIN AND SERVICE LINE 4-INCH THROUGH 8-INCH SHALL BE

3. WHERE CONNECTION IS TO BE MADE TO AN EXISTING SEWER OR STRUCTURE, SAID EXISTING SEWER

OR STRUCTURE SHALL BE UNCOVERED AND CHECKED FOR LOCATION AND ELEVATION PRIOR TO

4. ALL SANITARY SEWER DESIGNED AT 1% OR FLATTER SHALL BE STAKED BY A CIVIL ENGINEER OR LAND

6. MINIMUM SLOPE FOR SITE SANITARY SEWER PIPES SHALL BE PER CURRENT UPC REQUIREMENTS AND

1. INSTALL DETECTABLE METALIZED WARNING TAPE APPROXIMATELY 18" BELOW THE SURFACE IN

NON-PAVED AREAS, AND AT BOTTOM OF BASEROCK FOR PAVED AREAS. GREEN, IMPRINTED WITH

2. INSTALL ADA APPROVED GRATES ON ALL DRAINAGE STRUCTURES WITHIN PEDESTRIAN ACCESSIBLE

3. WHERE CONNECTION IS TO BE MADE TO AN EXISTING SEWER OR STRUCTURE, SAID EXISTING SEWER

OR STRUCTURE SHALL BE UNCOVERED AND CHECKED FOR LOCATION AND ELEVATION PRIOR TO

STAKING NEW SEWER DEPTH AND LOCATION. ANY DISCREPANCY BETWEEN THE PLANS AND FIELD

6. PRIVATE STORM DRAIN LINE 4-INCH THROUGH 12-INCH WITH A MINIMUM OF TWO (2) FEET OF COVER IN

1. INSTALL DETECTABLE METALIZED WARNING TAPE APPROXIMATELY 18" BELOW THE SURFACE IN

OF 22 1/2 DEGREES OR GREATER (HORIZONTAL AND VERTICAL), AT SIZE CHANGES

4. MAINTAIN PUBLIC WATER LINES 10' AWAY FROM PUBLIC SANITARY SEWER LINES.

JOINTS SHALL BE A MINIMUM OF 10 FEET FROM SANITARY SEWERS.

DISCREPANCIES THAT WILL IMPACT THE DESIGN.

AS SPECIFIED BY THE PLUMBING PLANS.

FIRE PROTECTION NOTES:

ARCHITECT / ENGINEER.

BEING CONNECTED TO.

FROM FINISH GRADE.

ARCHITECT/ENGINEER OF RECORD

3300 Dundee RD.

T: 847.952.9362

Northbrook, IL 60062

www.bancroft-ae.com

Bancroft Project No: 22-113

3. PROVIDE MINIMUM OF 3 FEET OF COVER OVER WATER LINES, UNLESS NOTED OTHERWISE.

NON-PAVED AREAS, AND AT BOTTOM OF BASEROCK FOR PAVED AREAS. BLUE, IMPRINTED WITH

2. PROVIDE THRUST BLOCKS OR COMPARABLE RESTRAINTS PER THE LOCAL WATER AGENCY, AT BENDS

5. WHERE WATER LINES HAVE TO CROSS SANITARY SEWER LINES, DO SO AT A 90 DEGREE ANGLE AND

WATER LINES SHALL BE MINIMUM OF 12" ABOVE TOP OF SANITARY SEWER LINES AND WATERLINE

6. WATER LINES ARE SHOWN SCHEMATICALLY. CONTRACTOR SHALL IDENTIFY EACH ANGLE AND/OR BEND

WITH APPROPRIATE FITTINGS THAT MAY BE REQUIRED TO ACCOMPLISH THE INTENDED DESIGN.

7. BOTTOM OF BACKFLOW PREVENTOR ASSEMBLY TO BE INSTALLED NO GREATER OR LESS THAN 12"

8. THE UNDERGROUND DOMESTIC WATER SYSTEM INSTALLER SHALL OBTAIN ALL APPROVALS AND

PERMITS PRIOR TO ORDERING MATERIALS, FABRICATING SYSTEMS OR ANY INSTALLATION.

9. CONTRACTOR TO POTHOLE AND VERIFY LOCATION, DEPTH & SIZE OF P.O.C. TO EXISTING WATERMAIN

PRIOR TO INSTALLING ANY NEW WATERMAIN AND ADVISE THE OWNER ENGINEER OF ANY FIELD

10. REFER TO DOMESTIC WATER SPECIFICATIONS FOR LABOR AND MATERIAL, TESTING AND QUALITY

11. PUBLIC AND PRIVATE WATER MAIN AND WATER SERVICE LINE 4-INCH THROUGH 12-INCH SHALL BE

12. ALL WATER LINES 3" OR SMALLER SHALL BE TYPE K COPPER WITH SILVER BRAZED JOINTS.

COATED DUCTILE IRON FITTINGS AND FUSION EPOXY COATED GATE VALVES.

POLYVINYL CHLORIDE (PVC) AND SHALL MEET AWWA C900, RATED FOR 200 PSI CLASS PIPE WITH EPOXY

CONTRACTOR TO VERIFY PRESSURES FROM EXISTING LINES ARE ADEQUATE TO SERVICE BUILDINGS

1. THE UNDERGROUND FIRE PROTECTION SYSTEM SHOWN ON THIS DRAWING IS SCHEMATIC AND IS NOT

2. THE UNDERGROUND FIRE PROTECTION SYSTEM INSTALLER SHALL PREPARE SHOP DRAWINGS

RISERS PER FIRE FLOW REQUIRED BY LOCAL FIRE DEPARTMENT.

TO BE COORDINATED WITH ACTUAL FIELD CONDITIONS.

9. MIN. 2' CLEARANCE FROM BACK OF CURB TO FH's, PIV's, AND FDC's.

INTENDED TO BE AN INSTALLATION DRAWING. THE UTILITY DRAWING IN THIS SET OF DOCUMENTS

SHALL NOT BE USED AS A BASE SHEET FOR SHOP DRAWINGS WITHOUT WRITTEN APPROVAL OF THE

SHOWING ALL INFORMATION REQUIRED BY THE LOCAL FIRE MARSHAL, INCLUDING LOCATION, TYPE AND

NUMBER OF ANGLES. THRUST BLOCKS. VALVES. FIRE HYDRANTS. PIV's. FDC's. BACKFLOW ASSEMBLIES.

FLEXIBLE CONNECTIONS, VAULTS, AND FLOW CALCULATIONS TO FIRE HYDRANTS AND SPRINKLER

SHOP DRAWINGS SHALL BE SUBMITTED TO THE VA & ARCHITECT, THE RATING AGENCY AND THE

4. THE UNDERGROUND FIRE PROTECTION SYSTEM INSTALLER SHALL OBTAIN ALL APPROVALS AND

PERMITS PRIOR TO ORDERING MATERIALS, FABRICATING SYSTEMS OR ANY INSTALLATION.

5. GENERAL CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF ALL DIMENSIONS AND EQUIPMENT

6. INSTALL MONITORED TAMPERSWITCHES AT ALL PIV'S AND VALVES ON BACKFLOW ASSEMBLIES.

7. CONTRACTOR TO USE CATHODIC PROTECTION FOR ALL UNDERGROUND FIRE PROTECTION SYSTEMS.

8. BOTTOM OF BACKFLOW PREVENTOR ASSEMBLY TO BE INSTALLED NO GREATER OR LESS THAN 12"

FINAL LOCATION OF ANODES AND TEST STATIONS SHALL BE COORDINATED WITH ARCH./ENGINEER. CONTRACTOR MAY ASSUME THAT THE TEST STATIONS WILL BE WITHIN 10 FEET OF THE FITTING/ITEM

Exp. 06-30-

LOCATIONS. RISER LOCATIONS ARE SHOWN ON ARCHITECTURAL AND PLUMBING DRAWINGS AND ARE

PROJECT MANAGER, ALLOWING TIME FOR REVIEW AND ACCEPTANCE, PRIOR TO START OF WORK.

4. REFER TO STORM SEWER SPECIFICATIONS FOR LABOR AND MATERIAL, TESTING AND QUALITY

5. REFER TO SANITARY SEWER SPECIFICATIONS FOR LABOR AND MATERIAL, TESTING, AND QUALITY

STAKING NEW SEWER DEPTH AND LOCATION. ANY DISCREPANCY BETWEEN THE PLANS AND FIELD

- SOME AREAS WHERE CONSTRUCTION WORK IS NOT BEING DONE AND THE AREA IS NOT CONSTRUCTION FENCE SHALL BE A MINIMUM OF A 6' HIGH GALVANIZED CHAIN LINK.

- OBJECTIONABLE IN VISUAL APPEARANCE, AT THE DISCRETION AND APPROVAL OF THE DISTRICT STAFF.

- 2. FENCE LOCATION MAY BE ADJUSTED FROM TIME TO TIME AS CONSTRUCTION PROCEEDS TO EXCLUDE

- 3. CONSTRUCTION FENCE ADDRESSED IN THESE NOTES IS TO MEET MINIMUM SEPARATION
- REQUIREMENTS FROM CONSTRUCTION SITE AND THE CAMPUS. CONTRACTOR IS REQUIRED TO INSTALL ANY ADDITIONAL FENCING, BARRICADES OR OTHER SAFETY DEVICES NEEDED TO KEEP THE SITE SECURE & SAFE AT ALL TIMES.
- 4. ALL FENCING SHALL BE INSTALLED AT ONLY LOCATIONS DESIGNATED AND APPROVED BY DISTRICT PERSONNEL, WITH PARTICULAR CARE GIVEN SUCH THAT THE FENCING DOES NOT CREATE A TRAFFIC HAZARD OR NUISANCE, OR RESTRICT CAMPUS CIRCULATION & FIRE EXITING.

GRADING & EARTHWORK NOTES:

4

- 1. ALL PAVED AREAS ARE TO SLOPE A MINIMUM OF 1%. ACCESSIBLE STALLS AND LOADING ZONES ARE TO SLOPE AT A MAXIMUM OF 2% IN ANY DIRECTION AND ACCESSIBLE PATHWAYS ARE TO SLOPE AT A MAXIMUM OF 8.33%. WITH A MAXIMUM CROSS-SLOPE OF 2%. ANY AREAS ON THE SITE NOT CONFORMING TO THESE BASIC RULES DUE TO EXISTING CONDITIONS OR DISCREPANCIES IN THE DOCUMENTS ARE TO BE REPORTED TO THE ARCHITECT/ENGINEER PRIOR TO PROCEEDING WITH
- FORMWORK FOR CURBS AND/OR FLATWORK. 2. CONTRACTOR SHALL DETERMINE EARTHWORK QUANTITIES BASED ON THE TOPOGRAPHIC SURVEY, THE VA SPECIFICATIONS, AND THE PROPOSED SURFACE GRADES AND BASE THE BID ACCORDINGLY.
- ANY DIFFERENCES BETWEEN THE STATE IN WHICH THE PROJECT SITE IS DELIVERED TO THE CONTRACTOR AND THESE DOCUMENTS SHOULD BE NOTED TO THE CIVIL ENGINEER.
- 3. ALL FILL SHALL BE COMPACTED PER THE CONSTRUCTION SPECIFICATIONS AND THE CONTRACTOR SHALL COORDINATE AND COMPLY WITH THE TESTING AGENCY TO TAKE THE APPROPRIATE TESTS TO
- VERIFY COMPACTION VALUES. 4. IMPORT SOILS MUST MEET THE REQUIREMENTS OF THE CONSTRUCTION SPECIFICATIONS.
- 5. COORDINATE THE PLACEMENT OF ALL SLEEVES FOR LANDSCAPE IRRIGATION (WATER AND CONTROL WIRING) AND STREET LIGHTING PRIOR TO THE PLACEMENT OF ANY ASPHALT, BASEROCK OR CONCRETE SURFACING. SEE LANDSCAPE AND SITE ELECTRICAL DRAWINGS.
- 6. DO NOT ADJUST GRADES ON THIS PLAN WITHOUT PRIOR WRITTEN APPROVAL OF ARCHITECT & ENGINEER.
- 7. SPOT ELEVATIONS ARE TO FINISHED SURFACE.
- 8. ROUGH GRADING TO BE WITHIN 0.1' AND FINISH GRADES ARE TO BE WITHIN 0.05'. 9. SUBGRADES SHALL BE PREPARED PER THE CONSTRUCTION SPECIFICATIONS.
- 10. CONTRACTOR TO GRADE LANDSCAPED (NON PAVED) AREAS TO A FINISH GRADE OF 8" BELOW PROPOSED FINISH GRADE SHOWN ON THE GRADING PLANS. DISTRICT WILL INSTALL TOP 8 INCHES OF TOPSOIL AND PERFORM FINISH GRADING. CONTRACTOR TO GRADE PLANTER & LANDSCAPED AREAS (NON-PAVED AREAS ADJACENT TO BUILDINGS) TO FINISH GRADE 24" BELOW FINISH FLOOR OF BUILDING. DISTRICT TO INSTALL FINAL FILL MATERIAL, AND INSTALL IRRIGATION SYSTEMS.
- 11. AFTER STAKING FOR HORIZONTAL CONTROL CONTRACTOR SHALL FIELD CHECK ALL ELEVATIONS MARKED WITH (E) AND REPORT ANY DISCREPANCIES GREATER THAN 0.05' TO ARCH/ENGR.
- 12. ALL EXISTING UTILITY STRUCTURES WITHIN THE AREA OF WORK SHALL HAVE THE LIDS, GRATES, COVERS. ETC. ADJUSTED TO BE FLUSH WITH FINISHED GRADES. CONTRACTOR SHALL IDENTIFY ALL
- SUCH ITEMS BY USE OF THESE PLANS AND THOROUGH FIELD INVESTIGATION. 13. GEOTECHNICAL CONSULTANT TO BE NOTIFIED OF DELIVERY OF ALL IMPORTED SOILS TO SITE FOR HIS/HER INSPECTION AND APPROVAL PRIOR TO PLACING BY CONTRACTOR.

EARTHWORK QUANTITY NOTES

- 1. THE CONTRACTOR IS RESPONSIBLE FOR DETERMINING THE QUANTITIES OF ALL FORMS OF EARTHWORK ON THIS PROJECT AND BASING THE BID ON THOSE QUANTITIES WITH FULL KNOWLED THAT ADDITIONAL PROCESSES - INCLUDING ENGINEERING - AND QUANTITIES ARE ALSO TO BE INCLUDED IN THE BID PER THE FOLLOWING NOTES
- 2. THE CONTRACTOR SHALL MAKE AN INITIAL DETERMINATION OF THE QUANTITIES, BASED ON A DETAILED SITE VISIT, THE TOPOGRAPHIC SURVEY, THE GEOTECHNICAL REPORT, THE VA SPECIFICATIONS, THE FINISH GRADES SHOWN ON THESE DRAWINGS, THE SIZE AND EXTENT OF FOOTINGS, THE PREPARATION AND MATERIALS USED FOR BUILDING SLABS, PAVEMENT SECTIONS, AND THE SIZE AND DEPTH OF UTILITY TRENCHES, INCLUDING THE UTILITY CONTRACTORS ANTICIPATED RE-USE OF EXISTING MATERIAL FOR BACKFILL IF ANY.
- 3. THE CONTRACTOR SHALL MEET THE GRADES SHOWN ON THE DRAWINGS, ADJUSTING THE AMOUNT OF IMPORT OR EXPORT AS REQUIRED TO DO SO. NO ASSUMPTIONS SHOULD BE MADE ABOUT THE SITE BALANCING. NO ADJUSTMENTS TO THE GRADES SHALL BE PERMITTED UNLESS SPECIFICALLY APPROVED BY THE ARCH/ENGR IN WRITING AFTER THE IMPACT OF ANY GRADE CHANGES (IMPACT TO RAMPS. STAIRS. WORK BY OTHERS. ETC.) HAS BEEN THOROUGHLY REVIEWED BY THE ARCH/ENGR. WHEN PREPARING THE EARTHWORK BIDS, DO NOT ASSUME ANY CHANGES TO THE FINISHED GRADES SHOWN ON THESE DRAWINGS WILL BE PERMITTED
- 4. THE EARTHWORK SPECIFICATIONS, THE VA SPECIFICATIONS, AND GEOTECHNICAL REPORT HAVE SPECIFIC REQUIREMENTS FOR BRINGING FILL MATERIAL ONTO THE SITE (IMPORT) SINCE THE EXISTING SOILS ARE NOT SUITABLE FOR FILL MATERIAL IN CERTAIN AREAS. THE EARTHWORK SPECIFICATIONS, VA SPECIFICATIONS, AND GEOTECHNICAL REPORT MAY IDENTIFY ALTERNATIVES THAT ALLOW TREATMENT OF EXISTING SOILS TO MINIMIZE IMPORT. HOWEVER MEETING THE GRADES SHOWN ON THESE DRAWINGS MUST ALSO BE CONSIDERED WHEN DETERMINING THE METHOD.
- 5. AFTER THE BID IS AWARDED THE CONTRACTOR SHALL SUBMIT A DETAILED EARTHWORK HANDLING PLAN THAT SHOWS THE INTENT AND LOCATIONS OF EARTH MOVEMENT AND QUANTITIES OF CUT, FILL, IMPORT AND EXPORT AS THE PROJECT WAS BID. PROPOSING ALTERNATIVE PLANS THAT MAY IDENTIF' GRADE ADJUSTMENTS TO MINIMIZE THE DISTANCE SOIL IS MOVED OR TO MINIMIZE IMPORT OR EXPORT WILL NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY OF PREPARING AN EARTHWORK PLAN AS BID

GENERAL UTILITY SYSTEM NOTES

1. ALL TRENCHES SHALL BE BACKFILLED PER THE SPECIFICATIONS WITH APPROPRIATE TESTS TO VERIFY COMPACTION VALUES.

- 2. CONTRACTOR SHALL STAKE LOCATION OF ABOVE GROUND UTILITY EQUIPMENT (HYDRANTS, TRANSFORMERS, ETC.) AND MEET WITH THE APPROPRIATE GOVERNMENTAL AUTHORITY AND PROPER UTILITY AUTHORITY TO REVIEW LOCATION PRIOR TO INSTALLATION. THE APPROPRIATE GOVERNMENTAL AUTHORITY AND PROPER UTILITY AUTHORITY MUST SPECIFICALLY AGREE WITH LOCATION PRIOR TO PROCEEDING WITH THE INSTALLATION.
- 3. CONTRACTOR SHALL VERIFY (POTHOLE IF NECESSARY) SIZE, MATERIAL, LOCATION AND DEPTH OF ALL SYSTEMS THAT ARE TO BE CONNECTED TO OR CROSSED PRIOR TO THE TRENCHING OR INSTALLATION OF PROPOSED UTILITIES, AND INFORM ENGINEER OF ANY CONFLICTS BEFORE PROCEEDING WITH
- 4. CATHODIC PROTECTION IS REQUIRED ON ALL METALLIC FITTINGS AND ASSEMBLIES THAT ARE IN CONTACT WITH THE SOIL. CONTRACTOR IS RESPONSIBLE FOR FULLY ENGINEERING AND INSTALLING THIS SYSTEM AND COORDINATE ANODE AND TEST STATION LOCATIONS WITH OWNER'S ENGINEER. SEE PROJECT SPECIFICATIONS FOR ADDITIONAL CORROSION PROTECTION REQUIREMENTS. 5. CONTRACTOR SHALL VERIFY ALL EXISTING UTILITIES, INVERTS AND LOCATIONS PRIOR TO BEGINNING
- ANY WORK ON THIS SITE. 6. ALL DRAINAGE STRUCTURES LOCATED IN VEHICULAR TRAFFIC AREAS SHALL HAVE TRAFFIC RATED COVERS AND BOLT-DOWN GRATES. ALL DRAINAGE STRUCTURES IN PEDESTRIAN ACCESSIBLE AREAS SHALL HAVE ADA APPROVED BOLT-DOWN GRATES.
- 7. ALL UTILITY STRUCTURES WITHIN THE AREA OF WORK SHALL HAVE THE LIDS, GRATES, COVERS, ETC. ADJUSTED TO BE FLUSH WITH FINISHED GRADES. CONTRACTOR SHALL IDENTIFY ALL SUCH ITEMS BY USE OF THESE PLANS AND FIELD INVESTIGATION.
- 8. SEE LANDSCAPE LAYOUT PLANS FOR IRRIGATION SLEEVE LOCATIONS. 9. ALL EXISTING UTILITY STRUCTURES (CLEANOUTS, VALVES, BOXES, MANHOLES, CB'S, ETC.) SHALL BE
- RAISED TO FINAL FINISH GRADE AND COMPLETED WITH THE NECESSARY LABOR AND MATERIALS TO BE IN ACCORDANCE WITH DETAILS SHOWN ON THESE PLANS. 0. CLEANOUTS, CATCH BASINS, MANHOLES AND AREA DRAINS ARE TO BE ACCURATELY LOCATED BY THEIR RELATIONSHIP TO THE BUILDING, FLATWORK, BUILDING UTILITIES, AND/OR CURB LAYOUT, NOT BY
- THE LENGTH OF PIPE SPECIFIED ON THE DRAWINGS. (WHICH IS APPROXIMATE) 11. SEE ELECTRICAL PLANS FOR SITE ELECTRICAL WORK. ADVISE ENGINEER OF ANY CONFLICTS WITH OTHER UTILITIES PRIOR TO BEGINNING WORK.
- 12. COMPLETE SYSTEMS: ALL UTILITY SYSTEMS ARE DELINEATED IN A SCHEMATIC MANNER ON THESE PLANS. CONTRACTOR IS TO PROVIDE ALL FITTINGS, ACCESSORIES & WORK NECESSARY TO COMPLETE THE UTILITY SYSTEM SO THAT IT IS FULLY FUNCTIONING FOR THE PURPOSE INTENDED.

BANCROFT ARCHITECTS + ENGINEERS

GENERAL NOTES FOR

UNDERGROUND FIRE SERVICE

- 1. NFPA 24 SEC. 7-2 ALL FERROUS METAL PIPE SHALL BE LINED, AND STEEL PIPE SHALL BE COATED AND WRAPPED WITH JOINTS FIELD-COATED AND WRAPPED AFTER ASSEMBLY. FOR BURIED PIPE, GALVANIZING, INTERNALLY OR EXTERNALLY, DOES NOT MEET THE REQUIREMENTS OF THIS SECTION. 2. NFPA 24 SEC. 8-5.2 ALL BOLTED JOINTS ACCESSORIES SHALL BE CLEANED AND THOROUGHLY COATED
- WITH ASPHALT OR OTHER CORROSION-RETARDING MATERIAL AFTER INSTALLATION. 3. NFPA 24 SEC. 8-6.2.8 AFTER INSTALLATION, RODS, NUTS, BOLTS, WASHERS, CLAMPS, AND OTHER
- BITUMINOUS OR OTHER ACCEPTABLE CORROSION-RETARDING MATERIAL. 4. NFPA 24 SEC. 8-2.1 UNDERGROUND MAINS SHALL BE COMPLETELY FLUSHED TO REMOVE FOREIGN MATERIALS THAT MIGHT HAVE ENTERED THE MAIN DURING THE COURSE OF THE INSTALLATION PER TABLE 9-1.1 TO PRODUCE A VELOCITY OF 10 FT. PER SECOND IN PIPES (WITNESSED BY THE INSPECTOR OF RECORD). LOCAL FIRE JURISDICTION SHALL BE NOTIFIED OF DATE AND TIME OF TESTING SO THEY

RESTRAINING DEVICES, EXCEPT THRUST BLOCKS, SHALL BE CLEANED THOROUGHLY COATED WITH A

- MAY OBSERVE TESTING WHEN DESIRED. 5. NFPA 24 (1995) SEC. 8-9.3.1 ALL NEW PRIVATE UNDERGROUND FIRE SERVICE MAINS SHALL BE TESTED HYDROSTATICALLY AT NOT LESS THAN 200-PSI PRESSURE FOR A MINIMUM OF TWO HOURS. (WITNESSED BY THE INSPECTOR OF RECORD)
- 6. THE AMOUNT OF LEAKAGE IN BURIED PIPING SHALL BE MEASURED AT THE SPECIFIED TEST PRESSURE BY PUMPING FROM A CALIBRATED CONTAINER. FOR NEW PIPE, THE AMOUNT OF LEAKAGE AT THE JOINTS SHALL NOT EXCEED TWO QUARTS PER HOUR PER 100 GASKETS OR JOINTS IRRESPECTIVE OF PIPE DIAMETER. NO VISIBLE LEAKAGE SHALL BE ALLOWED IN ABOVE GROUND PIPING. (ALSO SEE SEC. 9-2.3.3 FOR ALLOWABLE LEAKAGE)
- 7. HYDROSTATIC TESTS SHOULD BE MADE BEFORE THE JOINTS ARE COVERED SO THAT ANY LEAKS MAY BE READILY DETECTED 8. NFPA 24 SEC. 8-1 THE DEPTH OF COVER OVER WATER PIPES SHALL BE NOT LESS THAN 2 1/2 FT. TO

PREVENT MECHANICAL DAMAGE AND SHALL BE BURIED A MINIMUM OF 3 FT. UNDER DRIVEWAYS.

UNDERGROUND FIRE SERVICE TO FIRE HYDRANTS REQUIREMENTS

- 1. NFPA 24 SEC. 1-4 THE UNDERGROUND FIRE SERVICE PLANS SHALL BE DRAWN TO SCALE BY THE UNDERGROUND FIRE PROTECTION SYSTEM INSTALLER AND SHALL INCLUDE ALL ESSENTIAL DETAILS
- SIZE AND LOCATION OF ALL WATER SUPPLIES. SIZE AND LOCATION OF ALL PIPING, INDICATION, WHERE POSSIBLE, THE CLASS AND TYPE AND DEPTH OF EXISTING PIPE, THE CLASS AND TYPE OF NEW PIPE TO BE INSTALLED, AND
- THE DEPTH TO WHICH IT IS TO BE BURIED. SIZE, TYPE AND LOCATION OF VALVES. INDICATE IF LOCATED IN PIT OR IF OPERATION IS BY POST INDICATOR OR KEY WRENCH THROUGH A CURB BOX. INDICATE THE SIZE, TYPE, AND LOCATION OF METERS, REGULATORS, AND CHECK VALVES.
- SIZE AND LOCATION OF HYDRANTS, SHOWING SIZE AND NUMBER OF OUTLETS AND IF OUTLETS ARE TO BE EQUIPPED WITH INDEPENDENT GATE VALVE.
- SPRINKLER AND STANDPIPE RISERS TO BE SUPPLIED BY THE SYSTEM. LOCATION OF FIRE DEPARTMENT CONNECTIONS, IF PART OF PRIVATE FIRE SERVICE MAIN SYSTEM, INCLUDING DETAIL OF CONNECTIONS.
- 2. NPFA 24 (95) SEC. 3-5.1 LARGE PRIVATE FIRE SERVICE MAIN SYSTEMS SHALL HAVE SECTIONAL CONTROLLING VALVES AT APPROPRIATE POINTS IN ORDER TO PERMIT SECTIONALIZING THE SYSTEM IN THE EVENT OF A BREAK, OR FOR THE MAKING OR REPAIRS OR EXTENSIONS.
- 3. NPFA 24 SEC. 7-2 ALL FERROUS METAL PIPE SHALL BE LINED, AND STEEL PIPE SHALL BE COATED AND WRAPPED WITH JOINTS FIELD-COATED AND WRAPPED AFTER ASSEMBLY. FOR BURIED PIPE, GALVANIZING, INTERNALLY OR EXTERNALLY, DOES NOT MEET THE REQUIRMENTS OF THIS SECTION.
- 4. NPFA 24 SEC. 8-5.2 ALL BOLTED JOINT ACCESSORIES SHALL BE CLEANED AND THOROUGHLY COATED WITH ASPHALT OR OTHER CORROSION-RETARDING MATERIAL AFTER INSTALLATION.
- 5. NPFA 24 SEC. 8-6.2.8 AFTER INSTALLATION, RODS, NUTS, BOLTS, WASHERS, CLAMPS, AND OTHER RESTRAINING DEVICES, EXCEPT THRUST BLOCKS, SHALL BE CLEANED AND THOROUGHLY COATED WITH A BITUMINOUS OR OTHER ACCEPTABLE CORROSION-RETARDING MATERIAL.
- 6 NEPA 24 SEC 8-6.2 THRUST BLOCKS SHALL BE OF A CONCRETE MIX NOT LEANER THAN ONE PART PLACED BETWEEN UNDISTURBED EARTH AND THE FITTING TO BE RESTRAINED, AND SHALL BE OF SUCH BEARING AS TO ENSURE ADEQUATE RESISTANCE TO THE THRUST TO BE ENCOUNTERED, IN GENERAL, THRUST BLOCKS SHALL BE SO PLACED THAT THE JOINS WILL BE ACCESSIBLE FOR INSPECTION AND REPAIR.
- 7 NEPA 24 SEC 8-2 1 UNDERGROUND MAINS SHALL BE COMPLETELY FLUSHED TO REMOVE FOREIGN MATERIALS THAT MIGHT HAVE ENTERED THE MAIN DURING THE COURSE OF THE INSTALLATION PER TABLE 9-1.1 TO PRODUCE A VELOCITY OF 10 FT PER SECOND IN PIPES. (WITNESSED BY THE INSPECTOR OF RECORD)
- 8. NFPA 24 SEC. 8-9.3.1 ALL NEW PRIVATE UNDERGROUND FIRE SERVICE MAINS SHALL BE TESTED HYDROSTATICALLY AT NOT LESS THAN 200 PSI PRESSURE FOR A MINIMUM OF TWO HOURS. (WITNESSED BY THE INSPECTOR OF RECORD) THE AMOUNT OF LEAKAGE IN BURIED PIPING SHALL BE MEASURED AT THE SPECIFIED TEST PRESSURE BY PUMPING FROM A CAUBRATED CONTAINER FOR NEW PIPE. THE AMOUNT OF LEAKAGE AT THE JOINTS SHALL NOT EXCEED TWO QUARTS PER HOUR PER 100 GASKETS OR JOINTS IRRESPECTIVE OF PIPE DIAMETER. NO VISIBLE LEAKAGE SHALL BE ALLOWED IN ABOVE GROUND PIPING. (ALSO, SEE SEC. 9-2.3.3 FOR ALLOWABLE LEAKAGE.) HYDROSTATIC TESTS MUST BE MADE BEFORE THE JOINTS ARE COVERED SO THAT ANY LEAKS MAY BE READILY DETECTED.
- 9. NFPA 24 SEC. 9.2.1 BEFORE ASKING FINAL APPROVAL OF AN INSTALLATION BY THE INSPECTOR OF RECORD, THE INSTALLING COMPANY SHALL FURNISH A CONTRACTOR'S MATERIAL AND TEST CERTIFICATE TO BE SUBMITTED TO THE VA.
- 10. NFPA 24 SEC. 8-1 THE DEPTH OF COVER OVER WATER PIPES SHALL BE NOT LESS THAN 2 1/2 FT. TO PREVENT MECHANICAL DAMAGE AND SHALL BE BURIED A MINIMUM OF 3 FT UNDER DRIVEWAYS.

11. NFPA 24 SEC. 8-3.1 PIPE SHALL NOT BE RUN UNDER BUILDINGS.

2. ALL CONDUITS SHALL INCLUDE PULL STRINGS.

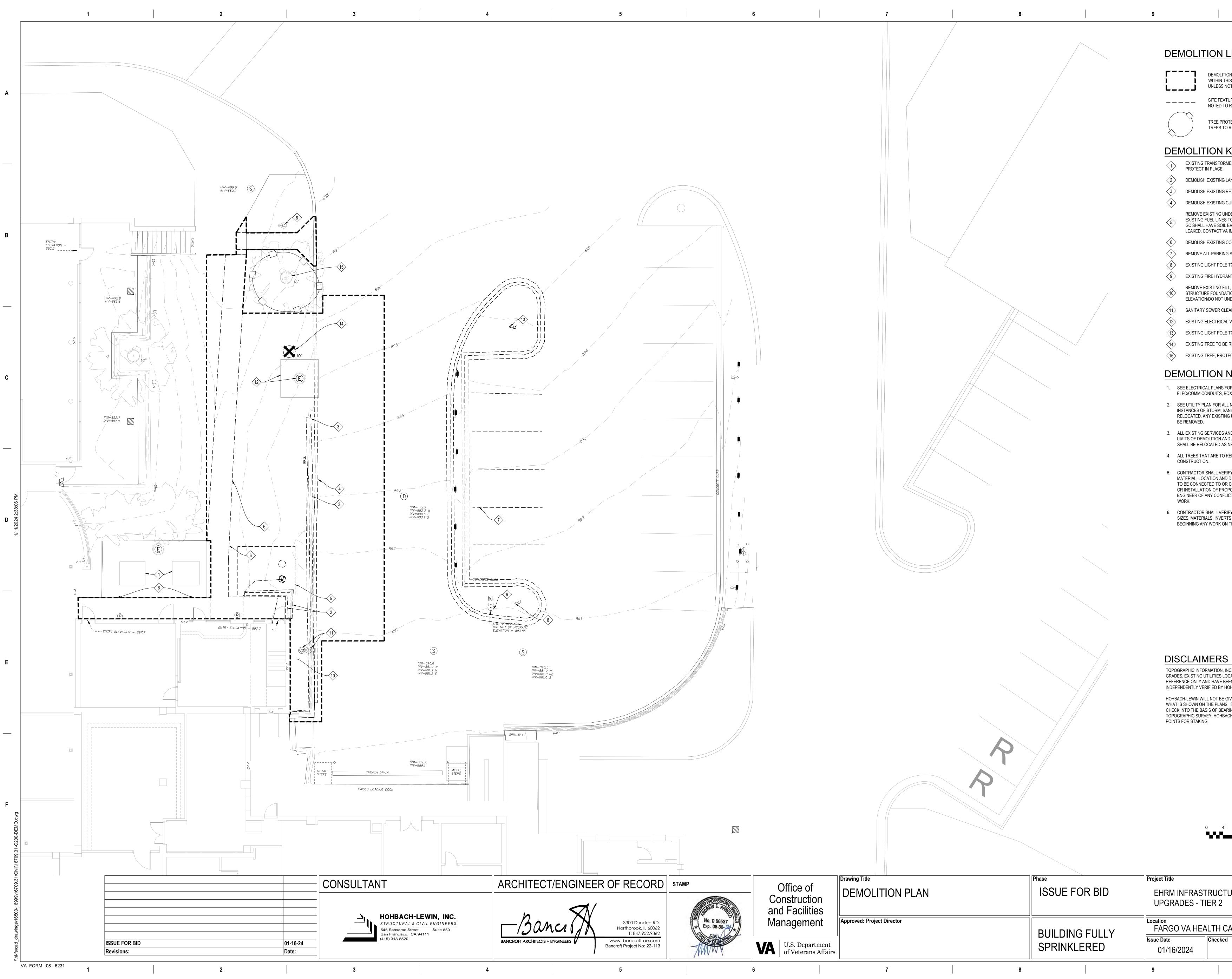
CONDUITS:

- 1. CONDUITS FOR POWER, SITE LIGHTING, LOW VOLTAGE SYSTEMS, TELEPHONE, SECURITY, DATA, CABLE TV, CLOSED CIRCUIT TV, FIRE ALARM SYSTEMS, ETC SHALL BE INSTALLED PER THE ELECTRICAL SITE PLANS & DETAILS.
- 3. ALL CONDUITS STUBBED TO A SPECIFIC LOCATION FOR FUTURE USE OR USE BY A SEPARATE CONTRACTOR SHALL BE CLEARLY MARKED IN THE FIELD AND DOCUMENTED IN THE CONTRACTOR'S RECORD DOCUMENTS AS TO BOTH DEPTH AND LOCATION.

Office of Construction and Facilities		Drawing Title NOTES		Phase ISSUE FOR BID		Project Title EHRM INFRASTRUC UPGRADES - TIER 2	
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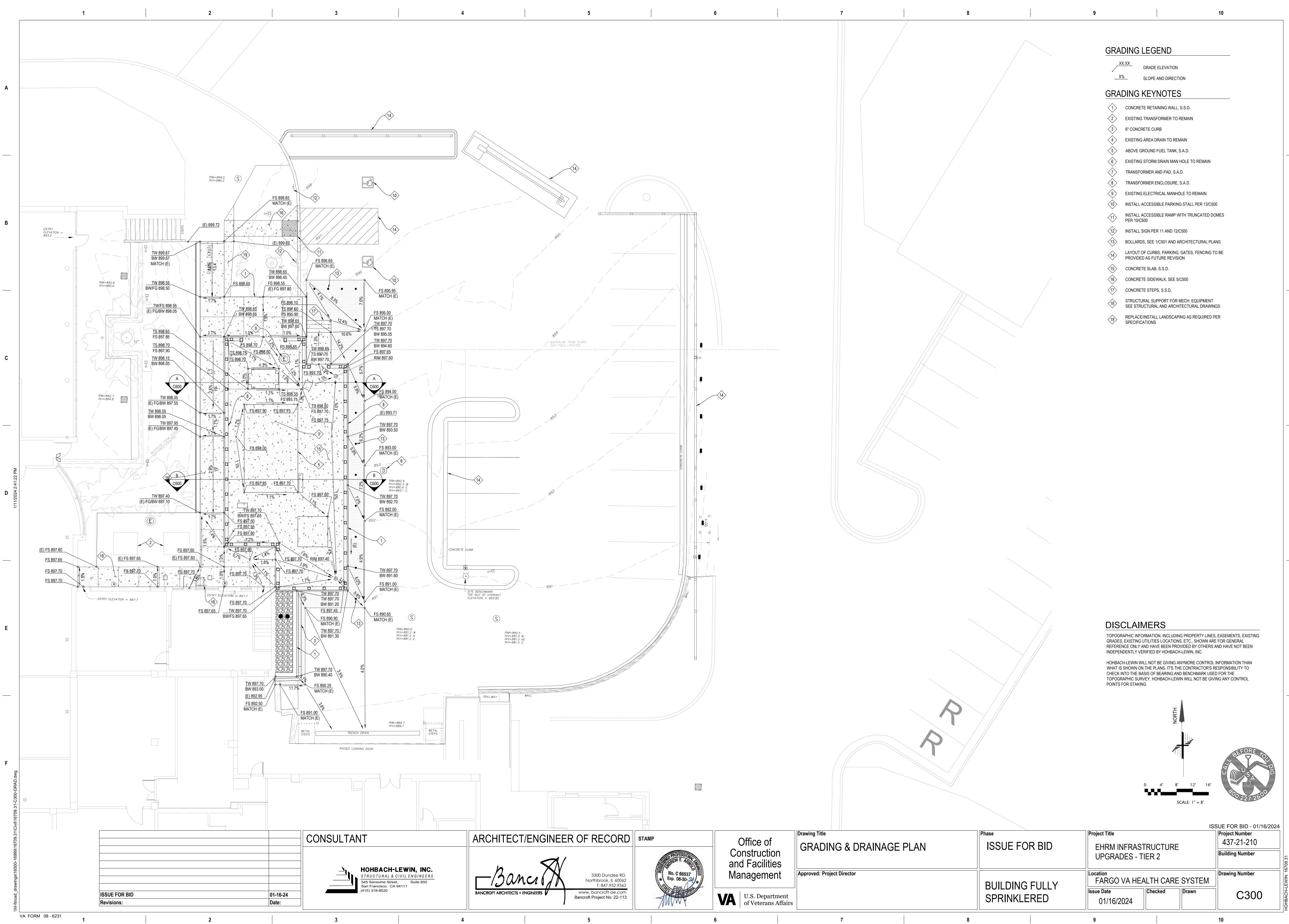
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CARE SYSTEM	Drawing Number C101	HOHBACH-LEWIN: 16
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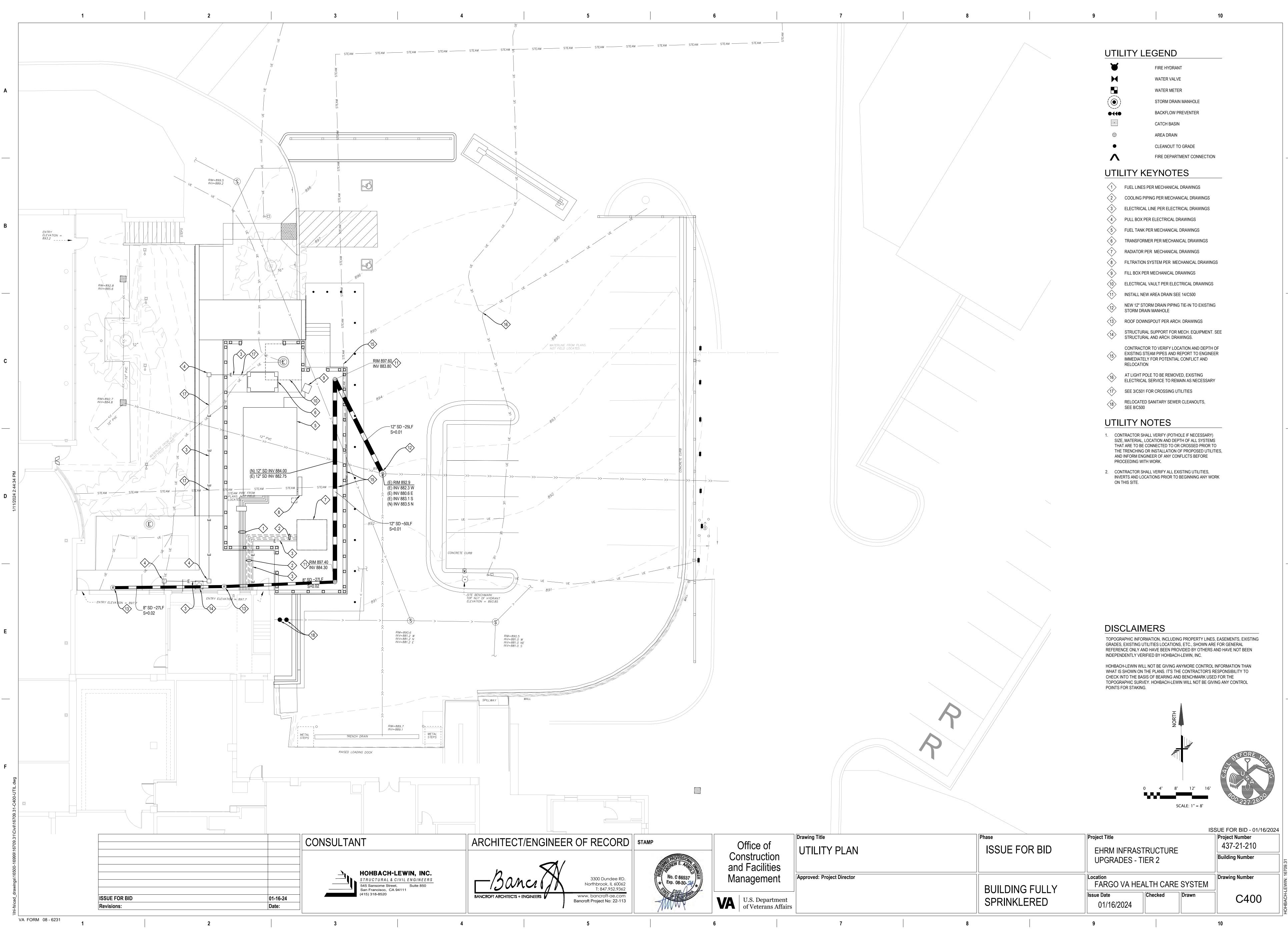
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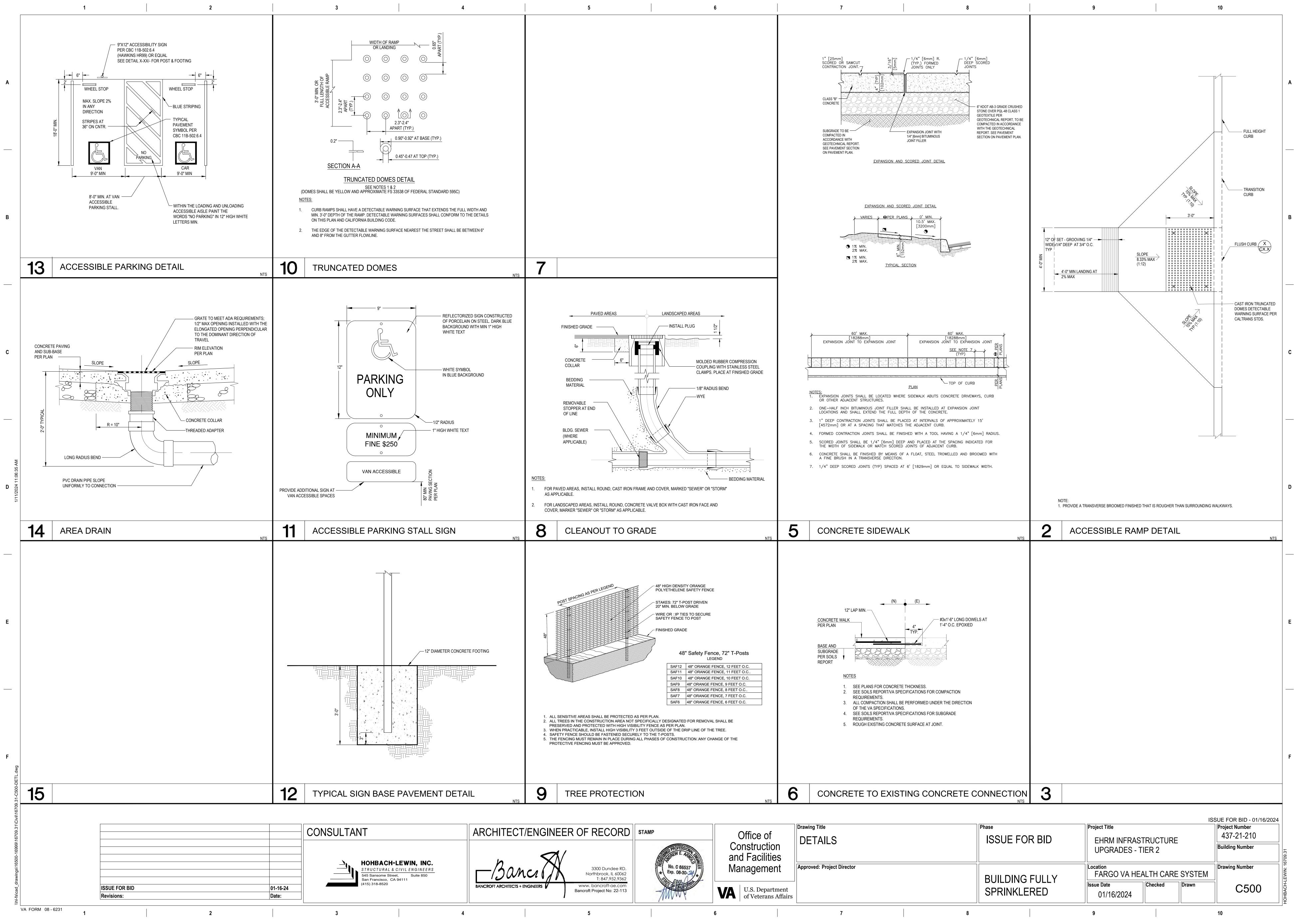
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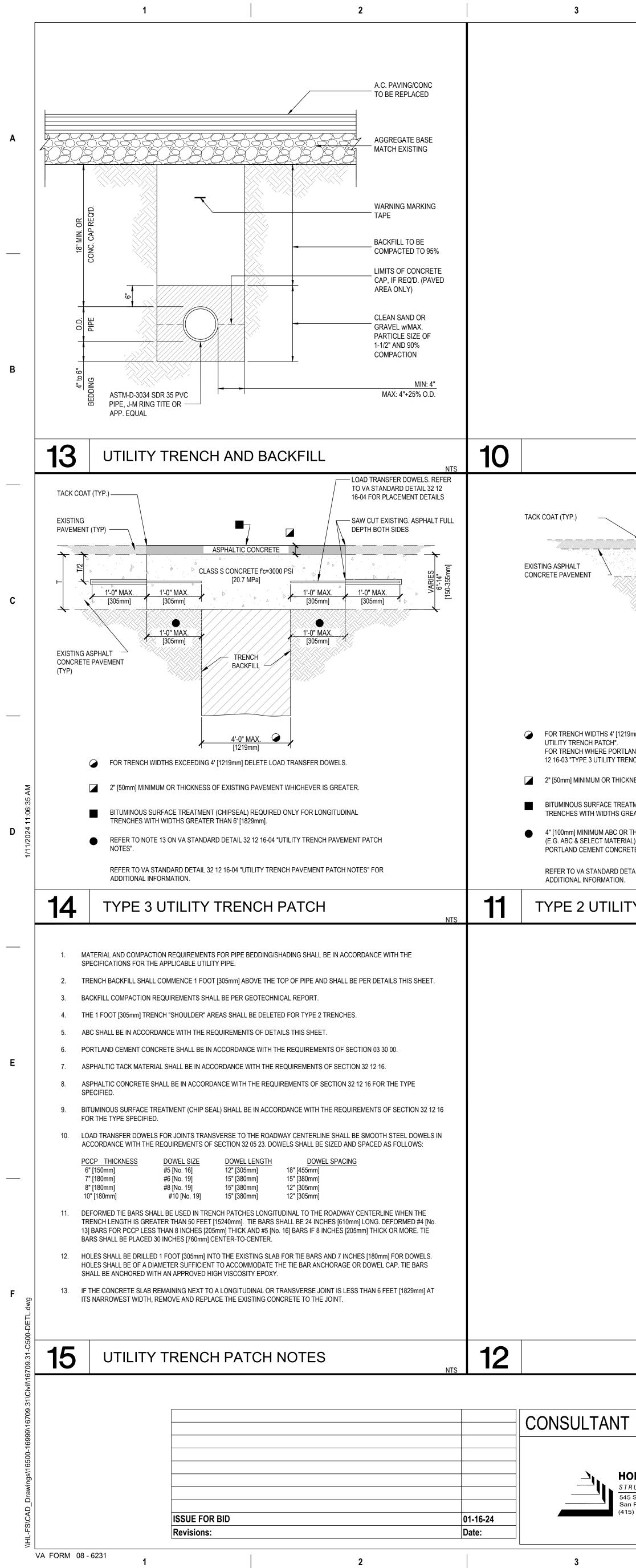
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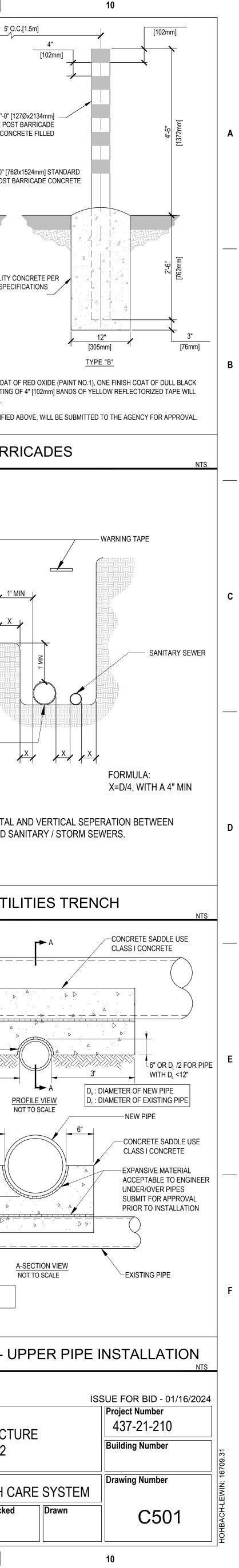
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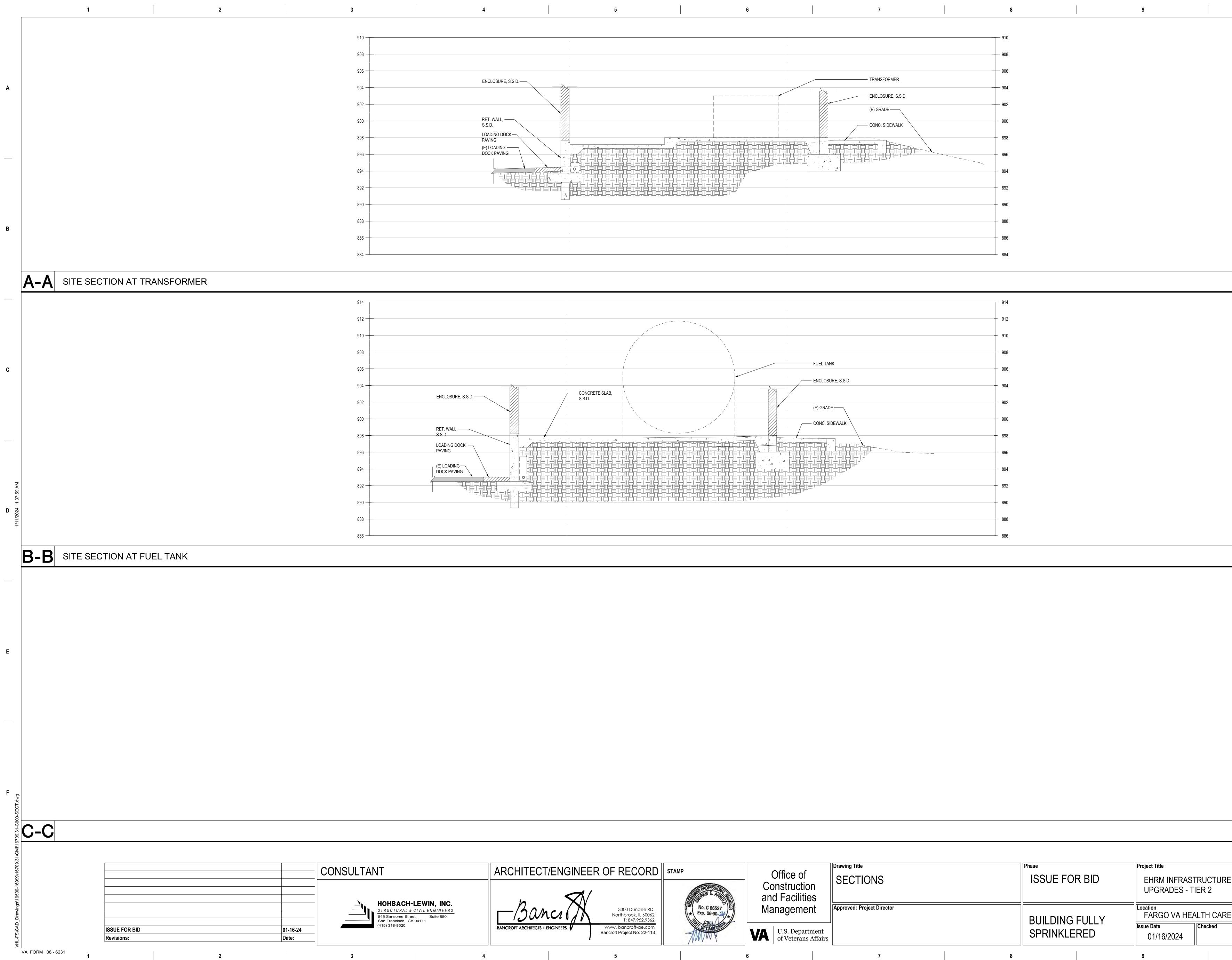




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