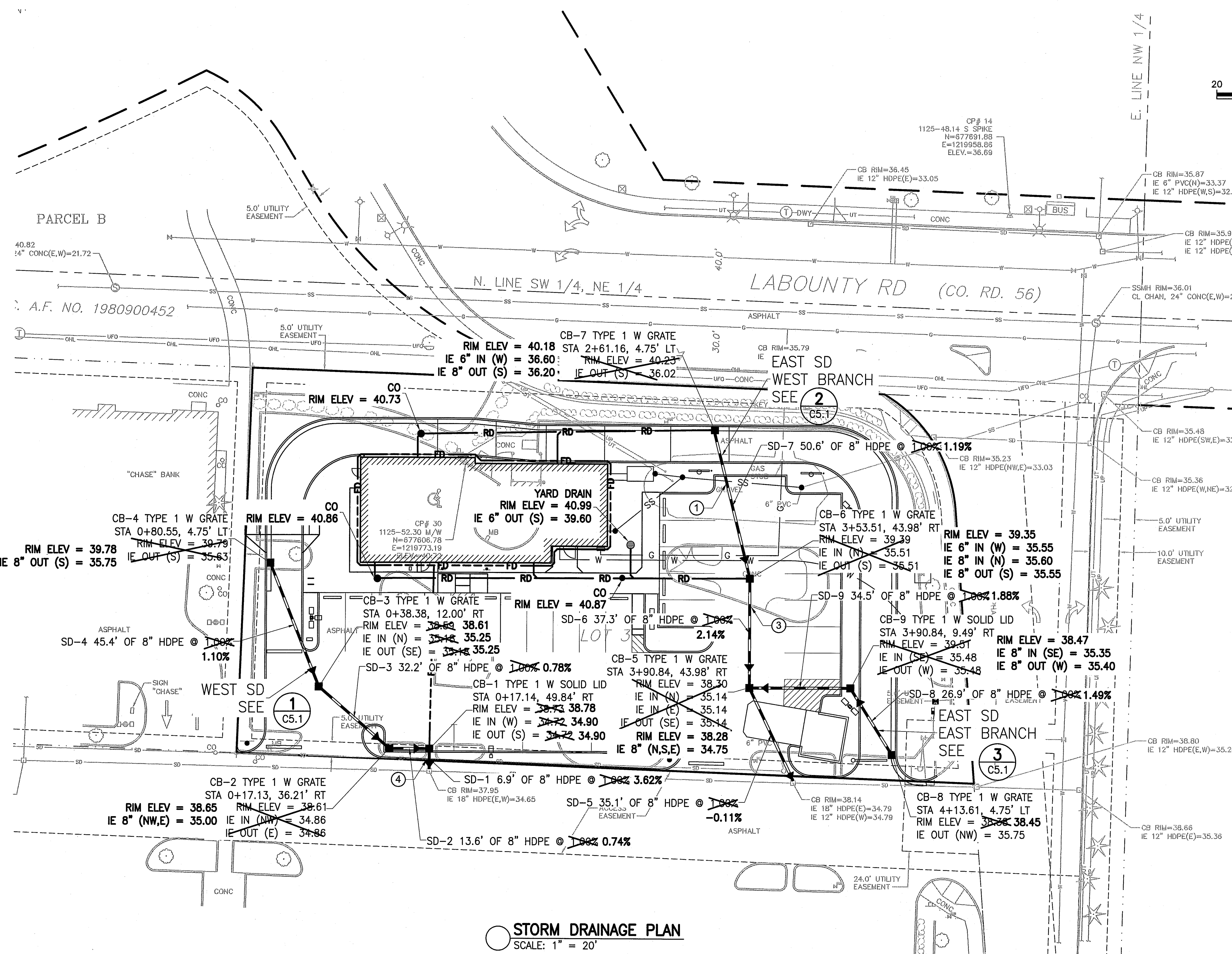




STORM DRAINAGE PLAN
SCALE: 1" = 20'

STORM DRAINAGE NOTES

- CONTRACTOR SHALL VERIFY INVERT ELEVATION OF THE EXISTING CATCH BASIN OUTLET PIPE AND POTHOLE SD PIPE NORTH OF THE CB PIPE BEFORE COMMENCING CONSTRUCTION. IF CONFLICT EXISTS, CONTACT ENGINEER IMMEDIATELY.
- STORM DRAIN MANHOLE RIM AND COVER SHALL BE FLUSHED WITH PROPOSED PAVEMENT.
- REFER TO SHEET C5.1 FOR STORM DRAINAGE PROFILES.
- TRENCH BEDDING AND BACKFILL, SEE **(3)** C8.1
- COORDINATE WITH PLUMBING CONTRACTOR FOR ROOF DRAIN CONNECTIONS.
- FOR FOOTING DRAINS, SEE **(5)** C8.1
- STATIONS AND OFFSETS ARE BASED ON DRIVE THRU ALIGNMENT. SEE SHEET C7.1.
- PROVIDE POLLUTION CONTROL SYMBOL FOR EACH CB WITH GRATE. SEE STENCILING DETAIL **(4)** C8.1

VERTICAL DATUM CONVERSION:
THESE AS-BUILT DRAWINGS WERE PREPARED USING NAVD88 VERTICAL DATUM. TO CONVERT FROM NAVD 88 TO THE CITY OF FERNDALE MONUMENT NETWORK NGVD 29 SUBTRACT 3.75 FEET.
(NAVD 88) - 3.75 = (NGVD 29)

STORM DRAINAGE KEY NOTES

- SANITARY SEWER CROSSING. SEE UTILITY PLAN FOR NOTES AND SHEET C5.1 FOR CROSSING PROFILE. POTHOLE EXIST SS PRIOR TO ANY UTILITY CONSTRUCTION.
- CONNECT FOOTING DRAIN TO THE EXIST NORTHERN STORM DRAIN PIPE. PROVIDE SD CLEANOUT AT THE CONNECTION.
- 2" WATER SERVICE LINE CROSSING. WATER SERVICE SHALL BE 18" MIN ABOVE THE SD.
- EXIST SD PIPE CROSSING. POTHOLE THE EXIST SD LINE BEFORE ANY SD CONSTRUCTION.

STORM DRAINAGE LEGEND

- STORM DRAIN CATCH BASIN TYPE 1, SEE CITY STD DWG ST-1 **(1)** C8.1
- YARD DRAIN **(2)** C8.1
- SD CLEANOUT, SIMILAR TO **(3)** C8.2
- SD STORM DRAIN PIPE, SEE ALLOWABLE STORM DRAIN PIPES NOTE
- RD 6" Ø ROOF DRAIN
- FD 4" Ø FOOTING DRAIN
- SS SANITARY SEWER

ALLOWABLE STORM DRAIN PIPES

PIPE TYPE	MIN COVER
DUCTILE IRON PIPE, CLASS 50 OR 52	12"
REINFORCED CONCRETE PIPE, CLASS IV	18"
CORRUGATED PE STORM SEWER PIPE (HDPE)	24"
PVC SOLID WALL PIPE, SDR 35	36"

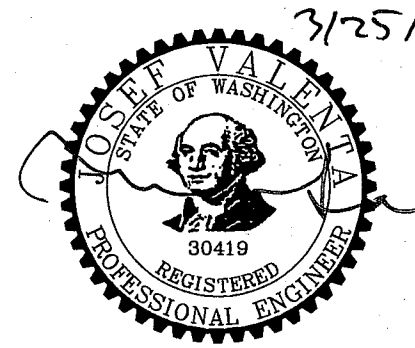
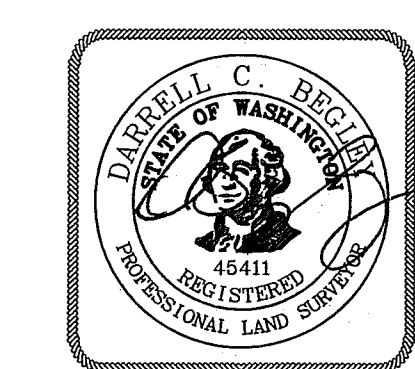
ENGINEER' CERTIFICATION:

I HEREBY CERTIFY THAT THE IMPROVEMENTS IN JACK IN THE BOX HAVE BEEN INSPECTED BY ABOSSEIN ENGINEERING AND TO THE BEST OF MY KNOWLEDGE, HAVE BEEN CONSTRUCTED IN CONFORMANCE WITH THE CITY OF FERNDALE DEVELOPMENT STANDARDS, THE CITY OF FERNDALE MUNICIPAL CODE, SUBSEQUENT STANDARDS ADOPTED BY REFERENCE THEREIN, AND STANDARD ENGINEERING PRACTICE.

SURVEYOR'S CERTIFICATION:

I CERTIFY THAT THE LOCATIONS, ELEVATIONS, DEPTHS, AND ASBUILT COMMENTS REFLECTING MATERIALS ACTUALLY USED DURING CONSTRUCTION ACCURATELY REFLECT EXISTING FIELD CONDITIONS AS DETERMINED BY ME OR UNDER MY DIRECT SUPERVISION ON THIS DATE: 3/25/13

APPROVED
APR 03 2013
BY *J. H. Kimura* P.E.
CITY OF FERNDALE



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SAN DIEGO, CA 92123
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P.M. UPDATES: APR. 30, 2012
SUBMITAL DATE:
1: _____
2: _____
3: _____
BID: _____
CONSTRUCTION: _____

REVISIONS
△ CITY COMMENTS 8/29/12
△ AS-BUILT DWG 3/4/13
△
△
△
△

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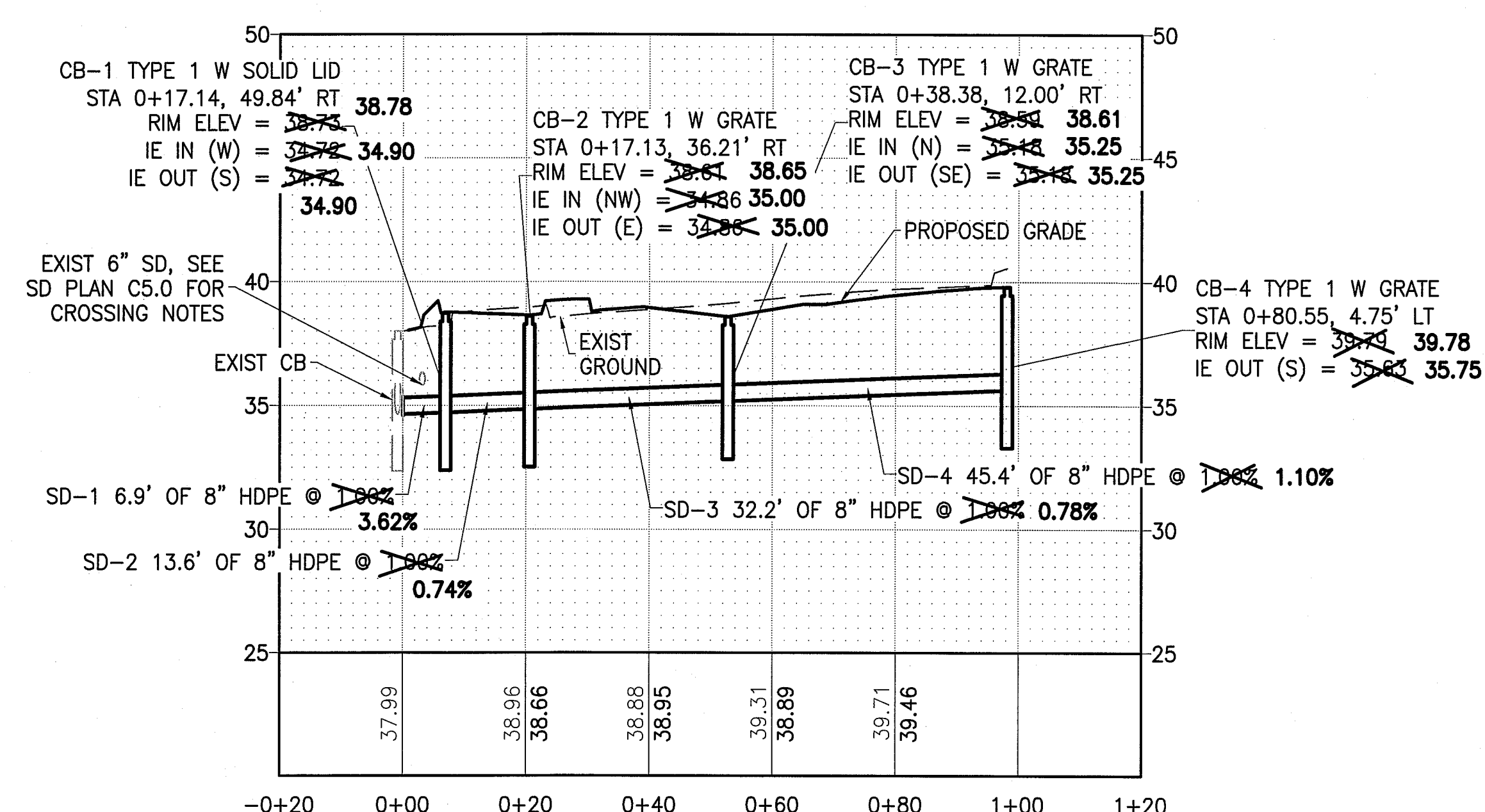
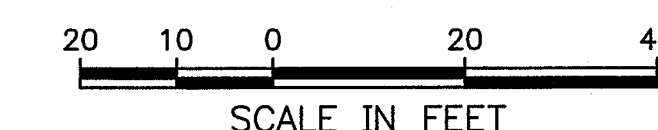
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JIB #: 9B PROTOTYPE
ADDRESS:

DRAWN BY: JV
PROJECT #:
SCALE: 1"=20'

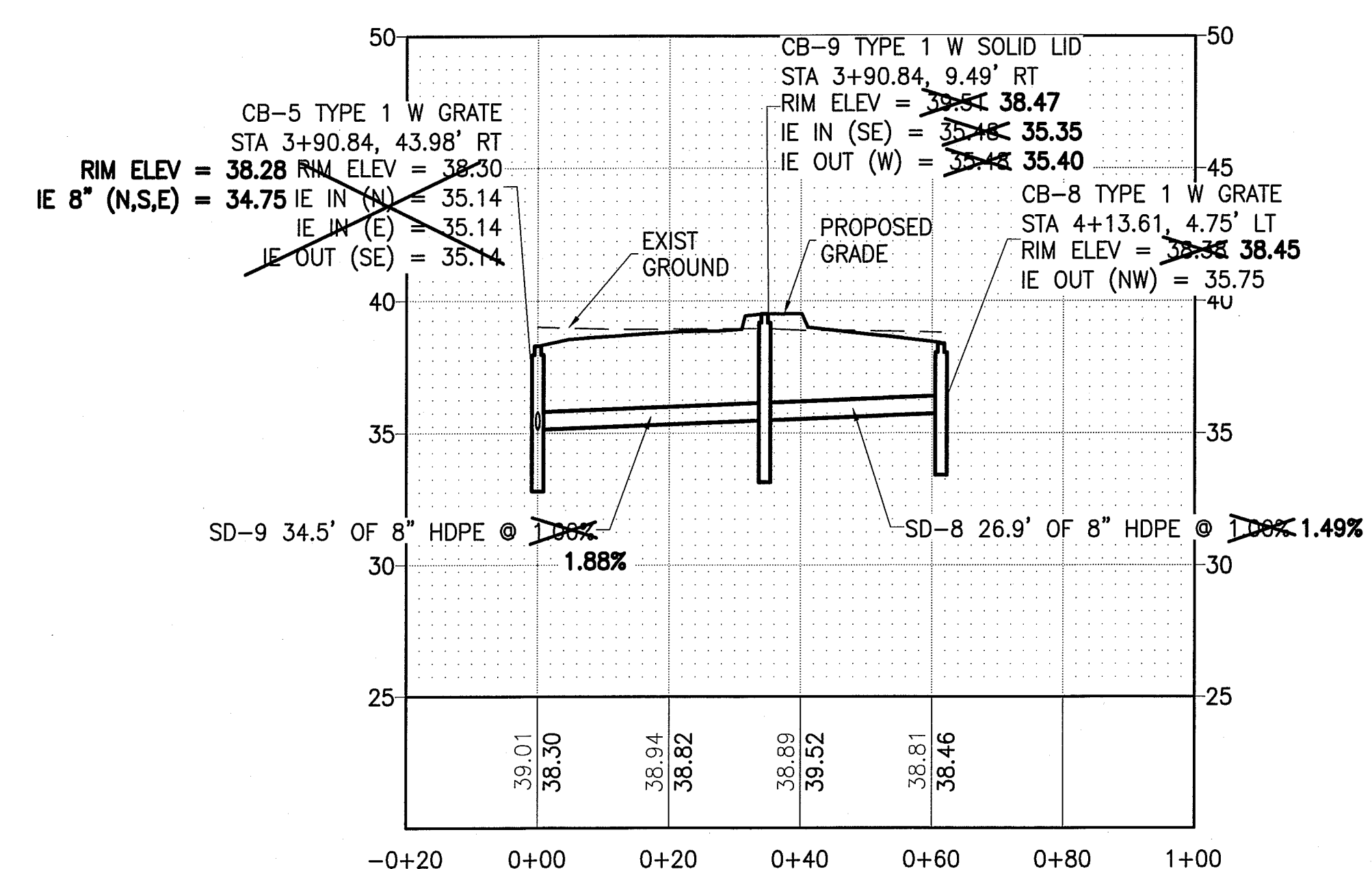
STORM DRAINAGE PLAN
C5.0
7 OF 15



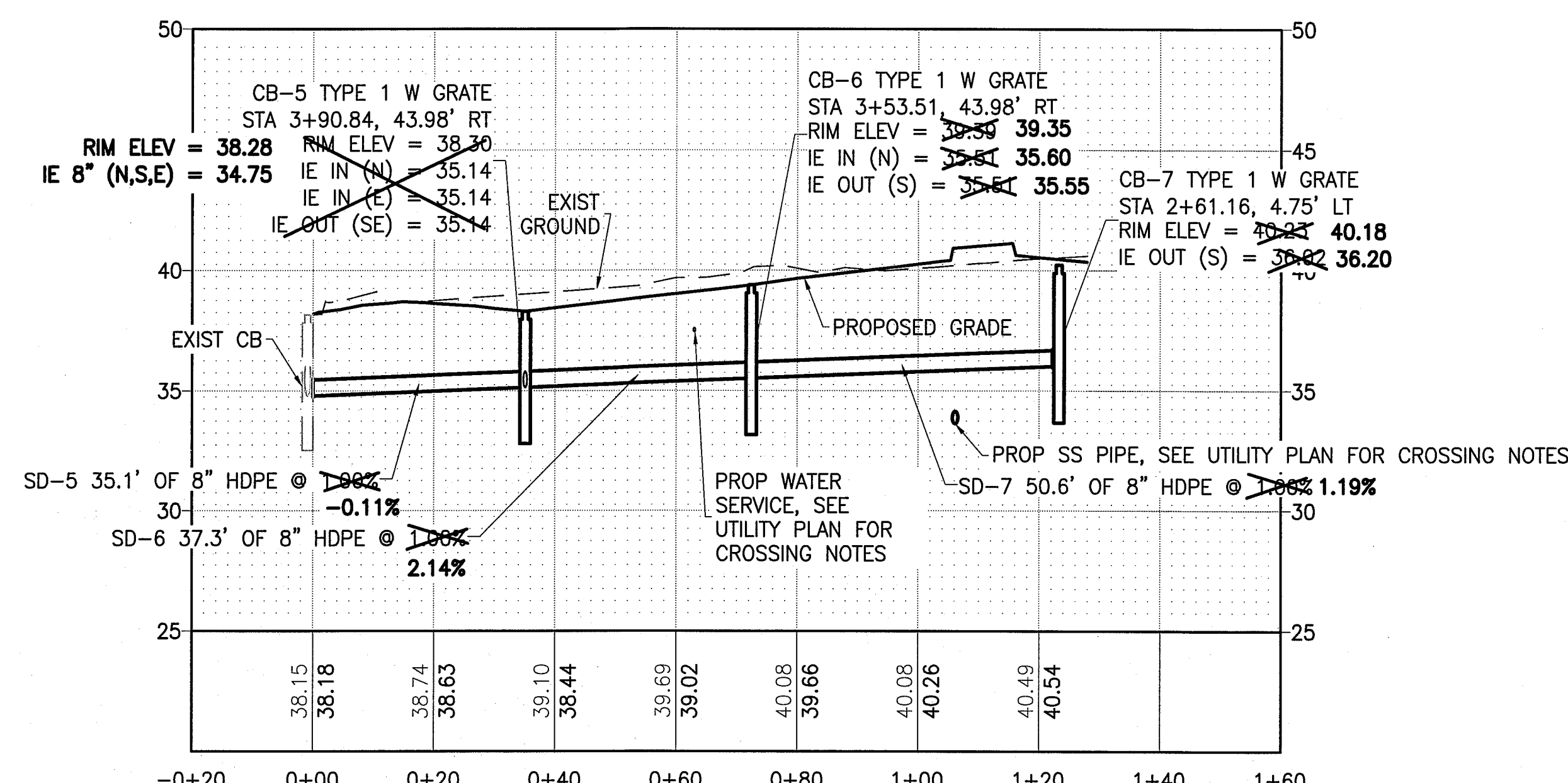
AS-BUILT DRAWINGS



1 WEST SD PROFILE
SCALE: HOR. 1" = 20'
VERT. 1" = 5'



3 EAST SD PROFILE, EAST BRANCH
SCALE: HOR. 1" = 20'
VERT. 1" = 5'



2 EAST SD PROFILE, WEST BRANCH
SCALE: HOR. 1" = 20'
VERT. 1" = 5'

APPROVED
APR 03 2013
BY *[Signature]* P.E.
CITY OF FERNDALE



AS-BUILT DRAWINGS



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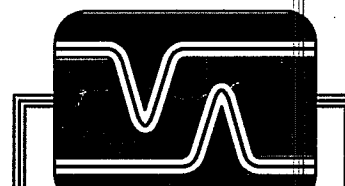
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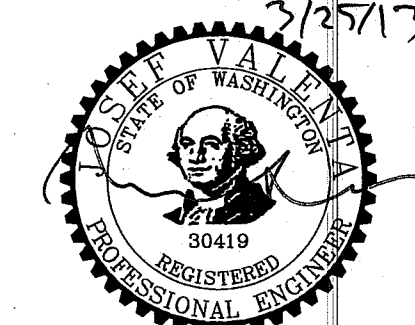


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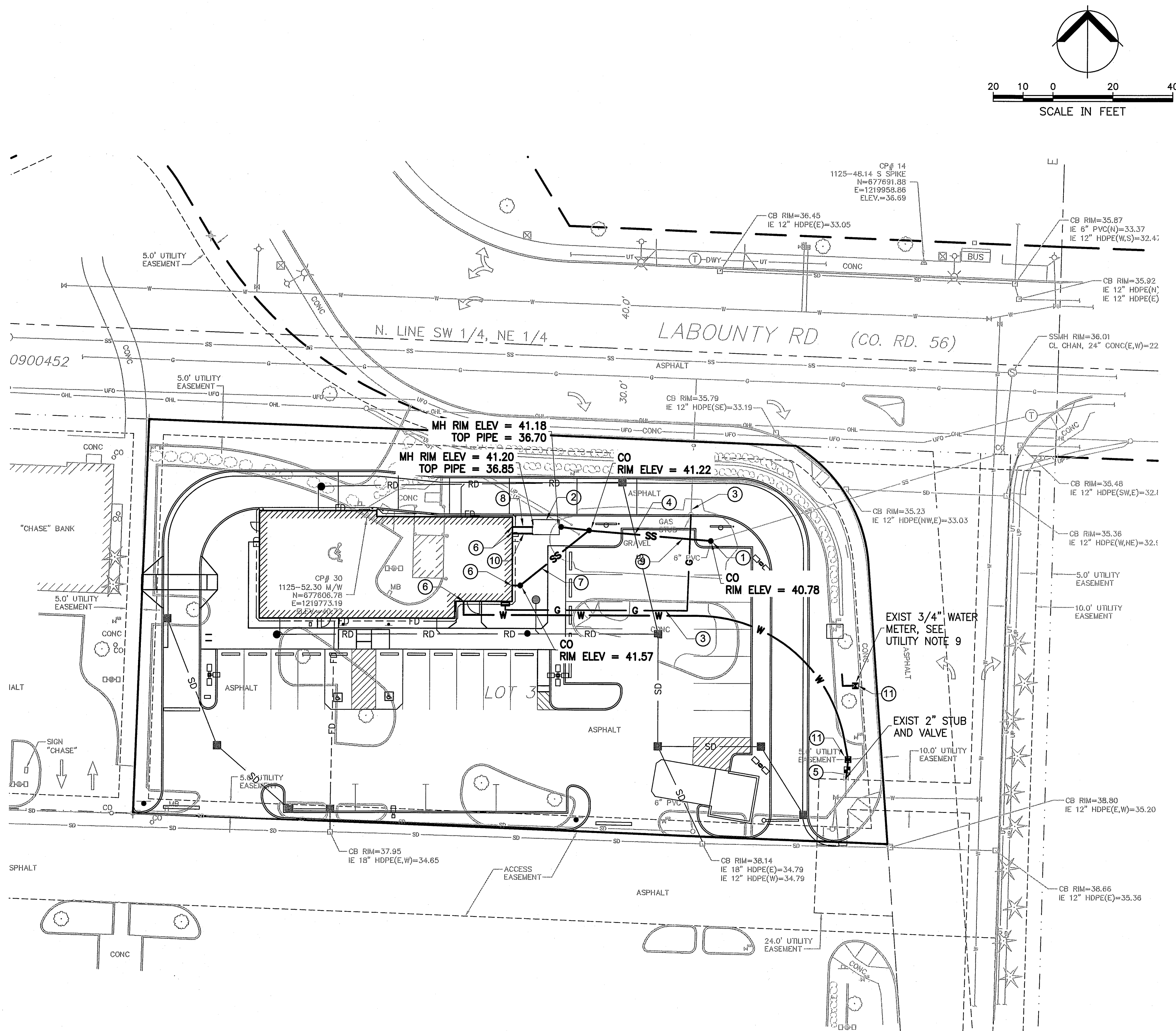


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STORM DRAINAGE
PROFILES
C5.1
8 OF 15



UTILITY PLAN
SCALE: 1" = 20'

SS INVERT ELEVATIONS

42.20	FFE
40.03	4" SS FROM KITCHEN AT BLDG
36.87	4" SS IN GREASE INTERCEPTOR
36.70	4" SS OUT OF GREASE INTERCEPTOR
33.90	JUNCTION, CO. AND WYE TO 6" SS
33.14	TIE TO EXIST VERTICAL CLEANOUT (CONTRACTOR TO VERIFY EXIST IF PRIOR TO BEGINNING OF ANY UTILITY CONSTRUCTION)
40.20	4" SS FROM BATHROOMS AT BLDG

APPROVED

APR 03 2013

BY *J. H. P.E.*
CITY OF FERNDALE

UTILITY KEY NOTES

- CONNECT TO EXISTING SANITARY SIDE SEWER. SEE UTILITY NOTES 1, 2, AND 3.
- GREASE INTERCEPTOR - SEE **1**
C8.2
- GAS LINE - SEE UTILITY NOTE 4.
- SEE NOTE 7 ON THIS SHEET FOR SEWER PIPE CROSSING MATERIAL AND CITY STD DWG SS-6 AND W-12 **4**
C8.3
- CONNECT DOMESTIC WATER SERVICE TO THE EXIST 2" STUB AND VALVE WITH NEW 2" WATER METER SETTER AND 1 1/2" WATER SERVICE LINE.
- COORDINATE WITH PLUMBING DRAWINGS FOR POINT OF CONNECTION.
- 4" SANITARY SEWER SERVICE FROM BATHROOMS. ROUTE AND CONNECT TO SEWER DOWNSTREAM OF GREASE INTERCEPTOR.
- 4" SANITARY SEWER SERVICE FROM KITCHEN. ROUTE AND CONNECT TO GREASE INTERCEPTOR.
- 6" SANITARY SEWER SERVICE LINE. SEE UTILITY NOTES NO. 1, 2, AND 3 FOR PIPE STANDARDS, SLOPE, AND ELEVATION.
- 2" VENT PIPE - SEE PLUMBING PLANS.
- DOUBLE CHECK VALVE ASSEMBLY (DCVA) BELOW GROUND IN A BOX. SIZE SHALL BE SAME AS THE WATER SERVICE LINE SIZE. DCVA MUST BE SELECTED FROM WASHINGTON STATE DEPARTMENT OF HEALTH LIST OF BACKFLOW ASSEMBLIES APPROVED FOR INSTALLATION IN WA. CONTACT CITY OF FERNDALE PRIOR TO DCVA INITIAL TEST.

LEGEND

- W 1 1/2" WATER SERVICE LINE
- 2" WATER METER, SEE CITY STD DWG W-5 AND W-8 **1.2**
C8.3
- DOUBLE CHECK VALVE ASSEMBLY. SEE UTILITY KEYNOTE 11.
- SS SANITARY SEWER SERVICE LINE
- 4" OR 6" SANITARY SEWER CLEANOUT, SEE CITY STD DWG SS-5 **3**
C8.2
- SD STORM DRAIN PIPE - SEE DRAINAGE PLAN
- STORM DRAIN CATCH BASIN - SEE DRAINAGE PLAN
- YARD DRAIN - SEE DRAINAGE PLAN
- STORM DRAIN CLEANOUT - SEE DRAINAGE PLAN
- G GAS LINE - SEE PLUMBING PLANS

UTILITY NOTES

- EXISTING SANITARY SEWER MAIN, WATER SERVICE LINE, AND GAS LINE ARE BASED ON TOPOGRAPHIC SURVEY. EXISTING SANITARY SEWER SERVICE LINE IS BASED ON THE MAIN AND LABOUNTY STREET IMPROVEMENT PLANS BY BRIAR DEVELOPMENT COMPANY. CONTRACTOR TO POTHOLE AND VERIFY EXIST SEWER SERVICE LINE LOCATION, SIZE, AND INVERT ELEVATION BEFORE COMMENCING CONSTRUCTION OF SANITARY SEWER AND STORM DRAINAGE. IF THE EXISTING SEWER SERVICE AT THE POINT OF CONNECTION DOES NOT PROVIDE ENOUGH SLOPE THE POINT OF CONNECTION HAS TO BE MOVED DOWNSTREAM UNTIL REQUIRED SLOPE CAN BE ACHIEVED. IF CONFLICT EXIST, CONTACT THE ENGINEER IMMEDIATELY. SIDE SEWER SHALL BE A MINIMUM OF 6" IN DIAMETER.
- MINIMUM STANDARD SIDE SEWER SLOPE IS 2%. A MINIMUM SLOPE MAY LESS THAN 2% BUT NOT LESS THAN 1% IF THE CLEANING VELOCITY OF 2 FPS CAN BE ACHIEVED AT DESIGN FLOW.
- COORDINATE WITH PLUMBING PLANS AND CONTRACTOR FOR SANITARY SERVICE LINE LOCATION AND INVERT ELEVATION AT THE BUILDING FACE.
- SEE PLUMBING PLANS FOR GAS CONNECTION.
- SANITARY SEWER ACCEPTABLE PIPE MATERIAL:
PVC, SDR 35
ABS COMPOSITE
PVC C900
- THE MINIMUM PIPE COVER SHALL BE IN ACCORDANCE WITH THE PIPE MANUFACTURE'S RECOMMENDATIONS OR NOT LESS THAN 18" WHICHEVER IS GREATER. SIDE SEWERS IN DRIVING AREAS SHALL HAVE A MINIMUM COVER OF 3' OR 18" IF THE PIPE IS DESIGNED TO MEET H20 TRAFFIC LOADING. DUCTILE IRON PIPE AND C-900 PVC PIPE MEET THE H20 TRAFFIC LOADING REQUIREMENTS FOR DEPTH BETWEEN 18" AND 3'.
- IF SEWER LINES IS PASSING OVER THE STORM SEWER, USE WATER RATED PIPE MATERIAL OR CASE PIPE FOR AT LEAST 10' ON BOTH SIDES OF THE CROSSING. USE MAXIMUM STANDARD LENGTH OF PIPE AND CENTER IT OVER THE CROSSING.
- TRENCH BEDDING AND BACKFILL, FOR SEWER SEE CITY STD DWG SS-1 AND SS-15 **2.5**
C8.2
- THE EXISTING 3/4" WATER METER WILL BE USED FOR FUTURE IRRIGATION. INSTALL 3/4" DOUBLE CHECK VALVE ASSEMBLY DOWNSTREAM OF THE EXISTING METER. CONTRACTOR SHALL FIELD VERIFY METER SIZE AND CURRENT USE.
- DOMESTIC WATER SERVICE LINE SHALL BE PER CITY STD DWG W-5A. MINIMUM COVER SHALL BE 24", MAXIMUM 36". WATER SERVICE TRENCH TO BE FILLED WITH 12" MINIMUM DEPTH OF CLEAN SANDY FILL. BACKFILL IN PAVEMENT AREAS SHALL BE COMPACTED TO 95% PER ASTM D1557.

Jack
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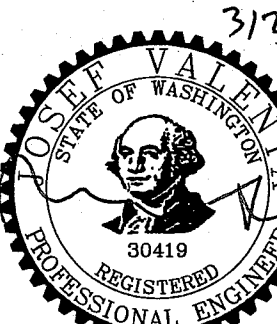
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SCALE: 1"=20'

UTILITY
PLAN

C6.0

9 OF 15



Call before you dig

AS-BUILT DRAWINGS