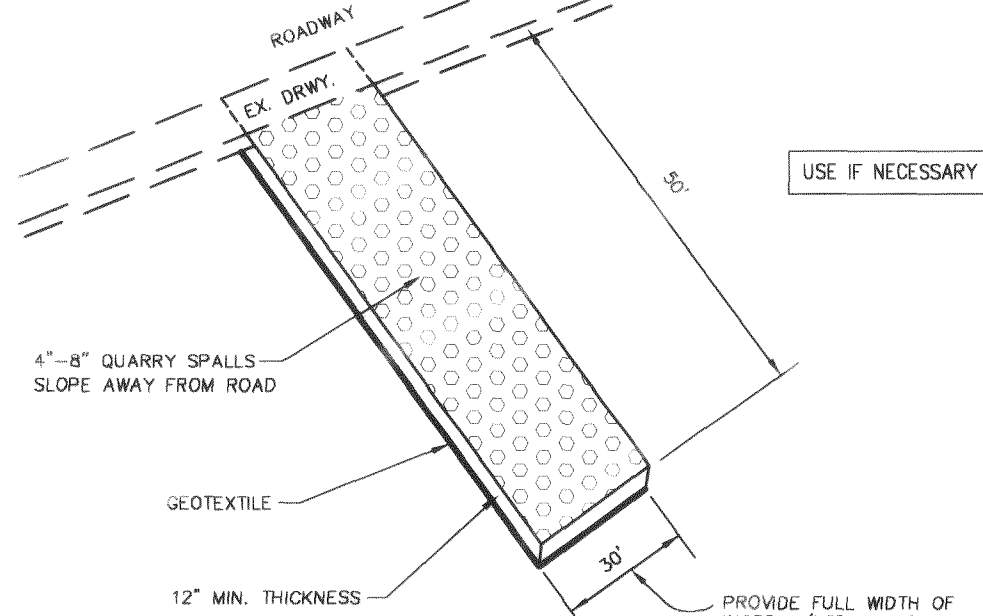


LEGEND - EROSION CONTROL

EXISTING	PROPOSED	
		PROPERTY LINE
		R.O.W. CENTERLINE
		EASEMENT
		GRADING CONTOUR
		SPOT ELEVATION
		SWALE
		STORM DRAIN
		FILTER FENCE
		ROCK ENTRANCE
		ROCK CHECK DAM

MAINTENANCE STANDARDS

- QUARRY SPALLS (OR HOG FUEL) SHALL BE ADDED IF THE PAD IS NO LONGER IN ACCORDANCE WITH THE SPECIFICATIONS.
- IF THE ENTRANCE IS NOT PREVENTING SEDIMENT FROM BEING TRACKED ONTO PAVEMENT, THEN ALTERNATIVE MEASURES TO KEEP THE STREETS FREE OF SEDIMENT SHALL BE USED. THIS MAY INCLUDE STREET SWEEPING, AN INCREASE IN THE DIMENSIONS OF THE ENTRANCE, OR THE INSTALLATION OF A WHEEL WASH. IF WASHING IS USED, IT SHALL BE DONE ON AN AREA COVERED WITH CRUSHED ROCK, AND WASH WATER SHALL DRAIN TO A SEDIMENT TRAP OR POND.
- ANY SEDIMENT THAT IS TRACKED ONTO PAVEMENT SHALL BE REMOVED IMMEDIATELY BY SWEEPING. THE SEDIMENT COLLECTED BY SWEEPING SHALL BE REMOVED OR STABILIZED ON-SITE. THE PAVEMENT SHALL NOT BE CLEANED BY WASHING DOWN THE STREET, EXCEPT WHEN SWEEPING IS INEFFECTIVE AND THERE IS A THREAT TO PUBLIC SAFETY. IF IT IS NECESSARY TO WASH THE STREET, THE CONSTRUCTION OF A SMALL SUMP SHALL BE CONSIDERED. THE SEDIMENT WOULD THEN BE WASHED INTO THE SUMP.
- ANY ROCK SPALLS THAT ARE LOOSEENED FROM THE PAD AND END UP ON THE ROADWAY SHALL BE REMOVED IMMEDIATELY.
- IF VEHICLES ARE ENTERING OR EXITING THE SITE AT POINTS OTHER THAN THE CONSTRUCTION ENTRANCE(S), FENCING SHALL BE INSTALLED TO CONTROL TRAFFIC.

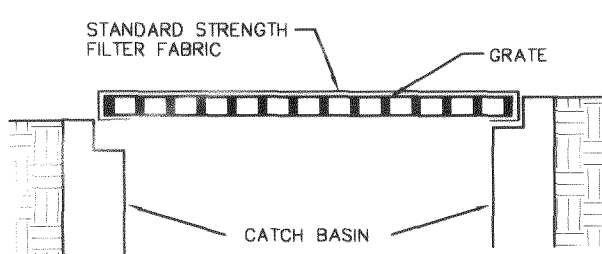


CONSTRUCTION ENTRANCE ROCK PAD

SCALE: N.T.S.

MAINTENANCE STANDARDS

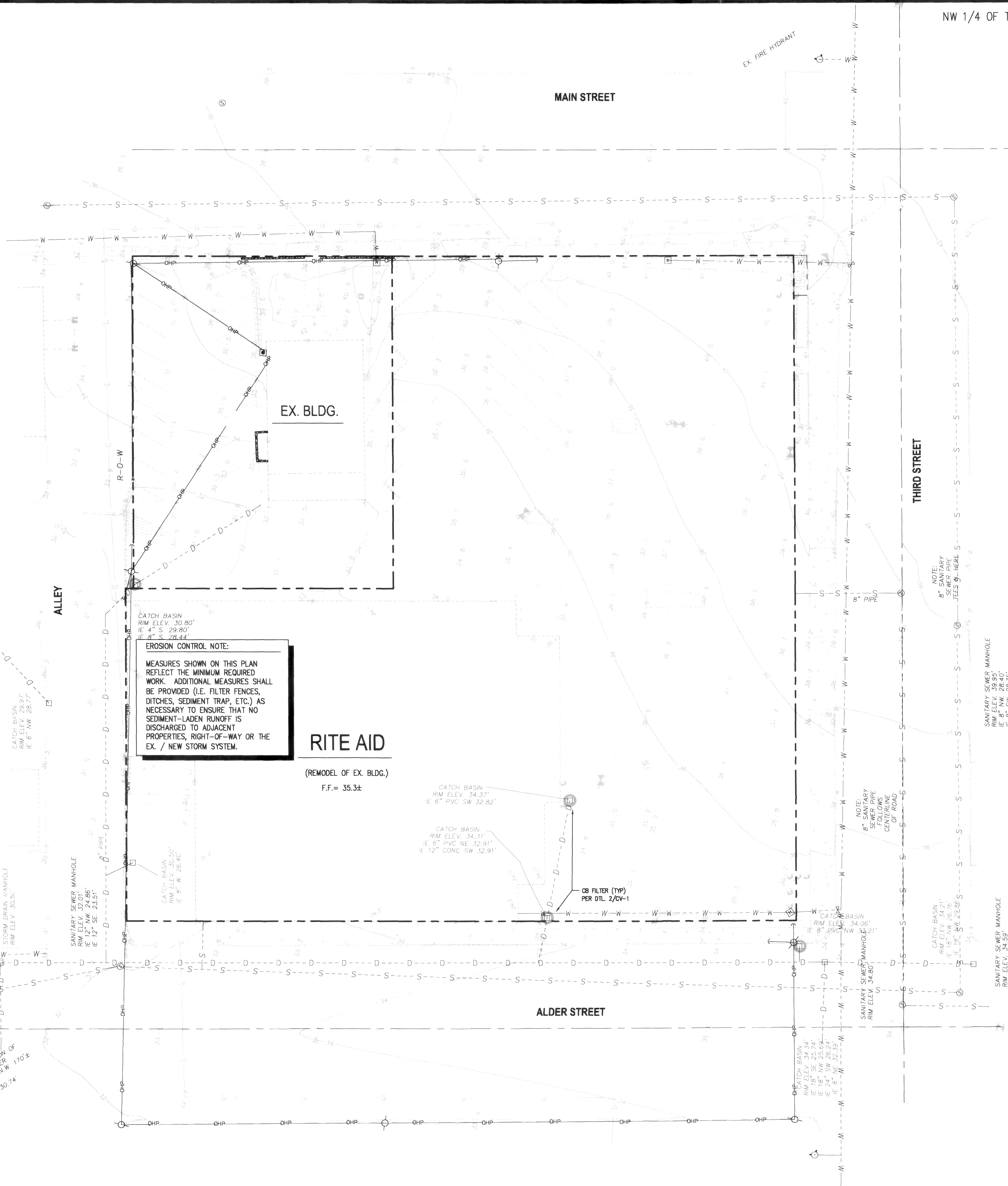
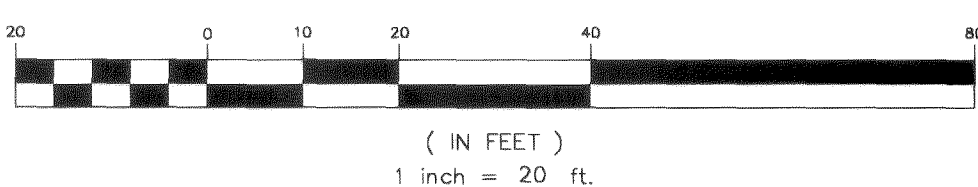
- ANY ACCUMULATED SEDIMENT ON OR AROUND THE FILTER FABRIC PROTECTION SHALL BE REMOVED IMMEDIATELY. SEDIMENT SHALL NOT BE REMOVED WITH WATER, AND ALL SEDIMENT MUST BE DISPOSED OF AS FILL ON-SITE OR HAULLED OFF-SITE.
- REGULAR MAINTENANCE IS CRITICAL. UNLIKE MANY FORMS OF PROTECTION THAT FAIL GRADUALLY, CATCH BASIN PROTECTION WILL FAIL SUDDENLY AND COMPLETELY IF NOT MAINTAINED PROPERLY.



TEMP. CATCH BASIN PROTECTION

SCALE: N.T.S.

GRAPHIC SCALE



NW 1/4 OF THE NW 1/4 OF SEC. 29, TWP. 39, RGE. 2E, W.M., WHATCOM COUNTY, WA

PROJECT TEAM

OWNER / DEVELOPER

RITE AID CORPORATION
14880 NE 24TH STREET
REDMOND, WA 98052

ARCHITECT

RHL DESIGN GROUP INC.
1550 140TH AVENUE N.E., SUITE 100
BELLEVUE, WA 98005-4516
CONTACT: RICHARD DUIGIE
PHONE: (425) 746-6477

CIVIL ENGINEER

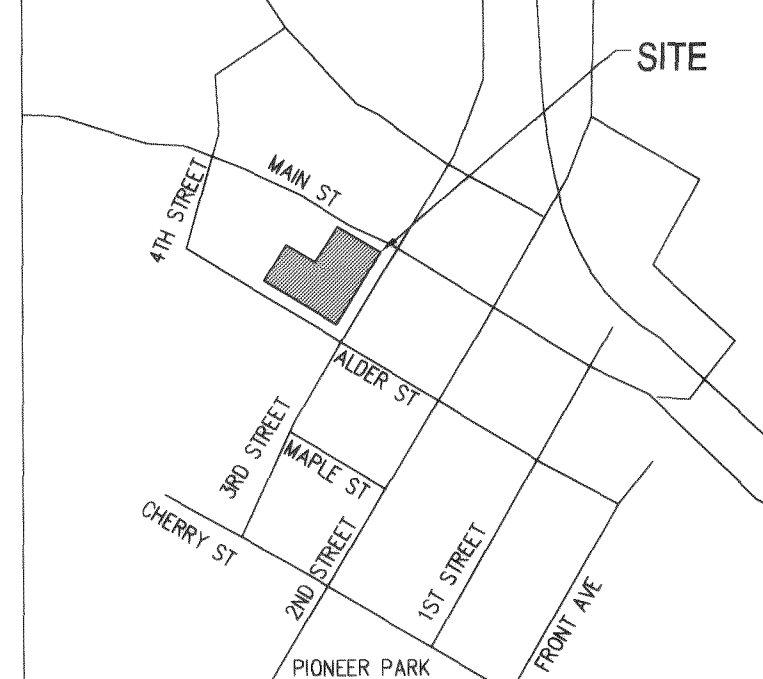
TERRAFORMA DESIGN GROUP, INC.
5212 37TH AVENUE SW
SEATTLE, WA 98126
CONTACT: PEDRO DEGUZMAN, PE
PHONE: (206) 923-0590

SURVEYOR

GEODIMENSIONS
17923 N.E. 127TH STREET
REDMOND, WA 98052
CONTACT: EDWIN GREEN
PHONE: (425) 883-6869

GOVERNING AGENCIES

CITY OF FERDALE
2095 MAIN STREET
P.O. BOX 936
FERDALE, WA 98248
CONTACT: BOB GECILE
PHONE: (360) 384-4006



VICINITY MAP

SCALE: N.T.S.

PROPERTY INFO

(FIRST AMERICAN TITLE INS. CO., UNDER ORDER NO.4271-330800)

LEGAL DESCRIPTION

PARCEL A
LOTS 1 AND 2, BLOCK 21, AMENDED PLAT OF FERDALE, WASHINGTON, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 5 OF PLATS, PAGE 4, RECORDS OF THE AUDITOR'S OFFICE OF WHATCOM COUNTY, WASHINGTON. TOGETHER WITH VACATED NORTH 1/2 OF ALLEY ABUTTING AS VACATED BY CITY OF FERDALE ORDINANCE NO. 384.

PARCEL B
LOTS 3 TO 6, INCLUSIVE, AND LOTS 11 TO 20, INCLUSIVE, BLOCK 21, AMENDED PLAT OF FERDALE, ACCORDING TO THE PLAT THEREOF, RECORDED IN VOLUME 5 OF PLATS, PAGE 4, RECORDS OF THE AUDITOR'S OFFICE OF WHATCOM COUNTY, WASHINGTON. TOGETHER WITH VACATED ABUTTING ALLEY AS VACATED BY CITY OF FERDALE ORDINANCE NO. 384.

VERTICAL DATUM

NGVD 29
WHATCOM COUNTY SURVEY CONTROL NO. 135, FOUND MONUMENT "NW SECTION CORNER OF SEC. 29-39-2 ELEVATION 28.21"

GENERAL CIVIL NOTES

- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2002 WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, ITS CURRENT AMENDMENTS, ATTACHED SPECIAL PROVISIONS, WSDOT STANDARD PLANS AND DETAILS, CITY OF FERDALE STANDARD DRAWINGS (REFERENCE CITY OF BELLINGHAM) AND THESE PLANS.
- THE CONTRACTOR SHALL COORDINATE WITH THE PERTINENT UTILITY COMPANIES FOR THIS WORK.

I HEREBY CERTIFY THAT THE IMPROVEMENTS IN RITE AID STORE #6452 HAVE BEEN INSPECTED BY TERRAFORMA DESIGN GROUP, INC. AND CONSTRUCTED IN CONFORMANCE WITH THE PLANS APPROVED BY THE PUBLIC WORKS DIRECTOR FOR SAID DEVELOPMENT AND THE GENERAL SPECIFICATIONS ADOPTED BY THE CITY OF FERDALE DEPARTMENT OF PUBLIC WORKS.



APPROVED
APR 22 2005
BY *Robert Gecile*
CITY OF FERDALE

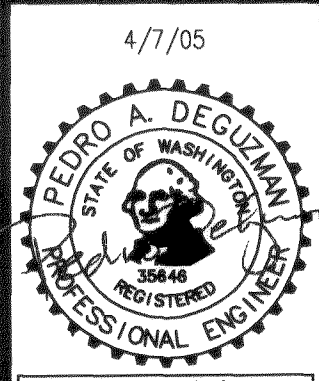
SHEET INDEX

EROSION CONTROL PLAN	CV-1
GRADING & DRAINAGE PLAN	CV-2
UTILITY PLAN	CV-3
CIVIL DETAILS	CV-4
CIVIL NOTES	CV-5

NOTE

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE, AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

CALL 48 HOURS
BEFORE YOU DIG
1-800-424-5555



TERRAFORMA
DESIGN GROUP, INC.
CIVIL ENGINEERING & LANDSCAPE ARCHITECTURE
5212 37th Avenue SW Seattle WA 98126
phone 206.923.0590 fax 206.923.3507 email office@terraformdesigngroup.com



FERDALE, WA

RITE AID #6452

for RITE AID CORPORATION

EROSION CONTROL PLAN

5655 3RD STREET

DATE	NO.	REVISIONS
6/25/04	1	PERMIT SUBMITTAL
7/12/04	2	REVISED PER CITY COMMENTS
8/23/04	3	ADD 6" WATERMAIN LOOP
8/13/04	4	CONSTRUCTION SET
9/24/04	5	REVISED SITE PLAN
10/13/04	6	REVISED SITE PLAN

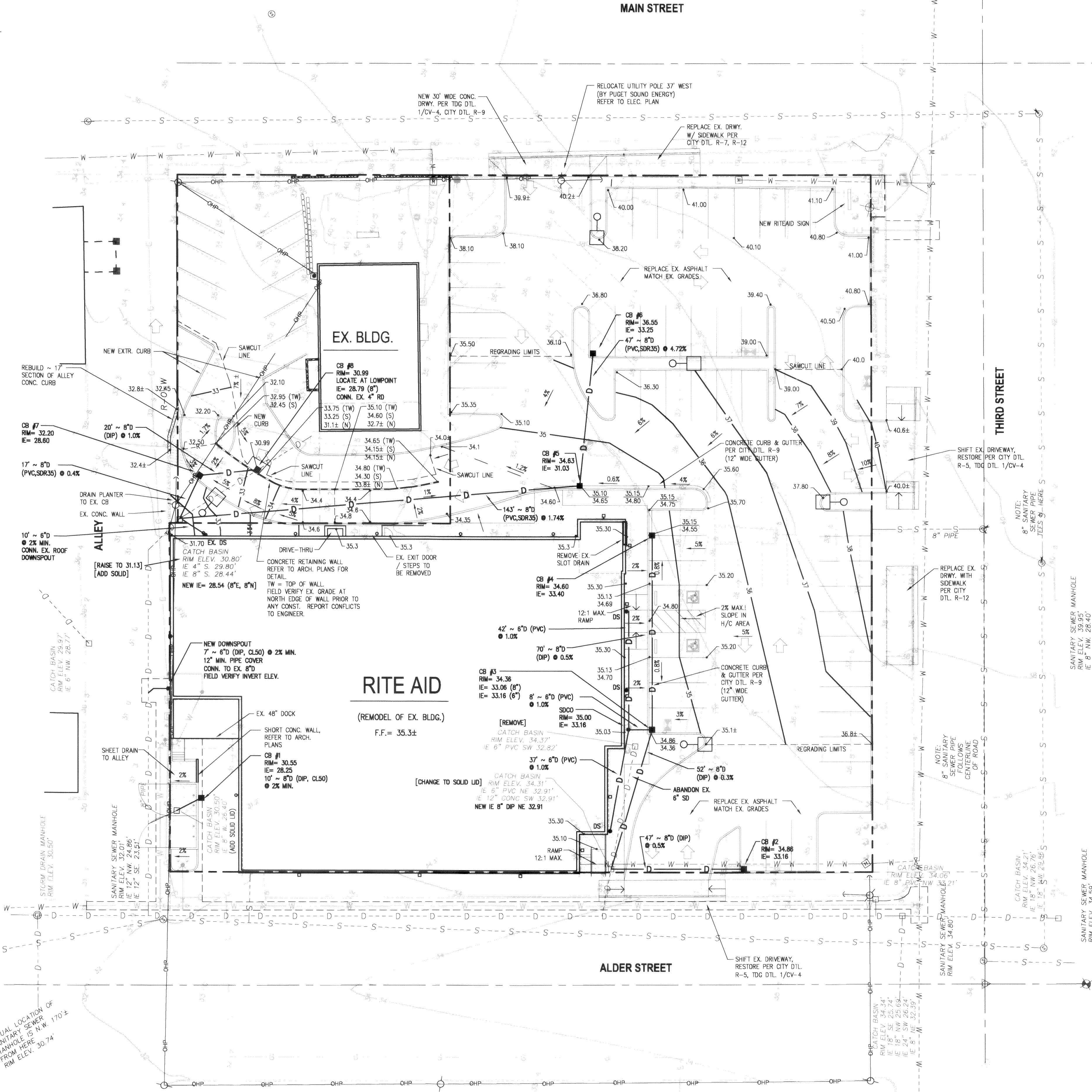
RITE AID
CORPORATION
STORE DEVELOPMENT DEPARTMENT
HARRISBURG, PA 17105
(717) 761-2633



DRWN BY: CSK
CHK'D BY: PAD
DATE: 6/25/04
SCALE: 1"=20'
PROJECT #6452
CV-1

LEGEND - GRADING & DRAINAGE

EXISTING	PROPOSED	
		CONCRETE
		ROCKERY OR CONC. BLOCK WALL
		PROPERTY LINE
		R.O.W. CENTERLINE
		EASEMENT
		GRADING CONTOUR
		SPOT ELEVATION
		GRADE BREAK
		SWALE
		WATER MAIN
		SEWER MAIN
		STORM DRAIN
		FIRE HYDRANT
		WATER METER
		GATE VALVE
		SEWER MANHOLE
		STORM CB
		STORM MANHOLE
		ELECTRICAL LINE
		TELEPHONE LINE
		GAS LINE
		POWER VAULT
		UTILITY POLE
		STREET LIGHT
		BOLLARD
		PARKING LIGHT



STORM NOTES

- STORM PIPE SHALL BE PVC, SDR 35 (COVER = 2.0' MIN.), OR DUCTILE IRON (CL. 50), OR APPROVED EQUAL.
- CATCH BASINS SHALL BE PER DTL. ON SHT. CV-4.

EARTHWORK QUANTITIES

TOTAL CUT = 450 CY
TOTAL FILL = 62 CY

I HEREBY CERTIFY THAT THE IMPROVEMENTS IN RITE AID STORE #6452 HAVE BEEN INSPECTED BY TERRAFORMA DESIGN GROUP, INC. AND CONSTRUCTED IN CONFORMANCE WITH THE PLANS APPROVED BY THE PUBLIC WORKS DIRECTOR FOR SAID DEVELOPMENT AND THE GENERAL SPECIFICATIONS ADOPTED BY THE CITY OF FERNDALE DEPARTMENT OF PUBLIC WORKS.

APPROVED

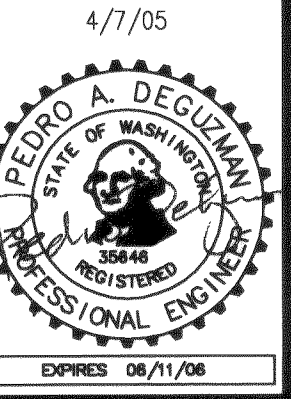
APR 22 2005
BY *Robert G. Goss*
CITY OF FERNDALE

NOTE

THE LOCATION OF ALL EXISTING UNDERGROUND UTILITIES IS SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK. CONTRACTOR AGREES TO BE FULLY RESPONSIBLE FOR ANY AND ALL DAMAGES WHICH MIGHT BE OCCASIONED BY HIS FAILURE TO EXACTLY LOCATE AND PRESERVE ANY AND ALL UNDERGROUND UTILITIES.

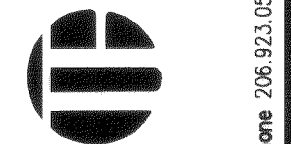
CALL 48 HOURS
BEFORE YOU DIG
1-800-424-5555

NW 1/4 OF THE NW 1/4 OF SEC. 29, TWP. 39, RGE. 2E, W.M., WHATCOM COUNTY, WA



TOD # 04009

TERRAFORMA
DESIGN GROUP, INC.
CIVIL ENGINEERING & LANDSCAPE ARCHITECTURE
5212 37th Avenue SW Seattle WA 98126
phone 206.623.0500 fax 206.623.0501 email office@terraformdesigngroup.com

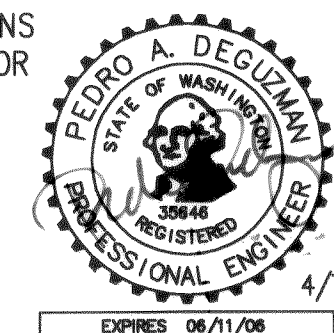


FERDALE, WA

AS-BUILT
RITE AID #6452
for RITE AID CORPORATION
5655 3RD STREET
GRADING & DRAINAGE PLAN

DATE	NO.	REVISIONS
4/7/05	10	REVISED DRIVE-THRU CURBS AS SHOWN
2/22/05	9	FINAL AS-BUILT
2/9/05	8	REVISED DRIVE-THRU
2/7/05	7	REVISED DRIVE-THRU, AS-BUILT STORM/WATER
11/19/04	6	NORTH PARKING SPOT ELEVATIONS

RITE AID
CORPORATION
STORE DEVELOPMENT DEPARTMENT
P.O. BOX 3166
FERNDALE, WA 98126
(206) 761-2633



DRWN BY: CSM
CHK'D BY: PAD
DATE: 6/25/04
SCALE: 1"=20'
PROJECT #6452
CV-2

EXISTING	PROPOSED	
		CONCRETE
		ROCKERY OR CONC. BLOCK WALL
		PROPERTY LINE
		R.O.W. CENTERLINE
		EASEMENT
		WATER MAIN
		SEWER MAIN
		STORM DRAIN
		FIRE HYDRANT
		WATER METER
		GATE VALVE
		SEWER MANHOLE
		STORM CB
		STORM MANHOLE
		ELECTRICAL LINE
		TELEPHONE LINE
		GAS LINE
		POWER VAULT
		UTILITY POLE
		STREET LIGHT
		BOLLARD
		PARKING LIGHT



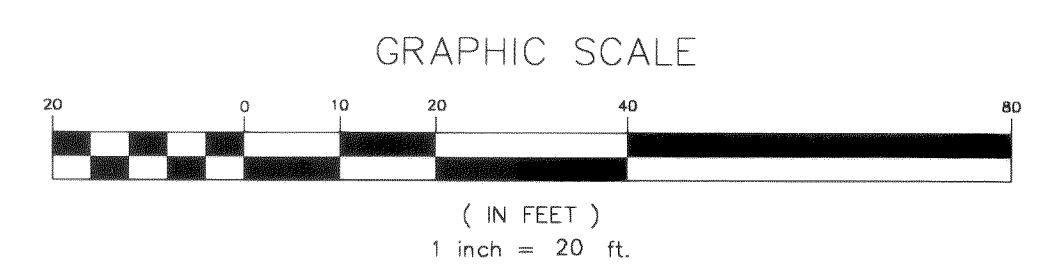
EXPRESS 08/11/08

TDC # 04009

TERRAFORMA
DESIGN GROUP, INC.

CIVIL ENGINEERING & LANDSCAPE ARCHITECTURE


5212 37th Avenue SW Seattle WA 98176
phone 206 923-0590 fax 206 923-5007 email office@terraformingroup.com



RITE AID #6452
for RITE AID CORPORATION
UTILITY PLAN

NO.	DATE	REVISIONS
---	6/25/04	PERMIT SUBMITTAL
1	7/7/04	REVISED PER CITY COMMENTS
2	8/3/04	ADD 6" WATERMAIN LOOP
3	8/13/04	CONSTRUCTION SET
4	9/9/04	REVISED SITE PLAN
5	10/13/04	REVISED SITE PLAN

NS
OR

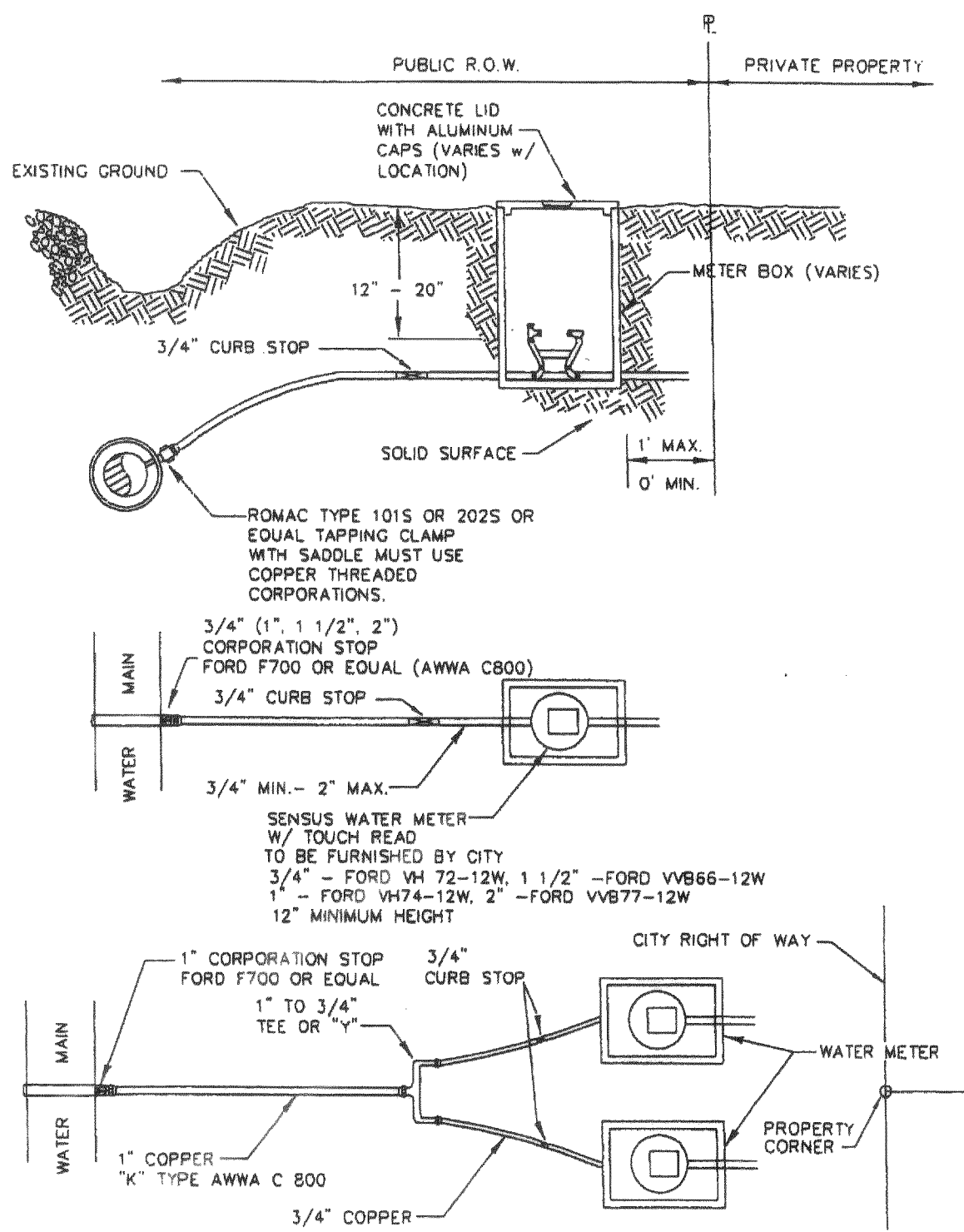


4/7/05

EXPIRES 06/11/06

**CALL 48 HOURS
BEFORE YOU DIG
1-800-424-5555**

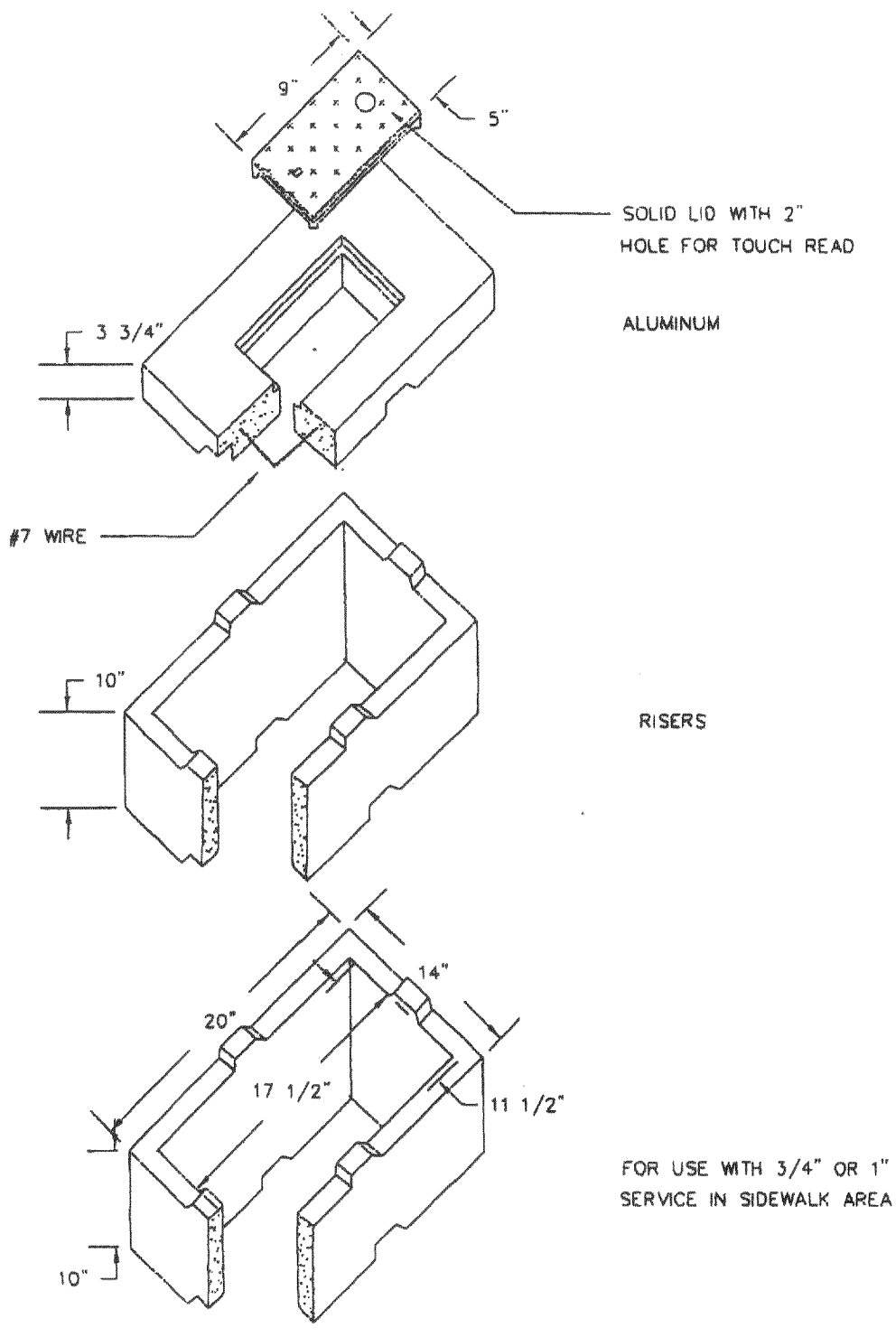
DRWN BY: CSM	CHK'D BY:
DATE: 6/25/04	SCALE: 1"=20'
PROJECT #6452 CV-3	



APPROVED
[Signature]
Public Works Director Date

CITY OF FERDALE
TYPICAL WATER SERVICE
(3/4" TO 2")

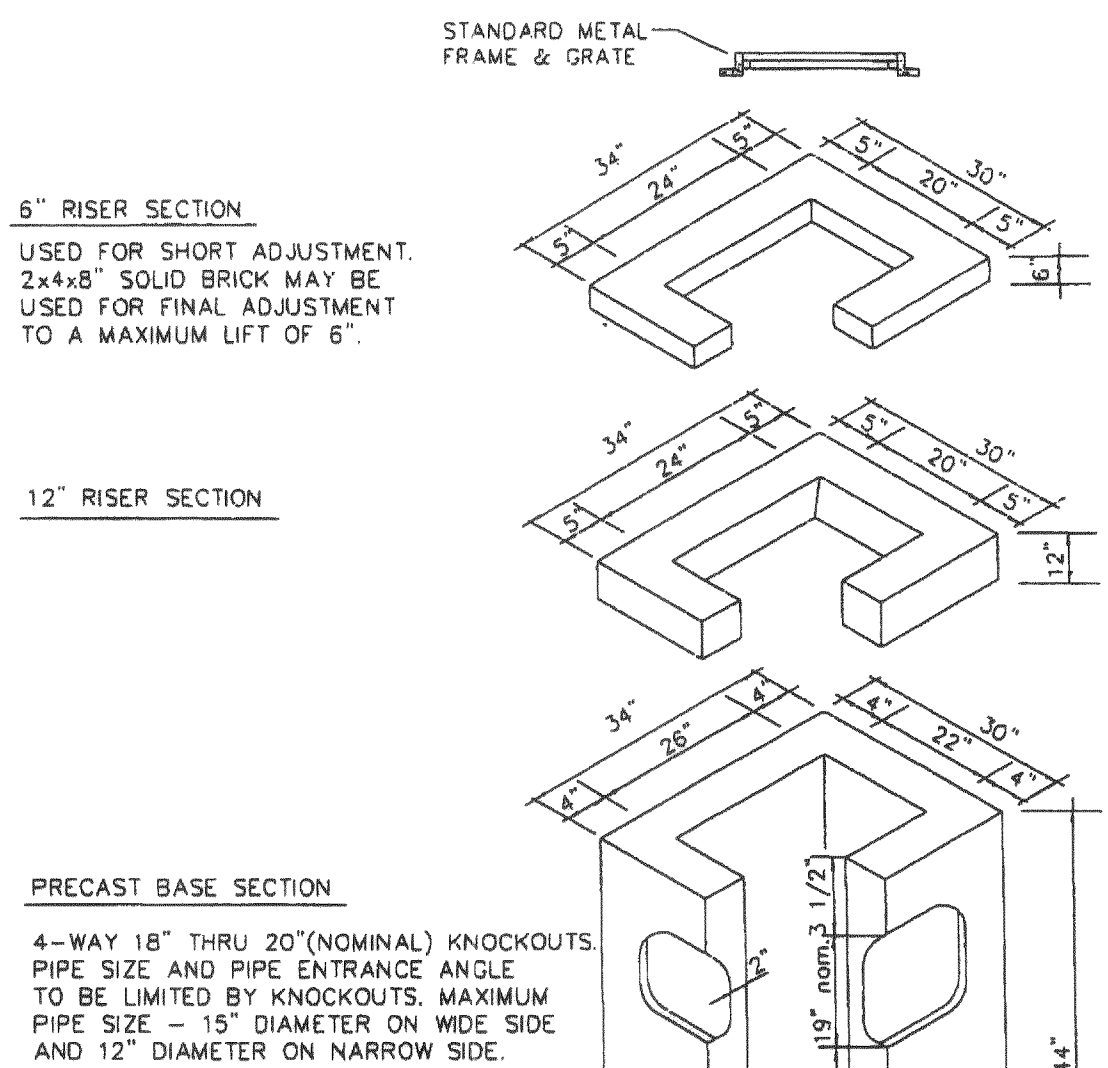
DRAWING
W-5



APPROVED
[Signature]
Public Works Director Date

CITY OF FERDALE
NO. 1 METER BOX
FOG TITLE

DRAWING
W-6

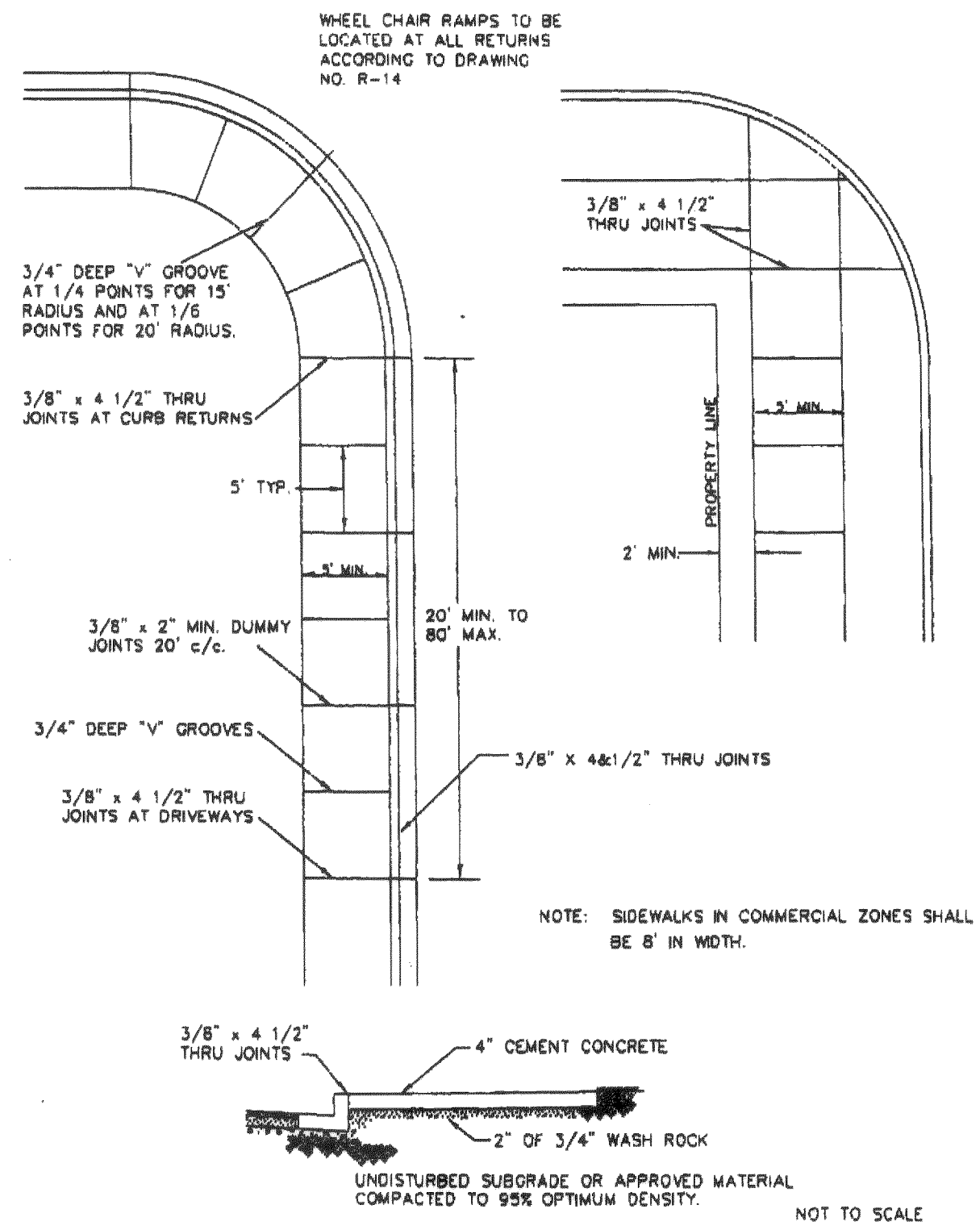


- NOTES:
- 1) CAST IN PLACE OR MASONRY CONSTRUCTION UNITS MAY BE SUBSTITUTED AS PER A.P.W.A. STANDARDS OR STATE STANDARDS. (B-1)
 - 2) FOR DETAILS OF REINFORCEMENTS AND INSTALLATION, SEE A.P.W.A. STANDARDS OR STATE STANDARDS.

APPROVED
[Signature]
Public Works Director Date

CITY OF FERDALE
CATCH BASIN TYPE I

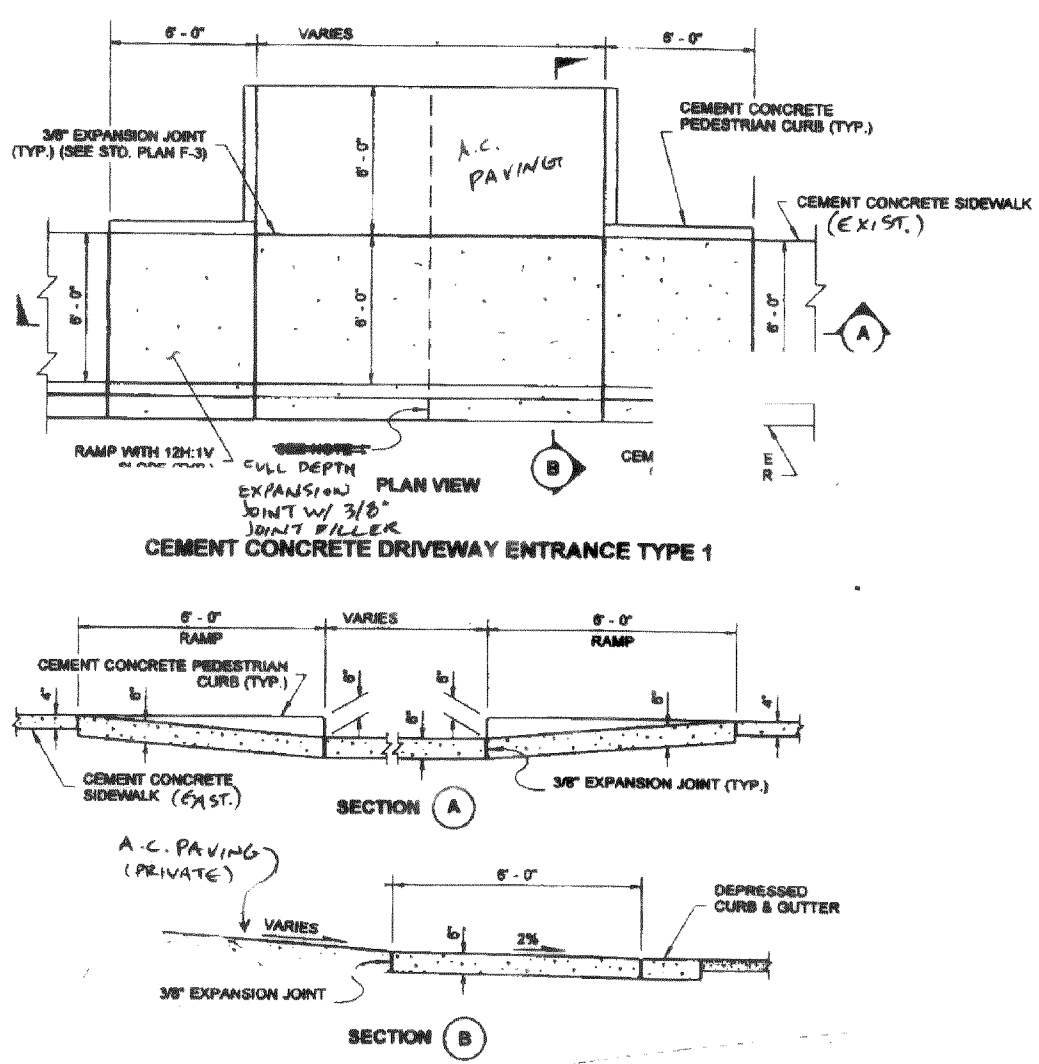
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ST-1



APPROVED
[Signature]
Public Works Director Date

CITY OF FERDALE
TYPICAL SIDEWALK PLAN
AND CROSS SECTION

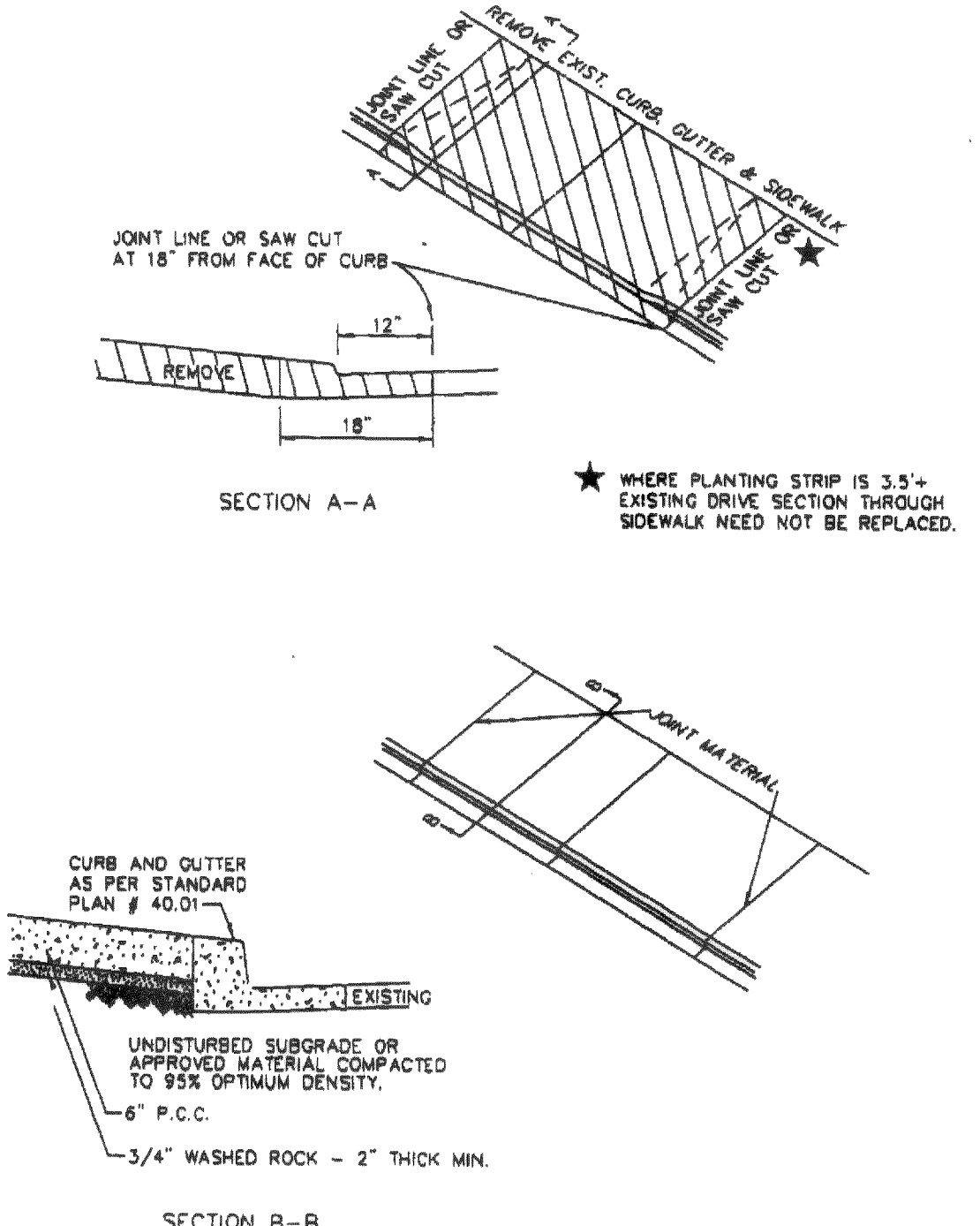
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R-12



1
CV-4

CONCRETE DRIVEWAY TYPE 1

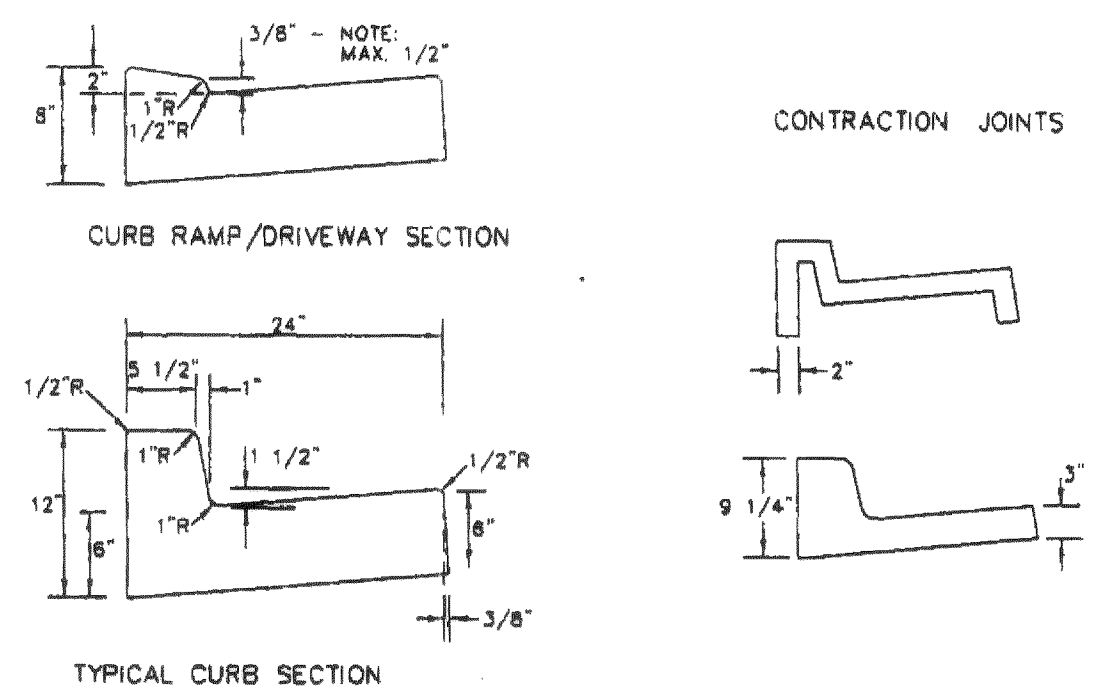
SCALE: N.T.S. (PER WSDOT PLAN NO. F-4)



APPROVED
[Signature]
Public Works Director Date

CITY OF FERDALE
DRIVEWAY RESTORATION

DRAWING
R-7

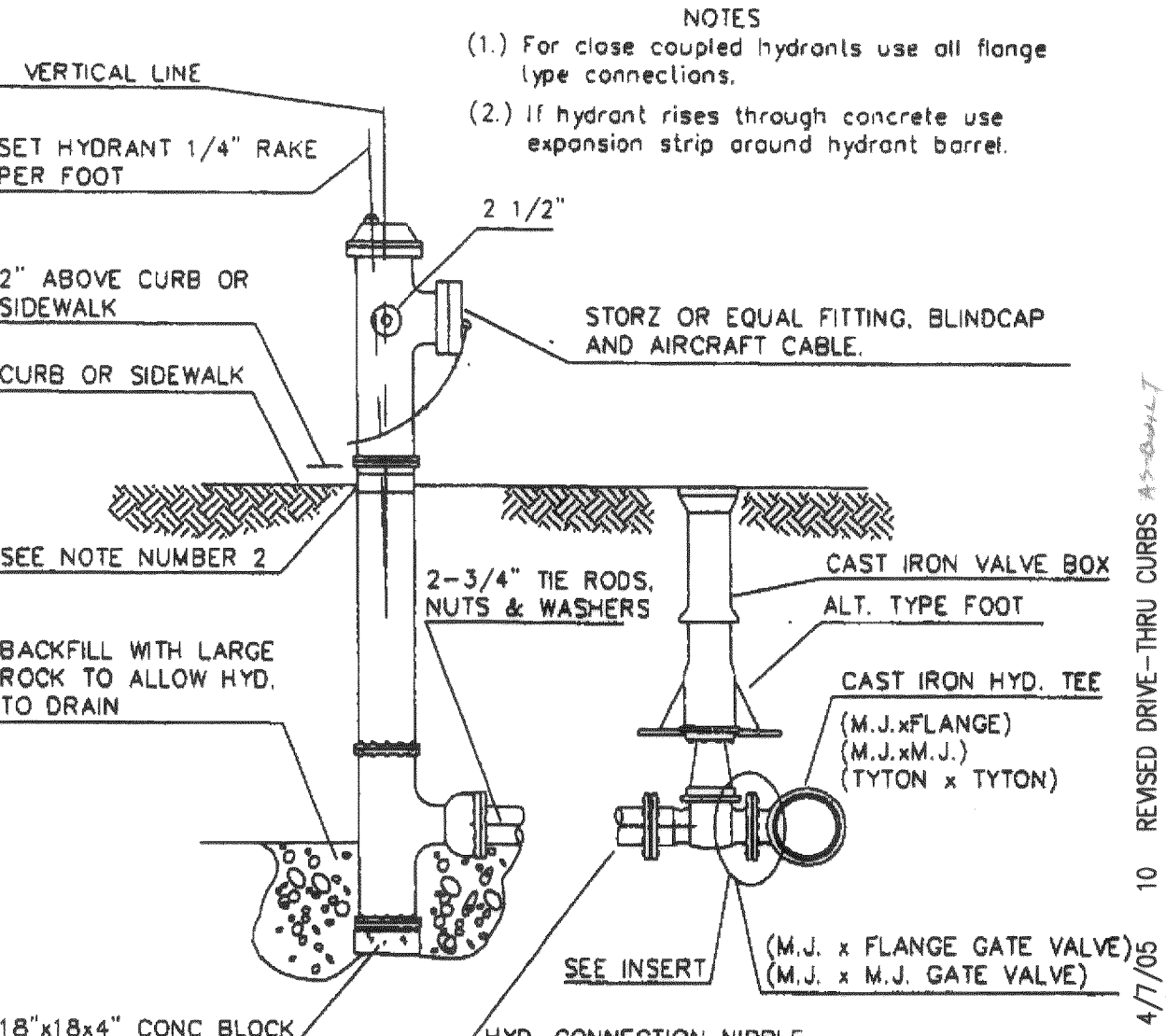


- GENERAL NOTES:
- CONTRACTION JOINTS OF ONE OF THE TYPES SHOWN ABOVE TO BE PLACED 10' C/C. JOINTS MUST COMPLETELY SEVER THE STRUCTURE TO THE POINTS SHOWN. JOINTS MAY BE MADE BY INSERTING MINIMUM 3/16" BITUMINOUS FILLER DUMMY JOINTS. JOINTS SHALL BE CLEANED AND EGGED.
- 2" DEEP HOLES TO BE PLACED ON EACH SIDE OF DRIVEWAY SECTION AND A MAXIMUM 80' C/C IN CUT SECTIONS WHERE SIDEWALK DRAIN NOT REQUIRED BY CITY PUBLIC WORKS DIRECTOR.
- 3/4" EXPANSION JOINTS TO BE PLACED AT DRIVEWAY SECTIONS, CURB RETURNS, CURB RAMPS AND COLD JOINTS OR A MAXIMUM OF 80' C/C. EXPANSION JOINTS SHALL PROTRUDE 1" BELOW THE BOTTOM OF GUTTER.
- CONCRETE SHALL BE CEMENT CONCRETE CLASS 3000.
- FINISHED WORK SHALL NOT VARY MORE THAN 1/8" IN GRADE AND 1/4" IN ALIGNMENT WHEN CHECKED WITH 10" STRAIGHT EDGE.
- EXPOSED SURFACES SHALL BE BRUSHED WITH A FIBER BRUSH.
- WHITE PIGMENTED OR TRANSPARENT CURING COMPOUND SHALL BE APPLIED AS OUTLINED IN THE STANDARD SPECIFICATIONS.
- FURTHER REQUIREMENTS SHALL BE AS SPECIFIED IN THE STANDARD SPECIFICATIONS.

APPROVED
[Signature]
Public Works Director Date

CITY OF FERDALE
CURB AND GUTTER

DRAWING
R-9

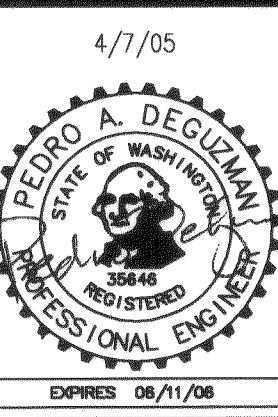
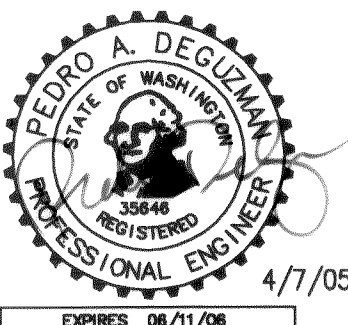


APPROVED
[Signature]
Public Works Director Date

CITY OF FERDALE
FIRE HYDRANT ASSEMBLY

DRAWING
W-1

I HEREBY CERTIFY THAT THE IMPROVEMENTS IN RITE AID STORE #6452 HAVE BEEN INSPECTED BY TERRAFORMA DESIGN GROUP, INC. AND CONSTRUCTED IN CONFORMANCE WITH THE PLANS APPROVED BY THE PUBLIC WORKS DIRECTOR FOR SAID DEVELOPMENT AND THE GENERAL SPECIFICATIONS ADOPTED BY THE CITY OF FERDALE DEPARTMENT OF PUBLIC WORKS.



TERRAFORMA
DESIGN GROUP, INC.
CIVIL ENGINEERING & LANDSCAPE ARCHITECTURE
5212 37th Avenue SW Seattle, WA 98126
phone 206.923.0590 fax 206.923.3507 email office@terraformdesigngroup.com

RITE AID #6452
for RITE AID CORPORATION
5655 3RD STREET
FERDALE, WA

DATE	NO.	REVISIONS
6/25/04	1	PERMIT SUBMITTAL
7/13/04	2	REVISED PER CITY COMMENTS
8/3/04	3	ADD 6" WATERMAN LOOP
8/13/04	4	CONSTRUCTION SET
9/24/04	5	REVISED SITE PLAN
10/13/04	6	REVISED SITE PLAN

RITE AID
CORPORATION
STORE DEVELOPMENT DEPARTMENT
HARRISBURG, PA 17105
(717) 761-2633

DRWN BY:	CHK'D BY:
CSM	PAD
DATE:	SCALE:
6/25/04	NTS

PROJECT
#6452
CV-4

00159.004
2.10.06
R2

GENERAL CIVIL NOTES

1. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE 2002 WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, ITS CURRENT AMENDMENTS, ATTACHED SPECIAL PROVISIONS, WSDOT STANDARD PLANS AND DETAILS, CITY OF FERNDAL E STANDARD DRAWINGS (REFERENCE CITY OF BELLINGHAM) AND THESE PLANS.

2. THE CONTRACTOR SHALL COORDINATE WITH THE PERTINENT UTILITY COMPANIES FOR THIS WORK.

EROSION CONTROL NOTES

ALL EROSION CONTROL BMP'S CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE 2002 WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, THE CITY OF FERNDAL E STANDARD DETAILS AND THESE PLANS.

THE FOLLOWING EROSION AND SEDIMENT CONTROL REQUIREMENTS SHALL BE MET:

1. STABILIZATION AND SEDIMENT TRAPPING. ALL EXPOSED SOILS SHALL BE STABILIZED BY SUITABLE APPLICATION OF BMP'S. FROM OCTOBER 1 TO APRIL 30, NO SOILS SHALL REMAIN EXPOSED FOR MORE THAN 2 DAYS. FROM MAY 1 TO SEPTEMBER 30, NO SOILS SHALL REMAIN EXPOSED FOR MORE THAN 7 DAYS. PRIOR TO LEAVING THE SITE, STORMWATER RUNOFF SHALL PASS THROUGH A SEDIMENT POND OR SEDIMENT TRAP, OR OTHER APPROPRIATE BMP'S.

2. DELINEATE CLEARING AND EASEMENT LIMITS. IN THE FIELD, STAKE AND FLAG CLEARING LIMITS AND/OR ANY EASEMENTS, SETBACKS, SENSITIVE CRITICAL AREAS AND THEIR BUFFERS, TREES AND DRAINAGE COURSES.

3. PROTECTION OF ADJACENT PROPERTIES. PROPERTIES ADJACENT TO THE PROJECT SITE SHALL BE PROTECTED FROM SEDIMENT DEPOSITION.

4. TIMING AND STABILIZATION OF SEDIMENT TRAPPING MEASURES. SEDIMENT PONDS AND TRAPS, PERIMETER DIKES, SEDIMENT BARRIERS, AND OTHER BMP'S INTENDED TO TRAP SEDIMENT ON-SITE SHALL BE CONSTRUCTED AS A FIRST STEP IN GRADING. THESE BMP'S SHALL BE FUNCTIONAL BEFORE LAND DISTURBING ACTIVITIES TAKE PLACE. EARTHEN STRUCTURES SUCH AS DAMS, DIKES, AND DIVERSIONS SHALL BE SEEDED AND MULCHED ACCORDING TO THE TIMING INDICATED IN SEC. 1106(1).

5. CUT AND FILL SLOPES. CUT AND FILL SLOPES SHALL BE DESIGNED AND CONSTRUCTED IN A MANNER THAT WILL MINIMIZE EROSION. IN ADDITION, SLOPES SHALL BE STABILIZED IN ACCORDANCE WITH SEC 1106(1).

6. CONTROLLING OFF-SITE EROSION. PROPERTIES AND WATERWAYS DOWNSTREAM FROM DEVELOPMENT SITES SHALL BE PROTECTED FROM EROSION DUE TO INCREASES IN THE VOLUME, VELOCITY, AND PEAK FLOW RATE OF STORMWATER RUNOFF FROM THE PROJECT SITE.

7. STABILIZATION OF TEMPORARY CONVEYANCE CHANNELS AND OUTLETS. ALL TEMPORARY ON-SITE CONVEYANCE CHANNELS SHALL BE DESIGNED, CONSTRUCTED AND STABILIZED TO PREVENT EROSION FROM THE EXPECTED VELOCITY OF FLOW FROM A 2-YEAR, 24-HOUR FREQUENCY STORM FOR THE DEVELOPED CONDITION. STABILIZATION ADEQUATE TO PREVENT EROSION OF OUTLETS, ADJACENT STREAMBANKS, SLOPES AND DOWNSTREAM REACHES SHALL BE PROVIDED AT THE OUTLETS OF ALL CONVEYANCE SYSTEMS.

8. STORM DRAIN INLET PROTECTION. ALL STORM DRAIN INLETS MADE OPERABLE DURING CONSTRUCTION SHALL BE PROTECTED SO THAT STORMWATER RUNOFF SHALL NOT ENTER THE CONVEYANCE SYSTEM WITHOUT FIRST BEING FILTERED OR OTHERWISE TREATED TO REMOVE SEDIMENT.

9. UNDERGROUND UTILITY CONSTRUCTION. THE CONSTRUCTION OF UNDERGROUND UTILITY LINES SHALL BE SUBJECT TO THE FOLLOWING CRITERIA:

A) WHERE FEASIBLE, NO MORE THAN 500 FEET OF TRENCH SHALL BE OPENED AT ONE TIME.

WATER NOTES

1. ALL WATER CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE 2002 WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, THE CITY OF FERNDAL E STANDARD DETAILS AND THESE PLANS.

2. FIRE HYDRANTS AND FIRE MAINS MUST CONFORM TO CITY OF FERNDAL E STANDARD DETAIL W-1 (DOT B-19) AND THE FOLLOWING STANDARDS:

a) FIRE HYDRANTS SHALL HAVE INDIVIDUALLY VALVED TWO 2-1/2 INCH PORTS AND ONE 5-1/4 INCH MAIN VALVE. OPENING: A 4-1/2 INCH NST PUMPER NOZZLE AND A 5 INCH STORZ PORT WITH CAP AND CABLE SHALL BE SUPPLIED. HYDRANTS SHALL BE EITHER IOWA OR M.H. 929T HYDRANT.

b) FIRE HYDRANTS SHALL HAVE THE STORZ PORT FACING THE REQUIRED ACCESS AND THE BASE FLANGE OF THE HYDRANT MUST NOT VARY MORE THAN 1 FOOT IN ELEVATION FROM THE GRADE LEVEL OF THE REQUIRED ACCESS. THE LOWEST STEM SHALL BE A MINIMUM OF 14 INCHES ABOVE THE GROUND.

c) IN THE OPINION OF THE PUBLIC WORKS DIRECTOR, FIRE HYDRANTS ARE VULNERABLE TO VEHICULAR DAMAGE, APPROPRIATE CRASH POSTS SHALL BE PROVIDED. NO OBSTRUCTIONS SHALL EXIST WITHIN A 3 FOOT WORKING AREA OF EACH REQUIRED ACCESS. CRASH POSTS SHALL BE 4 INCH CEMENT-FILLED PIPE MINIMUM 3 FEET IN HEIGHT WITH 2 FEET OF PIPING BELOW GRADE. HYDRANT SHUTOFF VALVES SHALL BE LOCATED BETWEEN 5 AND 20 FEET FROM THE HYDRANT.

d) UNDERGROUND SUPPLIES TO FIRE HYDRANTS MUST BE INSPECTED. SUCH INSPECTION SHALL INCLUDE VISUAL INSPECTION OF PIPING AND HYDROSTATIC PRESSURE TEST OF A MINIMUM OF 200 PSI OR 50 PSI IN EXCESS OF STREET MAIN PRESSURE, WHICHEVER IS GREATER. A FLOW TEST WILL BE REQUIRED WHEN INSTALLATION IS COMPLETE.

e) FIRE HYDRANT INSTALLATION MUST COMPLY WITH STANDARD DETAIL W-1 (DOT B-19).

f) FIRE HYDRANTS MUST BE MAINTAINED IN AN OPERABLE CONDITION AT ALL TIMES AND MUST BE REPAIRED OR REPLACED WHEN DEFECTIVE. HYDRANTS SHALL BE FULLY OPERABLE BEFORE CONSTRUCTION COMMENCES ABOVE GRADE LEVEL.

3. STANDARDS FOR WATER MAIN CONSTRUCTION

a) PIPE FOR WATER MAIN. ALL PIPE SHALL BE OF AWWA STANDARDS H3-71, C151-71 AND CEMENT LINING C104-71, AND SHALL BE DUCTILE CAST-IRON, STANDARD THICKNESS CLASS 50 PUSH-ON JOINTS OR M.J. JOINTS. THE PIPE SHALL BE OF 150 PSI WORKING PRESSURE, PLUS 100 PSI SURGE PRESSURE. NO PVC OR AC PIPE WILL BE ALLOWED. PIPE LAYING SHALL MEET THE REQUIREMENTS OF SECTION 7-11 OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION. ALL PIPE SHALL HAVE MINIMUM COVERING OF 3.5 FEET.

b) FITTINGS. MATERIAL FOR FITTINGS SUCH AS CROSSES, TEES, BENDS, REDUCERS AND SLEEVES SHALL BE DUCTILE IRON. JOINTS SHALL BE M.J., FLANGED OR PUSH-ON JOINTS AND SHALL CONFORM TO AWWA SPECIFICATIONS C-110-71 AND C-104-71.

c) CONCRETE THRUST BLOCKING. CONCRETE BLOCKING SHALL BE AS SPECIFIED IN CITY OF FERNDAL E STANDARD DETAILS W-2 THROUGH W-4, OR AS DIRECTED BY THE PROJECT ENGINEER. BLOCKS SHALL BE INSTALLED AS SPECIFIED IN SECTION 7-11.3(13) OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION. NO PRECAST BLOCKS ARE ALLOWED.

d) CONNECTION TO EXISTING WATER MAINS. THE CONTRACTOR MUST NOTIFY THE FERNDAL E PUBLIC WORKS DIRECTOR OF A PROPOSED CONNECTION TIME AT LEAST FOUR WORKING DAYS IN ADVANCE.

e) HYDROSTATIC TESTING AND DISINFECTION OF WATER MAIN. ALL HYDROSTATIC TESTING AND DISINFECTION OF WATER MAINS SHALL CONFORM TO SECTIONS 7-11.3(11) AND 7-11.3(12) OF THE WASHINGTON STATE DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROAD, BRIDGE OR MUNICIPAL CONSTRUCTION - CURRENT EDITION. HYDROSTATIC TESTING INSPECTED BY CITY.

WATER NOTES CONT.

f) WATER SERVICE TRANSFERS. TAP INSTALLATIONS SHALL MEET THE REQUIREMENTS OF THE CITY OF FERNDAL E STANDARD DETAILS.

g) GATE VALVES. GATE VALVES SHALL BE FOR LINES 2 INCHES THROUGH 10 INCHES, AND SHALL BE INSTALLED IN CAST-IRON VALVE BOXES. SHORT-BODY VALVES SUITABLE FOR A NONSHOCK SHUT-OFF PRESSURE OF 130 PSI RESILIENT SEAT VALVES AND SUITABLE FOR DIRECT BURIAL ARE SPECIFIED.

GATE VALVES SHALL BE RESILIENT SEATED IRON-BODY, FULL-BRONZE MOUNTED VALVES CONFORMING TO AWWA C509 AND SUITABLE FOR SERVICE WITH THE TYPE AND CLASS OF PIPE USED.

ALL VALVES SHALL HAVE NONRISING STEMS AND SHALL OPEN COUNTERCLOCKWISE AND SHALL BE EQUIPPED WITH A 2 INCH SQUARE OPERATING NUT. VALVES WILL BE FLANGE OR M.J. JOINTS.

VALVE MARKERS SHALL BE LOCATED OUTSIDE OF PAVEMENT SECTION.

4. WATER SERVICE INSTALLATION REQUIREMENTS

a) TAPPING WITH TAPPING CLAMP AND SADDLE MUST USE I.P. THREADED CORPORATIONS. IF THE DRY-TAP METHOD IS USED, THE FOLLOWING MINIMUM HOLE SIZES SHALL BE USED:

1 7/8" FOR 2" SERVICE
1 7/16" FOR 1 1/2" SERVICE
15/16" FOR 1" SERVICE
11/16" FOR 3/4" SERVICE.

CAUTION, CARE, AND PRUDENCE IS NECESSARY IN ALIGNING THE CLAMP AND SADDLE TO ASSURE FULL FLOW CAPABILITY.

b) CORPORATION TAPS SHALL MAKE AS NEARLY AS POSSIBLE A 45 DEGREE ANGLE OFF THE VERTICAL CENTER LINE OF THE MAIN. NO TAP IS TO BE MADE ON THE TOP OF THE WATER MAIN.

c) TYPE "K" COPPER SHALL BE USED ON WATER SERVICES WITHIN THE PUBLIC RIGHT-OF-WAY.

d) CURB STOPS SHALL BE LOCATED NO CLOSER THAN THREE (3) FEET OR FARTHER THEN FIVE (5) FEET FROM THE PROPERTY LINE. STOP-AND-WASTE TYPE CURB STOPS ARE NOT ALLOWED.

e) ALL UNDERGROUND FITTINGS SHALL BE FLARED WITHIN THE PUBLIC RIGHT-OF-WAY, NO SWEAT OR COMPRESSION CONNECTIONS ARE TO BE USED. THE USE OF TEFLON TAPE AS A SEALANT IS ACCEPTABLE, BUT THE USE OF PIPE DOPE IS NOT ACCEPTABLE.

f) THE WATER SERVICE PIPE SHALL HAVE A MINIMUM OF 24 INCH DEPTH AND A MAXIMUM OF 36 INCH DEPTH, INCLUDING UNDER DITCH SECTIONS. IF A METER IS REQUIRED, THERE SHALL BE 30 INCHES COVER IN THE METER AREA.

g) NO SERVICE IS TO BE COVERED UNTIL THE CITY INSPECTOR HAS INSPECTED THE INITIAL INSTALLATION. NOTE THAT ALL CORPORATIONS MUST BE IN AN ON POSITION AND ALL CURB STOPS MUST BE IN THE OFF POSITION.

h) SERVICE TESTING SHALL BE DONE IN CONJUNCTION WITH WATER MAIN TESTING. ANY AIR RELIEF AND FLUSHING SHALL BE THE RESPONSIBILITY OF THE DEVELOPER.

i) AN ACCEPTANCE INSPECTION WILL BE MADE BY THE CITY UPON COMPLETION OF ALL PROJECT WORK. DURING THE INSPECTION, EVERY SERVICE SHALL BE TURNED ON TO ITS FULL CAPACITY TO CHECK FLOW AND GUARANTEE THAT EACH SERVICE LINE HAS BEEN FLUSHED. IN NO CASE SHALL THE ACCEPTANCE INSPECTION BE MADE UNTIL ALL PROJECT WORK IS COMPLETE. DAMAGE INCURRED DURING OTHER CONSTRUCTION WORK ON THE PROJECT SHALL BE CORRECTED BY THE DEVELOPER OR HIS AGENT PRIOR TO ACCEPTANCE BY THE CITY.

j) THE BOND RELEASE INSPECTION SHALL BE MADE PRIOR TO THE END OF THE 2 YEAR MAINTENANCE BOND PERIOD. ANY PROBLEMS NOTED AT THIS TIME SHALL BE CORRECTED BY THE DEVELOPER AND/OR BONDING COMPANY PRIOR TO RELEASING THE BOND.

WATER NOTES CONT.

5. WATER SERVICE METER BOX INSTALLATION REQUIREMENTS

a) COVER OF 24 TO 30 INCHES SHALL BE MAINTAINED FROM FINISHED GRADE TO THE SERVICE PIPE EXCEPT WHERE A VARIANCE IS APPROVED BY THE DEPARTMENT OF PUBLIC WORKS. NOTE THAT THE TOP OF THE BOX SHALL BE FLUSH WITH THE FINISHED GRADE AND THAT THIS INCLUDES THE EXPANSION MATERIAL WHEN REQUIRED.

b) THE METER SETTER OR CURB STOP SHALL BE LOCATED WITHIN THE METER BOX.

i. MINIMUM CLEARANCE OF 1 INCH FROM INSIDE SURFACE.

ii. MAXIMUM CLEARANCE OF 2 INCHES FROM INSIDE SURFACE SHALL BE MAINTAINED FROM THE STOP.

iii. STOPS SHALL BE WITHIN 3 TO 5 FEET FROM THE PROPERTY LINE WITHIN THE PUBLIC RIGHT-OF-WAY OR AS APPROVED BY THE CITY, EXCEPT WHEN THIS PUTS THE STOP IN THE SIDEWALK, IN WHICH CASE THE STOP WILL BE LOCATED IN THE PLANTING STRIP.

c) METER BOXES SHALL CONFORM TO THE CITY OF FERNDAL E STANDARD DETAILS W-6 THROUGH W-8. P.V.C. BOXES ARE NOT TO BE USED.

d) LOCATION OF METER BOXES

i. IF A METER BOX FOR A 3/4 OR 1 INCH SERVICE IS TO BE LOCATED WITHIN A SIDEWALK AREA, A #3 SKAGIT METER TRAFFIC-TYPE BOX MUST BE USED WITH A HEAVY-DUTY 1/4 INCH DECK PLATE LID. IN ANY TRAFFIC AREAS A PYRAMID-TYPE BOX WITH A FRAMED LID MUST BE USED.

ii. AN EXPANSION MATERIAL MUST BE USED AROUND THE LID SECTION TO ENABLE REMOVAL FOR MAINTENANCE. THE MATERIAL SHALL BE FLUSH WITH THE LID SECTION TO AVOID ANY CRACKS OR PROTRUSIONS.

iii. AS-BUILTS SHALL SHOW LOCATION OF WATER SERVICE TAPS INTO MAIN, LOCATION OF METER/BOXES WITH DISTANCES TO THE RIGHT-OF-WAY OR NEAREST PROPERTY CORNERS.

STORM NOTES

1. ALL STORM CONSTRUCTION SHALL BE DONE IN ACCORDANCE WITH THE 2002 WASHINGTON STATE DEPARTMENT OF TRANSPORTATION (WSDOT) STANDARD SPECIFICATIONS FOR ROAD, BRIDGE AND MUNICIPAL CONSTRUCTION, THE CITY OF FERNDAL E STANDARD DETAILS AND THESE PLANS.

2. GENERAL DRAIN PIPE MATERIALS AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE CURRENT EDITION OF WSDOT OR APWA STANDARD SPECIFICATIONS AND WITH THE FOLLOWING:

a) BEDDING AND BACKFILL. PIPE BEDDING AND TRENCH BACKFILL REQUIREMENTS SHALL BE AS SHOWN IN CITY OF FERNDAL E STANDARD DETAIL SS-1 (DOT B-18c) AND AS SPECIFIED IN THE STATE STANDARD SPECIFICATIONS.

b) CROSS CULVERT SIZING. WHERE OPEN CHANNELS INTERSECT PUBLIC STREETS, THE MINIMUM DIAMETER CROSS CULVERT SHALL BE 18 INCHES, UNLESS OTHERWISE APPROVED. CROSS CULVERTS SHALL BE DESIGNED TO CARRY THE DESIGN RUNOFF WITH A HEADWATER DEPTH NOT GREATER THAN TWO (2) TIMES THE CULVERT DIAMETER FOR CULVERTS 18 INCHES OR UNDER, OR 1.5 TIMES THE CULVERT DIAMETER FOR CULVERTS GREATER THAN 18 INCHES.

c) PIPE ANCHORS. PIPE ANCHORS MAY BE REQUIRED WHEN PIPE SLOPES EXCEED 15 PERCENT, OR WHEN DRAINAGE STRUCTURES ARE CONSTRUCTED IN, OR PLACED ON UNSTABLE SOILS UNLESS THE STABILITY OF THE SOILS AND THE PLACEMENT OF THE PIPE IS CERTIFIED BY A LICENSED GEO-TECHNICAL ENGINEER.

d) CATCH BASINS. TYPE II CATCH BASINS OR LARGER SHALL BE REQUIRED TO ACCOMMODATE ALL PIPE GREATER THAN 18 INCHES IN DIAMETER.

e) DESIGN OF CROSS-SECTIONS. STREET DITCH CROSS-SECTIONS MAY BE "V" SHAPED OR TRAPEZOIDAL.

f) ROCK CHANNEL LINERS. ROCK LINING SHALL MEET THE FOLLOWING REQUIREMENTS:

i) ROCK GRADIENT SHALL BE AS FOLLOWS, AT A MINIMUM:

PASSING 8 INCH SQUARE SIEVE 100%
PASSING 2 INCH SQUARE SIEVE 0-10%

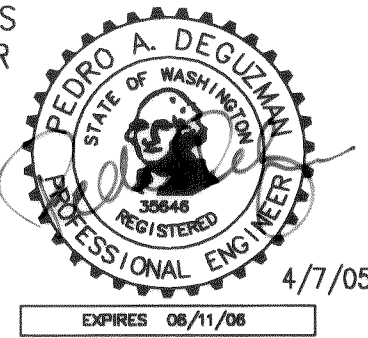
ii) ROCK SHALL BE PLACED SO AS TO FORM A FIRM, DENSE PROTECTIVE MAT AND CONFORMING TO THE DESIGN SURFACE OF THE DITCH. INDIVIDUAL ROCKS SHALL NOT PROTRUDE MORE THAN THREE INCHES FROM THAT SURFACE. ACTUAL DITCH DIMENSIONS SHALL BE BASED ON THE CALCULATED STORMWATER FLOWS.

I HEREBY CERTIFY THAT THE IMPROVEMENTS IN RITE AID STORE #6452 HAVE BEEN INSPECTED BY TERRAFORMA DESIGN GROUP, INC. AND CONSTRUCTED IN CONFORMANCE WITH THE PLANS APPROVED BY THE PUBLIC WORKS DIRECTOR FOR SAID DEVELOPMENT AND THE GENERAL SPECIFICATIONS ADOPTED BY THE CITY OF FERNDAL E DEPARTMENT OF PUBLIC WORKS.

APPROVED

APR 22 2005

BY *Robert G. Davis*
CITY OF FERNDAL E



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TDC # 04009		
FERNDAL E WA		
RITE AID #6452 for RITE AID CORPORATION		
5655 3RD STREET		
CIVIL NOTES		
DATE	NO.	REVISIONS
4/7/05	10	REVISED DRIVE-THRU CURBS
2/22/05	9	FINAL AS-BUILT
2/9/05	8	REVISED DRIVE-THRU
2/7/05	7	REVISED DRIVE-THRU, AS-BUILT STORM/WATER
11/19/04	6	NORTH PARKING SPOT ELEVATIONS
6/25/04	5	PERMIT SUBMITTAL
7/12/04	4	REVISED PER CITY COMMENTS
8/3/04	3	ADD 6" WATERMAIN LOOP
8/13/04	2	CONSTRUCTION SET
9/24/04	1	REVISED SITE PLAN
10/13/04	0	REVISED SITE PLAN
DRWN BY: CHKD BY: CSM PAD DATE: 6/25/04 SCALE: NTS		
PROJECT #6452 CV-5		

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